Final Remedial Investigation Report

sound environmental strategies corporation

Site:

North Colfax Petroleum Contamination Site
North Main Street and
East Tyler Street
Colfax, Washington

Prepared for:

The North Colfax Group

January 4, 2010

www.soundenvironmental.com

Sound Environmental Strategies Corporation

2400 Airport Way South

Seattle, Washington 98134-2020

Report prepared for:

The North Colfax Group

Final Remedial Investigation Report
North Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington 99111

SES Project No. 0592-001-01

Prepared by:

Charles C. Cacek, MS, LEG #836
Senior Geologist

Reviewed by:

Ryan K. Bixby, LG #1691
Principal Geologist

January 4, 2010

State of Washington
1691
Licensed Geologist
Ryan K. Bixby

Sound Environmental Strategies

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EXECUTIVE SUMMARY

Sound Environmental Strategies Corporation has prepared this Final Remedial Investigation Report for the North Colfax Petroleum Contamination Site (the Site), located at North Main Street and East Tyler Street in Colfax, Washington, on behalf of PetroSun Fuel, Inc. (currently Pacific Convenience & Fuel, LLC); TOC Holdings Co. (formerly Time Oil Co.); Colfax Grange Supply Company, Inc., and CHS, Inc. (collectively, the North Colfax Group). This Final Remedial Investigation Report has been prepared for submittal to the Washington State Department of Ecology and was developed to meet the general requirements of a remedial investigation as defined by the Washington State Model Toxics Control Act Cleanup Regulation in Chapters 173-340-350 and 173-340-360 of the Washington Administrative Code, pursuant to the Washington State Department of Ecology Agreed Order No. DE 4599, dated July 11, 2007.

The Site, as it is currently defined, is comprised of an area that includes several tax parcels that are currently occupied or have historically been occupied by gasoline stations. These properties are located along the east side of North Main Street where it intersects with East Tyler Street and East Harrison Street, and are referred to in this report as the Time Oil, Cenex, and Colfax Grange properties. The Time Oil property, located at the northeast corner of the intersection of North Main Street and East Tyler Street, was developed as a retail gasoline station some time prior to 1939 and was reportedly redeveloped in 1956 with a Phillips 66 retail gasoline station and service station that was equipped with five underground storage tanks (two 3,000-gallon fuel tanks, one 4,000-gallon fuel tank, one 500-gallon heating oil tank, and one 500-gallon waste oil tank). The tanks were later replaced with one 6,000-gallon, one 8,000-gallon, and one 12,000-gallon underground storage tank containing gasoline. In 1999, the Time Oil property was redeveloped into its current configuration, including the installation of an 8,000-gallon diesel underground storage tank. The Cenex property, which is situated between the railroad tracks and East Tyler Street, was first occupied by a gasoline station in 1985 when three 8,000-gallon underground storage tanks (two gasoline tanks and one diesel tank) and two fuel-dispensing pump islands were installed at the property. The 1985-vintage station was upgraded in 2006 and the currently existing station is equipped with two pump islands and three 12,000-gallon underground storage tanks containing gasoline and diesel. The Colfax Grange property, which is situated between East Harrison Street and the railroad tracks, was occupied by a gasoline station in 1939; the station was removed from the Colfax Grange property some time prior to the construction of the existing Colfax Grange Building in 1953. No information regarding the underground storage tanks or other product delivery systems associated with the gasoline station formerly located on the Colfax Grange property was observed in the available public record.

In addition to the facilities described above, gasoline stations and other potential sources of contamination have operated on properties located proximal to the west, northwest, east, and south of the Site. These include the gasoline station, automotive repair facility, and bulk fuel facility that formerly occupied the Sterling Savings Bank property located across North Main Street to the west of the Site (the Sterling property); the Shell-brand gasoline station, oil warehouse, and bulk fuel facility that formerly occupied the property to the east of the Site across North Morton Street (the Shell property); and the several small underground and aboveground storage tanks that have historically been located along the north side of the Colfax Grange Building.

Petroleum-contaminated soil and groundwater were encountered beneath the Time Oil property in 1999 during the course of the gasoline station upgrade activities. The contamination was primarily encountered in the vicinity of a grease pit that had been associated with the automotive repair facility formerly located on the property. More than 900 cubic yards of petroleum-contaminated soil was excavated from the property, but areas of impacted soil were left in place to maintain the structural stability of the canopy that covers the existing fuel-dispensing pump islands. A total of 12 monitoring wells (MW01 through MW12) were installed on and in the vicinity of the Time Oil property between 2001 and 2002 in order to assess the extent of impacts that resulted from the release at the Time Oil property. Analytical testing of soil and groundwater samples collected from the borings and wells confirmed that the impacts extended across much of the Time Oil property; the results also suggested that petroleum-contaminated groundwater was migrating toward the Time Oil property from the upgradient Cenex property.

On behalf of the Colfax Grange, three monitoring wells (CMW01 through CMW03) were installed to the south of the gasoline station on the Cenex property in early October 2004 in order to assess whether the impacts encountered in the monitoring wells installed for Time Oil had resulted from a release at the Cenex property. In November 2004, a surficial release of an unspecified volume of gasoline occurred during the refueling of one of the underground storage tanks at the Cenex property. A small volume of near-surface petroleum-contaminated soil was excavated after the release occurred and two additional monitoring wells (CMW04 and CMW05) were installed to the north of the Cenex station in December 2004. During the gasoline station upgrade activities conducted in 2006, petroleum-contaminated soil was encountered in the vicinity of the underground storage tanks and fuel-dispensing pump islands on the Cenex property. More than 2,600 cubic yards of petroleum-contaminated soil was reportedly excavated and removed from the Cenex property; however, petroleum contamination was encountered in many of the soil samples collected from the final limits of the excavation.

In 2007, the members of the North Colfax Group entered into Agreed Order No. DE 4599, which required them to conduct a remedial investigation and feasibility study for the petroleum releases at the Site. The remedial investigation was conducted in an effort to identify the sources and the full lateral and vertical extents of the releases that have occurred at the Site. In order to accomplish this task, a total of 39 soil borings were advanced at locations throughout the Site, and three test pits were excavated on the Colfax Grange property. Twenty of the soil borings were subsequently completed as monitoring wells (MW13 through MW32) that were incorporated into a quarterly groundwater monitoring program.

The results of the remedial investigation activities confirmed that elevated concentrations of petroleum contamination remain in soil collected from the vicinities of the gasoline stations that have historically operated on the Time Oil, Cenex, and Colfax Grange properties. Chemicals of concern that were encountered at elevated concentrations in soil beneath the Time Oil property included gasoline- and oil-range petroleum hydrocarbons, naphthalenes, and volatile organic compounds including benzene, toluene, ethylbenzene, total xylenes, and methyl tertiary-butyl ether. The impacted soil appeared to be limited to depths of approximately 11 feet or less beneath the southwestern portion of the Time Oil property (borings SP02, SP04, and SP05). Elevated concentrations of oil-range petroleum hydrocarbons like those encountered during the 1999 excavation activities on the Time Oil property were not detected during the remedial investigation activities.

Soil samples collected from several locations on and proximal to the Cenex property contained elevated concentrations of gasoline-range petroleum hydrocarbons and/or benzene (borings SP11, SP12, SP14, and SP15). The contamination was encountered in the uppermost 6 to 8 feet of soil in borings advanced to the north and south of the 2006 excavation area (borings SP11, SP14, and SP15) and in soil collected from depths of 10 to 14 feet in the boring advanced by the eastern diesel pump island (boring SP12).

Elevated petroleum concentrations were encountered in soil collected from two of the three test pits that were excavated in the vicinity of the former gasoline station on the Colfax Grange property, and in soil samples collected from borings advanced proximal to the north (B16) and east (B29) of the former gasoline station. None of the soil samples collected from above the saturated zone exhibited indications of contamination, which suggests either that the source area was not explored during the investigation activities and that the contamination migrated to the exploration locations via groundwater or that the source was removed (i.e. the underground storage tanks were removed, and the excavation was backfilled with uncontaminated soil).

Groundwater monitoring has been conducted on a periodic basis at the Site since 2001 and was performed on a quarterly basis throughout the course of the remedial investigation activities. Prior to the 2006 excavation of petroleum-contaminated soil from the Cenex property, groundwater beneath much of the Site contained elevated concentrations of gasoline- and diesel-range petroleum hydrocarbons and benzene. Elevated concentrations of oil-range petroleum hydrocarbons, naphthalenes, and the volatile organic compounds toluene, ethylbenzene, total xylenes, and methyl tertiary-butyl ether were also detected in one or more of the wells. Following completion of the excavation activities in 2006, the contaminant concentrations in groundwater decreased dramatically throughout the Site. During the three quarterly monitoring events conducted between September 2008 and March 2009, groundwater samples collected from only three monitoring wells have been found to contain concentrations of one or more chemical of concern that exceeded the applicable Washington State Model Toxics Control Act Method A cleanup levels. These included concentrations of gasoline- and diesel-range petroleum hydrocarbons, benzene, total xylenes, and naphthalenes in groundwater collected from monitoring well MW02 during the September 2008 event; an elevated concentration of diesel-range petroleum hydrocarbons in groundwater collected from monitoring well MW01 during the March 2009 event; and a concentration of benzene that exceeded the Washington State Model Toxics Control Act Method A cleanup level in groundwater collected from monitoring well CMW02 during the September 2008 monitoring event. Additional quarterly monitoring will be required in order to demonstrate continued compliance with Washington State Department of Ecology requirements; however, oil-range petroleum hydrocarbons was the only chemical of concern that was detected at concentrations exceeding the Washington State Model Toxics Control Act Method A cleanup level during the June 2009 monitoring event. The elevated concentrations of oil-range petroleum hydrocarbons, which exceeded the Washington State Model Toxics Control Act Method A cleanup level, were detected in groundwater collected from monitoring wells MW29 and MW32, located to the east and southeast of the former gasoline station on the Colfax Grange property, respectively. The June 2009 quarterly monitoring event was the first to incorporate wells MW29 and MW32.

The affected media at the Site include soil, groundwater, and soil vapor. The chemicals of concern include gasoline-, diesel-, and oil-range petroleum hydrocarbons, naphthalenes, and the volatile organic compounds benzene, toluene, ethylbenzene, total xylenes, and methyl tertiary-butyl ether. Additional potential chemicals of concern, such as carcinogenic polycyclic aromatic hydrocarbons, ethylene dibromide, and ethylene dichloride, were excluded from additional consideration based upon their demonstrated absence in soil and groundwater. Although lead was detected in a soil sample collected from one of the borings (SP11) at a depth of 3 to 4 feet, the elevated lead concentration was attributed to the overlying fill material and does not appear to be associated with a release at the Site.

The lateral and vertical extents of the contamination associated with the releases that have occurred on the Time Oil, Cenex, and Colfax Grange properties have been fully defined. Soil samples collected from each of the three properties that are located within the Site boundaries were found to contain concentrations of chemicals of concern that exceed their respective Washington State Model Toxics Control Act Method A cleanup levels. However, comparing the results of the soil samples collected in the course of this remedial investigation to the property-specific Method B criteria suggested that only the soil beneath the southwestern portion of the Time Oil property is considered a threat to human health via the direct contact pathway.

In addition to the impacts described above, petroleum-contaminated soil and/or groundwater was encountered in borings advanced on or in the vicinity of the Sterling and Shell properties, located to the west and east of the Site, respectively; however, the impacts encountered at these locations are the result of releases that occurred on the Sterling and Shell properties and are not included within the Site boundaries. As such, no additional investigation of the sources or extents of the impacts beneath the Sterling or Shell properties is planned as part of this remedial investigation. Similarly, the petroleum-contaminated soil that was encountered by others in the vicinity of the underground heating oil tank and the aboveground storage tanks formerly located adjacent to the north of the Colfax Grange Building appears limited in extent and does not appear to be currently contributing to groundwater contamination beneath the Site. No additional investigation of the impacts encountered by others along the north side of the Colfax Grange Building is planned as part of this remedial investigation.

This executive summary is presented solely for introductory purposes, and the information contained in this section should be used only in conjunction with the full text of this report. A complete description of the project, Site conditions, investigative methods, and investigation results is contained within this report.

ACRONYMS AND ABBREVIATIONS

°C	degrees Celsius
°F	degrees Fahrenheit
µg/L	micrograms per liter, equivalent to parts per billion
AST	aboveground storage tank
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and total xylenes
Cenex Property	those portions of Whitman County tax parcel numbers 1-0135-00-01-01-0000 and 8-0195-00-00-00-0323 located to the north of the railroad tracks
COC	chemical of concern
COPC	chemical of potential concern
Colfax Grange	Colfax Grange Supply Company, Inc.
Colfax Grange property	those portions of Whitman County tax parcel numbers 1-0135-00-01-15-0000 and 8-0195-00-00-00-0323 located to the south of the railroad tracks
cPAHs	carcinogenic PAHs
DRPH	diesel-range petroleum hydrocarbons
Eastern Colfax Grange property	the property bordering the above-described Colfax Grange property to the east
Ecology	Washington State Department of Ecology
EDB	ethylene dibromide
EDC	ethylene dichloride
EPA	United States Environmental Protection Agency
EPH-VPH	extractable petroleum hydrocarbon-volatile petroleum hydrocarbons
GC/FID	gas chromatography with a flame ionization detector
GEI	GeoEngineers, Inc.
GPR	ground-penetrating radar
GRPH	gasoline-range petroleum hydrocarbons
ICP-MS	inductively coupled plasma mass spectrometer

IDW	investigative-derived waste
mg/kg	milligrams per kilogram, equivalent to parts per million
MTCA	Washington State Model Toxics Control Act
MTBE	methyl tertiary-butyl ether
North Colfax Group	PetroSun Fuel, Inc.; TOC Holdings Co.; CHS, Inc.; and Colfax Grange Supply Company, Inc., collectively
NWTPH	Northwest Total Petroleum Hydrocarbon
ODEQ	State of Oregon Department of Environmental Quality
ORPH	oil-range petroleum hydrocarbons
PAH	polycyclic aromatic hydrocarbon
PCS	petroleum-contaminated soil
PID	photoionization detector
ppmv	parts per million by volume
PQLs	practical quantitation limits
PVC	polyvinyl chloride
QAPP	Quality Assurance Project Plan
QC	quality control
Quantum	Quantum Engineering, Inc.
RI	remedial investigation
ROW	right-of-way
RSRIWP	Revised Supplemental Remedial Investigation Work Plan
Sanborn Map	Sanborn Fire Insurance Map
SAP	Sampling and Analysis Plan
SCM	Site Conceptual Model
SCM-RIWP	Site Conceptual Model and Remedial Investigation Work Plan
SES	Sound Environmental Strategies Corporation
Shell property	the land located to the east of North Morton Street and north of the railroad tracks, formerly occupied by a Shell-brand retail gasoline station

the Site	the full lateral and vertical extent of contamination that has resulted from the former and current operation of retail gasoline service stations on the properties located along the east side of North Main Street, at the northeast corner of its intersection with East Harrison Street and on the northeast and southeast corners of its intersection with East Tyler Street in Colfax, Washington
South Fork	the South Fork of the Palouse River
SPH	separate-phase hydrocarbons
SRIWP	Supplemental Remedial Investigation Work Plan
Sterling property	the property occupied by a Sterling Savings Bank and located to the west of the Time Oil property
TEE	Terrestrial Ecological Evaluation
Time Oil property	property at 804 North Main Street
TPH	total petroleum hydrocarbon
USCS	Unified Soil Classification System
UST	underground storage tank
VOC	volatile organic compound
WAC	Washington Administrative Code
WCDEH	Whitman County Department of Environmental Health
WSDH	Washington State Department of Health

1.0 INTRODUCTION

Sound Environmental Strategies Corporation (SES) has prepared this Final Remedial Investigation (RI) Report for the North Colfax Petroleum Contamination Site located at the intersection of North Main Street and East Tyler Street in Colfax, Washington (Figure 1), on behalf of PetroSun Fuel, Inc. (currently Pacific Convenience & Fuel, LLC); TOC Holdings Co. (formerly Time Oil Co.); CHS, Inc.; and Colfax Grange Supply Company, Inc. (Colfax Grange), collectively, the North Colfax Group. This RI Report was prepared for submittal to the Washington State Department of Ecology (Ecology), and it was developed to meet the general requirements of a remedial investigation as defined by the Washington State Model Toxics Control Act (MTCA) Regulation in Chapter 173-340 of the Washington Administrative Code (WAC 173-340-350 and 173-340-360) pursuant to the Ecology Agreed Order No. DE 4599 that became effective on July 11, 2007. This remedial investigation was completed in general accordance with the *Site Conceptual Model and Remedial Investigation Work Plan* prepared by SES, dated January 21, 2008 (SCM-RIWP); the *Supplemental Remedial Investigation Work Plan* prepared by SES, dated December 11, 2008 (SRIWP); and the *Revised Supplemental Remedial Investigation Work Plan* prepared by SES, dated May 15, 2009 (RSRIWP).

As established in WAC 173-340-200, the “Site” is defined by the full lateral and vertical extent of contamination that has resulted from the former and current operation of retail gasoline service stations on the properties located along the east side of North Main Street, at the northeast corner of its intersection with East Harrison Street and on the northeast and southeast corners of its intersection with East Tyler Street.

1.1 DOCUMENT PURPOSE AND OBJECTIVES

The purpose of this RI Report is to collect data necessary to adequately characterize the Site for the purposes of developing and evaluating cleanup action alternatives. This report presents historical information regarding the former uses of the properties located within and surrounding the Site, summarizes the information obtained during the review of historical information, summarizes the scope and findings of each subsurface investigation that has been conducted on the Site and vicinity, and presents a Site Conceptual Model (SCM).

To accomplish this purpose, SES assembled and reviewed the readily available information for the Site. This report includes:

- A summary of the land use history of the Site and vicinity.
- A summary of the geology and hydrogeology of the Site and vicinity.
- A summary of previous investigations conducted on the Site and vicinity.
- A description of the activities conducted as part of the RI and a summary of the findings.
- A description of the SCM that identifies source areas, defines the nature and extent of contamination, and evaluates mechanisms that preferentially support chemical migration.
- Figures and tables illustrating the contaminant distribution beneath the Site and vicinity.

1.2 RI REPORT ORGANIZATION

This RI Report is organized into the following sections:

- **Section 2.0, Background.** This section provides a description of the Site features and location; a summary of historical Site use; a discussion of future land uses; a description of the local geology, hydrogeology, hydrology, and land use pertaining to the Site; a summary of subsurface investigations and interim cleanup actions conducted at the Site prior to the remedial investigation; a discussion of potential chemicals and media of concern; and a list of data gaps.
- **Section 3.0, Remedial Investigation.** This section provides a description of the RI field work program conducted at the Site and vicinity between July 2007 and June 2009, the scope of work for each phase of the RI, and the results of the RI.
- **Section 4.0, Terrestrial Ecological Evaluation.** This section provides a discussion of the evaluation of potential impacts to ecological receptors from a release of hazardous substances.
- **Section 5.0, Site Conceptual Model.** This section provides a summary of the SCM derived from the results of the subsurface investigations performed at the Site. Included is a discussion of confirmed and suspected source areas, the chemicals of concern (COCs), affected media, fate and transport characteristics of the release of hazardous substances, and preliminary exposure assessment.
- **Section 6.0, Bibliography**. This section lists references cited in and supporting this document.
- **Section 7.0, Limitations.** This section discusses document limitations.

2.0 BACKGROUND

The following section provides a summary of current and historical land use on the Site and the vicinity.

2.1 SITE LOCATION AND DESCRIPTION

The following subsections present the current land use practices on the Site and surrounding parcels.

2.1.1 Site

The Site, as originally described in the SCM-RIWP, included the Time Oil property, a retail gasoline station and convenience store (currently operated as a Cougar Mart) that is located on the northeast corner of the intersection of North Main Street and East Tyler Street; the property occupied by a Cenex-brand retail gasoline station located to the north of the railroad tracks on the southeast corner of the intersection of North Main Street and East Tyler Street; and portions of the adjoining residential and commercial properties, all of which are situated in the City of Colfax, Whitman County, Washington (Figures 2 and 3). Based on the findings of the RI, the Site boundaries have been revised to include portions of the Colfax Grange property located to the south of the railroad tracks, where another retail gasoline station formerly operated. The results of the RI have also resulted in the exclusion of areas to the north, east, and west that were included within the original Site boundaries; however, the area to the west of the Time Oil property, inclusive of monitoring wells MW11 and MW13, remains within the Site boundaries.

2.1.1.1 Time Oil Property

The Time Oil property, located at 804 North Main Street, resides on one tax parcel (Whitman County tax parcel number 1-0135-00-01-04-000) that covers a reported 19,000 square feet (0.44 acres) of land (Appendix A). The property is improved with a 1999-vintage convenience store and Conoco-brand retail gasoline station equipped with two fuel-dispensing pump islands and associated canopy (Figure 3). The single-story, brick building covers a reported 2,750 square feet and is operated as the Cougar Mart convenience store. The property also supports a 1999-vintage, self-service fueling facility with two fuel-dispensing pump islands and four underground storage tanks (USTs), including one 6,000-gallon gasoline tank, one 8,000-gallon gasoline tank, one 12,000 gallon gasoline tank, and one 8,000 diesel tank. The exterior areas are mostly paved with asphalt or concrete. The building is serviced by overhead power, underground natural gas, and municipal sanitary sewer and potable water. The parking lot also includes stormwater catch basins that direct runoff into the municipal stormwater system corridor located along the south side of the property.

2.1.1.2 Cenex Property

The property that supports the 2006-vintage Cenex-brand retail gasoline station and Cardtrol facility is owned by the Colfax Grange Supply. The Cenex property occupies all of Whitman County tax parcel number 1-0135-00-01-01-0000 and the northern portion of Whitman County tax No. 8-0195-00-00-00-0323. The Cenex property is bordered to the north by East Tyler Street, to the west by North Main Street, to the south by the railroad tracks, and to the east by an unopened City of Colfax right-of-way (ROW). The Cenex property, as defined above covers approximately 12,000 square feet (0.28 acres) of land. The gasoline station on the Cenex property is equipped with two fuel-dispensing pump islands, three fuel USTs, and concrete drive slabs with peripheral asphaltic pavements (Figure 3). The UST system, which was upgraded in 2006, includes three 12,000-gallon, dual-walled (fiberglass and steel construction) USTs—one gasoline, one diesel, and one double-compartment UST that stores dyed diesel and gasoline.

2.1.1.3 Colfax Grange Property

The Colfax Grange Supply hardware store and warehouse located at 102 East Harrison Street is situated on Whitman County tax parcel number 1-0135-00-01-15-0000 and the southern portion of Whitman County tax No. 8-0195-00-00-00-0323. The Colfax Grange property is bordered to the north by the railroad tracks, to the west by North Main Street, to the south by East Harrison Street, and to the east by Colfax Grange Supply Building No. 2. The Colfax Grange property, as defined above, covers approximately 17,000 square feet (0.39 acres) of land. Though not included in the preliminary Site definition, the western portion of the Colfax Grange property has since been included within the boundaries of the Site (Figure 3). Colfax Grange Supply Company, Inc., a hardware store and warehouse building, has operated on the property since the building was constructed in 1953, with an addition constructed in 1974. The building is a single-story, masonry and metal-sided, slab-on-grade commercial structure that covers a reported 7,680 square feet, with landscaped, paved, and gravel-surfaced non-building areas. The building is serviced by underground natural gas, overhead power, and municipal sanitary sewer and potable water supply utilities.

2.1.2 Adjoining Properties

Development in the vicinity of the Site is primarily commercial and residential (Figure 3). Uses of nearby parcels at the time this report was prepared are summarized below.

- **North.** The Time Oil property is bordered to the north by a vacant gravel lot and residential properties.
- **South.** The Colfax Grange property is bordered to the south by East Harrison Street, beyond which is a Taco Time restaurant and the asphalt-paved parking lot for the Rosauer’s Supermarket that is farther to the south.
- **East.** Those portions of the Site located to the north of East Tyler Street are bordered to the east by older single-family residences, beyond which is North Morton Street, a single-family residence, an apartment building, and a recreational vehicle lot. The land located to the east of North Morton Street was formerly occupied by a Shell-brand retail gasoline station and is referred to the Shell property. The land located to the south of East Tyler Street and east of the Colfax Grange property is referred to as the Eastern Colfax Grange property.
- **West.** The Site is bordered to the west by North Main Street (U.S. Highway 195), beyond which are several residential and commercial structures. A Sterling Savings Bank occupies the property (the Sterling property) located to the west of the Time Oil property. The Sterling property was formerly occupied by a retail gasoline station.

2.1.3 Utilities

Private and municipal underground utilities located on or adjacent to the Site include municipal storm sewer, sanitary sewer, drinking water, natural gas, telephone, and electrical utilities (Figure 3). Major utility corridors that could potentially serve as preferred pathways for contaminant migration include:

- **Storm Sewer.** A storm sewer corridor originates along the south side of East Harrison Street, extends to the north along the east side of the westernmost Colfax Grange Building, continues to an open ditch adjacent to the southeast corner of North Morton Street and East Tyler Street, extends along the north side of East Tyler Street, crosses North Main Street, and extends to an effluent point in a ditch along the east side of Bellinger Street that directs flow to the north into the Palouse River (SES 2009f, Appendix B). This utility follows the general alignment of an older channelized ditch or creek that is depicted on the 1902 Sanborn Fire Insurance Map (Sanborn Map) included in Appendix C. Though the depth of this sewer is unknown, the base of the utility is estimated by City of Colfax representatives to be at least 8 feet deep; as such, the sewer may intersect the seasonal near-surface groundwater table.
- **Sanitary Sewer.** An 8-inch-diameter municipal sanitary sewer utility runs north-south through the middle of North Main Street and east-west through East Harrison Street, and a 6-inch-diameter sewer line extends beneath the alleyway immediately to the east of the Time Oil property. In addition, each building in the vicinity of the Site is connected to the utility by a side sewer connection. Mr. Andy Rogers, Director of Public Works with the City of Colfax, stated that the sewer line is typically

6 to 8 feet deep (SES 2009f, Appendix B); therefore, it is anticipated that portions of the sewer and associated trench intersect the seasonal groundwater table.

- **Water Lines.** Local potable water supply lines are located along the south side of East Harrison Street, along the north side of East Tyler Street, along the east side of the Colfax Grange Building and extending to the north along the west side of North Morton Street, and through the middle of North Main Street. In addition, most buildings in the vicinity of the Site are served by a side connection to the water system. While the total depth of the water lines is unknown, City of Colfax representatives stated that the main lines may only be located as much as 5 feet below ground surface (bgs). As such, it doesn't appear that the water lines and associated trenches intersect the seasonal water table, except possibly within North Morton Street.
- **Natural Gas, Electrical, and Telephone Underground Utilities.** The Site and vicinity are served by underground natural gas, private electrical, and telephone underground utilities. Mr. Chris Larson with Avista Utilities stated that natural gas lines are typically buried 30 inches bgs and underground electrical lines are buried either 2 or 3 feet bgs, depending upon voltage (SES 2009g, Appendix B). Mr. Larson stated that neither natural gas nor electric utilities are typically buried with bedding materials. He also stated that to his knowledge, telephone underground utilities in the vicinity are not buried greater than 3 feet bgs. These corridors are, therefore, not anticipated to encounter groundwater.

2.2 SITE AND VICINITY LAND USE HISTORY

The Site and vicinity history summarized below was obtained by reviewing Sanborn Maps (Appendix C), tax assessor's records, reverse directories, available building plans and permitting records, historical maps, an aerial photograph taken in 1969 (Aerial Photograph), personal communications, and recollections from long-time local residents (Appendix B). Additional aerial photographs that provide usable information about the Site and vicinity were not observed in the available public record or provided for our review.

2.2.1 Time Oil Property

- The 1893 Sanborn Map shows the Time Oil property bordered to the west and south by North Main Street and East Tyler Street, respectively. A small creek is shown that originates to the southeast of the Site and crosses the intersection of East Tyler Street and North Morton Street, arcs to the north, crossing through the southern portion of the Time Oil property, then extends across North Main Street in an east-west direction toward the South Fork (Figure 3). A cabin and another small building are located on the Time Oil property. Adjacent properties to the north, east, and west support widely spaced residential development. Colfax Iron Works is located beyond East First Street to the north.
- The 1899 Sanborn Map shows the small building on the southern margin of the Time Oil property has been modified, and two small cabins are depicted along the east side of the Time Oil property.
- The 1902 Sanborn Map shows an east-west-trending boxed flume extends along the northern edge of East Tyler Street, fronting the Time Oil property to the south. The 1908 Sanborn Map shows the Site and vicinity in a similar configuration to the 1902 map.

- The boxed flume that was formerly located along the northern margin of East Tyler Street is not depicted on the 1912 Sanborn Map; however, an open stream is visible to the west of North Main Street in the approximate location of the former flume. Otherwise, the Time Oil property remains relatively unchanged. Adjacent properties remain similar to those depicted on the 1908 map. An 8-inch-diameter water pipe is depicted along the eastern portion of North Main Street.
- Buildings are no longer depicted on the southern portion of the Time Oil property in the 1922 Sanborn Map. A 4-inch-diameter water pipe is now depicted under the western portion of North Main Street.
- The 1939 Sanborn Map shows the Time Oil property with small “Gas & Oils” and “Grease” buildings. No records regarding the type, size, contents, or fate of the storage tanks associated with this former gasoline station and automotive repair facility were found in Ecology’s records; however, based on the configuration of the station, it may be reasonable to conclude that USTs were located beneath the southern portion of the Time Oil property. The northern portion of the Time Oil property is occupied by a retail building.
- Development plans for a Phillips 66 station on the Time Oil property, dated June 1, 1956, show a service station building located along the east-central portion of the property, with two fuel-dispensing pump islands to the west and five USTs to the south of the building, including two 3,000-gallon and one 4,000-gallon fuel USTs, one 560-gallon waste oil UST, and one 560-gallon fuel oil UST. (Appendix A). The building includes areas designated for “wash” and “lubrication,” though no hydraulic hoists or sumps are depicted. The plans do not depict any structures on the southwest corner of the Time Oil property, where the service station and “grease” building were depicted on the 1939 Sanborn Map.
- A 1969 aerial photograph shows the Time Oil property supports the new service station, with the sales/service building along the east-central side of this property and a pump island canopy to the west of the sales/service building. Adjacent parcels to the north and east of the Time Oil property are residential (Aerial Photograph).
- The Time Oil property was operated as a Phillips 66 service station from about 1956 to 1976 (GEI 2000). Time Oil reportedly purchased the facility building and dispensing equipment in 1976, and purchased the property and two adjacent parcels to the north in 1980. A Jackpot gasoline sales retail facility and convenience store began operating on the property soon thereafter. It does not appear that any maintenance and/or repair activities were conducted after Time Oil’s purchase of the property.
- The Time Oil property was redeveloped in 1999 into the current convenience store and UST system configuration. Review of Polk reverse directories revealed that the Time Oil property was occupied by the Phillips 66 station from at least 1958 through the mid 1970s, a Jackpot mini-service and convenience store through 2003 to 2004, and the current Cougar Mart since that time.

2.2.2 Colfax Grange/Cenex Properties

- The 1893 Sanborn Map shows the current street configuration along with the railroad ROW, including a single set of tracks. Three small residential buildings are depicted on the Colfax Grange property to the south of the railroad tracks and several residential structures are visible on the Cenex property to the north of the tracks. The 1899 Sanborn Map shows the Site and vicinity configuration similar to that of the 1893 map.

- The 1902 Sanborn Map shows the Colfax Grange property to the south of the railroad tracks improved with a residence and outbuildings, possibly garages. A small train depot borders the tracks on the Cenex property. Residences are located to the south and a “Sash and Door” company is located to the southeast of the Colfax Grange property, southeast of the intersection of East Tyler Street and North Morton Street.
- The 1908 Sanborn Map depicts the Colfax Grange property in a similar configuration as the 1902 map.
- The buildings are not depicted on the Colfax Grange property on the 1912 or 1922 Sanborn Maps. Adjacent properties remain similar to those depicted on the 1908 map.
- The 1939 Sanborn Map shows a small “gasol & oils” building on the Colfax Grange property at the northeast corner of East Harrison Street and North Main Street. The 1939 map also depicts a train depot on the Cenex property.
- The building on the Colfax Grange property was reportedly constructed in the 1953, with an addition in 1974. Tax assessor’s records also indicated that the building was remodeled in 1991. A 1969 aerial photograph shows the Cenex property undeveloped, with the existing Colfax Grange hardware and warehouse building present to the south of the tracks. Mr. Zuger (SES 2009d, Appendix B) stated that the Colfax Grange Building was used for tractor and combine sales and service until the 1980s. He indicated that a gasoline UST that was located along the eastern margin of the building was closed-in-place in the 1970s when the eastern portion of the building was constructed over the UST. No information regarding the environmental quality of soil or groundwater in the vicinity of the UST was observed in the available public record or provided for our review. Three 300-gallon aboveground storage tanks (ASTs) containing kerosene, stove oil, and solvent were reportedly installed along the north side of the Colfax Grange Building in 1991 and a heating oil UST was situated to the west of the ASTs along the north side of the Colfax Grange Building. A small (estimated 1,000- to 2,000-gallon capacity) gasoline UST is located near the northeast corner of the building. According to Mr. Zuger, the gasoline UST was used for fueling sales and fleet vehicles. The gasoline UST remains beneath the Colfax Grange property, but the ASTs and the heating oil UST along the north side of the building were removed in 2007 and 2009, respectively. Petroleum-contaminated soil (PCS) was encountered during the March 2009 excavation and removal of the heating oil UST and the excavation of soil from beneath the former ASTs. The excavations were subsequently backfilled and have been covered by a concrete pad in an effort to minimize the amount of surficial infiltration through the impacted soil. Water that pools in the vicinity of the concrete pad reportedly drains into the storm sewer. Impacts from the former ASTs and heating oil UST do not appear to be currently contributing to groundwater contamination beneath the Site.
- A permit was drawn in 1985 to convert the grocery department of one of the buildings owned by Colfax Grange to an automotive service facility. A hand drawn plan in the file depicted two service bays and an oil storage area within the eastern

portion of the building. According to Mr. Zuger, these improvements are located in Colfax Grange Building No. 2, which borders the current Colfax Grange hardware store and warehouse to the east.

- According to Mr. Zuger, the Cenex property was occupied by, in succession, a railroad depot, a city park, and a storage and sales lot for heavy equipment (Empire South of Spokane) prior to the construction of a fueling facility in 1985. The original gasoline station on the Cenex property included three single-walled, steel, 8,000-gallon fuel USTs (two gasoline, one diesel) and two fuel-dispensing pump islands. The original UST system and the fuel-dispensing pump island at the Cenex property were removed and replaced in 2006 with three 12,000-gallon, double-walled (steel and fiberglass) USTs, which contain gasoline, diesel, and dyed diesel and gasoline. According to Mr. Zuger, the system includes double-walled product lines, electronic inventory, and moisture-sensing leak detection systems.

2.2.3 Adjacent and Nearby Properties

Following is a description of the properties located adjacent and nearby to the Site.

2.2.3.1 Sterling Property

- The 1893 through 1902 Sanborn Maps depicted the Sterling property, which is located across North Main Street to the west of the Time Oil property, as undeveloped, with a single-family residence bordering immediately to the north and an open stream channel to the south.
- The 1908 through 1939 Sanborn Maps showed a single-family residence (803 North Main Street) on the Sterling property.
- A retail gasoline station is visible on the Sterling property in an aerial photograph taken in 1969 (source unknown). The gasoline station consists of a small service building and a pump island and drive-slab fronting North Main Street (Aerial Photograph). Review of reverse Polk directories indicated that a Mobil-brand gasoline and service station operated on the Sterling property from at least 1959 until 1972, and Goodyear Tire and Martin’s Auto Service occupied the Sterling property in 1977. Additionally, Mobil Oil Dist. and AA Auto Wrecking are listed for the Sterling property in the 1968 directory.
- The Sterling property was reportedly redeveloped into a Lewis and Clark Savings Bank in 1980. Based upon review of reverse directories, the Sterling property has been operated as Sterling Savings Bank since at least 1984. A review of development plans and anecdotal information provided by Mr. Zuger indicates that the original service station structure was incorporated into the existing bank building. Development plans for the proposed Lewis and Clark Savings Bank, included in Appendix A, depict the original service station and the “building addition” that comprise the current bank building layout. No information regarding the fate of the USTs that were associated with the former gasoline station was observed in the available information reviewed in the course of this investigation.

2.2.3.2 Shell Property

- The Shell property, which is located to the east of North Morton Street and north of the railroad tracks, was only partially depicted on the 1893 and 1899 Sanborn Maps. The 1902 Sanborn Map shows several improvements depicted on the land to the east of North Morton Street, including a “R.R. Tank,” a well, a “Gasol. Power Pump,” and a “Gasol. Tank.” These features are associated with the railroad tracks that border the south side of the Shell property. The well appears to be hand dug, and was likely used to supply water to the “R.R. Tank.”

- The 1908 and 1912 Sanborn Maps show the well has been boarded over and the gasoline tank has been removed from the Shell property. The R.R. Tank, R.R. Pump, and boarded-over well are no longer depicted on the 1922 Sanborn Map, but a small shed is shown along North Morton Street and a residence and green house are located on northern portion of the Shell property.
- The 1939 Sanborn Fire Insurance Map shows a facility operated by Shell Oil Co. of California on the western portion of the Shell property. The facility consists of an office, an oil warehouse, a filling station, a pump house, and an oil AST situated on a concrete base. An oil warehouse and filling station operated by Union Oil Co. of California are depicted on the property to the southeast of the Shell property.
- The Shell facility remains visible in the 1969 aerial photograph. What appear to be three bulk ASTs are also visible in the vicinity of the oil AST that was depicted on the Shell property in the 1939 Sanborn Map. Bulk ASTs are also visible on the Union Oil property to the southeast. Reverse Polk directories listed the Shell Oil Distribution facility at 802 North Morton Street from at least 1959 through 1968. No information regarding the fate of the ASTs or USTs or the environmental quality of soil and/or groundwater beneath the Shell property was observed in the available public record.

2.2.3.3 Eastern Colfax Grange Property

- The Eastern Colfax Grange property, which is situated adjacent to the east of the Colfax Grange property, is depicted as undeveloped on the 1902 Sanborn Map. A small stream crossed through the Eastern Colfax Grange property in 1902.
- The 1908 Sanborn Map depicts a railroad turntable on the Eastern Colfax Grange property. The railroad turntable is not depicted on the 1912 or 1922 Sanborn Maps.
- Whitman County tax assessor records indicate that the Eastern Colfax Grange property formerly included five buildings, the oldest of which dates to 1934 (Appendix A). In 1939, the area to the east of the location of the current Colfax Grange Building No. 2 supported four ASTs and a “Misc. & Oil Storage W.O.” Tax assessor’s records indicated four 12,145-gallon and one 4,000-gallon capacity ASTs on the Eastern Colfax Grange property; the AST contents are not indicated. Scott Zuger, the current general manager of the Colfax Grange, advised SES that the ASTs served the fuel distribution center, and were removed in the 1980s (SES 2009d, Appendix B).
- Building No.2, situated on the western portion of the Eastern Colfax Grange property was permitted to be converted into an auto maintenance facility in 1985.
- Four fuel USTs were decommissioned and removed from the Eastern Colfax Grange property in 1992 (S & L Environmental 1992). Based upon the provided consultant’s map, these tanks were present in the former location of the previously mentioned ASTs. According to Mr. Zuger, this UST system was a cardlock facility. Ecology records indicate that four 6,000-gallon USTs (two containing leaded gasoline and the others containing unleaded gasoline and diesel fuel) were installed in the immediate vicinity of the bulk fuel tanks on the Eastern Colfax Grange

property between 1964 and 1976 and were removed in 1992. Documentation of site assessment activities performed during the removal efforts (S & L Environmental 1992) indicated that the four USTs were located approximately 300 feet east of the intersection of East Tyler Street and North Main Street. The assessment concluded that no release of any regulated substance had occurred that would threaten or harm the groundwater or environment. A supplemental investigation of the former USTs was conducted in February 2006 by Quantum Engineering, Inc. (Quantum 2006b). That investigation reportedly revealed only a limited area (estimated to be 5 cubic feet) of soil that was above the detection limit of the photoionization detector (PID) used in the field. The report indicated that the area was considered de minimis in both concentration and volume. A composite soil sample and groundwater grab sample were collected from the excavation and analyzed for gasoline-range petroleum hydrocarbons (GRPH) and volatile organic compounds (VOCs), including methyl tertiary-butyl-ether (MTBE) and benzene, toluene, ethylbenzene, and total xylenes (BTEX). The soil sample did not exhibit concentrations of GRPH or VOCs in excess of the laboratory reporting limit. The grab sample of groundwater was found to contain concentrations of GRPH, toluene, ethylbenzene, and total xylenes that did not exceed the MTCA Method A cleanup levels. Benzene was not detected in the soil sample at concentrations exceeding the laboratory reporting limit. The report concluded that no additional action is necessary at the site.

2.3 FUTURE PROPERTY LAND USE

Mr. Scott Zuger, general manager of the Colfax Grange, indicated that the Colfax Grange plans to construct an addition to the west side of the Colfax Grange Building in the near future (SES 2009d, Appendix B). Mr. Andy Rogers of the City of Colfax Public Works Department (SES 2009f, Appendix B) stated that he was not aware of any significant public works projects in the Site vicinity. No other significant planned changes in land use for the Site or vicinity were reported.

2.4 ENVIRONMENTAL SETTING

The following sections provide a summary of land use, meteorology, groundwater use, surface water features, and environmental quality of regional soil and groundwater in the Site vicinity.

2.4.1 Land Use

A zoning map obtained from the City of Colfax shows the Colfax Grange, Cenex, and Time Oil properties zoned for commercial use. The surrounding properties are zoned for residential or commercial use.

2.4.2 Meteorology

The climate for Colfax, Washington, is mild during summer when the average temperatures tend to be in the 60s and very cold during winter when temperatures tend to be in the 30s. The warmest month of the year is August with an average maximum temperature of 83.3 degrees Fahrenheit (°F), while the coldest month of the year is January with an average minimum temperature of 24.3 °F.

Temperature variations between night and day tend to be relatively large during summer months with an average difference of 33 °F, and fairly limited during winter months with an average difference of 15 °F. The annual average precipitation at Colfax, Washington, is 20.04 inches. Rainfall is fairly evenly distributed throughout the year. The wettest month of the year is December with an average rainfall of 2.93 inches. (IDcide 2009).

2.4.3 Groundwater Use

The Site and vicinity are underlain by two primary aquifer zones: an upper, near-surface water-bearing zone that is perched on the underlying basalt bedrock, and deeper aquifers that are located in interbeds within the basalt bedrock. A hydrogeologic evaluation completed on the Site did not reveal any beneficial uses of the upper, perched water-bearing zone (SES 2008b, c, d; Appendix B).

Principal sources for groundwater to the City of Colfax and other private entities are obtained from groundwater wells that tap the underlying basalt bedrock aquifers. Specifically, the City of Colfax municipal drinking water supply is operated as a Group A system and is provided entirely from groundwater wells. Information obtained from the Washington State Department of Health, (WSDH), Division of Environmental Health, Office of Drinking Water website (WSDH 2008) indicates that the drinking water supply is obtained from five wells, including the Glenwood Springs wells, the Fairview well, the Clay Street well, and well WF/S01,S04 (SES 2008d). The wells that are located in the vicinity of the Site are generally deep (in excess of 600 feet). Records available on the WSDH Website revealed that past water quality testing revealed one Maximum Contaminant Level exceedance for iron. However, past testing results did not indicate detectable concentrations of nitrates or VOCs. As was discussed in the SES hydrogeologic evaluation, the underlying basalt aquifers have very little, if any, connection to the near-surface water-bearing zones and have not been adversely impacted by the widespread agricultural use of herbicides, pesticides, and fertilizers that have impacted the local surface waters and the more shallow subsurface water-bearing zones.

In addition to the City of Colfax municipal wells, several other possible drinking water wells are located in the general vicinity of the Site. The Colfax Meat Packing Company is listed as a Group B water system, which is equipped with one well and one listed hookup. This well is located over 1 mile to the south-southwest of the Site. This well, indicated to be owned by Mr. R.V. Taylor, is reportedly 274 feet deep. A search of Ecology’s registered wells revealed five other possible drinking water wells located within an approximate 1-mile radius of the Site. However, four of these wells are located farther than 0.5 miles east to southeast of the Site, and they appear be located at elevations that are over 200 feet higher than the Site. The one remaining private drinking water well is located over 0.25 miles to the north of the Site. According to the log, a well installed for Mr. Jim Kroll was drilled to a depth of 60 feet bgs and was sealed with a bentonite slurry to a depth of 20 feet bgs. The log indicated that standing water was observed at 15 feet bgs. This well is hydrologically separated from the Site by the Palouse River.

2.4.4 Surface Water Features

The northern margin of the Site is located approximately 250 feet south of the Palouse River and approximately 500 feet to the east of South Fork. The confluence of the two channels is located approximately 550 feet to the west-northwest of the Site (Figure 2). Based upon our observations and conversations with Mr. Andy Rogers with the City of Colfax Public Works Department, the reach of the Palouse River to the north of the Site is channelized with concrete banks and a bedrock bottom, and South Fork to the west has been channelized with concrete banks and bottom. The areas of the river and creek that are channelized with concrete are shown on Figure 2. Acknowledging the steep-sided valley configuration and shallow bedrock in the vicinity of the Site, South Fork and the Palouse River are anticipated to be “gaining” streams throughout much of the year. The groundwater flow direction beneath the Site has been consistently northwest, toward the confluence of the rivers. However, the presence of channelized concrete banks likely reduces the gaining or losing effects on the near-surface water-bearing zone in the vicinity of the Site.

A small, open stormwater pond is present at the southeast corner of the intersection of North Morton Street and East Tyler Street. Based upon conversations with and review of utility maps by City of Colfax personnel (SES 2009f, Appendix B), the pond appears to be a relict expression of a former roughly east-west-trending creek that was channelized in a flume and later directed through a culvert that flows across North Main Street and empties into a ditch along the east side of Bellinger Road. The ditch then conveys runoff into the Palouse River to the north. The results of this investigation did not suggest that the culvert was a preferred migration pathway or that it strongly influenced groundwater migration direction or gradient. No other former or current bodies of surface water are known in the Site vicinity.

2.4.5 Environmental Quality of Regional Soil and Groundwater

The area around Colfax is one of the most prolific dry land wheat farming areas of the world and has been so for over 100 years, with over 95 percent of the arable land exploited for growing wheat and soy beans. According to Mr. John Skyles of the Whitman County Department of Environmental Health (WCDEH), near-surface agricultural soils, surface waters, and shallow groundwater have been substantially impacted by pesticides, herbicides, and fertilizers (SES 2008b, Appendix B); however, these impacts have not adversely affected the quality of groundwater within the deeper aquifers that are used to provide drinking water to the City of Colfax.

2.5 GEOLOGIC AND HYDROGEOLOGIC SETTING

The following sections provide a summary of the physiography, geology, and hydrogeology beneath and in the vicinity of the Site.

2.5.1 Regional Physiography and Geology

The Site is located within the Palouse Hills Subprovince of the Columbia Basin Geomorphic province. The Palouse Hills are characterized by rolling topography of glacially-derived loess deposits of both aeolian and fluvial origin. The Site and vicinity are located within the bottom land of the Palouse River and South Fork. This valley bottom area is generally flat, with a sharp transition along the ascending valley margins.

According to the *Bedrock Geologic Map of the Colfax North 7.5 Minute Quadrangle, Washington* (Bush et al. 2005), the upland areas adjacent to the valley are typically blanketed with loess deposits of the Palouse Formation, which in turn are underlain by the Wanapum Formation and the Grande Ronde Formation of the Columbia River Basalt Group. The loess deposits range in thicknesses of up to 150 feet on local hills to non-existent within stream and river valleys. The basalt bedrock is as much as 5,000 feet thick in the vicinity, overlying granitoid basement rock, which occasionally emerges through the basalt as steptoes (i.e., Steptoe Butte, located about 10 miles north of the Site). Stream valleys, such as the Site vicinity, are characterized by alluvial and reworked colluvial deposits overlying weathered grading to unweathered basalt bedrock.

2.5.2 Regional Hydrogeology

The general groundwater aquifers identified in the Colfax area include:

- A near-surface, unconfined aquifer located within the surficial loess or alluvium/colluvium; and
- Deeper confined and semi-confined aquifers within the Wanapum and Grande Ronde Basalt Formations.

Past groundwater monitoring completed at the Site by SES and others indicates that groundwater within the near-surface aquifer is present approximately 6 to 12 feet bgs, with a preferred migration direction that has been consistently toward the northwest to north-northwest. The near-surface groundwater aquifer is primarily contained within the gravel-rich deposits and upper portion of the basalt rubble. Based upon discussions with City of Colfax Public Works Department and WCDEH representatives, drinking water wells that are seated in the near-surface aquifer are typically hand-dug wells or cisterns associated with older rural or farm properties. However, the representatives were unaware of any such existing wells or cisterns within the City limits (SES 2008b,c; Appendix B). Mr. Skyles stated that WCDEH discourages continued use of such wells, which are prone to nitrate impacts associated with fertilizer runoff.

The underlying basalt aquifers are generally characterized by horizontal groundwater flow through permeable interflow zones separated by less porous and permeable, unweathered basalt entablature and colonnade, which makes up 90 to 95 percent of the formation (Whiteman et al. 1994). A review of the boring logs for the City of Colfax municipal water wells and private domestic wells in the general vicinity of the Site revealed that the wells are all seated in the deeper basalt aquifers.

2.5.3 Site Geology

According to the *Bedrock Geologic Map of the Colfax North 7.5 Minute Quadrangle, Washington* (Bush et al. 2005), the Site is mantled by a thin veneer of alluvial and colluvial deposits, which are underlain by several thousand feet of basalt bedrock of the Grande Ronde Formation of the Columbia River Basalt Group. Numerous soil borings completed by GeoEngineers, Inc. (GEI), Quantum, and SES show the Site to be underlain by native, soft to medium stiff silt-rich soils (Unified Soil Classification System [USCS] Classification ML), locally with interbedded sand that extends to depths of about 7 to 15 feet bgs. These soils are interpreted to be low-energy overbank deposits that resulted from ancestral flooding of the Palouse River and South Fork. These upper soils were locally underlain by medium dense to dense sandy gravel to gravelly with variable silt (GM/GP) that extended to depths ranging from about 10 to 16 feet bgs, at which depth basalt rubble and or bedrock was encountered and extended to the maximum depth explored at the Site of up to 20.5 feet bgs.

2.5.4 Site Hydrology

Near-surface groundwater at the Site occurs within the silt and underlying sand, silty sand, and gravels that mantle the basalt bedrock to depths of up to about 16 feet beneath the Site and immediate vicinity. The upper water-bearing zone appears to be unconfined in nature, with the basalt bedrock forming an underlying confining unit. The saturated thickness of this water-bearing zone varies seasonally from about 6 to 10 feet.

Periodic monitoring of near-surface groundwater conditions completed by GEI, Quantum, and SES has indicated groundwater depths generally ranging from about 6 feet to 10 feet bgs. Groundwater depths in individual wells have seasonally varied between about 2 and 3.5 feet. Periodic monitoring completed by SES and others since 2001 has consistently indicated a groundwater migration that is toward the northwest to north-northwest, with a gradient that ranges from about 0.008 feet/foot to 0.019 feet/foot.

As was previously discussed in Section 2.5.3 of this report, the Site is underlain by several thousand feet of basalt bedrock with multiple deep groundwater aquifers that serve as water supply and production irrigation wells. However, previous studies completed by GEI and SES (GEI 2003, SES 2008d) suggest that vertical permeability within the basalt is negligible, and it is highly unlikely that the near-surface water-bearing zone observed in the shallow wells is hydraulic connected to the underlying basalt aquifers.

No reports documenting the physical characteristics and parameters of the upper water-bearing zone of the Site vicinity were observed in the available public record; however, anecdotal information provided by Mr. John Skyles, Director of the WCDEH (SES 2008b, Appendix B), suggests that the near-surface water-bearing zone is prone to nitrate impacts associated with fertilizer runoff.

2.6 PREVIOUS INVESTIGATIONS

The following subsections provide a summary of previous subsurface investigations and interim cleanup actions conducted at the Site which led to the discovery of the releases at the Site.

Several subsurface investigations and remedial actions have been conducted at the Site since 1997. The locations of monitoring wells and other Site features are shown on Figures 2 through 5, and the locations of soil samples collected in the vicinity of the Site are shown on Figures 4 and 5. Only those soil samples collected from the final limits of the excavation are depicted on Figures 4 and 5. Cross-sectional views of borings, monitoring wells, test pits, and PCS are shown on Figures 6 through 11. Soil analytical results are summarized in Tables 1 through 4, and groundwater analytical results are summarized in Tables 5 through 7. Samples that were subsequently overexcavated are shown in shaded cells on Table 1 and are not included on Figures 4 or 5. The remainder of this report includes references to cleanup levels; unless otherwise specified, these refer to the MTCA Method A Cleanup Levels for Unrestricted Land Use for soil and groundwater. For chemicals that do not have a specific MTCA Method A cleanup level, the detected concentrations are compared to the MTCA Method B and/or C levels, State of Washington drinking water, and/or the United States Environmental Protection Agency (EPA) Region 10 Maximum Cleanup Levels.

2.6.1 Time Oil Property

This subsection provides a summary of subsurface assessments and remedial actions completed on and/or associated with the Time Oil property.

2.6.1.1 1997 Limited Remedial Excavation

A letter from Time Oil Co. to Ecology dated March 28, 2002 (Time Oil Co. 2002), references a January 1997 release of two drums containing gasoline and water to near-surface soil in a dirt alley east of the Time Oil property. A limited remedial excavation was conducted by Agra Earth & Environmental to remove impacted soil and confirmation soil samples collected from the final limits of the excavation were reportedly found to be compliant with the applicable cleanup levels. A regulatory listing under the State Hazardous Waste Sites database documents a release of gasoline at the Time Oil property. This release report appears to be associated with the 1997 release described above, although no additional records documenting the excavation, soil sampling efforts, or soil disposal were found in the available records of Ecology or Time Oil.

2.6.1.2 1999 Preliminary Subsurface Investigation and Limited Remediation

In September 1999, an additional 8,000-gallon UST was installed beneath the southwestern portion of the Time Oil property to the west of the three existing USTs (GEI 2000). During the installation of the UST, a petroleum sheen was observed on groundwater that had collected within the tank excavation at a depth of approximately 10 feet bgs. An abandoned grease pit system associated with historical automotive repair activities was also removed from the property at that time. The grease pit was located beneath the northern portion of the former gasoline station building, as shown on Figure 4. What appeared to be PCS was encountered during the grease pit removal activities and the impacted soil was initially excavated to a depth of approximately 11 feet bgs. Soil samples collected in the immediate vicinity of the grease pit (GP-01, GP-02, and GP-03) were found to contain elevated concentrations of oil-range petroleum hydrocarbons (ORPH), and the excavation was expanded westward in an effort to remove the PCS. As indicated on Table 1, the concentrations of ORPH detected in samples GP-01 and GP-03 were 280 milligrams per kilogram (mg/kg) and 1,900 mg/kg, respectively, which exceeded the cleanup limit of 250 mg/kg in effect at that time. However, the cleanup level for ORPH was increased to 2,000 mg/kg in 2001, which is higher than the concentrations detected in soil collected in the vicinity of the grease pit.

PCS was observed extending westward from the former grease pit at depths of approximately 6 to 12 feet bgs. Additional soil excavation to the west was reportedly suspended to prevent risking the structural integrity of canopy footings that had been placed as part of the then on-going facility renovation. During removal of PCS associated with the grease pit at the gasoline station, two buried 50-gallon drums were uncovered. Both drums contained oil and were believed to have been associated with the property’s historical use as an automobile servicing facility. According to the GEI report, approximately 5 gallons of oil was inadvertently spilled from one of the drums during the excavation process. The oil was reportedly cleaned up immediately using oil-absorbent pads. During soil excavation activities, a second grease pit was also encountered approximately 15 feet west of the initial grease pit; however, no evidence of PCS was observed in the immediate vicinity of the second grease pit.

The final dimensions of the remedial excavation for the grease pit were approximately 50 feet long by 30 feet wide by 12 feet deep, as shown on Figure 4. Eight soil samples were collected from the limits of the remedial excavation to identify areas of residual soil contamination. As shown on Table 1, most of the confirmation soil samples collected from the final limits of the excavation contained no detectable concentrations of GRPH, diesel-range petroleum hydrocarbons (DRPH), or ORPH. However, two of the soil samples (T-7/9 and T-8/9) collected from the bottom and sidewalls of the western portion of the excavation contained concentrations of ORPH (2,770 mg/kg and 3,260 mg/kg, respectively) that exceeded the current cleanup level (Table 1). Contaminated soil in the vicinity of samples T-7/9 and T-8/9 was not excavated due to the close proximity of the canopy.

2.6.1.3 2001 Supplemental Subsurface Assessment

Following completion of the excavation activities, seven borings were advanced at the Time Oil property in February 2001 and monitoring wells were installed in each of the borings (MW01 through MW07; Figure 4). Soil samples collected from six of the borings were tested for the presence of petroleum hydrocarbons and associated volatile constituents benzene, toluene, ethylbenzene, and total xylenes (BTEX); the soil samples collected from borings MW05 and MW06 were found to contain concentrations of GRPH that exceeded the current cleanup level (Table 1). Soil samples collected from borings MW03, MW05, and MW06 were also found to contain concentrations of ORPH and/or DRPH that were below the current cleanup level. Soil samples containing the highest concentrations of petroleum hydrocarbons were collected from boring MW06 at a depth of approximately 5 feet bgs (Table 1). MW06 is located to the west of the southwestern pump island, in the vicinity of the gasoline station that formerly operated on the Time Oil property.

2.6.1.4 2002 Groundwater Monitoring Well Installation

In an effort to further evaluate the extent of contamination and to identify the source of the contamination detected beneath the upgradient (southern) portions of the Time Oil property, five additional monitoring wells were installed on behalf of Time Oil in October 2002 (MW08 through MW12; Figure 4). One monitoring well (MW08) was installed on the Time Oil property, another well was installed across North Main Street to the north-northwest of the property (MW11), and three monitoring wells were installed within the East Tyler Street ROW to the south of the Time Oil property. Soil samples were collected from borings MW09 and MW10 but no soil samples were collected from the remaining borings due to a mechanical failure. Soil samples collected from borings MW09 and MW10 were reportedly not submitted to the laboratory for analysis.

The results of field screening conducted at each boring location suggest that evidence of contamination was not observed in soil cuttings generated from borings MW08, MW11, or MW12. Headspace analyses of soil samples collected with a PID revealed a low concentration of volatiles (60.0 parts per million by volume [ppmv]) in the vapor from the soil sample collected from boring MW09 and a significantly higher concentration (780 ppmv) in the vapor from the soil sample collected from boring MW10. Both of the soil samples were collected from a depth of approximately 5 feet bgs. The soil sample collected from boring MW10 also exhibited a slight petroleum sheen.

2.6.2 Cenex Property

This subsection summarizes subsurface investigations and remedial action completed on and/or associated with the Cenex property.

2.6.2.1 2004 Monitoring Well Installation and Limited Remedial Excavation

A release of an unspecified volume of unleaded gasoline occurred at the Cenex facility on October 15, 2004, as a result of an accidental overfilling of unleaded gasoline during the refueling of the central UST. The fuel reportedly spilled into the vaults of the unleaded gasoline and diesel tanks. Ecology was notified of the release by Colfax Grange on November 5, 2004, and an initial remedial response to the release was conducted on November 15, 2004. Petroleum odors and discolored backfill materials were reportedly observed beneath the concrete pad during the initial remedial response and an unspecified volume of contaminated soil was removed from around the tank vaults and from above the tanks.

Three monitoring wells (CMW01 through CMW03) were installed at the Colfax Grange property on October 6, 2004, just prior to the overfill release that occurred on October 15, 2004 (Figure 5). Two additional monitoring wells (CMW04 and CMW05) were installed at hydrologically downgradient locations to the north of the USTs on December 3, 2004 (Figure 5). None of the soil samples that were submitted for analysis from the installation of monitoring wells CMW01 through CMW05 contained detectable concentrations of GRPH or BTEX (Table 1). Field notes provided by Quantum indicate that no odors or sheen were noted in soil collected from boring CMW03. Slight petroleum odors were noted in soil collected from the uppermost 5 to 6 feet of soil in borings CMW01, CMW04, and CMW05, and from the uppermost 12 feet of boring CMW02.

2.6.2.2 2006 UST Closure and Remediation

In October 2006, three 1985-vintage USTs were excavated and removed from the Cenex property, along with the gasoline and diesel pump islands and associated product delivery systems. The excavation was conducted by Quantum on behalf of Colfax Grange. According to information provided by Mr. Jim DeSmet of Quantum, shallow soil samples collected from beneath the former dispenser on the northern portion of the Cenex property contained concentrations of GRPH and BTEX that exceeded their respective cleanup levels. In addition, shallow soil samples collected from a depth of approximately 1.5 feet bgs beneath the former Cardtrol pump island contained a concentration of DRPH that exceeded the cleanup level (Figure 5, Table 1). Additional excavation was conducted beneath the pump islands and soil samples collected from a depth of 3 feet below the Cardtrol pump island were found to contain no detectable concentrations of DRPH, with the exception of soil sample “Card East 3,” which contained a concentration of DRPH that was well below the cleanup level. According to Mr. DeSmet, a composite sample (Drop Island) comprised of 10 discrete soil samples was collected from a depth of 2 feet bgs beneath the northern pump island following additional excavation. Although GRPH and BTEX were not detected above laboratory reporting limits, concentrations of DRPH and ORPH were present in the composite soil sample (Table 1). Considering the dilution effect that occurs when discrete samples are composited, the actual concentration of petroleum hydrocarbons in soil beneath the northern pump island remained unassessed. According to information provided by Mr. DeSmet, soil beneath the former northern pump island was excavated to a total depth of 13 feet bgs in the course of additional excavation activities.

Near-surface soil samples collected from above the unleaded gasoline and diesel USTs prior to their removal indicated the presence of PCS. The extent of the contamination was not described. PCS was not present in near-surface soil samples collected proximal to the super unleaded pump vault or the inventory probe (Quantum 2006a).

After the USTs were removed, composite soil samples were collected from beneath each of the former gasoline USTs. Both composite samples contained concentrations of GRPH in excess of the cleanup level, with the highest concentration detected in the soil sample collected from beneath the unleaded UST. The soil samples collected from beneath the diesel UST contained concentrations of DRPH and one or more of the BTEX constituents that exceeded their respective cleanup levels. However, these samples were collected from saturated soil well below the water table. As such, it was not apparent whether the elevated concentrations were the result of contaminants that remained sorbed to soil or if the contamination was present within the groundwater in the pore spaces of the soil. Considering the relatively shallow depth of the basaltic bedrock encountered throughout the site, the maximum thickness of saturated PCS beneath the former USTs was not anticipated to exceed 5 feet.

Analytical results for soil samples collected from the southeastern (P2), eastern (OTE-E2, OTE-E3, and OTE-E4), western (OTE-W6), and northern (P9, P11, N1-11 and N2-11) sidewalls and floor of the excavation confirmed that elevated concentrations of GRPH and/or benzene remained at these locations (Figure 5, Table 1). According to Mr. DeSmet, PCS in the vicinity of soil samples P2, N1-11, and N2-11 was subsequently overexcavated; however, confirmation soil samples were not collected following the overexcavation efforts.

The initial excavation beneath the regular unleaded, super unleaded, and diesel tanks reportedly extended to a depth of 10 feet bgs. Groundwater was encountered at approximately 9 feet bgs (Quantum 2006a). Additional excavation was completed following dewatering activities and the final depth of the tank excavation was approximately 13 feet bgs. According to the estimates provided by Quantum, approximately 2,607 cubic yards of soil was excavated from the Cenex property and taken to an off-property location for treatment by landfarming.

Following completion of the excavation activities, three 12,000-gallon USTs and the associated pump islands were installed at the Cenex property in November 2006.

Prior to backfilling the excavation, a trench was excavated to a depth of approximately 13 feet bgs along the northern portion of the Cenex property. The trench was partially filled with washed pea gravel and an air sparge remediation system was installed throughout the length of the trench. The remediation system has not been started.

2.6.3 Groundwater Monitoring Program

Prior to the initiation of the current RI activities, groundwater sampling and testing had been conducted at the Site on a quarterly to semiannual basis. Groundwater samples collected from monitoring wells MW01 through MW12 had been tested for the presence of GRPH, DRPH, ORPH, and BTEX constituents since February 2001. Samples collected from these wells were initially tested for the presence of MTBE in February 2004, and additional oxygenates, including ethylene dibromide (EDB) and ethylene dichloride (EDC), were added to the sampling program in September 2005. Groundwater samples collected from monitoring wells CMW01 through CMW05 had been tested for the presence of GRPH and BTEX since the wells were installed in October and December 2004. Well CMW01 was decommissioned in 2006 due to the encroachment of the remedial excavation at the Cenex property. Groundwater samples collected from CMW01 through CMW05 since December 2005 have been tested for the presence of MTBE, DRPH, ORPH; oxygenates were added to the sampling program in March 2007. The results of groundwater sampling conducted at the Site prior to commencing with the RI (between 2001 and 2007) are summarized in Tables 5, 6, and 7.

Groundwater samples collected from monitoring wells MW03, MW05, MW06, MW07, MW10, and MW12 between 2001 and 2005 revealed consistently elevated concentrations of GRPH and/or benzene, and to a lesser extent DRPH. Samples collected from wells MW01, MW02, MW04, and MW11 seasonally exhibited concentrations of GRPH and/or benzene and to a lesser extent DRPH in excess of their respective cleanup levels, with elevated concentrations generally occurring during monitoring events performed in the Third Quarter (August to November). Samples collected from monitoring well MW08 did not exhibit elevated concentrations of petroleum hydrocarbons, and samples collected from MW09 seasonally exhibited concentrations of DRPH and ORPH that exceeded their respective cleanup levels. Groundwater samples collected from wells CMW01, CMW02, CMW04, and CMW05, located on the Cenex property, consistently exhibited elevated concentrations of GRPH and/or benzene between 2004 and 2005.

Groundwater concentrations dropped substantially across the Site following the October 2006 UST replacement and remedial excavation and dewatering activities completed on the Cenex property. Groundwater samples collected between Fourth Quarter 2006 and Second Quarter 2007 (prior to the commencement of current RI activities) from monitoring wells MW01, MW03, MW04, MW05, MW07, MW08, and MW11 did not contain concentrations of petroleum hydrocarbons in excess of the applicable cleanup levels. Groundwater samples collected from wells MW02, MW06, MW09, MW10, MW12, and CMW02 through CMW05 during the same time period frequently contained concentrations of petroleum hydrocarbons and associated BTEX constituents in excess of the cleanup levels; however, the concentrations decreased significantly relative to the pre-excavation samples. A more detailed summary of the pre-RI groundwater contaminant concentrations is provided in the SCM-RIWP (SES 2008a).

2.7 CHEMICALS OF POTENTIAL CONCERN

A well-defined list of chemicals of potential concern (COPCs) has been developed for retail gasoline stations. The following chemicals have been evaluated as COPCs for the Site.

- Petroleum hydrocarbons (GRPH, DRPH, and ORPH)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX)
- VOCs
- Polynuclear aromatic hydrocarbons (PAHs)
- Lead
- Oxygenates, including MTBE, EDB, and EDC

The specific analyses employed are described in the Sampling and Analysis Plan (SAP). Supplemental testing also included extractable petroleum hydrocarbon-volatile petroleum hydrocarbon (EPH-VPH) analyses and forensic analyses, which included gas chromatography with a flame ionization detector (GC/FID). In addition, selected samples were analyzed for VOCs using a gas chromatograph fitted with a mass spectrometer; and organometallic compounds using a gas chromatograph fitted with an electron capture detector as well as an inductively coupled plasma mass spectrometer (ICP-MS), and hydrocarbon fingerprinting interpretation.

2.8 POTENTIAL MEDIA OF CONCERN

Prior to completion of the RI, the potential media of concern for the Site included soil, groundwater, soil vapor, indoor air, and surface water.

2.9 DATA GAPS

Numerous data gaps were noted with respect to the origin, fate, and extent of impacts beneath the Site prior to completion of the RI, including the following.

- **The environmental quality of soil in the vicinity of the fuel-dispensing pump islands on the Time Oil property.** Previous investigations had shown that elevated concentrations of ORPH were present in soil samples collected from the final limits of the 1999 grease pit excavation and that concentrations of GRPH in excess of the cleanup level were present in soil collected from borings MW05 and MW06 in 2001. Although the concentrations of petroleum hydrocarbons in groundwater collected from these locations had decreased to below the applicable cleanup levels, the presence of low concentrations of GRPH, DRPH, benzene, and MTBE in groundwater collected from monitoring wells MW06, MW07, and MW11 suggested that a low-level source of contamination may have remained in subsurface soil in the vicinity of these wells.
- **The extent of soil contamination north of the UST excavation on the Cenex property.** The available laboratory results of soil sampling conducted at the limits of the 2006 UST excavation indicated that soil collected from depths of 9 to 11 feet bgs along the northern sidewall contained concentrations of GRPH and benzene that exceeded the cleanup level. Additional excavation was limited by the presence of East Tyler Street to the north. The extent to which the PCS may have extended beneath the ROW had not been evaluated.
- **The extent of soil contamination east and southeast of the UST excavation on the Cenex property.** Soil samples collected from the eastern and southeastern sidewalls of the UST excavation were found to contain concentrations of GRPH and benzene that exceeded the cleanup levels. Although additional excavation was reportedly conducted along the southern side of the excavation, no confirmational soil sampling was conducted following the overexcavation activities. Therefore, the extent of the residual soil contamination in these areas remained unknown/unassessed.
- **The source and extent of the DRPH and ORPH contamination beneath the southeastern portion of the Site.** Groundwater samples collected from monitoring well MW09 had historically contained concentrations of DRPH and ORPH in excess of the cleanup level and shallow soil samples collected in the vicinity of the Cardtrol pump island at the Cenex property contained elevated concentrations of ORPH and DRPH. However, the nearest downgradient monitoring well relative to the Cardtrol island was situated more than 55 feet to the northwest (MW09). Groundwater samples collected from monitoring well

CMW03 also contained elevated concentrations of ORPH. The source and extent of the DRPH and ORPH contamination in groundwater beneath the southeastern portion of the Site was not well defined.

- **The potential impacts to the Site from the adjacent railroad.** Considering the elevated concentrations of ORPH detected previously in groundwater samples collected from monitoring wells MW09 and CMW03, additional investigation in the vicinity of the railroad tracks appeared warranted.
- **The lateral extent of petroleum-contaminated groundwater.** Considering the historical presence of petroleum contamination in groundwater samples collected from downgradient and crossgradient monitoring wells at the Site, the full lateral extent of impacts to groundwater had not been assessed.
- **The potential risk for impacts to the Site from the ASTs formerly located on the Colfax Grange property to the south of the railroad tracks.** Considering the close proximity and upgradient position of the former ASTs relative to the Site, additional investigation of soil and/or groundwater appeared warranted.
- **The potential risk for impacts to the Site from the former storage and distribution of petroleum products on the Shell property located to the east of the Site**. Acknowledging the volume of petroleum hydrocarbons formerly stored at Shell property, its upgradient to crossgradient hydrologic position relative to the Site, and the apparent absence of any documentation regarding the subsurface conditions beneath the Shell property, the potential risk for adverse environmental impacts to the Site remained unassessed.
- **The potential risk for impacts to the Site from the gasoline station formerly located on the Sterling property to the west of the Site.** Considering the proximity of this former fueling station and the lack of available documentation concerning environmental conditions of the facility, the potential risk for adverse environmental impacts to the Site remained unassessed.
- **The potential risk for impacts to the Site from the retail gasoline station formerly located on the southwestern portion of the Colfax Grange property.** Considering the close proximity and upgradient location of the former retail gasoline station and the apparent absence of any documentation of the subsurface conditions beneath the former gasoline station, the potential risk for adverse environmental impacts to the Site remained unassessed.
- **The potential risk for impacts to the Site from the heating oil UST located adjacent to the northwest portion of the Colfax Grange Building.** Considering the close proximity and upgradient location of the heating oil UST relative to the Site, the potential risk for adverse environmental impacts to the Site remained unassessed.
- **The potential risk for impacts to the Site from the UST located adjacent to the northeast corner of the Colfax Grange Building.** Considering the close proximity and upgradient location of the UST and the apparent absence of any documentation of the subsurface conditions in the vicinity of the UST, the potential risk for adverse environmental impacts to the Site remained unassessed.
- **The potential risk for impacts to the Site from the closed-in-place gasoline UST located beneath the eastern portion of the Colfax Grange Building.** Considering the close proximity and upgradient location of the closed-in-place gasoline UST and the apparent absence of any documentation of the subsurface conditions in the vicinity of the

UST, the potential risk for adverse environmental impacts to the Site remained unassessed.

- **The potential for contaminant migration via fracture flow in the underlying basalt bedrock.** The extent of fracturing in the basalt that underlies the Site was unknown, as was the thickness of the basalt and the extent to which groundwater migrates laterally and vertically through the material.
- **The effect (if any) that the former stream and/or subsurface utilities located beneath and proximal to the Site may have on the migration of contamination beneath the Site.** Considering the proximity of the former stream and existing utility corridors to subsurface contamination beneath the Site, it was not apparent whether they were acting as sources of contamination or as preferential pathways for contaminant migration beneath the Site.

3.0 REMEDIAL INVESTIGATION

In an effort to address the data gaps identified above, four phases of subsurface investigations were conducted by SES at the Site since April 2008. A description of the general scope of each phase of field work is as follows:

- **April 9 and 10, 2008.** Work scope included advancing 17 push-probe borings (SP01 through SP17), collecting and field screening soil samples from each of the borings, and submitting selected soil samples for analytical testing (Appendix D, Appendix E).
- **June 2 through 5, 2008.** Work scope included advancing 11 push-probe borings (B13 to B23), collecting and field screening soil samples from each of the borings, and submitting selected soil samples for analytical testing. Ten of the 11 push-probe locations were overdrilled using air-rotary drilling methods and completed as 2-inch-diameter polyvinyl chloride (PVC) groundwater monitoring wells with flush-mounted monuments (designated MW13, and MW15 through MW23). The monitoring wells were developed in preparation for the subsequent groundwater monitoring and sampling event. Push-probe boring B14 was advanced on the Sterling property but could not be completed as a monitoring well during the June 2009 investigation activities (Appendix D, Appendix E).
- **March 2 through 4, 2009.** Work scope included the excavation of three test pits (TP01 through TP03) in the vicinity of the former “Gas and Oils” building on the southwest portion of the Colfax Grange property, advancing three air-rotary borings (B14A, B24, and B25) on the Sterling and Colfax Grange properties, and completing the borings as 2-inch-diameter PVC groundwater monitoring wells with flush-mounted monuments (MW14, MW24, and MW25, respectively). Soil samples collected from each test pit and boring were field screened and submitted for analytical testing. The new monitoring wells were developed in preparation for the subsequent groundwater monitoring and sampling event (Appendix D, Appendix E).
- **May 18 through 20, 2009.** Work scope included advancing eight push-probe borings (B26 to B33) at locations within North Main Street, East Harrison Street, and North Morton Street, and on the Colfax Grange property. Soil samples collected from each boring were field screened and submitted for analytical testing. Seven of the eight push-probe locations were then overdrilled using air-rotary drilling methods and completed as 2-inch-diameter PVC groundwater monitoring wells with flush-mounted monuments (MW26 through MW32). No indications of contamination were encountered during the drilling of boring B32 and this boring was not completed as a monitoring well. Each of the seven new wells was

developed in preparation for the subsequent groundwater monitoring and sampling event (Appendix D, Appendix E).

The above RI activities were generally completed as described in the SCM-RIWP (SES 2008a), the SRIWP (SES 2008h), and the RSRIWP (SES 2009c), each of which had previously been approved by Ecology, along with variations described herein. Additionally, SES has performed quarterly groundwater monitoring and sampling events at the Site as part of the RI since September 2007. The locations of soil borings, monitoring wells, test pits, and other Site features are shown on Figures 3, 4, and 5. The soil analytical results and groundwater contours and analytical results are summarized in Figures 12 through 14 and in Tables 1 through 7. For evaluation purposes, those concentrations that exceeded the current cleanup levels for soil and groundwater are presented in bold red font on Figures 12 and 14. The table that is included on Figure 12 includes only those samples collected from locations where one or more soil samples was found to contain a concentration of one or more COPC that exceeded the applicable cleanup level.

3.1 PRE-FIELD ACTIVITIES

Prior to initiating field work, Ecology requested that SES complete a hydrogeologic evaluation of the Site and vicinity, the results of which are discussed in Section 3.1.1 below.

Before sampling activities were conducted, traffic control plans were prepared, street use permits were acquired, and public and private utility locates were conducted. Available utility maps (e.g., utility maps from the City of Colfax Public Works Department) also were reviewed to identify proposed sample locations that might intersect or otherwise interfere with known utility corridors.

Subcontractors that provided services on the project included a private utility locator (Utilities Plus, Inc.), a drilling contractor (Environmental West Explorations, Inc.), an excavation contractor (NRC Environmental Services), traffic control signage provider (National Barricade), and Ecology-accredited analytical laboratories (Friedman & Bruya, Inc.; Analytical Resources, Inc.; and Fremont Analytical Inc.). Prior to conducting the fieldwork, a Health and Safety Plan was prepared for use during drilling, test pit excavation, and groundwater sampling activities.

3.1.1 Hydrogeologic Evaluation

At the request of Ecology and prior to initiating subsurface investigation work under the Agreed Order, SES completed a review of the available literature to evaluate the hydrogeologic conditions beneath the Site (SES 2008d). The purpose of the evaluation was to describe the geology, aquifers, and water-bearing zones of the Site and vicinity, and to assess the risk that contaminants originating from the Site had impacted local potable water supplies. The results of the assessment suggest that contaminants originating from the Site are limited to the upper water-bearing zone that is perched atop basalt bedrock, and no beneficial use for the water-bearing zone was identified. Additionally, studies completed within the Palouse and Columbia River Basin suggest that vertical porosity and permeability within the underlying Columbia river Basalt bedrock is negligible, therefore, it was concluded that the Site presents very little risk of impacting the underlying aquifers within the basalt.

3.1.2 Ground Penetrating Radar Survey

A ground-penetrating radar (GPR) survey was completed by Subsurface 3D Imaging on October 1, 2008, on behalf of the Colfax Grange, and under the direction of Quantum. The survey was completed on the western portion of the Colfax Grange property in order to evaluate whether the USTs and associated product delivery systems of the gasoline station that formerly operated at this location had been removed. The survey was also completed on three areas along the north side of the Colfax Grange Building, where USTs were either known or suspected to exist. The results of the survey indicated a geophysical anomaly beneath the landscaped area to the west of the Colfax Grange Building; however, a test pit was subsequently excavated in the vicinity of the anomaly and no evidence of a UST or other apparent source of the anomaly were encountered. The survey also identified a geophysical signature of the small unused heating fuel UST previously known to exist along the north side of the Colfax Grange Building. A copy of the GPR survey report is included in Appendix F.

3.2 SOIL SAMPLING

A description of the soil sampling activities conducted in the course of the RI is provided below.

3.2.1 Subsurface Soil Samples

Thirty-six push-probe soil borings (SP01 through SP17, B13 to B23, and B26 through B33), three air-rotary borings (B14A, B24, and B25), and three backhoe-excavated test pits (TP01 through TP03) were advanced beneath and proximal to the Site for the purposes of collecting, screening, and submitting soil samples for analytical testing (Figure 3). The borings were advanced using push-probe or air-rotary drill rig methods to depths of approximately 10 to 20 feet bgs. The test pits were excavated with a rubber tire-mounted backhoe to depths of approximately 10 to 12.5 feet bgs. Soil samples were generally collected in specific intervals using the procedures described in the SAP in the SCM-RIWP (SES 2008a).

Relatively undisturbed soil samples were obtained from the borings throughout the maximum depths explored. Selected portions of each recovered soil core sample were placed in a plastic bag so that the presence or absence of VOCs could be quantified using a PID. Intervals of each recovered soil core sample selected for potential laboratory chemical analysis was placed into laboratory-prepared glassware in accordance with EPA Method 5035A. Subsurface lithology was classified using the USCS, and soil boring logs and test pit logs are included in Appendix D. Sampling locations are shown on Figures 4 and 5.

Two to four soil samples collected from each soil boring or test pit were submitted for analytical testing in accordance with the guidelines described in the SAP. Soil samples that did not exhibit obvious signs of impacts were analyzed for GRPH, DRPH, and ORPH by Northwest Total Petroleum Hydrocarbon (NWTPH) Method NWTPH-HCID. Soil samples exhibiting obvious signs of petroleum impacts (such as staining, odors, or significant PID readings) were analyzed for GRPH by Method NWTPH-Gx, DRPH and ORPH by Method NWTPH-Dx, BTEX and VOCs by EPA Methods 8021B and/or 8260B, PAHs by EPA Method 8270, and total and dissolved lead by EPA Method 200.8. Additionally, selected samples from identified source locations were analyzed for EPH-VPH, hydrocarbon fingerprinting, and GC/FID, GC/MS, and ICP-MS methods described in Section 2.7 of this report.

3.2.2 Deviations from the SCM-RIWP, SRIWP, and RSRIWP

Borings B13, B15 through B23, and B26 through B33 were advanced and sampled using a push-probe rig until encountering refusal, then overdrilled using air-rotary drilling methods and completed as 2-inch-diameter groundwater monitoring wells. The use of a push-probe rig to collect the soil samples was not included in the SCM-RIWP, SRIWP, and RSRIWP, but was approved by Ecology prior to conducting the field activities.

3.3 MONITORING WELL INSTALLATION AND DEVELOPMENT

A description of the groundwater monitoring well installation and development activities conducted in the course of the RI is provided below.

3.3.1 Monitoring Well Installation

Twenty monitoring wells (MW13 through MW32) were installed in the course of the RI using the air-rotary drilling methods outlined in the SCM-RIWP SAP (Appendix C of the SCM-RIWP, SES 2008a). Monitoring well locations are shown on Figures 3, 4, 5 and 14. Each of the flush-mounted wells was constructed using a 2-inch-diameter Schedule 40, PVC well casing with flush-threaded joints. The wells were screened using Schedule 40 slotted PVC with 0.010-inch factory-machined slots. A filter pack consisting of 10-20 silica sand was placed in the annular spacing. Monitoring wells were constructed with 10 feet of well screen. Approximately 2 to 5 feet of screen was located above the top of the water table, and approximately 6 to 10 feet of screen was located below the top of the water table in order to allow for seasonal fluctuations in groundwater elevation.

3.3.2 Monitoring Well Development

Monitoring wells were developed in accordance with the SAP (Appendix C of the SCM-RIWP, SES 2008a). The wells were pumped and surged using a down-hole pump, removing at least 10 well casing volumes from each well. The wells were developed until the turbidity of the groundwater decreased. Equipment was decontaminated after each well was developed. Water removed during development activities was placed in labeled drums for subsequent characterization and disposal.

3.3.3 Deviations from the SCM-RIWP, SRIWP, and RSRIWP

The names of monitoring wells were, in some cases, changed according to the order in which they were installed. New boring and monitoring well names and locations are presented on Figures 3, 4, and 5.

3.4 GROUNDWATER SAMPLING

A description of the groundwater sampling activities conducted in the course of the RI is provided below.

3.4.1 Quarterly Groundwater Monitoring

Following well development activities, each well was allowed to stabilize for at least 1 week before being sampled in order to allow sufficient time for the wells to establish connectivity with the aquifer and to minimize the turbidity of the groundwater samples prior to sampling.

Upon SES' arrival at the Site for each of the quarterly monitoring events, the Site monitoring wells were opened and water levels were permitted to equilibrate with atmospheric pressure for a minimum of 15 minutes before groundwater level measurements were obtained. Groundwater levels were measured to an accuracy of 0.01 feet using an electronic water level meter. Quarterly water level measurements were collected from all of the wells on the same day prior to commencing sampling. The water level measurements, which were recorded on groundwater sampling forms, also are summarized in Table 5.

Following the collection of water level measurements from all of the wells, each well was purged using a low-flow peristaltic pump. Field parameters, including temperature, pH, electrical conductivity, turbidity, oxidation reduction potential, and dissolved oxygen, were measured and recorded periodically during purging activities. Once the field parameters stabilized between measurements (e.g., specific conductivity ±10 percent, pH ±0.1 pH units, temperature ±0.1°Celsius [°C]), samples were collected in laboratory-supplied sample containers at the same low flow rate used for purging. Sample data was recorded on a groundwater sample collection form and included the sample number and time collected, the observed physical characteristics of the sample (e.g., color, turbidity, etc.), and the field parameters discussed above. Copies of the groundwater data sheets for groundwater sampling events completed by SES since the initiation of the Agreed Order have been provided to Ecology under separate cover.

To prevent degassing during sampling for VOCs, the pumping rate was generally maintained below 250 to 500 milliliters per minute. The VOC and GRPH containers were filled completely so that no head space remained. Samples were chilled to 4°C immediately after collecting the samples.

Groundwater samples collected during the RI were submitted for laboratory analysis of GRPH by Method NWTPH-Gx, DRPH and ORPH by Method NWTPH-Dx; PAHs by EPA Method 8270d SIM; total and dissolved lead by EPA Method 200.8; low-level EDB by EPA Method 8011; and BTEX and VOCs by EPA Method 8021B and/or 8260B.

3.4.2 Deviations from the RIWP

Prior to the First Quarter 2009 monitoring event, groundwater samples were analyzed for EDB by EPA Method 8260B, which has a lower detection limit that exceeds the cleanup level of 0.01 micrograms per liter (µg/L). The groundwater samples collected during the First and Second Quarter 2009 monitoring events were therefore analyzed using EPA Method 8011, which has a detection limit of 0.01 µg/L.

The following deviations were approved by Ecology in June 2009 and implemented during the Second Quarter 2009 monitoring event:

1. Discontinued entirely the sampling of monitoring wells MW04, MW06, MW22, CMW04 and CMW05.

2. Discontinued the PAH analysis of quarterly groundwater samples collected from monitoring wells MW15, MW16, MW17, MW18, MW19, and MW23.

3. Discontinued analysis of low-level EDB using EPA Method 8011 for wells that had exhibited 2 consecutive quarters of groundwater samples containing concentrations of EDB below the laboratory reporting limit of 0.01 µg/L. Based upon this criteria, groundwater samples collected from wells CMW02 and CMW03 during the Second Quarter 2009 groundwater monitoring event were not analyzed for EDB by EPA Method 8011.

4. Discontinued analysis of groundwater samples collected from monitoring wells MW03, MW07, MW08, MW09, MW11, MW12, MW15 to MW19, and MW23 for VOCs by EPA 8260B, and alternatively analyze groundwater samples collected from these wells for BTEX and MTBE by EPA Method 8021B.

5. Discontinued analysis of lead (total and dissolved) at all wells where 4 quarters of compliant results had been achieved (MW01, MW02, MW05, MW07, MW08, MW11, MW15 through MW21, MW24, and CMW02 through CMW03).

3.5 MANAGEMENT OF INVESTIGATION-DERIVED WASTE

A substantial quantity of investigative-derived waste (IDW) was generated during this RI. Solid IDW included PCS excavated from test pits and drill cuttings, the remainder of homogenized soil generated during the sampling process, contaminated disposable equipment, and contaminated disposable personal protective equipment. Liquid IDW included wastewater from decontamination procedures and monitoring well development and purging. IDW generated from drilling, equipment decontamination, well development, and groundwater sampling was containerized in appropriately labeled 55-gallon drums. Soil IDW generated from test pit excavations was temporarily stockpiled on and covered by visqueen plastic sheeting on the Colfax Grange property. IDW was removed periodically and treated and/or disposed of at a permitted facility. Soil IDW was treated by thermal desorption at the Cemex facility in Everett, Washington. Drummed water derived from decontamination, well development, and well purging activities was periodically disposed of properly by ORRCO, Emerald Services, and Thermo Fluids (Appendix G).

3.6 REMEDIAL INVESTIGATION RESULTS

The following sections present a summary of the analytical data collected during the RI that was intended to address the data gaps identified in Section 2.9.

3.6.1 Soil

Time Oil Property. Borings SP01 through SP07, SP17, and B22 were advanced on the Time Oil property. Boring B13 was advanced across North Main Street to the northwest of the Time Oil property and boring B26 was advanced within the North Main Street ROW, immediately west of the Time Oil property in order to assess the downgradient extent of impacts originating from the Site (Figures 3 through 5). At the time of drilling, groundwater was encountered at a depth of approximately 6 to 7.5 feet bgs in the borings (Appendix D). Soil samples collected from borings SP02, SP04 and SP05 exhibited concentrations of GRPH that exceeded the applicable cleanup levels. Concentrations of one or more of the BTEX constituents that exceeded the applicable cleanup level were present in soil samples collected from borings SP02 and SP04. Naphthalene was detected at concentrations exceeding the cleanup level in soil samples collected from borings SP02 and SP05. A soil sample collected from boring SP02 contained a concentration of MTBE that exceeded the cleanup level. DRPH was not detected at concentrations exceeding the cleanup level in any of the soil samples collected from borings advanced on the Time Oil property (Tables 1 through 4).

PCS was encountered in the uppermost 8 to 11 feet in borings SP02, SP04, and SP05; PCS was not present in any of the samples collected from these borings at depths of 12 to 14 feet. Boring SP02 was advanced near the western sidewall of the grease pit excavation conducted in 1999 by GEI, where PCS had previously been encountered. Borings SP04 and SP05 were advanced near the southwestern corner of the Time Oil property, in the vicinity of the former gas & oil station. PCS was not encountered in borings advanced to the north and northwest of the former grease pit excavation (B13, B22, and SP01), in the vicinity of the former gas & oil station (SP03, SP06, and B26), to the southeast of the current USTs (SP17), or within the alley adjacent to the east of the Time Oil property (SP07) (Figure 12).

None of the soil samples submitted for analysis from the borings described above contained concentrations of DRPH, ORPH, VOCs, or metals that exceeded their respective laboratory reporting limits and/or cleanup levels. With the exception of the soil samples collected from borings SP02 and SP05, none of the soil samples submitted for analysis from the borings above contained concentrations of naphthalenes that exceeded their respective cleanup levels (Tables 1 through 4).

Cenex Property. Borings SP08 through SP16, B17 through B19, and B23 were advanced on and in the immediate vicinity of the Cenex property (Figure12). At the time of drilling, groundwater was encountered at a depth of approximately 6 to 9.5 feet bgs in the borings. Soil samples collected from borings SP11, SP12, SP14, and SP15 contained concentrations of benzene that exceeded the cleanup level and soil samples collected from boring SP12 contained concentrations of GRPH that exceeded the cleanup level. PCS soil was encountered in the uppermost 6 to 8 feet in borings SP11, SP14, and SP15, which are situated around the perimeter of the excavation conducted by Quantum in 2006. PCS was encountered at depths between 10 and 14 feet in boring SP12, which is located in the vicinity of the diesel pump island to the east of the 2006 UST excavation. PCS was not present in the samples collected from the lowermost sampling interval in any of these borings. PCS was similarly not present in any of the soil samples collected from borings SP08 through SP10, SP13, SP16, or B17 through B19 (Table 1).

The soil sample collected from boring SP11 at a depth of 3 to 4 feet (SP11-03-04) contained a concentration of lead (330 mg/kg) that exceeded the cleanup level of 250 mg/kg (Table 2). Boring SP11 is situated within the East Tyler Street ROW and sample SP11-03-04 was collected immediately beneath the fill material that was used in the construction of the ROW (Figure 12). The elevated lead concentration detected in the near-surface collected from boring SP11 is suspected to be the result of the overlying fill material and not associated with a release of petroleum hydrocarbons at the Site.

None of the soil samples submitted for analysis from the borings described above contained concentrations of DRPH, ORPH, VOCs, or PAHs that exceeded their respective laboratory reporting limits and/or cleanup level. With the exception of the shallow soil sample collected from boring SP11, none of the soil samples submitted for analysis from the borings above contained concentrations of lead that exceeded their respective cleanup levels (Figure 12, Tables 1 through 4).

Colfax Grange Property. Borings B16, B24, B25, B28, B29, and B33 and test pits TP01 through TP03 were advanced on and in the immediate vicinity of the gasoline station that formerly operated on the western portion of the Colfax Grange property (Figure 12). At the time of drilling, groundwater was encountered at a depth of approximately 7.5 to 9.5 feet bgs in the borings. Borings B17 through B19 were also advanced on the Colfax Grange property; however, these borings are described in the preceding discussion regarding the Cenex property. Soil samples collected from borings B16 and B29 and test pits TP01 and TP02 at depths between 11 and 12 feet contained concentrations of GRPH that exceeded the cleanup level. PCS was not encountered in soil samples collected above this depth interval in the borings or test pits and was not encountered in the soil samples collected from below this depth interval in the borings (Table 1). Due to saturated soil conditions, soil samples could not be collected from depths below 12 feet in the test pits. Boring B29 and test pits TP01 and TP02 are situated in the immediate vicinity of the gasoline station that formerly occupied the Colfax Grange property. Boring B16 is situated approximately 60 feet to the north of the former gasoline station.

PCS was not present in any of the soil samples collected from borings B24, B25, B28, or B33, or in the soil samples collected from test pit TP03, all of which were situated around the perimeter of the former gasoline station. Low concentrations of GRPH were detected in the soil samples collected from a depth of 11 feet in boring B28 and test pit TP03 (Table 1).

None of the soil samples submitted for analysis from the borings or test pits described above contained concentrations of benzene, DRPH, ORPH, VOCs, naphthalenes, or lead that exceeded their respective laboratory reporting limits and/or cleanup levels (Tables 1 through 4).

Sterling Property. Boring B14, located on the Sterling property, was originally intended to demonstrate that the impacts from the Site did not extend beneath the properties situated on the west side of North Main Street (Figure 12); however, when soil samples collected from a depth of 11 to 14 feet in boring B14 were found to contain GRPH concentrations that exceeded the cleanup level, additional historical research was performed and it was discovered that a Mobil-brand retail gasoline station and automotive repair facilities formerly operated on the Sterling property. Due to access limitations, boring B14 could not be completed as a monitoring well at the time of drilling, so boring B14A was advanced in the vicinity of boring B14 at a later date and completed as a monitoring well. A soil sample collected from boring B14A at a depth of 10 feet was found to contain concentrations of GRPH, ethylbenzene, and naphthalenes that exceeded their respective cleanup levels. Analytical testing of soil samples collected from depths of 7 to 8 feet in borings B14 and B14A did not reveal any chemical concentrations that exceeded their applicable cleanup levels (Tables 1 through 4). At the time of drilling, groundwater was encountered at a depth of approximately 7.5 feet bgs in borings B14 and B14A.

In an effort to evaluate whether the PCS encountered beneath the Sterling property originated from a release at the Site, borings B15, B26, B27, and B32 were advanced at upgradient to crossgradient locations to the south and east of the Sterling property (Figure 12). No evidence of impacts was observed during the installation of borings B15, B26, B27, or B32, and laboratory analysis of soil samples collected from these borings did not reveal any concentrations of petroleum hydrocarbons that exceeded the laboratory reporting limits. Additional forensic analyses were completed on samples collected from the Sterling property (sample B14A-10) and from the upgradient Colfax Grange property (sample TP01-12) (Appendix E). While the laboratory report indicated that the hydrocarbons in both samples were indicative of gasoline, the sample from the Sterling property exhibited detectable organic lead and isooctane, while the sample from the Colfax Grange property did not. The report concluded that these samples show significant differences in chemical composition, and these differences suggest that the gasoline present beneath the Sterling property did not result from a release at the Site.

Shell Property. Borings B20, B21, B30, and B31 were advanced along and within North Morton Street to the west (downgradient) of the Shell property (Figure 12). At the time of drilling, groundwater was encountered at a depth of approximately 5 to 9.5 feet in the borings. Strong petroleum odors were noted at depths of 7 to 11 feet during the advancement of boring B30, which is located on the east side of North Morton Street, immediately downgradient of the former Shell gasoline station. The soil samples collected from these depths were found to contain concentrations of GRPH, DRPH, ethylbenzene, total xylenes, and lead; however, none of the concentrations exceeded the applicable cleanup level. None of the soil samples collected from borings B20, B21, or B31, or the soil sample collected from a depth of 4 feet in boring B30 contained concentrations of petroleum hydrocarbons that exceeded the laboratory reporting limit (Tables 1 through 4).

Soil samples B30-08 and B30-11 were evaluated by hydrocarbon fingerprinting, and sample B30-08 was also analyzed for VOCs and petroleum hydrocarbon constituents, including organic lead (Appendix E). The results indicated that the petroleum hydrocarbons contained in both of these samples were dominantly degraded diesel-range organics. Sample B30-08 did not exhibit detectable concentrations of organic lead or manganese species. The forensic chemist further stated in a report dated August 26, 2009, that the chromatograms generated for these samples were dissimilar than others collected from other areas on or peripheral to the Site (Appendix E). As such, it is apparent that PCS associated with the release at the Shell property does not extend beneath the boundaries of the Site.

3.6.1.1 Data Quality Review

SES reviewed laboratory quality control data provided with the laboratory reports to evaluate the usability of analytical results to meet the objectives for soil sampling and analytical testing at the Site and to demonstrate conformance with the SAP and Quality Assurance Project Plan (QAPP). SES reviewed accuracy and precision data supplied by the Friedman and Bruya, Inc.; Analytical Resources, Inc.; and Fremont Analytical Inc. SES also reviewed the sample holding times, laboratory method blanks, laboratory practical quantitation limits (PQLs), and flagged results, where applicable. A summary of SES' review of laboratory quality control data is as follows:

Several of the soil samples collected from borings SP02, SP04, SP05, SP12, B14, B14A, and B29, and from test pits TP01 and TP02 were flagged by the laboratory during their internal quality assurance and quality control process. The flags included:

- *Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.*
- *The sample was diluted. Detection limits may be raised due to dilution.*
- *The pattern of peaks is not indicative of diesel.*

None of these flags is considered to have a significant effect upon the findings or conclusions of this report.

All sample analyses were completed within representative hold times. With the exception of the rinsate blanks collected during the April 2008 and March 2009 subsurface investigation, none of the field quality control (QC) blanks contained concentrations of analytes in excess of the laboratory reporting limit. The rinsate blank collected during the April 2008 subsurface investigation was incorrectly sampled from water that had been used to decontaminate the drilling and sampling equipment and was not submitted for laboratory analysis. The rinsate sample collected during the March 2009 subsurface investigation was collected directly from water in the drilling contractor's decontamination trailer and was found to contain concentrations of GRPH, toluene, ethylbenzene, and total xylenes that exceeded the laboratory reporting limit. However, the rinsate blank collected for the May 2009 event was collected correctly and did not contain detectable concentrations of GRPH or BTEX. The collection and analysis of rinsate blanks was not included within the SAP or QAPP, and the detection of COPCs in these incorrectly sampled field QC samples does not affect the usability of the data gathered during the April 2008 or March 2009 subsurface investigations.

All other laboratory quality control data were within laboratory quality control limits. The analytical results for all soil samples are considered to be usable to meet the objectives of the RI Report.

3.6.2 Groundwater

Periodic groundwater monitoring and sampling has been completed at the Site since 2001. The eight quarterly groundwater monitoring events completed since the Agreed Order was executed include those performed in September and December 2007, March, June, September and December 2008, and March and June 2009 (Tables 5 through 7). During each of these monitoring events, groundwater was measured to flow in a northwesterly to north-northwesterly direction (Figure 13). Monitoring well CMW01 was decommissioned during the UST excavation activities on the Cenex property in 2006 and was therefore not sampled during the RI activities. Monitoring wells CMW02 and CMW03 were sampled during each of the eight quarterly events conducted during the RI, and monitoring wells CMW04, CMW05, MW04, and MW06 were sampled in all but the June 2009 event, when they were removed from the quarterly program due to the demonstrated absence of impacts in groundwater collected from these wells for four or more consecutive quarters. Monitoring wells MW01 through MW03, MW05, MW07, MW08, and MW11 were sampled during each of the eight quarterly events. The City of Colfax paved over wells MW09, MW10, and MW12 in the course of repaving East Tyler Street and these wells were therefore not sampled during the September or December 2008 events. Access was restored and the wells were sampled again during the March and June 2009 events. Monitoring wells MW13 and MW15 through MW23 were sampled during each of the five most recent sampling events conducted since they were installed in June 2008; wells

MW14, MW24, and MW25 were sampled during each of the two monitoring events performed after they were installed in March 2009; and wells MW26 through MW32 were sampled in June 2009 following their installation in May 2009. Additional modifications made to the groundwater monitoring and testing scope of work are described in Section 3.4 of this report.

Time Oil Property. Monitoring wells that are situated on and in downgradient hydrologic positions relative to the Time Oil property include wells MW01 through MW08, MW11, MW13, MW22, and MW26 (Figure 14). Concentrations of one or more COPC, including GRPH, DRPH, ORPH, benzene, naphthalene, and/or MTBE, have historically been detected in excess of their respective cleanup levels in groundwater samples collected from each of these wells except MW08, MW13, and MW26. The highest concentrations have been detected in groundwater samples collected from wells located on the southern and central portions of the Time Oil property (MW01 through MW07). During the eight monitoring events conducted as part of the RI, exceedances of the applicable cleanup levels were only detected in groundwater samples collected from monitoring wells MW01 and MW02 (Tables 5 and 6). Monitoring well MW01 is located beneath the canopy on the Time Oil property, in the vicinity of the former grease pit excavation, and monitoring well MW02 is situated immediately to the north of the USTs on the southern portion of the Time Oil property. The groundwater sample collected from monitoring well MW01 during the March 2009 event exhibited a DRPH concentration of 630 µg/L, which exceeded the cleanup level of 500 µg/L (Table 5). Groundwater collected from well MW02 between September 2007 and September 2008 exhibited elevated concentrations of benzene and the samples collected from this well during the March and September 2008 events contained concentrations of GRPH and DRPH that exceeded their respective cleanup levels (Table 5). None of the groundwater samples collected from wells located on or in downgradient hydrologic positions relative to the Time Oil property contained concentrations of any COPC that exceeded the cleanup level during the most recent event conducted in June 2009 (Figure 14, Tables 5 through 7).

Cenex Property. Monitoring wells associated with the impacts encountered beneath the Cenex property include CMW01 through CMW05, MW09, MW10, MW12, MW17 through MW19, and MW23 (Figure 14). Concentrations of one or more COPCs, including GRPH, DRPH, ORPH, BTEX, and/or MTBE, have historically been detected in excess of their respective cleanup levels in groundwater samples collected from each of these wells except MW17 through MW19 and MW23. The highest concentrations have been detected in groundwater samples collected from wells CMW04, CMW05, MW10, and MW12 (Table 5), which are located to the north and northwest of the USTs and pump island on the Cenex property (Figure 14). During the eight monitoring events conducted as part of the RI, exceedances of the applicable cleanup levels were only detected in groundwater samples collected from monitoring wells MW09 and MW10, both of which are located within the East Tyler Street ROW to the north (downgradient) of the Cenex property. The groundwater samples collected from monitoring well MW09 during the December 2007 and March 2008 events exhibited ORPH concentrations of 700 µg/L and 550 µg/L, respectively, which exceeded the cleanup level of 500 µg/L. Groundwater collected from well MW10 during the December 2007 event contained a benzene concentration that exceeded the cleanup level. None of the groundwater samples collected from wells associated with the Cenex property have contained concentrations of any COPC that exceeded the cleanup level since March 2008. None of the groundwater samples collected from monitoring wells MW17 through

MW19 have contained concentrations of any COPC that exceeded the applicable cleanup level (Tables 5 through 7).

Colfax Grange Property. Monitoring wells associated with the gasoline station that formerly operated on the southwestern portion of the Colfax Grange property include MW16, MW24, MW25, MW28, MW29, and MW32 (Figure 14). ORPH was detected at concentrations exceeding the cleanup level in groundwater samples collected from monitoring wells MW29 and MW32 during the June 2009 monitoring event. Monitoring wells MW29 and MW32 are situated to the east and southeast of the former gasoline station, respectively. None of the groundwater samples collected from monitoring wells MW16, MW24, MW25, or MW28 have contained concentrations of COPCs that exceeded their applicable cleanup levels (Tables 5 through 7).

Sterling Property. Monitoring wells associated with the gasoline station that formerly operated on the Sterling property include MW14, MW15, and MW27 (Figure 14).. Groundwater samples collected from monitoring well MW14 during the March and June 2009 events contained concentrations of GRPH, DRPH, and benzene that exceeded the applicable cleanup levels. The groundwater sample collected from monitoring well MW14 in March 2009 also contained a concentration of ethylbenzene that exceeded the cleanup level (Table 5). MW14 is located in the immediate vicinity of the former gasoline station on the Sterling property. During the RI, none of the groundwater samples collected from monitoring wells MW11, MW13, MW15, or MW27, which are located to the north, south, and southeast of the Sterling property, has contained concentrations of any COPC that exceeded the applicable cleanup level (Tables 5 through 7).

Shell Property. Monitoring wells associated with the gasoline station that formerly operated on the Shell property include MW20, MW21, MW30, and MW31 (Figure 14). Groundwater samples collected from monitoring well MW20 during the June 2008 and the March and June 2009 event contained concentrations of DRPH that exceeded the cleanup level. The groundwater sample collected during the June 2009 event from monitoring well MW30 contained concentrations of GRPH and DRPH that exceeded their respective cleanup levels. Monitoring wells MW20 and MW30 are situated to the west and northwest of the former Shell property, respectively, in downgradient hydrologic positions. None of the COPCs have been detected at concentrations in excess of the applicable cleanup levels in groundwater samples collected from monitoring wells MW21 or MW31, which are situated to the southwest and north-northwest of the Shell property, respectively (Tables 5 through 7).

3.6.2.1 Data Quality Review

SES reviewed laboratory quality control data provided with the laboratory reports to evaluate the usability of analytical results to meet the objectives for the March, June, September, and December 2008 and March and June 2009 groundwater monitoring and sampling events at the Site. Each report includes a summary of our data quality review. SES reviewed accuracy and precision data supplied by the Friedman and Bruya, Inc. and Analytical Resources, Inc. laboratories and calculated the relative percent difference for the field duplicate samples collected by SES during the RI. SES also reviewed the sample holding times, laboratory method blanks, and laboratory PQLs, where applicable. The laboratory reports and detailed discussions regarding the results of SES' reviews of laboratory quality control data are presented in the quarterly monitoring reports provided under separate cover (SES 2007e, 2008e, 2008f, 2008g, 2009a, 2009b, 2009e). The analytical results for the groundwater samples and field duplicates collected in the course of the quarterly monitoring activities are considered to be usable to meet the objectives of the RI. Note that Table 2 of the quarterly monitoring report associated with the June 2009 sampling event incorrectly reported that the concentrations of carcinogenic PAHs (cPAHs) exceeded the total toxicity equivalent groundwater cleanup level during the March 2009 monitoring event. The table has since been corrected.

As reported in the previous quarterly groundwater monitoring reports, groundwater samples collected during the RI from wells throughout much of the Site exhibited elevated concentrations of DRPH and/or ORPH that were flagged by the laboratory. The laboratory reports indicated that the chromatogram peaks are not indicative of DRPH or ORPH. However, for the purposes of this report, the reported concentrations are assumed to be representative of these compounds.

4.0 TERRESTRIAL ECOLOGICAL EVALUATION

A Terrestrial Ecological Evaluation (TEE) is required by WAC 173-340-7940 at locations where a release of a hazardous substance to soil has occurred. The regulation requires that one of the following actions be taken:

- Documenting a TEE exclusion using the criteria presented in WAC 173-340-7491;
- Conducting a simplified TEE in accordance with WAC 173-340-7492; or
- Conducting a site-specific TEE in accordance with WAC 173-340-7493.

There are less than 1.0 acre of contiguous undeveloped land on the Site or within 500 feet of any area of the Site, so the Site qualifies for an exclusion based on WAC 173-340-7491(c)(i). Furthermore, the results of ranking for the simplified TEE under Table 749-1 of WAC yields a score of 12, which qualifies the Site for TEE exclusion under the criteria set forth in WAC 173-340-7492 (Appendix H). No further consideration of ecological impacts is required under MTCA.

5.0 SITE CONCEPTUAL MODEL

This section presents a conceptual understanding of the Site and identifies potential or suspected sources of hazardous substances, types and concentrations of hazardous substances, potentially contaminated media, and actual and potential exposure pathways and receptors.

5.1 CHEMICALS OF CONCERN

Based upon the results of the investigations conducted to date, the COCs for the Site include GRPH, DRPH, ORPH, BTEX, MTBE, and naphthalene. Although lead was detected at a concentration exceeding the cleanup level in a single shallow soil sample collected from beneath the East Tyler Street ROW, the elevated concentration appears to be the result of the overlying road fill material and is not associated with a release at the Site. Therefore, lead is not considered to be a COC for the Site.

5.2 CONFIRMED AND SUSPECTED SOURCE AREAS

The following is a summary of the confirmed and potential sources of the contamination identified beneath and in the vicinity of the Site.

5.2.1 Confirmed Sources

During the course of the RI activities the following contaminant sources were confirmed to have resulted in adverse environmental impacts to the Site:

- **The gasoline station formerly located on the southwestern portion of the Colfax Grange property.** Petroleum-contaminated soil and groundwater were encountered in the vicinity of the structure labeled “Gasol & Oils” on the 1939 Sanborn Map. The PCS was not present in near-surface soil and appeared limited to the groundwater table fluctuation zone, which suggests that the location of the source (i.e. the USTs and/or pump island) was not explored or that the source had been removed.
- **The historical operation of a gasoline station on the Cenex property.** The Cenex property has been occupied by a gasoline station since 1985. A release of petroleum that occurred during the filling of the tanks was confirmed in 2004 and additional releases at the station are presumed to have occurred as a result of the USTs and product delivery systems. The 1985-vintage USTs and associated product delivery systems were excavated and removed from the Cenex property in 2006 and were replaced by the three currently existing USTs and associated pump islands. Petroleum contamination was encountered during the 2006 excavation activities. These impacts appear to be the result of a combination of surficial releases and leaking USTs and product delivery systems associated with the 1985-vintage system. There is no evidence to suggest that the current USTs or product delivery systems on the Cenex property have contributed to the contamination present beneath the Site.
- **The historical operation of gasoline stations and automotive repair facilities on the Time Oil property.** The 1939 Sanborn Map indicates that a gasoline station was situated on the southwestern portion of the Time Oil property and that a repair facility (indicated as “grease” on the map) was located on the central portion of the property at that time. No information was available in the public record regarding the number of pump islands or the number, location, type, size, content, or current status of the USTs that were associated with the station. Another gasoline station that was equipped with a waste oil UST, a heating oil UST, and three USTs containing fuel was constructed on the Time Oil property in 1956. The service station building was located on the east-central portion of the property, the USTs were situated on the southeastern portion of the property, and the pump islands were located to the west of the service station building. The 1956-vintage USTs operated on the property until 1976 when they were replaced with three of the four currently existing USTs, which are also located on the southeastern portion of the Time Oil property. The fourth existing UST was installed beneath the southwestern portion of the property in 1999 during upgrade activities. During the upgrade activities in 1999, a grease pit and two drums were encountered beneath the east-central portion of the Time Oil property. The USTs and product delivery systems associated with each of these three vintages of gasoline stations are considered sources for the contamination encountered beneath the Time Oil property. Additional sources include the automotive repair facilities that have occupied the property and the buried drums that were encountered during the 1999 excavation activities.

5.2.2 Potential Sources

The results of the soil and groundwater sampling conducted in the course of the RI activities indicate that the following potential contaminant sources are not contributing to the impacts currently present beneath the Site:

- **Colfax Grange Property.** Several potential sources that do not appear to have resulted in adverse environmental impacts to the Site have historically been located on the Colfax Grange property. These include:
  - The heating oil UST that was removed from the north side of the Colfax Grange Building in March 2009;
  - The ASTs that were formerly located adjacent to the north side of the Colfax Grange Building;
  - The gasoline UST situated near the northeast corner of the Colfax Grange Building;
  - The gasoline UST that was closed-in-place beneath the Colfax Grange Building; and
  - The hazardous materials and petroleum products that have been transported on the railroad tracks that separate the Colfax Grange property from the Cenex property.

  Although these potential sources are located in upgradient hydrologic positions relative to the Site, no evidence of contamination was observed in soil or groundwater samples collected from borings or wells located between the potential sources and the Site. Considering these findings, the potential risk for adverse environmental impacts to the Site appears low and these source areas have not been included within the Site boundaries. In the event that future groundwater monitoring activities suggest that contamination from one or more of these potential source areas is migrating toward or beneath the Site, additional investigation will be warranted.

- **Sterling Property.** The Sterling property, located across North Main Street to the west of the Time Oil property, formerly operated as a Mobile-brand service station, an auto repair facility, and a possible bulk fuel distribution facility. PCS was encountered in two borings advanced very near to each other on the Sterling property and groundwater collected from a monitoring well on the Sterling property contained concentrations of petroleum hydrocarbons and BTEX constituents that exceeded their respective cleanup levels. The extent of impacts associated with the confirmed release at the Sterling property has not been fully assessed; however, the results of soil and groundwater sampling conducted at locations between the Site and the Sterling property have confirmed that the release at the Sterling property does not present a risk of impacts to the Site. The subsurface investigations and forensic analyses performed in the course of the RI also indicate that the impacts associated with the Site do not extend beneath the Sterling property and have not comingled with the impacts associated with that property. As such, the source areas on the Sterling property have not been included within the boundaries of the Site. In the event that future groundwater monitoring activities suggest the contamination from the Site has comingled with that of the Sterling property, additional investigation will be warranted.

- **Shell Property.** The Shell property, located to the east of North Morton Street and north of the railroad tracks, has historically been occupied by several potential contaminant sources, including a Shell-brand gasoline station, an oil warehouse, a gasoline tank and pump, and AST containing oil. Petroleum-contaminated groundwater has been encountered in monitoring wells MW20 and MW30, which are located between the Shell property and the Site; however, acknowledging the substantial separation distance and crossgradient location of the impacts relative to the Site, along with the apparent rapid attenuation of contaminant concentrations with distance from the Shell property, the release(s) at the Shell property do not appear to present a significant risk of impacts to the Site and these source areas have not been included within the Site boundaries.

- **Eastern Colfax Grange Property.** The Eastern Colfax Grange property, located adjacent to the east of the Colfax Grange property, has historically been occupied by an automotive repair facility that operated within the Colfax Grange Building No. 2, as well as a cardlock fueling facility, oil warehouse, and bulk fuel distribution facility that operated on the eastern portion of the Eastern Colfax Grange property. Although these potential sources are located in upgradient hydrologic positions relative to the Site, no evidence of contamination was observed in soil or groundwater samples collected from borings or wells located between the potential sources and the Site. Considering these findings, the potential risk for adverse environmental impacts to the Site appears low.

5.3 MEDIA OF CONCERN

Based on the findings of the RI, soil, groundwater, and soil vapor are the media of concern at the Site. Considering the substantial separation distance between the Site and the nearest surface water body and the current absence of significant contaminant concentrations in groundwater collected from downgradient wells at the Site, there does not appear to be a risk of impacts to surface water or sediment. In the event that impacts attributable to a release from the Site are encountered in downgradient wells during future groundwater monitoring events, additional investigation of this potential pathway will be required.

Significant volatilization to outdoor air from subsurface impacts does not appear likely to occur. However, the potential for vapor intrusion into indoor air will be considered in the selection of cleanup levels and points of compliance.

5.4 DISTRIBUTION OF CONTAMINANTS IN SOIL

The estimated extent of residual PCS is depicted on Figure 12. The table shown on the figure includes only the analytical results of samples collected from locations where PCS was encountered following completion of the excavation activities on the Time Oil and Cenex properties. Soil samples that were subsequently overexcavated are not depicted on the figure or included in the discussion below.

5.4.1 Time Oil Property

As shown on Figure 12, PCS remains beneath the southwestern portion of the Time Oil property. The PCS appears to extend a short distance beneath the adjacent North Main

Street ROW and beneath the western portion of the pump island on the Time Oil property. The petroleum contamination appears to be limited to the uppermost 11 feet of soil. The lateral extent of PCS originating from the Time Oil property is defined by the absence of impacts in soil samples collected from borings SP01, SP03, SP06, SP07, MW03, MW04, B22, and B26.

- GRPH was detected at concentrations exceeding the cleanup level in soil collected from borings SP02, SP04, and SP05, which are located on the southwestern portion of the Time Oil property (Figure 15); the highest concentrations were detected in soil beneath the western portion of the pump islands.
- BTEX constituents, including benzene, were detected at concentrations exceeding the applicable cleanup levels in soil samples collected from depth of 3 to 8 feet in boring SP02, located beneath the western portion of the pump island canopy. Benzene was not detected in any of the other soil samples collected from the Time Oil property (Figure 16).
- ORPH was detected at concentrations that exceeded the cleanup level in soil collected from the western sidewall of the 1999 excavation on the Time Oil property (Figure 17). None of the soil samples collected during subsequent investigations have contained elevated ORPH concentrations.
- Naphthalenes were detected at concentrations exceeding the cleanup level in soil samples collected from borings SP02 and SP05, located beneath the western portion of the pump island and the area to the west of the 8,000-gallon UST (Figure 18).
- MTBE was detected at a concentration exceeding the cleanup level in soil collected from boring SP02 at a depth of approximately 7 feet (Figure 12). MTBE was not detected in any of the other soil samples collected throughout the Site.
- DRPH was not detected at concentrations exceeding the cleanup level in any of the soil samples collected from the Time Oil property.

5.4.2 Cenex Property

The results of soil sampling conducted by Quantum and SES following the completion of the UST excavation in 2006 suggest that PCS remains along the sidewalls and floor of the former UST excavation. The PCS appears to be limited to the immediate vicinity of the excavation and was primarily encountered at depths of 10 to 14 feet, although isolated shallow impacts were encountered in the vicinity of the western, southern, and northern sidewalls of the excavation. PCS was not present in any of the soil samples collected from depths greater than 14 feet. The lateral extent of PCS originating from the Cenex property is defined by the absence of impacts in soil samples collected from borings SP08, SP09, SP10, SP13, SP16, SP17, B17, B18, B19, and B23.

- GRPH was detected at concentrations exceeding the cleanup level in several soil samples collected from the floor and sidewalls that were left in place following completion of the 1985-vintage UST excavation activities. GRPH was also detected at concentrations exceeding the cleanup level in soil samples collected from boring SP12, located in the vicinity of the diesel pump island. The highest GRPH concentrations were detected in samples collected from the floor of the excavation (Figure 15).

- Benzene was detected at concentrations exceeding the cleanup level in several soil samples collected from the floor and sidewalls of the UST excavation at depths between 6 and 11 feet. Elevated concentrations of benzene were also detected in shallow soil collected from borings located to the north (SP11) and south (SP14 and SP15) of the UST excavation, respectively (Figure 16).
- Lead was detected at a concentration exceeding the cleanup level in a single near-surface (3 to 4 foot depth) soil sample collected from boring SP11, which is located within the East Tyler Street ROW. This sample was collected from native soil located immediately below the fill material used in the construction of the roadway (Appendix D). The elevated lead concentration appears to be the result of fill material used to construct the ROW and is not associated with a release at the Site (Figure 12). This conclusion is supported by the fact that elevated lead concentrations were not detected in soil samples collected from other locations where PCS was encountered and that none of the groundwater samples collected from monitoring wells at the Site have contained elevated concentrations of total or dissolved lead.
- ORPH, naphthalenes, and MTBE were not detected at concentrations exceeding the cleanup level in any of the soil samples collected from the Cenex property (Figure 17).
- DRPH was not detected in any of the post-excavation soil samples collected in the course of the RI subsurface activities.

5.4.3 Colfax Grange Property

PCS was encountered in several of the test pits and borings advanced on and in the vicinity of the gasoline station that formerly operated on the southwestern portion of the Colfax Grange property. The PCS was encountered at a depth of approximately 11 to 12.5 feet in test pits TP01 and TP02 and in borings B16 and B29. No evidence of petroleum contamination was observed in unsaturated soil located above the water table. The vertical extent of impacts could not be assessed in the vicinity of test pits TP01 or TP02; however, PCS was not present at a depth of 14 to 15 feet in boring B16, which suggests that the vertical extent is limited. The lateral extent of PCS originating from the former gasoline station on the Colfax Grange property is defined by the absence of impacts in soil samples collected from borings B17, B23, B24, B25, and B33, and the very low concentrations of COCs detected in a single soil sample collected from boring B28.

- GRPH was detected at concentrations exceeding the cleanup level in soil samples collected from test pits TP01 and TP02 and from borings B16 and B29. The highest GRPH concentrations were detected in soil collected from TP01 at a depth of 11 feet. Soil collected from a depth of 11 feet in test pit TP03 and boring B28 contained GRPH concentrations that were below the cleanup level (Figure 15).
- Benzene, DRPH, ORPH, naphthalenes, and MTBE were not detected at concentrations exceeding the cleanup level in any of the soil samples collected from the Colfax Grange property (Figures 16 through 18).

5.4.4 Sterling Property

PCS was encountered at depths of approximately 10 to 14 feet in the two borings that were advanced on the Sterling property. Borings B14 and B14A were advanced in close proximity to each other on the western portion of the Sterling property. The full lateral and vertical extents of the PCS was not assessed; however, the impacts that resulted from the gasoline station that formerly operated on the Sterling property do not appear to have migrated beneath the North Main Street ROW or to have comingled with the impacts from the Site, as evidence by the absence of impacts in soil samples collected from borings B15, B26, and B27.

- GRPH was detected at concentrations exceeding the cleanup level in soil samples collected from borings B14 and B14A (Figure 15).
- Naphthalene was detected at concentrations exceeding the cleanup level in soil samples collected from boring B14A (Figure 18).
- Benzene, DRPH, ORPH, and MTBE were not detected at concentrations exceeding the cleanup level in any of the soil samples collected from the Sterling property (Figures 16 and 17).

5.4.5 Shell Property

None of the soil samples collected from borings advanced in the vicinity of the Shell property (borings B20, B21, B30, and B31) contained concentrations of any COC that exceeded its respective cleanup level (Figures 15 through 18).

5.5 DISTRIBUTION OF CONTAMINANTS IN GROUNDWATER

The following sections describe the historical and current extents of COCs in groundwater beneath the Site. Although contamination has historically been encountered in groundwater collected from monitoring well MW14, located on the west side of North Main Street, and in monitoring wells MW20 and MW30, located along North Morton Street to the west of the Site, these impacts are attributed to releases that occurred on the Sterling and Shell properties, respectively, and are not included in the discussion below.

5.5.1 Historical Distribution of Contaminants in Groundwater

Petroleum-contamination that resulted from releases at the Site has historically been encountered in groundwater samples collected from monitoring wells located throughout much of the Cenex, Colfax Grange, and Time Oil properties and from the wells situated within the East Tyler Street ROW (Figures 19 through 22). Petroleum-contamination has also historically been encountered in groundwater samples collected from monitoring well MW11, located to the northwest of the Time Oil property, north of the Sterling property.

Isoconcentration contours showing the maximum concentrations of GRPH, DRPH, ORPH, benzene, naphthalenes, and MTBE that have historically been detected in groundwater samples collected from the Site are depicted on Figures 19 through 24, respectively. The maximum concentration of the COC is shown in parentheses next to those wells where it has historically been detected in groundwater. Concentrations of COCs that may have been detected in groundwater collected from monitoring wells MW20, MW21, MW30, and MW31 are not included on Figures 19 through 22 as these wells are not included within the Site boundaries. Groundwater containing concentrations of GRPH and benzene exceeding their respective cleanup levels has historically been limited to the Cenex and Time Oil properties, as well as the East Tyler Street and North Main Street ROWs (Figures 19 and 22). The GRPH and benzene contamination extended in a north-northwesterly direction from the railroad tracks on the south side of the Cenex property to the central portion of the Time Oil property, and also may have extended to monitoring well MW11 on the west side of North Main Street; the highest concentrations of GRPH and benzene were detected in groundwater collected from monitoring wells MW10 and CMW05, located along the northern boundary of the Cenex property.

The maximum historical extent of groundwater containing concentrations of DRPH that exceeded the cleanup level appears similar, but slightly smaller than that of GRPH and benzene (Figure 20). The highest DRPH concentration were detected in groundwater samples collected from monitoring wells located along the northern margin of the Cenex property (MW10 and MW12) and beneath the southern and central portions of the Time Oil property (MW02 and MW01, respectively).

Naphthalenes have been detected at a concentration exceeding the cleanup level in a single groundwater sample collected from monitoring well MW02. The estimated maximum historical extent of the naphthalene contamination in groundwater is presented on Figure 23. The remaining PAHs have not been detected at elevated concentrations in any of the groundwater samples collected from the Site.

MTBE has been detected at concentrations exceeding the cleanup level in groundwater samples collected from monitoring wells located along the northern boundary of the Cenex property and on the southwestern portion of the Time Oil property (Figure 24). The highest concentrations of MTBE were detected in groundwater collected from monitoring well MW12.

ORPH has been detected at concentrations exceeding the cleanup level in groundwater collected from several of the monitoring wells at the Site, including MW01, MW09, MW29, MW32, and CMW03 (Figure 21). Monitoring well MW01 is situated in the vicinity of the former grease pit on the Time Oil property and monitoring wells MW29 and MW32 are situated proximal to the gasoline station that formerly operated on the Colfax Grange property. MW09 is located within the East Tyler Street ROW and CMW03 is located adjacent to the diesel pump island on the Cenex property. Considering the substantial separation distances between these wells and the fact that elevated concentrations have not been consistently detected, the distribution of ORPH-contaminated groundwater appears to have been limited to the immediate vicinities of these wells.

5.5.2 Current Distribution of Contaminants in Groundwater

Following the excavation and removal of the USTs and associated PCS from the Cenex property in 2006, the concentrations of COCs in groundwater beneath the Cenex and Time Oil properties and the East Tyler Street ROW decreased significantly. During the most recent groundwater monitoring event conducted in June 2009, none of the COCs was detected at concentrations exceeding the applicable cleanup level in any of the groundwater samples collected from the Cenex or Time Oil properties or the East Tyler Street ROW. As shown on Figure 14, ORPH was the only COC detected at a concentration exceeding the applicable cleanup level during the most recent monitoring event conducted in June 2009. The elevated ORPH concentrations were detected in groundwater collected from monitoring wells MW29 and MW32, located in the vicinity of the gasoline station that formerly operated on the Colfax Grange property. Over the course of the last four quarterly monitoring events, the only other COC detected at a concentration exceeding the cleanup level from these locations was DRPH in a groundwater sample collected from monitoring well MW01 in March 2009. It should be noted that monitoring wells MW09 and MW10, which have historically contained elevated concentrations of COCs, could not be sampled during the September and December 2008 monitoring events, but did not exhibit elevated concentrations of any COCs during the subsequent monitoring events conducted in March and June 2009.

Concentrations of COCs have been detected in excess of their respective cleanup levels in groundwater collected from monitoring wells MW14 and MW30; however, the impacts are the result of releases from off-Site sources and are not included within the Site boundaries.

5.6 SITE DEFINITION

Based on the findings from the investigations conducted by SES and others between May 1999 and June 2009 and the historical research presented in this report, the Site has been redefined to include the following:

- The extent of petroleum-contaminated soil and groundwater that originated from releases at the retail gasoline stations and automotive repair facilities that have historically operated on the Time Oil property. The current extent of these impacts appears to be limited to soil beneath the southwestern portion of the Time Oil property and the easternmost portion of the North Main Street ROW.
- The extent of petroleum-contamination soil and groundwater that originated from releases at the retail gasoline station that formerly operated on the Cenex property. The current extent of these impacts appears to be limited to a “rind” of soil that was left in place following the excavation of the 1985-vintage USTs. The PCS associated with the Cenex property appears to extend a short distance beneath the East Tyler Street ROW.
- The extent of petroleum-contamination soil and groundwater that originated from releases at the retail gasoline station that formerly operated on the southwest portion of the Colfax Grange property. The impacts to soil and groundwater from this source extend between monitoring wells MW29 and MW16.
- The Site boundary limits are depicted on Figure 25.

5.7 CONTAMINANT FATE AND TRANSPORT

This section includes a discussion of the transport mechanisms and environmental fate of petroleum hydrocarbons in the subsurface.

5.7.1 Transport Mechanisms Affecting Distribution of Petroleum Hydrocarbons in the Subsurface

The environmental transport mechanisms of petroleum hydrocarbons are related to its separate phases in the subsurface. The four phases of petroleum contamination in the subsurface are vapor (in soil gas), residual contamination (sorbed contamination on soil particles), aqueous phase (contaminants dissolved in groundwater), and separate-phase hydrocarbons (SPH). Each phase is in equilibrium in the subsurface with the other phases, and the relative ratio of total subsurface contamination by petroleum hydrocarbons between the four phases is controlled by dissolution, volatilization, and sorption. SPH were not encountered in the course of this RI.

Petroleum hydrocarbons observed in soil and groundwater beneath the Site have been transported from source areas and distributed throughout the Site primarily by dispersive transport mechanisms within the saturated zone. As with other chemicals, petroleum hydrocarbons tend to spread out as groundwater flows away from the source area. The extent of the hydrocarbon plume depends on the volume of the release, soil density, particle size, and seepage velocity. No evidence was observed to suggest that the utility corridors or former stream channels beneath the Site have acted as preferential pathways for contaminant migration.

5.7.2 Environmental Fate in the Subsurface

The most significant fate process for petroleum hydrocarbons at the Site appears to be biodegradation, i.e., natural attenuation. Biological degradation of contaminants in dissolved, residual, and vapor phases is possible under a variety of environmental conditions. Degradation products of gasoline constituents are generally less toxic than their parent species. Petroleum hydrocarbons that are the most mobile (having the least viscosity and most solubility in water) are also the most easily biodegraded (e.g., aromatics). Because gasoline constituents contain thousands of carbon compounds, there is a vast array of biochemical transformations that occur in situ in the soil and groundwater media. For example, hydroxylation can alter hydrocarbon compounds to ketone or alcohol products that are less toxic or more biologically available; aromatic reduction can convert aromatic groups to naphthenes; ring cleavage can destroy aromatic functional group species; and reduction can alter olefin functionality. The alteration and destruction of gasoline constituents occurs both by microbial enzyme catalytic reactions on the contaminant substrate or by direct digestion of contaminants as an electron donor or acceptor. Any number of reactions can occur within the subsurface by microorganisms that change the chemical distribution and concentrations of the contaminants.

The time frames over which these reactions occur vary depending on any number of limiting factors, primarily the availability of oxygen. For example, BTEX constituents rapidly degrade under aerobic conditions but tend to persist for several years and/or decades under the anoxic conditions typical of most subsurface environments.

Volatilization of the contaminant plume can result in mass removal of hydrocarbons by releasing vapor into the vadose zone, where soil hydrocarbon vapor can be biodegraded to an extent not possible in SPH or dissolved phases, depending on environmental conditions. Sorption of contaminants onto soil particles or interstitial soil spaces can immobilize contaminants. Contaminants sorbed onto soil particles are not free to transport via aqueous transport or SPH advection. Residual contamination, although not necessarily broken down quickly over time, is generally immobile.

5.8 PRELIMINARY EXPOSURE ASSESSMENT

The two general types of receptors at risk from exposure associated with the presence of COCs at the Site (i.e., human beings, terrestrial plants/animals) are segregated by evaluating the terrestrial ecological risk and human health risk. As discussed in Section 4.0, Terrestrial Ecological Evaluation, the Site qualifies for a TEE exclusion in accordance with WAC 173-340-7491 and WAC 173-340-7492 (Appendix H); therefore, mitigating the potential human health risk associated with exposure to the COCs in the affected media at the Site will be the primary objective of any cleanup action implemented. This section presents the evaluation and conclusions pertaining to the exposure pathways at the Site. The goal of this subsection is to identify potential exposure scenarios that will assist in the evaluation of potential feasible cleanup alternatives that are protective of human health.

5.8.1 Direct Contact Pathway

Direct contact with soil and groundwater exhibiting concentrations of petroleum hydrocarbons in excess of the cleanup levels is limited to human receptors that come into close contact with the media via direct exposure, including dermal contact or ingestion of excavated soil or groundwater. The standard point of compliance for soil contamination beneath a site is approximately 15 feet bgs, which represents a reasonable estimate of the depth that could be accessed during normal site redevelopment activities (WAC 173-340-740[6][d]). Although petroleum-contaminated soil is present within 15 feet of the ground surface, due to the existing pavement contaminated soil beneath the Site is not easily accessed, thereby minimizing the direct contact pathway. However, until such point as the contaminated soil and groundwater are removed from the Site or an institutional control limiting direct contact is implemented, the direct contact pathway is complete.

To further assess the risk to human health via direct contact pathway, soil samples collected from the Site were evaluated using the MTCATPH11.1 Method B Worksheet. Considering the distinct nature of the three releases, the TPH concentrations in soil that are considered protective via direct exposure were calculated for each of the three properties that comprise the Site. The results for the Time Oil, Cenex, and Colfax Grange properties are presented below:

5.8.1.1 Time Oil Property

The Method B analysis of soil collected from the Time Oil property, which was performed using the arithmetic mean of the concentrations in soil samples collected from borings SP01 through SP07, SP17, B22, and B26, along with the EPH-VPH results from soil samples SP02-07-08 and SP05-07-08, indicated that a total petroleum hydrocarbon (TPH) concentration of 2,892 mg/kg is considered protective for human health via the direct contact pathway (Appendix I). Based on these calculations, soil in the vicinity of borings SP02 and SP05 is not considered protective of human health via the direct contact pathway using the MTCA Method B criteria. TPH concentrations in soil collected from the remaining borings are considered protective of human health via the direct contact pathway.

5.8.1.2 Cenex Property

The Method B analysis of soil collected from the Cenex property, which was performed using the arithmetic mean of the concentrations in soil samples collected from borings SP08 through SP16, B17 through B19, and B23, along with the EPH-VPH results from soil samples SP11-05-06, SP12-10-12, SP14-07-08, and SP16-06-07, indicated that a TPH concentration of 2,354 mg/kg is considered protective for human health via the direct contact pathway (Appendix I). Based on these calculations, TPH concentrations in residual soil beneath the Cenex property are considered protective of human health via the direct contact pathway.

5.8.1.3 Colfax Grange Property

The Method B analysis of soil collected from the Colfax Grange property, which was calculated using the arithmetic mean of the concentrations in soil samples collected from borings B16, B24, B25, B28, B29, and B33, and test pits TP01 through TP03, along with the EPH-VPH results from soil samples B16-11-12 and TP01-12, indicated that a TPH concentration of 2,221 mg/kg is considered protective for human health via the direct contact pathway (Appendix I). Based on these calculations, the TPH concentrations in all of the soil samples collected from the vicinity of the former gasoline station on the Colfax Grange property are considered protective of human health via the direct contact pathway.

5.8.2 Soil-to-Groundwater Pathway

Results from this RI and previous investigations suggest that soil contamination exists in the subsurface at depths greater than the seasonal high groundwater level. The petroleum-contaminated soil can therefore potentially act as an ongoing source to groundwater contamination as the hydrocarbons desorb from the soil particles into water. The groundwater analytical data would therefore suggest that the soil to groundwater pathway is complete beneath portions of the Site. The results of the MTCATPH11.1 Method B Worksheet calculations (Appendix I) suggest that the TPH concentrations in soil that are considered protective of human health via the leaching to groundwater pathway for the Time Oil, Cenex, and Colfax Grange properties are 81 µg/L, 17 µg/L, and 61 mg/L, respectively. Although the detected concentrations beneath each of the three properties that comprise the Site exceed these concentrations, the results of SES' (SES 2008d) and GEI's (GEI 2003) hydrogeologic studies of the Site and vicinity, along with information obtained from City of Colfax and Whitman County personnel confirm that the shallow water-bearing zone in the vicinity of the Site is not currently utilized for beneficial purposes. In addition, the widespread surficial application of herbicides, pesticides, and fertilizers in the Colfax region have degraded near-surface soil, surface water, and shallow groundwater conditions in the vicinity of the Site. Considering this degradation, along with the fact that the City of Colfax is served by the municipal drinking water system, it is unlikely that the shallow water-bearing zone in the vicinity of the Site will be used for beneficial purposes in the future. As such, the shallow water-bearing zone beneath the Site should not be classified as potable under WAC 173-340-720. Furthermore, considering the dramatic and sustained improvement in the environmental quality of groundwater conditions beneath the Site that has been observed since the 2006 excavation from the Cenex property, it is apparent that the soil-to-groundwater pathway is largely incomplete. Additional monitoring of the groundwater conditions beneath the Site will be required to demonstrate continued compliance with Ecology's cleanup criteria.

5.8.3 Vapor Pathway

Volatile COCs, inclusive of benzene, have been identified at the Site. Baseline screening levels have not yet been established for use by Ecology; however, both the EPA and the State of Oregon Department of Environmental Quality (ODEQ) have established appropriate screening levels that may be applied to sites within Washington State. For most petroleum contamination sites, benzene is the primary COC associated with vapor intrusion issues. Acknowledging the absence of elevated benzene concentrations in groundwater collected from monitoring wells at the Site since September 2008, volatilization of benzene from groundwater does not appear to present a risk to human health via vapor intrusion. The Site-specific ODEQ Risk-Based Concentrations spreadsheet (Appendix J), which includes soil-to-indoor air pathways, indicates that a benzene concentration of 0.230 mg/kg in soil beneath the Site would be protective of occupational vapor intrusion scenarios. With the exception of soil samples collected from borings SP02 and SP11, none of the soil samples collected during the RI contained concentrations that exceeded this threshold value. Considering that these borings are situated beneath an active fuel-dispensing pump island and a public ROW, respectively, along with the fact that none of the soil samples collected in the vicinity of the adjacent residential properties contained elevated benzene concentrations, the apparent risk for vapor intrusion to indoor air at the Site appears very low and this pathway is considered incomplete.

5.8.4 Surface Water

Migration of contaminants via surface water infiltration and leaching to the subsurface is mitigated by the asphalt and concrete that covers most of the Site and adjacent ROWs. While both the Time Oil property and the Colfax Grange support fueling operations, both systems are equipped with electronic inventory and spill catchments and alarms. A small open storm drainage impoundment associated with a stormwater conveyance system is located to the east of the Site. The impoundment directs stormwater runoff through underground piping to an effluent point in a ditch along the east side of Bellinger Street that directs flow to the north into the Palouse River. Groundwater from the Site is not discharged to the impoundment and there are no other surface water bodies currently on or adjacent to the Site. Groundwater samples collected from downgradient monitoring wells situated between the Site and the Palouse River have not contained concentrations of COCs in excess of their respective cleanup levels for several years. Therefore, there is a low risk/potential for human contact with contaminated surface water or for contaminant migration through this medium and the pathway is considered incomplete. In the event that petroleum-contaminated groundwater is encountered in downgradient wells during future monitoring events, additional consideration of this pathway will be required.

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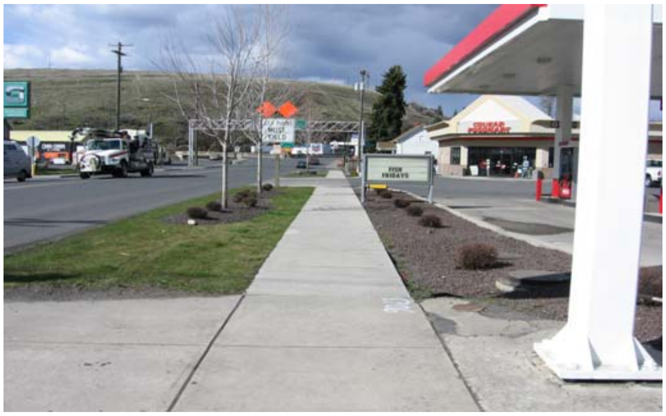
7.0 LIMITATIONS

The findings and conclusions documented in this report were prepared for the specific application to this project and were developed in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area. A potential always remains for the presence of unknown, unidentified, or unforeseen subsurface contamination on portions of the Property not sampled, such as under buildings. No warranty, expressed or implied, is made.

Site Photographs

Photograph 1. View looking west across the southern portion of the Time Oil property toward the Sterling Savings Bank across North Main Street.

Photograph 2. View looking southwest toward boring B26, completed as monitoring well MW26, located in the right-of-way along the east side of North Main Street adjacent to the Time Oil property.



Photograph 3. View looking north toward the Time Oil property along North Main Street. The Cougar Mart convenience store in the background.

Photograph 4. View looking south toward the Time Oil property along North Main Street. The Cenex property is south beyond the Time Oil property.

Photograph 5. View looking north toward the Sterling property, located west of the Time Oil Property across North Main Street.

Photograph 6. View looking southeast toward the Cenex property along East Tyler Street, south of the Time Oil property.

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Date:	September 15, 2009
Drawn By:	CCC
Chk By:	RKB
File ID:	Project Photographs

SITE PHOTOGRAPHS

NCPC Site
North Main Street and East Tyler Street
Colfax, Washington

Photograph 7. View looking east across the north end of the Colfax Grange Supply Company building.

Photograph 8. View looking south across the west side of the Colfax Grange Supply Company building.

Photograph 9. View looking west across the north end of the Colfax Grange Supply Company building. The Cenex property is located north of the railroad tracks.

Photograph 10. View of the installation of MW32 looking northeast toward the Colfax Grange Supply Company building along East Harrison Street.

Photograph 11. View of the excavation of TP01 looking south along the west side of the Colfax Grange Supply Company building along North Main Street.

Photograph 12. View of the installation of MW31 (an off-Site well) looking northeast along North Morton Street.

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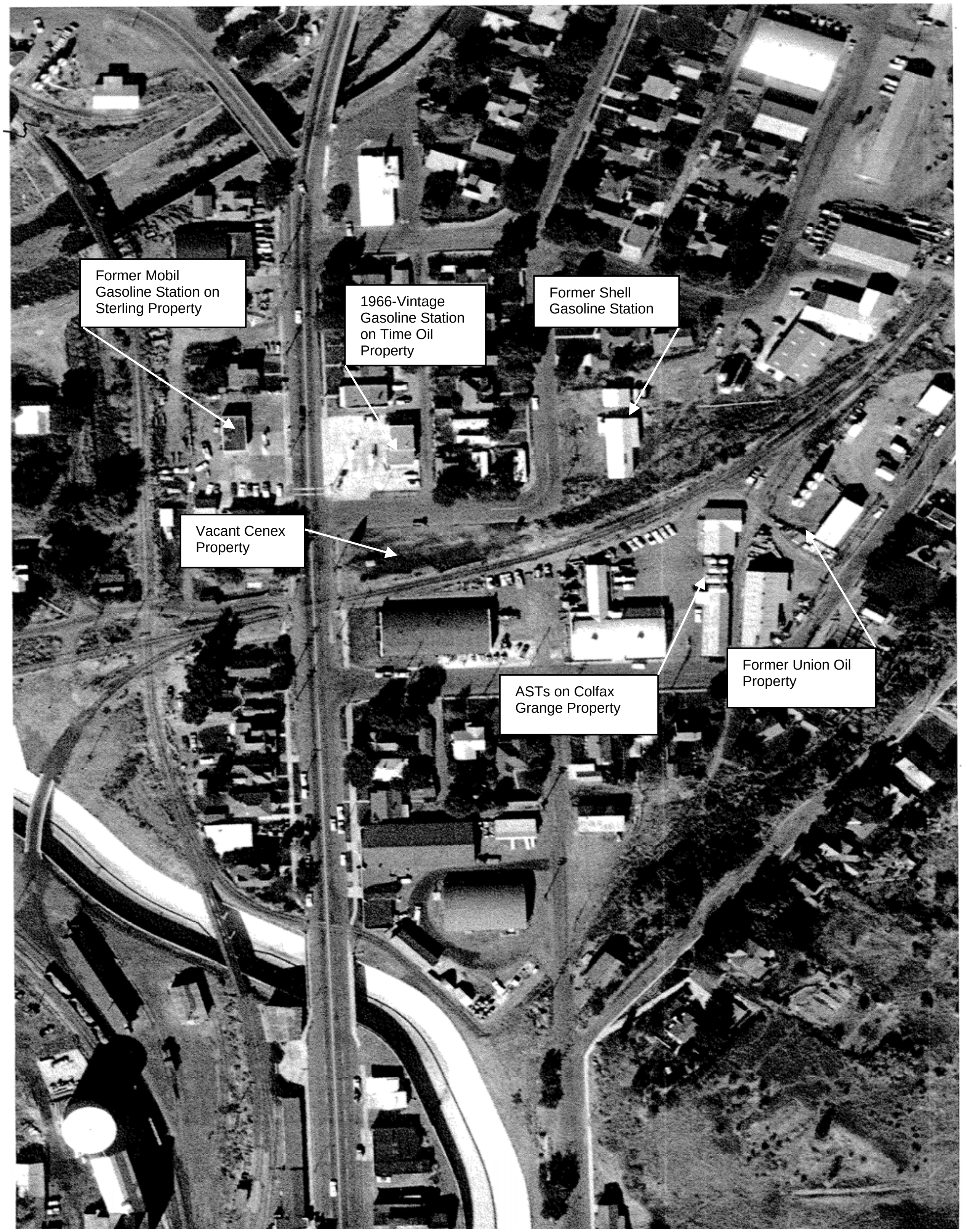
	Date:	September 15, 2009	
	Drawn By:	CCC	
	Chk By:	RKB	
	File ID:	Project Photographs	

Aerial Photograph



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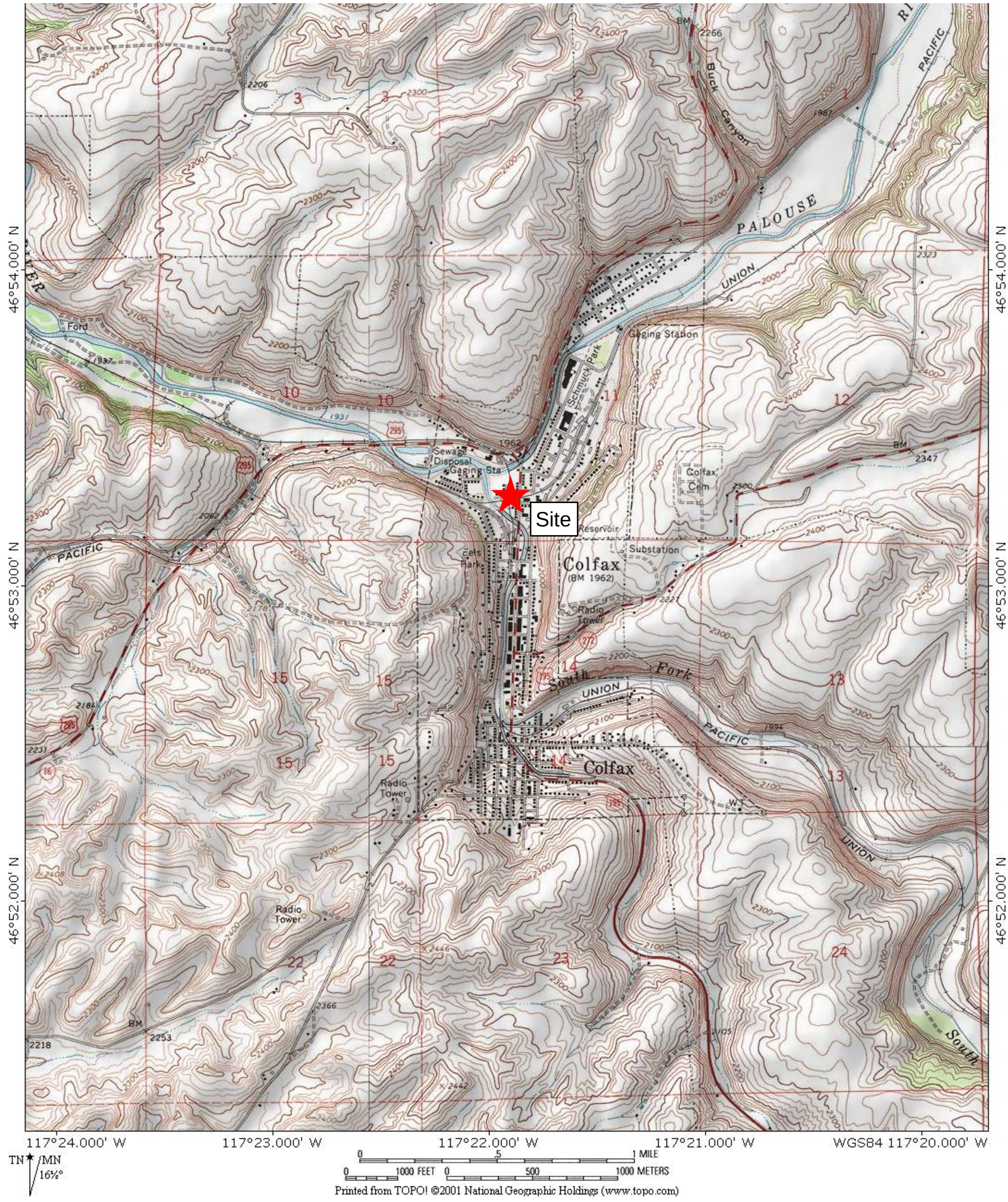
SES Project No.: 0592-001-01
File ID: 0592_2008SRI_HAP

NCPC Site
North Main Street and East Tyler Street
Colfax, Washington

1969 Aerial Photograph

FIGURES



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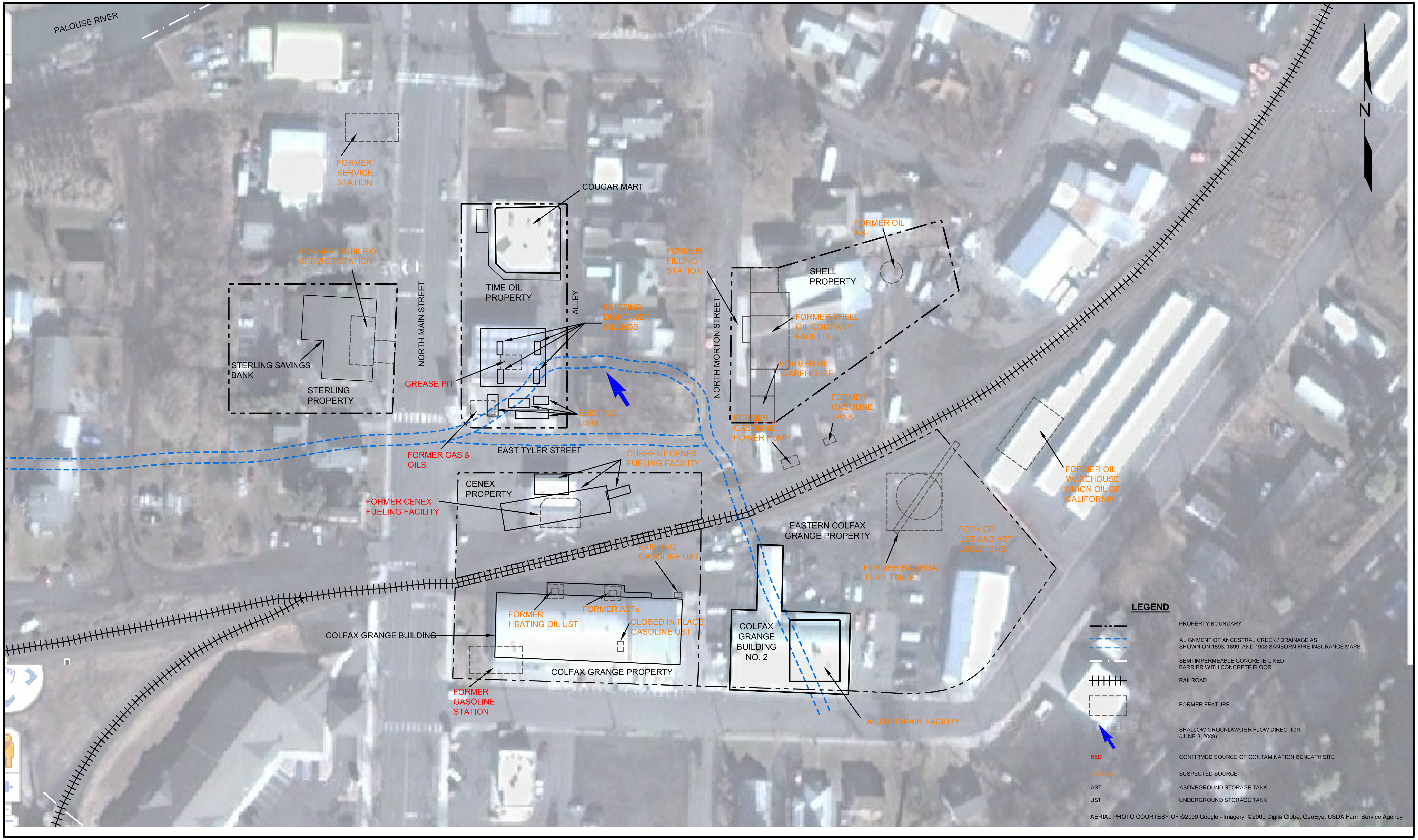
North Colfax Petroleum Contamination Site
North Main Street and
East Tyler Street
Colfax, Washington

FIGURE 1

Site Location
Map



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DATE: 09/15/09
DRAWN BY: NAC/JQC
CHECKED BY: RKB
CAD FILE: 0592_2009RI_SOURCE

PROJECT NAME: NCPC SITE
SES PROJECT NUMBER: 0592-001
STREET ADDRESS: NORTH MAIN STREET AND EAST TYLER STREET
CITY, STATE: COLFAX, WASHINGTON

REGION:

0 40 80 160
APPROXIMATE SCALE IN FEET

FIGURE 2
CONFIRMED AND SUSPECTED SOURCE AREAS

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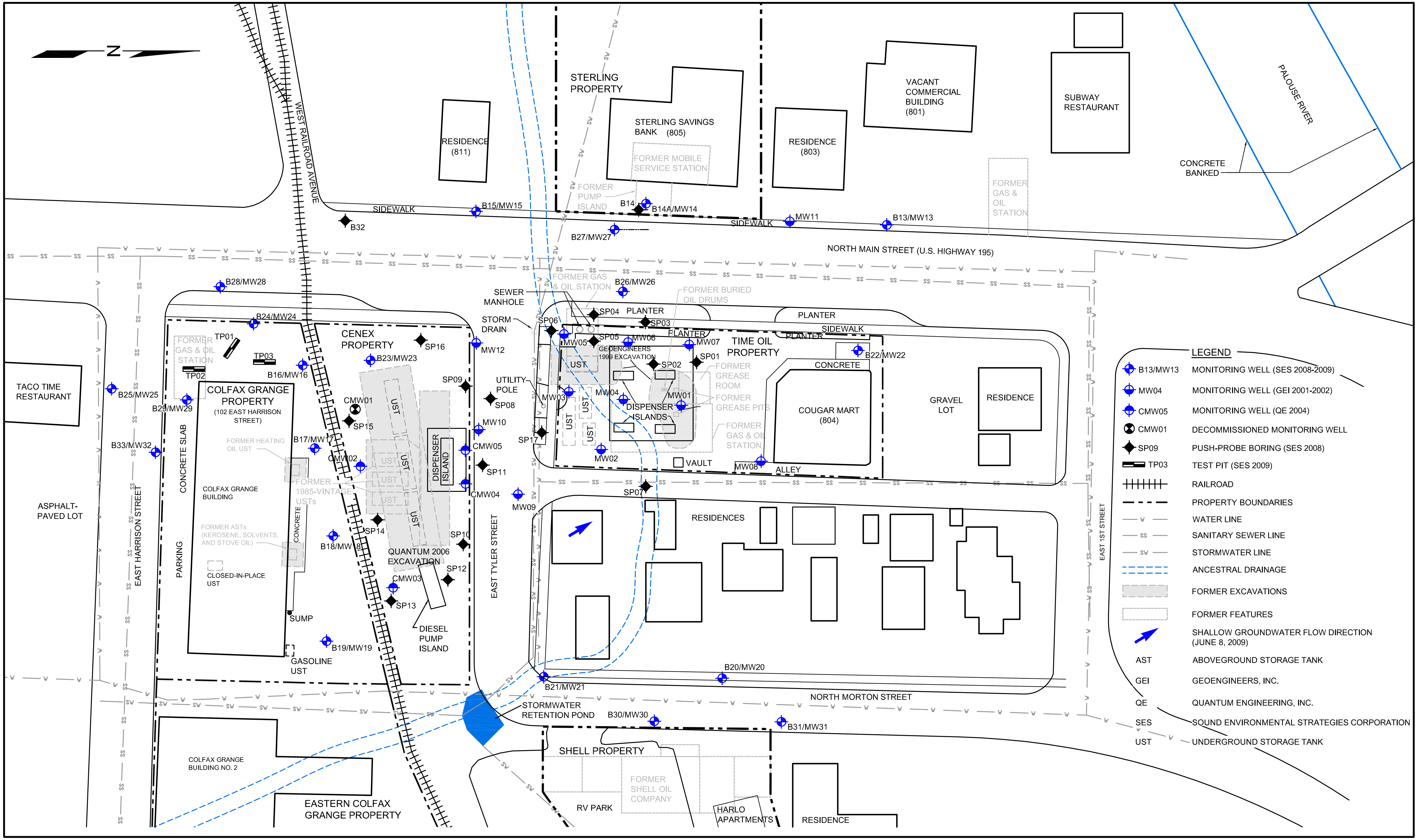
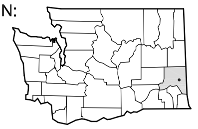


SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 06/29/09
DRAWN BY: NAC
CHECKED BY: RKB
CAD FILE: 0592_2009RI_EL

PROJECT NAME: NCPC SITE
SES PROJECT NUMBER: 0592-001
STREET ADDRESS: NORTH MAIN STREET AND EAST TYLER STREET
CITY, STATE: COLFAX, WASHINGTON

REGION:



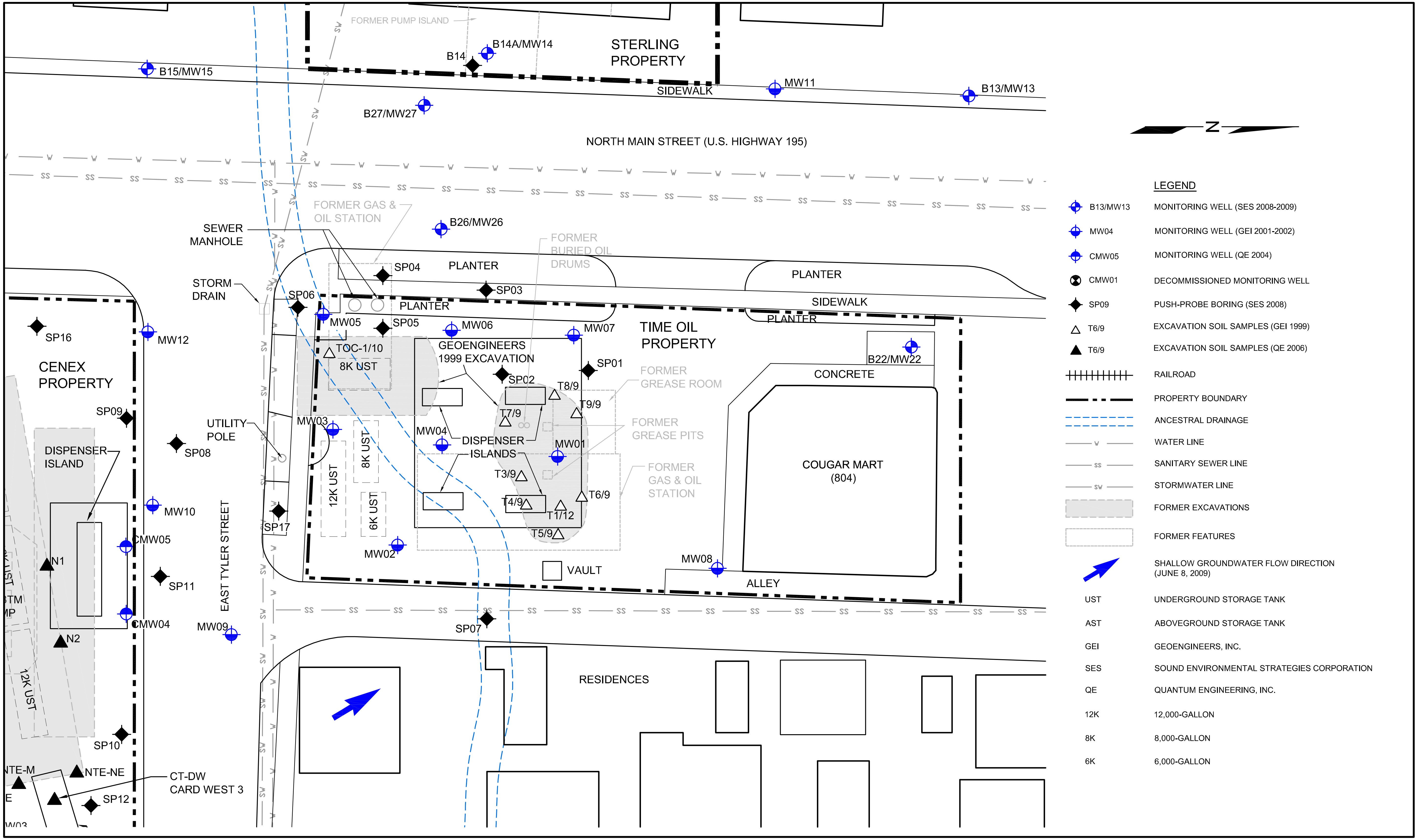
0 30 60 120
APPROXIMATE SCALE IN FEET

FIGURE 3

SITE PLAN

11/18/2009

P:\0592 NORTH COLFAX GROUP\TECHNICAL\CAD\2009RI\0592_2009RI_TOC F.DWG



SOUND ENVIRONMENTAL STRATEGIES
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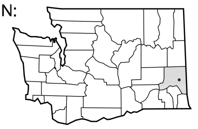
DATE: 09/16/09
DRAWN BY: NAC/JQC
CHECKED BY: RKB
CAD FILE: 0592_2009RI_TOC

PROJECT NAME: NCPC SITE
SES PROJECT NUMBER: 0592-001
STREET ADDRESS: NORTH MAIN STREET AND EAST TYLER STREET
CITY, STATE: COLFAX, WASHINGTON

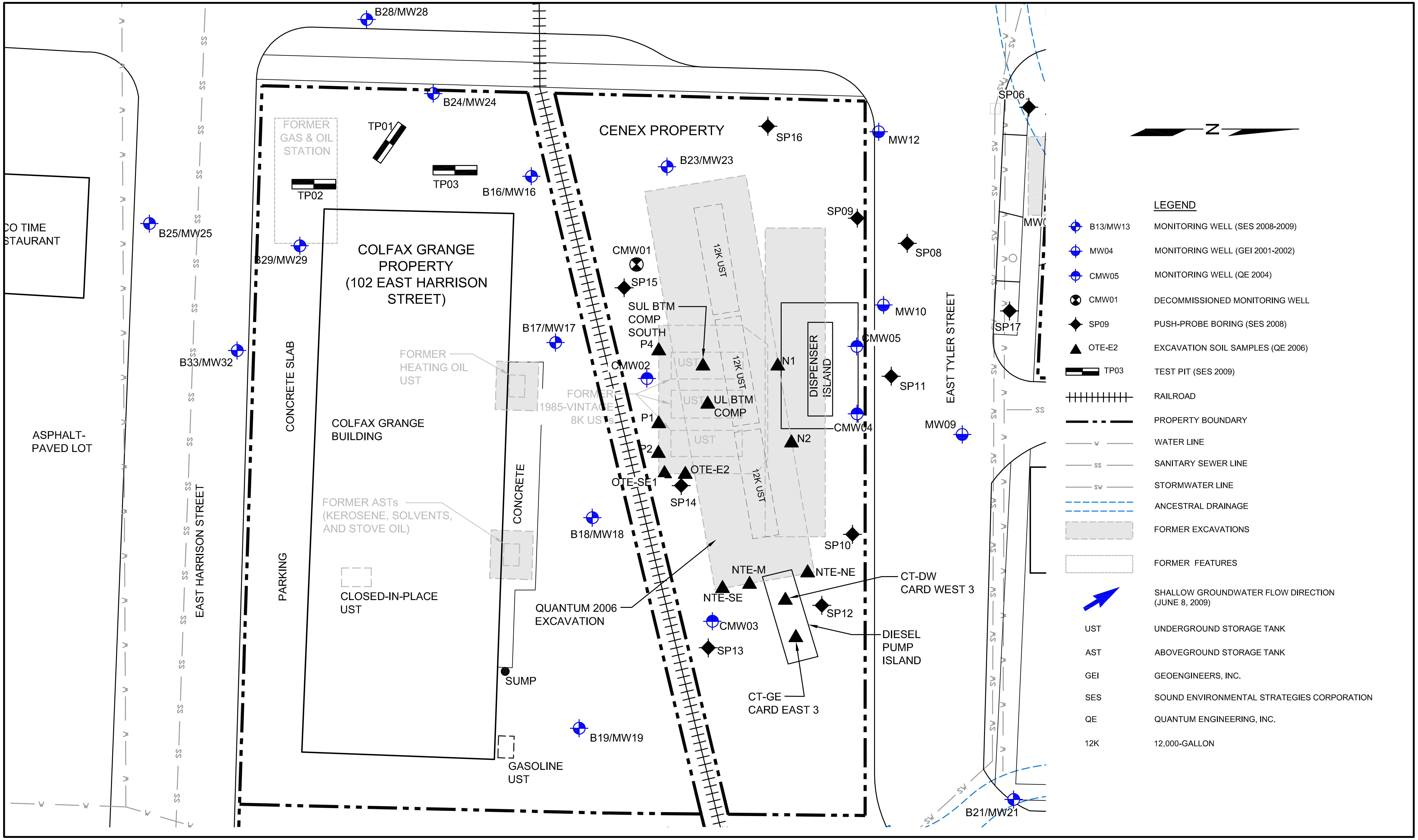
REGION:



0 15 30 60
APPROXIMATE SCALE IN FEET

FIGURE 4

EXPLORATION LOCATION PLAN
NORTHERN PORTION OF SITE



SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 06/29/09
DRAWN BY: NAC
CHECKED BY: RKB
CAD FILE: 0592_2009RI_GRANGE

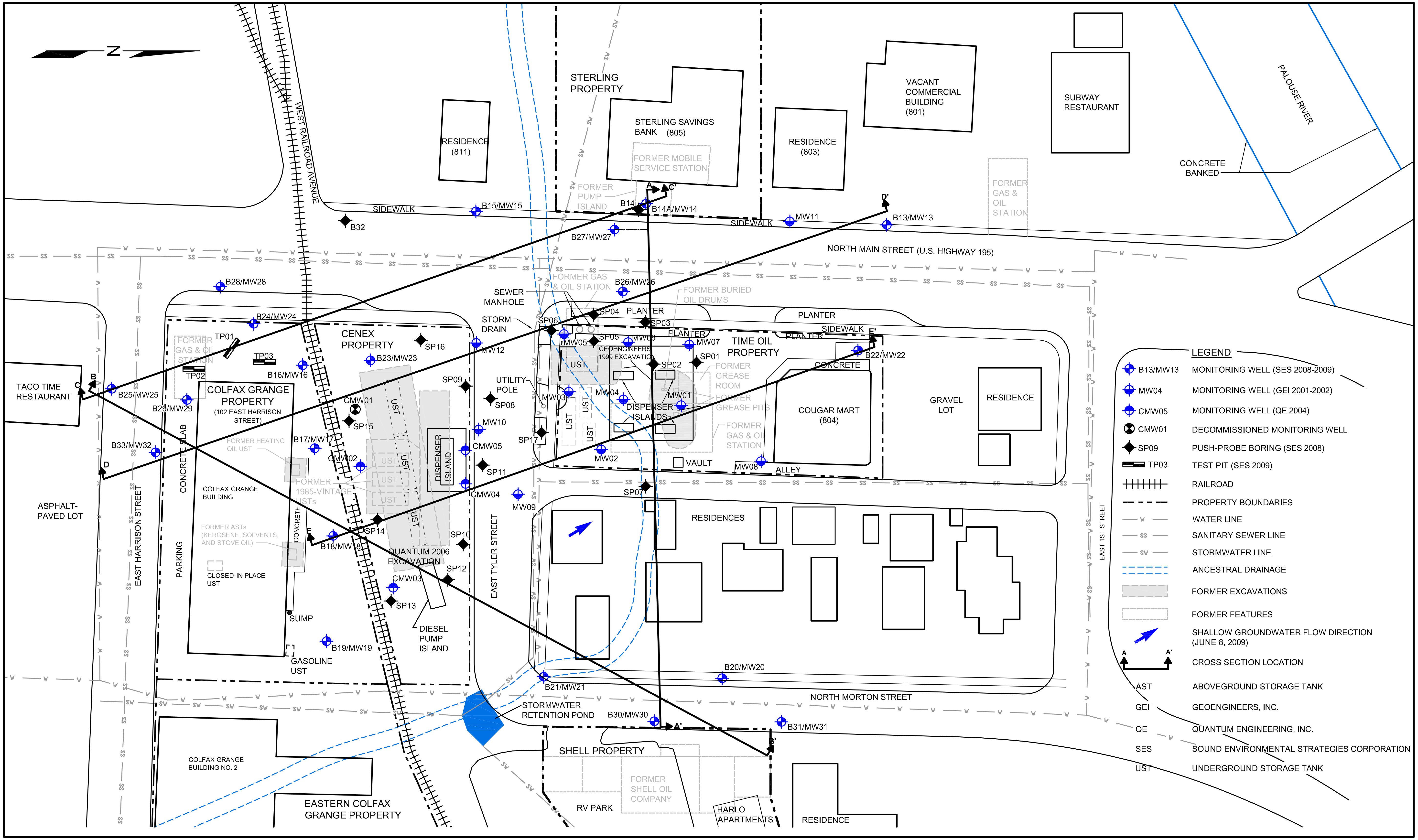
PROJECT NAME: NCPC SITE
SES PROJECT NUMBER: 0592-001
STREET ADDRESS: NORTH MAIN STREET AND EAST TYLER STREET
CITY, STATE: COLFAX, WASHINGTON

REGION:

0 15 30 60
APPROXIMATE SCALE IN FEET

FIGURE 5
EXPLORATION LOCATION PLAN
SOUTHERN PORTION OF SITE

P:\0592 NORTH COLFAX GROUP\TECHNICAL\CAD\2009RI\0592_2009RI_GRANGE_F.DWG
11/18/2009

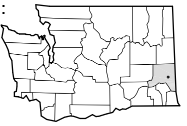


SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 06/29/09
DRAWN BY: NAC
CHECKED BY: RKB
CAD FILE: 0592_2009RI_XSLOC

PROJECT NAME: NCPC SITE
SES PROJECT NUMBER: 0592-001
STREET ADDRESS: NORTH MAIN STREET AND EAST TYLER STREET
CITY, STATE: COLFAX, WASHINGTON

REGION:



0 30 60 120
APPROXIMATE SCALE IN FEET

FIGURE 6
EXPLORATION LOCATION MAP WITH GEOLOGIC CROSS SECTION LOCATIONS

P:\0592 NORTH COLFAX GROUP\TECHNICAL\CAD\2009RI\0592_2009RI_XSLOC_F.DWG
11/18/2009

11/18/2009

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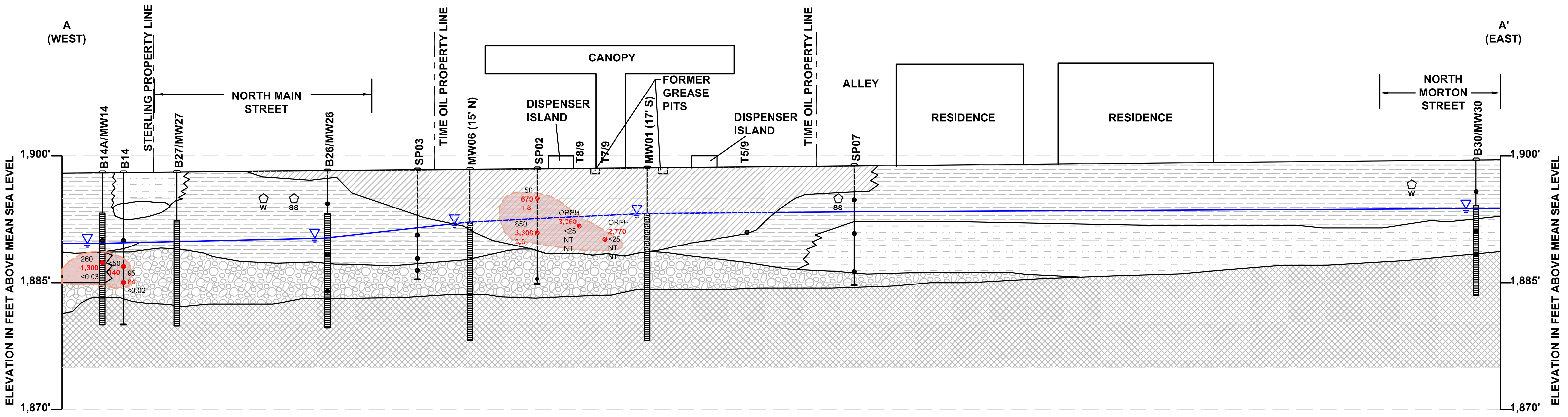

LEGEND

▤	**ML:** INORGANIC SILTS AND VERY FINE SANDS, SILTY OR CLAYEY FINE SANDS
▭	**SM:** SILTY SANDS, SAND - CLAY MIXTURES
⋯	**SP:** POORLY GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
○	**GP:** POORLY GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
▩	**BEDROCK**
▨	**FILL**
∇	APPROXIMATE GROUNDWATER ELEVATION (JUNE 8, 2009)
▥	SCREEN INTERVAL
🟥	ESTIMATED EXTENT OF PETROLEUM-CONTAMINATED SOIL

(15' N)	DENOTES DISTANCE IN FEET AND DIRECTION OF BORING RELATIVE TO CROSS-SECTION TRANSECT
850 3,300 3.3	DIESEL-RANGE PETROLEUM HYDROCARBONS GASOLINE-RANGE PETROLEUM HYDROCARBONS BENZENE (WHERE ANALYZED)
	CONCENTRATIONS PRESENTED IN MILLIGRAMS PER KILOGRAM
●	DENOTES CONCENTRATION(S) BELOW MTCA METHOD A CLEANUP LEVEL(S) FOR PETROLEUM IN SOIL
●	DENOTES CONCENTRATION(S) EXCEEDS MTCA METHOD A CLEANUP LEVEL(S) FOR PETROLEUM IN SOIL
⬠ W	WATER LINE
⬠ SS	SANITARY SEWER LINE
MTCA	WASHINGTON STATE MODEL TOXICS CONTROL ACT
NT	NOT TESTED
ORPH	OIL-RANGE PETROLEUM HYDROCARBONS
<	NOT DETECTED AT CONCENTRATION EXCEEDING THE LABORATORY REPORTING LIMIT

VERTICAL EXAGGERATION: 2X

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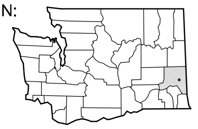
SOUNDENVIRONMENTAL.COM

DATE: 07/20/09
DRAWN BY: NAC/BLR
CHECKED BY: RKB
CAD FILE: 0592_2009RI_XAA

PROJECT NAME: NCPC SITE
SES PROJECT NUMBER: 0592-001
STREET ADDRESS: NORTH MAIN STREET AND EAST TYLER STREET
CITY, STATE: COLFAX, WASHINGTON

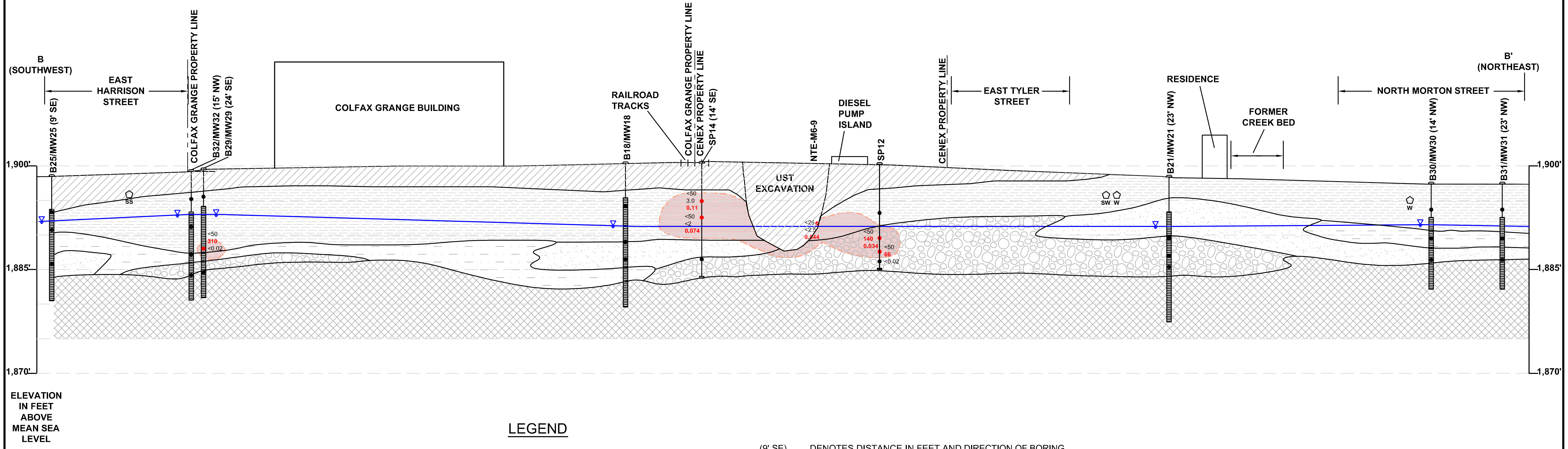
REGION:



0 15 30 60
APPROXIMATE HORIZONTAL SCALE IN FEET

FIGURE 7
GEOLOGIC CROSS SECTION A-A'

SOUNDENVIRONMENTAL.COM



LEGEND

▤ **ML:** INORGANIC SILTS AND VERY FINE SANDS, SILTY OR CLAYEY FINE SANDS

☐ **SM:** SILTY SANDS, SAND - CLAY MIXTURES

☐ **SP:** POORLY GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES

☐ **GP:** POORLY GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES

▩ **BEDROCK**

▨ **FILL**

▽ APPROXIMATE GROUNDWATER ELEVATION (JUNE 8, 2009)

▥ SCREEN INTERVAL

🟥 ESTIMATED EXTENT OF PETROLEUM-CONTAMINATED SOIL

(9' SE) DENOTES DISTANCE IN FEET AND DIRECTION OF BORING RELATIVE TO CROSS-SECTION TRANSECT

<250 DIESEL-RANGE PETROLEUM HYDROCARBONS
<2 GASOLINE-RANGE PETROLEUM HYDROCARBONS
0.074 BENZENE (WHERE ANALYZED)

CONCENTRATIONS PRESENTED IN MILLIGRAMS PER KILOGRAM

● DENOTES CONCENTRATION(S) BELOW MTCA METHOD A CLEANUP LEVEL(S) FOR PETROLEUM IN SOIL

● DENOTES CONCENTRATION(S) EXCEEDS MTCA METHOD A CLEANUP LEVEL(S) FOR PETROLEUM IN SOIL

⬠ W WATER LINE

⬠ SW STORMWATER LINE

⬠ SS SANITARY SEWER LINE

UST UNDERGROUND STORAGE TANK

MTCA WASHINGTON STATE MODEL TOXICS CONTROL ACT

< NOT DETECTED AT CONCENTRATION EXCEEDING THE LABORATORY REPORTING LIMIT

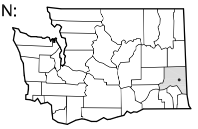
VERTICAL EXAGGERATION: 2X

SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 09/16/09
DRAWN BY: NAC/BLR
CHECKED BY: RKB
CAD FILE: 0592_2009RI_XBB

PROJECT NAME: NCPC SITE
SES PROJECT NUMBER: 0592-001
STREET ADDRESS: NORTH MAIN STREET AND EAST TYLER STREET
CITY, STATE: COLFAX, WASHINGTON

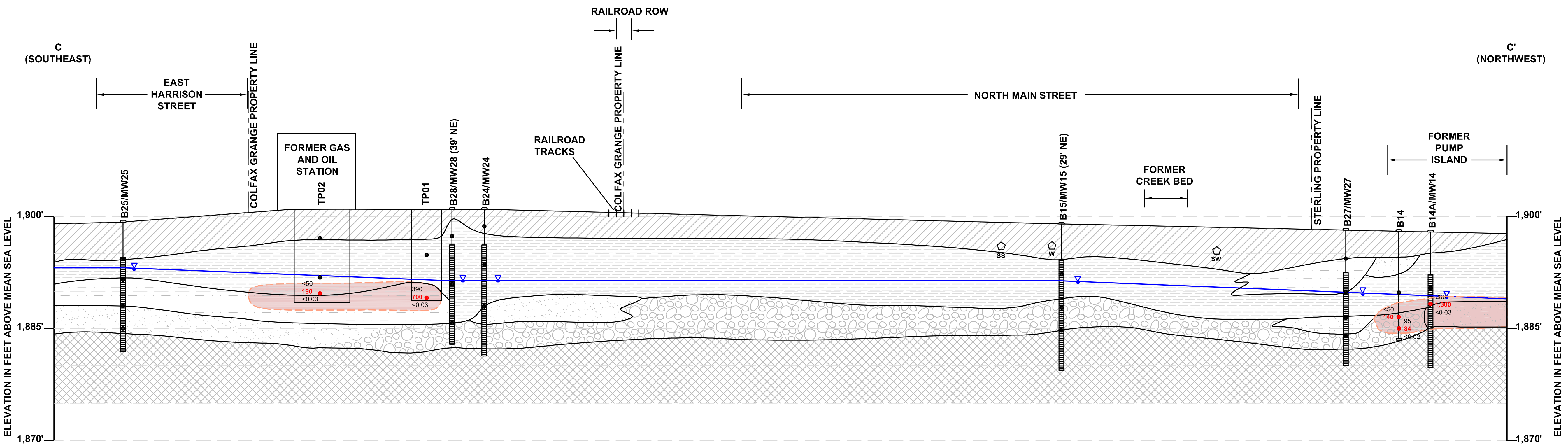
REGION:



0 15 30 60
APPROXIMATE HORIZONTAL SCALE IN FEET

FIGURE 8

GEOLOGIC CROSS SECTION B-B'



LEGEND

▤	**ML:** INORGANIC SILTS AND VERY FINE SANDS, SILTY OR CLAYEY FINE SANDS
▭	**SM:** SILTY SANDS, SAND - CLAY MIXTURES
▒	**SP:** POORLY GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
▒	**GP:** POORLY GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
▩	**BEDROCK**
▨	**FILL**
∇	APPROXIMATE GROUNDWATER ELEVATION (JUNE 8, 2009)
▥	SCREEN INTERVAL
TP01/ TP02	TEST PITS
🟥	ESTIMATED EXTENT OF PETROLEUM-CONTAMINATED SOIL

(39' NE)	DENOTES DISTANCE IN FEET AND DIRECTION OF BORING RELATIVE TO CROSS-SECTION TRANSECT
260 1,300 <0.03	DIESEL-RANGE PETROLEUM HYDROCARBONS GASOLINE-RANGE PETROLEUM HYDROCARBONS BENZENE (WHERE ANALYZED)
	CONCENTRATIONS PRESENTED IN MILLIGRAMS PER KILOGRAM
●	DENOTES CONCENTRATION(S) BELOW MTCA METHOD A CLEANUP LEVEL(S) FOR PETROLEUM IN SOIL
●	DENOTES CONCENTRATION(S) EXCEEDS MTCA METHOD A CLEANUP LEVEL(S) FOR PETROLEUM IN SOIL
⬠ W	WATER LINE
⬠ SW	STORMWATER LINE
⬠ SS	SANITARY SEWER LINE
MTCA	WASHINGTON STATE MODEL TOXICS CONTROL ACT
<	NOT DETECTED AT CONCENTRATION EXCEEDING THE LABORATORY REPORTING LIMIT
ROW	RIGHT-OF-WAY

VERTICAL EXAGGERATION: 2X

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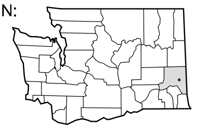
SOUNDENVIRONMENTAL.COM

DATE: 07/20/09
DRAWN BY: NAC/BLR
CHECKED BY: RKB
CAD FILE: 0592_2009RI_XCC

PROJECT NAME: NCPC SITE
SES PROJECT NUMBER: 0592-001
STREET ADDRESS: NORTH MAIN STREET AND EAST TYLER STREET
CITY, STATE: COLFAX, WASHINGTON

REGION:



0 15 30 60
APPROXIMATE HORIZONTAL SCALE IN FEET

FIGURE 9
GEOLOGIC CROSS SECTION C-C'

12/22/2009

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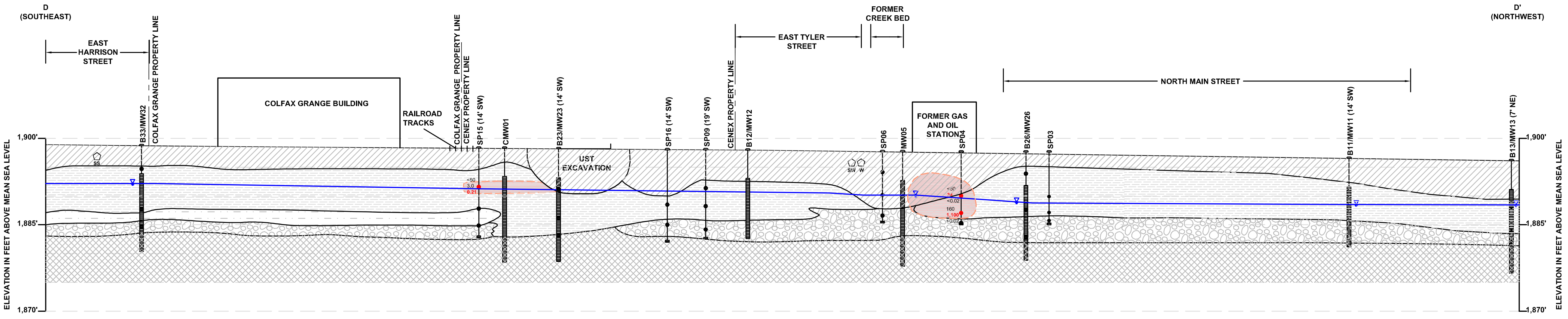


LEGEND

▤	**ML:** INORGANIC SILTS AND VERY FINE SANDS, SILTY OR CLAYEY FINE SANDS
▭	**SM:** SILTY SANDS, SAND - CLAY MIXTURES
▒	**GP:** POORLY GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
▩	**BEDROCK**
▨	**FILL**
∇	APPROXIMATE GROUNDWATER ELEVATION (JUNE 8, 2009)
▮	SCREEN INTERVAL
🟥	ESTIMATED EXTENT OF PETROLEUM-CONTAMINATED SOIL

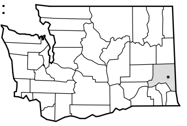
(14' SW)	DENOTES DISTANCE IN FEET AND DIRECTION OF BORING RELATIVE TO CROSS-SECTION TRANSECT
160 1,100 <0.02	DIESEL-RANGE PETROLEUM HYDROCARBONS GASOLINE-RANGE PETROLEUM HYDROCARBONS BENZENE (WHERE ANALYZED)
	CONCENTRATIONS PRESENTED IN MILLIGRAMS PER KILOGRAM
●	DENOTES CONCENTRATION(S) BELOW MTCA METHOD A CLEANUP LEVEL(S) FOR PETROLEUM IN SOIL
●	DENOTES CONCENTRATION(S) EXCEEDS MTCA METHOD A CLEANUP LEVEL(S) FOR PETROLEUM IN SOIL
⬠ W	WATER LINE
⬠ SW	STORMWATER LINE
⬠ SS	SANITARY SEWER LINE
UST	UNDERGROUND STORAGE TANK
MTCA	WASHINGTON STATE MODEL TOXICS CONTROL ACT
<	NOT DETECTED AT CONCENTRATION EXCEEDING THE LABORATORY REPORTING LIMIT

SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 07/20/09
DRAWN BY: NAC/BLR
CHECKED BY: RKB
CAD FILE: 0592_2009RI_XDD

PROJECT NAME: NCPC SITE
SES PROJECT NUMBER: 0592-001
STREET ADDRESS: NORTH MAIN STREET AND EAST TYLER STREET
CITY, STATE: COLFAX, WASHINGTON

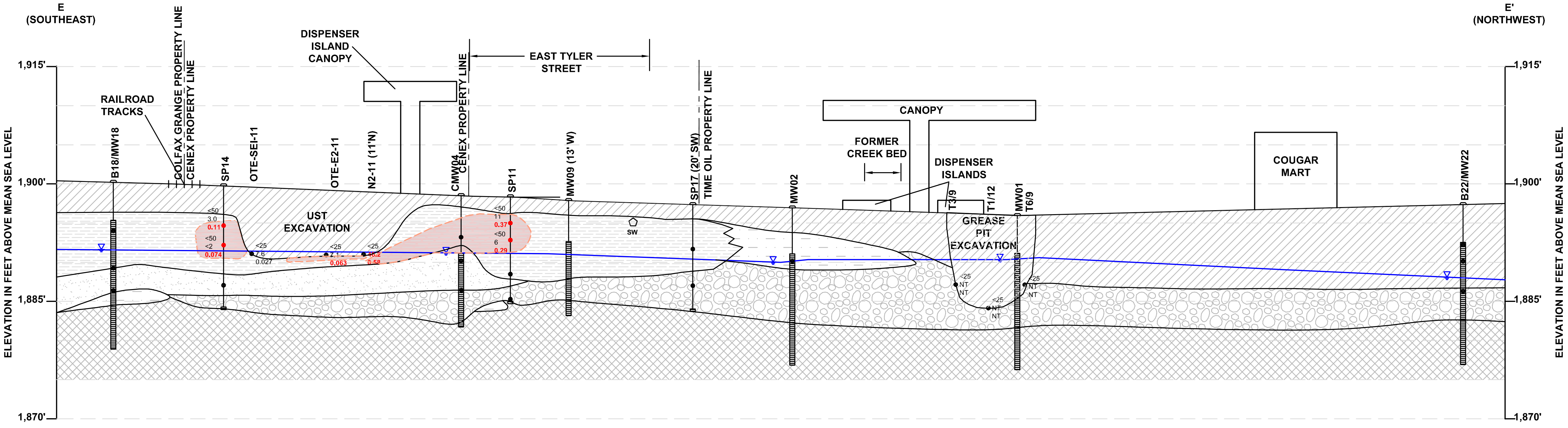
REGION:



0 20 40 80
APPROXIMATE HORIZONTAL SCALE IN FEET

FIGURE 10
GEOLOGIC CROSS SECTION D-D'

SOUNDENVIRONMENTAL.COM



LEGEND

▤	**ML:** INORGANIC SILTS AND VERY FINE SANDS, SILTY OR CLAYEY FINE SANDS
☐	**SM:** SILTY SANDS, SAND - CLAY MIXTURES
☐	**SP:** POORLY GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
☐	**GP:** POORLY GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
▩	**BEDROCK**
▨	**FILL**
▽	APPROXIMATE GROUNDWATER ELEVATION (JUNE 8, 2009)
▥	SCREEN INTERVAL
🟥	ESTIMATED EXTENT OF PETROLEUM-CONTAMINATIED SOIL

(13' W)	DENOTES DISTANCE IN FEET AND DIRECTION OF BORING RELATIVE TO CROSS-SECTION TRANSECT
<50 6 0.29	DIESEL-RANGE PETROLEUM HYDROCARBONS GASOLINE-RANGE PETROLEUM HYDROCARBONS BENZENE (WHERE ANALYZED)
	CONCENTRATIONS PRESENTED IN MILLIGRAMS PER KILOGRAM
●	DENOTES CONCENTRATION(S) BELOW MTCA METHOD A CLEANUP LEVEL(S) FOR PETROLEUM IN SOIL
🔴	DENOTES CONCENTRATION(S) EXCEEDS MTCA METHOD A CLEANUP LEVEL(S) FOR PETROLEUM IN SOIL
⬠ SW	STORMWATER LINE
UST	UNDERGROUND STORAGE TANK
MTCA	WASHINGTON STATE MODEL TOXICS CONTROL ACT
<	NOT DETECTED AT CONCENTRATION EXCEEDING THE LABORATORY REPORTING LIMIT
NT	NOT TESTED

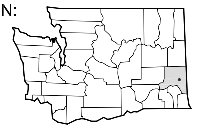
VERTICAL EXAGGERATION: 2X

SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 07/20/09
DRAWN BY: NAC/BLR
CHECKED BY: RKB
CAD FILE: 0592_2009RI_XEE

PROJECT NAME: NCPC SITE
SES PROJECT NUMBER: 0592-001
STREET ADDRESS: NORTH MAIN STREET AND EAST TYLER STREET
CITY, STATE: COLFAX, WASHINGTON

REGION:



0 15 30 60
APPROXIMATE HORIZONTAL SCALE IN FEET

FIGURE 11
GEOLOGIC CROSS SECTION E-E'

12/22/2009
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11/18/2009

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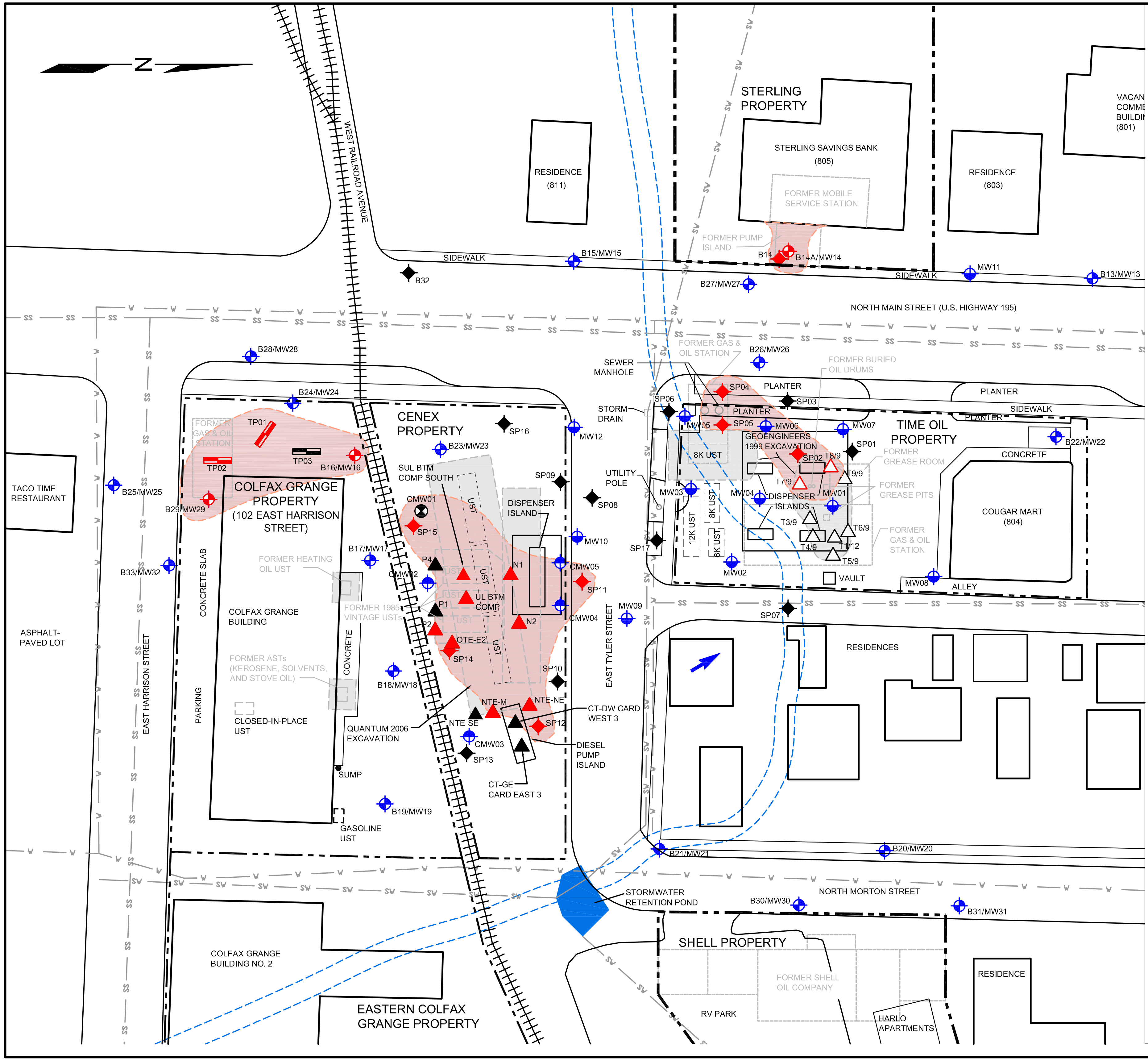


Sample Location	Sample Depth (feet)			Analytical Results (milligrams per kilogram)				
		ORPH	DRPH	GRPH	Benzene	MTBE^5	Lead	Naphthalenes
T7/9	9	**2,770**	<25	—	—	—	—	—
T8/9	9	**3,260**	<25	—	—	—	—	—
N1	11	<100	465	**642**	**0.099**	<0.025	—	—
N2	11	<100	<25	**46.2**	**0.058**	<0.025	—	—
UL BTM COMP	10	—	—	**1,230**	<0.264	<2.11	—	—
SUL BTM COMP S	10	—	—	**188**	<0.0530	<0.025	—	—
P2	9-11	43.6	898	**145**	<0.0267	<0.025	—	—
OTE-E2 -11	11	<100	<25	7.1	**0.063**	<0.010	—	—
NTE-M/6-9	6-9	<100	<25	<2.50	**0.044**	<0.025	—	—
NTE-NE/6-9	6-9	<100	<25	4.29	**0.228**	<0.025	—	—
SP02	3-4	<250	150	**670**	**1.6**	—	11.5	—
	7-8	<250	850	**3,300**	**3.3**	**2.0**	31.7	**9.3**
	13-14	<250	<50	<2	<0.02	—	1.97	—
SP04	7-8	<250	<50	**34**	<0.02	—	31.2	—
	10-11	<250	160	**1,100**	<0.02	—	9.82	—
	12-13	<250	<50	<2	<0.02	—	2.33	—
SP05	7-8	<250	1,200	**2,400**	<0.03	<0.05	36.7	**9.1**
	10-11	<250	120	**280**	<0.02	—	9.4	—
	13-14	<250	<50	<2	<0.02	—	1.96	—
SP11	3-4	<250	<50	11	**0.37**	—	**339**	—
	5-6	<250	<50	6	**0.29**	<0.05	7.11	<0.01
	9.5-10.5	<250	<50	2	<0.02	—	6.69	—
SP12	6.5-8	<250	<50	<2	<0.02	—	6.62	—
	10-12	<250	<50	**140**	**0.034**	<0.05	5.75	0.12
	13-14	<250	<50	**66**	<0.02	—	13.9	—
	14-15	<250	<50	<2	<0.02	—	—	—
SP14	4.5-5.5	<250	<50	3.0	**0.11**	—	6.43	—
	7-8	<250	<50	<2	**0.074**	<0.05	6.02	<0.01
	13-14	<250	<50	<2	<0.02	—	3.14	—
SP15	6-7	<250	<50	3.0	**0.21**	<0.05	10.9	<0.01
	10-11	<250	<50	<2	0.03	—	5.18	—
B14	7-8	<250	<50	<2	<0.02	<0.05	18.1	—
	11-12	<250	<50	**140**	—	—	1.75	0.070
	13-14	<250	<50	**84**	<0.02	—	1.38	—
B14A	7.5	<250	230	24	<0.03	<0.05	4.55	<0.05
	10	<250	260	**1,300**	<0.03	<0.05	10.4	**8.1**
B16	6-7	<250	<50	<2	<0.02	—	6.33	—
	11-12	<250	<50	**140**	<0.03	<0.05	5.26	<0.01
	14-15	<250	<50	<2	<0.02	—	4.71	—
B29	4	<250	<50	<20	—	—	—	—
	11	<250	<50	**310**	<0.02	—	6.18	—
	15	<250	<50	<20	—	—	—	—
TP01	7	<250	<50	<20	—	—	—	—
	12	<250	390^x	**700**	<0.03	<0.05	5.13	<0.05
TP02	9.5	<250	<50	<20	—	—	—	—
	12.5	<250	<50	**190**	<0.03	<0.05	4.01	<0.05
MTCA Method A		**2,000**	**2,000**	**30**	**0.03**	**0.1**	**250**	**5**

LEGEND

⊕	B13/MW13	MONITORING WELL (SES 2008-2009)
⊕	MW04	MONITORING WELL (GEI 2001-2002)
⊕	CMW05	MONITORING WELL (QE 2004)
⊗	CMW01	DECOMMISSIONED MONITORING WELL
◆	SP09	PUSH-PROBE BORING (SES 2008)
△	T6/9	EXCAVATION SOIL SAMPLES (GEI 1999)
▲	OTE-E2	EXCAVATION SOIL SAMPLES (QE 2006)
▬	TP03	TEST PIT (SES 2009)
┼┼┼┼┼┼┼		RAILROAD
— - - —		PROPERTY BOUNDARIES
— W —		WATER LINE
— SS —		SANITARY SEWER LINE

— SW —	STORMWATER LINE
12K	12,000-GALLON
8K	8,000-GALLON
6K	6,000-GALLON
AST	ABOVEGROUND STORAGE TANK
GEI	GEOENGINEERS, INC.
- - - -	ANCESTRAL DRAINAGE
▨	FORMER EXCAVATIONS
☐	FORMER FEATURES
🟥	ESTIMATED EXTENT OF PCS
↗	SHALLOW GROUNDWATER FLOW DIRECTION (JUNE 8, 2009)

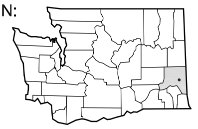
GRPH	GASOLINE-RANGE PETROLEUM HYDROCARBONS
MTCA	WASHINGTON STATE MODEL TOXICS CONTROL ACT
MTBE	METHYL TERTIARY-BUTYL ETHER
ORPH	OIL-RANGE PETROLEUM HYDROCARBONS
PCS	PETROLEUM-CONTAMINATED SOIL
QE	QUANTUM ENGINEERING, INC.
RED	DENOTES CONCENTRATION EXCEEDS MTCA METHOD A CLEANUP LEVEL FOR SOIL
SES	SOUND ENVIRONMENTAL STRATEGIES CORPORATION
UST	UNDERGROUND STORAGE TANK
<	CONCENTRATION BELOW LABORATORY REPORTING LIMIT
–	NOT ANALYZED

SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 06/29/09
DRAWN BY: NAC
CHECKED BY: RKB
CAD FILE: 0592_2009RI_SD

PROJECT NAME: NCPC SITE
SES PROJECT NUMBER: 0592-001
STREET ADDRESS: NORTH MAIN STREET AND EAST TYLER STREET
CITY, STATE: COLFAX, WASHINGTON

REGION:



0 30 60 120
APPROXIMATE SCALE IN FEET

FIGURE 12
SOIL ANALYTICAL RESULTS

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11/18/2009

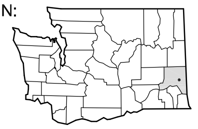
P:\0592 NORTH COLFAX GROUP\TECHNICAL\CAD\2009RI\0592_2009RI_CM_F.DWG

SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 07/15/09
DRAWN BY: NAC/BLR
CHECKED BY: RKB
CAD FILE: 0592_2009RI_CM

PROJECT NAME: NCPC SITE
SES PROJECT NUMBER: 0592-001
STREET ADDRESS: NORTH MAIN STREET AND EAST TYLER STREET
CITY, STATE: COLFAX, WASHINGTON

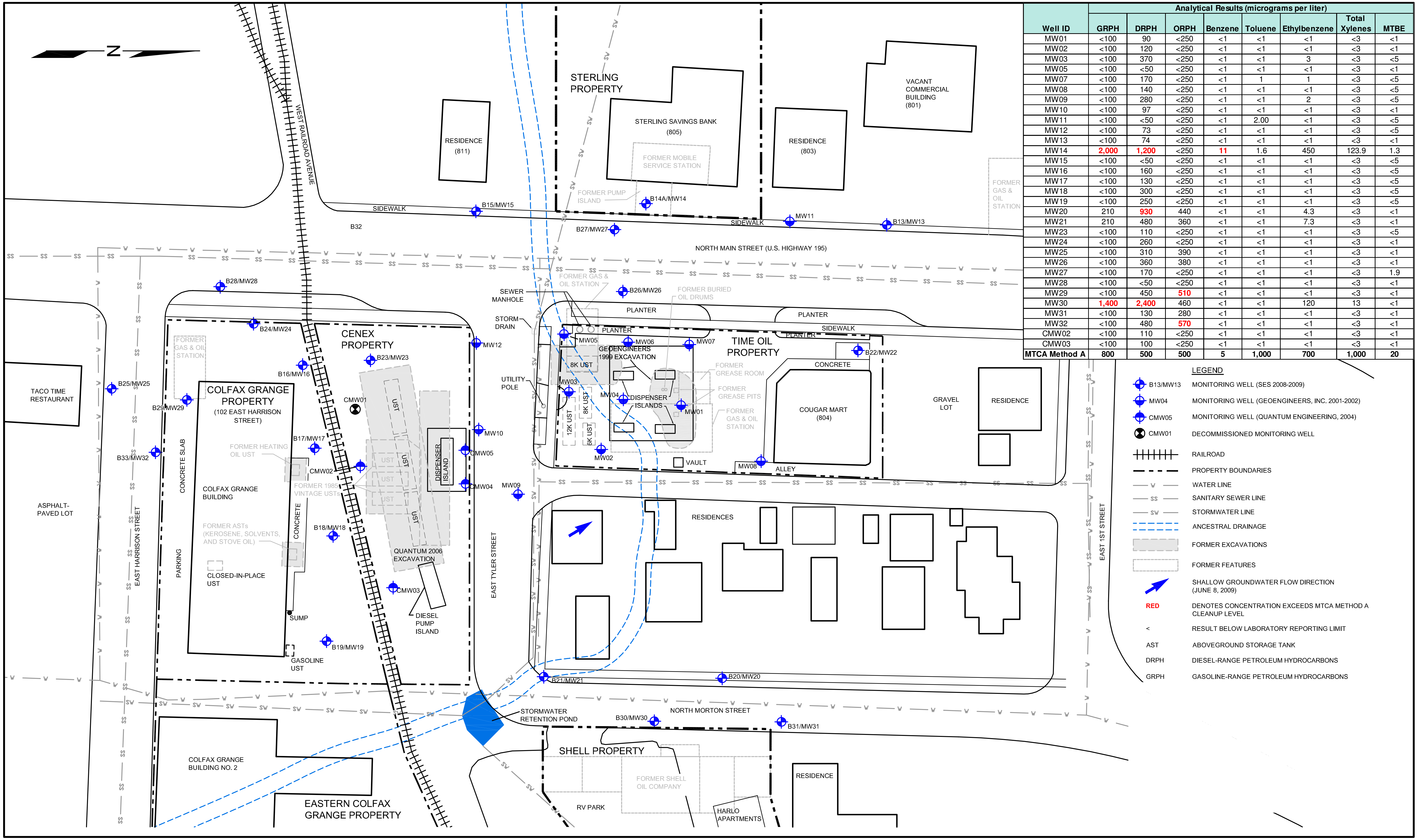
REGION:



0 30 60 120
APPROXIMATE SCALE IN FEET

FIGURE 13
GROUNDWATER CONTOUR MAP
(JUNE 8, 2009)

SOUNDENVIRONMENTAL.COM



Well ID	Analytical Results (micrograms per liter)							
	GRPH	DRPH	ORPH	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MW01	<100	90	<250	<1	<1	<1	<3	<1
MW02	<100	120	<250	<1	<1	<1	<3	<1
MW03	<100	370	<250	<1	<1	3	<3	<5
MW05	<100	<50	<250	<1	<1	<1	<3	<1
MW07	<100	170	<250	<1	1	1	<3	<5
MW08	<100	140	<250	<1	<1	<1	<3	<5
MW09	<100	280	<250	<1	<1	2	<3	<5
MW10	<100	97	<250	<1	<1	<1	<3	<1
MW11	<100	<50	<250	<1	2.00	<1	<3	<5
MW12	<100	73	<250	<1	<1	<1	<3	<5
MW13	<100	74	<250	<1	<1	<1	<3	<1
MW14	**2,000**	**1,200**	<250	**11**	1.6	450	123.9	1.3
MW15	<100	<50	<250	<1	<1	<1	<3	<5
MW16	<100	160	<250	<1	<1	<1	<3	<5
MW17	<100	130	<250	<1	<1	<1	<3	<5
MW18	<100	300	<250	<1	<1	<1	<3	<5
MW19	<100	250	<250	<1	<1	<1	<3	<5
MW20	210	**930**	440	<1	<1	4.3	<3	<1
MW21	210	480	360	<1	<1	7.3	<3	<1
MW23	<100	110	<250	<1	<1	<1	<3	<5
MW24	<100	260	<250	<1	<1	<1	<3	<1
MW25	<100	310	390	<1	<1	<1	<3	<1
MW26	<100	360	380	<1	<1	<1	<3	<1
MW27	<100	170	<250	<1	<1	<1	<3	1.9
MW28	<100	<50	<250	<1	<1	<1	<3	<1
MW29	<100	450	**510**	<1	<1	<1	<3	<1
MW30	**1,400**	**2,400**	460	<1	<1	120	13	<1
MW31	<100	130	280	<1	<1	<1	<3	<1
MW32	<100	480	**570**	<1	<1	<1	<3	<1
CMW02	<100	110	<250	<1	<1	<1	<3	<1
CMW03	<100	100	<250	<1	<1	<1	<3	<1
MTCA Method A	**800**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**

LEGEND

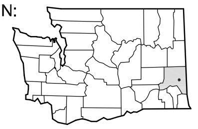
⊕ B13/MW13	MONITORING WELL (SES 2008-2009)
⊕ MW04	MONITORING WELL (GEOENGINEERS, INC. 2001-2002)
⊕ CMW05	MONITORING WELL (QUANTUM ENGINEERING, 2004)
⊗ CMW01	DECOMMISSIONED MONITORING WELL
┼┼┼┼┼	RAILROAD
— - —	PROPERTY BOUNDARIES
— W —	WATER LINE
— SS —	SANITARY SEWER LINE
— SW —	STORMWATER LINE
- - -	ANCESTRAL DRAINAGE
▨	FORMER EXCAVATIONS
☐	FORMER FEATURES
↗	SHALLOW GROUNDWATER FLOW DIRECTION (JUNE 8, 2009)
RED	DENOTES CONCENTRATION EXCEEDS MTCA METHOD A CLEANUP LEVEL
<	RESULT BELOW LABORATORY REPORTING LIMIT
AST	ABOVEGROUND STORAGE TANK
DRPH	DIESEL-RANGE PETROLEUM HYDROCARBONS
GRPH	GASOLINE-RANGE PETROLEUM HYDROCARBONS

SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 07/15/09
DRAWN BY: NAC/BLR
CHECKED BY: RKB
CAD FILE: 0592_2009RI_GD

PROJECT NAME: NCPC SITE
SES PROJECT NUMBER: 0592-001
STREET ADDRESS: NORTH MAIN STREET AND EAST TYLER STREET
CITY, STATE: COLFAX, WASHINGTON

REGION:



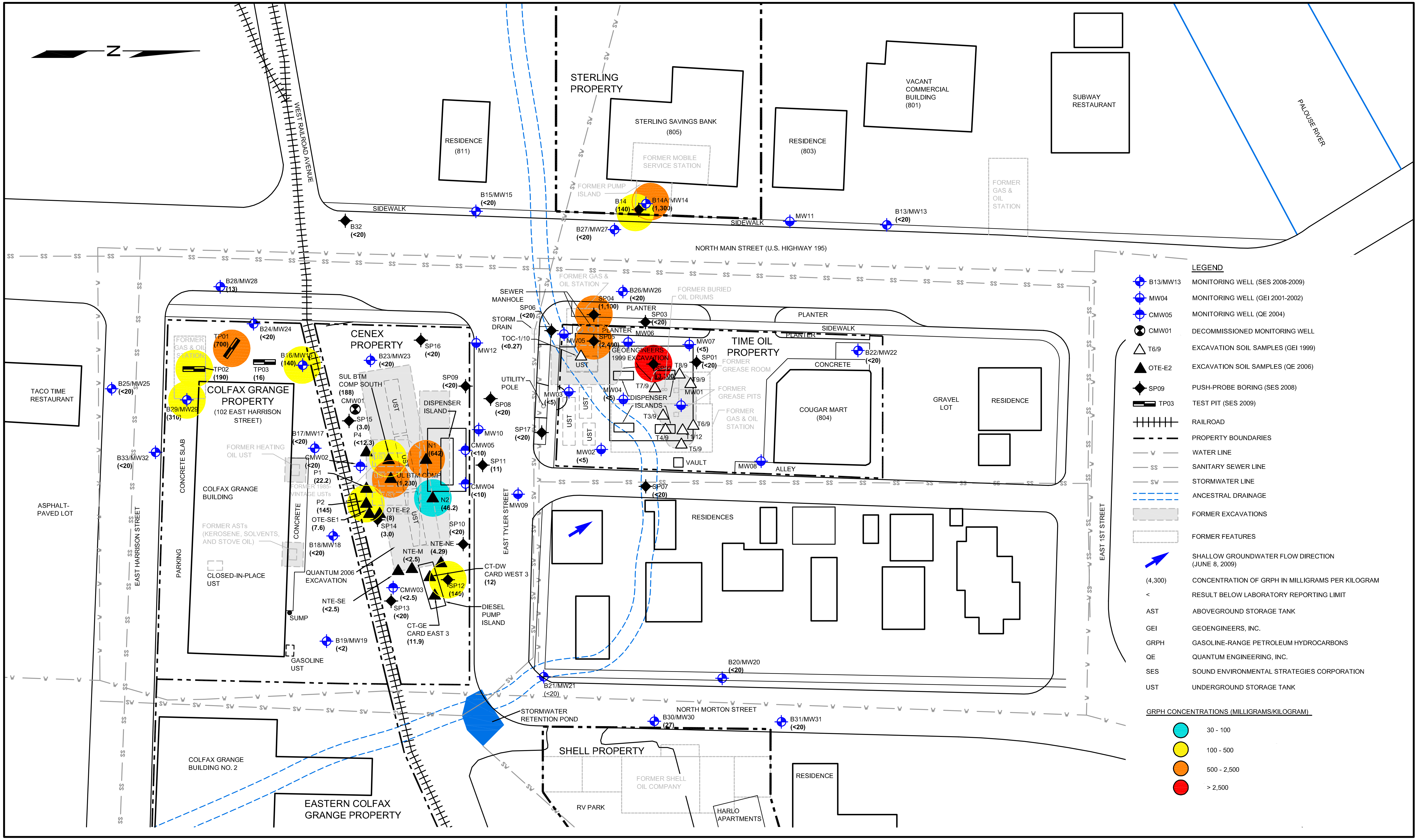
0 30 60 120
APPROXIMATE SCALE IN FEET

FIGURE 14

GROUNDWATER ANALYTICAL RESULTS
(JUNE 9-11, 2009)

11/18/2009

P:\0592 NORTH COLFAX GROUP\TECHNICAL\CAD\2009RI\0592_2009RI_SD_GRPH_F.DWG



SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 08/31/09
DRAWN BY: NAC/BLR
CHECKED BY: RKB
CAD FILE: 0592_2009RI_SD_GRPH

PROJECT NAME: NCPC SITE
SES PROJECT NUMBER: 0592-001
STREET ADDRESS: NORTH MAIN STREET AND EAST TYLER STREET
CITY, STATE: COLFAX, WASHINGTON

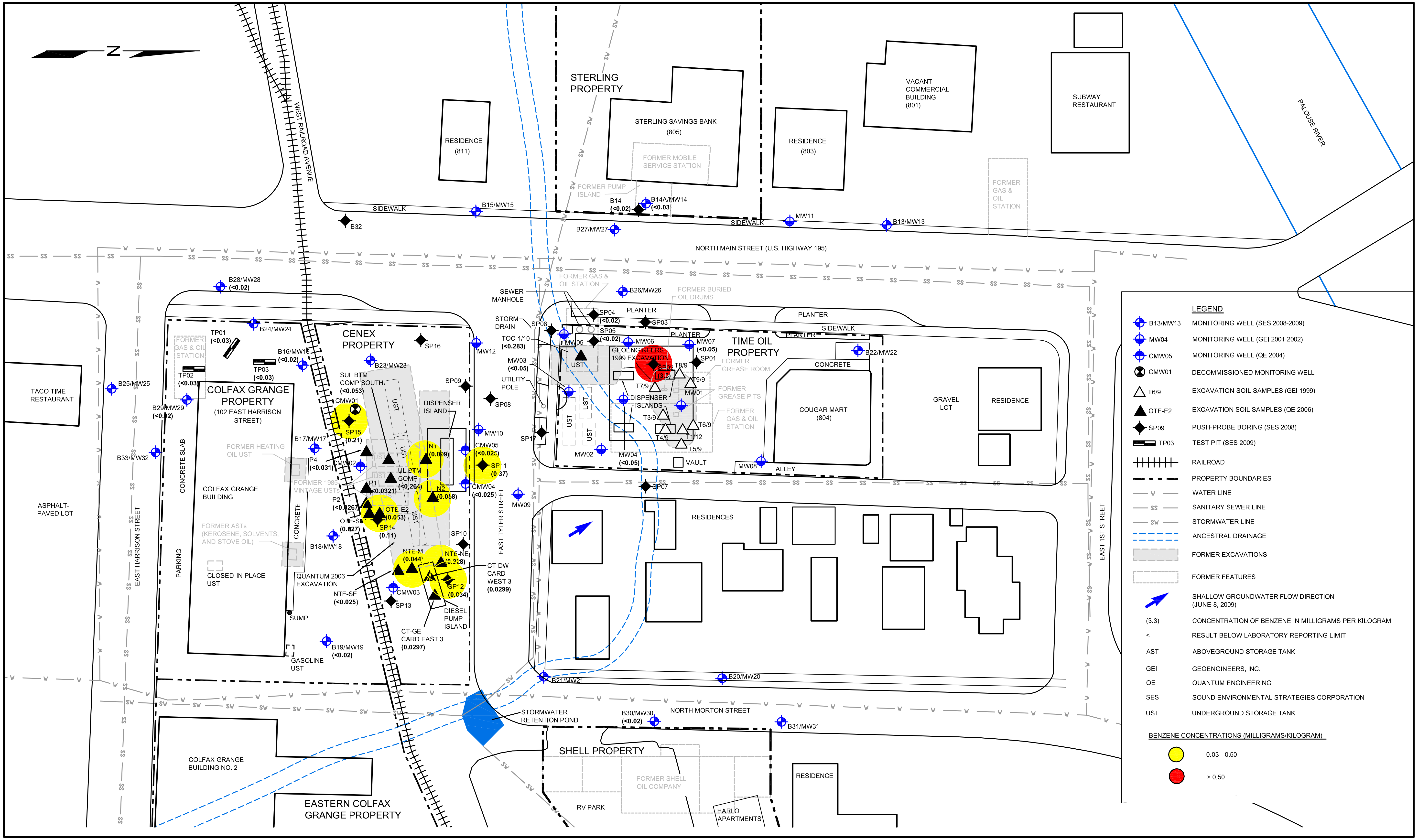
REGION:

0 30 60 120
APPROXIMATE SCALE IN FEET

FIGURE 15
GRPH CONCENTRATIONS IN SOIL

11/18/2009

P:\0592 NORTH COLFAX GROUP\TECHNICAL\CAD\2009RI\0592_2009RI_SD_BENZ_F.DWG

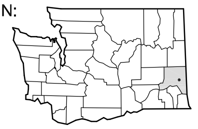


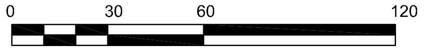
SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 08/31/09
DRAWN BY: NAC/BLR
CHECKED BY: RKB
CAD FILE: 0592_2009RI_SD_BENZ

PROJECT NAME: NCPC SITE
SES PROJECT NUMBER: 0592-001
STREET ADDRESS: NORTH MAIN STREET AND EAST TYLER STREET
CITY, STATE: COLFAX, WASHINGTON

REGION:





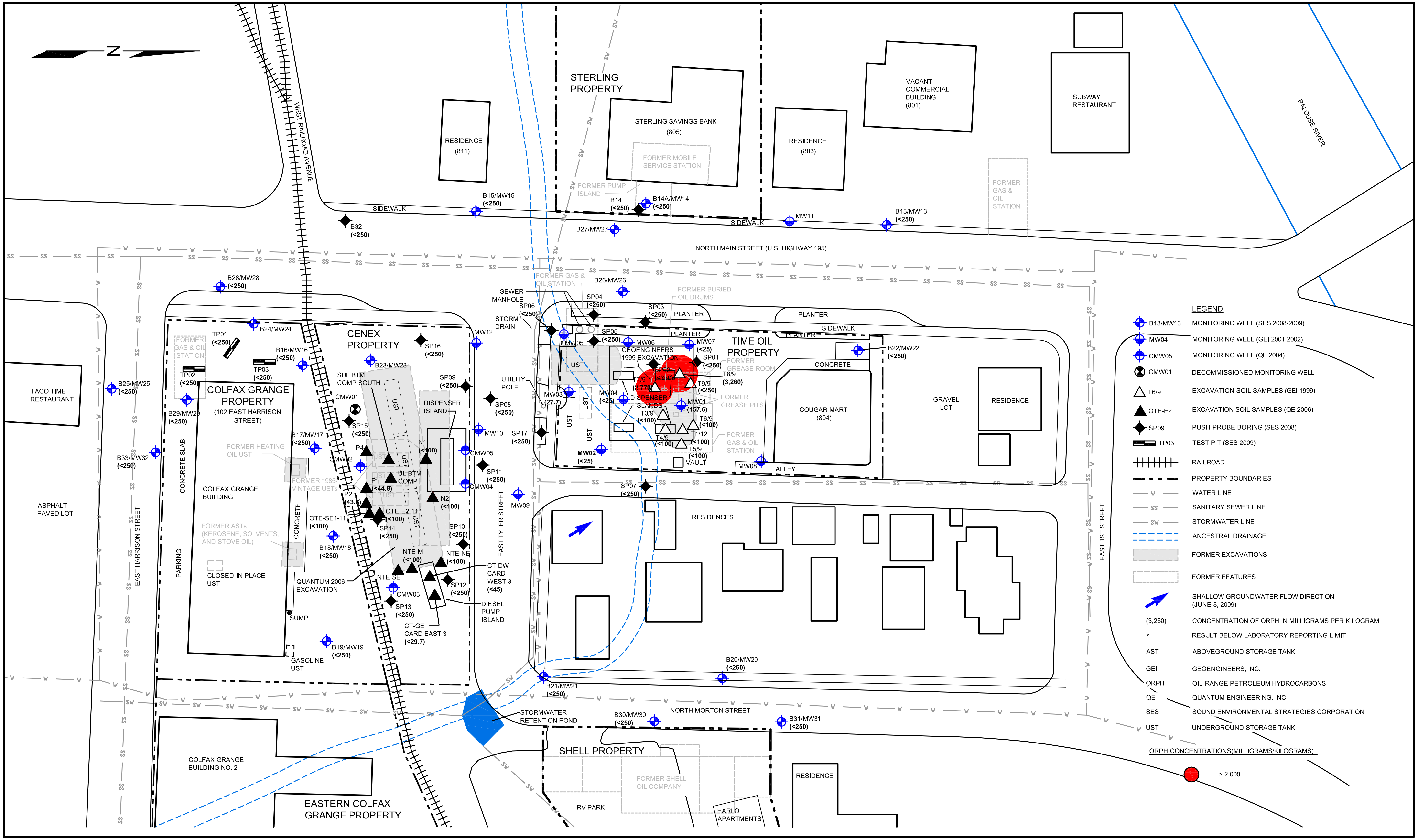
APPROXIMATE SCALE IN FEET

FIGURE 16

BENZENE CONCENTRATIONS IN SOIL

11/18/2009

P:\0592 NORTH COLFAX GROUP\TECHNICAL\CAD\2009RI\0592_2009RI_SD_ORPH F.DWG

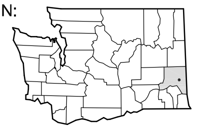


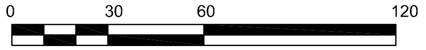
SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 08/31/09
DRAWN BY: NAC/BLR
CHECKED BY: RKB
CAD FILE: 0592_2009RI_SD_ORPH

PROJECT NAME: NCPC SITE
SES PROJECT NUMBER: 0592-001-01
STREET ADDRESS: NORTH MAIN STREET AND EAST TYLER STREET
CITY, STATE: COLFAX, WASHINGTON

REGION:





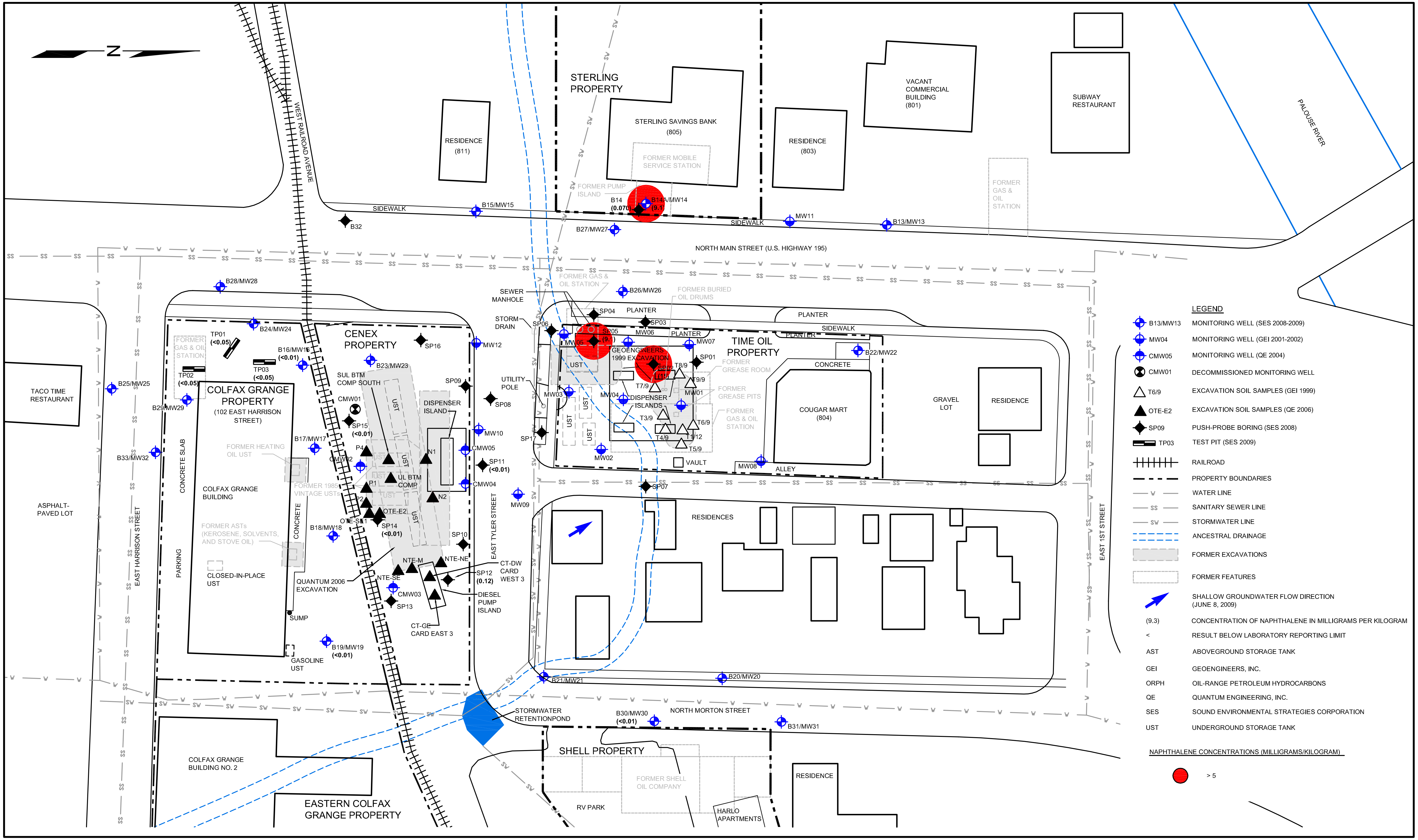
APPROXIMATE SCALE IN FEET

FIGURE 17
ORPH CONCENTRATIONS IN SOIL

SOUNDENVIRONMENTAL.COM

11/18/2009

P:\0592 NORTH COLFAX GROUP\TECHNICAL\CAD\2009RI\0592_2009RI_SD_NAP_F.DWG

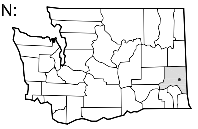


SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 08/31/09
DRAWN BY: NAC/BLR
CHECKED BY: RKB
CAD FILE: 0592_2009RI_SD_NAP

PROJECT NAME: NCPC SITE
SES PROJECT NUMBER: 0592-001
STREET ADDRESS: NORTH MAIN STREET AND EAST TYLER STREET
CITY, STATE: COLFAX, WASHINGTON

REGION:



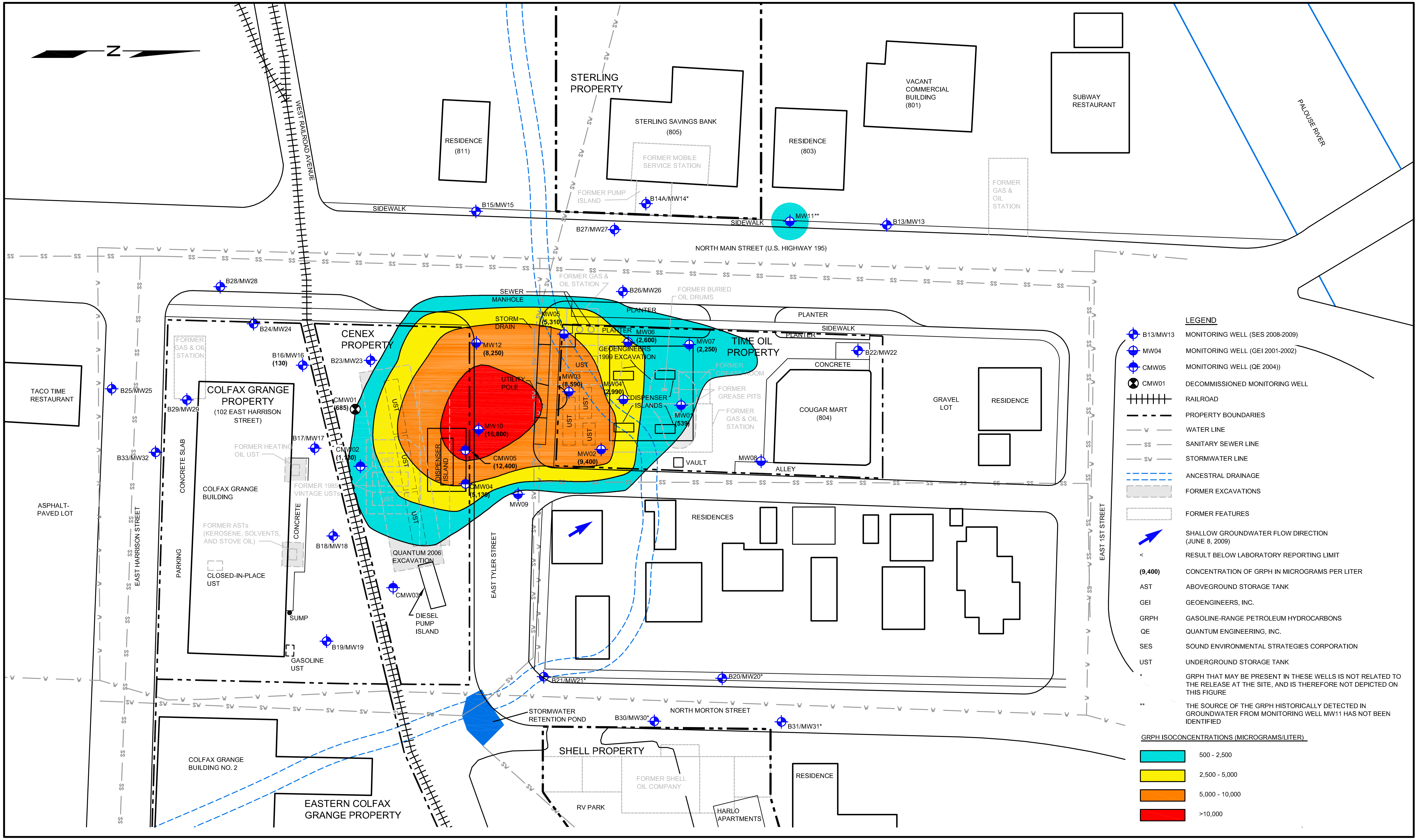
0 30 60 120
APPROXIMATE SCALE IN FEET

FIGURE 18
NAPHTHALENE CONCENTRATIONS IN SOIL

SOUNDENVIRONMENTAL.COM

11/18/2009

P:\0592 NORTH COLFAX GROUP\TECHNICAL\CAD\2009RI\0592_2009RI_GD_GRPH_F.DWG

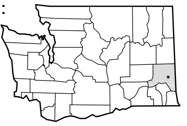


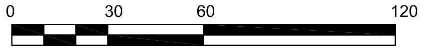
SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 07/15/09
DRAWN BY: NAC/BLR
CHECKED BY: RKB
CAD FILE: 0592_2009RI_GD_GRPH

PROJECT NAME: NCPC SITE
SES PROJECT NUMBER: 0592-001
STREET ADDRESS: NORTH MAIN STREET AND EAST TYLER STREET
CITY, STATE: COLFAX, WASHINGTON

REGION:





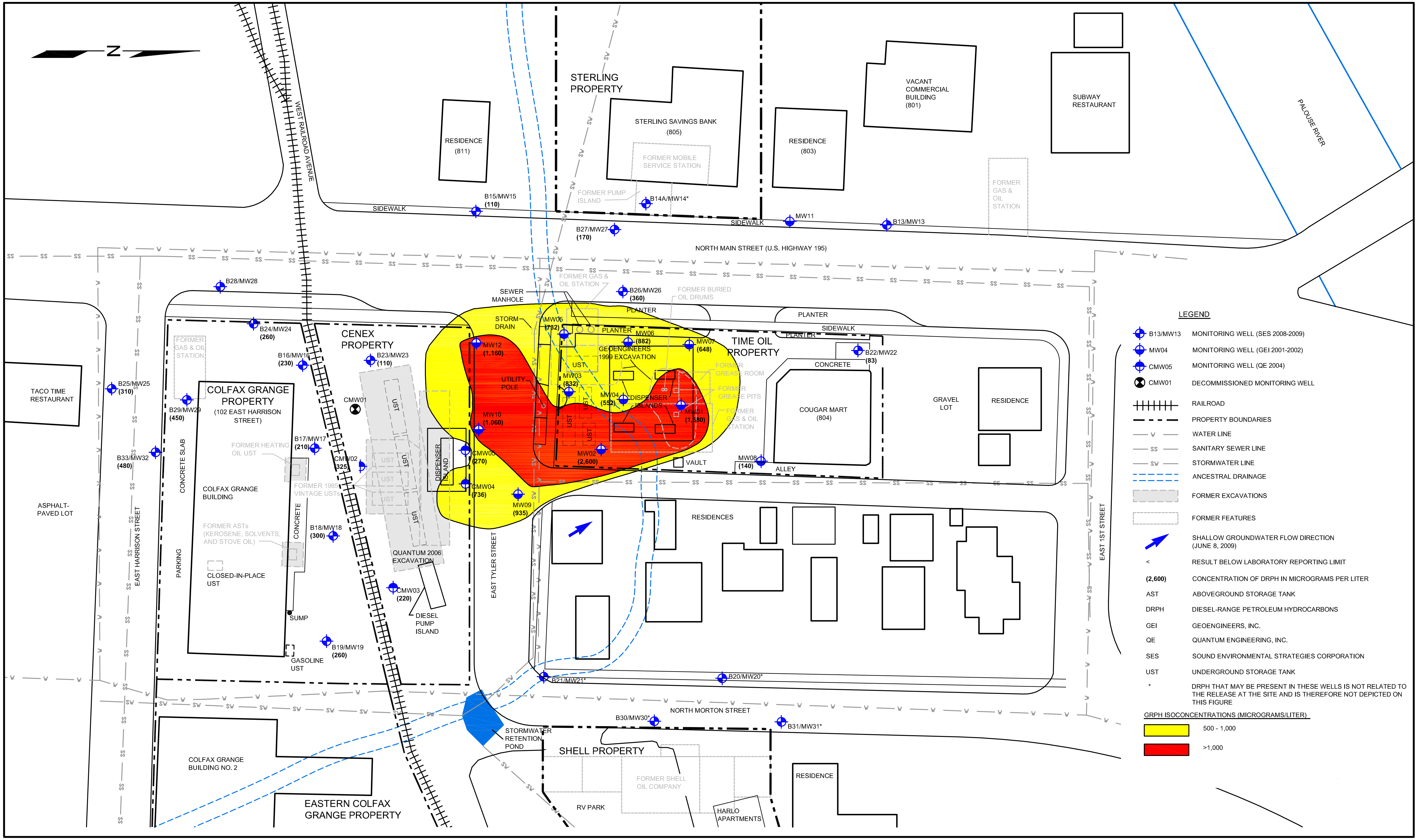
APPROXIMATE SCALE IN FEET

FIGURE 19

MAXIMUM HISTORICAL EXTENT OF GRPH IN GROUNDWATER

11/18/2009

P:\0592 NORTH COLFAX GROUP\TECHNICAL\CAD\2009RI\0592_2009RI_GD_DRPH_F.DWG

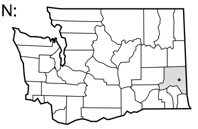


SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 07/15/09
DRAWN BY: NAC/BLR
CHECKED BY: RKB
CAD FILE: 0592_2009RI_GD_DRPH

PROJECT NAME: NCPC SITE
SES PROJECT NUMBER: 0592-001
STREET ADDRESS: NORTH MAIN STREET AND EAST TYLER STREET
CITY, STATE: COLFAX, WASHINGTON

REGION:

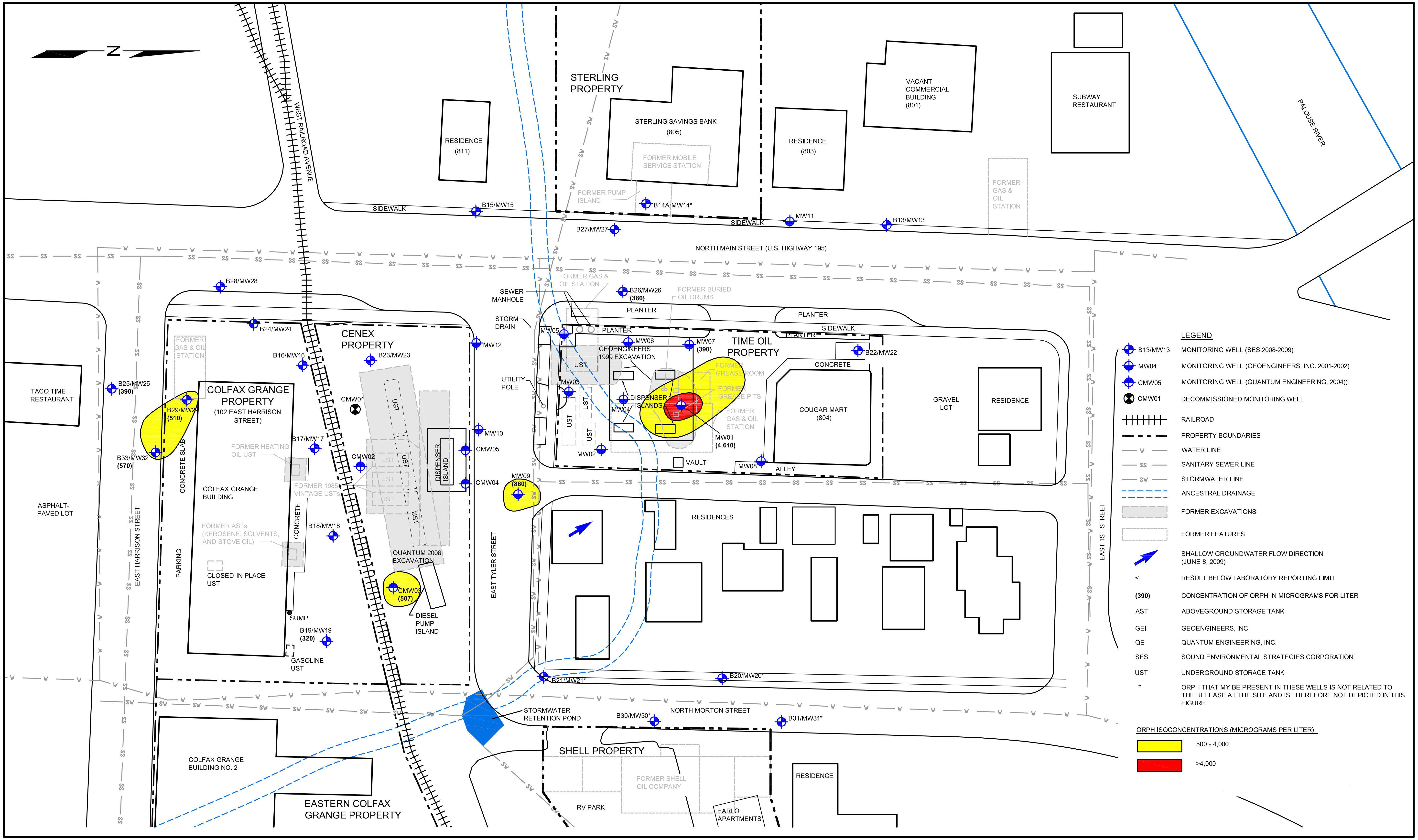


0 30 60 120
APPROXIMATE SCALE IN FEET

FIGURE 20
MAXIMUM HISTORICAL EXTENT OF DRPH IN GROUNDWATER

SOUNDENVIRONMENTAL.COM

11/18/2009

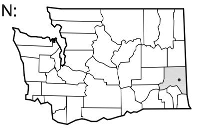


SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 08/28/09
DRAWN BY: NAC/BLR
CHECKED BY: RKB
CAD FILE: 0592_2009RI_GD_ORPH

PROJECT NAME: NCPC SITE
SES PROJECT NUMBER: 0592-001
STREET ADDRESS: NORTH MAIN STREET AND EAST TYLER STREET
CITY, STATE: COLFAX, WASHINGTON

REGION:



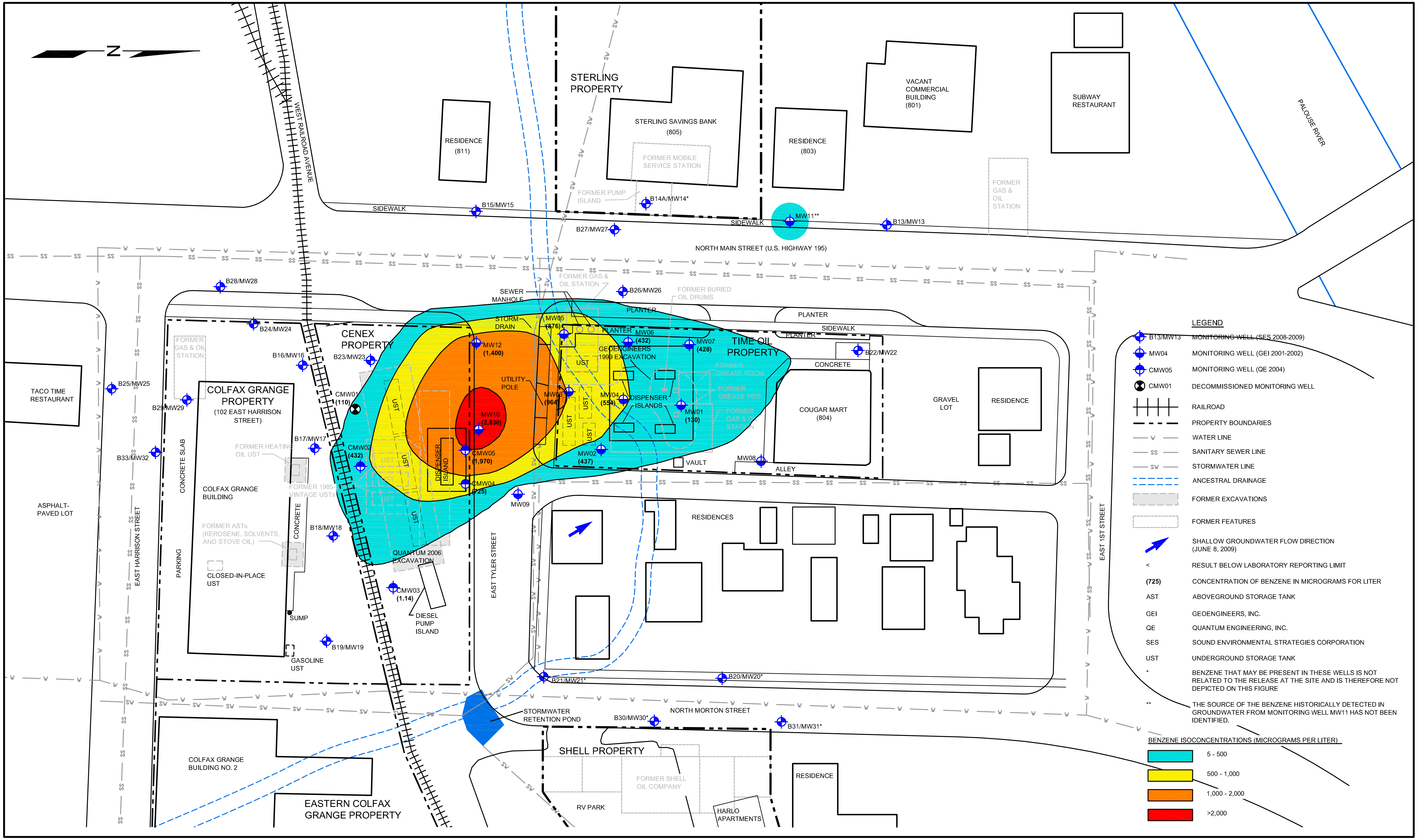
0 30 60 120
APPROXIMATE SCALE IN FEET

FIGURE 21
MAXIMUM HISTORICAL EXTENT OF ORPH IN GROUNDWATER

P:\0592 NORTH COLFAX GROUP\TECHNICAL\CAD\2009RI\0592_2009RI_GD_ORPH_F.DWG

11/18/2009

P:\0592 NORTH COLFAX GROUP\TECHNICAL\CAD\2009RI\0592_2009RI_GD_BENZ_F.DWG

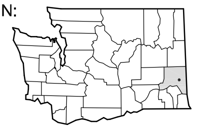


SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 07/15/09
DRAWN BY: NAC/BLR
CHECKED BY: RKB
CAD FILE: 0592_2009RI_GD_BENZ

PROJECT NAME: NCPC SITE
SES PROJECT NUMBER: 0592-001
STREET ADDRESS: NORTH MAIN STREET AND EAST TYLER STREET
CITY, STATE: COLFAX, WASHINGTON

REGION:

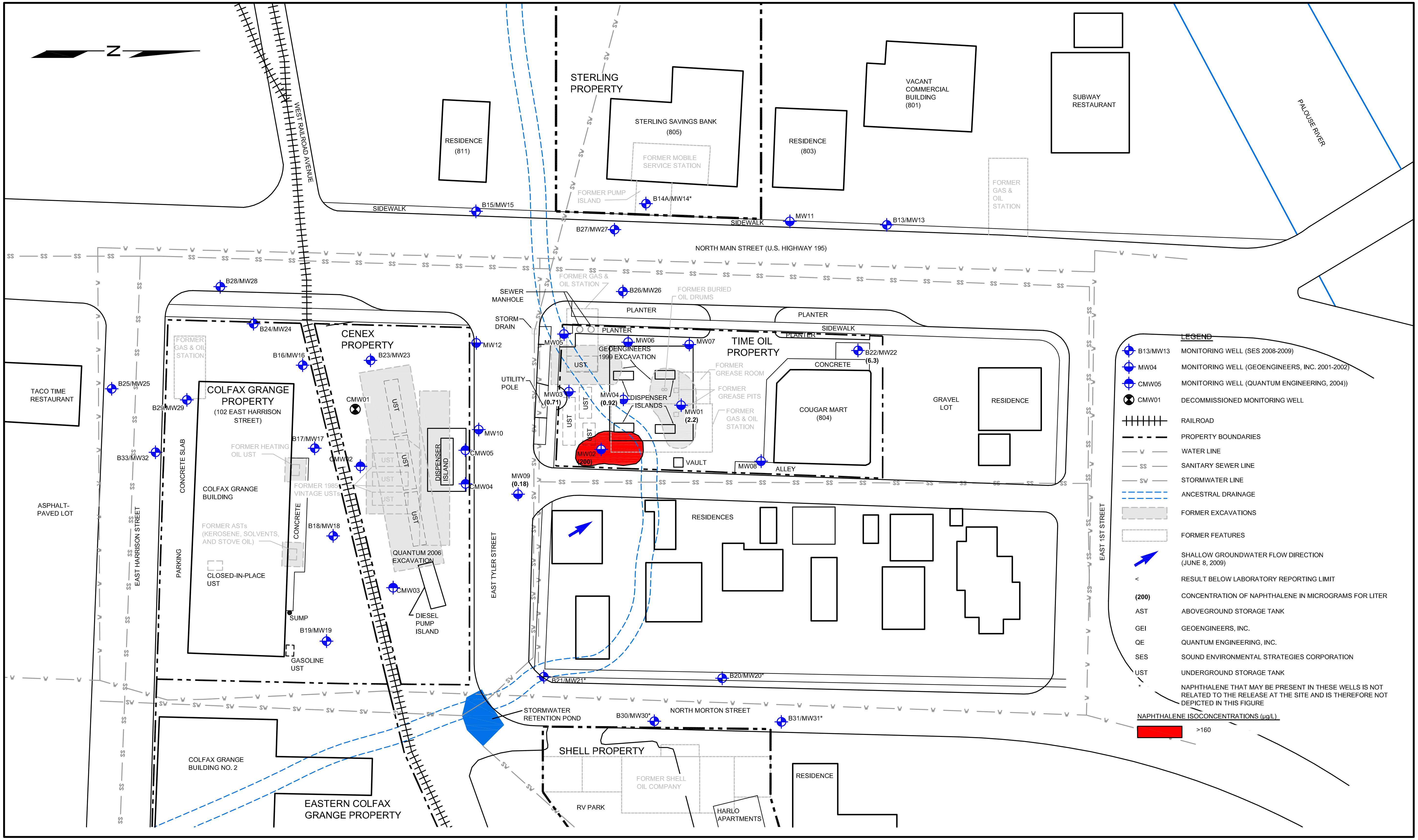


0 30 60 120
APPROXIMATE SCALE IN FEET

FIGURE 22
MAXIMUM HISTORICAL EXTENT OF BENZENE IN GROUNDWATER

SOUNDENVIRONMENTAL.COM

11/18/2009

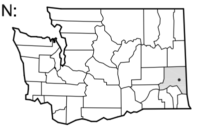


SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 08/28/09
DRAWN BY: NAC/BLR
CHECKED BY: RKB
CAD FILE: 0592_2009RI_GD_NAP

PROJECT NAME: NCPC SITE
SES PROJECT NUMBER: 0592-001
STREET ADDRESS: NORTH MAIN STREET AND EAST TYLER STREET
CITY, STATE: COLFAX, WASHINGTON

REGION:



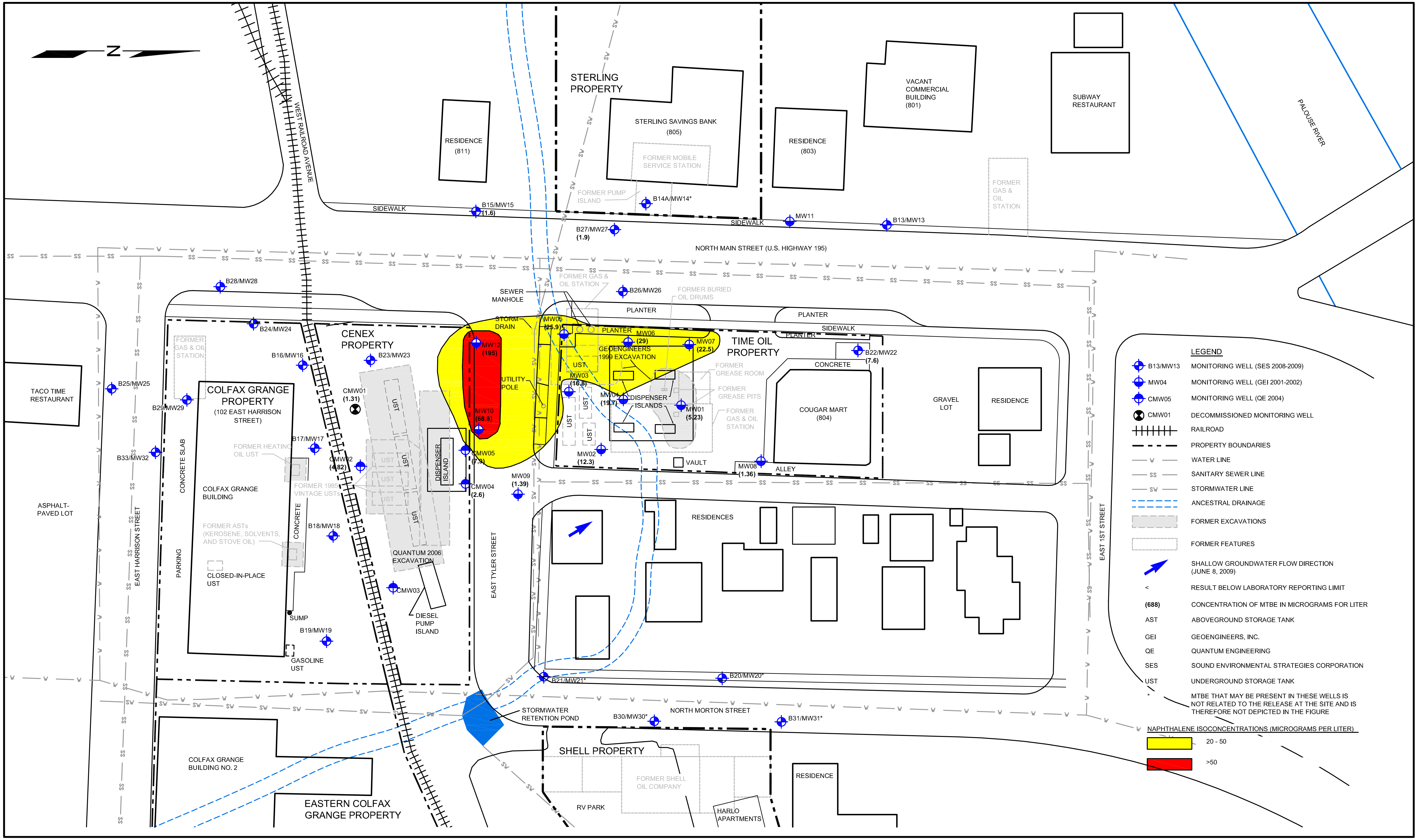
0 30 60 120
APPROXIMATE SCALE IN FEET

FIGURE 23

MAXIMUM HISTORICAL EXTENT OF NAPHTHALENE IN GROUNDWATER

P:\0592 NORTH COLFAX GROUP\TECHNICAL\CAD\2009RI\0592_2009RI_GD_NAP_F.DWG

SOUNDENVIRONMENTAL.COM

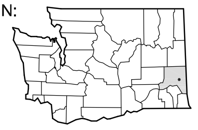


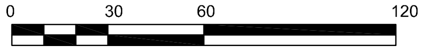
SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 08/28/09
DRAWN BY: NAC/BLR
CHECKED BY: RKB
CAD FILE: 0592_2009RI_GD_MTBE

PROJECT NAME: NCPC SITE
SES PROJECT NUMBER: 0592-001
STREET ADDRESS: NORTH MAIN STREET AND EAST TYLER STREET
CITY, STATE: COLFAX, WASHINGTON

REGION:





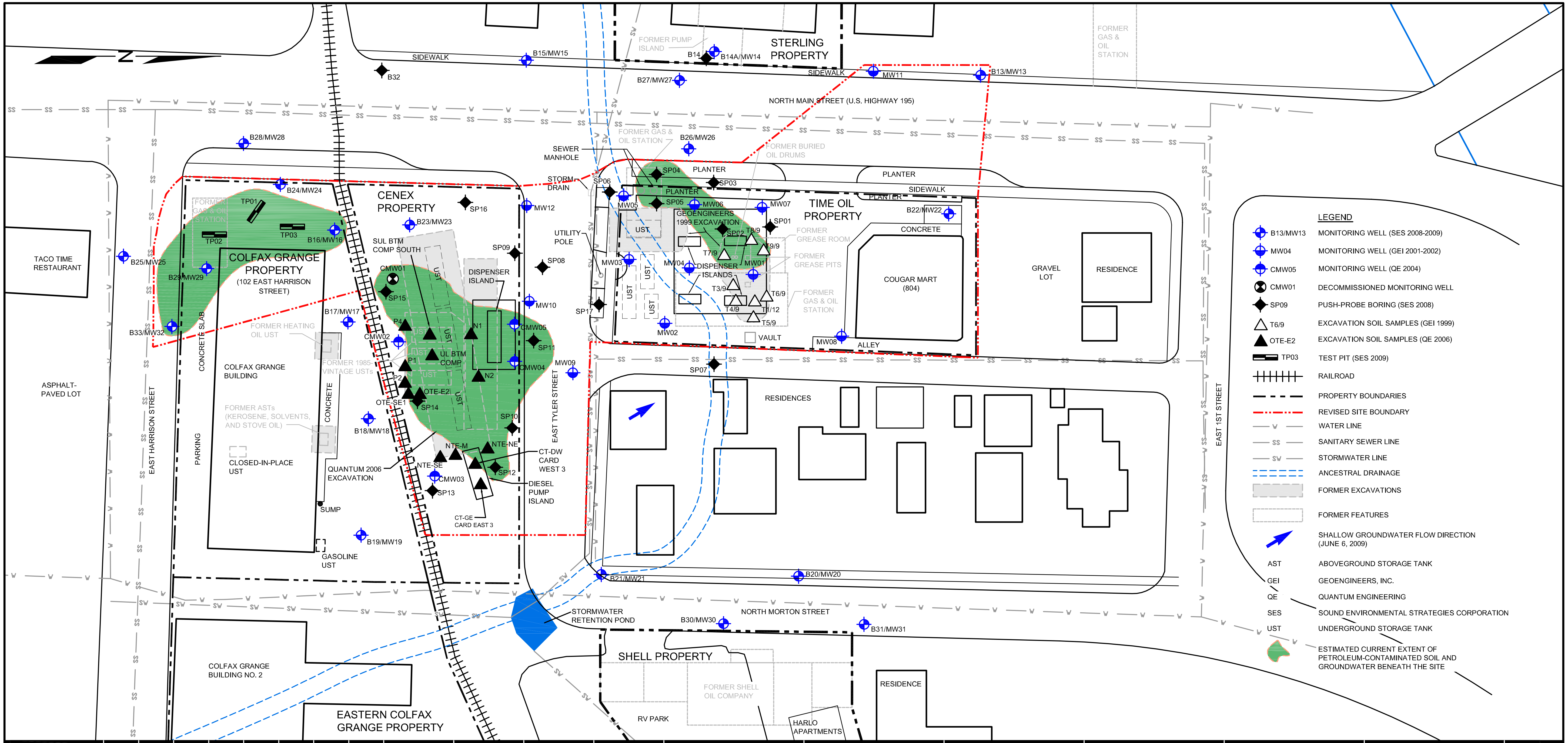
APPROXIMATE SCALE IN FEET

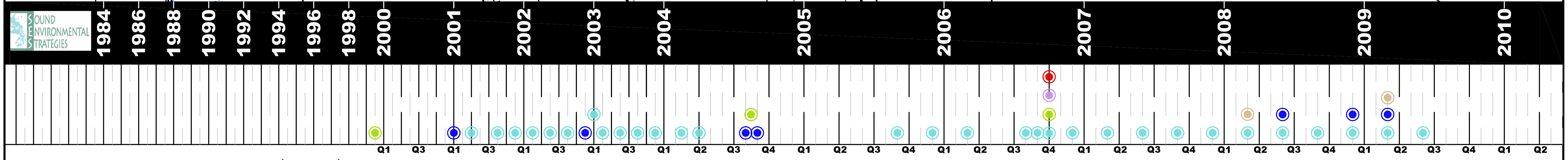
FIGURE 24
MAXIMUM HISTORICAL EXTENT OF MTBE IN GROUNDWATER

11/18/2009

P:\0592 NORTH COLFAX GROUP\TECHNICAL\CAD\2009RI\0592_2009RI_GD_MTBE_F.DWG

11/18/2009





PROJECT TIMELINE

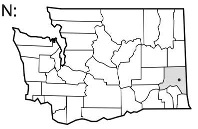
TIMELINE LEGEND
- ● GROUNDWATER MONITORING
- ● EXCAVATION
- ● TANK REMOVAL
- ● WELL INSTALLATION
- ● WELL DECOMMISSION
- ● SUBSURFACE INVESTIGATION

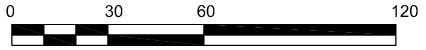
SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 10/27/09
DRAWN BY: NAC/BLR
CHECKED BY: RKB
CAD FILE: 0592_2009RI_SBD

PROJECT NAME: NCPC SITE
SES PROJECT NUMBER: 0592-001
STREET ADDRESS: NORTH MAIN STREET AND EAST TYLER STREET
CITY, STATE: COLFAX, WASHINGTON

REGION:





APPROXIMATE SCALE IN FEET

FIGURE 25
SITE BOUNDARY DEFINITION

P:\0592 NORTH COLFAX GROUP\TECHNICAL\CAD\2009RI\0592_2009RI_SBD_F.DWG

SOUNDENVIRONMENTAL.COM

TABLES

Sound Environmental Strategies
www.soundenvironmental.com

Table 1
Summary of Soil Analytical Results for TPH and VOCs
North Colfax Petroleum Contamination Site
Colfax, Washington

Boring Number/Sample Area	Sample Identification	Date Sampled	Sample Depth (feet)[1]	Sampled By	Analyzed By	Analytical Results (milligrams per kilogram)											
						NWTPH-HCID[2]	DRPH[3]	ORPH[3]	GRPH[4]	Benzene[5]	Toluene[5]	Ethylbenzene[5]	Total Xylenes[5]	MTBE[5]	EDB[5]	EDC[5]	VOCs[6]
TIME OIL 1999 EXCAVATION																	
New UST Excavation	TOC - 1/10	09/03/99	10	GEI	Anatek	—	<25.0	—	0.27	<0.283	<0.283	<0.283	0.003	—	—	—	—
Former Service Bay Installation	GP-01	09/09/99	2			—	<25.0	280	—	—	—	—	—	—	—	—	—
	GP-02		10-11			—	<25.0	173	—	—	—	—	—	—	—	—	—
	GP-03		10-11			—	75.8	1,900	—	<0.005	0.093	<0.005	0.037	—	—	—	<CUL
	T-1/12	09/14/99	12			—	<25.0	<100.0	—	—	—	—	—	—	—	—	—
	T-3/9		9			—	<25.0	<100.0	—	—	—	—	—	—	—	—	—
	T-4/9		9			—	<25.0	<100.0	—	—	—	—	—	—	—	—	—
	T-5/9		9			—	26.4	<100.0	—	—	—	—	—	—	—	—	—
	T-6/9		9			—	<25.0	<100.0	—	—	—	—	—	—	—	—	—
	T-7/9	09/18/99	9			—	<25.0	**2,770**	—	—	—	—	—	—	—	—	—
	T-8/9		9			—	<25.0	**3,260**	—	—	—	—	—	—	—	—	—
	T-9/6		6			—	<25.0	157.6	—	—	—	—	—	—	—	—	—
Former Service Bay Installation Stockpile Samples	TOC-SP-1	09/03/99	—			—	<25.0	—	**2,370**	**0.083**	0.0292	**14.2**	**34.4**	—	—	—	—
	COMPOSITE (SP-2 through 6)		—			—	<25.0	—	**146**	0.029	0.013	1.30	2.20	—	—	—	—
	SS-01-100199	10/01/99	—			—	<25.0	<100.0	—	—	—	—	—	—	—	—	—
GEOENGINEERS AND QUANTUM SOIL BORINGS																	
MW02	MW-2-7	02/06/01	7	GEI	NCA	—	<10.0	<25.0	<5.00	<0.0500	<0.0500	<0.0500	<0.100	—	—	—	—
MW03	MW-3-5		5			—	34.5	27.7	<5.00	<0.0500	<0.0500	<0.0500	<0,100	—	—	—	—
	MW-3-10		10			—	<10.0	<25.0	<5.00	<0.0500	<0.0500	<0.0500	<0.100	—	—	—	—
MW04	MW-4-5	02/09/01	5			—	<10.0	<25.0	<5.00	<0.0500	<0.0500	<0.0500	<0.100	—	—	—	—
MW05	MW-5-5	02/07/01	5			—	15.9	30.9	**40.3**	<0.0500	<0.0500	<0.0500	<0.100	—	—	—	—
MW06	MW-6-5	02/08/01	5			—	464	<575	**4,300**	<2.09	<2.09	<7.11	<30.1	—	—	—	—
MW07	MW-7-5	02/07/01	5			—	<10.0	<25.0	<5.00	<0.0500	<0.0500	<0.0500	<0.100	—	—	—	—
CMW04	CMW4 5-6	12/03/04	5-6	QE	TA	—	—	—	<10.0	<0.0250	<0.200	<0.200	<0.600	—	—	—	—
	CMW4 7.5-9		7.5-9			—	—	—	<10.0	<0.0250	<0.200	<0.200	<0.600	—	—	—	—
	CMW4 12-13.5		12-13.5			—	—	—	<10.0	<0.0250	<0.200	<0.200	<0.600	—	—	—	—
CMW05	CMW5 5-6		5-6			—	—	—	<10.0	<0.0250	<0.200	<0.200	<0.600	—	—	—	—
	CMW5 10-10.5		10-10.5			—	—	—	<10.0	<0.0250	<0.200	<0.200	<0.600	—	—	—	—
QUANTUM 2004 EXCAVATION																	
Colfax Grange Sump Excavation Area	ULIP 0-6	11/01/04	0.5	QE	NCA	—	—	—	**1,820**	**7.24**	**59.5**	**24.5**	**158**	—	—	—	—
	ULIP 15"		1			—	—	—	**1,690**	**2.69**	**25.8**	**15.7**	**145**	—	—	—	—
	SULIP 0-6"		0.5			—	—	—	<10.0	<0.0250	<0.200	<0.200	<0.600	—	—	—	—
	SULIP 15		1			—	—	—	<10.0	<0.0250	<0.200	<0.200	<0.600	—	—	—	—
	SUL Pump 0-6"		0.5			—	—	—	<10.0	<0.0250	<0.200	<0.200	<0.600	—	—	—	—
	UL Pump 0-6"		0.5			—	—	—	**524**	**0.397**	0.237	0.596	3.19	—	—	—	—
	SUL-IP Vault	11/15/04	—			—	—	—	<10.0	<0.0250	<0.200	<0.200	<0.600	—	—	—	—
	Diesel IP Vault		—			—	178	<25.0	**990**	<0.0250	<0.200	2.73	**93.6**	—	—	—	—
	SUL Turbine		—			—	—	—	24.6	**0.0685**	<0.200	<0.200	<0.600	—	—	—	—
	East Diesel IP - After		—			—	589	<25.0	<40	<0.100	<0.800	<0.800	<2.40	—	—	—	—
	West Diesel IP-After		—			—	70.8	<25.0	**231**	<0.250	<2.00	<2.00	8.89	—	—	—	—
	ULIP Vault		—			—	—	—	**604**	<0.250	<2.00	<2.00	**22.2**	—	—	—	—
	Diesel Turbine		—			—	**7,660**	1,450	**595**	**0.395**	1.25	0.981	**12.9**	—	—	—	—
	UL Turbine		—			—	—	—	**5,030**	**4.28**	**30.1**	**16.4**	**205**	—	—	—	—
MTCA Method A Cleanup Level for Soil[7]						**NE**	**2,000**	**2,000**	**30**	**0.03**	**7**	**6**	**9**	**0.1**	**0.005**	**11[a]**	**NE**

Table 1
Summary of Soil Analytical Results for TPH and VOCs
North Colfax Petroleum Contamination Site
Colfax, Washington

Boring Number/Sample Area	Sample Identification	Date Sampled	Sample Depth (feet)[1]	Sampled By	Analyzed By	Analytical Results (milligrams per kilogram)											
						NWTPH-HCID[2]	DRPH[3]	ORPH[3]	GRPH[4]	Benzene[5]	Toluene[5]	Ethylbenzene[5]	Total Xylenes[5]	MTBE[5]	EDB[5]	EDC[5]	VOCs[6]
CENEX 2006 EXCAVATION																	
Cenex UST Excavation Area	SUL BTM Comp South	10/25/06	10	QE	TA	—	—	—	**188**	<0.0530	<0.424	<0.424	<1.27	<0.106	—	—	—
	UL Turbine		1.5			—	—	—	<11.3	<0.0282	0.226	0.226	0.677	<.113	—	—	—
	UL BTM Comp		10			—	—	—	**1,230**	<0.264	5.36	**10.2**	**69.3**	<2.11	—	—	—
	D Pump		1.5			—	1,640	394	—	**0.269**	**23.1**	**20.1**	**129**	—	—	—	—
	Diesel Tank BTM N		10			—	780	27.9	—	<0.329	<4.39	**7.35**	**18.6**	—	—	—	—
	Diesel Tank BTM S		10			—	**3,860**	165	—	**3.86**	**44.0**	**27.5**	**128**	—	—	—	—
	West Disp		1.5			—	—	—	**1,730**	**3.92**	**40.7**	**22.9**	**151**	<0.252	—	—	—
	Center Disp		1.5			—	—	—	**235**	<0.0263	<0.210	<0.210	2.5	<0.105	—	—	—
	East Disp		1.5			—	—	—	**600**	<0.267	**10.7**	**10.6**	**73.2**	<0.107	—	—	—
	West Card Diesel		1.5			—	**3,850**	601	—	<0.0182	<0.243	<0.243	<0.729	—	—	—	—
	East Card Diesel		1.5			—	—	—	20.7	<0.0311	<0.249	<0.249	<0.747	<0.125	—	—	—
	UL Fill		1.5			—	—	—	<10.4	<0.0261	<0.209	<0.209	<0.626	<0.104	—	—	—
	UL IP		1.5			—	—	—	<10.6	<0.0265	<0.212	<0.212	<0.636	<0.106	—	—	—
	UL Turbine 2		2			—	—	—	**3,260**	**13**	**189**	**68.7**	**397**	<2.18	—	—	—
	D Fill		1.5			—	735	286	—	<0.0165	<0.220	<0.220	<0.661	—	—	—	—
	D IP		1.5			—	43.5	<26.1	—	<0.0157	<0.209	<0.209	<0.627	—	—	—	—
	Drop Island	10/27/06	2			—	23.2	214	<11.5	<0.0286	<0.229	<0.229	<0.687	<0.115	—	—	—
	P1		5-10			—	24.2	<44.8	22.2	<0.0321	<0.256	<0.256	<0.769	<0.128	—	—	—
	P2		9-11			—	898	43.6	**145**	<0.0267	<0.213	<0.213	<0.640	<0.107	—	—	—
	P4		5-10			—	—	—	<12.3	<0.0308	<0.247	<0.247	<0.740	<0.123	—	—	—
	P5/P6		4-8			—	—	—	<13.1	<0.0327	<0.262	<0.262	<0.785	<0.131	—	—	—
	P9		9-11			—	—	—	**41.5**	<0.0310	<0.248	<0.248	<0.743	<0.124	—	—	—
	P10		10-11			—	—	—	<12.9	<0.0321	<0.257	<0.257	<0.771	<0.129	—	—	—
	P11		5-10			—	141	<42.8	**1,050**	**0.0561**	0.352	2.45	**17.2**	<1.30	—	—	—
	P12		10-11			—	<15.2	<37.9	<12.8	<0.0320	<0.256	<0.256	<0.767	<0.128	—	—	—
	OTE-SE1-6	11/10/06	6		Anatek	—	<25	<100	**139**	0.013	0.021	0.108	1.802	<0.010	—	—	—
	OTE-E2-11		11			—	<25	<100	7.1	**0.063**	0.01	0.02	0.062	<0.010	—	—	—
	OTE-E3-6		6			—	<25	<100	18.2	**0.131**	0.059	0.056	0.352	<0.010	—	—	—
	OTE-E4-6		6			—	<25	102	**39.6**	**0.544**	0.322	0.336	1.329	<0.010	—	—	—
	OTE-W6-6		6			—	<25	<100	11.0	**0.052**	0.032	0.014	0.03	<0.010	—	—	—
	OTE-SE1-11		11			—	<25	<100	7.6	0.027	0.012	<0.005	0.067	<0.010	—	—	—
	OTE-E2-6		6			—	<25	173	8.0	0.023	0.014	0.009	0.084	<0.010	—	—	—
	OTE-W5-5		5			—	<25	<100	9.7	0.029	0.015	0.011	0.093	<0.010	—	—	—
	OTE-W5-10		10			—	<25	<100	9.5	0.026	0.025	0.015	0.097	<0.010	—	—	—
	OTE-W6-11		11			—	<25	<100	6.4	0.016	0.006	<0.005	0.017	<0.010	—	—	—
	N1-11	11/13/06	11			—	465	<100	**642**	**0.099**	0.249	1.14	7.16	<0.025	—	—	—
	N2-11		11			—	<25	<100	**46.2**	**0.058**	0.074	0.15	0.636	<0.025	—	—	—
	CT-DW-3.0		3			—	<25	<100	<2.50	<0.025	<0.025	<0.025	<0.075	<0.025	—	—	—
	CT-GE-3.0		3			—	—	—	<2.50	<0.025	<0.025	<0.025	<0.075	<0.025	—	—	—
	NTE-NE 3-6	11/14/06	3-6			—	<25	<100	<2.50	**0.083**	0.058	<0.025	<0.075	<0.025	—	—	—
	NTE-NE 6-9		6-9			—	<25	<100	4.29	**0.228**	0.483	0.03	0.175	<0.025	—	—	—
	NTE-M 3-6		3-6			—	<25	<100	10.5	**0.49**	1.3	0.073	0.806	<0.025	—	—	—
	NTE-M 6-9		6-9			—	<25	<100	<2.50	**0.044**	0.101	<0.025	<0.075	<0.025	—	—	—
MTCA Method A Cleanup Level for Soil[7]						**NE**	**2,000**	**2,000**	**30**	**0.03**	**7**	**6**	**9**	**0.1**	**0.005**	**11[a]**	**NE**

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						Analytical Results (milligrams per kilogram)											
Boring Number/Sample Area	Sample Identification	Date Sampled	Sample Depth (feet)[1]	Sampled By	Analyzed By	NWTPH-HCID[2]	DRPH[3]	ORPH[3]	GRPH[4]	Benzene[5]	Toluene[5]	Ethylbenzene[5]	Total Xylenes[5]	MTBE[5]	EDB[5]	EDC[5]	VOCs[6]
CENEX 2006 EXCAVATION																	
Cenex UST Excavation Area	NTE-SE 3-6	11/14/06	3-6			—	<25	<100	3.27	<0.025	<0.025	<0.025	<0.075	<0.025	—	—	—
	NTE-SE 6-9		6-9			—	<25	<100	<2.50	<0.025	0.031	<0.025	<0.075	<0.025	—	—	—
	Card West 3	11/20/06	3			—	77.6	<45.0	<12.0	<0.0299	<0.239	<0.239	<0.718	—	—	—	—
	Card East 3		3			—	13.1	<29.7	<11.9	<0.0297	<0.237	<0.237	<0.712	—	—	—	—
Cenex Facility Imported Backfill	Backfill Comp.	11/20/06	NA			—	<10.4	<26.0	<10.4	<0.0260	<0.208	<0.208	<0.623	—	—	—	—
SES SOIL BORINGS																	
SP01	SP01-06.5-07.5	04/09/08	6.5-7.5	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	SP01-11-12		11-12			ND	<50	<250	<20	—	—	—	—	—	—	—	—
	SP01-13-14		13-14			ND	<50	<250	<20	—	—	—	—	—	—	—	—
SP02	SP02-03-04	04/09/08	3-4	SES	F&B	—	150[x]	<250	**670**	**1.6**	**11**	**10**	**64**	—	—	—	—
	SP02-07-08		7-8			—	850[x]	<250	**3,300**	**3.3**	**62**	**78**	**480**	**2.0**	<0.05	<0.05	<CUL
	SP02-13-14		13-14			—	<50	<250	<2	<0.02	<0.02	<0.02	<0.06	—	—	—	—
SP03	SP03-07-08	04/09/08	7-8	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	SP03-10-11		10-11			ND	<50	<250	<20	—	—	—	—	—	—	—	—
	SP03-12-13		12-13			ND	<50	<250	<20	—	—	—	—	—	—	—	—
SP04	SP04-07-08	04/09/08	7-8	SES	F&B	—	<50	<250	**34**	<0.02	0.03	0.12	0.35	—	—	—	—
	SP04-10-11		10-11			—	160[x]	<250	**1,100**	<0.02	1.2	**24**	**24**	—	—	—	—
	SP04-12-13		12-13			—	<50	<250	<2	<0.02	<0.02	<0.02	<0.06	—	—	—	—
SP05	SP05-07-08	04/09/08	7-8	SES	F&B	—	1,200[x]	<250	**2,400**	<0.03	<0.05	0.48	<0.15	<0.05	<0.05	<0.05	<CUL
	SP05-10-11		10-11			—	120[x]	<250	**280**	<0.02	0.12	3.5	2	—	—	—	—
	SP05-13-14		13-14			—	<50	<250	<2	<0.02	<0.02	<0.02	<0.06	—	—	—	—
SP06	SP06-03-04	04/09/08	3-4	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	SP06-07-08		7-8			ND	<50	<250	<20	—	—	—	—	—	—	—	—
	SP06-11-12		11-12			ND	<50	<250	<20	—	—	—	—	—	—	—	—
SP07	SP07-03-04	04/09/08	3-4	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	SP07-07-08		7-8			ND	<50	<250	<20	—	—	—	—	—	—	—	—
	SP07-12.5-13.5		12.5-13.5			ND	<50	<250	<20	—	—	—	—	—	—	—	—
SP08	SP08-05-06	04/10/08	5-6	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	SP08-10-11		10-11			ND	<50	<250	<20	—	—	—	—	—	—	—	—
	SP08-13-14		13-14			ND	<50	<250	<20	—	—	—	—	—	—	—	—
SP09	SP09-06-07	04/10/08	6-7	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	SP09-09-10		9-10			ND	<50	<250	<20	—	—	—	—	—	—	—	—
	SP09-13-14		13-14			ND	<50	<250	<20	—	—	—	—	—	—	—	—
SP10	SP10-05-06	04/10/08	5-6	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	SP10-09-10		9-10			ND	<50	<250	<20	—	—	—	—	—	—	—	—
	SP10-14-15		14-15			ND	<50	<250	<20	—	—	—	—	—	—	—	—
SP11	SP11-03-04	04/09/08	3-4	SES	F&B	—	<50	<250	11	**0.37**	0.02	0.05	0.59	—	—	—	—
	SP11-05-06		5-6			—	<50	<250	6	**0.29**	<0.05	<0.05	0.15	<0.05	<0.05	<0.05	<CUL
	SP11-09.5-10.5		9.5-10.5			—	<50	<250	2	<0.02	<0.02	<0.02	<0.06	—	—	—	—
	SP11-13-14		13-14			—	<50	<250	<2	<0.02	<0.02	<0.02	<0.06	—	—	—	—
MTCA Method A Cleanup Level for Soil[7]						**NE**	**2,000**	**2,000**	**30**	**0.03**	**7**	**6**	**9**	**0.1**	**0.005**	**11[a]**	**NE**

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SES SOIL BORINGS																	
SP12	SP12-06.5-08	04/10/08	6.5-8	SES	F&B	—	<50	<250	<2	<0.02	<0.02	<0.02	<0.06	—	—	—	—
	SP12-10-12		10-12			—	<50	<250	**140**	**0.034**	<0.05	0.75	2.97	<0.05	<0.05	<0.05	<CUL
	SP12-13-14		13-14			—	<50	<250	**66**	<0.02	0.26	0.6	2.9	—	—	—	—
	SP12-14-15		14-15			—	<50	<250	<2	<0.02	<0.02	<0.02	<0.06	—	—	—	—
SP13	SP13-05.5-06.5	04/10/08	5.5-6.5	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	SP13-09-10		9-10			ND	<50	<250	<20	—	—	—	—	—	—	—	—
	SP13-12.5-13.5		12.5-13.5			ND	<50	<250	<20	—	—	—	—	—	—	—	—
SP14	SP14-04.5-05.5	04/10/08	4.5-5.5	SES	F&B	—	<50	<250	3.0	**0.11**	0.02	0.02	<0.06	—	—	—	—
	SP14-07-08		7-8			—	<50	<250	<2	**0.074**	<0.05	<0.05	<0.15	<0.05	<0.05	<0.15	<CUL
	SP14-13-14		13-14			—	<50	<250	<2	<0.02	<0.02	<0.02	<0.06	—	—	—	—
SP15	SP15-06-07	04/10/08	6-7	SES	F&B	—	<50	<250	3.0	**0.21**	<0.05	<0.05	0.29	<0.05	<0.05	<0.15	<CUL
	SP15-10-11		10-11			—	<50	<250	<2	0.03	<0.02	<0.02	0.06	—	—	—	—
	SP15-13-14		13-14			—	<50	<250	<2	<0.02	<0.02	<0.02	<0.06	—	—	—	—
SP16	SP16-09.5-10	04/10/08	9.5-10	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	SP16-13-14		13-14			ND	<50	<250	<20	—	—	—	—	—	—	—	—
SP17	SP17-05-07	04/09/08	5-7	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	SP17-10-11		10-11			ND	<50	<250	<20	—	—	—	—	—	—	—	—
B13/MW13	B13-7-8	06/02/08	7-8	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B13-11-12		11-12			ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B13-13-14		13-14			ND	<50	<250	<20	—	—	—	—	—	—	—	—
B14	B14-7-8	06/02/08	7-8	SES	F&B	—	<50	<250	<2	<0.02	<0.02	<0.02	<0.06	—	—	—	—
	B14-11-12		11-12			—	<50	<250	**140**	<0.03	<0.05	0.26	<0.15	<0.05	<0.05	<0.05	<CUL
	B14-13-14		13-14			—	95[x]	<250	**84**	<0.02	2	0.22	0.42	—	—	—	—
B14A/MW14	B14A-07.5	03/03/09	7.5	SES	F&B	—	230[x]	<250	24	<0.03	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<CUL
	B14A-10		10			—	260[x]	<250	**1,300**	<0.03	0.057	**45**	2.1	<0.05	<0.05	<0.05	<CUL
B15/MW15	B15-7-8	06/02/08	7-8	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B15-11-12		11-12			ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B15-13-14		13-14			ND	<50	<250	<20	—	—	—	—	—	—	—	—
B16/MW16	B16-6-7	06/02/08	6-7	SES	F&B	—	<50	<250	<2	<0.02	<0.02	<0.02	<0.06	—	—	—	—
	B16-11-12		11-12			—	<50	<250	**140**	<0.03	<0.05	0.26	<0.15	<0.05	<0.05	<0.05	<CUL
	B16-14-15		14-15			—	<50	<250	<2	<0.02	<0.02	<0.02	<0.06	—	—	—	—
B17/MW17	B17-6-7	06/02/08	6-7	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B17-9.5-10.5		9.5-10.5			ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B17-13-14		13-14			ND	<50	<250	<20	—	—	—	—	—	—	—	—
B18/MW18	B18-6-7	06/02/08	6-7	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B18-11-12		11-12			ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B18-13-14		13-14			ND	<50	<250	<20	—	—	—	—	—	—	—	—
B19/MW19	B19-6-7	06/02/08	6-7	SES	F&B	—	<50	<250	<2	<0.02	<0.02	<0.02	<0.06	—	—	—	—
	B19-7-8		7-8			—	<50	<250	<2	<0.02	<0.02	<0.02	<0.06	—	—	—	<CUL
	B19-11.5-12.5		11.5-12.5			—	<50	<250	2	<0.03	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<CUL
MTCA Method A Cleanup Level for Soil[7]						**NE**	**2,000**	**2,000**	**30**	**0.03**	**7**	**6**	**9**	**0.1**	**0.005**	**11[a]**	**NE**

Table 1
Summary of Soil Analytical Results for TPH and VOCs
North Colfax Petroleum Contamination Site
Colfax, Washington

Boring Number/Sample Area	Sample Identification	Date Sampled	Sample Depth (feet)[1]	Sampled By	Analyzed By	Analytical Results (milligrams per kilogram)											
						NWTPH-HCID[2]	DRPH[3]	ORPH[3]	GRPH[4]	Benzene[5]	Toluene[5]	Ethylbenzene[5]	Total Xylenes[5]	MTBE[5]	EDB[5]	EDC[5]	VOCs[6]
SES SOIL BORINGS																	
B20/MW20	B20-06	06/04/08	6	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B20-07.5		7.5			ND	<50	<250	<20	—	—	—	—	—	—	—	—
B21/MW21	B21-9-10	06/02/08	9-10	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B21-11-12		11-12			ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B21-12-13		12-13			ND	<50	<250	<20	—	—	—	—	—	—	—	—
B22/MW22	B22-5-6	06/02/08	5-6	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B22-7-8		7-8			ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B22-11-12		11-12			ND	<50	<250	<20	—	—	—	—	—	—	—	—
B23/MW23	B23-6-7	06/02/08	6-7	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B23-14-15		14-15			ND	<50	<250	<20	—	—	—	—	—	—	—	—
B24/MW24	B24-02.5	03/02/09	2.5	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B24-07.5		7.5			ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B24-12.5		12.5			ND	<50	<250	<20	—	—	—	—	—	—	—	—
B25/MW25	B25-05	03/03/09	5	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B25-07.5		7.5			ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B25-12.5		12.5			ND	<50	<250	<20	—	—	—	—	—	—	—	—
B26/MW26	B26-4	05/18/09	4	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B26-10		10			ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B26-14		14			ND	<50	<250	<20	—	—	—	—	—	—	—	—
B27/MW27	B27-04	05/18/09	4	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B27-08		8			ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B27-12		12			ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B27-14.5		14.5			ND	<50	<250	<20	—	—	—	—	—	—	—	—
B28/MW28	B28-04	05/18/09	4	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B28-10.5		10.5			ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B28-15		15			—	<50	<250	13	<0.02	0.03	<0.02	0.07	—	—	—	—
B29/MW29	B29-04	05/18/09	4	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B29-11		11			—	<50	<250	**310**	<0.02	0.91	3.9	2.7	—	—	—	—
	B29-15		15			ND	<50	<250	<20	—	—	—	—	—	—	—	—
B30/MW30	B30-04	05/18/09	4	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B30-08		8			—	1,200	<250	27	<0.02	<0.02	0.14	0.12	—	—	—	—
	B30-11		11			—	770	<250	25	—	—	—	—	<0.05	<0.05	<0.05	—
B31/MW31	B31-04	05/18/09	4	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B31-08		8			ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B31-10		10			ND	<50	<250	<20	—	—	—	—	—	—	—	—
B32	B32-04	05/18/09	4	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B32-08		8			ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B32-12		12			ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B32-15		15			ND	<50	<250	<20	—	—	—	—	—	—	—	—
B33/MW32	B33-04	05/18/09	4	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B33-11		11			ND	<50	<250	<20	—	—	—	—	—	—	—	—
	B33-14		14			ND	<50	<250	<20	—	—	—	—	—	—	—	—
MTCA Method A Cleanup Level for Soil[7]						**NE**	**2,000**	**2,000**	**30**	**0.03**	**7**	**6**	**9**	**0.1**	**0.005**	**11[a]**	**NE**

Table 1
Summary of Soil Analytical Results for TPH and VOCs
North Colfax Petroleum Contamination Site
Colfax, Washington

Boring Number/Sample Area	Sample Identification	Date Sampled	Sample Depth (feet)[1]	Sampled By	Analyzed By	Analytical Results (milligrams per kilogram)											
						NWTPH-HCID[2]	DRPH[3]	ORPH[3]	GRPH[4]	Benzene[5]	Toluene[5]	Ethylbenzene[5]	Total Xylenes[5]	MTBE[5]	EDB[5]	EDC[5]	VOCs[6]
SES TEST PITS																	
TP01	TP01-07	03/02/09	7	SES	F&B	—	<50	<250	<20	—	—	—	—	—	—	—	—
	TP01-12		12			—	390[x]	<250	700	<0.03	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<CUL
TP02	TP02-04	03/02/09	4	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	TP02-09.5		9.5			ND	<50	<250	<20	—	—	—	—	—	—	—	—
	TP02-12.5		12			—	<50	<250	190	<0.03	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<CUL
TP03	TP03-07.5	03/02/09	7.5	SES	F&B	ND	<50	<250	<20	—	—	—	—	—	—	—	—
	TP03-11		11			—	<50	<250	16	<0.03	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<CUL
Test Pit Stockpile	SP Comp	03/02/09	—	SES	F&B	—	<50	<250	38	<0.03	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	—
MTCA Method A Cleanup Level for Soil[7]						**NE**	**2,000**	**2,000**	**30**	**0.03**	**7**	**6**	**9**	**0.1**	**0.005**	**11[a]**	**NE**

NOTES:

Red denotes concentration exceeds MTCA Method A Cleanup Levels for soil.

[1] Depth in feet below ground surface.

[2] Analyzed by NWTPH Method for Hydrocarbon Identification (HCID). Detection Limits are 20 mg/kg for GRPH, 50 mg/kg for DRPH and 250 mg/kg for ORPH.

[3] Analyzed by Method NWTPH-Dx or HCID.

[4] Analyzed by Method NWTPH-Gx or HCID.

[5] Analyzed by EPA Method 8021B or 8260B.

[6] Analzyed by EPA Method 8260B.

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

[a] Cleanup Levels and Risk Calculations Database, Method B, Standard Formula Value

Laboratory Notes:

[x] Pattern of peaks present is not indicative of diesel.

▨ = sample location overexcavated
< = not detected at concentration above the laboratory reporting limit
— = unknown/not analyzed
Anatek = Anatek Laboratories, Inc. of Moscow, Idaho
CUL = cleanup level
DRPH = diesel-range petroleum hydrocarbons
EDB = 1,2-dibromoethane
EDC = 1,2-dichloroethane
EPA = United States Environmental Protection Agency
F&B = Friedman and Bruya, Inc. of Seattle, Washington.
GEI = GeoEngineers, Inc.
GEOENGINEERS = GeoEngineers, Inc.
GRPH = gasoline-range petroleum hydrocarbons
mg/kg = milligrams per kilogram
MTBE = methyl tertiary-butyl ether

MTCA = Washington State Model Toxics Control Act
NWTPH = Northwest Total Petroleum Hydrocarbon
NCA = North Creek Analytical of Spokane, Washington
ND = not detected at concentration above the laboratory reporting limit
NE = not established
ORPH = oil-range petroleum hydrocarbons
QE = Quantum Engineering and Geologic Consulting
QUANTUM = Quantum Engineering and Geologic Consulting
SES = Sound Environmental Strategies Corporation
TA = TestAmerica Laboratories of Spokane, Washington
TIME OIL = Time Oil Co.
TPH = total petroleum hydrocarbon
UST = underground storage tank
VOCs = volatile organic compounds

Table 2
Summary of Soil Analytical Results for Total Metals
North Colfax Petroleum Contamination Site
Colfax, Washington

Sample Area	Sample Identification	Date Sampled	Sample Depth (feet)[1]	Analytical Results (milligrams per kilogram)							
				Arsenic[2]	Barium[2]	Cadmium[2]	Chromium[2]	Mercury[2,3]	Selenium[2]	Silver[2]	Lead[4]
TIME OIL 1999 EXCAVATION											
Jackpot UST Installation Stockpile	TOC-SP-1	09/03/99	—	<2.67	250	<2.67	14.6	<0.27	<2.67	<2.67	117
	COMPOSITE (SP-2 through 6)		—	<2.38	116	<2.38	11.5	<0.24	<2.38	<2.38	11.5
QUANTUM 2004 EXCAVATION											
Colfax Grange Sump Excavation Area	ULIP 0-6	11/01/04	—	—	—	—	—	—	—	—	13.6
	ULIP 15"		—	—	—	—	—	—	—	—	15.3
	SULIP 0-6"		—	—	—	—	—	—	—	—	9.79
	SULIP 15		—	—	—	—	—	—	—	—	5.45
	SUL Pump 0-6"		—	—	—	—	—	—	—	—	64.5
	UL Pump 0-6"		—	—	—	—	—	—	—	—	17.8
SES SOIL BORINGS											
SP02	SP02-03-04	04/09/08	3-4	—	—	—	—	—	—	—	11.5
	SP02-07-08		7-8	—	—	—	—	—	—	—	31.7
	SP02-13-14		13-14	—	—	—	—	—	—	—	1.97
SP04	SP04-07-08	04/09/08	7-8	—	—	—	—	—	—	—	31.2
	SP04-10-11		10-11	—	—	—	—	—	—	—	9.82
	SP04-12-13		12-13	—	—	—	—	—	—	—	2.23
SP05	SP05-07-08	04/09/08	7-8	—	—	—	—	—	—	—	36.7
	SP05-10-11		10-11	—	—	—	—	—	—	—	9.4
	SP05-13-14		13-14	—	—	—	—	—	—	—	1.96
SP11	SP11-03-04	04/09/08	3-4	—	—	—	—	—	—	—	**339**
	SP11-05-06		5-6	—	—	—	—	—	—	—	7.11
	SP11-09.5-10.5		9.5-10.5	—	—	—	—	—	—	—	6.69
	SP11-13-14		13-14	—	—	—	—	—	—	—	2.89
SP12	SP12-06.5-08	04/10/08	6.5-8	—	—	—	—	—	—	—	6.62
	SP12-10-12		10-12	—	—	—	—	—	—	—	5.75
	SP12-13-14		13-14	—	—	—	—	—	—	—	13.9
	SP12-14-15		14-15	—	—	—	—	—	—	—	2.41
SP14	SP14-04.5-05.5	04/10/08	4.5-5.5	—	—	—	—	—	—	—	6.43
	SP14-07-08		7-8	—	—	—	—	—	—	—	6.02
	SP14-13-14		13-14	—	—	—	—	—	—	—	3.14
SP15	SP15-06-07	04/10/08	6-7	—	—	—	—	—	—	—	10.9
	SP15-10-11		10-11	—	—	—	—	—	—	—	5.18
	SP15-13-14		13-14	—	—	—	—	—	—	—	3.0
B14	B14-7-8	06/02/08	7-8	—	—	—	—	—	—	—	18.1
	B14-11-12		11-12	—	—	—	—	—	—	—	1.75
	B14-13-14		13-14	—	—	—	—	—	—	—	1.38
B14A/MW14	B14A-07.5	03/03/09	7.5	—	—	—	—	—	—	—	4.55
	B14A-10		10	—	—	—	—	—	—	—	10.4
B16/MW16	B16-6-7	06/02/08	6-7	—	—	—	—	—	—	—	6.33
	B16-11-12		11-12	—	—	—	—	—	—	—	5.26
	B16-14-15		14-15	—	—	—	—	—	—	—	4.71
B19/MW19	B19-6-7	06/02/08	6-7	—	—	—	—	—	—	—	88.3
	B19-7-8		7-8	—	—	—	—	—	—	—	4.93
	B19-11.5-12.5		11.5-12.5	—	—	—	—	—	—	—	9.20
B28/MW28	B28-15	05/18/09	15	—	—	—	—	—	—	—	12
B29/MW29	B29-11	05/18/09	11	—	—	—	—	—	—	—	6.18
B30/MW30	B30-08	05/18/09	8	—	—	—	—	—	—	—	4.87
	B30-11		11	—	—	—	—	—	—	—	4.78
SES TEST PITS											
TP01	TP01-12	03/02/09	12	—	—	—	—	—	—	—	5.13
TP02	TP02-12.5	03/02/09	12	—	—	—	—	—	—	—	4.01
TP03	TP03-11	03/02/09	11	—	—	—	—	—	—	—	5.96
Test Pit Stockpile	SP Comp	03/02/09	—	1.43	116	<1	7.8	<0.2	<1	<1	11.9
MTCA Method A Cleanup Level for Soil[5]				**20**	**16,000[a]**	**2**	**2,000**	**2**	**400[a]**	**400[a]**	**250**

NOTES:

Red denotes concentration exceeds MTCA Method A Cleanup Levels for soil.

[1] Depth in feet below ground surface.

[2] Analyzed by EPA Method 200.8/245.1.

[3] Analyzed by EPA Method 1631E.

[4] Analyzed by EPA Methods 200.8/245.1 or 6000/7000 Series.

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

[a] Cleanup Levels and Risk Calculations (CLARC), Soil, MTCA Method B, Non-carcinogenic, Standard Formula Value, Unrestricted Land Use, CLARC website - <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.

— = not analyzed/not applicable

< = not detected at concentration above the laboratory reporting limit

EPA = United States Environmental Protection Agency

MTCA = Washington State Model Toxics Control Act

UST = underground storage tank

Table 3
Summary of Soil Analytical Results for Polycyclic Aromatic Hydrocarbons
North Colfax Petroleum Contamination Site
Colfax, Washington

Sample Area	Sample Identification	Sample Location	Date Sampled	Sample Depth (feet)[1]	Analytical Results (milligrams per kilogram)										
								cPAHs[3]							
					Naphthalene[2]	1-Methylnaphthalene[3]	2- Methylnaphthalene[3]	Benzo(a) anthracene	Benzo(a)pyrene	Benzo(b) fluoranthene	Benzo(k) fluoranthene	Chrysene	Dibenzo(a,h) anthracene	Indeno(1,2,3-cd) pyrene	Total TEQ Soil Concentration
TIME OIL 1999 EXCAVATION															
Former Service Bay Installation	GP-03	Beneath grease pit	09/09/99	10-11	0.040	—	0.29	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00755
SES SOIL BORINGS															
SP02	SP02-07-08	Boring SP02	04/09/08	7-8	**15**	**5.7**	**12**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00755
SP05	SP05-07-08	Boring SP05	04/09/08	7-8	**9.1**	**2.4**	**5.1**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00755
SP11	SP11-05-06	Boring SP11	04/09/08	5-6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00755
SP12	SP12-10-12	Boring SP12	04/10/08	10-12	0.12	0.17	0.36	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00755
SP14	SP14-07-08	Boring SP14	04/10/08	7-8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00755
SP15	SP15-06-07	Boring SP15	04/10/08	6-7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00755
B14	B14-11-12	Boring B14	06/02/08	11-12	0.070	0.18	0.42	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00755
B16/MW16	B16-11-12	Borng B16/MW16	06/02/08	11-12	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00755
B19/MW19	B19-11.5-12.5	Boring B19/MW19	06/02/08	11.5-12.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00755
B14A/MW14	B14A-07.5	Boring B14A/MW14	03/03/09	7.5	<0.05	—	—	—	—	—	—	—	—	—	—
	B14A-10			10	**9.1**	**3.2**	**6.5**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00755
B30/MW30	B30-11	Boring B30/MW30	05/18/09	11	<0.01	—	—	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00755
SES TEST PITS															
TP01	TP01-12	Test Pit TP01	03/02/09	12	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00755
TP02	TP02-12.5	Test Pit TP02	03/02/09	12	<0.05	—	—	—	—	—	—	—	—	—	—
TP03	TP03-11	Test Pit TP03	03/02/09	11	<0.05	—	—	—	—	—	—	—	—	—	—
Test Pit Stockpile	SP Comp	Composite of SP1,SP2, and SP3	03/02/09	—	<0.05	—	—	—	—	—	—	—	—	—	—
MTCA Method A Cleanup Levels for Soil[4]					**5[a]**			**NE**	**0.1**	**NE**	**NE**	**NE**	**NE**	**NE**	**0.1[b]**

NOTES:

Red denotes concentration exceeds MTCA Method A Cleanup Levels for soil.

[1] Depth in feet below ground surface.

[2] Analyzed by EPA Method 8260B or 8270C SIM.

[3] Analyzed by EPA Method 8270C SIM.

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

[a] Total cleanup value for naphthalene, 1-methyl naphthalene, and 2-methyl napthalene.

[b] Analytical result for each individual cPAH is multiplied by TEF and all seven cPAH values are added. When analytical result is reported as less than the LRL, half the LRL is used for the calculation. See Table 4 for calculations.

— = not analyzed/not applicable
< = not detected at concentration above the laboratory reporting limit
cPAH = carcinogenic polyaromatic hydrocarbon
EPA = United States Environmental Protection Agency
LRL = laboratory reporting limit
MTCA = Washington State Model Toxics Control Act
NE - cleanup level not established
TEF = toxicity equivalency factor
TEQ = toxicity equivalent quotient

Table 4
Toxicity Equivalents for cPAH Concentrations in Soil
North Colfax Petroleum Contamination Site
Colfax, Washington

Sample Area	Sample Identification	Sample Location	Date Sampled	Sample Depth (feet)[1]	Analytical Results (milligrams per kilogram)[2]							Total TEQ Concentration[3]
					Benzo(a) anthracene TEF (0.1)	Benzo (a) pyrene TEF (1)	Benzo (b) fluoranthene TEF (0.1)	Benzo (k) fluoranthene TEF (0.1)	Chrysene TEF (0.01)	Dibenzo (a,h) anthracene TEF (0.1)	Indeno (1,2,3-cd) pyrene TEF (0.1)	
TIME OIL 1999 EXCAVATION												
Former Service Bay Installation	GP-03	Beneath grease pit	09/09/99	10-11	0.0005	0.005	0.0005	0.0005	0.00005	0.0005	0.0005	0.00755
SES SOIL BORINGS												
SP02	SP02-07-08	Boring SP02	04/09/08	7-8	0.0005	0.005	0.0005	0.0005	0.00005	0.0005	0.0005	0.00755
SP05	SP05-07-08	Boring SP05	04/09/08	7-8	0.0005	0.005	0.0005	0.0005	0.00005	0.0005	0.0005	0.00755
SP11	SP11-05-06	Boring SP11	04/09/08	5-6	0.0005	0.005	0.0005	0.0005	0.00005	0.0005	0.0005	0.00755
SP12	SP12-10-12	Boring SP12	04/10/08	10-12	0.0005	0.005	0.0005	0.0005	0.00005	0.0005	0.0005	0.00755
SP14	SP14-07-08	Boring SP14	04/10/08	7-8	0.0005	0.005	0.0005	0.0005	0.00005	0.0005	0.0005	0.00755
SP15	SP15-06-07	Boring SP15	04/10/08	6-7	0.0005	0.005	0.0005	0.0005	0.00005	0.0005	0.0005	0.00755
B14	B14-11-12	Boring B14	06/02/08	11-12	0.0005	0.005	0.0005	0.0005	0.00005	0.0005	0.0005	0.00755
B16/MW16	B16-11-12	Boring B16/MW16	06/02/08	11-12	0.0005	0.005	0.0005	0.0005	0.00005	0.0005	0.0005	0.00755
B19/MW19	B19-11.5-12.5	Boring B19/MW19	06/02/08	11.5-12.5	0.0005	0.005	0.0005	0.0005	0.00005	0.0005	0.0005	0.00755
B14A/MW14	B14A-10	Boring B14A/MW14	03/03/09	10	0.0005	0.005	0.0005	0.0005	0.00005	0.0005	0.0005	0.00755
B30/MW30	B30-11	Boring B30/MW30	05/18/09	11	0.0005	0.005	0.0005	0.0005	0.00005	0.0005	0.0005	0.00755
SES TEST PITS												
TP01	TP01-12	Test Pit TP01	03/02/09	12	0.0005	0.005	0.0005	0.0005	0.00005	0.0005	0.0005	0.00755
MTCA Method A Cleanup Levels for Soil[4]					**NE**	**0.1**	**NE**	**NE**	**NE**	**NE**	**NE**	**0.1**

NOTES:

[1] Depth in feet below ground surface.

[2] Analyzed by United States Environmental Protection Agency Method 8270C SIM.

[3] Analytical result for each individual cPAHs is multiplied by TEF and all seven cPAH values are added. When analytical results is reported as less than the LRL, half the LRL is used for the calculation.

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

cPAH = carcinogenic polycyclic aromatic hydrocarbons
LRL = laboratory reporting limit
MTCA = Washington State Model Toxics Control Act
NE = cleanup level not established
TEF = toxicity equivalency factor
TEQ = toxicity equivalent quotient

Table 5
Summary of Groundwater Analytical Results - TPH, BTEX, VOCs, and Lead
North Colfax Petroleum Contamination Site
Colfax, Washington

Well ID	Sample Date	Depth to Groundwater[1] (feet)	Groundwater Elevation (feet)	Analytical Results (µg/L)											
				GRPH[2]	DRPH[3]	ORPH[3]	Benzene[4]	Toluene[4]	Ethylbenzene[4]	Total Xylenes[4]	MTBE[4]	EDB[5]	EDC[4]	Dissolved Lead[6]	Total Lead[6]
MW01	02/20/01	5.95	1,890.62	103.0	<250	<750	<0.500	<0.500	<0.500	1.60	--	--	--	--	--
TOC: 1,896.57 feet	08/08/01	6.78	1,889.79	56.2	**506**	**1,060**	3.84	<0.500	<0.500	<1.00	--	--	--	--	--
	11/12/01	7.10	1,889.47	221	**576**	**1,500**	**66.9**	0.920	8.95	1.30	--	--	--	--	--
	02/28/02	5.65	1,890.92	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	05/07/02	6.23	1,890.34	<50.0	439	<500	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	08/13/02	6.96	1,889.61	539	402	<500	**130**	0.730	6.61	2.29	--	--	--	--	--
	11/07/02	7.84	1,888.73	129	262	<500	**22.8**	<0.500	0.755	<1.00	--	--	--	--	--
	02/18/03	5.60	1,890.97	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	05/22/03	6.57	1,890.00	<50.0	**1,140**	**4,380**	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	08/12/03	7.67	1,888.90	181	**512**	**1,720**	**42.5**	<0.500	2.38	<1.00	--	--	--	--	--
	11/21/03	7.75	1,888.82	<50.0	**1,580**	**4,610**	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	02/25/04	5.55	1,891.02	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	--	--
	04/30/04	6.43	1,890.14	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	10/21/04	7.40	1,889.17	<50.0	--	--	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	11/18/04	7.38	1,889.19	<50.0	--	--	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	09/08/05	7.73	1,888.84	67.1	--	--	**20.5**	<1.00	<1.00	<3.00	<5.00	<1.00	<1.00	--	--
	03/16/06	5.71	1,890.86	<50.0	--	--	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	--	--
	08/10/06	7.37	1,889.20	<100	--	--	**10.4**	<0.500	<0.500	<3.00	5.23	<0.500	<0.500	--	--
	09/26/06	7.62	1,888.95	<50.0[HT-1]	<236	<472	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	--	--
	12/15/06	6.40	1,890.17	<50	58	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	03/14/07	5.78	1,890.79	<100	<50	<250	<1	<1	<1	<3	1.1	<1	<1	--	--
	06/27/07	7.16	1,889.41	<100	94	<250	<1	<1	<1	<3	1.8	<1	<1	--	--
	09/25/07	7.94	1,888.63	<100	<50	<250	<1	<1	<1	<3	3.7	<1	<1	--	--
	12/19/07	6.51	1,890.06	<100	69[x]	<250	<1	<1	<1	<3	2.0	<1	<1	--	--
	03/04/08	5.45	1,891.12	<100	69[x]	<250	<1	<1	<1	<3	2.5	<1	<1	--	<1
	06/10/08	6.49	1,890.08	<100	<50	<250	<1	<1	<1	<3	1.3[jl]	<1	<1	--	--
	09/10/08	7.37	1,889.20	<100	<50	<250	<1	<1	<1	<3	4.5	<1	<1	<1	<1
	12/10/08	7.00	1,889.57	<100	53	<250	<1	<1	<1	<3	3.0	<1	<1	<1	<1
	03/04/09	5.53	1,891.04	<100	**630**	300	<1	<1	<1	<3	1.2	<0.01	<1	<1	3.79
	06/11/09	5.80	1,890.77	<100	90[x]	<250	<1	<1	<1	<3	<1	<0.01	<1	--	--
MW02	02/20/01	5.62	1,891.54	134	364	<750	<0.500	<0.500	0.915	8.53	--	--	--	--	--
TOC: 1,897.16 feet	08/08/01	7.10	1,890.06	**1,270**	386	<500	**193**	9.04	142	42.9	--	--	--	--	--
	11/12/01	7.18	1,889.98	684	288	<500	**81.8**	3.61	34.4	28.9	--	--	--	--	--
	02/28/02	5.85	1,891.31	87.8	279	<500	0.765	<0.500	<0.500	<1.00	--	--	--	--	--
	05/07/02	6.28	1,890.88	85.0	422	<500	0.873	<0500	<0.500	<1.00	--	--	--	--	--
	08/13/02	6.96	1,890.20	**3,650**	**686**	<500	**338**	45.8	137	88.6	--	--	--	--	--
	11/07/02	8.09	1,889.07	295	**580**	<500	**27.0**	<0.500	4.99	1.88	--	--	--	--	--
	02/18/03	5.93	1,891.23	79.7	297	<500	1.27	<0.500	1.03	1.16	--	--	--	--	--
	05/22/03	6.73	1,890.43	141	**604**	<500	1.77	<0.500	4.28	3.21	--	--	--	--	--
	08/12/03	7.85	1,889.31	**1,210**	<250	<500	**437**	3.520	67.0	28.0	--	--	--	--	--
	11/21/03	7.97	1,889.19	122	<250	<500	0.896	<0.500	2.34	<1.00	--	--	--	--	--
	02/25/04	5.90	1,891.26	68.5	<250	<500	<0.500	<0.500	0.678	2.03	1.48	--	--	--	--
	04/30/04	6.43	1,890.73	87.7	<250	<500	0.542	<0.500	0.623	<1.00	--	--	--	--	--
	10/21/04	7.37	1,889.79	64.9	--	--	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	11/18/04	7.51	1,889.65	69.0	--	--	0.66	<0.500	<0.500	<1.00	--	--	--	--	--
	09/08/05	7.78	1,889.38	65.4	--	--	**384**	2.56	156	12.4	10.6	<1.00	<1.00	--	--
	03/16/06	5.97	1,891.19	76.0	--	--	0.670	<0.500	0.590	<3.00	<5.00	<0.500	<0.500	--	--
	08/10/06	7.28	1,889.88	**1,940**	--	--	**68.0**	6.01	324	187	12.3	<0.500	<0.500	--	--
	09/27/06	7.81	1,889.35	239[A-01]	**669**[D-06]	<472	**211**	<0.500	9.43	<3.00	9.34	<0.500	<0.500	--	--
	12/16/06	6.27	1,890.89	71	100	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	03/14/07	6.04	1,891.12	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	06/27/07	7.20	1,889.96	**1,600**	**730**[x]	<250	**11**	1.4	150	105	2.6	<1	<1	--	--
	09/25/07	8.06	1,889.10	580	400[x]	<250	**15**	<1	81	8.6	5.7	<1	<1	--	--
	12/19/07	6.70	1,890.46	<100	<250[dv]	<1,200[dv]	**24**	<1	<1	<2	<1	<1	<1	--	--
MTCA Method A Cleanup Level for Groundwater[7]				**1,000/800[b]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	

Table 5
Summary of Groundwater Analytical Results - TPH, BTEX, VOCs, and Lead
North Colfax Petroleum Contamination Site
Colfax, Washington

Well ID	Sample Date	Depth to Groundwater[1] (feet)	Groundwater Elevation (feet)	Analytical Results (µg/L)											
				GRPH[2]	DRPH[3]	ORPH[3]	Benzene[4]	Toluene[4]	Ethylbenzene[4]	Total Xylenes[4]	MTBE[4]	EDB[5]	EDC[4]	Dissolved Lead[6]	Total Lead[6]
MW02	03/04/08	5.90	1,891.26	**1,000**	**520**[x]	<250	**110**	<1	18	8.4	3.8	<1	<1	--	<1
Continued	03/04/08 (Duplicate)	--	--	**980**	**520**[x]	<250	**110**	<1	18	8.1	3.4	<1	<1	--	<1
TOC: 1,897.16 feet	06/10/08	6.62	1,890.54	<100	240[x]	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	09/10/08	8.38	1,888.78	**9,400**[d]	**2,600**[x]	<250	**92**	9.2	620	**1,110**	1.2	<1	<1	<1	<1
	12/10/08	6.94	1,890.22	330	350	<250	<1	<1	5.8	2.9	<1	<1	<1	<1	<1
	03/04/09	5.65	1,891.51	<100	220[x]	<250	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
	03/04/09 (Duplicate)	--	--	<100	200[x]	<250	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
	06/11/09	6.40	1,890.76	<100	120[x]	<250	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
	06/11/09 (Duplicate)	--	--	<100	130[x]	<250	<1	<1	<1	<3	<1	<0.01	<1	--	--
MW03	02/07/01	5.69	1,891.65	**3,170**	**638**	<750	**106**	13.1	65.0	146	--	--	--	--	--
TOC: 1,897.34 feet	08/08/01	7.26	1,890.08	**8,590**	**739**	<500	**724**	60.6	631	865	--	--	--	--	--
	11/12/01	7.41	1,889.93	**6,990**	343	<500	**884**	40.2	633	488	--	--	--	--	--
	02/28/02	6.15	1,891.19	**3,560**	358	<500	**356**	26.0	303	242	--	--	--	--	--
	05/07/02	6.58	1,890.76	**4,670**	**607**	<500	**492**	30.9	289	199	--	--	--	--	--
	08/13/02	7.24	1,890.10	**5,520**	**832**	<500	**502**	75.9	274	331	--	--	--	--	--
	11/07/02	8.31	1,889.03	**2,410**	385	<500	**308**	3.99	105	9.20	--	--	--	--	--
	02/18/03	6.22	1,891.12	568	414	<500	**53.3**	7.26	16.5	15.5	--	--	--	--	--
	05/22/03	6.99	1,890.35	778	497	<500	**156**	<2.50	32.7	13.7	--	--	--	--	--
	08/12/03	8.04	1,889.30	**3,900**	265	<500	**964**	18.9	244	61.4	--	--	--	--	--
	11/21/03	8.20	1,889.14	436	<250	<500	**57.2**	<0.500	6.72	3.89	--	--	--	--	--
	02/25/04	6.18	1,891.16	429	<250	<500	**26.2**	<0.500	7.59	6.23	9.73	--	--	--	--
	04/30/04	6.66	1,890.68	**1,380**	<250	<500	**123**	2.37	34.5	25.10	--	--	--	--	--
	10/21/04	7.56	1,889.78	**810**	--	--	**173**	<2.50	1.08	<1.00	--	--	--	--	--
	11/18/04	7.73	1,889.61	164	--	--	**7.95**	<0.500	<0.500	<1.00	--	--	--	--	--
	09/09/05	8.00	1,889.34	**3,650**	--	--	**832**	21.8	51.1	75.50	16.8	<1.00	<1.00	--	--
	03/16/06	6.21	1,891.13	99.9	--	--	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	--	--
	08/10/06	7.46	1,889.88	**1,810**	--	--	**381**	5.17	74.0	15.5	9.54	<0.500	<0.500	--	--
	09/27/06	7.64	1,889.70	**1,950**[HT-1]	**641**[D-06]	<472	**32.8**	3.3	226	43.4	9.74	<0.500	<0.500	--	--
	12/16/06	6.48	1,890.86	68	120	<250	<1	<1	<1	<3	1.2	<1	<1	--	--
	03/14/07	6.30	1,891.04	<100	230	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	06/27/07	7.38	1,889.96	<100	190	<250	<1	<1	<1	<3	2.0	<1	<1	--	--
	09/25/07	8.21	1,889.13	<100	<50	<250	<1	<1	<1	<3	2.2	<1	<1	--	--
	12/19/07	6.92	1,890.42	<100	300	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	03/04/08	6.15	1,891.19	<100	230	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	06/10/08	6.86	1,890.48	<100	150[x]	<250	<1	<1	<1	<3	1.6[jl]	<1	<1	--	--
	09/10/08	7.58	1,889.76	<100	180	<250	1.6	<1	1.5	<3	2.9	<1	<1	<1	<1
	12/10/08	7.16	1,890.18	<100	140	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1
	03/04/09	5.93	1,891.41	<100	170[x]	<250	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
	06/11/09	6.54	1,890.80	<100	370[x]	<250	<1	<1	3	<3	<5	<0.01	--	<1	<1
MW04	02/20/01	5.81	1,890.85	179	254	<750	**31.0**	2.63	6.17	26.8	--	--	--	--	--
TOC: 1,896.66 feet	08/08/01	6.70	1,889.96	**1,460**	361	<500	**256**	8.91	103	58.3	--	--	--	--	--
	11/12/01	6.90	1,889.76	**1,680**	<250	<500	**361**	9.26	194	40.5	--	--	--	--	--
	02/28/02	5.55	1,891.11	146	294	<500	**14.7**	<0.500	8.80	1.15	--	--	--	--	--
	05/07/02	5.99	1,890.67	184	470	<500	**24.4**	0.564	10.8	1.18	--	--	--	--	--
	08/13/02	6.86	1,889.80	**2,990**	**552**	<500	**437**	37.6	170	76.7	--	--	--	--	--
	11/07/02	7.03	1,889.63	343	460	<500	**29.0**	<0.500	3.53	<1.00	--	--	--	--	--
	02/18/03	5.63	1,891.03	61.4	<250	<500	0.545	<0.500	<0.500	<1.00	--	--	--	--	--
	05/22/03	6.34	1,890.32	66.9	**502**	<500	4.97	<0.500	<0.500	<1.00	--	--	--	--	--
	08/12/03	7.43	1,889.23	**1,190**	<250	<500	**554**	5.40	72.2	3.85	--	--	--	--	--
	11/21/03	7.58	1,889.08	71.80	<250	<500	0.516	<0.500	<0.500	<1.00	--	--	--	--	--
	02/25/04	5.60	1,891.06	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	9.53	--	--	--	--
	04/30/04	6.07	1,890.59	55.2	<250	<500	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	10/21/04	6.97	1,889.69	183	--	--	4.33	<0.500	<0.500	<1.00	--	--	--	--	--
	11/18/04	7.11	1,889.55	113	--	--	0.658	<0.500	<0.500	<1.00	--	--	--	--	--
MTCA Method A Cleanup Level for Groundwater[7]				**1,000/800**[b]	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	

Table 5
Summary of Groundwater Analytical Results - TPH, BTEX, VOCs, and Lead
North Colfax Petroleum Contamination Site
Colfax, Washington

Well ID	Sample Date	Depth to Groundwater[1] (feet)	Groundwater Elevation (feet)	Analytical Results (µg/L)											
				GRPH[2]	DRPH[3]	ORPH[3]	Benzene[4]	Toluene[4]	Ethylbenzene[4]	Total Xylenes[4]	MTBE[4]	EDB[5]	EDC[4]	Dissolved Lead[6]	Total Lead[6]
MW04	09/08/05	7.35	1,889.31	**965**	--	--	**271**	4.7	6.98	<4.37	19.7	<1.00	<1.00	--	--
Continued	03/16/06	5.61	1,891.05	<50.0	--	--	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	--	--
TOC: 1,896.66 feet	08/10/06	6.87	1,889.79	624	--	--	**166**	1.52	22.5	<3.00	11.4	<0.500	<0.500	--	--
	09/26/06	8.19	1,888.47	327[HT-1]	463[D-06]	<472	**12.6**	<0.500	<0.500	<3.00	12.3	<0.500	<0.500	--	--
	12/15/06	7.31	1,889.35	<50	59	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	03/14/07	5.69	1,890.97	<100	120	<250	<1	<1	<1	<3	3.1	<1	<1	--	--
	06/27/07	6.78	1,889.88	<100	260	<250	<1	<1	<1	<3	5.2	<1	<1	--	--
	09/25/07	7.63	1,889.03	<100	140[x]	<250	<1	<1	<1	<3	4.7	<1	<1	--	--
	12/19/07	6.30	1,890.36	<100	210	<250	<1	<1	<1	<3	3.8	<1	<1	--	--
	03/04/08	5.53	1,891.13	<100	180	<250	1.3	<1	<1	<3	3.6	<1	<1	--	<1
	06/10/08	6.24	1,890.42	<100	200[x]	<250	<1	<1	<1	<3	4.9[jl]	<1	<1	--	--
	09/10/08	6.98	1,889.68	<100	280	<250	1.8	<1	8.7	<9.5	7.2	<1	<1	<1	<1
	12/10/08	6.49	1,890.17	<100	160	<250	<1	<1	<1	<3	4.3	<1	<1	<1	<1
	03/04/09	5.33	1,891.33	<100	170	<250	<1	<1	<1	<3	3.4	<0.01	<1	<1	<1
	06/08/09	6.15	1,890.51	--	--	--	--	--	--	--	--	--	--	--	--
MW05	02/07/01	5.81	1,892.03	327	282	<750	**5.90**	3.27	2.64	12.0	--	--	--	--	--
TOC: 1,897.84 feet	08/08/01	7.83	1,890.01	**3,210**	**560**	<500	**479**	32.5	403	148	--	--	--	--	--
	11/12/01	8.00	1,889.84	**3,930**	306	<500	**544**	20.4	287	195	--	--	--	--	--
	02/28/02	6.76	1,891.08	**5,270**	407	<500	**556**	48.2	443	356	--	--	--	--	--
	05/07/02	7.22	1,890.62	**5,310**	**732**	<500	**654**	36.8	360	241	--	--	--	--	--
	08/13/02	7.82	1,890.02	**4,270**	**691**	<500	**474**	62.2	264	216	--	--	--	--	--
	11/07/02	8.89	1,888.95	**2,180**	474	<500	**431**	13.6	174	15.6	--	--	--	--	--
	02/18/03	6.83	1,891.01	**858**	400	<500	**251**	0.830	15.3	1.59	--	--	--	--	--
	05/22/03	7.56	1,890.28	**2,190**	487	<500	**751**	<5.00	128	<10.0	--	--	--	--	--
	08/12/03	8.58	1,889.26	**2,360**	257	<500	**876**	7.16	117	12.7	--	--	--	--	--
	11/21/03	8.76	1,889.08	759	<250	<500	**176**	<0.500	0.572	<1.00	--	--	--	--	--
	02/25/04	6.80	1,891.04	**1,010**	<250	<500	**230**	0.748	44.30	5.10	**25.90**	--	--	--	--
	04/30/04	7.24	1,890.60	**1,620**	<250	<500	**447**	5.17	44.20	42.8	--	--	--	--	--
	10/21/04	8.11	1,889.73	654	--	--	**99.3**	<0.500	<0.500	<1.00	--	--	--	--	--
	11/18/04	8.25	1,889.59	524	--	--	**59.1**	<0.500	<0.500	1.08	--	--	--	--	--
	09/09/05	8.54	1,889.30	347	--	--	**7.28**	<1.00	<1.00	<3.00	13.9	<1.00	<1.00	--	--
	03/16/06	6.83	1,891.01	140	--	--	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	--	--
	08/10/06	8.00	1,889.84	461	--	--	**46.3**	<0.500	17.2	<3.00	7.69	<0.500	<0.500	--	--
	09/27/06	8.34	1,889.50	105[Q-40]	<236	<472	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	--	--
	12/15/06	8.48	1,889.36	<50	<50	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	03/14/07	6.93	1,890.91	<100	210	<250	<1	<1	<1	<3	1.6	<1	<1	--	--
	06/27/07	7.92	1,889.92	<100	200	<250	<1	<1	<1	<3	1.6	<1	<1	--	--
	09/25/07	8.76	1,889.08	<100	61[x]	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	12/19/07	7.49	1,890.35	<100	140	<250	<1	<1	<1	<3	1.5	<1	<1	--	--
	03/04/08	6.75	1,891.09	<100	240	<250	<1	<1	<1	<3	2.0	<1	<1	--	<1
	06/10/08	7.41	1,890.43	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	09/10/08	8.11	1,889.73	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1
	12/10/08	7.71	1,890.13	<100	86	<250	<1	<1	<1	<3	4.1	<1	<1	<1	<1
	03/04/09	6.52	1,891.32	<100	140[x]	<250	<1	<1	<1	<3	1.1	<0.01	<1	<1	<1
	06/10/09	7.10	1,890.74	<100	<50	<250	<1	<1	<1	<3	<1	<0.01	<1	--	--
MW06	02/20/01	5.95	1,890.87	**923**	411	<750	**21.4**	0.686	14.1	<5.36	--	--	--	--	--
TOC: 1,896.82 feet	08/08/01	6.85	1,889.97	**1,720**	456	<500	**302**	6.21	92.1	27.9	--	--	--	--	--
	11/12/01	7.16	1,889.66	**1,800**	257	<500	**330**	7.26	108	19.9	--	--	--	--	--
	02/28/02	5.91	1,890.91	**886**	354	<500	**73.1**	1.56	26.2	4.51	--	--	--	--	--
	05/07/02	6.35	1,890.47	**1,560**	**882**	<500	**77.8**	1.34	30.2	5.25	--	--	--	--	--
	08/13/02	6.94	1,889.88	**2,600**	**667**	<500	**432**	41.7	163	81.3	--	--	--	--	--
	11/07/02	7.96	1,888.86	**1,660**	**568**	<500	**230**	5.18	75.6	<10.0	--	--	--	--	--
	02/18/03	5.99	1,890.83	**900**	**622**	<500	**18.2**	0.552	13.2	3.09	--	--	--	--	--
	05/22/03	6.65	1,890.17	217	**526**	<500	**5.27**	<0.500	0.63	<1.00	--	--	--	--	--
	08/12/03	7.69	1,889.13	**1,290**	<250	<500	**405**	5.11	55.2	<10.0	--	--	--	--	--
	11/21/03	7.83	1,888.99	373	<250	<500	1.38	<0.500	<0.500	1.72	--	--	--	--	--
MTCA Method A Cleanup Level for Groundwater[7]				**1,000/800[b]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	

Table 5
Summary of Groundwater Analytical Results - TPH, BTEX, VOCs, and Lead
North Colfax Petroleum Contamination Site
Colfax, Washington

Well ID	Sample Date	Depth to Groundwater[1] (feet)	Groundwater Elevation (feet)	Analytical Results (µg/L)											
				GRPH[2]	DRPH[3]	ORPH[3]	Benzene[4]	Toluene[4]	Ethylbenzene[4]	Total Xylenes[4]	MTBE[4]	EDB[5]	EDC[4]	Dissolved Lead[6]	Total Lead[6]
MW06	02/25/04	5.91	1,890.91	**871**	<250	<500	**12.8**	0.506	9.10	6.54	**29.00**	--	--	--	--
Continued	04/30/04	6.38	1,890.44	732	<250	<500	3.56	<0.500	2.44	4.06	--	--	--	--	--
TOC: 1,896.82 feet	10/21/04	7.20	1,889.62	190	--	--	0.659	<0.500	<0.500	<1.00	--	--	--	--	--
	11/18/04	7.37	1,889.45	163	--	--	0.777	<0.500	<0.500	<1.00	--	--	--	--	--
	09/08/05	7.61	1,889.21	**932**	--	--	**262**	5.82	6.54	<3.00	18.0	<1.00	<1.00	--	--
	03/16/06	5.97	1,890.85	156	--	--	0.730	<0.500	<0.500	<3.00	5.05	<0.500	<0.500	--	--
	08/10/06	7.13	1,889.69	210	--	--	**28.9**	<0.500	3.85	<3.00	6.95	<0.500	<0.500	--	--
	09/27/06	7.43	1,889.39	214[Q-40]	481[D-06]	<472	0.61	<0.500	<0.500	<3.00	9.01	<0.500	<0.500	--	--
	12/15/06	6.62	1,890.20	100	<50	<250	**5.3**	19	1.9	10.6	<1	<1	<1	--	--
	03/14/07	6.07	1,890.75	180	180	<250	<1	<1	<1	<3	3.6	<1	<1	--	--
	06/27/07	7.06	1,889.76	130	260	<250	<1	<1	<1	<3	3.4	<1	<1	--	--
	09/25/07	7.83	1,888.99	170	210[x]	<250	<1	<1	1.2	<3	3.2	<1	<1	--	--
	12/19/07	6.60	1,890.22	240	170	<250	<1	<1	<1	<3	4.1	<1	<1	--	--
	03/04/08	5.91	1,890.91	180	220	<250	<1	<1	<1	<3	3.3	<1	<1	--	--
	06/10/08	6.63	1,890.19	<100	170[x]	<250	<1	<1	<1	<3	2.7[jl]	<1	<1	--	--
	09/10/08	7.26	1,889.56	250	330	<250	1.3	<1	1.1	<3	6.4	<1	<1	<1	<1
	12/10/08	6.88	1,889.94	<100	110	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1
	03/04/09	5.71	1,891.11	350	210[x]	<250	2.5	<1	1.5	<3	5.3	<0.01	<1	<1	<1
	06/08/09	6.78	1,890.04	--	--	--	--	--	--	--	--	--	--	--	--
MW07	02/20/01	6.24	1,890.43	447	329	<750	**24.9**	<0.500	8.06	<1.52	--	--	--	--	--
TOC: 1,896.67 feet	08/08/01	7.42	1,889.25	732	430	<500	**183**	1.78	20.7	2.07	--	--	--	--	--
	11/12/01	8.00	1,888.67	**1,650**	<250	<500	**288**	5.59	104	12.1	--	--	--	--	--
	02/28/02	6.82	1,889.85	**911**	267	<500	**110**	1.72	33.0	4.34	--	--	--	--	--
	05/07/02	7.32	1,889.35	795	446	<500	**32.4**	<0.500	2.79	2.49	--	--	--	--	--
	08/13/02	7.91	1,888.76	**2,250**	**648**	<500	**428**	33.9	109	45.8	--	--	--	--	--
	11/07/02	8.74	1,887.93	**1,880**	442	<500	**227**	7.35	51.8	<10.0	--	--	--	--	--
	02/18/03	7.02	1,889.65	420	**512**	<500	**11.5**	<0.500	0.620	1.03	--	--	--	--	--
	05/22/03	7.67	1,889.00	350	463	<500	**19.4**	<0.500	<0.500	1.02	--	--	--	--	--
	08/12/03	8.59	1,888.08	**1,160**	<250	<500	**371**	5.89	6.53	10.1	--	--	--	--	--
	11/21/03	8.45	1,888.22	429	<250	<500	**8.30**	<0.500	<0.500	1.30	--	--	--	--	--
	02/25/04	6.80	1,889.87	327	<250	<500	3.92	<0.500	<0.500	1.89	13.90	--	--	--	--
	04/30/04	7.57	1,889.10	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	10/21/04	8.22	1,888.45	350	--	--	**19.6**	<0.500	<0.500	1.23	--	--	--	--	--
	11/18/04	8.30	1,888.37	367	--	--	**13.6**	<0.500	<0.500	1.81	--	--	--	--	--
	09/09/05	8.76	1,887.91	421	--	--	**51.6**	<1.00	<1.00	<3.00	13.9	<1.00	<1.00	--	--
	03/16/06	7.13	1,889.54	129	--	--	<0.500	<0.500	<0.500	<3.00	8.77	<0.500	<0.500	--	--
	08/10/06	8.58	1,888.09	104	--	--	1.46	<0.500	<0.500	<3.00	**22.5**	<0.500	<0.500	--	--
	09/27/06	8.57	1,888.10	168[HT-1]	394[D-06]	<472	<0.500	<0.500	<0.500	<3.00	8.75	<0.500	<0.500	--	--
	12/15/06	No Access	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/14/07	7.15	1,889.52	170	260	<250	<1	<1	<1	<3	7.3	<1	<1	--	--
	06/27/07	8.31	1,888.36	<100	250	<250	<1	<1	<1	<3	13	<1	<1	--	--
	09/25/07	8.88	1,887.79	150	140[x]	<250	<1	<1	<1	<3	7.1	<1	<1	--	--
	12/19/07	7.67	1,889.00	150	200	<250	<1	<1	<1	<3	8.4	<1	<1	--	--
	03/04/08	7.05	1,889.62	160	290	250	<1	<1	<1	<3	7.0	<1	<1	--	<1
	06/10/08	7.54	1,889.13	<100	220[x]	390	<1	<1	<1	<3	2.2[jl]	<1	<1	--	--
	09/10/08	8.44	1,888.23	<100	200[dv]	<360[dv]	<1	<1	<1	<3	1.8	<1	<1	<1	<1
	12/10/08	8.00	1,888.67	<100	98	<250	<1	<1	<1	<3	3.8	<1	<1	<1	<1
	03/04/09	6.66	1,890.01	<100	120[x]	<250	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
	06/10/09	7.08	1,889.59	<100	170[x]	<250	<1	1	1	<3	<5	<0.01	--	--	--
MW08	11/07/02	9.51	1,887.98	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
TOC: 1,897.49 feet	02/18/03	7.94	1,889.55	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	05/22/03	8.43	1,889.06	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	08/12/03	9.50	1,887.99	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	11/21/03	9.52	1,887.97	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
MTCA Method A Cleanup Level for Groundwater[7]				**1,000/800[b]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	

Table 5
Summary of Groundwater Analytical Results - TPH, BTEX, VOCs, and Lead
North Colfax Petroleum Contamination Site
Colfax, Washington

Well ID	Sample Date	Depth to Groundwater[1] (feet)	Groundwater Elevation (feet)	Analytical Results (µg/L)											
				GRPH[2]	DRPH[3]	ORPH[3]	Benzene[4]	Toluene[4]	Ethylbenzene[4]	Total Xylenes[4]	MTBE[4]	EDB[5]	EDC[4]	Dissolved Lead[6]	Total Lead[6]
MW08	02/25/04	7.85	1,889.64	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	1.36	--	--	--	--
Continued	04/30/04	8.50	1,888.99	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
TOC: 1,897.49 feet	10/21/04	9.20	1,888.29	<50.0	--	--	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	11/18/04	9.21	1,888.28	<50.0	--	--	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	09/08/05	8.53	1,888.96	<50.0	--	--	<1.00	<1.00	<1.00	<3.00	<5.00	<1.00	<1.00	--	--
	03/16/06	8.15	1,889.34	<50.0	--	--	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	--	--
	08/10/06	9.37	1,888.12	<100	--	--	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	--	--
	09/26/06	9.31	1,888.18	<50.0[Q-41]	<236	<472	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	--	--
	12/15/06	8.28	1,889.21	<50	<50	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	03/14/07	8.02	1,889.47	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	06/27/07	9.12	1,888.37	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	09/25/07	9.73	1,887.76	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	12/19/07	8.57	1,888.92	<100	<250[dv]	<1,200[dv]	<1	<1	<1	<3	<1	<1	<1	--	--
	03/04/08	8.02	1,889.47	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	--	<1
	06/10/08	8.30	1,889.19	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	09/10/08	9.40	1,888.09	<100	<71[dv]	<360[dv]	<1	<1	<1	<3	<1	<1	<1	<1	<1
	12/09/08	8.96	1,888.53	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1
	03/04/09	7.70	1,889.79	<100	<50	<250	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
	06/10/09	10.20	1,887.29	<100	140[x]	<250	<1	<1	<1	<3	<5	<0.01	--	--	--
MW09	11/07/02	9.21	1,889.06	<50.0	375	<500	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
TOC: 1,898.27 feet	02/18/03	7.04	1,891.23	<50.0	411	<500	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	05/22/03	7.79	1,890.48	<50.0	**531**	<500	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	05/22/03	8.89	1,889.38	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	11/21/03	9.06	1,889.21	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	02/25/04	6.96	1,891.31	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	1.39	--	--	--	--
	04/30/04	7.48	1,890.79	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	10/21/04	8.43	1,889.84	<50.0	--	--	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	11/18/04	8.51	1,889.76	<50.0	--	--	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	09/08/05	8.84	1,889.43	<50.0	--	--	<1.00	<1.00	<1.00	<3.00	<5.00	<1.00	<1.00	--	--
	03/16/06	7.03	1,891.24	<50.0	--	--	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	--	--
	08/10/06	8.32	1,889.95	<100	--	--	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	--	--
	09/26/06	8.67	1,889.60	<50.0[Q-41]	**935**[D-06]	**667**[D-06]	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	--	--
	12/16/06	7.31	1,890.96	<50	400	**860**	<1	<1	<1	<3	<1	<1	<1	--	--
	03/14/07	7.12	1,891.15	<100	150	320	<1	<1	<1	<3	<1	<1	<1	--	--
	06/27/07	8.24	1,890.03	<100	150	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	09/25/07	9.12	1,889.15	<100	60[x]	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	12/19/07	7.77	1,890.50	<100	260[x]	**700**	<1	<1	<1	<3	<1	<1	<1	--	--
	03/04/08	6.95	1,891.32	<100	270[x]	**550**	<1	<1	<1	<3	<1	<1	<1	--	1.41
	06/10/08	7.68	1,890.59	<100	150[x]	370	<1	<1	<1	<3	<1	<1	<1	--	--
	06/10/08 (Duplicate)	--	--	<100	160[x]	290	<1	<1	<1	<3	<1	<1	<1	--	--
	09/10/08	No Access	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/08/08	No Access	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/04/09	6.75	1,891.52	<100	110[x]	<250	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
	06/10/09	7.25	1,891.02	<100	280[x]	<250	<1	<1	2	<3	<5	<0.01	--	<1	<1
	06/10/09 (Duplicate)	--	--	<100	280[x]	<250	<1	<1	2	<3	<5	<0.01	--	<1	<1
MW10	11/07/02	8.91	1,889.06	**4,920**	**571**	<500	**1,250**	16.1	255	79.7	--	--	--	--	--
TOC: 1,897.97 feet	02/18/03	6.70	1,891.27	**16,800**	407	<500	**2,830**	**1,400**	663	**1,350**	--	--	--	--	--
	05/22/03	7.49	1,890.48	**11,700**	**538**	<500	**2,490**	139	634	**1,270**	--	--	--	--	--
	08/12/03	8.58	1,889.39	**7,220**	**989**	<500	**1,800**	76.3	573	260	--	--	--	--	--
	11/21/03	8.77	1,889.20	**3,790**	<250	<500	**1,330**	3.66	291	87.6	--	--	--	--	--
	02/25/04	6.63	1,891.34	**14,700**	<250	<500	**1,780**	87.6	**956**	**2,410**	**68.8**	--	--	--	--
	04/30/04	7.18	1,890.79	**9,310**	<250	<500	**1,500**	18.5	**930**	**1,450**	--	--	--	--	--
	10/21/04	8.11	1,889.86	**8,330**	--	--	**2,400**	25.2	589	115	--	--	--	--	--
	11/18/04	8.27	1,889.70	**5,130**	--	--	**1,190**	10.2	454	276	--	--	--	--	--
	09/08/05	8.53	1,889.44	**8,160**	--	--	**1,420**	48.1	346	453	**25.3**	<1	<1	--	--
	09/08/05 (Duplicate)	--	--	**7,170**	--	--	**1,530**	44.3	309	314	--	--	--	--	--
MTCA Method A Cleanup Level for Groundwater[7]				**1,000/800[b]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	

Table 5
Summary of Groundwater Analytical Results - TPH, BTEX, VOCs, and Lead
North Colfax Petroleum Contamination Site
Colfax, Washington

Well ID	Sample Date	Depth to Groundwater[1] (feet)	Groundwater Elevation (feet)	Analytical Results (µg/L)												
				GRPH[2]	DRPH[3]	ORPH[3]	Benzene[4]	Toluene[4]	Ethylbenzene[4]	Total Xylenes[4]	MTBE[4]	EDB[5]	EDC[4]	Dissolved Lead[6]	Total Lead[6]
MW10	03/16/06	7.02	1,890.95	**5,720**	--	--	**611**	17.5	616	**1,030**	7.55	<0.500	<0.500	--	--
Continued	03/16/06 (Duplicate)	--	--	**5,630**	--	--	**498**	<20.0	431	593	<20.0	--	--	--	--
TOC: 1,897.97 feet	08/10/06	8.02	1,889.95	**3,820**	--	--	**670**	14.8	216	83.3	11.0	<0.500	<0.500	--	--
	09/26/06	8.36	1,889.61	**3,290**[HT-3]	**1,060**[D-06]	<472	**681**	<10.0	207	105	<100	<10.0	<10.0	--	--
	12/16/06	7.02	1,890.95	250	130	<250	**38**	<1	<1	<3	1.7	<1	<1	--	--
	03/14/07	6.82	1,891.15	190	200	<250	**44**	<1	<1	<3	2.1	<1	<1	--	--
	03/14/07 (Duplicate)	--	--	187	<250	<500	**33.0**	<2.00	<1.00	<1.50	<2.00	<0.01	<2.00	--	--
	06/27/07	7.93	1,890.04	270	180[x]	<250	**52**	<1	<1	<3	4.2	<1	<1	--	--
	06/27/07 (Duplicate)	--	--	195	<250	<500	**57.7**	<2.00	<1.00	<1.50	4.32	<0.0100	<1	--	--
	09/25/07	8.80	1,889.17	<100	88[x]	<250	<1	<1	<1	<3	2.3	<1	<1	--	--
	09/25/07 (Duplicate)	--	--	<100	<250	<500	<0.500	<2.00	<1.00	<1.50	1.64	<0.0100	<1	--	--
	12/19/07	7.47	1,890.50	<100	83	<250	**21**	<1	<1	<3	3.7	<1	<1	--	--
	12/19/07 (Duplicate)	--	--	<100	<250	<500	**18.8**	<2.00	<1.00	<1.50	3.82	<0.0100	<1	--	--
	03/04/08	6.66	1,891.31	<100	120	<250	3.5	<1	<1	<3	3.1	<1	<1	--	<1
	06/10/08	7.45	1,890.52	<100	120[x]	<250	<1	<1	<1	<3	4.7[jl]	<1	<1	--	--
	09/10/08	No Access	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/08/08	No Access	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/04/09	6.45	1,891.52	<100	150[x]	<250	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
	06/11/09	6.96	1,891.01	<100	97[x]	<250	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
MW11	11/07/02	8.82	1,887.69	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
TOC: 1,896.51 feet	02/18/03	7.35	1,889.16	63.6	<250	<500	**8.05**	<0.500	<0.500	<1.00	--	--	--	--	--
	05/22/03	4.59	1,891.92	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	08/12/03	9.01	1,887.50	281	<250	<500	**25.5**	<0.500	<0.500	<1.00	--	--	--	--	--
	11/21/03	8.81	1,887.70	**1,450**	<250	<500	1.78	0.671	1.61	3.07	--	--	--	--	--
	02/25/04	7.45	1,889.06	**873**	<250	<500	**9.20**	1.76	2.50	2.76	1.70	--	--	--	--
	04/30/04	7.98	1,888.53	**810**	<250	<500	1.15	1.72	1.84	2.61	--	--	--	--	--
	10/21/04	8.61	1,887.90	698	--	--	1.10	<0.500	0.579	1.66	--	--	--	--	--
	11/18/04	8.66	1,887.85	724	--	--	0.84	0.548	0.668	2.49	--	--	--	--	--
	09/09/05	9.10	1,887.41	**1,130**	--	--	1.8	<1.00	<1.00	<3.00	<5.00	<1.00	<1.00	--	--
	03/16/06	7.62	1,888.89	676	--	--	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	--	--
	08/10/06	8.91	1,887.60	168	--	--	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	--	--
	09/27/06	8.75	1,887.76	**879**[Q-40]	351[D-06]	<472	<0.500	<0.500	<0.500	<3.00	8.16	<0.500	<0.500	--	--
	12/15/06	No Access	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/14/07	7.58	1,888.93	300	140[D-06]	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	06/27/07	8.61	1,887.90	320	150[x]	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	09/25/07	9.17	1,887.34	790	330[x]	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	12/19/07	8.05	1,888.46	290	<50	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	03/04/08	7.54	1,888.97	240	130[x]	<250	1.1	<1	<1	<3	<1	<1	<1	--	<1
	06/11/08	8.13	1,888.38	180	88[x]	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	09/11/08	8.85	1,887.66	290	180[x, dv]	<360[dv]	<1	<1	<1	<3	<1	<1	<1	1.20	1.48
	12/10/08	8.42	1,888.09	160	67	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1
	03/06/09	7.20	1,889.31	<100	<50	<250	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
	06/10/09	8.80	1,887.71	<100	<50	<250	<1	2	<1	<3	<5	<0.01	--	--	--
MW12	11/07/02	9.26	1,889.05	**2,140**	471	<500	**278**	9.21	57.4	71.2	--	--	--	--	--
TOC: 1,898.31 feet	02/18/03	7.02	1,891.29	**5,120**	**754**	<500	**650**	71.0	184	271	--	--	--	--	--
	05/22/03	7.84	1,890.47	**6,260**	**1,160**	<500	**879**	212	159	339	--	--	--	--	--
	08/12/03	8.60	1,889.71	508	<250	<500	**114**	1.77	15.2	2.17	--	--	--	--	--
	11/21/03	9.10	1,889.21	**1,740**	<250	<500	**397**	7.68	72.8	11.9	--	--	--	--	--
	02/25/04	7.00	1,891.31	**8,250**	<250	<500	**1,400**	389	203	561	**195**	--	--	--	--
	04/30/04	7.52	1,890.79	**3,100**	<250	<500	**477**	98.7	62.4	153	--	--	--	--	--
	10/21/04	8.44	1,889.87	148	--	--	**30.2**	<0.500	0.603	<1.00	--	--	--	--	--
	11/18/04	8.60	1,889.71	182	--	--	**35.5**	<0.500	1.82	<1.00	--	--	--	--	--
	09/09/05	8.73	1,889.58	90.2	--	--	4.15	<1.00	<1.00	<3.00	<5.00	<1.00	<1.00	--	--
MTCA Method A Cleanup Level for Groundwater[7]				**1,000/800[b]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	

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Summary of Groundwater Analytical Results - TPH, BTEX, VOCs, and Lead
North Colfax Petroleum Contamination Site
Colfax, Washington

Well ID	Sample Date	Depth to Groundwater[1] (feet)	Groundwater Elevation (feet)	Analytical Results (µg/L)											
				GRPH[2]	DRPH[3]	ORPH[3]	Benzene[4]	Toluene[4]	Ethylbenzene[4]	Total Xylenes[4]	MTBE[4]	EDB[5]	EDC[4]	Dissolved Lead[6]	Total Lead[6]
MW12 **Continued** TOC: 1,898.31 feet	03/16/06	6.97	1,891.34	**4,880**	--	--	**846**	38.3	304	473	13.4	<0.500	<0.500	--	--
	08/10/06	8.25	1,890.06	<100	--	--	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	--	--
	09/26/06	8.61	1,889.70	<50.0[Q-41]	<236	<472	0.610	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	--	--
	12/16/06	7.26	1,891.05	270	130	<250	**25**	<1	<1	<3	4.1	<1	<1	--	--
	03/14/07	7.07	1,891.24	<100	130	<250	1.7	<1	<1	<3	1.7	<1	<1	--	--
	06/27/07	8.18	1,890.13	<100	54	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	09/25/07	9.04	1,889.27	<100	<50	<250	<1	<1	<1	<3	1.1	<1	<1	--	--
	12/19/07	7.71	1,890.60	<100	<50	<250	<1	<1	<1	<3	1.0	<1	<1	--	--
	03/04/08	6.89	1,891.42	<100	68[x]	<250	<1	<1	<1	<3	<1	<1	<1	--	<1
	06/10/08	7.61	1,890.70	<100	68[x]	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	09/10/08	No Access	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/08/08	No Access	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/04/09	6.71	1,891.60	<100	<50	<250	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
	06/11/09	7.40	1,890.91	<100	73[x]	<250	<1	<1	<1	<3	<5	<0.01	--	<1	<1
MW13 TOC: 1,896.10 feet	06/11/08	7.83	1,888.27	100	76	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1
	09/11/08	8.60	1,887.50	<100	<71[dv]	<360[dv]	<1	<1	<1	<3	<1	<1	<1	<1	<1
	12/10/08	8.24	1,887.86	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1
	03/06/09	7.06	1,889.04	<100	<50	<250	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
	06/10/09	7.65	1,888.45	<100	74[x]	<250	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
MW14 TOC: 1,897.57 feet	03/04/09	7.80	1,889.77	**3,600**	**1,000**[x]	<250	**18**	1.9	**750**	109	<1	<0.01	<1	2.46	2.86
	06/09/09	8.62	1,888.95	**2,000**	**1,200**[x]	<250	**10**	1.6	450	124	1.3	<0.01	<1	8.02	7.79
MW15 TOC: 1,898.60 feet	06/11/08	8.35	1,890.25	<100	82[x]	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1
	09/11/08	9.02	1,889.58	<100	110[dv]	<360[dv]	<1	<1	<1	<3	1.6	<1	<1	<1	<1
	12/10/08	8.62	1,889.98	<100	93	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1
	03/06/09	7.90	1,890.70	<100	<50	<250	<1	<1	<1	<3	1.0	<0.01	<1	<1	<1
	06/11/09	8.20	1,890.40	<100	<50	<250	<1	<1	<1	<3	<5	<0.01	--	--	--
MW16 TOC: 1,900.09 feet	06/11/08	9.55	1,890.54	110	230[x]	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1
	09/10/08	10.35	1,889.74	130	130[dv]	<360[dv]	<1	<1	<1	<3	<1	<1	<1	<1	<1
	12/09/08	9.88	1,890.21	<100	94	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1
	03/06/09	8.72	1,891.37	<100	94	<250	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
	06/11/09	9.15	1,890.94	<100	160[x]	<250	<1	<1	<1	<3	<5	<0.01	--	--	--
MW17 TOC: 1,899.93 feet	06/11/08	9.39	1,890.54	<100	190[x]	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1
	09/10/08	10.14	1,889.79	<100	210	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1
	12/09/08	9.65	1,890.28	<100	84	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1
	03/06/09	8.44	1,891.49	<100	73	<250	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
	06/11/09	8.91	1,891.02	<100	130[x]	<250	<1	<1	<1	<3	<5	<0.01	--	--	--
MW18 TOC: 1,899.62 feet	06/11/08	9.08	1,890.54	<100	170[x]	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1
	09/10/08	9.85	1,889.77	<100	200	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1
	12/09/08	9.34	1,890.28	<100	150	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1
	03/06/09	8.10	1,891.52	<100	130	<250	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
	06/11/09	8.55	1,891.07	<100	300[x]	<250	<1	<1	<1	<3	<5	<0.01	--	--	--
MW19 TOC: 1,898.87 feet	06/11/08	7.24	1,891.63	<100	230[x]	310	<1	<1	<1	<3	<1	<1	<1	<1	<1
	09/10/08	7.42	1,891.45	<100	260	320	<1	<1	<1	<3	<1	<1	<1	<1	<1
	12/09/08	6.69	1,892.18	<100	170	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1
	03/06/09	5.48	1,893.39	<100	210	<250	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
	06/10/09	6.15	1,892.72	<100	250[x]	<250	<1	<1	<1	<3	<5	<0.01	--	--	--
MW20 TOC: 1,897.21 feet	06/11/08	6.80	1,890.41	200	**880**	330[y]	<1	<1	<1	<3	<1	<1	<1	<1	<1
	09/10/08	7.83	1,889.38	<100	300[dv]	<360[dv]	<1	<1	<1	<3	<1	<1	<1	<1	<1
	12/09/08	7.24	1,889.97	<100	350	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1
	03/04/09	5.60	1,891.61	210	**1,500**[x]	270	<1	<1	3.7	<3	<1	<0.01	<1	<1	<1
	06/10/09	5.83	1,891.38	210	**930**[x]	440[y]	<1	<1	4.3	<3	<1	<0.01	<1	--	--
MTCA Method A Cleanup Level for Groundwater[7]				**1,000/800[b]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	

Table 5
Summary of Groundwater Analytical Results - TPH, BTEX, VOCs, and Lead
North Colfax Petroleum Contamination Site
Colfax, Washington

Well ID	Sample Date	Depth to Groundwater[1] (feet)	Groundwater Elevation (feet)	Analytical Results (µg/L)											
				GRPH[2]	DRPH[3]	ORPH[3]	Benzene[4]	Toluene[4]	Ethylbenzene[4]	Total Xylenes[4]	MTBE[4]	EDB[5]	EDC[4]	Dissolved Lead[6]	Total Lead[6]
MW21	06/11/08	7.82	1,889.76	<100	50[x]	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1
TOC: 1,897.58 feet	09/10/08	7.46	1,890.12	<100	130	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1
	12/09/08	7.17	1,890.41	<100	62	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1
	03/04/09	5.65	1,891.93	<100	67[x]	<250	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
	06/10/09	7.14	1,890.44	210	480[x]	360[y]	<1	<1	7.3	<3	<1	<0.01	<1	--	--
MW22	06/11/08	9.29	1,888.40	<100	<50	<250	<1	<1	<1	<3	2.6	<1	<1	<1	<1
TOC: 1897.69 feet	09/10/08	9.03	1,888.66	<100	83[dv]	<360[dv]	<1	<1	<1	<3	4.1	<1	<1	<1	<1
	12/10/08	9.61	1,888.08	<100	<50	<250	<1	<1	<1	<3	3.4	<1	<1	<1	<1
	03/04/09	8.48	1,889.21	<100	83[x]	<250	<1	<1	<1	<3	7.6	<0.01	<1	<1	<1
	06/08/09	9.10	1,888.59	--	--	--	--	--	--	--	--	--	--	--	--
MW23	06/11/08	10.56	1,890.53	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1
TOC: 1,901.09 feet	09/10/08	11.30	1,889.79	<100	<71[dv]	<360[dv]	<1	<1	<1	<3	<1	<1	<1	<1	<1
	12/09/08	10.81	1,890.28	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1
	03/06/09	9.60	1,891.49	<100	52	<250	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
	06/10/09	10.07	1,891.02	<100	110[x]	<250	<1	<1	<1	<3	<5	<0.01	--	--	--
MW24	03/06/09	9.54	1,891.11	<100	180	<250	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
TOC: 1,900.65 feet	06/11/09	9.86	1,890.79	<100	260[x]	<250	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
MW25	03/06/09	5.79	1,892.67	<100	180	<250	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
TOC: 1,898.46 feet	06/11/09	6.32	1,892.14	<100	310[x]	390[y]	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
MW26 TOC: 1,897.67 feet	06/09/09	8.45	1,889.22	<100	360[x]	380[y]	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
MW27 TOC: 1,897.30 feet	06/09/09	7.75	1,889.55	<100	170[x]	<250	<1	<1	<1	<3	1.9	<0.01	<1	<1	<1
MW28 TOC: 1,900.75 feet	06/09/09	10.20	1,890.55	<100	<50	<250	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
MW29 TOC: 1,898.75 feet	06/11/09	6.86	1,891.89	<100	450[x]	**510**[y]	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
MW30 TOC: 1,897.13 feet	06/09/09	5.82	1,891.31	**1,400**	**2,400**	460[y]	<1	<1	110	13	<1	<0.01	<1	<1	<1
MW31 TOC: 1,896.44 feet	06/10/09	5.85	1,890.59	<100	130[x]	280[y]	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
MW32 TOC: 1,898.50 feet	06/11/09	6.28	1,892.22	<100	480[x]	570[y]	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
CMW01[a]	10/21/04	9.69	1,889.89	ND	--	--	**9.4**	ND	ND	ND	--	--	--	--	--
TOC: 1,899.58 feet	11/23/04	9.89	1,889.69	233	--	--	**71.5**	5.24	1.35	3.44	--	--	--	--	--
	12/13/04	9.05	1,890.53	685	--	--	**66.8**	5.71	1.67	23.7	--	--	--	--	--
	03/16/05	9.66	1,889.92	428	--	--	**110**	2.43	2.03	4.51	--	--	--	--	--
	06/23/05	9.50	1,890.08	316	--	--	**76.7**	ND	ND	2.39	--	--	--	--	--
	09/08/05	10.07	1,889.51	249	--	--	**53.8**	ND	1.69	5.48	--	--	--	--	--
	12/14/05	9.60	1,889.98	324	--	--	**59.2**	1.25	1.30	6.71	<1.00	--	--	--	--
	03/16/06	8.33	1,891.25	250	--	--	**16.0**	<2.00	<1.00	1.91	<2.00	--	--	--	--
	07/25/06	9.43	1,890.15	151	--	--	3.28	ND	ND	1.84	1.31	--	--	--	--
	09/26/06	9.99	1,889.59	ND	--	--	2.35	ND	ND	ND	ND	--	--	--	--
	01/24/07	Decommissioned													
CMW02[a]	10/21/04	10.11	1,887.86	ND	--	--	**5.16**	ND	ND	ND	--	--	--	--	--
TOC: 1,899.97 feet	11/23/04	10.29	1,887.68	ND	--	--	4.66	ND	ND	ND	--	--	--	--	--
	12/13/04	9.45	1,888.52	145	--	--	**22.3**	ND	ND	4.03	--	--	--	--	--
	03/16/05	10.10	1,887.87	ND	--	--	**12.3**	ND	ND	ND	--	--	--	--	--
	06/23/05	9.91	1,888.06	ND	--	--	**17.3**	ND	ND	ND	--	--	--	--	--
	09/08/05	10.45	1,887.52	ND	--	--	**12.6**	ND	ND	ND	--	--	--	--	--
	12/14/05	9.94	1,890.03	382	--	--	**115**	36.50	4.41	10.86	<1.00	--	--	--	--
	03/16/06	8.73	1,891.24	**1,130**	--	--	**432**	5.33	14.1	21.9	4.82	--	--	--	--
	07/25/06	9.82	1,890.15	159	--	--	**22**	2.07	2.13	8.67	ND	--	--	--	--
	09/26/06	10.33	1,889.64	122	--	--	**21.7**	ND	5.25	13.50	ND	--	--	--	--
MTCA Method A Cleanup Level for Groundwater[7]				**1,000/800[b]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	

Table 5
Summary of Groundwater Analytical Results - TPH, BTEX, VOCs, and Lead
North Colfax Petroleum Contamination Site
Colfax, Washington

Well ID	Sample Date	Depth to Groundwater[1] (feet)	Groundwater Elevation (feet)	Analytical Results (µg/L)											
				GRPH[2]	DRPH[3]	ORPH[3]	Benzene[4]	Toluene[4]	Ethylbenzene[4]	Total Xylenes[4]	MTBE[4]	EDB[5]	EDC[4]	Dissolved Lead[6]	Total Lead[6]
CMW02[a]	01/24/07	8.45	1,891.52	465	--	--	**151**	2.41	11.70	11.90	ND	--	--	--	--
Continued	03/14/07	8.79	1,891.18	471	325	<500	**87.6**	<2	27.8	5.54	<10.0	<0.0100	<10	--	--
TOC: 1,899.97 feet	06/27/07	9.88	1,890.09	<100	<250	<500	3.20	<2	<1	<1.50	<1	<0.0100	<1	--	--
	06/27/07 (Duplicate)	--	--	<100	220	<250	3.4	<1	<1	<3	<1	<1	<1	--	--
	09/25/07	9.45	1,890.52	111	<250	<500	**7.21**	<2	<1	<1.50	<1	<0.0100	<1	--	--
	12/19/07	9.45	1,890.52	<100	<250	<500	3.56	<2.00	<1	<1.50	<1	<0.0100	<1	--	--
	03/04/08	8.61	1,891.36	<100	180	<250	3.5	<1	<1	<3	<1	<1	<1	--	<1
	06/10/08	9.45	1,890.52	<100	130[x]	<250	**7.7**	<1	<1	<3	1.0[jl]	<1	<1	--	--
	09/10/08	10.16	1,889.81	<100	140	<250	**10**	<1	<1	<3	<1	<1	<1	<1	<1
	12/09/08	9.67	1,890.30	<100	90	<250	1.4	<1	<1	<3	<1	<1	<1	<1	<1
	03/04/09	8.45	1,891.52	<100	77[x]	<250	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
	06/10/09	8.93	1,891.04	<100	110[x]	<250	<1	<1	<1	<3	<1	<1	<1	--	--
CMW03[a]	10/21/04	8.62	1,891.56	ND	--	--	ND	ND	ND	ND	--	--	--	--	--
TOC: 1,900.18 feet	11/23/04	8.55	1,891.63	ND	--	--	ND	ND	ND	ND	--	--	--	--	--
	12/13/04	7.83	1,892.35	ND	--	--	ND	ND	ND	ND	--	--	--	--	--
	03/16/05	8.79	1,891.39	ND	--	--	ND	ND	ND	ND	--	--	--	--	--
	06/23/05	9.85	1,890.33	ND	--	--	ND	ND	ND	ND	--	--	--	--	--
	09/08/05	9.13	1,891.05	ND	--	--	ND	ND	ND	ND	--	--	--	--	--
	12/14/05	8.42	1,891.76	<100	--	--	1.14	<0.500	<1.00	<3.00	<1.00	--	--	--	--
	03/16/06	7.90	1,892.28	<100	--	--	<0.500	<2.00	<1.00	<1.50	<1.00	--	--	--	--
	07/25/06	8.85	1,891.33	ND	--	--	ND	ND	ND	ND	ND	--	--	--	--
	09/26/06	9.42	1,890.76	ND	--	--	ND	ND	2.12	7.60	ND	--	--	--	--
	01/24/07	7.88	1,892.30	ND	--	--	ND	ND	ND	ND	ND	--	--	--	--
	03/14/07	8.09	1,892.09	<100	<250	**507**	<0.500	<2.00	<1.00	<1.50	<1.00	<0.0100	<1.00	--	--
	06/27/07	8.95	1,891.23	<100	<250	<500	<0.500	<2.00	<1.00	<1.50	<1.00	<0.0100	<1.00	--	--
	09/25/07	9.83	1,890.35	<100	<250	<500	<0.500	<2.00	<1.00	<1.50	<1.00	<0.0100	<1.00	--	--
	12/19/07	8.42	1,891.76	<100	<250	<500	<0.500	<2.00	<1.00	<1.50	<1.00	<0.0100	<1.00	--	--
	03/04/08	8.02	1,892.16	<100	160[x]	<250	<1	<1	<1	<3	<1	<1	<1	--	<1
	06/10/08	8.29	1,891.89	<100	92[x]	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	09/10/08	9.21	1,890.97	<100	220	320	<1	<1	<1	<3	<1	<1	<1	<1	<1
	12/09/08	8.60	1,891.58	<100	140	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1
	03/04/09	7.50	1,892.68	<100	110[x]	<250	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
	06/10/09	8.10	1,892.08	<100	100[x]	<250	<1	<1	<1	<3	<1	<1	<1	--	--
CMW04[a]	12/13/04	7.01	1,891.21	**1,990**	--	--	**218**	118	79.8	164	--	--	--	--	--
TOC: 1,898.22 feet	03/16/05	8.31	1,889.91	464	--	--	**111**	22.8	24.4	30	--	--	--	--	--
	06/23/05	6.18	1,892.04	**1,680**	--	--	**196**	15.4	128	131	--	--	--	--	--
	09/08/05	8.74	1,889.48	**4,720**	--	--	**564**	34.7	292	311	--	--	--	--	--
	12/14/05	8.22	1,890.00	783	--	--	**236**	122	31.2	71.6	<10.0	--	--	--	--
	03/16/06	6.99	1,891.23	**1,630**	--	--	**159**	129	43.9	116	2.60	--	--	--	--
	03/16/06 (Duplicate)	--	--	**2,150**	--	--	**226**	199	58.8	170	<5.00	<0.500	<0.500	--	--
	07/25/06	8.13	1,890.09	**5,130**	--	--	**725**	80.50	367	574	ND	--	--	--	--
	09/26/06	8.46	1,889.76	**1,510**	--	--	**265**	20.70	110	124	ND	--	--	--	--
	09/26/06 (Duplicate)	--	--	**1,400**	**736**[D-06]	<472	**225**	16.3	95.6	104	<5.00	<0.500	<0.500	--	--
	01/24/07	6.74	1,891.48	160	--	--	**25.0**	2.80	4.67	11	ND	--	--	--	--
	03/14/07	7.05	1,891.17	168	298	<500	**29.2**	<2.00	3.72	4.05	2.10	<0.0100	<2.00	--	--
	06/27/07	8.17	1,890.05	116	<250	<500	**16.4**	<2.00	2.85	7.86	<1.00	<0.0100	<1.00	--	--
	09/25/07	9.02	1,889.20	<100	<250	<500	1.02	<2.00	<1.20	<1.89	<1.22	<0.0100	<1.00	--	--
	12/19/07	7.70	1,890.52	<100	<250	<500	**5.80**	<2.00	1.20	1.89	1.22	<0.0100	<1.00	--	--
MTCA Method A Cleanup Level for Groundwater[7]				**1,000/800[b]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	15	

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Summary of Groundwater Analytical Results - TPH, BTEX, VOCs, and Lead
North Colfax Petroleum Contamination Site
Colfax, Washington

Well ID	Sample Date	Depth to Groundwater[1] (feet)	Groundwater Elevation (feet)	Analytical Results (µg/L)												
				GRPH[2]	DRPH[3]	ORPH[3]	Benzene[4]	Toluene[4]	Ethylbenzene[4]	Total Xylenes[4]	MTBE[4]	EDB[5]	EDC[4]	Dissolved Lead[6]	Total Lead[6]
MW01	02/20/01	5.95	1,890.62	103.0	<250	<750	<0.500	<0.500	<0.500	1.60	--	--	--	--	--
TOC: 1,896.57 feet	08/08/01	6.78	1,889.79	56.2	**506**	**1,060**	3.84	<0.500	<0.500	<1.00	--	--	--	--	--
	11/12/01	7.10	1,889.47	221	**576**	**1,500**	**66.9**	0.920	8.95	1.30	--	--	--	--	--
	02/28/02	5.65	1,890.92	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	05/07/02	6.23	1,890.34	<50.0	439	<500	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	08/13/02	6.96	1,889.61	539	402	<500	**130**	0.730	6.61	2.29	--	--	--	--	--
	11/07/02	7.84	1,888.73	129	262	<500	**22.8**	<0.500	0.755	<1.00	--	--	--	--	--
	02/18/03	5.60	1,890.97	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	05/22/03	6.57	1,890.00	<50.0	**1,140**	**4,380**	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	08/12/03	7.67	1,888.90	181	**512**	**1,720**	**42.5**	<0.500	2.38	<1.00	--	--	--	--	--
	11/21/03	7.75	1,888.82	<50.0	**1,580**	**4,610**	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	02/25/04	5.55	1,891.02	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	<1.00	--	--	--	--
	04/30/04	6.43	1,890.14	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	10/21/04	7.40	1,889.17	<50.0	--	--	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	11/18/04	7.38	1,889.19	<50.0	--	--	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	09/08/05	7.73	1,888.84	67.1	--	--	**20.5**	<1.00	<1.00	<3.00	<5.00	<1.00	<1.00	--	--
	03/16/06	5.71	1,890.86	<50.0	--	--	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	--	--
	08/10/06	7.37	1,889.20	<100	--	--	**10.4**	<0.500	<0.500	<3.00	5.23	<0.500	<0.500	--	--
	09/26/06	7.62	1,888.95	<50.0[HT-1]	<236	<472	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	--	--
	12/15/06	6.40	1,890.17	<50	58	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	03/14/07	5.78	1,890.79	<100	<50	<250	<1	<1	<1	<3	1.1	<1	<1	--	--
	06/27/07	7.16	1,889.41	<100	94	<250	<1	<1	<1	<3	1.8	<1	<1	--	--
	09/25/07	7.94	1,888.63	<100	<50	<250	<1	<1	<1	<3	3.7	<1	<1	--	--
	12/19/07	6.51	1,890.06	<100	69[x]	<250	<1	<1	<1	<3	2.0	<1	<1	--	--
	03/04/08	5.45	1,891.12	<100	69[x]	<250	<1	<1	<1	<3	2.5	<1	<1	--	<1
	06/10/08	6.49	1,890.08	<100	<50	<250	<1	<1	<1	<3	1.3[jl]	<1	<1	--	--
	09/10/08	7.37	1,889.20	<100	<50	<250	<1	<1	<1	<3	4.5	<1	<1	<1	<1
	12/10/08	7.00	1,889.57	<100	53	<250	<1	<1	<1	<3	3.0	<1	<1	<1	<1
	03/04/09	5.53	1,891.04	<100	**630**	300	<1	<1	<1	<3	1.2	<0.01	<1	<1	3.79
	06/11/09	5.80	1,890.77	<100	90[x]	<250	<1	<1	<1	<3	<1	<0.01	<1	--	--
MW02	02/20/01	5.62	1,891.54	134	364	<750	<0.500	<0.500	0.915	8.53	--	--	--	--	--
TOC: 1,897.16 feet	08/08/01	7.10	1,890.06	**1,270**	386	<500	**193**	9.04	142	42.9	--	--	--	--	--
	11/12/01	7.18	1,889.98	684	288	<500	**81.8**	3.61	34.4	28.9	--	--	--	--	--
	02/28/02	5.85	1,891.31	87.8	279	<500	0.765	<0.500	<0.500	<1.00	--	--	--	--	--
	05/07/02	6.28	1,890.88	85.0	422	<500	0.873	<0500	<0.500	<1.00	--	--	--	--	--
	08/13/02	6.96	1,890.20	**3,650**	**686**	<500	**338**	45.8	137	88.6	--	--	--	--	--
	11/07/02	8.09	1,889.07	295	**580**	<500	**27.0**	<0.500	4.99	1.88	--	--	--	--	--
	02/18/03	5.93	1,891.23	79.7	297	<500	1.27	<0.500	1.03	1.16	--	--	--	--	--
	05/22/03	6.73	1,890.43	141	**604**	<500	1.77	<0.500	4.28	3.21	--	--	--	--	--
	08/12/03	7.85	1,889.31	**1,210**	<250	<500	**437**	3.520	67.0	28.0	--	--	--	--	--
	11/21/03	7.97	1,889.19	122	<250	<500	0.896	<0.500	2.34	<1.00	--	--	--	--	--
	02/25/04	5.90	1,891.26	68.5	<250	<500	<0.500	<0.500	0.678	2.03	1.48	--	--	--	--
	04/30/04	6.43	1,890.73	87.7	<250	<500	0.542	<0.500	0.623	<1.00	--	--	--	--	--
	10/21/04	7.37	1,889.79	64.9	--	--	<0.500	<0.500	<0.500	<1.00	--	--	--	--	--
	11/18/04	7.51	1,889.65	69.0	--	--	0.66	<0.500	<0.500	<1.00	--	--	--	--	--
	09/08/05	7.78	1,889.38	65.4	--	--	**384**	2.56	156	12.4	10.6	<1.00	<1.00	--	--
	03/16/06	5.97	1,891.19	76.0	--	--	0.670	<0.500	0.590	<3.00	<5.00	<0.500	<0.500	--	--
	08/10/06	7.28	1,889.88	**1,940**	--	--	**68.0**	6.01	324	187	12.3	<0.500	<0.500	--	--
	09/27/06	7.81	1,889.35	239[A-01]	**669**[D-06]	<472	**211**	<0.500	9.43	<3.00	9.34	<0.500	<0.500	--	--
	12/16/06	6.27	1,890.89	71	100	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	03/14/07	6.04	1,891.12	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	--	--
	06/27/07	7.20	1,889.96	**1,600**	**730**[x]	<250	**11**	1.4	150	105	2.6	<1	<1	--	--
	09/25/07	8.06	1,889.10	580	400[x]	<250	**15**	<1	81	8.6	5.7	<1	<1	--	--
	12/19/07	6.70	1,890.46	<100	<250[dv]	<1,200[dv]	**24**	<1	<1	<2	<1	<1	<1	--	--
MTCA Method A Cleanup Level for Groundwater[7]				**1,000/800[b]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	

Table 5
Summary of Groundwater Analytical Results - TPH, BTEX, VOCs, and Lead
North Colfax Petroleum Contamination Site
Colfax, Washington

Well ID	Sample Date	Depth to Groundwater[1] (feet)	Groundwater Elevation (feet)	Analytical Results (µg/L)											
				GRPH[2]	DRPH[3]	ORPH[3]	Benzene[4]	Toluene[4]	Ethylbenzene[4]	Total Xylenes[4]	MTBE[4]	EDB[5]	EDC[4]	Dissolved Lead[6]	Total Lead[6]
	03/04/08	6.89	1,891.33	<100	150[x]	<250	3.8	<1	<1	<3	<1	<1	<1	--	<1
	06/10/08	7.61	1,890.61	<100	130[x]	<250	1.4	<1	<1	<3	1.1[jl]	<1	<1	--	--
	09/10/08	8.45	1,889.77	<100	130	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1
	12/09/08	7.96	1,890.26	<100	160	<250	2.4	<1	1.1	<3	1.1	<1	<1	<1	<1
	03/06/09	6.70	1,891.52	<100	140	<250	1.6	<1	<1	<3	1.3	<0.01	<1	<1	<1
	06/08/09	7.20	1,891.02	--	--	--	--	--	--	--	--	--	--	--	--
CMW05[a] TOC: 1,898.25 feet	12/13/04	7.74	1,890.51	**8,330**	--	--	**498**	184	324	583	--	--	--	--	--
	03/16/05	8.33	1,889.92	**3,750**	--	--	**415**	6.74	486	304	--	--	--	--	--
	06/23/05	8.21	1,890.04	**12,400**	--	--	**1,970**	357	**767**	**1,560**	--	--	--	--	--
	09/08/05	8.77	1,889.48	**6,910**	--	--	**1,380**	27.4	315	243	--	--	--	--	--
	12/14/05	8.24	1,890.01	**6,310**	--	--	**1,190**	82.9	481	826	<100	--	--	--	--
	03/16/06	7.04	1,891.21	**6,970**	--	--	**585**	2.6	512	701	<20.0	--	--	--	--
	07/25/06	8.16	1,890.09	**9,220**	--	--	**1,550**	ND	502	328	ND	--	--	--	--
	09/26/06	8.65	1,889.60	**5,210**	--	--	**1,070**	ND	400	225	ND	--	--	--	--
	01/24/07	6.76	1,891.49	295	--	--	**53.0**	ND	3.88	11.7	ND	--	--	--	--
	03/14/07	7.07	1,891.18	220	270	<500	**34.7**	<2.00	1.31	<1.50	<2.00	<0.0100	<2.00	--	--
	03/14/07 (Duplicate)	--	--	240	190[D-06]	<250	**34**	<1.00	<1.00	<3.00	2.8	<1.00	<1.00	--	--
	06/27/07	8.20	1,890.05	143	<250	<500	**28.8**	<2.00	<1.00	<1.50	3.96	<0.0100	<1.00	--	--
	09/25/07	9.06	1,889.19	116	<250	<500	**8.34**	<2.00	<1.00	1.51	1.42	<0.0100	<1.00	--	--
	09/25/07 (Duplicate)	--	--	<100	<50	<250	2.6	<1	<1	<3	1.9	<1	<1	--	--
	12/19/07	7.73	1,890.52	<100	89	<250	1.9	<1	<1	<3	4.8	<1	<1	--	--
	12/19/07 (Duplicate)	--	--	<100	<250	<500	2.14	<2	<1	<1.50	5.04	<0.0100	<1.00	--	--
	03/04/08	6.91	1,891.34	<100	93[x]	<250	3.5	<1	<1	<3	7.1	<1	<1	--	<1
	03/04/08	--	--	<100	120[x]	<250	3.8	<1	<1	<3	7.9	<1	<1	--	<1
	06/10/08	7.67	1,890.58	<100	74[x]	<250	<1	<1	<1	<3	5.5[jl]	<1	<1	--	--
	06/10/08 (Duplicate)	--	--	<100	<50	<250	<1	<1	<1	<3	4.5	<1	<1	--	--
	09/10/08	8.45	1,889.80	<100	64	<250	<1	<1	<1	<3	5.5	<1	<1	<1	<1
	12/09/08	7.97	1,890.28	<100	90	<250	<1	<1	<1	<3	4.9	<1	<1	<1	<1
	03/06/09	6.75	1,891.50	<100	85	<250	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
	03/06/09 (Duplicate)	--	--	<100	140	<250	<1	<1	<1	<3	<1	<0.01	<1	<1	<1
	06/08/09	7.25	1,891.00	--	--	--	--	--	--	--	--	--	--	--	--
MTCA Method A Cleanup Level for Groundwater[7]				**1,000/800**[b]	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**0.01**	**5**	**15**	

NOTES:

Red denotes concentration exceeds MTCA Method A cleanup level for groundwater.

Data collected from wells MW01 through MW12 prior to September 2005 as reported in GeoEngineers, Inc.'s February 2005 Groundwater Monitoring Report.

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

[1] Measured below a fixed spot on the well casing rim.

[2] Analyzed by Method NWTPH-Gx.

[3] Analyzed by Method NWTPH-Dx.

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

[5] Analyzed by EPA Method 8260B, 8260C, or 8011 Modified.

[6] Analyzed by EPA Method 200.8.

[7] MTCA Method A Cleanup Levels, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, revised November 2007.

[a] Wells are located on the Cenex property. Results prior to 2008 as reported by Quantum Engineering.

[b] 1,000 µg/L when benzene is not detected and 800 µg/L when benzene is detected.

Laboratory Notes:

[A-01] Sample had headspace due to multiple shots.

[D-06] The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

[d] Detection limits are raised due to sample dilution.

[dv] Laboratory reporting limits are raised due to insufficient sample.

[HT-1] Sample analysis performed past method-specific holding time.

[HT-3] Initial analysis within holding time. Reanalysis for the required dilution was past holding time.

[Q-40] This analyte had a low bias on the associated calibration verification standard.

[Q-41] This analyte had a high bias on the associated calibration verification standard.

[jl] The analyte result in the laboratory control sample is out of control limits. Results should be considered an estimate.

[x] The pattern of peaks present is not indicative of diesel.

[y] The pattern of peaks present is not indicative of motor oil.

-- = not analyzed, measured, or calculated
< = not detected at concentration exceeding the laboratory reporting limit
µg/L = micrograms per liter
BTEX = benzene, toluene, ethylbenzene, and total xylenes
DRPH = diesel-range petroleum hydrocarbons
EDB = ethylene dibromide (1,2-dibromoethane)
EDC = ethylene dichloride (1,2-dichloroethane)
EPA = United States Environmental Protection Agency
GRPH = gasoline-range petroleum hydrocarbons
MTBE = methyl tertiary-butyl ether
MTCA = Washington State Model Toxics Control Act
ND = not detected above the laboratory reporting limit as reported by Quantum Engineering
NWTPH = Northwest Total Petroleum Hydrocarbon
ORPH = oil-range petroleum hydrocarbons
TOC = top of casing elevation
TPH = total petroleum hydrocarbons
VOC = volatile organic compound

Table 6
Summary of Groundwater Analytical Results - Polycyclic Aromatic Hydrocarbons
North Colfax Petroleum Contamination Site
Colfax, Washington

Well ID	Date Sampled	Analytical Results (µg/L)																		Total TEQ Groundwater Concentration
													cPAHs							
		Naphthalene^{1}	1-Methylnaphthalene^{2}	2-Methylnaphthalene^{2}	Acenapthylene^{2}	Acenaphthene^{2}	Fluorene^{2}	Phenanthrene^{2}	Anthracene^{2}	Fluoranthene^{2}	Pyrene^{2}	Benzo(g,h,i) perylene^{2}	Benz(a) anthracene^{2}	Chrysene^{2}	Benzo(a) pyrene^{2}	Benzo(b) fluoranthene2^{1}	Benzo(k) fluoranthene^{2}	Indeno(1,2,3-cd) pyrene^{2}	Dibenz(a,h) anthracene^{2}	
MW01	09/10/08	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	12/10/08	0.29	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1^{jl}	<0.1	<0.1	<0.1^{jl}	<0.1^{jl}	<0.1^{jl}	<0.1^{jl}	<0.1^{jl}	0.0755
	03/04/09	2.2	--	--	<0.1	0.12	0.14	0.12	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	06/11/09	<0.01	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW02	09/10/08	200	--	--	<0.1	0.3	0.23	0.11	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1^{ca}	<0.1	0.0755
	12/10/08	3.3	2.3	3.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1^{jl}	<0.1	<0.1	<0.1^{jl}	<0.1^{jl}	<0.1^{jl}	<0.1^{jl}	<0.1^{jl}	0.0755
	03/04/09	0.28	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	03/04/09 (Duplicate)	0.22	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	06/11/09	<0.01	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	06/11/09 (Duplicate)	<0.01	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW03	09/10/08	0.12	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	12/10/08	0.10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1^{jl}	<0.1	<0.1	<0.1^{jl}	<0.1^{jl}	<0.1^{jl}	<0.1^{jl}	<0.1^{jl}	0.0755
	03/04/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0775
	06/11/09	0.71	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW04	09/10/08	0.92	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	12/10/08	0.22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1^{jl}	<0.1	<0.1	<0.1^{jl}	<0.1^{jl}	<0.1^{jl}	<0.1^{jl}	<0.1^{jl}	0.0755
	03/04/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW05	09/10/08	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	12/10/08	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1^{jl}	<0.1	<0.1	<0.1^{jl}	<0.1^{jl}	<0.1^{jl}	<0.1^{jl}	<0.1^{jl}	0.0755
	03/04/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	06/10/09	<0.01	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW06	09/10/08	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	12/10/08	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1^{jl}	<0.1	<0.1	<0.1^{jl}	<0.1^{jl}	<0.1^{jl}	<0.1^{jl}	<0.1^{jl}	0.0755
	03/04/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW07	09/10/08	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	12/10/08	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1^{jl}	<0.1	<0.1	<0.1^{jl}	<0.1^{jl}	<0.1^{jl}	<0.1^{jl}	<0.1^{jl}	0.0755
	03/04/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	06/10/09	<0.01	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW08	09/10/08	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	12/09/08	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1^{jl}	<0.1	<0.1	<0.1^{jl}	<0.1^{jl}	<0.1^{jl}	<0.1^{jl}	<0.1^{jl}	0.0755
	03/04/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	06/10/09	<0.01	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW09	03/04/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	06/10/09	0.18	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	06/10/09 (Duplicate)	0.16	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW10	03/04/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	06/11/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW11	09/11/08	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	12/10/08	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1^{jl}	<0.1	<0.1	<0.1^{jl}	<0.1^{jl}	<0.1^{jl}	<0.1^{jl}	<0.1^{jl}	0.0755
	03/06/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	06/10/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW12	03/04/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	06/10/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MTCA Cleanup Level		**160**			**NE**	**4,800^{a}**	**3,200^{a}**	**NE**	**24,000^{a}**	**3,200^{a}**	**2,400^{a}**	**NE**	**NE**	**NE**	**0.1^{b}**	**NE**	**NE**	**NE**	**NE**	**0.1^{c}**

Table 6
Summary of Groundwater Analytical Results - Polycyclic Aromatic Hydrocarbons
North Colfax Petroleum Contamination Site
Colfax, Washington

Well ID	Date Sampled	Analytical Results (µg/L)																		Total TEQ Groundwater Concentration
													cPAHs							
		Naphthalene[1]	1-Methylnaphthalene[2]	2-Methylnaphthalene[2]	Acenapthylene[2]	Acenaphthene[2]	Fluorene[2]	Phenanthrene[2]	Anthracene[2]	Fluoranthene[2]	Pyrene[2]	Benzo(g,h,i) perylene[2]	Benz(a) anthracene[2]	Chrysene[2]	Benzo(a) pyrene[2]	Benzo(b) fluoranthene2[1]	Benzo(k) fluoranthene[2]	Indeno(1,2,3-cd) pyrene[2]	Dibenz(a,h) anthracene[2]	
MW13	06/11/08	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	09/11/08	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	12/10/08	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1[jl]	<0.1	<0.1	<0.1[jl]	<0.1[jl]	<0.1[jl]	<0.1[jl]	<0.1[jl]	0.0755
	03/06/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	06/10/09	<0.01	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW14	03/04/09	140	--	--	<0.1	0.19	0.14	0.13	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.11	<0.1	0.0815
	06/09/09	100			<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW15	06/11/08	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	09/11/08	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	12/10/08	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1[jl]	<0.1	<0.1	<0.1[jl]	<0.1[jl]	<0.1[jl]	<0.1[jl]	<0.1[jl]	0.0755
	03/06/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW16	06/11/08	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	09/10/08	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	12/09/08	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1[jl]	<0.1	<0.1	<0.1[jl]	<0.1[jl]	<0.1[jl]	<0.1[jl]	<0.1[jl]	0.0755
	03/06/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW17	06/11/08	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	09/10/08	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1[ca]	<0.1	0.0755
	12/09/08	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1[jl]	<0.1	<0.1	<0.1[jl]	<0.1[jl]	<0.1[jl]	<0.1[jl]	<0.1[jl]	0.0755
	03/06/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW18	06/11/08	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	09/10/08	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	12/09/08	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1[jl]	<0.1	<0.1	<0.1[jl]	<0.1[jl]	<0.1[jl]	<0.1[jl]	<0.1 jl	0.0755
	03/06/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW19	06/11/08	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	09/10/08	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1[ca]	<0.1	0.0755
	12/09/08	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1[jl]	<0.1	<0.1	<0.1[jl]	<0.1[jl]	<0.1[jl]	<0.1[jl]	<0.1[jl]	0.0755
	03/06/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW20	06/11/08	<0.1	--	--	<0.1	0.21	0.19	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	09/11/08	<0.1	--	--	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1[ca]	<0.1	0.0755
	12/09/08	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1[jl]	<0.1	<0.1	<0.1[jl]	<0.1[jl]	<0.1[jl]	<0.1[jl]	<0.1[jl]	0.0755
	03/04/09	0.88	--	--	<0.1	0.27	0.16	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	06/10/09	4.2	--	--	<0.1	0.57	0.26	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW21	06/11/08	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	09/10/08	<0.1	--	--	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1[ca]	<0.1	0.0755
	12/09/08	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1[jl]	<0.1	<0.1	<0.1[jl]	<0.1[jl]	<0.1[jl]	<0.1[jl]	<0.1[jl]	0.0755
	03/04/09	<0.1	--	--	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	06/10/09	6.3	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW22	06/11/08	6.3	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	09/10/08	<0.1	--	--	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	12/10/08	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1[jl]	<0.1	<0.1	<0.1[jl]	<0.1[jl]	<0.1[jl]	<0.1[jl]	<0.1[jl]	0.0755
	03/04/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW23	06/11/08	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	09/10/08	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	12/09/08	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1[jl]	<0.1	<0.1	<0.1[jl]	<0.1[jl]	<0.1[jl]	<0.1[jl]	<0.1[jl]	0.0755
	03/06/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MTCA Cleanup Level		**160**			**NE**	**4,800[a]**	**3,200[a]**	**NE**	**24,000[a]**	**3,200[a]**	**2,400[a]**	**NE**	**NE**	**NE**	**0.1[b]**	**NE**	**NE**	**NE**	**NE**	**0.1[c]**

Table 6
Summary of Groundwater Analytical Results - Polycyclic Aromatic Hydrocarbons
North Colfax Petroleum Contamination Site
Colfax, Washington

Well ID	Date Sampled	Analytical Results (µg/L)																		Total TEQ Groundwater Concentration
													cPAHs							
		Naphthalene[1]	1-Methylnaphthalene[2]	2-Methylnaphthalene[2]	Acenapthylene[2]	Acenaphthene[2]	Fluorene[2]	Phenanthrene[2]	Anthracene[2]	Fluoranthene[2]	Pyrene[2]	Benzo(g,h,i) perylene[2]	Benz(a) anthracene[2]	Chrysene[2]	Benzo(a) pyrene[2]	Benzo(b) fluoranthene2[1]	Benzo(k) fluoranthene[2]	Indeno(1,2,3-cd) pyrene[2]	Dibenz(a,h) anthracene[2]	
MW24	03/06/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	06/11/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW25	03/06/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	06/11/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW26	06/09/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW27	06/09/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW28	06/09/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW29	06/09/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW30	06/09/09	160	--	--	<0.1	1.1	1.8	0.23	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW31	06/10/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MW32	06/11/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
CMW02	09/10/08	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	12/09/08	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1[jl]	<0.1	<0.1	<0.1[jl]	<0.1[jl]	<0.1[jl]	<0.1[jl]	<0.1[jl]	0.0755
	03/04/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	06/10/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
CMW03	09/10/08	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	12/09/08	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1[jl]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1[jr]	<0.1[jl]	0.0755
	03/04/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	06/10/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
CMW04	09/10/08	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	12/09/08	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1[jl]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1[jr]	<0.1[jl]	0.0755
	03/06/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
CMW05	09/10/08	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	12/09/08	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1[jl]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1[jr]	<0.1[jl]	0.0755
	03/06/09	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
	03/06/09 (duplicate)	<0.1	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0755
MTCA Cleanup Level		**160**			**NE**	**4,800[a]**	**3,200[a]**	**NE**	**24,000[a]**	**3,200[a]**	**2,400[a]**	**NE**	**NE**	**NE**	**0.1[b]**	**NE**	**NE**	**NE**	**NE**	**0.1[c]**

NOTES:

Red denotes concentration exceeds MTCA cleanup level.

Laboratory analysis performed by Friedman & Bruya, Inc. of Seattle, Washington.

[1] Analyzed by EPA Method 8270C SIM, 8270D SIM, or 8260C.

[2] Analyzed by EPA Method 8270C SIM or 8270D SIM.

[a] MTCA Cleanup Regulation, CLARC, Method B, Non-Carcinogen, Standard Formula Value, Direct contact (ingestion only), Unrestricted Land Use, CLARC website <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.

[b] MTCA Method A Cleanup Levels, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, revised November 2007.

[c] Analytical result for each individual cPAH is multiplied by TEF and all seven cPAH values are added. When analytical result is reported as less than the LRL, half the LRL is used for the calculation. See Table 3 for calculations.

Laboratory Notes:

[ca] The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

[jl] The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

[jr] The RPD result in the laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

-- = not analyzed
< = not detected at a concentration exceeding the LRL
µg/L = micrograms per liter
CLARC = Cleanup Levels and Risk Calculations
cPAH = carcinogenic polycyclic aromatic hydrocarbon
EPA = United States Environmental Protection Agency
LRL = laboratory reporting limit
MTCA = Washington State Model Toxics Control Act
NE = cleanup level not established
RPD = relative percent difference
TEF = toxicity equivalency factor
TEQ = toxicity equivalent

Table 7
Toxicity Equivalency for cPAH Concentrations in Groundwater
North Colfax Petroleum Contamination Site
Colfax, Washington

Well ID	Date Sampled	**Analytical Results**[1] (micrograms per liter)							**Total TEQ Groundwater Concentration**[2]
		Benz(a) anthracene TEF (0.1)	**Chrysene TEF (0.01)**	**Benzo(a)pyrene TEF (1)**	**Benzo(b) fluoranthene TEF (0.1)**	**Benzo(k) fluoranthene TEF (0.1)**	**Indeno(1,2,3-cd) pyrene TEF (0.1)**	**Dibenz(a,h) anthracene TEF (0.1)**	
MW01	09/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	12/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	03/04/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	06/11/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW02	09/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	12/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	03/04/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	03/04/09 (duplicate)	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	06/11/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	06/11/09 (Duplicate)	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW03	09/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	12/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	03/04/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	06/11/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW04	09/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	12/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	03/04/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW05	09/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	12/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	03/04/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	06/10/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW06	09/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	12/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	03/04/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW07	09/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	12/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	03/04/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	06/10/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MTCA Method A Cleanup Level[3]		**NE**	**NE**	**0.1**	**NE**	**NE**	**NE**	**NE**	**0.1**

Table 7
Toxicity Equivalency for cPAH Concentrations in Groundwater
North Colfax Petroleum Contamination Site
Colfax, Washington

		Analytical Results[1] (micrograms per liter)							
Well ID	**Date Sampled**	**Benz(a) anthracene TEF (0.1)**	**Chrysene TEF (0.01)**	**Benzo(a)pyrene TEF (1)**	**Benzo(b) fluoranthene TEF (0.1)**	**Benzo(k) fluoranthene TEF (0.1)**	**Indeno(1,2,3-cd) pyrene TEF (0.1)**	**Dibenz(a,h) anthracene TEF (0.1)**	**Total TEQ Groundwater Concentration[2]**
MW08	09/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	12/09/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	03/04/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	06/10/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW09	03/04/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	06/10/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	06/10/09 (Duplicate)	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW10	03/04/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	06/11/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW11	09/11/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	12/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	03/06/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	06/10/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW12	03/04/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	06/10/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW13	06/11/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	09/11/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	12/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	03/06/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	06/10/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW14	03/04/09	0.005	0.0005	0.05	0.005	0.005	0.011	0.005	0.0815
	06/09/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW15	06/11/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	09/11/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	12/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	03/06/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW16	06/11/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	09/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	12/09/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	03/06/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MTCA Method A Cleanup Level[3]		**NE**	**NE**	**0.1**	**NE**	**NE**	**NE**	**NE**	**0.1**

Table 7
Toxicity Equivalency for cPAH Concentrations in Groundwater
North Colfax Petroleum Contamination Site
Colfax, Washington

Well ID	Date Sampled	**Analytical Results[1]** (micrograms per liter)							Total TEQ Groundwater Concentration[2]
		Benz(a) anthracene TEF (0.1)	Chrysene TEF (0.01)	Benzo(a)pyrene TEF (1)	Benzo(b) fluoranthene TEF (0.1)	Benzo(k) fluoranthene TEF (0.1)	Indeno(1,2,3-cd) pyrene TEF (0.1)	Dibenz(a,h) anthracene TEF (0.1)	
MW17	06/11/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	09/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	12/09/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	03/06/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW18	06/11/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	09/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	12/09/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	03/06/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW19	06/11/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	09/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	12/09/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	03/06/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW20	06/11/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	09/11/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	12/09/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	03/04/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	06/10/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW21	06/11/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	09/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	12/09/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	03/04/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	06/10/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW22	06/11/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	09/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	12/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	03/04/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW23	06/11/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	09/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	12/09/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	03/06/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MTCA Method A Cleanup Level[3]		**NE**	**NE**	**0.1**	**NE**	**NE**	**NE**	**NE**	**0.1**

Table 7
Toxicity Equivalency for cPAH Concentrations in Groundwater
North Colfax Petroleum Contamination Site
Colfax, Washington

Well ID	Date Sampled	**Analytical Results**[1] (micrograms per liter)							Total TEQ Groundwater Concentration[2]
		Benz(a) anthracene TEF (0.1)	Chrysene TEF (0.01)	Benzo(a)pyrene TEF (1)	Benzo(b) fluoranthene TEF (0.1)	Benzo(k) fluoranthene TEF (0.1)	Indeno(1,2,3-cd) pyrene TEF (0.1)	Dibenz(a,h) anthracene TEF (0.1)	
MW24	03/06/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	06/11/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW25	03/06/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	06/11/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW26	06/09/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW27	06/09/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW28	06/09/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW29	06/09/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW30	06/09/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW31	06/10/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MW32	06/11/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
CMW02	09/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	12/09/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	03/04/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	06/10/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
CMW03	09/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	12/09/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	03/04/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	06/10/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
CMW04	09/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	12/09/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	03/06/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
CMW05	09/10/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	12/09/08	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	03/06/09	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
	03/06/09 (duplicate)	0.005	0.0005	0.05	0.005	0.005	0.005	0.005	0.0755
MTCA Method A Cleanup Level[3]		**NE**	**NE**	**0.1**	**NE**	**NE**	**NE**	**NE**	**0.1**

NOTES:

Laboratory analysis performed by Friedman & Bruya, Inc. of Seattle, Washington.

[1] Analyzed by United States Environmental Protection Agency Method 8260C SIM or 8270D SIM.

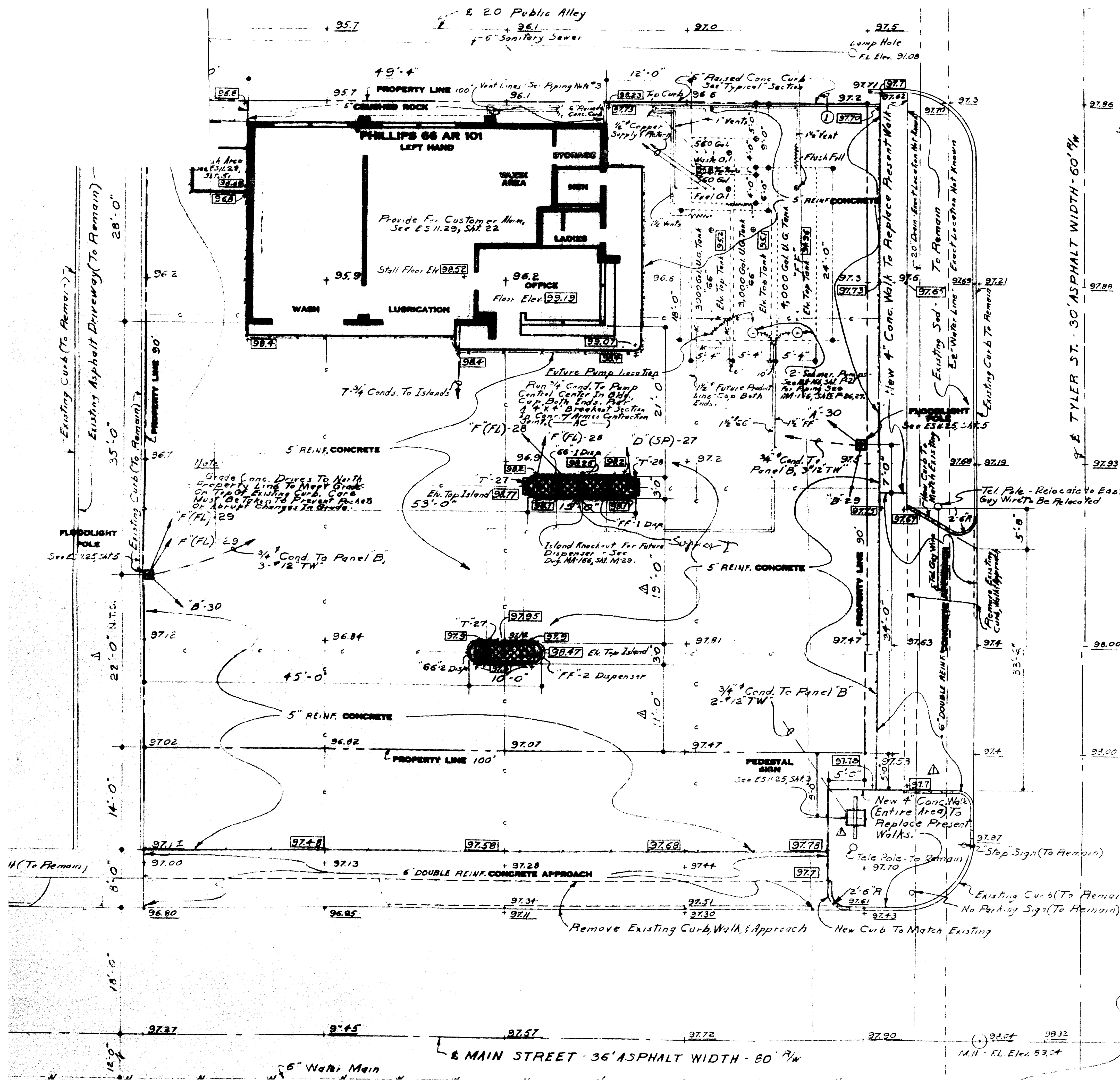
[2] Analytical result for each individual cPAHs is multiplied by TEF and all seven cPAH values are added. When analytical results is reported as less than the LRL, half the LRL is used for the calculation.

[3] MTCA Method A Cleanup Levels, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, revised November 2007.

cPAHs = carcinogenic polycyclic aromatic hydrocarbons
LRL = laboratory reporting limit
MTCA = Washington State Model Toxics Control Act
NE = cleanup level not established
TEF = toxicity equivalency factor
TEQ = toxicity equivalent

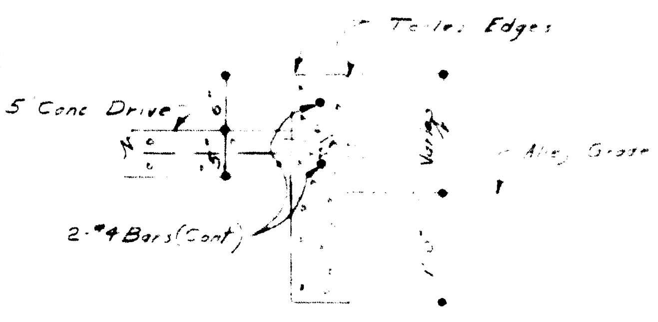
APPENDIX A

Whitman County Assessor/City of Colfax Records



BENCH MARK
TOP OF FIRE HYDRANT
ASSUMED ELV. 100.00'

98.12



SECTION ① TYPICAL
Scale: 1" = 1'-0"

1. [illegible]
2. [illegible]
3. [illegible]
4. [illegible]
5. [illegible] 2'-0" [illegible]
6. All existing buildings, tanks, fences, [illegible], trees, walks, curbs, etc., to be removed unless otherwise noted.
7. [illegible]
8. Provide expansion joints at least every 25 feet and at islands as shown on detail drawing.
9. Provide 6 inch reinforced concrete pad around manholes [illegible] directly under concrete slab. Minimum dimension 2 feet each way from manhole.
10. [illegible]
11. [illegible]

CONCRETE

1. 5" concrete when placed on natural subgrade or on fills 1 foot or less in depth. Single reinforcing placed in middle of slab.
2. 6" concrete on fills over 1 foot in depth and more than 3 feet wide. Double reinforcing placed 2 inches from top and 2 inches from bottom of slab.
3. Reinforcing shall be 6 X 6 inch X 10/10 wire mesh.
4. Approaches to conform with requirements of city, state, or other governing authority.

ELECTRICAL

1. Lights designated by letters are listed in electrical specifications. Numerals following letters are circuit numbers.
2. Do not run electrical conduit over tank area.
3. "F" lights on Floodlight Pole mount on T 17 Crouse Hinds condulet with Revere #3297 slip fitter. (Not Furnished)
4. "A" lights to have 1000 Watt lamps and No. G-494 Innerbeam Projector

PIPING

1. Gasoline, fuel oil, vent lines, and water lines to islands to be a minimum of 18" below grade and slope a minimum of 1 inch in 10 feet toward tank and/or valve box.
2. All underground piping to be approved by Company Engineer before back filling.
3. Locate tank vents back of stall portion of building where shown on Plan. Extend 3'-0" above roof.
4. Provide air and water lines to each air, water and light standard on islands.

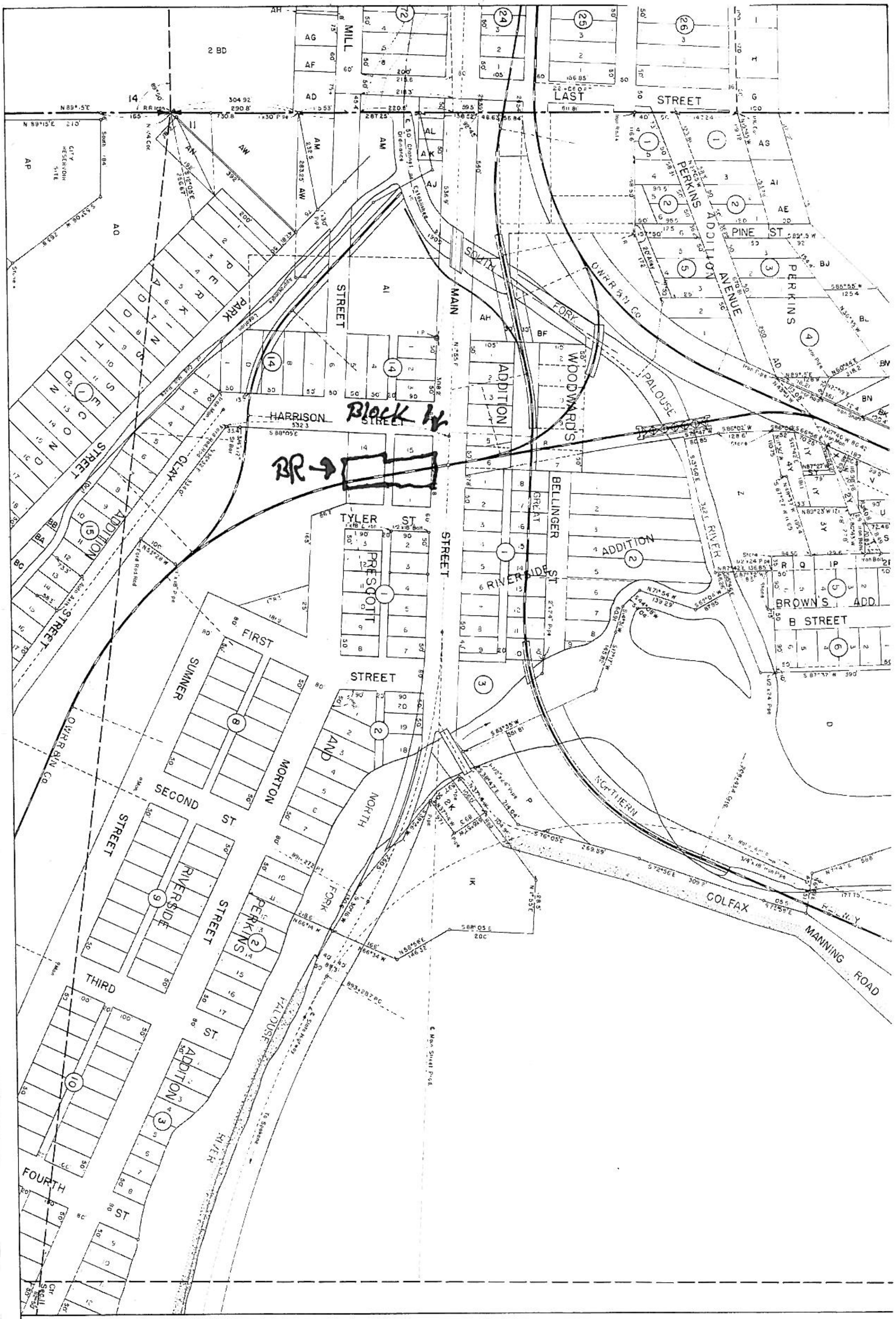
HEATING

1. Type of fuel. Oil.
2. Design temperature. -15°F
3. Install optional extended duct. No

Note:
Erect "Pedestal Sign" immediately upon start of construction.

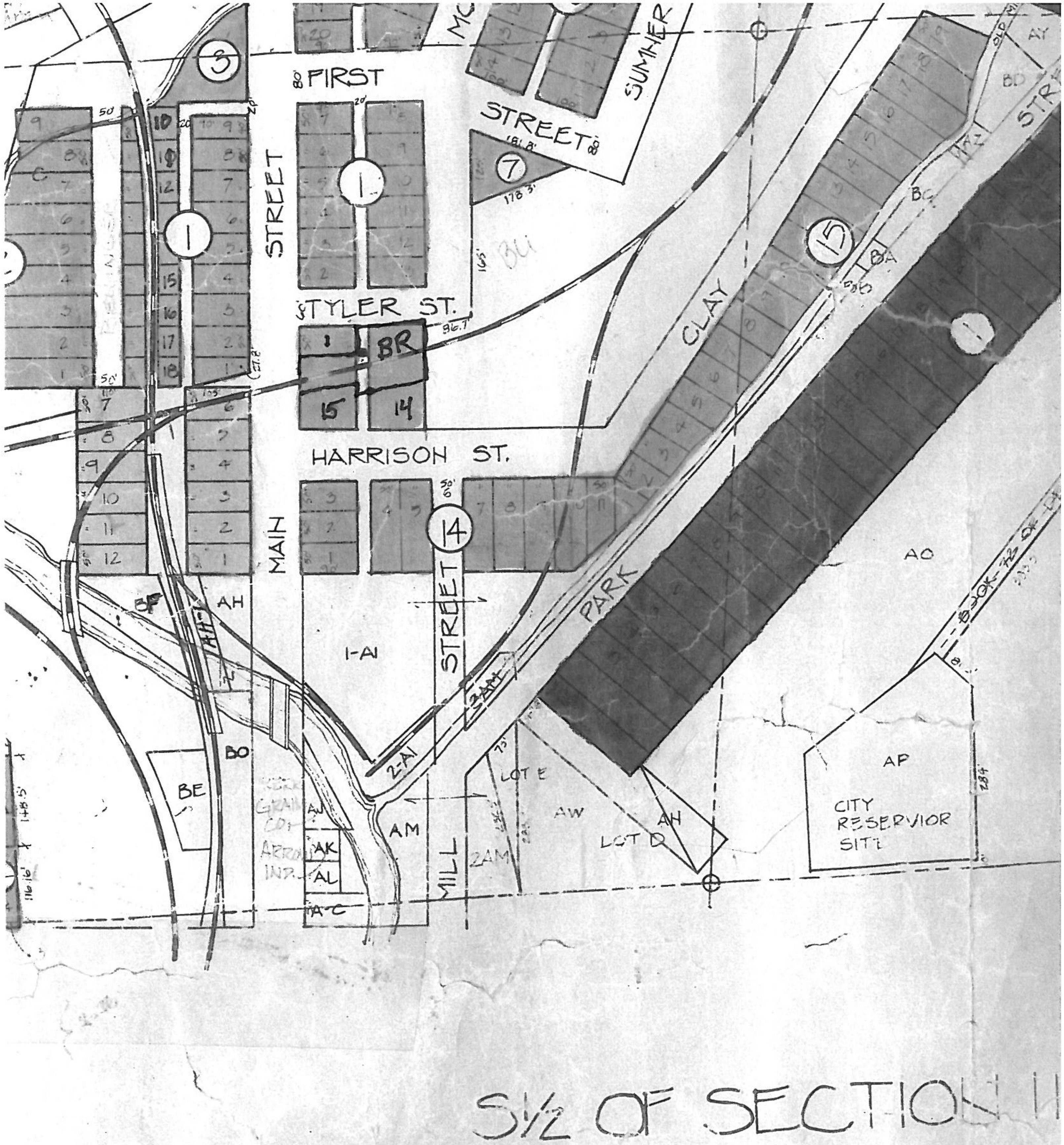
Note:
Backfill tank area to bottom of slab with sand. Tanks to have 3'-0" of cover, including concrete.

1030F	1
1030F	2
1030F	3
1030F	4
799	1
1230	2
1030	3
1030	4
1030	5
799	6
798	1
1030F	5
1030	7



COLFAX, WASH.
Whitman County.
SE 1/4 & NE 1/4 of SW 1/4 Sec. 11 T.16 N. R.43 E.
Scale: 1 inch = 100 feet.
J.H Redmond — Co Road Engr
1942

SHEET 3



FIRST
STREET
SUMNER
STREET
MAIN
STREET
TYLER ST.
HARRISON ST.
STREET
MILL
CLAY
PARK
BR
AH
AH
BF
BO
BE
AJ
AK
AL
A-C
AM
2AM
1-AI
2-AI
AW
LOT E
LOT D
AO
AP
CITY
RESERVIOR
SITE
BA
BC
AZ
BD
AY
BU
S½ OF SECTIO

LOT

```
8-0195-00-00-00-0323  0195  2         852
COLFAX GRANGE SUPPLY, INC BR                      18600       0   18600
                                                      0       0       0
102377100000000       S1/2 11-16-43              246.04  123.02  123.02
241440
COLFAX GRANGE SUPPLY
105 E HARRISON
COLFAX, WA  99111-2100
```

— 160X90

LOT BLOCK

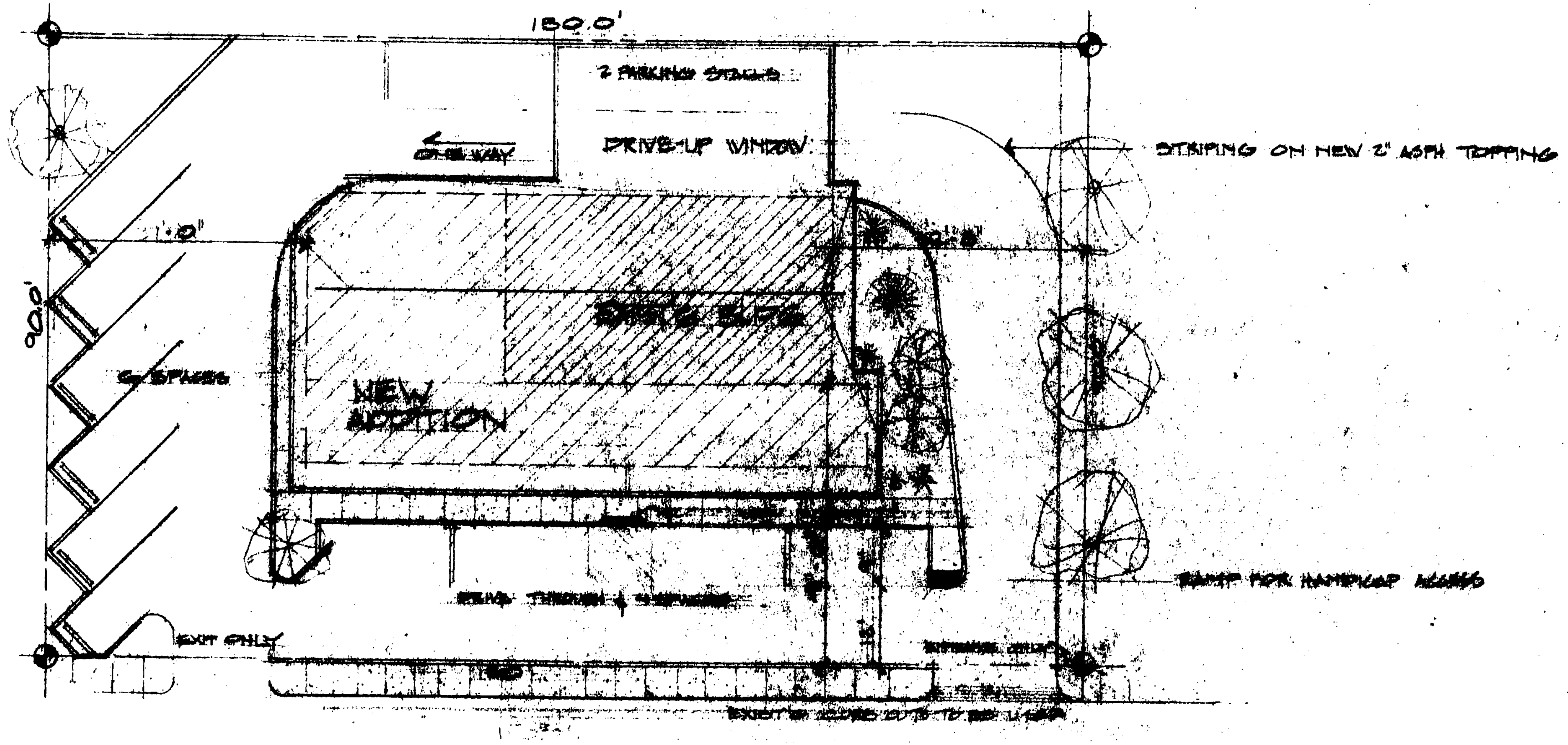
```
1-0135-00-01-01-0000  0135  2  1   153
COLFAX GRANGE SUPPLY, INC 1                        6200  442600  448800
103 E HARRISON (SITE)                                 0       0       0
101678000000000       CX PERK PRES RIV ADD R/W  5936.59 2968.30 2968.29
241440
COLFAX GRANGE SUPPLY
105 E HARRISON
COLFAX, WA  99111-2100


1-0135-00-01-15-0000  0135  2  1   152
COLFAX GRANGE SUPPLY, INC 14- 15                  12400  236500  248900
205 E HARRISON (SITE)                                 0       0       0
101694000000000       CX PERK PRES RIV ADD R/W  3292.37 1646.19 1646.18
241440
COLFAX GRANGE SUPPLY
105 E HARRISON
COLFAX, WA  99111-2100
```

160X90

28,800 #

(206) 306 - 1907 (FAX)



SITE PLAN

SCALE 1" = 20'-0"

LEWIS & CLARK SAVINGS & LOAN

COLFAX, WASHINGTON 99111

ROBERT F BROYLES, AIA.
324 MAIN
LEWISTON, ID. 83501

DRAWN RFB
CHECKED RFB
DATE 6-21-79
SCALE AS SHOWN
JOB NO
SHEET 1
OF SHEETS

```
ATO. 20/01---------- A/T ASSESSMENT MASTER FILE MAINTENANCE ----------------------
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[101350001010000]          [0135]  [ 2 ]   [    ]  [153]  [   ]  [AA]
PROP. NAME:  [COLFAX GRANGE SUPPLY, INC]
      ADDR1: [103 E HARRISON (SITE)     ]
      ADDR2: [                          ]
      ADDR3: [101678000000000           ]
    L. ID#:  [241440] UPDATE CODE (A/C/D):[ ]    TAXPAYER NAME & ADDR RECD
      NAME:  [COLFAX GRANGE SUPPLY      ] NAME:  [COLFAX GRANGE SUPPLY      ]
      ADDR1: [105 E HARRISON            ] ADDR1: [105 E HARRISON            ]
      ADDR2: [COLFAX, WA  99111-2100    ] ADDR2: [COLFAX, WA  99111-2100    ]
      ADDR3: [                          ] ADDR3: [                          ]
      ADDR4: [                          ] ADDR4: [                          ]
------ LEGAL DESCRIPTION -------       ------------- VALUES -----------------
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ACRES:[    .00] [    .00] [    .00]    O/S: [        0] [        0]  [        0]
VALUE - MARKET: [      0] [      0]    S/C: [        0] [        0]  [        0]
        O/S:    [      0] [      0]    TAX LEVIED [  2164.54] TAX PAID [      .00]
[CX PERK PRES RIV ADD R/W ]            LAST MNT.  [10222003]  BATCH    [SM10]
[                         ]
[                         ]      MESSAGES:
[                         ]      [CONTINUE SAME SEARCH <Y/N>?              ]  [Y]
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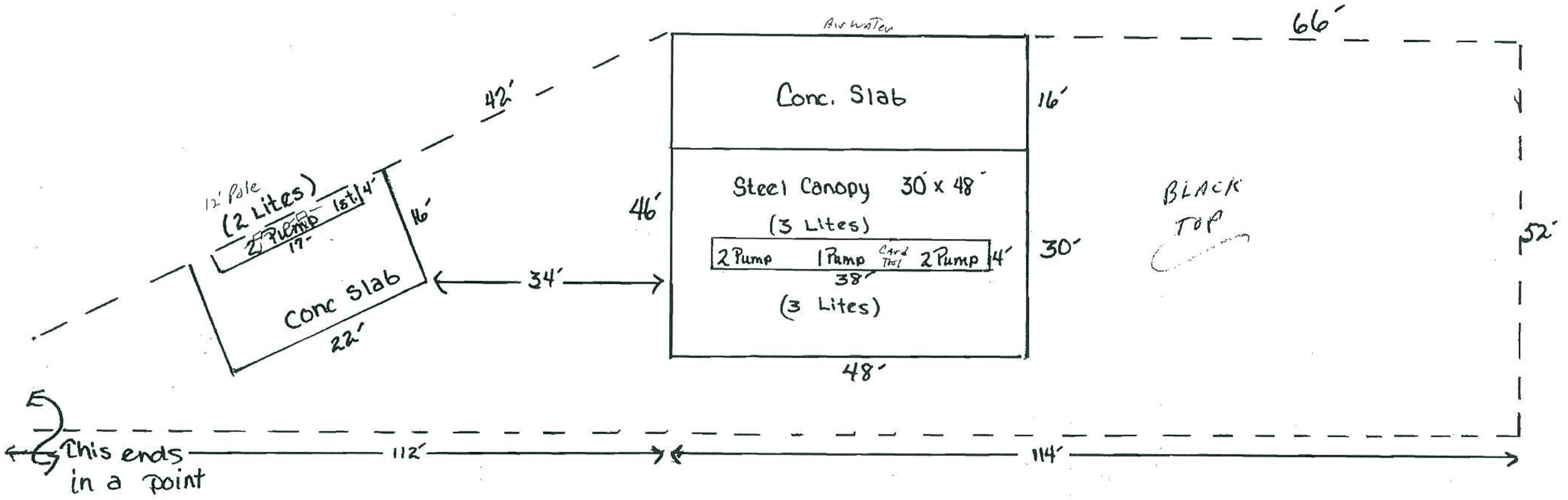
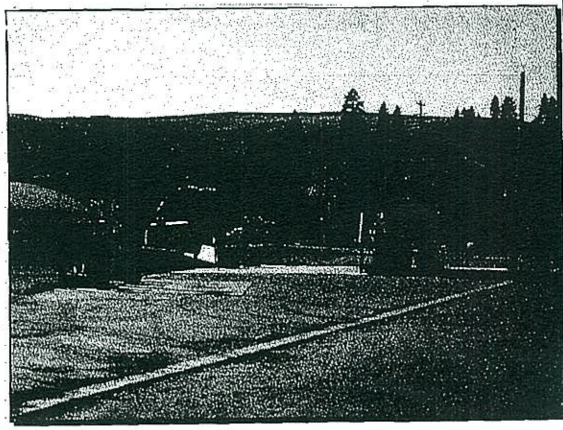
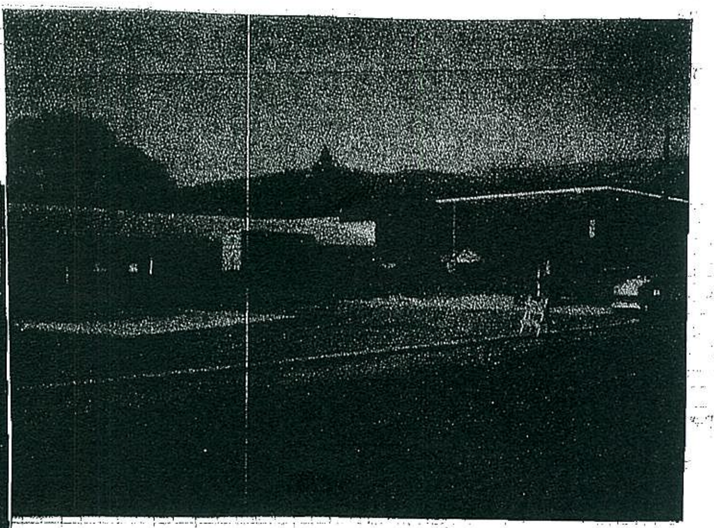
TOP







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COMMERCIAL APPRAISAL

Roll No. .... Page No. ....

Map No. .... Photo No. ....

Remodeled 19...... Cost $............

Sold 19...... Amount $............

Sold 19...... Amount $............

Appr....... Date....... Appr. Val. $............

Appr....... Date....... Appr. Val. $............

Owner Colfax Grange Supply

Building Name............

Address E 205 Harrison

Addition Perkins Prescott Riverside

L1 B1

1-0135-00-01-01-0000

	BUILDING		CONSTRUCTION		PARTITIONS	
	Apartment		Single		Plaster	
	Apartment Hotel		Double		Drywall	
	Auto Sales		Block		Composition	
	Bank		Wood Frame		Concrete Block	
	Court	X	Steel Frame		Brick	
	Dental		Insulation		Steel	
	Department					
	Garage		ROOF		CEILING	
X	Gas Station		Arch		Acoustic	
	Greenhouse	X	Flat		Composition	
	Hotel		Gable		Drywall	
	Industrial		Hip		Plaster	
	Market		Shed		Suspended	
	Medical			X	Steel	
	Metal Bldg.	X	Steel Beam		INTERIOR	
	Motel		Steel Truss		Department Store	
	Office		Wood Truss		Market	
	Restaurant	X	6 Lights		Auto Show	
	Store		Aluminum		Restaurants	
	Theatre		Built-up		Office	
	Warehouse		Composition		Theatres	
			Concrete			
		X	Galv. Iron		ELECTRICAL	
			Rock		Minimum	
	FOUNDATION		Shake	X	Average	
X	Concrete		Shingle		Good	
	Concrete Block		Steel			
	Stone		Tar and Gravel		FLOOR	
	Brick				Single	
	Wood Frame		HEATING		Double	
			Floor-Wall		Fir	
			Forced Air		Hardwood	
	EXT. WALLS		Gravity	X	Concrete	
	Aluminum		Hot Air		Grade	
	Brick		No. Units		Elevated	
	Brick Veneer		Space Heat	X	Asphalt.	
	Concrete Block				BASEMENT	
	Concrete Reinf.		Hot Water		Finished	3/4
	Curtain		Steam		Utility	1/2
	Galv. Iron				Full	1/4
	Shakes		ELECTRIC			
	Shingle		Baseboard		PLUMBING	
	Siding		Heat Pump		Toilet	Hwt.
	Steel Panel				Urinal	Lav.
	Stucco		AIR COND.		Fountain	Sink
	Tile		Evaporative		Shower	Tub
	Tilt-up		Refrigeration	X	Water	
			Custom	X	Air	

Class Type Condition

No. Units 1 Backed Detached

Sq. Feet Stories Wall Height

Year Built 1985 Construction Cost $122,557.26

Square Foot Items	% Adj.		Base Rate Adj.	
	−	+	−	+
Total Adj.				
Adj. Base Cost				

ADDED FEATURES	−	+
~~Basement~~ Terminal		150
~~Heating~~ 2 Lites + 12' Pole		145
Plumbing Water + Air		27
Electrical		360.
~~Elevators~~ 3-8000 gal Tank @ 5550		16,65
~~Stairway~~ 7 Pumps + Piping @ 3135		21,94
~~Balcony~~ Card Trol		12,00
~~Sprinklers~~ Pulsar		900.
Canopy + 6 Lights 1440# @ 11.		1584
Conc 2640# @ 3.05		8050
Conc Island. 220# @ 5.60		1230
Asph 6312# @ 2.00		12620
TOTAL		104,160
ADJ. TOTAL		

Area..........x..........P.S.F.

Added Features

Total Base Cost

19...... Cost Index......% x Base Cost

......% Quality Adjustment

Replacement Cost

Depreciation ......% Phy.-Func.-Econ.

Depr.-Repl. Cost

Other Improvements

Total Depr.-Repl. Cost 10416

Assessed Value

Remarks: Al 4-28-86

N.C. 1/99-JW.

8-01 BA

S. F. No. 9115—OS—(Rev. 3-61)—4M.

```
AT0020/01--------- A/T ASSESSMENT MASTER FILE MAINTENANCE --------------------
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PROP. NAME:  [COLFAX GRANGE SUPPLY        ]
      ADDR1: [715 N CLAY (SITE)           ]
      ADDR2: [                            ]
      ADDR3: [102377200000000             ]
   L. ID#:   [241440] UPDATE CODE (A/C/D):[ ]    TAXPAYER NAME & ADDR RECD
      NAME:  [COLFAX GRANGE SUPPLY        ] NAME:  [COLFAX GRANGE SUPPLY      ]
      ADDR1: [105 E HARRISON              ] ADDR1: [105 E HARRISON            ]
      ADDR2: [COLFAX, WA  99111-2100      ] ADDR2: [COLFAX, WA  99111-2100    ]
      ADDR3: [                            ] ADDR3: [                          ]
      ADDR4: [                            ] ADDR4: [                          ]
------ LEGAL DESCRIPTION -------     ------------ VALUES -----------------
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[CX S1/2 11-16-43          ]          LAST MNT.  [10232003]  BATCH    [HB10]
[                          ]
[                          ]     MESSAGES:
[                          ]     [CONTINUE SAME SEARCH <Y/N>?            ]  [Y]
```

SQUARE FOOT COSTS

1. Subscriber making survey ______ Date of survey ______

2. Name of building Colfax Grange Supply Co. Owner ______

	SECTION I	SECTION II	SECTION III	SECTION IV
3. Located at	M&S	M&S	~~M&S~~ ORE.	ORE.
4. Occupancy	Groc. & Hdwe	Warehouse #2+3	Warehouse #4	Butler Bldg.
5. Building class and quality	Cls C Qual. RETAIL LOW COST	Cls ___ Qual ___	Cls ___ Qual ___	Cls ___ Qual ___
6. Exterior wall	Con. Block	on back	METAL	METAL
7. No. of stories & height per story	No. 1 Ht. ave.	No. ___ Ht. ___	No. ___ Ht ___	No. ___ Ht ___
8. Average floor area	6072		2288	3840
9. Average perimeter				
10. Age and condition	Age 28 Cond. 1948	Age ___ Cond. 1937	Age ___ Cond. 1934	Age ___ Cond. 1954

	SECTION I	SECTION II	SECTION III	SECTION IV
11. **Base Square Foot Cost**	12.20	5.60	4.22	4.40
SQUARE FOOT REFINEMENTS				
12. Heating, cooling, ventilation				
13. Elevator deduction				
14. Miscellaneous				
15. Total lines 11 through 14				
HEIGHT AND SIZE REFINEMENTS				
16. Number of stories-multiplier				
17. Height per story-multiplier (see Line 7)				
18. Floor area-perimeter multiplier (see Lines 8 and 9)				
19. Combined height and size multiplier (Lines 16 x 17 x 18)				

FINAL CALCULATIONS

	SECTION I	SECTION II	SECTION III	SECTION IV
20. Refined square foot cost (Line 15 x Line 19)	12.20			
21. Current cost multiplier (Sect. 99 p. 3)				
22. Local multiplier (Sect. 99 p. 5 and 6)				
23. Final sq. ft. cost (Line 20 x Line 21 x Line 22)				
24. Area (Back of this form)	6072#	ON		3840
25. Line 23 x Line 24	74,078	BACK	5800	16,896
26. Lump sums (Line 32)			7140	
27. **Replacement Cost** (Line 25 + Line 26)			12,940	
28. Depreciation % (Sect. 97)	28%			20%
29. Depreciation amount (Line 27 x Line 28)				
30. **Depreciated Cost** (Line 27 – Line 29)	53,340	10,240	12,940	13,520

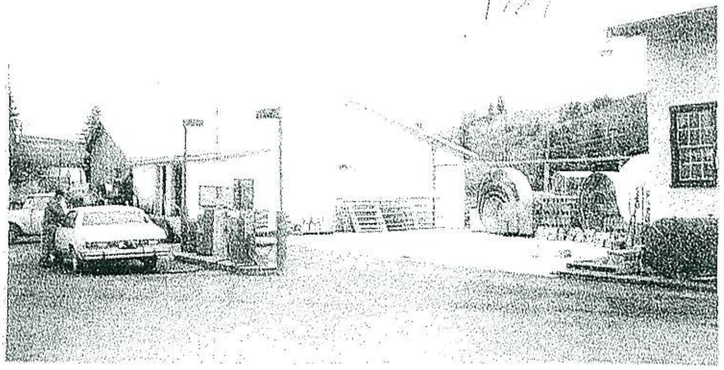
TOTAL OF ALL SECTIONS

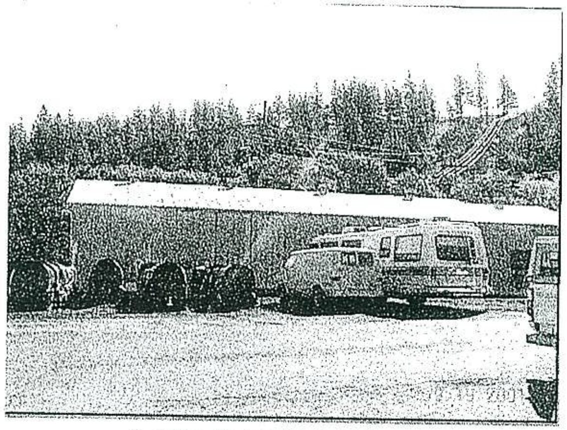
31. Replacement cost ______ Depreciated cost 90,040 Insurable value ______

See back of this form for drawings and area and insurable value calculations.

NC. 10-9-79 8

1981





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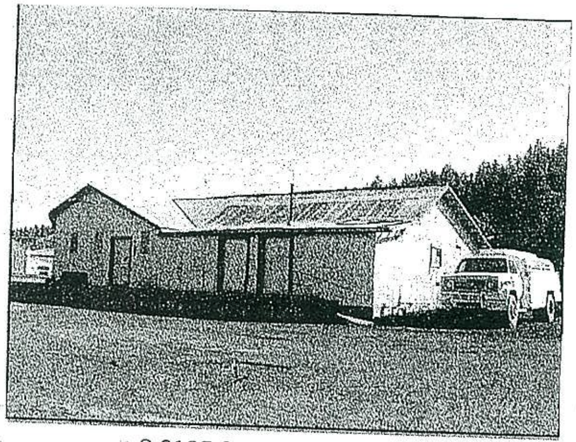

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Locati 'Gx, U.P. Railroad Lease #26
Addres
Owner Colfax Grange Supply

Block Lot #26521
Commercial ☒ Warehouse. Duplex ☐ Apartment ☐ Units ☐
#2
Class of Building M.L.I
Condition Average — Dock Type

FOUNDATION	CONSTRUCTION	STORIES	A	S	B	1	2	3	4
Piers ✓	Single ✓	No. Rooms							
Conc. Blocks	Double	Living							
Stone	Box	Dining							
Brick	Frame ✓	Kitchen							
Concrete	Brick	Bed							
	Rein. Conc.	Bath							
BASEMENT	Concrete	Nook							
None ✓	Solid	Recreation							
Part	Steel Frame	Utility							
Full	Mill	Storeroom							
Grade		Fruit							
EXTERIOR FINISH	HEATING								
Brds. and Bats	Stoves	CEILED							
Rustic	Pipe Furnace	Wall Brd.							
Siding	Pipeless furnace	Paper							
Shingles	Floor Furnace	Sheet Rock							
Shakes	Hot Water	Plaster							
Stucco	Coal Stoker	Celotex							
Conc. Block	Oil Burner								
Concrete	Gas Burner	TRIM							
Brick Veneer	Steam	Fir							
Brick (Kind)	Central Sta.	Hwd. (kind)							
	Electric Heat.								
Tile	None.								
Terra Cotta	PLUMBING	FLOORS							
Stone	Old Style	Soft ✓ Plank.							
Galv. Iron ✓	Modern	Hard							
Aluminum	No. Fix.	Concrete							
		Tile							
ROOF		Inl. Lino.							
Shingle		Print							
Pat. Shingle		Asph. Tile							
Roll									
Split Roll									
Tar and Gravel	EXTRA FEATURES								
Aluminum	Garbage Disp.								
Galv. Iron ✓	Dishwasher								
Tile	Fireplace								
	Fireplaces								
Hip	Porch—Gl., Sc., Cl., Op								
Gable ✓	Incinerator								
Flat	Air Cond.								
	Refrig. built in)								
Insulation	Elevator								
	Thermo								
#29183	TOTAL	$							

Height		
Cubic ft.		
Base Rate sq. ft. 1.57	1400	2198
Basement		
Base Rate on Rooms		
2nd Story Rooms		
Extra Features		

Open dock 380□' @ 50¢ 190
Covered dock 888□' @ 1.00 888
Cold Room 162□' @ 10 1620
2698

Present Reproduction Cost	$ 2198
Depreciated Value (Rate)	%
No. of Years Life Left	

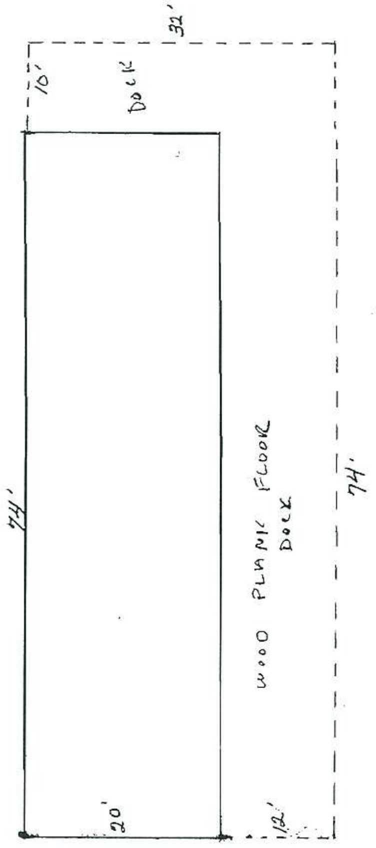
YEARS APPRAISED	1959		
Full (100%) Value (present)	$ 4896	$	$
Full (100%) Value Add. Buildings.	$	$	$
Total (100%) Values	$ 4896	$	$
Total Assessed Value	$	$	$

Remarks:

Year Built 1936-37
Cost $
Listed by:
, 19
Appraised by:
, 19
Year Remodeled:
, 19

Year Built
Cost $
Listed by:
, 19
Appraised by:
, 19
Year Remodeled:
, 19

Year	Assessed Value Land	Assessed Value Imps.	Total Assessed Value



#8

1480
6072
7552

ocatic 'fax — U. P. Railroad Lease # 26

ldres

wner ..lfax Grange Supply

Block..........Lot.......... #26521

Commercial ☒ Duplex ☐ Apartn. Units ☐

Worehouse

#3

Class of Building M1.1

Condition Fair

)UNDATION	CONSTRUCTION	STORIES	A	S	B	1	2	3	4
Piers ✓	Single ✓	No. Rooms							
Conc. Blocks	Double	Living							
Stone	Box	Dining							
Brick	Frame ✓	Kitchen							
Concrete	Brick	Bed							
	Rein. Conc.	Bath							
SEMENT	Concrete	Nook							
None	Solid	Recreation							
Part	Steel Frame	Utility							
Full	Mill	Storeroom							
Grade		Fruit							
TERIOR FINISH	HEATING								
Brds. and Bats	Stoves	CEILED							
Rustic	Pipe Furnace	Wall Brd. ✓ 20x32							
Siding	Pipeless furnace	Paper							
Shingles	Floor Furnace	Sheet Rock							
Shakes	Hot Water	Plaster							
Stucco	Coal Stoker	Celotex							
Conc. Block	Oil Burner ✓								
Concrete	Gas Burner	TRIM							
Brick Veneer	Steam	Fir							
Brick (Kind)	Central Sta.	Hwd. (kind)							
	Electric Heat.								
Tile									
Terra Cotta	PLUMBING	FLOORS							
Stone	Old Style	Soft ✓ Plank							
Galv. Iron	Modern	Hard							
Aluminum	No. Fix.	Concrete							
		Tile							
OOF		Inl. Lino.							
Shingle		Print							
Pat. Shingle		Asph. Tile							
Roll									
Split Roll									
Tar and Gravel	EXTRA FEATURES								
Aluminum	Garbage Disp.								
Galv. Iron ✓	Dishwasher								
Tile	Fireplace								
	Fireplaces								
Hip	Porch—Gl., Sc., Cl., Op								
Gable ✓	Incinerator								
Flat	Air Cond.								
	Refrig. built in)								
Insulation	Elevator								
	Thermo								
	TOTAL	$							

Height		
Cubic ft.		
Base Rate sq. ft. 1.66	1680	2788
Basement		
Base Rate on Rooms		
2nd Story Rooms		
Extra Features		

2gas pumps @ 430 — 860

Dock (Enclosed) 96° @1.66 — 160

Dock, Covered - open 576°

@1.00 576

1596

Present Reproduction Cost	$ 2788
Depreciated Value (Rate)	%
No. of Years Life Left	

YEARS APPRAISED	1964		
Full (100%) Value (present)	$ 2788	$	$
Full (100%) Value Add. Buildings.	$ 1596	$	$
Total (100%) Values	$ 4384	$	$
Total Assessed Value	$ 880	$	$

Remarks:

Year Built 1934

Cost $

Listed by:

.........., 19.....

Appraised by:

.........., 19.....

Year Remodeled:

.........., 19.....

Year Built..........

Cost $..........

Listed by:

.........., 19.....

Appraised by:

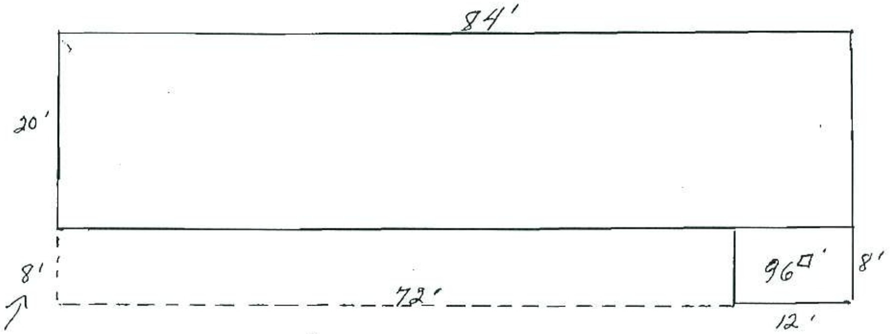
.........., 19.....

Year Remodeled:

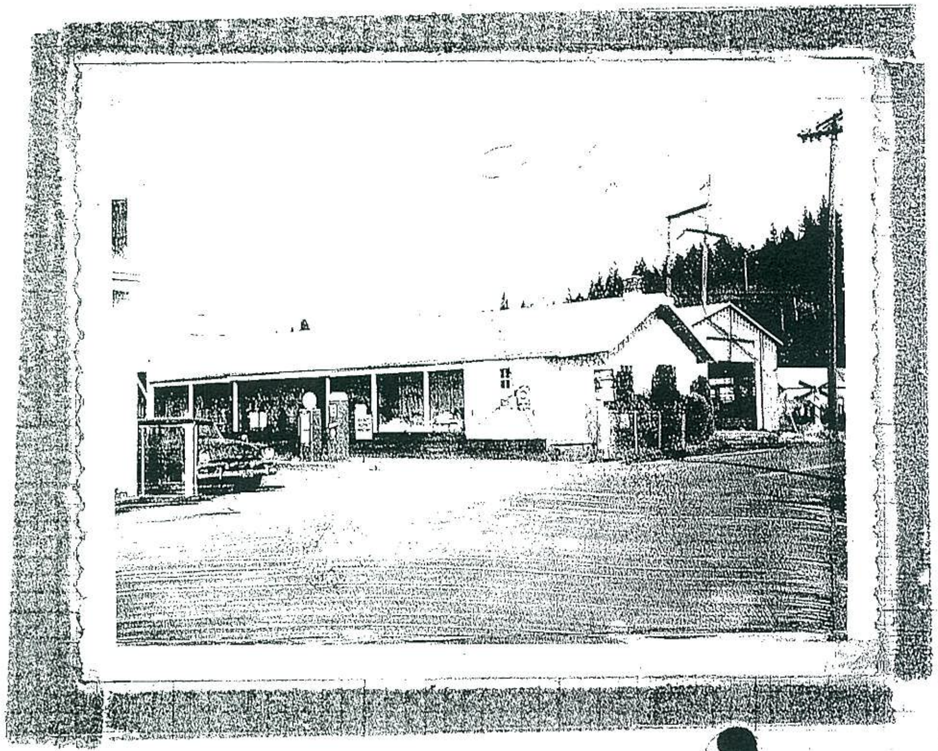
.........., 19.....

Year	Assessed Value Land	Assessed Value Imps.	Total Assessed Value

#3.



(Steps Then 5'x50' open dock.
Assessed on sheet # 4.)



ocati ax - U.P. Railroad Lease # 265

Addres.

wner Colfax Grange Supply

Block ______ Lot ______ 26521

Commercial ☒ Warehouse. Duplex ☐ Apartment ☐ Units ☐

Class of Building ______

#4

Condition Good.

OUNDATION	CONSTRUCTION	STORIES	A	S	B	1	2	3	4
Piers 32x34	Single ✓	No. Rooms							
Conc. Blocks	Double	Living							
Stone	Box	Dining							
Brick	Frame ✓	Kitchen							
Concrete ✓	Brick	Bed							
	Rein. Conc.	Bath							
ASEMENT	Concrete	Nook							
None ✓	Solid	Recreation							
Part	Steel Frame	Utility							
Full	Mill	Storeroom							
Grade		Fruit							
XTERIOR FINISH	HEATING								
Brds. and Bats	Stoves	CEILED							
Rustic	Pipe Furnace	Wall Brd.							
Siding	Pipeless furnace	Paper							
Shingles	Floor Furnace	Sheet Rock							
Shakes	Hot Water	Plaster							
Stucco	Coal Stoker	Celotex							
Conc. Block	Oil Burner	Plywood							
Concrete	Gas Burner	TRIM							
Brick Veneer	Steam	Fir							
Brick (Kind)	Central Sta.	Hwd. (kind)							
	Electric Heat.								
Tile									
Terra Cotta	PLUMBING	FLOORS							
Stone	Old Style	Soft Plank.							
Galv. Iron ✓	Modern	Hard							
Aluminum	No. Fix.	Concrete							
		Tile							
OOF		Inl. Lino.							
Shingle		Print							
Pat. Shingle		Asph. Tile							
Roll									
Split Roll									
Tar and Gravel	EXTRA FEATURES								
Aluminum	Garbage Disp.								
Galv. Iron ✓	Dishwasher								
Tile	Fireplace								
	Fireplaces								
Hip	Porch—Gl., Sc., Cl., Op								
Gable ✓	Incinerator								
Flat	Air Cond.								
	Refrig. built in)								
Insulation	Elevator								
	Thermo								
	TOTAL	$							

Height		
Cubic ft.		
Base Rate sq. ft. 1.50	2288	3432
Basement		
Base Rate on Rooms		
2nd Story Rooms		
Extra Features		5583

9015

250□' open dock (50x5) @.50 → 126

400□' open dock @.50 → 200

4 Stg. Tanks 12,145 gal Tanks @.10 = 4858

1 " " 4000 400

5583

Present Reproduction Cost	$ 9015
Depreciated Value (Rate)	%
No. of Years Life Left	

YEARS APPRAISED	1959		
Full (100%) Value (present)	$ 9015	$	$
Full (100%) Value Add. Buildings.	$	$	$
Total (100%) Values	$ 9015	$	$
Total Assessed Value	$	$	$

Remarks:

Year Built 1934

Cost $

Listed by:

______, 19____

Appraised by:

Al 4/12, 1961

Year Remodeled:

______, 1959

Year Built ______

Cost $ ______

Listed by:

______, 19____

Appraised by:

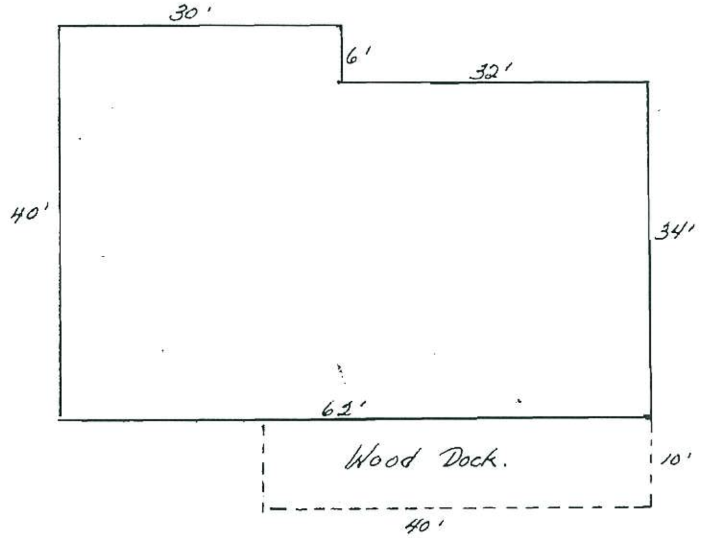
______, 19____

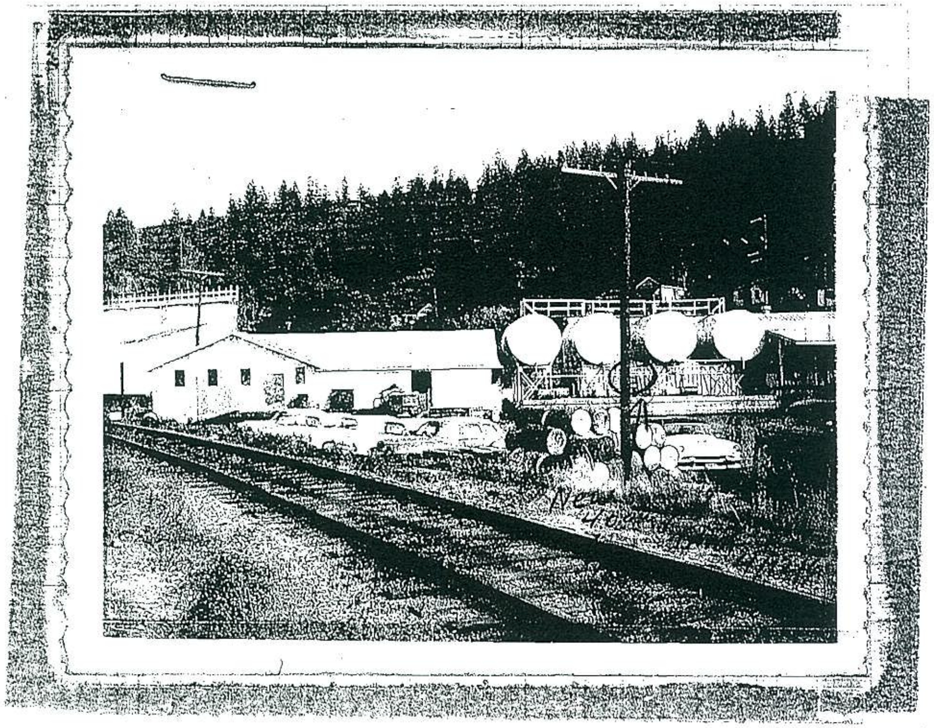
Year Remodeled:

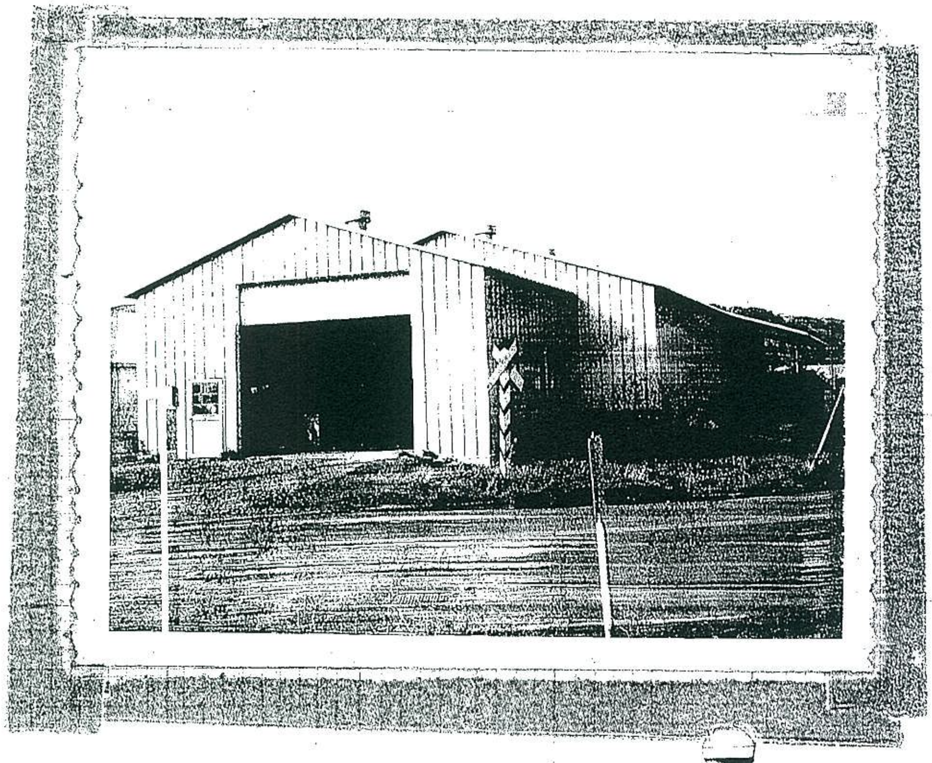
______, 19____

Year	Assessed Value Land	Assessed Value Imps.	Total Assessed Value

#4







Locat fax, U.P. Railroad Lease #2 Block........ Lot........ Leas 26.5.21

Addres.

Owner, Colfax Grange Supply.

Commercial ☒ Store Duplex ☐ Apartment ☐ Units ☐

Class of Building H.2.1

#1

Condition Good

FOUNDATION	CONSTRUCTION	STORIES	A	S	B	1	2	3	4
Piers	Single	No. Rooms							
Conc. Blocks	Double ✓	Living							
Stone	Box	Dining							
Brick	Frame	Kitchen							
Concrete ✓	Brick	Bed							
	Rein. Conc.	Bath				3/4			
BASEMENT	Concrete Blk. ✓	Nook							
None ✓	Solid	Recreation							
Part	Steel Frame	Utility							
Full	Mill	Storeroom							
Grade		Fruit							
EXTERIOR FINISH	HEATING	2 office				✓			
Brds. and Bats	Stoves	CEILED							
Rustic	Pipe Furnace ✓	Wall Brd.							
Siding	Pipeless furnace	Paper							
Shingles	Floor Furnace	Sheet Rock							
Shakes	Hot Water	Plaster							
Stucco	Coal Stoker	Celotex							
Conc. Block ✓	Oil Burner ✓								
Concrete	Gas Burner	TRIM							
Brick Veneer	Steam	Fir ✓							
Brick (Kind)	Central Sta.	Hwd. (kind)							
	Electric Heat.								
Tile									
Terra Cotta	PLUMBING	FLOORS							
Stone	Old Style	Soft							
Galv. Iron	Modern	Hard							
Aluminum	No. Fix. 5	Concrete ✓							
		Tile							
ROOF		Inl. Lino.							
Shingle		Print							
Pat. Shingle ✓		Asph. Tile							
Roll									
Split Roll									
Tar and Gravel ✓	EXTRA FEATURES								
Aluminum	Garbage Disp.								
Galv. Iron	Dishwasher								
Tile	Fireplace								
	Fireplaces								
Hip	Porch—Gl., Sc., Cl., Op								
Gable Round ✓	Incinerator								
Flat	Air Cond. ✓ Swamp Cooler								
	Refrig. built in)								
Insulation	Elevator								
	Thermo								
	TOTAL	$							

Height		
Cubic ft.		
Base Rate sq. ft. 9.16	6072 ~~5372~~	55,620 ~~49207~~
Basement		
Base Rate on Rooms		
2nd Story Rooms		
Extra Features		

Sheet #2 4896

" #3 4384

" #4 9015

#5 6699

24,994

Present Reproduction Cost	55,620 $ ~~49207~~
Depreciated Value (Rate)	14 ~~10~~ %
No. of Years Life Left	

YEARS APPRAISED	1964	1965	
Full (100%) Value (present)	$ 44287	$ 47833	$
Full (100%) Value Add. Buildings.	$ 24994	$ 24994	$
Total (100%) Values	$ 69281	$ 72,827	$
Total Assessed Value	$ 13,860	$ 14,570	$

25% - 18,210

Remarks: New addn. 1964 - heated from original system.

Year Built 1948

Cost $........

Listed by:

Pete 5/1, 1961

Appraised by:

Silvey 6/12, 1959

" 11/30/64

Year Remodeled:

........, 19.....

Year Built........

Cost $........

Listed by:

........, 19.....

Appraised by:

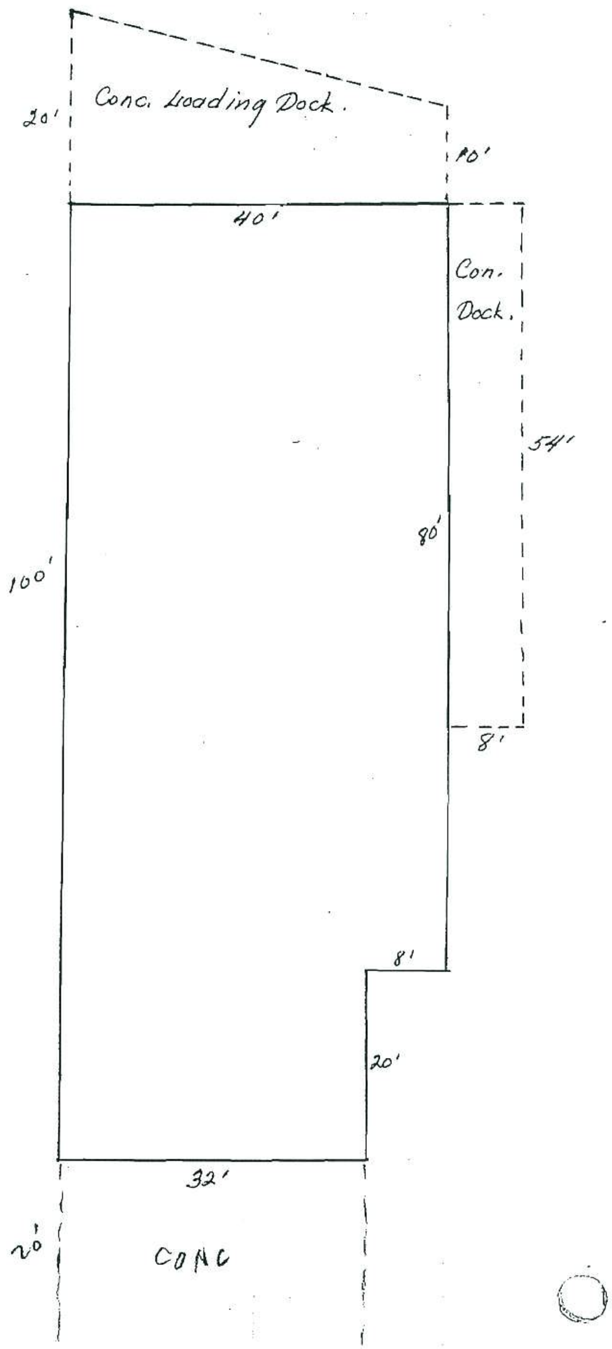
........, 19.....

Year Remodeled:

........, 19.....

Year	Assessed Value Land	Assessed Value Imps.	Total Assessed Value

#5



Locat ....

Addres. ....

Owner ....Building locations shown on back of This sheet.

Block................Lot................

"26521

Commercial ☐ Duplex ☐ Apartme ☐ Units ☐

#6.

Class of Building..

Condition..

FOUNDATION	CONSTRUCTION	STORIES	A	S	B	1	2	3	4
Piers	Single	No. Rooms							
Conc. Blocks	Double	Living							
Stone	Box	Dining							
Brick	Frame	Kitchen							
Concrete	Brick	Bed							
	Rein. Conc.	Bath							
BASEMENT	Concrete	Nook							
None	Solid	Recreation							
Part	Steel Frame	Utility							
Full	Mill	Storeroom							
Grade		Fruit							
EXTERIOR FINISH	HEATING								
Brds. and Bats	Stoves	CEILED							
Rustic	Pipe Furnace	Wall Brd.							
Siding	Pipeless furnace	Paper							
Shingles	Floor Furnace	Sheet Rock							
Shakes	Hot Water	Plaster							
Stucco	Coal Stoker	Celotex							
Conc. Block	Oil Burner								
Concrete	Gas Burner	TRIM							
Brick Veneer	Steam	Fir							
Brick (Kind)	Central Sta.	Hwd. (kind)							
	Electric Heat.								
Tile									
Terra Cotta	PLUMBING	FLOORS							
Stone	Old Style	Soft							
Galv. Iron	Modern	Hard							
Aluminum	No. Fix.	Concrete							
		Tile							
ROOF		Inl. Lino.							
Shingle		Print							
Pat. Shingle		Asph. Tile							
Roll									
Split Roll									
Tar and Gravel	EXTRA FEATURES								
Aluminum	Garbage Disp.								
Galv. Iron	Dishwasher								
Tile	Fireplace								
	Fireplaces								
Hip	Porch—Gl., Sc., Cl., Op								
Gable	Incinerator								
Flat	Air Cond.								
	Refrig. built in)								
Insulation	Elevator								
	Thermo								
	TOTAL	$							

Height		
Cubic ft.		
Base Rate sq. ft.		
Basement		
Base Rate on Rooms		
2nd Story Rooms		
Extra Features		

Present Reproduction Cost	$
Depreciated Value (Rate)	%
No. of Years Life Left	

YEARS APPRAISED			
Full (100%) Value (present)	$	$	$
Full (100%) Value Add. Buildings.	$	[illegible]	$
Total (100%) Values	[illegible]	[illegible]	$
Total Assessed Value	$	$	$

Remarks: ____

Year Built..........................

Cost $..........................

Listed by:

.........................., 19......

Appraised by:

.........................., 19......

Year Remodeled:

.........................., 19......

Year Built..........................

Cost $..........................

Listed by:

.........................., 19......

Appraised by:

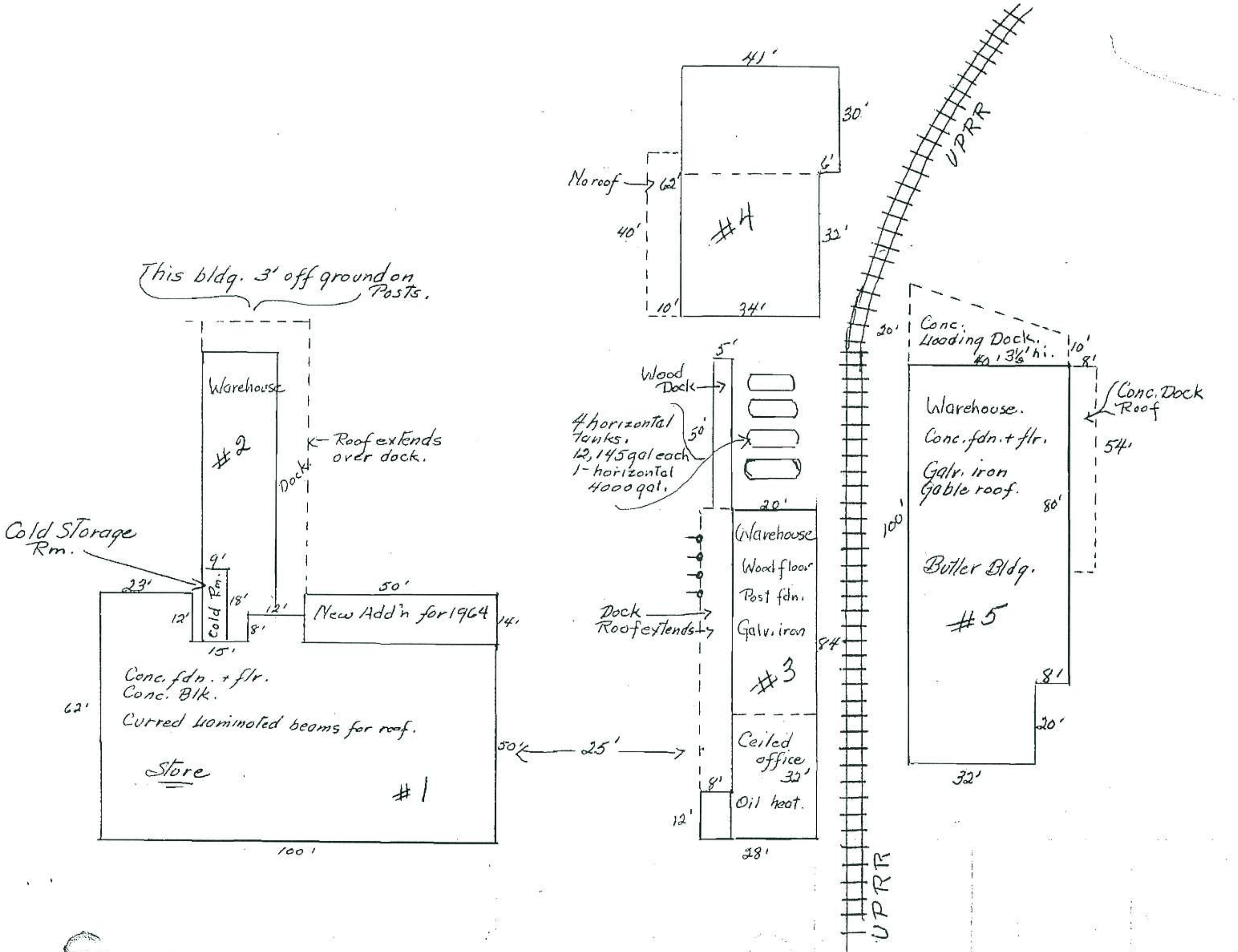
.........................., 19......

Year Remodeled:

.........................., 19......

Year	Assessed Value Land	Assessed Value Imps.	Total Assessed Value

Colfax Grange Supply



WHITMAN
COUNTY PROPERTY HISTORY

City ____________

Address ____________

Water ____________ Sanitary Sewer ____________ Storm Sewer ____________

Road ____________ Alley ____________ R.R. Siding ____________

Curb ____________ Sidewalk ____________ Street Light ____________

Electricity ____________ Telephone ____________ Gas ____________

Building Permit:

Date	Amount	Purpose

Sales – Lease – Mortgage

Instrument	Date	Amount	E. Tax No.	A. File No.	Notes

Zoning:

Date	Class	Use

Land Valuation: Depth Table ____________ ft. Corner Influence ____________

Frontage Ft.	Depth	Acres	Unit Value	Factor	A.U.V.	Cor. Influence	Value
		40,815	.30				~~11,250~~
							12,240
						TOTAL	

Land Assessment:

	19		19		19		1

```
AT0020/01--------- A/T ASSESSMENT MASTER FILE MAINTENANCE ----------------------
------PARCEL#----           -SUBD-  -CODE-  -STAT-  -USE-  -SC-   -REV-
[101350001150000]           [0135]  [  2 ]  [    ]  [152]  [   ]  [R3]
PROP. NAME:  [COLFAX GRANGE SUPPLY, INC]
      ADDR1: [205 E HARRISON (SITE)    ]
      ADDR2: [                         ]
      ADDR3: [101694000000000          ]
   L. ID#:   [241440] UPDATE CODE (A/C/D):[ ]    TAXPAYER NAME & ADDR RECD
      NAME:  [COLFAX GRANGE SUPPLY     ] NAME:  [COLFAX GRANGE SUPPLY     ]
      ADDR1: [105 E HARRISON           ] ADDR1: [105 E HARRISON           ]
      ADDR2: [COLFAX, WA  99111-2100   ] ADDR2: [COLFAX, WA  99111-2100   ]
      ADDR3: [                         ] ADDR3: [                         ]
      ADDR4: [                         ] ADDR4: [                         ]
------ LEGAL DESCRIPTION -------      ------------- VALUES -----------------
S/T/R:[14-]      [15 ]      [  1]     MKT: [   12400] [  192000]  [  204400]
ACRES:[    .00] [    .00] [    .00]   O/S: [       0] [       0]  [       0]
VALUE - MARKET: [      0] [      0]   S/C: [       0] [       0]  [       0]
         O/S:   [      0] [      0]   TAX LEVIED [  2985.36] TAX PAID [     .00]
[CX PERK PRES RIV ADD R/W ]           LAST MNT.  [10222003]  BATCH    [SM10]
[                         ]
[                         ]     MESSAGES:
[                         ]     [CONTINUE SAME SEARCH <Y/N>?            ]  [Y]
```

1644-0

RESIDENTIAL APPRAISAL

Roll No. Page No.
Map No. Photo No.
Monthly Rent
Remodeled 19 Cost $
Sold 19 Amount $
Sold 19 Amount $

Owner Colfax Grange Supply
Address E 205 Harrison
Addition Colfax, Wa. 99111

Colfax Perkins-Pres-Rio-Add
Blk-1 LoT-14-15

STore-STorage

BUILDING
- Dwelling
- Duplex

FOUNDATION
- ✓ Conc. 6 8 10
- Concrete Block
- Brick
- Stone
- Piers

EXT. WALLS
- Bevel
- Rustic
- B. and B.
- Vertical
- Wood Shingles
- Comp. Shingles
- Aluminum
- Comp. Shakes
- Wood Shakes
- Low Cost
- Average
- Good
- Concrete Block
- Stucco
- Brick
- Comman
- Roman
- Stone
- Gal. Iron

ROOF
- Flat
- Hip
- Gable
- Pitch
- Low
- Medium
- Steep
- Shingles
- Wood
- Composition
- Aluminum
- Gal. Iron
- Shakes
- ✓ Light metal
- Medium
- Heavy
- Built-up
- Roll
- Tile

CONSTRUCTION
- ✓ Single
- Double
- ✓ Block
- ✓ Insulation

HEATING
- ✓ Forced
- Gravity
- Floor or Wall
- Hot Water
- Baseboard
- C. I. Rad.
- Floor Rad.
- Electric
- Wall Units
- Baseboard
- Glass Panel
- Ceiling Rad.
- Floor Rad.
- ✓ Gas
- Heat Pump

FIREPLACE
- 1 Sty. Single
- 1 Sty. Bkd.
- 2 Sty. Single
- 2 Sty. Bkd.
- 2 Sty. Stkd.
- Stove

EXTRAS
- B. I. Oven
- B. I. Range
- Hood and Fan
- Water Soft.
- Air Cond

BUILT-INS
- ✓ Fir
- Hardwood
- Metal

LIGHTNING
- Good
- ✓ Average
- Poor

STORIES	1	½	2	A	B
No. Rooms	1				
No. Baths	2/2				
No. Bedrooms					
PARTITIONS					
Plaster					
Drywall	✓				
Compo.					
Paper					
Wood Panel					
Plywood	✓				
CEILING					
Plaster					
Drywall					
Compo.	✓				
Plywood					
Tile					
Paper					
Wood Panel					
FLOORS					
Single					
Double					
Softwood					
Hardwood					
Plywood					
Carpet					
Tile					
Concrete	✓				
Linoleum					

BASEMENT
- ✓ None
- Full
- Part
- No. Rooms
- Class Rooms
- Daylight

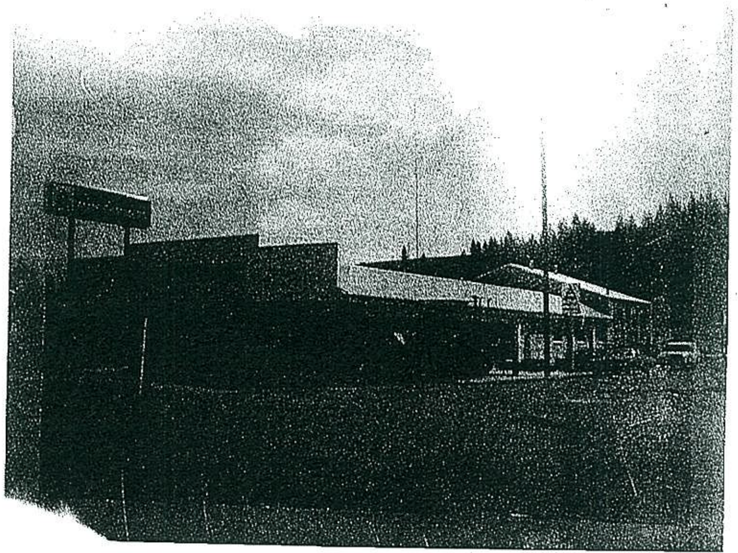
PLUMBING

✓	1st G.		2nd G.
2	Toilet		Shower Stall
	Tub		Tub Shower
2	Lav.	2	Sink
	Laundry Fac.		
	Garbage Disp.		
	Dishwasher		
1	Hot Water Heater		
	No. Fixtures		

Class Perimeter
Condition Good Square ft. 7680
Year Built 1953/1974 Const. Cost $
Remoleled 1991

	−	+
Rate Adj.		
Base Rate		
TOTAL RATES		
ADJ. BASE RATE		
ADDED FEATURES	−	+
Basement		
Basement Rooms		
Heating		
Plumbing		
Fireplace		
Attached Garage		
Upper Stories		
Extras		
Conc. 5448□ @ 1.25		
TOTALS		
Adjusted Total		139,320
Area 7860 x P.S.F.		
Added Features		
Total Base Cost		
19 Cost Index % x Base C.		
Depreciation % Phy.-Func.-Econ.		
Additional Buildings		
Total Value		
Assessed Value		134610

Remarks: NG 1/99-J.W. 10/99 160000



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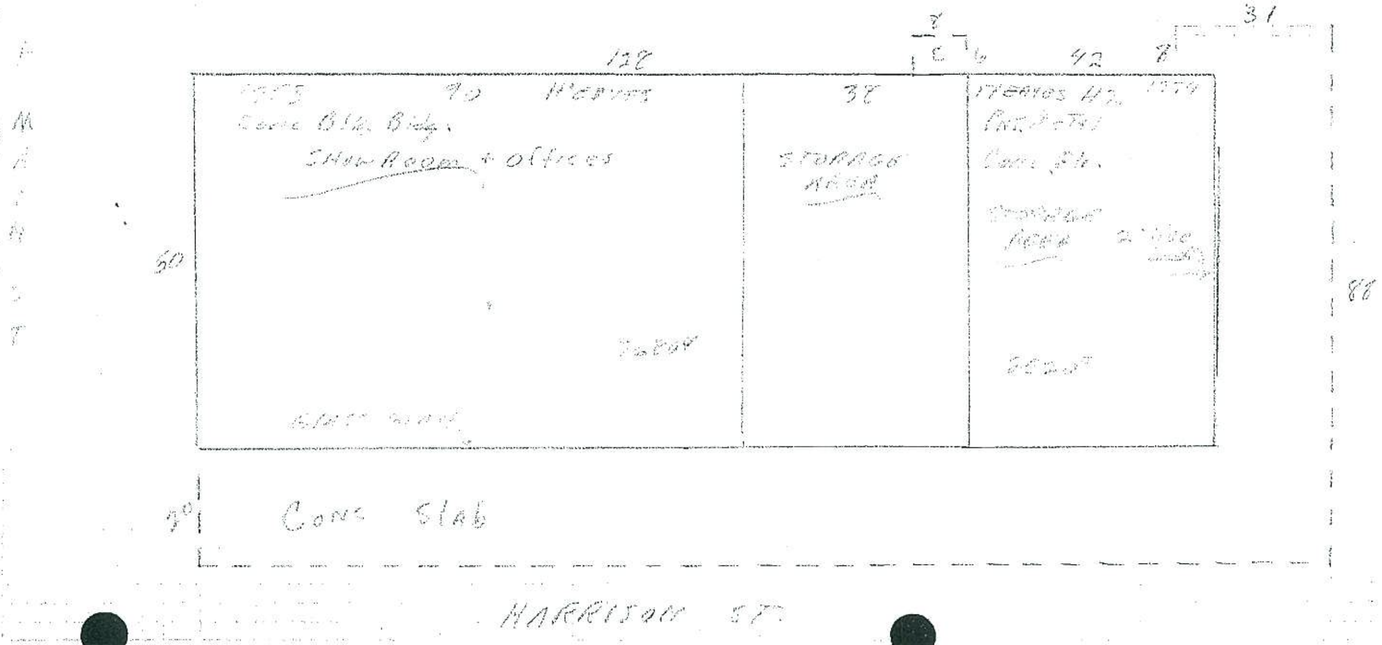


Foundation   Chimney

Department of Public Works

BUILDING INSPECTOR'S OFFICE

BUILDING PERMIT

Class M

Zone C

Nº 5186 ~~3886~~

Owner Colfax Grange Supply   Address E 205 Harrison

Builder To be selected   Address

Architect None   Colfax, Wash. Dec 30, 1985

STORIES	BUILT OF	TO BE USED FOR	ESTIMATED COST
1	Masonry	Commercial Remodel	1000000

NUMBER	STREET	LOT	BLOCK	ADD. OR TRACT
E 205	Harrison			

Remarks Remodel grocery dept to automotive service

Chimney   Fireplace

THIS PERMIT is granted upon the express condition that the building for which this permit is issued shall conform in all respects to all the ordinances of the City of Colfax, regulating the construction, use and occupancy of buildings in the city limits, and may be revoked at any time upon the violation of any of the provisions of said ordinances, or failure of plans, as approved, to comply with said ordinances.

This permit will be good only for commencement of work within 60 days, and the entire completion thereof within 180 days from this date; after which time this permit will be void.

NOTE—Before Lathing or covering up Steel Reinforcement Notify this office.

FEE PAID 41 75 TOTAL

Robt W. [illegible]
Building Inspector

DEPARTMENT OF BUILDINGS

APPLICATION FOR BUILDING PERMIT

Job Card

Permit No 5186

Plans Filed	Type of Bldg.	Fire Zone	Ward	Date of Application	Received by
	M			12/30/85	RM

Building Address [redacted] E 205 Harrison

Lot Block Addition

Owner Colfax Grange Supply Address E 205 Harrison

Contractor Under bid Address

Engineer or Architect Address

Estimated Cost $10,000

DESCRIPTION OF WORK Remodel former

New	Alteration ✓	Repair	Addition	Demolish

Use of New Bldg. Auto Service Center Use of Existing Bldg. Former Grocery

Size of Building Remodel 48x42 Stories 1 No. of Rooms — No. of Families —

Basement	Roof Covering	Attached Garage	Heating
Foundation	Interior Wall Finish	Basement Garage	Type
Exterior Wall		Chimney	Fuel
Exterior Finish		Fireplace	Stoker
			Oil Burner

FEE SCHEDULE (Minimum Fee—$2.50)

No. of Stories	Area		
		Alterations or Repairs	40.25
		Marquees-Fences Signs, Retaining Walls, Awnings, etc.	
		Demolition	
		Gas Tanks and Pumps	
		Area of New Buildings or Additions	
TOTAL		State	1.50
		TOTAL FEE	41.75

Remarks:

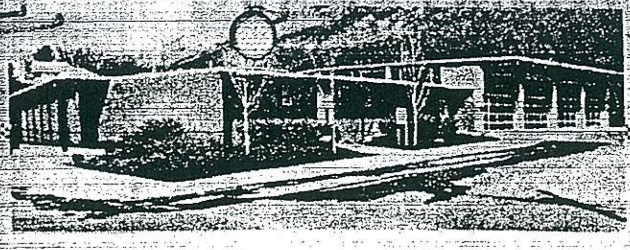
Stal icen. Washington State Contractors License Number

I hereby acknowledge that I have read this application and state that the above is correct and agree to comply with all city ordinances regulating building construction.

Dale A. Moravek Mgr.

Owner or Authorized Agent

Telephone No



City of Colfax

Colfax, Washington 99111

January 7, 1986

Mr. Dale Morasch, Manager
Colfax Grange Supply
E. 205 Harrison Street
Colfax, WA 99111

RE: Building Permit Application #5186

Dear Dale:

Enclosed with this letter is the approved copy of the above Building Permit Application, for remodelling the former grocery area of the Grange building into an automotive service facility.

The City Council approved this permit, subject to the following conditions:

1. That the Fire Department review and approve the detailed plan for compliance with current fire codes relating to automotive service facilities.
2. That the Police Department be advised and review any changes that may be necessary in on-street parking in the area.
3. That the proposed driveway cuts be formed within the sidewalk area, and that no fill or obstruction be placed in the present gutter flow line.

The Council is aware that you have already discussed items 2 and 3 with Police Chief Buckley and with me.

If there are any questions regarding this permit approval, please feel free to contact us at City Hall:
Building Permit and curb cut: Robert Moorhead, 397-3861
Traffic control and no-parking areas: Chief Barney Buckley, 397-4616
Fire Codes: Chief Jim Krouse, or fire captain on duty: 397-3416.

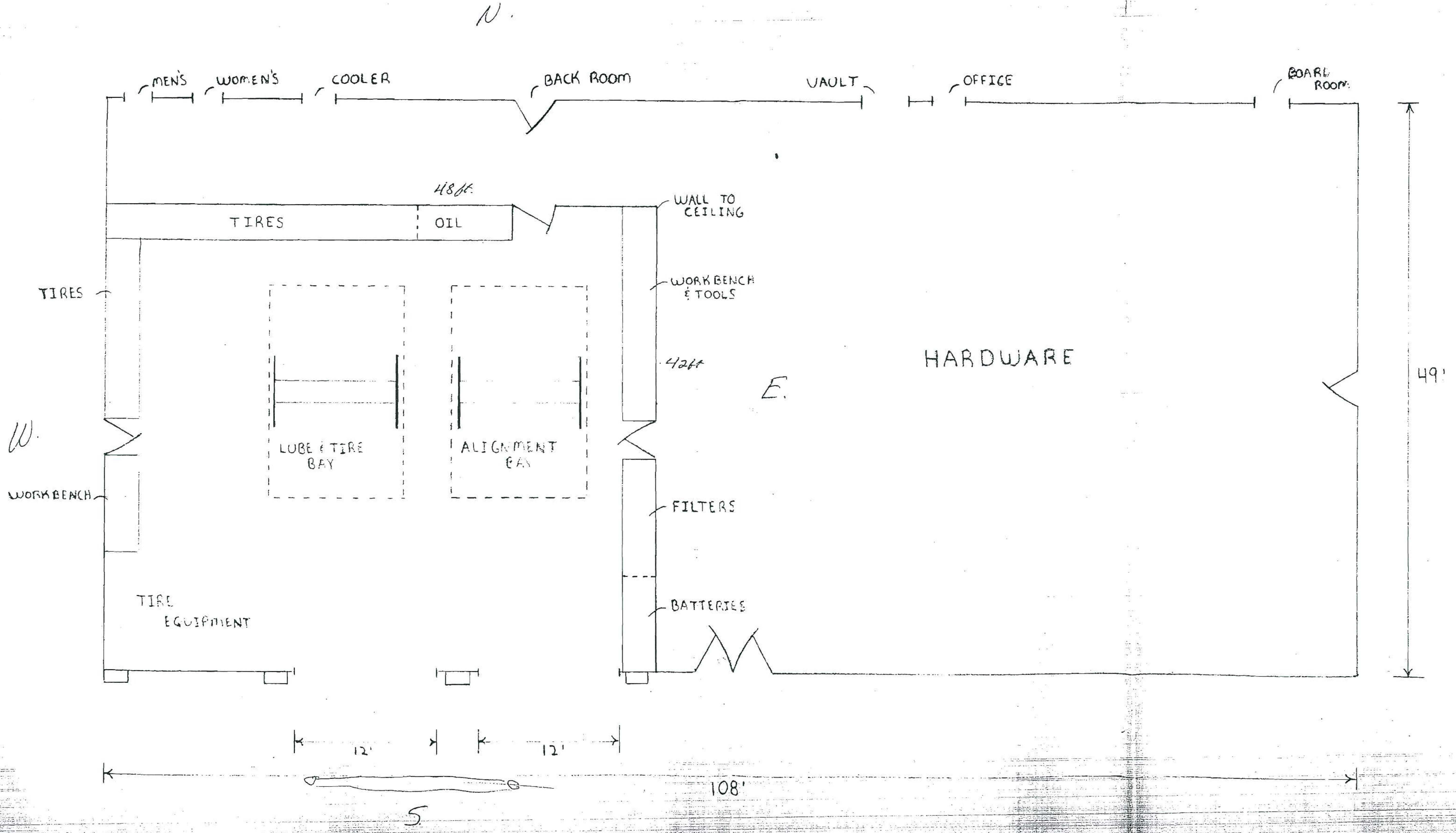
Sincerely,

Robert W. Moorhead, P.E.
Building Inspector &
Public Works Director

Enclosure

cc: Fire Dept.
Police Dept.

COLFAX GRANGE SUPPLY
TIRE SHOP PROPOSAL
R. LEDGERWOOD



Lot Block

L I I

```
1-0135-00-01-04-0000  0135   2      153
PCF ACQUISITION, LLC
804 N MAIN (SITE)                             5000  579750  584750
                                                 0       0       0
101683000000000       CX PERK PRES RIV ADD  7734.90 3867.45 3867.45
684074
PCF ACQUISITION, LLC
22026 68TH AVE S      3-09/63616  691612
KENT, WA  98032


1-0135-00-01-05-0000  0135   2      111
PCF ACQUISITION, LLC
                                             24000       0   24000
                                                 0       0       0
101684000000000       CX PERK PRES RIV ADD  317.46  158.73  158.73
684074
PCF ACQUISITION, LLC
22026 68TH AVE S      3-09/63616  691612
KENT, WA  98032


1-0135-00-01-06-0000  0135   2      111
PCF ACQUISITION, LLC
810 N MAIN (SITE)                            11500       0   11500
                                                 0       0       0
101685000000000       CX PERK PRES RIV ADD  152.12   76.06   76.06
684074
PCF ACQUISITION, LLC
22026 68TH AVE S      3-09/63616  691612
KENT, WA  98032
```

2- 4

1

5

1

6

1

200X90 ~~#18000#~~

18,000#

FAX

(206) 306-1902

TIME OIL/ JACKPOT

1-0135-00-01-04-0000

904 N. MAIN

cx Peck Pres'Riv Add

Inc Lots 2-6 Blk 1

SEE Attached sheets

N 804 Main

Whitman County Assessor **Site Appraisal** **Colfax, Washington**

COMMUNITY TREND IMPROVING STATIC DECLINING ZONE NO.

DRIVEWAY RIBBON SLAB GRAVEL STONE

ROAD PAVED GRAVEL DIRT SIDEWALK

UTILITIES GAS WATER ELECTRIC SEWER SEPTIC TANK

TOPOGRAPHY LOW HIGH ROUGH BRUSH LANDSCAPING POOR AVE. GOOD

	FRONT FEET	DEPTH	SQ. FEET	VALUE BY SQ. FT.	VALUE BY FRONT FOOT	ADJUSTMENTS	APPRAISED VALUE
Lots 2-4	150	95	14,250ø				
Lots 5	50	95	4,750ø				
			19,000ø total Lots				

EASEMENT NUMBER

DEED NUMBER

COMMERCIAL APPRAISAL

Roll No.................... Page No.........................
Map No.......................... Photo No........................
Remodeled 19.............. Cost $...............................
Sold 19................ Amount $.................................
Sold 19................ Amount $.................................
Appr............ Date.............. Appr. Val. $.....................
Appr............ Date.............. Appr. Val. $.....................

Owner .... TIME OIL / JACKPOT
Building Name ....
Address 1-0135-00-01-04-0000
Addition ....

BUILDING
- ☐ Apartment
- ☐ Apartment Hotel
- ☐ Auto Sales
- ☐ Bank
- ☐ Court
- ☐ Dental
- ☐ Department
- ☐ Garage
- ☒ Gas Station/FOOD
- ☐ Greenhouse
- ☐ Hotel
- ☐ Industrial
- ☐ Market
- ☐ Medical
- ☐ Metal Bldg.
- ☐ Motel
- ☐ Office
- ☐ Restaurant
- ☐ Store
- ☐ Theatre
- ☐ Warehouse

FOUNDATION
- ☒ Concrete
- ☐ Concrete Block
- ☐ Stone
- ☐ Brick
- ☐ Wood Frame

EXT. WALLS
- ☐ Aluminum
- ☐ Brick
- ☒ Brick Veneer
- ☐ Concrete Block
- ☐ Concrete Reinf.
- ☐ Curtain
- ☐ Galv. Iron
- ☐ Shakes
- ☐ Shingle
- ☐ Siding
- ☐ Steel Panel
- ☐ Stucco
- ☐ Tile
- ☐ Tilt-up

CONSTRUCTION
- ☐ Single
- ☒ Double
- ☐ Block
- ☐ Wood Frame
- ☐ Steel Frame
- ☐ Insulation

ROOF
- ☐ Arch
- ☐ Flat
- ☐ Gable
- ☐ Hip
- ☐ Shed
- ☐ Steel Beam
- ☐ Steel Truss
- ☐ Wood Truss
- ☐ Aluminum
- ☐ Built-up
- ☐ Composition
- ☐ Concrete
- ☐ Galv. Iron
- ☐ Rock
- ☐ Shake
- ☐ Shingle
- ☐ Steel
- ☐ Tar and Gravel

HEATING
- ☐ Floor-Wall
- ☒ Forced Air
- ☐ Gravity
- ☐ Hot Air
- ☐ No. Units
- ☐ Space Heat
- ☐ Hot Water
- ☐ Steam

ELECTRIC
- ☐ Baseboard
- ☐ Heat Pump

AIR COND. ☒
- ☐ Evaporative
- ☐ Refrigeration
- ☐ Custom

PARTITIONS
- ☐ Plaster
- ☐ Drywall
- ☐ Composition
- ☐ Concrete Block
- ☐ Brick
- ☐ Steel

CEILING
- ☐ Acoustic
- ☐ Composition
- ☐ Drywall
- ☐ Plaster
- ☐ Suspended

INTERIOR
- ☐ Department Store
- ☐ Market
- ☐ Auto Show
- ☐ Restaurants
- ☐ Office
- ☐ Theatres

ELECTRICAL
- ☐ Minimum
- ☐ Average
- ☒ Good

FLOOR
- ☐ Single
- ☐ Double
- ☐ Fir
- ☐ Hardwood
- ☐ Concrete
- ☐ Grade
- ☐ Elevated

BASEMENT

Finished	3/4
Utility	1/2
Full	1/4

PLUMBING

Toilet	Hwt.
Urinal	Lav.
Fountain	Sink
Shower	Tub

Class AVE Type Condition AVE
No. Units Backed Detached
Sq. Feet 2750 Stories 1 Wall Height
Year Built 1999 Construction Cost $

Square Foot Items	% Adj. −	% Adj. +	Base Rate Adj. −	Base Rate Adj. +
CONC/ASPH/Landscape				36,000
Total Adj.				
Adj. Base Cost				

ADDED FEATURES	−	+
Basement		
Heating		
Plumbing		
Electrical		
Elevators		
Stairway		
Balcony		
Sprinklers		
Canopy 3300 □		50,000
TOTAL		
ADJ. TOTAL		493,750

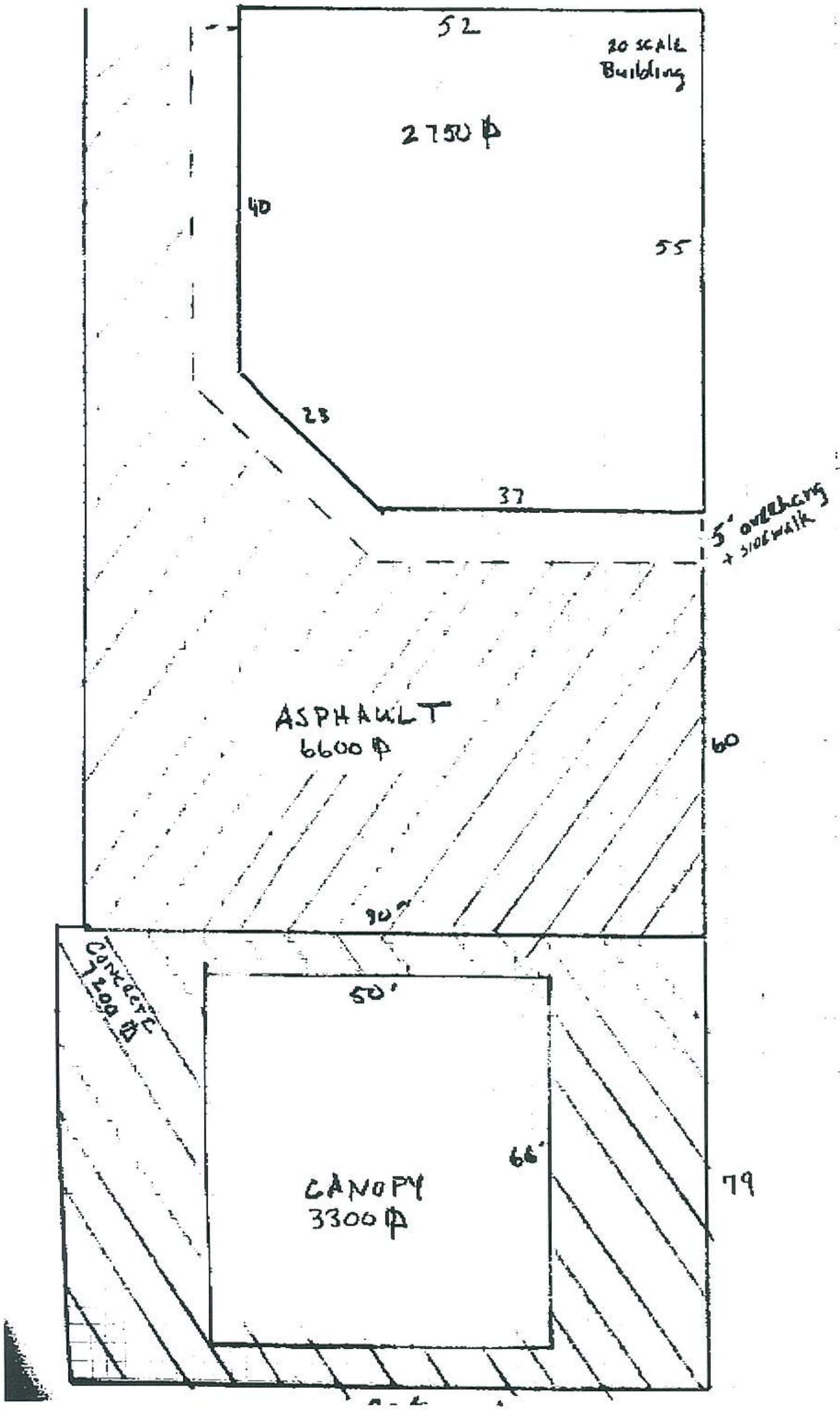
Area 2750 ....x ..179.55 P.S.F.	
Added Features ↳ includes 25% + For Deli	
Total Base Cost	
19...... Cost Index ....% x Base Cost	
........% Quality Adjustment	
Replacement Cost	
Depreciation ....% Phy.-Func.-Econ.	
Depr.-Repl. Cost	
Other Improvements	
Total Depr.-Repl. Cost	
Assessed Value	579,750

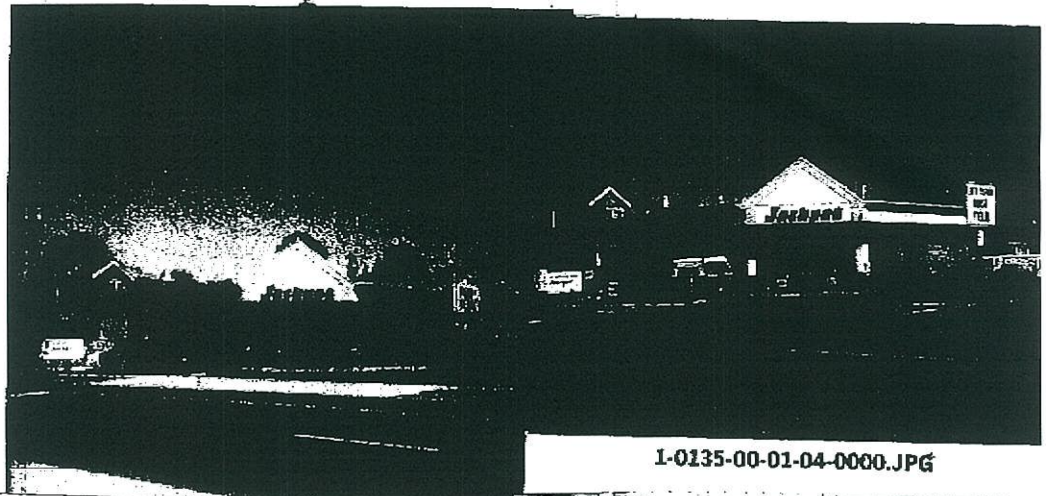
Remarks: New CONST 6-00 TBA
9-01 TBA

R 7-17-01

TOP

6-00





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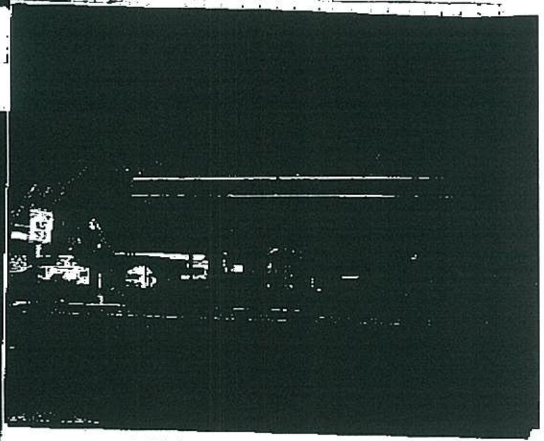

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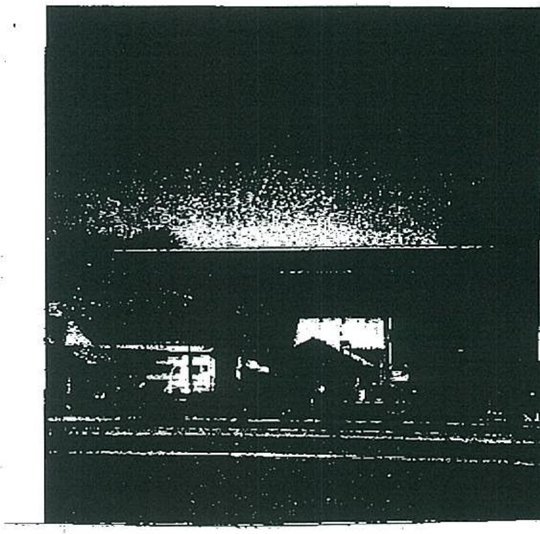
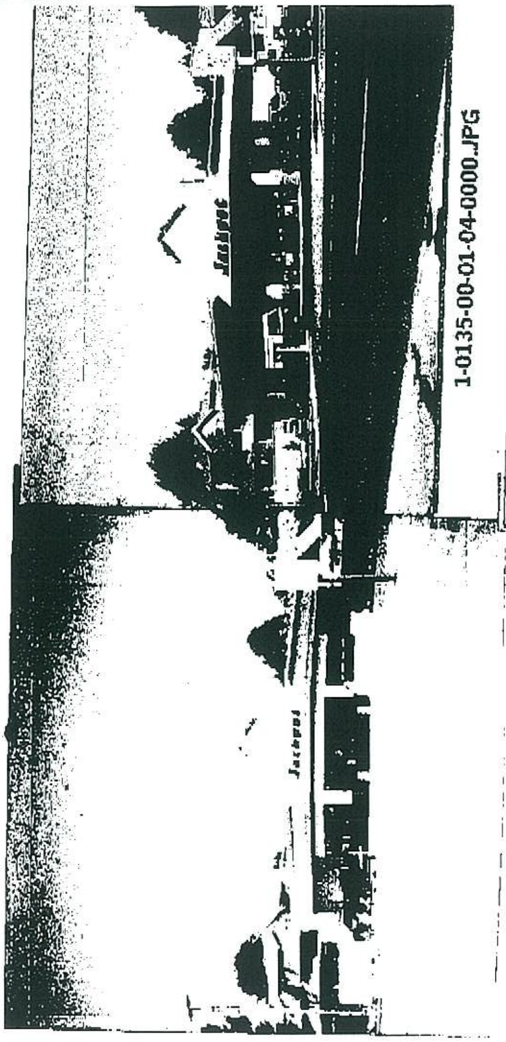


TOP



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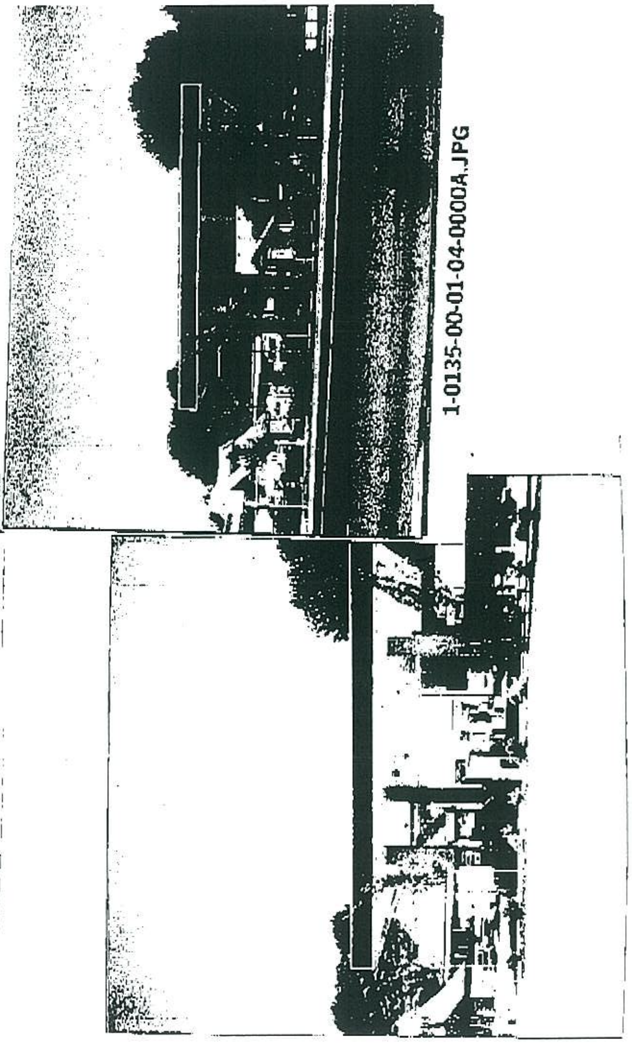

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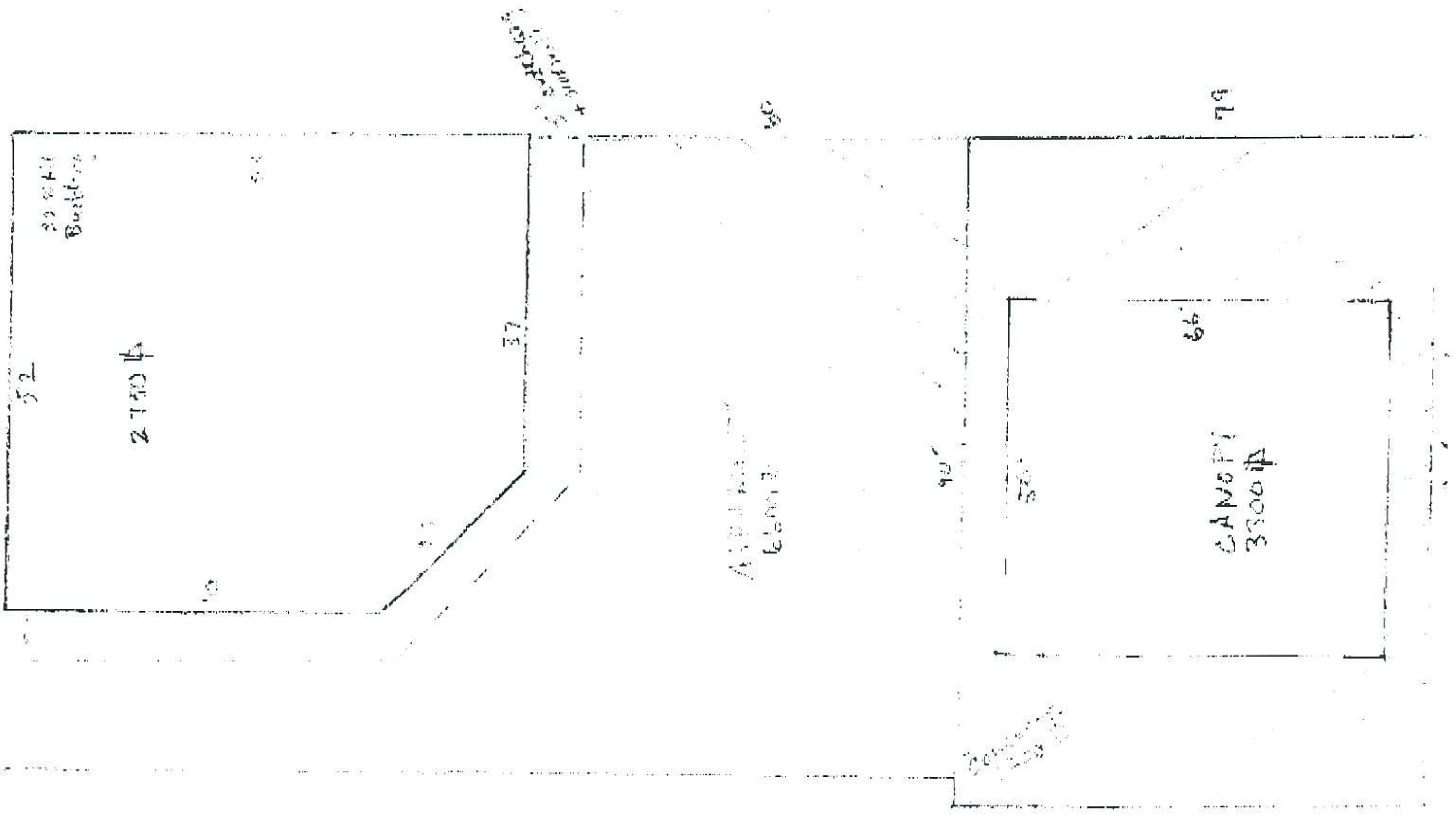


691612

Department of Revenue
Washington State

PLEASE TYPE OR PRINT

REAL ESTATE EXCISE TAX AFFIDAVIT

CHAPTER 82.45 RCW – CHAPTER 458-61A WAC

This form is your receipt when stamped by cashier.

THIS AFFIDAVIT WILL NOT BE ACCEPTED UNLESS ALL AREAS ON ALL PAGES ARE FULLY COMPLETED

(See back of last page for instructions)

☐ Check box if partial sale of property

If multiple owners, list percentage of ownership next to name.

1 SELLER GRANTOR

Name PetroSun West

Mailing Address 22026 88th Ave. South

City/State/Zip Kent, WA 98032

Phone No. (including area code) (213) 426-2528

2 BUYER GRANTEE

Name PCF AcquisitionCo., LLC.

Mailing Address 22026 88th Ave. South

City/State/Zip Kent, WA 98032

Phone No. (including area code) (213) 426-2528

3 Send all property tax correspondence to: ☑ Same as Buyer/Grantee

Name

Mailing Address

City/State/Zip

Phone No. (including area code)

List all real and personal property tax parcel account numbers – check box if personal property		List assessed value(s)
1-0135-00-01-04-0000	☐	1,690,000.00
1-0135-00-01-05-0000	☐	
1-0135-00-01-06-0000	☐	
	☐	

4 Street address of property: 804 N. Main Street, Colfax, WA

This property is located in Whitman County

☐ Check box if any of the listed parcels are being segregated from a larger parcel.

Legal description of property (if more space is needed, you may attach a separate sheet to each page of the affidavit)

SEE ATTACHED LEGAL

5 Select Land Use Code(s):

53 - Retail trade - general merchandise

enter any additional codes:

(See back of last page for instructions)

	YES	NO
Is this property exempt from property tax per chapter 84.36 RCW (nonprofit organization)?	☐	☑

6

	YES	NO
Is this property designated as forest land per chapter 84.33 RCW?	☐	☑
Is this property classified as current use (open space, farm and agricultural, or timber) land per chapter 84.34?	☐	☑
Is this property receiving special valuation as historical property per chapter 84.26 RCW?	☐	☑

If any answers are yes, complete as instructed below.

(1) NOTICE OF CONTINUANCE (FOREST LAND OR CURRENT USE)
NEW OWNER(S): To continue the current designation as forest land or classification as current use (open space, farm and agriculture, or timber) land, you must sign on (3) below. The county assessor must then determine if the land transferred continues to qualify and will indicate by signing below. If the land no longer qualifies or you do not wish to continue the designation or classification, it will be removed and the compensating or additional taxes will be due and payable by the seller or transferor at the time of sale. (RCW 84.33.140 or RCW 84.34.108). Prior to signing (3) below, you may contact your local county assessor for more information.

This land ☐ does ☐ does not qualify for continuance.

DEPUTY ASSESSOR DATE

(2) NOTICE OF COMPLIANCE (HISTORIC PROPERTY)
NEW OWNER(S): To continue special valuation as historic property, sign (3) below. If the new owner(s) does not wish to continue, all additional tax calculated pursuant to chapter 84.26 RCW, shall be due and payable by the seller or transferor at the time of sale.

(3) OWNER(S) SIGNATURE

PRINT NAME

7 List all personal property (tangible and intangible) included in selling price.

If claiming an exemption, list WAC number and reason for exemption:

WAC No. (Section/Subsection) 458-61A-212

Reason for exemption IRC 721 & 731

Type of Document Bargain & Sale Deed

Date of Document 1-29-09

Gross Selling Price	$	1,690,000.00
*Personal Property (deduct)	$	
Exemption Claimed (deduct)	$	
Taxable Selling Price	$	1,690,000.00
Excise Tax : State	$	21,632.00
0.0025 Local	$	4,225.00
*Delinquent Interest: State	$	
Local	$	
*Delinquent Penalty	$	
Subtotal	$	25,857.00
*State Technology Fee	$	5.00
*Affidavit Processing Fee	$	
Total Due	$	25,862.00

A MINIMUM OF $10.00 IS DUE IN FEE(S) AND/OR TAX
*SEE INSTRUCTIONS

8 I CERTIFY UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT.

Signature of Grantor or Grantor's Agent

Name (print) Sam Hurford

Date & city of signing: 1-29-09

Signature of Grantee or Grantee's Agent

Name (print) Sam Hurford

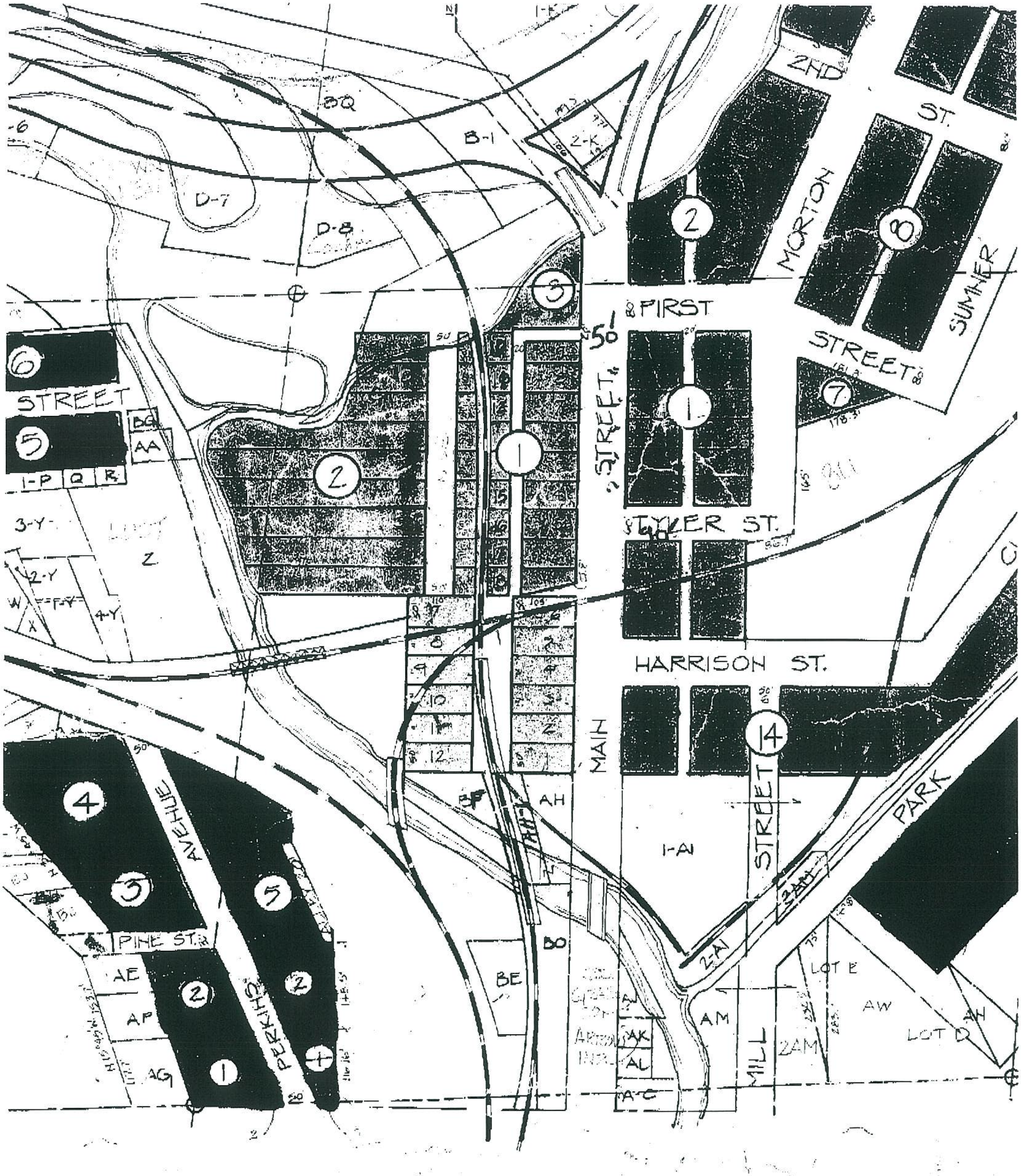
Date & city of signing: 1-29-09

Perjury: Perjury is a class C felony which is punishable by imprisonment in the state correctional institution for a maximum term of not more than five years, or by a fine in an amount fixed by the court of not more than five thousand dollars ($5,000.00), or by both imprisonment and fine (RCW 9A.20.020 (1C)).

REV 84 0001a (11/19/08)

THIS SPACE - TREASURER'S USE ONLY

COUNTY ASSESSOR


BQ
B-1
2-K
D-7
D-8
2ND
ST.
MORTON
STREET
SUMMER
2
8
3
FIRST
50'
STREET
1
7
6
STREET
5
BG
AA
1-P Q R
2
1
TYLER ST.
3-Y
Z
2-Y
W
X
4-Y
HARRISON ST.
MAIN
14
STREET
PARK
4
AVENUE
3
5
PINE ST.
PERKINS
2
2
1
AE
AP
AG
AH
1-AI
2-AI
2AM
BO
BE
AM
AJ
AK
AL
A-C
MILL
2AM
LOT E
AW
AH
LOT D

Lot Block L I T

1-0135-00-01-01-0000 0135 2 1 1 153
COLFAX GRANGE SUPPLY, INC
103 E HARRISON (SITE) 6200 442600 448800
0 0 0
101678000000000 CX PERK PRES RIV ADD R/W 5936.59 2968.30 2968.29
241440
COLFAX GRANGE SUPPLY
105 E HARRISON
COLFAX, WA 99111-2100

Lot
50 X 90 4500#

COLFAX, WA 99111

~~Block~~ Lots Block

~~1-0135-00-01-15-0000 0135 2~~ 152
COLFAX GRANGE SUPPLY, INC 14- 15 1
205 E HARRISON (SITE) 12400 236500 248900
0 0 0
101694000000000 CX PERK PRES RIV ADD R/W 3292.37 1646.19 1646.18
241440
COLFAX GRANGE SUPPLY
105 E HARRISON
COLFAX, WA 99111-2100

110 X 90 9900#

1-0135-00-01-01-0000 2
COLFAX GRANGE SUPPLY, INC
HARRISON & CLAY
COLFAX, WA 99111

1
c

1-0135-00-01-01-0000

11678.

0

1 of 1
Cr. Park. Pres. Riv Add R/W

Whitman County Assessor **Site Appraisal** **Colfax, Washington**

COMMUNITY TREND IMPROVING STATIC DECLINING ZONE NO.

DRIVEWAY RIBBON SLAB GRAVEL STONE

ROAD PAVED GRAVEL DIRT SIDEWALK

UTILITIES GAS WATER ELECTRIC SEWER SEPTIC TANK

TOPOGRAPHY LOW HIGH ROUGH BRUSH | LANDSCAPING POOR AVE. GOOD

FRONT FEET	DEPTH	SQ. FEET	VALUE BY SQ. FT.	VALUE BY FRONT FOOT	ADJUSTMENTS	APPRAISED VALUE

EASEMENT NUMBER DEED NUMBER

COMMERCIAL APPRAISAL

Owner Colfax Grange Supply
Building Name
Address E 205 Harrison
Addition Perkins Prescott Riverside
L1 B1

Roll No. Page No.
Map No. Photo No.
Remodeled 19 Cost $
Sold 19 Amount $
Sold 19 Amount $
Appr. Date Appr. Val. $
Appr. Date Appr. Val. $

1-0135-00-01-01-0000

BUILDING
- Apartment
- Apartment Hotel
- Auto Sales
- Bank
- Court
- Dental
- Department
- Garage
- X Gas Station
- Greenhouse
- Hotel
- Industrial
- Market
- Medical
- Metal Bldg.
- Motel
- Office
- Restaurant
- Store
- Theatre
- Warehouse

FOUNDATION
- X Concrete
- Concrete Block
- Stone
- Brick
- Wood Frame

EXT. WALLS
- Aluminum
- Brick
- Brick Veneer
- Concrete Block
- Concrete Reinf.
- Curtain
- Galv. Iron
- Shakes
- Shingle
- Siding
- Steel Panel
- Stucco
- Tile
- Tilt-up

CONSTRUCTION
- Single
- Double
- Block
- Wood Frame
- X Steel Frame
- Insulation

ROOF
- Arch
- X Flat
- Gable
- Hip
- Shed
- X Steel Beam
- Steel Truss
- Wood Truss
- X 6 Lights
- Aluminum
- Built-up
- Composition
- Concrete
- X Galv. Iron
- Rock
- Shake
- Shingle
- Steel
- Tar and Gravel

HEATING
- Floor-Wall
- Forced Air
- Gravity
- Hot Air
- No. Units
- Space Heat
- Hot Water
- Steam

ELECTRIC
- Baseboard
- Heat Pump

AIR COND.
- Evaporative
- Refrigeration
- Custom

PARTITIONS
- Plaster
- Drywall
- Composition
- Concrete Block
- Brick
- Steel

CEILING
- Acoustic
- Composition
- Drywall
- Plaster
- Suspended
- X Steel

INTERIOR
- Department Store
- Market
- Auto Show
- Restaurants
- Office
- Theatres

ELECTRICAL
- Minimum
- X Average
- Good

FLOOR
- Single
- Double
- Fir
- Hardwood
- X Concrete
- Grade
- Elevated
- X Asphalt T.

BASEMENT

Finished	3/4
Utility	1/2
Full	1/4

PLUMBING

Toilet	Hwt.
Urinal	Lav.
Fountain	Sink
Shower	Tub
X Water	
X Air	

Class Type Condition
No. Units 1 Backed Detached
Sq. Feet Stories Wall Height
Year Built 1985 Construction Cost $ 122,557.25

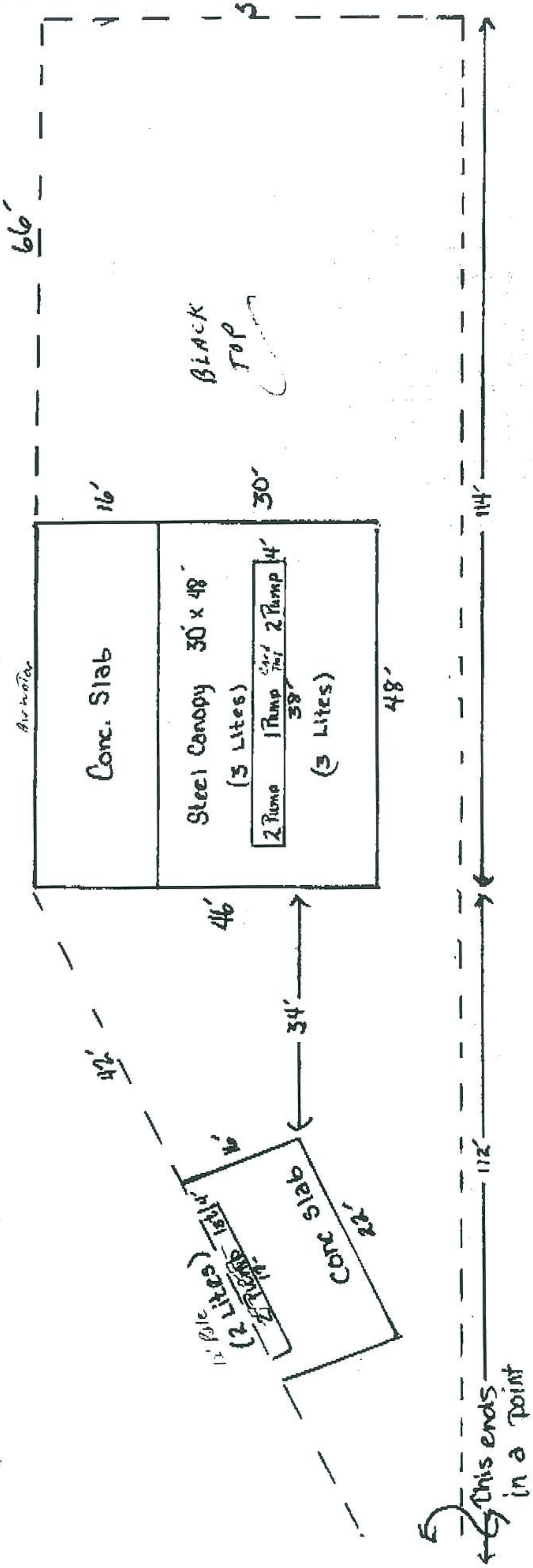
Square Foot Items	% Adj. −	% Adj. +	Base Rate Adj. −	Base Rate Adj. +
Total Adj.				
Adj. Base Cost				

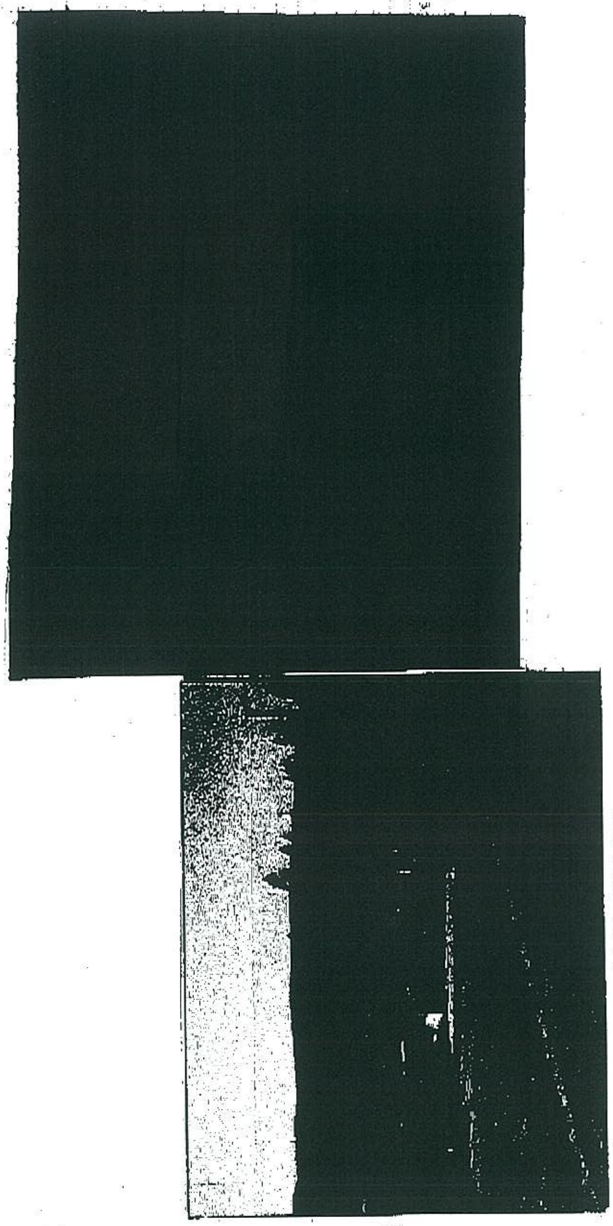
ADDED FEATURES	−	+
~~Basement~~ Terminal		1500
~~Heating~~ 2 Lites + 12' Pole		1450
Plumbing Water Air		275
Electrical		3600
~~Elevators~~ 3-8000 gal Tank @ 5550		16,650
~~Stairway~~ 7 Pumps + Piping @ 3135		21,945
~~Balcony~~ Card Trol		12,000
~~Sprinklers~~ Pulser		9000
Canopy *6 lights 1440□ @ 11.		15840
Conc 2640□ @ 3.05		8050
Conc Island. 220□ @ 5.60		1230
Asph 6312□ @ 2.00		12620
TOTAL		104,160
ADJ. TOTAL		

Area x P.S.F.	
Added Features	
Total Base Cost	
19 Cost Index % x Base Cost	
% Quality Adjustment	
Replacement Cost	
Depreciation % Phy.-Func.-Econ.	
Depr.-Repl. Cost	
Other Improvements	
Total Depr.-Repl. Cost	104160
Assessed Value	

S. F. No. 9115—OS—(Rev. 3-61)—131

Remarks: OK 4-28-86





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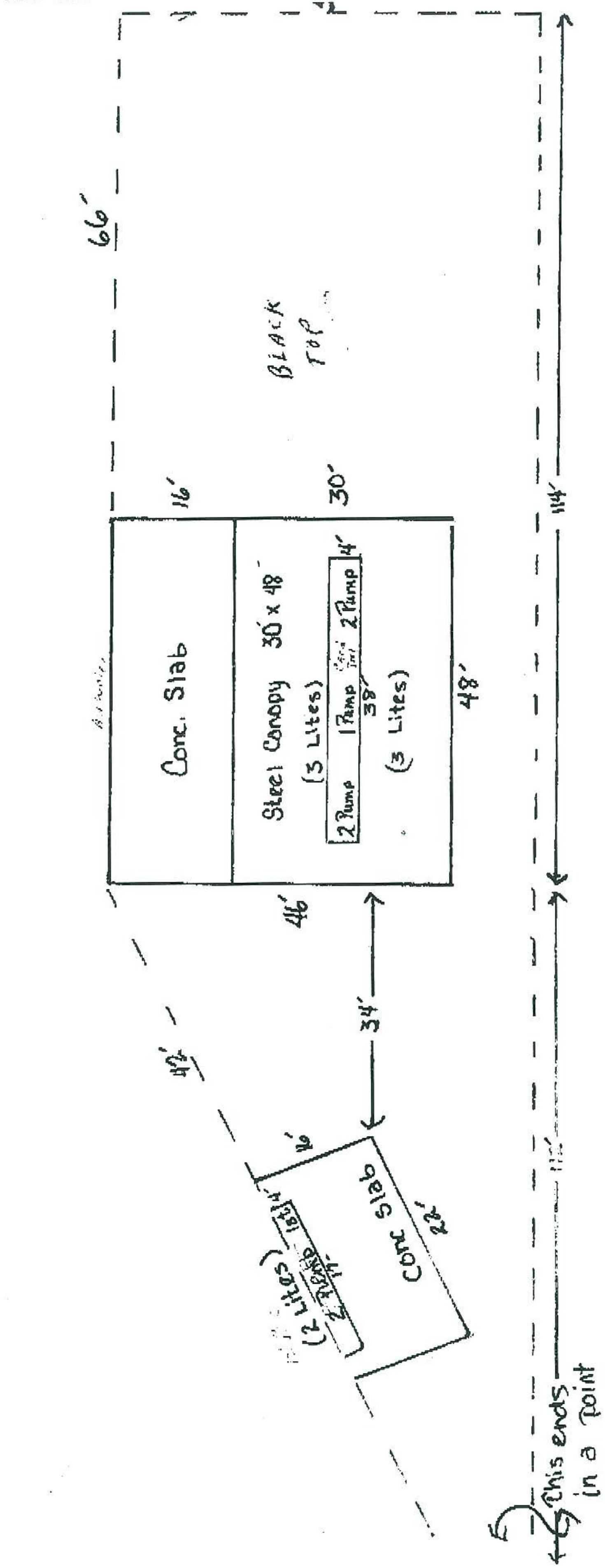

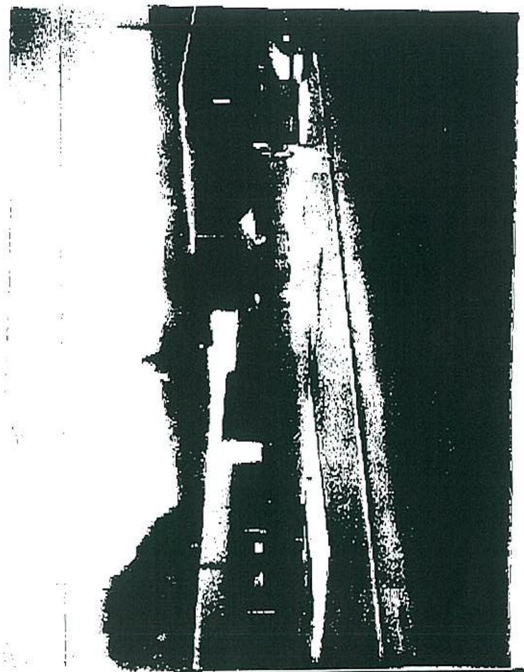

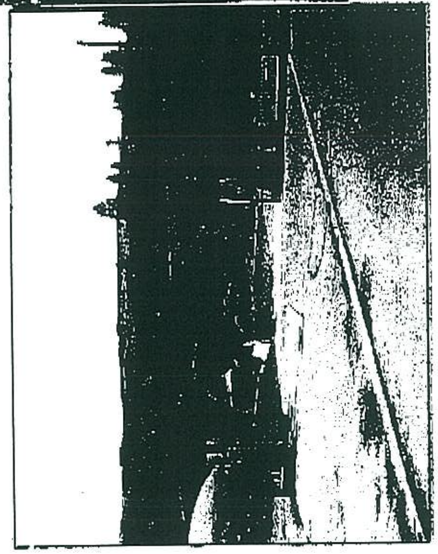

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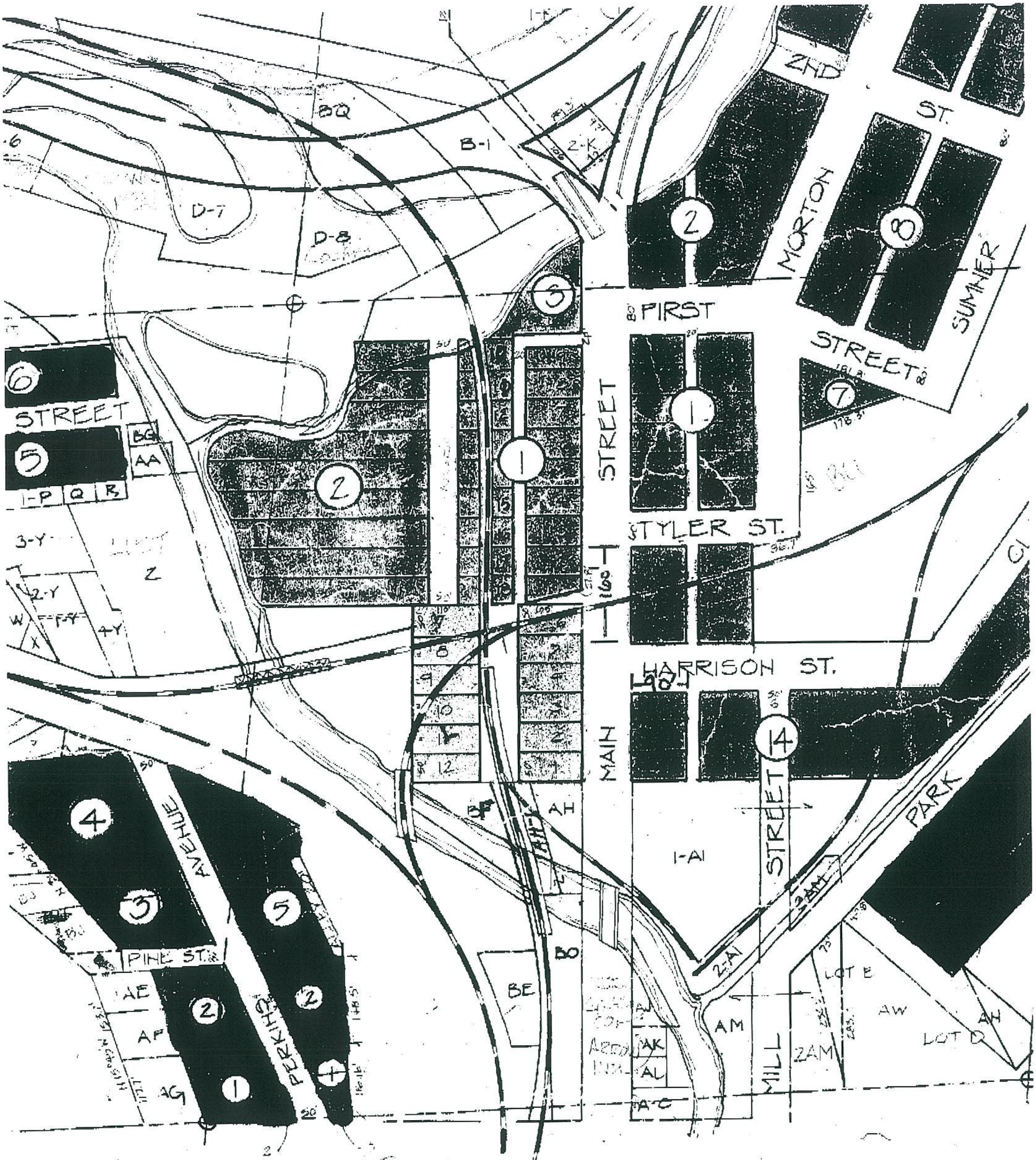

BQ
B-1
2-K
D-7
D-8
2ND
ST.
MORTON
SUMNER
STREET
FIRST
STREET
STYLER ST.
HARRISON ST.
MAIN
STREET
MILL
PARK
1-AI
2-AI
2-AM
AM
ZAM
LOT E
AW
AH
LOT D
BE
BO
AH
BF
AK
AL
A-C
STREET
BG
AA
1-P
Q
R
3-Y
Z
2-Y
W
X
4-Y
AVENUE
PERKINS
PINE ST.
AE
AF
AG
1
2
3
4
5
6
7
8
14

1-0135-00-01-15-0000

52

1694.(

McSweeney Tractor Co.
Box 466
Colfax, Wash. 99111

Lots 14-15, Blk 1
Colfax, Perkins Prescott Riverside Addn.

6 P 300 2

Whitman County Assessor **Site Appraisal** **Colfax, Washington**

COMMUNITY TREND IMPROVING STATIC DECLINING ZONE NO.

DRIVEWAY RIBBON SLAB GRAVEL STONE

ROAD PAVED GRAVEL DIRT SIDEWALK

UTILITIES GAS WATER ELECTRIC SEWER SEPTIC TANK

TOPOGRAPHY LOW HIGH ROUGH BRUSH LANDSCAPING POOR AVE. GOOD

FRONT FEET	DEPTH	SQ. FEET	VALUE BY SQ. FT.	VALUE BY FRONT FOOT	ADJUSTMENTS	APPRAISED VALUE

EASEMENT NUMBER

DEED NUMBER

RESIDENTIAL APPRAISAL

Roll No. .... Page No. ....
Map No. .... Photo No. ....
Monthly Rent ....
Remodeled 19 .... Cost $ ....
Sold 19 .... Amount $ ....
Sold 19 .... Amount $ ....

Owner Colfax Grange Supply
Address E 205 Harrison
Addition Colfax, Wa. 99111

Colfax Perkins - Pres - R.'s - Add
LoT - 14-1
Blk - 1

Store - Storage

Class .... Perimeter ....
Condition Good .... Square ft. 7680
Year Built 1953 / 1974 .... Const. Cost $ ....
Remoleled 1991

BUILDING	
	Dwelling
	Duplex
FOUNDATION	
✓	Conc. 6 8 10
	Concrete Block
	Brick
	Stone
	Piers
EXT. WALLS	
	Bevel
	Rustic
	B. and B.
	Vertical
	Wood Shingles
	Comp. Shingles
	Aluminum
	Comp. Shakes
	Wood Shakes
	Low Cost
	Average
	Good
	Concrete Block
	Stucco
	Brick
	Common
	Roman
	Stone
	Gal. Iron
ROOF	
	Flat
	Hip
	Gable
	Pitch
	Low
	Medium
	Steep
	Shingles
	Wood
	Composition
	Aluminum
	Gal. Iron
	Shakes
✓	Light metal
	Medium
	Heavy
	Built-up
	Roll
	Tile

CONSTRUCTION	
✓	Single
	Double
✓	Block
✓	Insulation
HEATING	
✓	Forced
	Gravity
	Floor or Wall
	Hot Water
	Baseboard
	C. I. Rad.
	Floor Rad.
	Electric
	Wall Units
	Baseboard
	Glass Panel
	Ceiling Rad.
	Floor Rad.
✓	Gas
	Heat Pump
FIREPLACE	
	1 Sty. Single
	1 Sty. Bkd.
	2 Sty. Single
	2 Sty. Bkd.
	2 Sty. Stkd.
	Stove
EXTRAS	
	B. I. Oven
	B. I. Range
	Hood and Fan
	Water Soft.
✓	Air Cond
BUILT-INS	
✓	Fir
	Hardwood
	Metal
LIGHTNING	
	Good
✓	Average
	Poor

STORIES	1	½	2	A	B
No. Rooms	1				
No. Baths	2/2				
No. Bedrooms					
PARTITIONS					
Plaster					
Drywall	✓				
Compo.					
Paper					
Wood Panel					
Plywood	✓				
CEILING					
Plaster					
Drywall					
Compo.	✓				
Plywood					
Tile					
Paper					
Wood Panel					
FLOORS					
Single					
Double					
Softwood					
Hardwood					
Plywood					
Carpet					
Tile					
Concrete	✓				
Linoleum					

BASEMENT	
✓	None
	Full
	Part
	No. Rooms
	Class Rooms
	Daylight

PLUMBING			
✓	1st G.		2nd G.
2	Toilet		Shower Stall
	Tub		Tub Shower
2	Lav.	2	Sink
	Laundry Fac.		
	Garbage Disp.		
	Dishwasher		
/	Hot Water Heater		
	No. Fixtures		

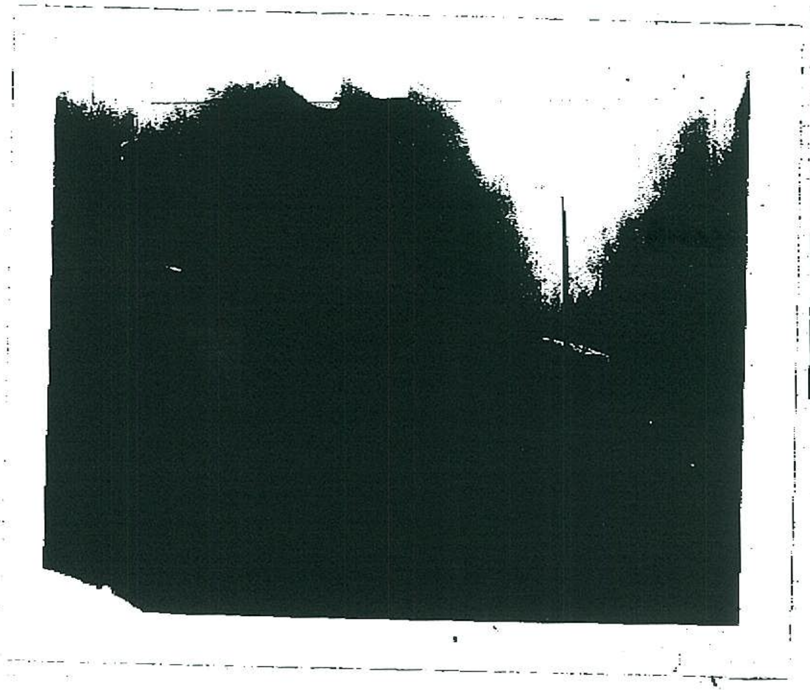
	−	+
Rate Adj.		
Base Rate		
TOTAL RATES		
ADJ. BASE RATE		

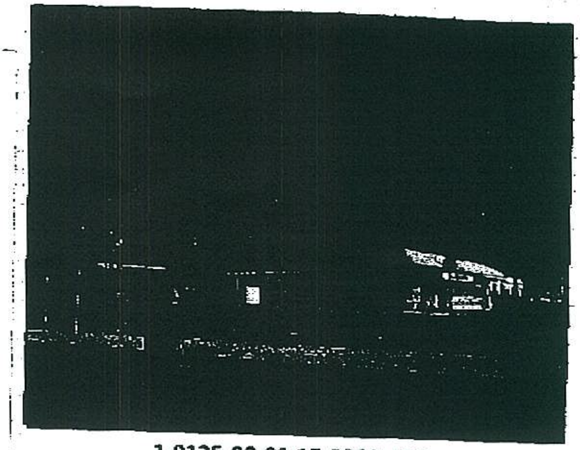
ADDED FEATURES	−	+
Basement		
Basement Rooms		
Heating		
Plumbing		
Fireplace		
Attached Garage		
Upper Stories		
Extras		
Conc - 5448□ @ 1.25		
TOTALS		

Adjusted Total	
Area 7860 x .... P.S.F.	139,320
Added Features	
Total Base Cost	
19 .... Cost Index .... % x Base C.	
Depreciation .... % Phy.-Func.-Econ.	
Additional Buildings	
Total Value	
Assessed Value	
	134610

J.W.

10/97 160000





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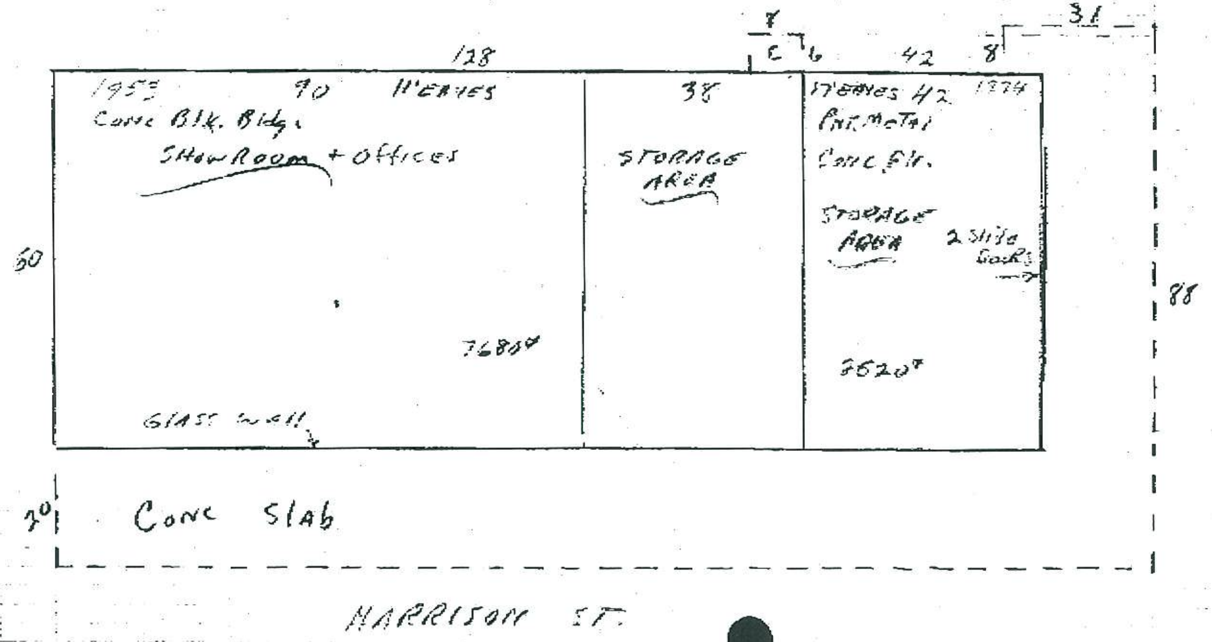

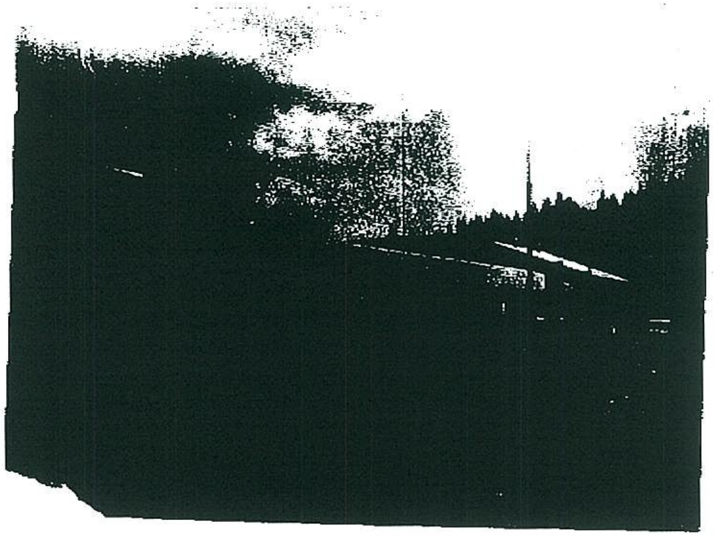

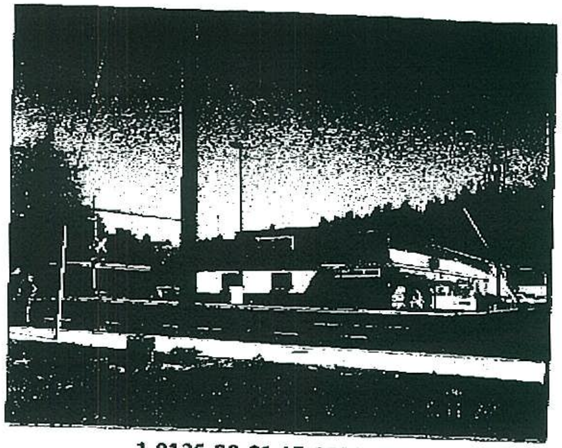

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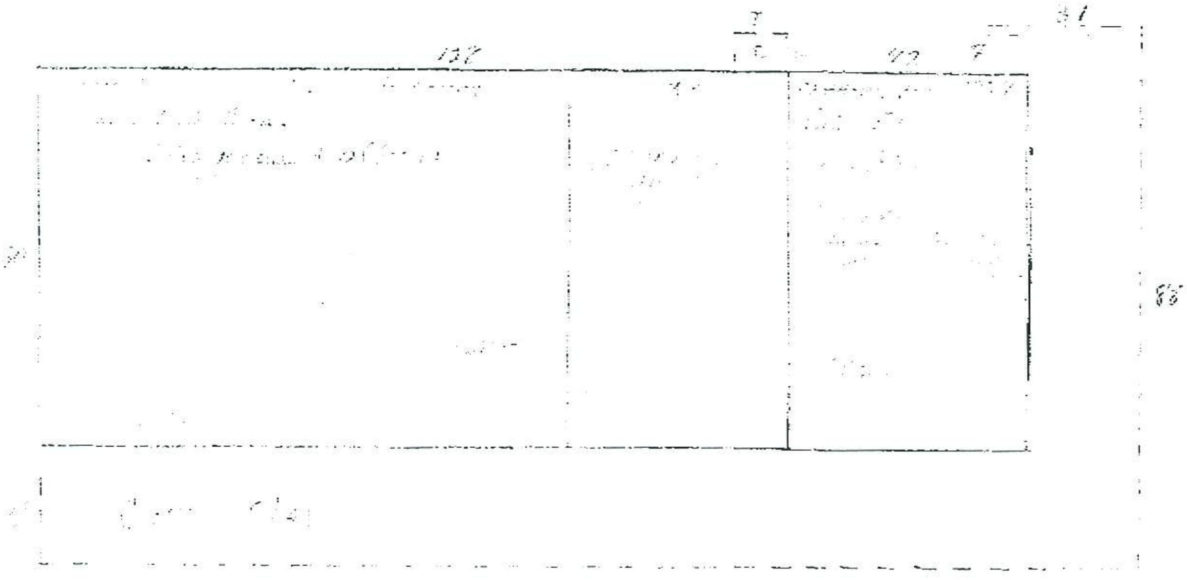

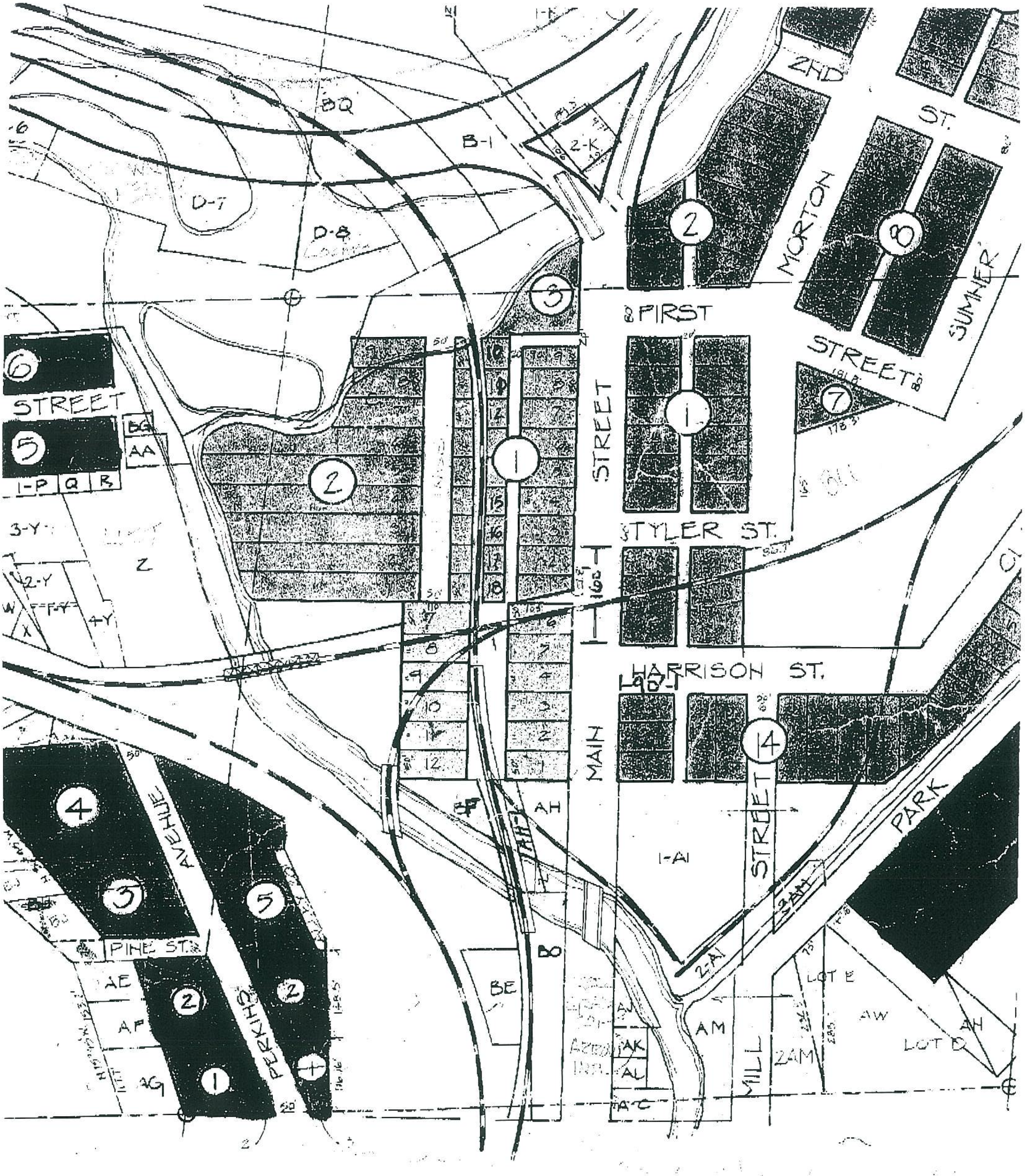
2ND
MORTON
ST.
SUMMER
FIRST
STREET
STREET
MAIN
TYLER ST.
HARRISON ST.
STREET
PARK
MILL
AVENUE
PERKINS
PINE ST.
STREET
BQ
B-1
2-K
D-7
D-8
Z
3-Y
2-Y
4-Y
X
W
1-P
Q
R
BG
AA
AH
1-AI
2-AI
2AM
AM
BE
BO
AE
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AG
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AK
AL
A-C
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LOT E
LOT D
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APPENDIX B

Communication Logs

www.soundenvironmental.com

Sound Environmental Strategies Corporation
2400 Airport Way South, Suite 200
Seattle, Washington 98134-2020
Phone: (206) 306-1900
Fax: (206) 306-1907

TELEPHONE CONVERSATION RECORD

SES REP.: **Chuck Cacek** **DATE: February 4, 2008** **TIME:** 1030

CONTACT: Mr. John Skyles, Director

FIRM/AGENCY: Whitman County Department of Environmental Health

PROJECT: **North Colfax Remedial Investigation**

SUBJECT: **Groundwater Quality in the project vicinity**

DISCUSSION:

We asked Mr. Skyles if he is aware of any shallow drinking water wells in the area of the project site that tap the near-surface aquifer, as such hand-dug wells or cisterns are sometimes associated with older rural or farm properties. Mr. Skyles stated that he is not aware of any such wells located within the Colfax city limits. Mr. Skyles stated that WCDEH discourages continued use of such wells, which are prone to nitrate impacts associated with fertilizer runoff. Mr. Skyles of WCDEH suggested that the presence of ammonium nitrate would be a good indicator of the relative connectivity of the near-surface groundwater aquifer and the underlying drinking water aquifers. Ammonium nitrate is used pervasively in fertilizer application throughout the Palouse wheat growing region. Mr. Skyles indicated that surface and near-surface water in the Palouse are typically impacted to some degree with nitrates. Because ammonium nitrate has not been detected in the City of Colfax’s underlying basalt aquifer wells, Mr. Skyles concluded that the near-surface aquifer is not a significant contributor to recharge of the underlying drinking water aquifer.

Charles Cacek

From: Andy Rogers [arogers@ci.colfax.wa.us]
Sent: Thursday, February 14, 2008 9:37 AM
To: Charles Cacek
Subject: RE: Water Well Questions

Chuck,
To the best of my knowledge there are no hand dug wells in that area and if there is they are a well kept secret.
Andy

From: Charles Cacek [mailto:CCacek@soundenvironmental.com]
Sent: Tuesday, February 12, 2008 3:55 PM
To: Andy Rogers
Subject: RE: Water Well Questions

Andy,

Thanks for your well thought out responses. I really appreciate your help on this. One last question. You stated that there are some old hand dug wells within the Town of Colfax. _Do you recall if there are any shallow, hand dug wells (say, less than 30 feet deep) located near the Cenex and Exxon (former Jack Pot) fueling facilities. These would be the wells most vulnerable to near surface groundwater impacts.

Thanks again,

Chuck Cacek

From: Andy Rogers [mailto:arogers@ci.colfax.wa.us]
Sent: Monday, February 11, 2008 11:22 AM
To: Charles Cacek
Subject: RE: Water Well Questions

Dear Chuck,
I will answer your questions in the order that you have asked them.

- Yes there are a few shallow wells in and around the City of Colfax. The City of Colfax maintains a strict Backflow Prevention Program and does not allow any new wells to be dug within the city limits proper and the existing wells cannot be tied in, in any way to the City of Colfax water systems.
- Yes there is an old well located near SR26, but it is not a city well. This well may have been dug before the ordinance was implemented or before that piece of land was annexed into the city. Either way it is not tied into the City of Colfax. Regardless of how deep it is, it will be and is treated as any other aquifer, deep or shallow.
- Yes the City of Colfax does have a Well Head Protection Program, as most all public drinking water systems must have. This is required by the Washington Department of Health. The program is designed to be a model to project the time it would take for a contaminant to reach the well head "point of discharge" and the source point "aquifer" from the surface or another source. The Department recently added a "6" month area to the model. Imagine a "dot" in the middle of a piece of paper; drawing a close circle around the dot would indicate the 6 month zone, according to the infrastructure of the terrain out from each well head would indicate how long it would take a contaminate to reach the source in 1 year etc. up to 10 years. All possible contaminant sources in the city are included in the protection plan.
- Iron in the water; Iron is a natural mineral the shows up in our drinking water at times. At this time there are no water quality issues concerning iron in the city. The Department of Health gives us a list of tests to take yearly in the Water Quality Monitoring Report yearly. When we are asked to test for i.e. iron we do and the samples are sent to our local lab. They are analyzed with the results sent to us and the Department. If the results on any of the tests are above the limits set forth by the Department then action, if possible, is taken. The City of Colfax has not yet had to take any action on any of these matters.

> The bottom line is the city will not allow "any" possible contamination of the soil in and or around our city limits. It does not matter if there is a shallow aquifer that is 10 feet down or 1000 feet down. Any "near surface" ground water effects affects us all in one way or another. Pollution is pollution and as we are so close to the South Fork and the North Fork of the Palouse River, any possible point of contamination would not be allowed.

I hope this answers your questions and lets you know how the City of Colfax stands on this subject.

Respectfully,
Elmer A. Rogers
Director of Public Works
City of Colfax

From: Charles Cacek [mailto:CCacek@soundenvironmental.com]
Sent: Tuesday, February 05, 2008 2:14 PM
To: Andy Rogers
Subject: Water Well Questions

Andy,

Thanks for getting back to me. As I said in my voice mail message, we are doing a near surface groundwater assessment of a property under the observance of the Department of Ecology, and we need to address the risk that the near surface groundwater impacts may have affected the local drinking water wells. From the information I've gathered, I think this is highly unlikely. Regardless, it needs to be addressed. I've recently discussed these issues with Mr. John Skyles of the Whitman County Health Depart. My questions are as follows:

- It appears that all of the local municipal and private wells are rather deep, and tap water within the underlying bedrock (basalt) aquifer(s). However, John stated that some old rural or farm properties have shallow old hand dug wells or cisterns. Are you aware of any such shallow in the city? Wells such as these would be vulnerable to possible near surface pollutants.
- According the City website and discussions with John, Colfax's primary water source is the Glenwood Springs wells, and the Fairview and Clay street wells are used during periods of peak demand. However, I found a well log that was labeled as a "City of Colfax" well, located near SR26 just east of town. Is this also a City well? The well log shows it dates from the 1950s.
- John said that there was a "well head protection" program instituted several years ago. What did this involve?
- Information I obtained from the State Department of Health – Drinking Water Division website indicated that the City wells have had occasionally exhibited elevated concentrations of iron. Are you aware of any other current or past water quality issues associated with the City water supply or individual wells?

That's all I can think of for now. I hope your lovely winter weather breaks over there soon, as I will be over there around the end of the month. However, the snow and subsequent melt sound like job security for you!

Regards,

Chuck Cacek

SOUND
ENVIRONMENTAL
STRATEGIES
www.soundenvironmental.com

Charles C. Cacek, LEG, M. Sc.

Senior Geologist
ccacek@soundenvironmental.com
Phone: (206) 306-1900
Fax: (206) 306-1907
Cell: (206) 300-6237

www.soundenvironmental.com

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2400 Airport Way South, Suite 200
Seattle, Washington 98134-2020
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Fax: (206) 306-1907

TELEPHONE CONVERSATION RECORD

SES REP.: **Chuck Cacek** **DATE: July 20, 2009** **TIME:** 0830

CONTACT: Mr. Scott Zuger, General Manager (509-397-4324)

FIRM/AGENCY: Colfax Grange Supply

PROJECT: **North Colfax Remedial Investigation**

SUBJECT: **Site Historical Information**

DISCUSSION:

Mr. Zuger stated that the Colfax Grange Supply property located north of the railroad tracks has historically supported, a train depot, a city park, a storage lot for an equipment sales company (Empire South of Spokane), prior to construction of the cardtrol fueling facility in 1985. According to Mr. Zuger, the existing UST system which replaced the 1985-vintage system in 2006 includes double-walled product lines, electronic inventory, and moisture-sensing leak detection systems.

Mr. Zuger stated that the Colfax Grange hardware store and warehouse building was built in the 1950s and was operated by McSweeney Tractor as a sales and service facility until the 1980s. He stated that the Colfax Grange Supply, which also owns the buildings to the east, purchased this property in the 1980s, but did not occupy the building until 1991. Mr. Zuger stated that three 300-gallon ASTs containing kerosene, stove oil, and solvent were installed along the north side of the Colfax Grange building in 1991 and removed in 2007. He stated that these ASTs were used for commercial farm sales. He stated that he was not aware what kind of solvent was contained within the former solvent AST.

Mr. Zuger stated that a gasoline UST that was located along the eastern margin of the building was closed-in-place in the 1970s, after which time the eastern portion of the existing building was constructed over the UST. Additionally, he stated that a heating oil UST was formerly situated to the west of the ASTs along the north side of the Colfax Grange building. Mr. Zuger stated that a 1,000- to 2,000-gallon capacity gasoline UST currently located near the northeast corner of the building was used for fueling fleet vehicles.

Mr. Zuger stated that five ASTs formerly located on the Colfax Gragnge Supply-owned property to the east of the Site served the fuel distribution center and were removed in the 1980s. He also indicated that a cardtrol fueling facility with four USTs operated on this property until they were removed in 1992.

A permit was drawn in 1985 to convert the grocery department of one of the Colfax Grange buildings to automotive service. A hand drawn plan in the file depicted two service bays and an oil storage area within the eastern portion of the building. According to Mr. Zuger, these improvements are located in building #2, which borders the current Colfax Grange hardware store and warehouse to the east. Mr. Zuger stated that the Colfax Grange plans to construct an addition to the west side of the Colfax Grange building in the near future.

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2400 Airport Way South, Suite 200
Seattle, Washington 98134-2020
Phone: (206) 306-1900
Fax: (206) 306-1907

TELEPHONE CONVERSATION RECORD

SES REP.: **Chuck Cacek** **DATE: October 27, 2009** **TIME:** 1100

CONTACT: Mr. Andy Rogers, Director (1-509-397-4606)

FIRM/AGENCY: Public Works, City of Colfax

PROJECT: **North Colfax Remedial Investigation**

SUBJECT: **Underground Utility Information**

DISCUSSION:

Mr. Rogers stated that the storm and sanitary sewer lines are about 6 to 8 feet deep, and water lines are 4 to 5 feet deep in the Site vicinity. Mr. Rogers stated that he would e-mail a map of the sewer utility. He indicated that he was not aware of the depth of other underground utilities, such as natiural gas or electric, and suggested that we contact Avista Utilities.

Mr. Rogers stated that the stormwater corridor along East Tyler Street directs runoff to the west across North Main Street to an outfall at Bellington Road, which, in turn, directs surface water into a ditch that outfalls at the Palouse River to the north.

Mr. Rogers stated that he was not aware of any significant public works projects in the Site vicinity in the near future.

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2400 Airport Way South, Suite 200
Seattle, Washington 98134-2020
Phone: (206) 306-1900
Fax: (206) 306-1907

TELEPHONE CONVERSATION RECORD

SES REP.: **Chuck Cacek** **DATE: October 30, 2009** **TIME:** 1400

CONTACT: **Mr. Chris Larson**

FIRM/AGENCY: Avista Utilities (509-397-3927)

PROJECT: **North Colfax Remedial Investigation**

SUBJECT: **Depth of underground natural gas and electrical utility lines in the project area.**

DISCUSSION:

We asked Mr. Larson what is the depth of burial of the underground natural gas and electric lines in the project vicinity. Mr. Larson stated that the natural gas lines are typically buried 30 inches bgs, and underground electrical lines are buried either 2 or 3 feet below ground surface (bgs), depending upon voltage. He stated that neither utility is typically buried with bedding materials. He also stated that to his knowledge, telephone underground utilities in the vicinity are not buried greater than 4 feet bgs.

APPENDIX C

Certified Sanborn® Fire Insurance Maps

Certified Sanborn® Map Report

Sanborn® Library search results
Certification # F3DE-418C-9C57

North Colfax Petroleum Contaminated Site
North Main Street/East Tyler Street
Colfax, WA 99111

Inquiry Number 2022620.3S

September 07, 2007

EDR® Environmental
Data Resources Inc

The Standard in Environmental Risk Information

440 Wheelers Farms Rd
Milford, Connecticut 06461

Nationwide Customer Service

Telephone:	1-800-352-0050
Fax:	1-800-231-6802
Internet:	www.edrnet.com

Certified Sanborn® Map Report

9/07/07

Site Name:
North Colfax Petroleum
North Main Street/East Tyler
Colfax, WA 99111

EDR Inquiry # 2022620.3S

Client Name:
Sound Environmental
2400 Airport Way South
Seattle, WA 98134-2020

Contact: Brett T. Carp

EDR® Environmental Data Resources Inc

The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by Sound Environmental Strategies were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name:	North Colfax Petroleum Contaminated Site
Address:	North Main Street/East Tyler Street
City, State, Zip:	Colfax, WA 99111
Cross Street:	
P.O. #	NA
Project:	0592-001-01
Certification #	F3DE-418C-9C57

Sanborn® Library search results
Certification # F3DE-418C-9C57

Maps Identified - Number of maps indicated within "( )"

1939 (1)
1922 (1)
1912 (1)
1908 (1)
1902 (1)
1899 (1)
1893 (1)

Total Maps: 7

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

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Site Name: North Colfax Petroleum Contaminated Site
Address: North Main Street/East Tyler Street
City, ST, ZIP: Colfax WA 99111
Client: Sound Environmental Strategies
EDR Inquiry: 2022620.3S
Order Date: 9/7/2007 10:55:23 AM
Certification # F3DE-418C-9C57
Research Associate: RAS
Copyright: 1939

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EDR Inquiry: 2022620.3S
Order Date: 9/7/2007 10:55:23 AM
Certification # F3DE-418C-9C57
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Copyright: 1922

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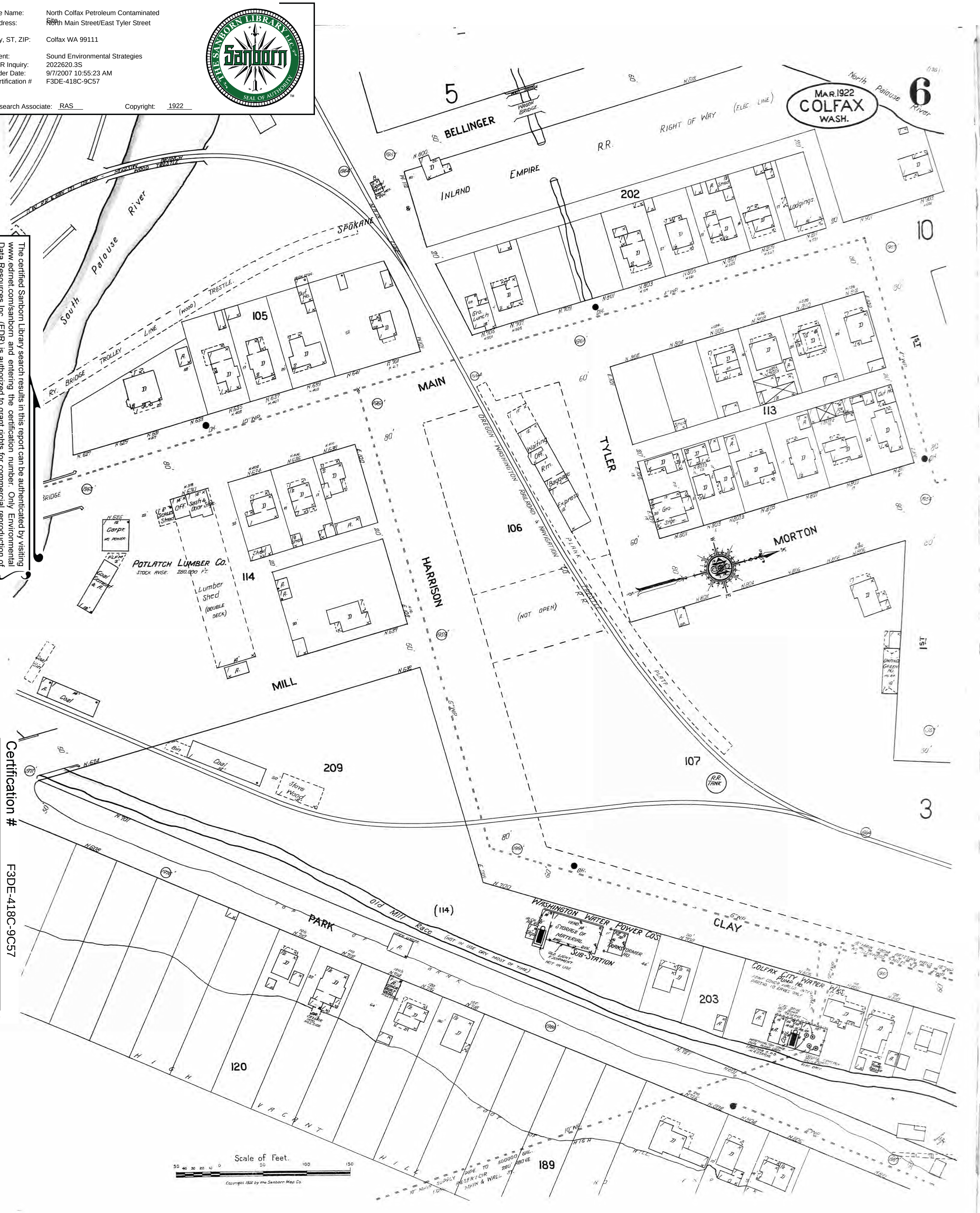
Certification # F3DE-418C-9C57



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Address: North Main Street/East Tyler Street

City, ST, ZIP: Colfax WA 99111

Client: Sound Environmental Strategies
EDR Inquiry: 2022620.3S
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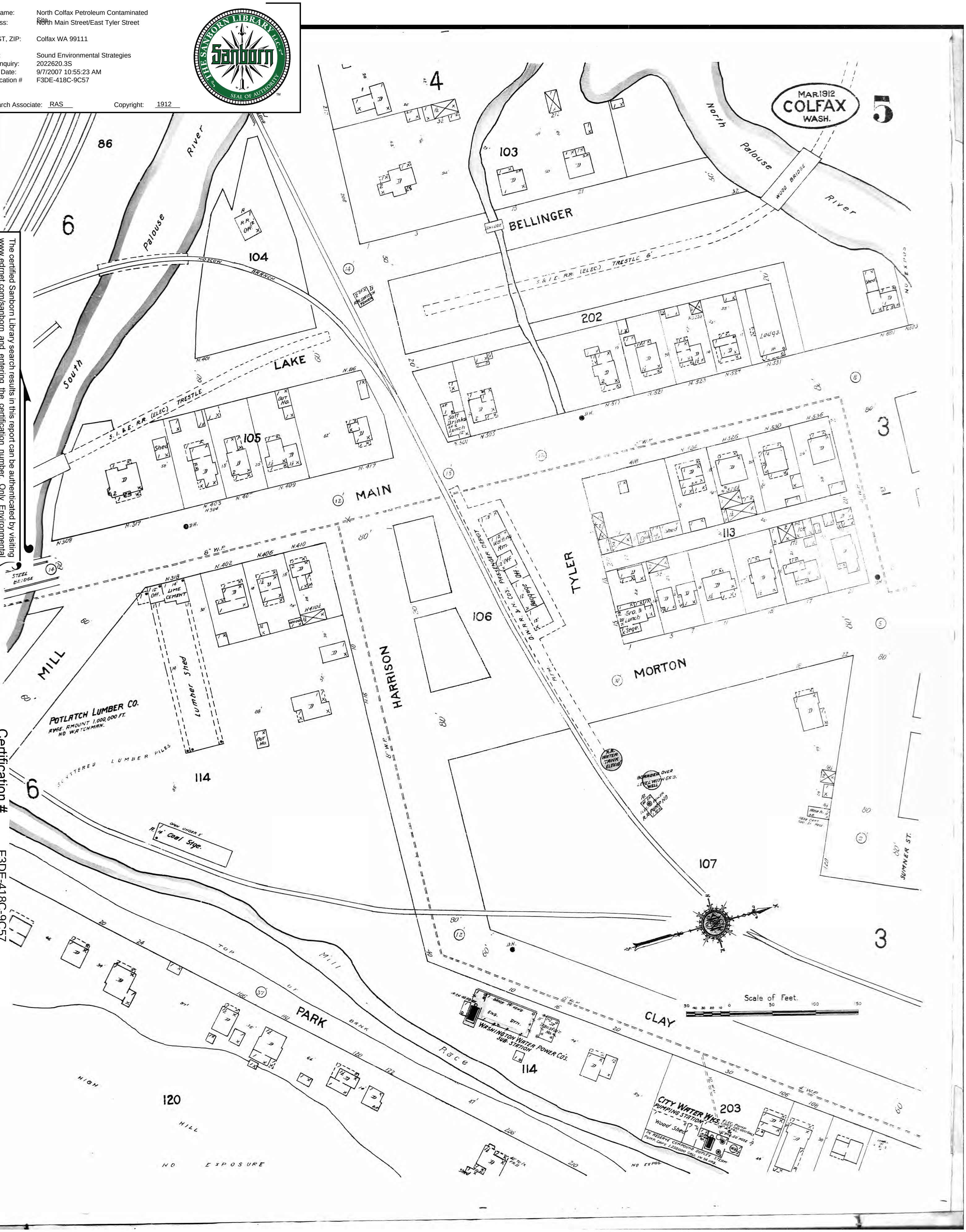
Research Associate: RAS
Copyright: 1912

Certification # F3DE-418C-9C57



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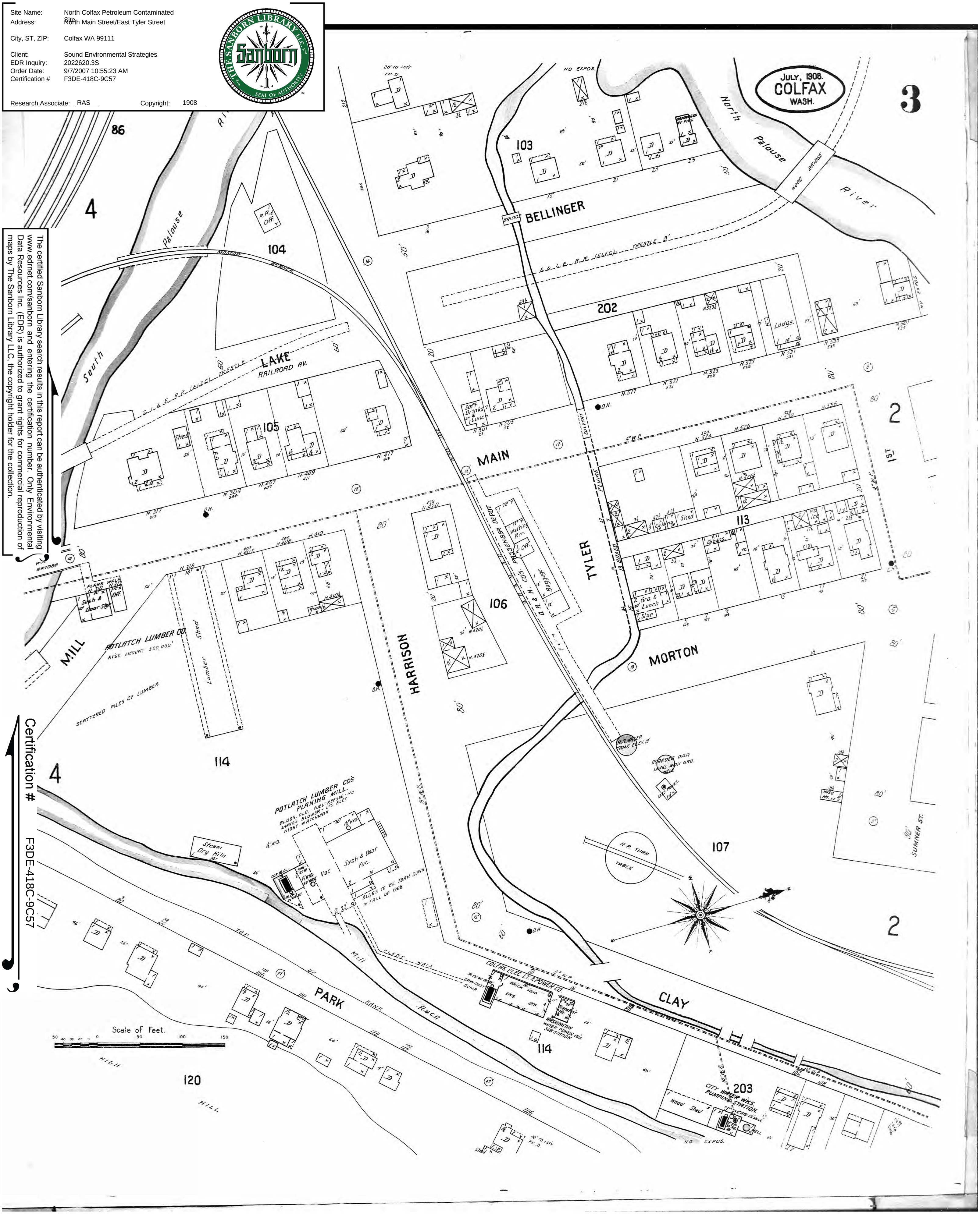

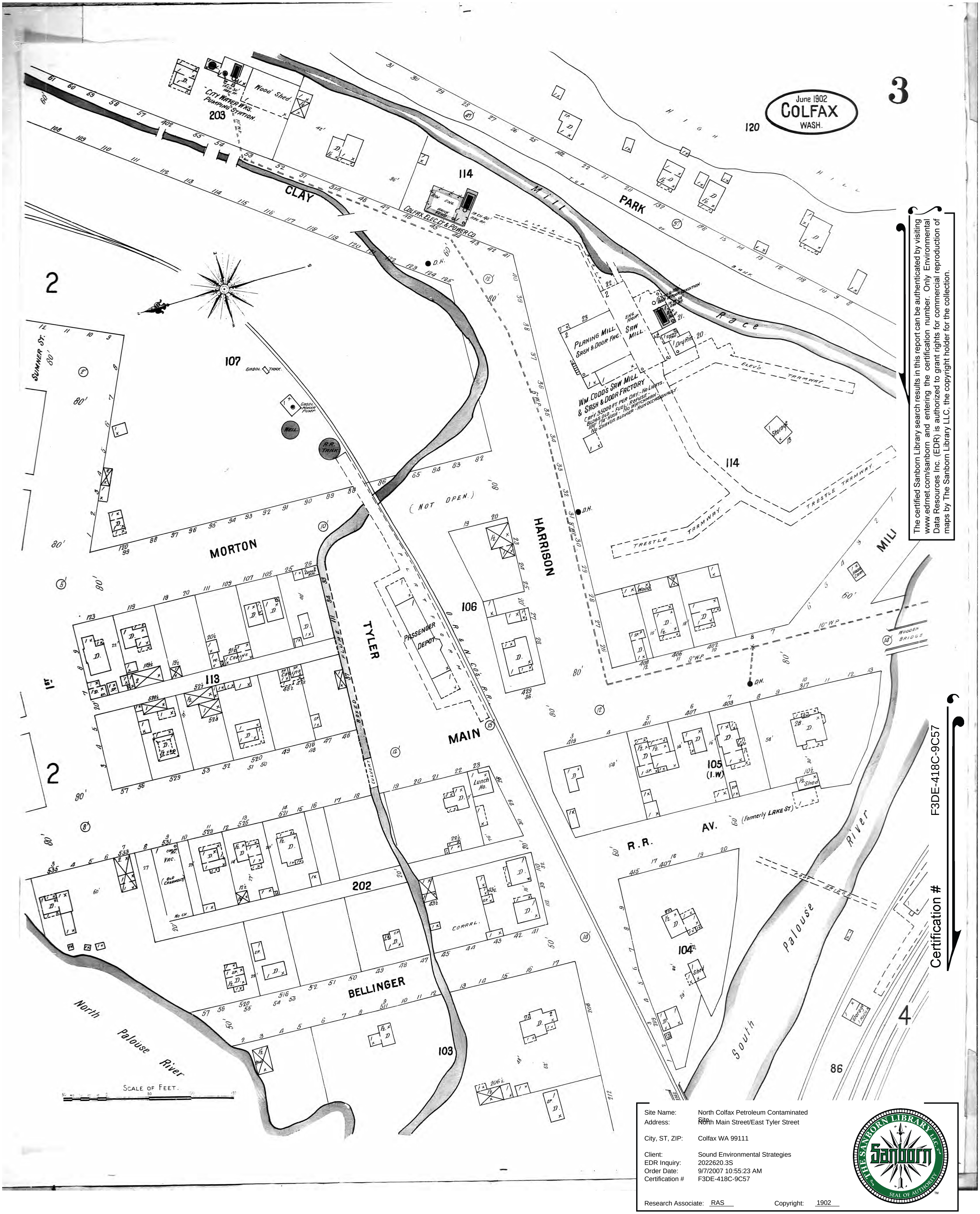

Certification # F3DE-418C-9C57

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City, ST, ZIP: Colfax WA 99111
Client: Sound Environmental Strategies
EDR Inquiry: 2022620.3S
Order Date: 9/7/2007 10:55:23 AM
Certification # F3DE-418C-9C57

Research Associate: RAS
Copyright: 1902

INDEX.

NOTE:- Water Facilities:- CITY WATERWKS. GRAVITY SYSTEM. WATER SUPPLIED TO PUMPING STATION BY GRAVITY THRO' A 14" VITRIFIED PIPE FROM NORTH FORK OF PALOUSE RIVER THEN PUMPED BY A WORTHINGTON D. STEAM PUMP, CAP CITY 1,000,000 GALS PER 24 HOURS, TO 600,000 GAL RESERVOIR CUT IN STONE & CEMENTED & LOCATED 212' ABOVE MAIN ST. AS SHOWN ON INDEX PLAN.
PRESSURE ABOUT 85 LBS. ON MAIN ST. - DIRECT PRESSURE.
ADDITIONAL. 10" 8" 6" & 4" MAINS - 47 DOUBLE HYDS.
6" FEEDERS - 42 GATES.

Fire Department: VOLUNTEER - 50 MEMBERS
1 SILSBY STEAMER No 5. NO HORSES.
1 PRESTON H. & L. TRUCK FULLY EQUIPPED.
4 HOSE CARTS 1800' GOOD RUBBER HOSE.

Fire Limits: SHOWN ON INDEX BY HEAVY RED LINE.

MAIN ST. LEVEL
LIGHTS: ELEC & COAL OIL.

SANBORN-PERRIS MAP CO. LIMITED
115 Broadway
NEW YORK.
Population: 3000.
1 Steam and No Hand Engine
3 Independent Hose Carts
Water Facilities: SEE NOTE.
Prevailing Winds: S.W.
COLFAX
WHITMAN CO. WASH.
FEB. 1899.
SCALE 50 FT TO AN INCH

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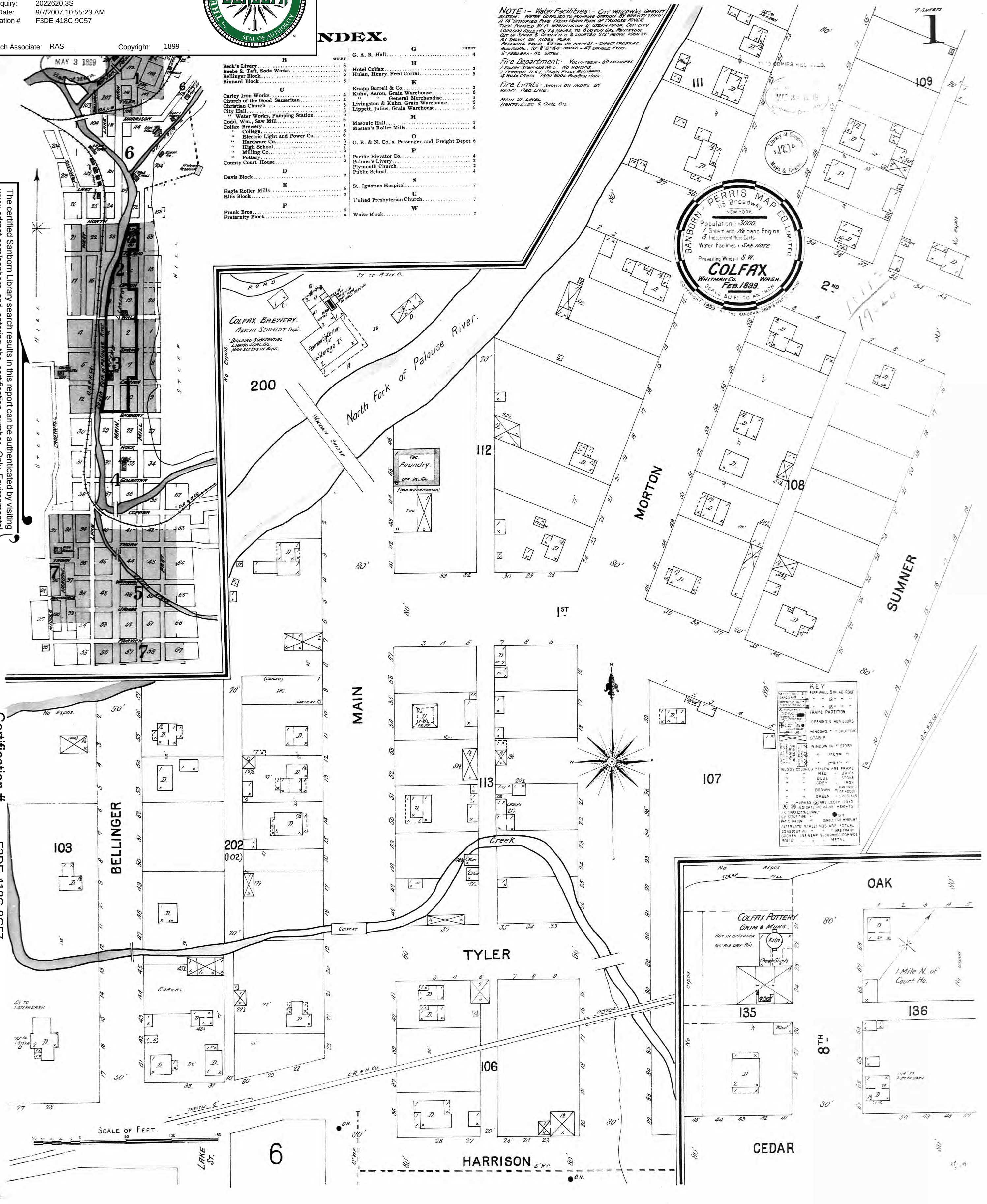

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City, ST, ZIP: Colfax WA 99111
Client: Sound Environmental Strategies
EDR Inquiry: 2022620.3S
Order Date: 9/7/2007 10:55:23 AM
Certification # F3DE-418C-9C57
Research Associate: RAS
Copyright: 1893

Certification # F3DE-418C-9C57

NDEX.

STREETS.

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" ....S. of Copper to Golgotha	4
" W. Side, Golgotha to Brewery	*4
Eighth,	1
Fairview, N. Side, Lake to E. of East	*5
" S. " " " " " "	*7
First,	1
Golgotha,	4
Harrison, N. Side,	*1
" S. "	*6
Island,	2
James, ...W. of Lake	7
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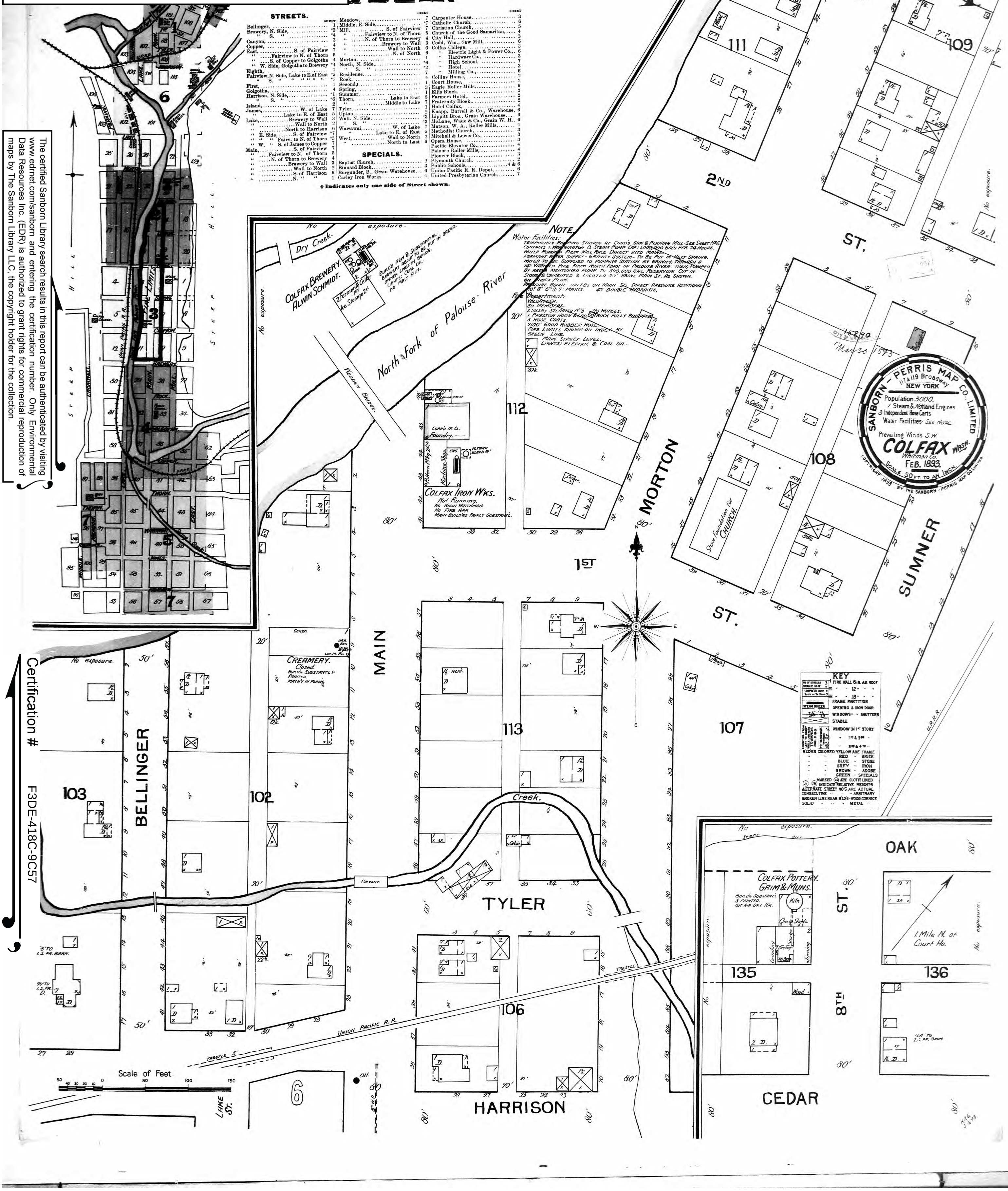
Lake, ...Brewery to Wall	3
" ....Wall to North	2
" ....North to Harrison	6
" E. Side, ...S. of Fairview	*7
" " " Fairv. to N. of Thorn	*5
" W. " S. of James to Copper	7
Main, ...S. of Fairview	7
" ....Fairview to N. of Thorn	5
" ....N. of Thorn to Brewery	4
" ....Brewery to Wall	3
" ....Wall to North	2
" ....S. of Harrison	6
" ....N. " "	1
Meadow,	7
Middle, E. Side,	*7
Mill, ...S. of Fairview	7
" ....Fairview to N. of Thorn	5
" ....N. of Thorn to Brewery	4
" ....Brewery to Wall	3
" ....Wall to North	6
" ....N. of North	6
Morton,	1
North, N. Side,	*6
" S. "	*2
Residence,	7
Rock,	4
Second,	1
Spring,	3
Summer,	1
Thorn, ...Lake to East	5
" ....Middle to Lake	7
Tyler,	1
Upton,	2
Wall, N. Side,	*3
" S. "	*3
Wawawai, ...W. of Lake	7
" ....Lake to E. of East	5
West, ...Wall to North	2
" ....North to Last	6

SPECIALS.

	SHEET
Baptist Church,	2
Binnard Block,	3
Burgunder, B., Grain Warehouse,	6
Carley Iron Works	4
Carpenter House,	3
Catholic Church,	6
Christian Church,	5
Church of the Good Samaritan,	4
City Hall,	3
Codd, Wm., Saw Mill,	6
Colfax College,	3
" Electric Light & Power Co.,	6
" Hardware Co.,	3
" High School,	7
" Hotel,	3
" Milling Co.,	6
Collins House,	2
Court House,	2
Eagle Roller Mills,	6
Ellis Block,	2
Farmers Hotel,	2
Fraternity Block,	2
Hotel Colfax,	4
Knapp, Burrell & Co., Warehouse,	6
Lippitt Bros., Grain Warehouse,	6
McLane, Wade & Co., Grain W. H.,	6
Matson, W. A., Roller Mills,	4
Methodist Church,	3
Mitchell & Lewis Co.,	3
Opera House,	3
Pacific Elevator Co.,	4
Palouse Roller Mills,	4
Pioneer Block,	3
Plymouth Church,	2
Public Schools,	4 & 6
Union Pacific R. R. Depot,	6
United Presbyterian Church,	7

* Indicates only one side of Street shown.



NOTE.

Water Facilities;
Temporary Pumping Station at Codd's Saw & Planing Mill - See Sheet No. 6.
Contains 1. Worthington D. Steam Pump Cap: 1.000,000 Gal's Per. 24 Hours.
Water Pumped From Mill Race Direct into Mains.
Permant Water Supply - Gravity System - To Be Put In Next Spring.
Water to Be Supplied to Pumping Station By Gravity, Through a 14" Vitrified Pipe From North Fork of Palouse River. Then, Pumped By Above Mentioned Pump To 600,000 Gal. Reservoir Cut In Stone & Cemented & Located 212' Above Main St. As Shown. On Index Plan.
Pressure About 100 Lbs. on Main St. Direct Pressure Additional
10" 8" 6" & 4" Mains. 47 Double Hydrants.

Fire Department:
Volunteer.
30 Members.
1. Silsby Steamer No. 5. No Horses.
1. Preston Hook & Lad. Truck Fully Equipped.
3 Hose Carts.
2100' Good Rubber Hose.
Fire Limits Shown on Index By Green Line.
Main Street Level.
Lights; Electric & Coal Oil.

SANBORN - PERRIS MAP CO. LIMITED
117 & 119 Broadway
NEW YORK
Population 3000.
1 Steam & No Hand Engines
3 Independent Hose Carts
Water Facilities - See Note.
Prevailing Winds S.W.
COLFAX WASH.
Whitman Co.
FEB. 1893.
Scale 50 ft. to an Inch.
Copyright 1893 by the Sanborn-Perris Map Co. Limited.

KEY
No. of Stories 3
Shingle Roof ×
Composite Roof ●
Slate or Tin Roof ○
Steam Boiler
I Fire Wall 6 in. ab. roof
II " " 12 " " "
III " " 18 " " "
Frame Partition
Opening & Iron Door
Windows - Shutters
Stable
Counting from left to right while looking towards building
Dot represents opening
Window in 1st story
" 1st & 3rd "
" 2nd & 4th "
B'ld'gs colored Yellow are Frame
" " Red " Brick
" " Blue " Stone
" " Grey " Iron
" " Brown " Adobe
" " Green " Specials
" Marked (04) are Cloth Lined
(5) (19) Indicate Relative Heights
Alternate Street No's are Actual
Consecutive " " " Arbitrary
Broken Line near B'ld'g - Wood Cornice
Solid " " " Metal

APPENDIX D

Boring and Test Pit Logs

Log of Exploratory Boring:

Notes

Drilling Co./Driller: Env. West / Marcus & Bill
Drilling Method: Push Probe
Location: 95 feet north/28 feet west of southern utility pole at 804 North Main Street
Surface Condition: ASPHALT
Total Depth: 14
First GW Depth: 7.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							FILL	2 inches of asphalt over gravel base. Damp, SILT, medium brown, no hydrocarbon odor.		
1										
2		0.2	60						damp	
3										
4										
5							ML	Grades from damp to wet, SILT, trace fine-grained sand, gray to black, trace organic odor, no hydrocarbon odor.		
6			75							
		0.1			SP-01-6.5-7.5					
7									▽ wet	
8										
9								Wet to saturated, GRAVEL, some silt and sand, dark gray, trace hydrocarbon odor.		
10			50						sat	
11		0.6			SP-01-11-12		GP			
12										
13		0.3	80		SP-01-13-14				wet/sat	
14								Boring refusal in gravel at 14 feet below ground surface. Boring backfilled with bentonite chips.		
15										
16										
17										
18										
19										
20										

SOUND ENVIRONMENTAL STRATEGIES
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N. Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

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Date Finished: 4/9/2008
Logged By: CCC
Chk By: JAC
SES Project No.: 0592-001
File ID.: P:\0592NO~1\TECHNI~1\GINTLO~1\0592_200903SI_SP01-SP17JAC.GPJ

BORING LOG
SP01

Page 1 of 1

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Env. West / Marcus & Bill
Drilling Method:	Push Probe
Location:	67 feet north/26 feet west of southern utility pole at 804 North Main Street
Surface Condition:	CONCRETE
Total Depth:	14
First GW Depth:	7.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							CONC	4 inches of concrete and gravel base.		
1								Moist to damp, SILT, trace to some fine-grained sand, dark gray to gray, hydrocarbon odor below 2 feet below ground surface (bgs), hydrocarbon odor becomes strong at 5 feet bgs.		
2			70						damp	
3		481			SP02-03-04					
4										
5							ML			
6			80						damp/wet	
7		1,750			SP02-07-08				▽	
8										
9										
10			70					Saturated, GRAVEL, some silt and sand, dark gray to black, trace to moderate hydrocarbon odor.	sat	
11										
12							GP			
13		17.3	100		SP02-13-14				sat	
14								Boring refusal in ground at 14 feet below ground surface. Boring backfilled with bentonite chips.		
15										
16										
17										
18										
19										
20										

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BORING LOG
SP02

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Env. West / Marcus & Bill
Drilling Method:	Push Probe
Location:	63 feet north/53 feet west of southern utility pole at 804 North Main Street
Surface Condition:	GRASS
Total Depth:	13
First GW Depth:	7.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
∇ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0				☒		▩		Wet, silty, fine-grained SAND (Fill).		
1						▩		SILT to sandy SILT, fine-grained sand, wood and charcoal fragments, no hydrocarbon odor (Fill).		
2		1.4	50			▩			damp	
3						▩	FILL			
4				☒		▩				
5						▩				
6			80			‖		Damp to wet, SILT, some fine-grained sand.	wet	
7		1.6			SP03-07-08	‖			∇	
8				☒		‖	ML	Minor organic odor detected, no hydrocarbon odor.		
9						‖		Organics with fine wood fragments, brown.		
10		1.4	90		SP03-10-11	‖			sat	
11						○		Saturated, GRAVEL, some silt and sand, gray, slight organic odor, no hydrocarbon odor.		
12		0.3	100	☒	SP03-12-13	○	GP		sat	
13								Boring refusal at 13 feet below ground surface. Boring backfilled with bentonite chips.		
14										
15										
16										
17										
18										
19										
20										

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BORING LOG
SP03

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Env. West / Marcus & Bill
Drilling Method:	Push Probe
Location:	31 feet north/57 feet west of southern utility pole at 804 North Main Street
Surface Condition:	GRASS
Total Depth:	13
First GW Depth:	7

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Lawn over moist, fine-grained SAND, brown, no odor (Fill).		
1								Moist, sandy GRAVEL, fine- to coarse-grained sand, charcoal and wood present, brown to black (Fill).		
2		0.8	45				FILL		mst	
3										
4								Damp to wet, SILT, some fine-grained sand, brick fragments present at 6.5 feet below ground surface.		
5										
6			80						dmp/wet	
7		89.2			SP04-07-08				▽	
8							ML	Wet to saturated, SILT, some fine-grained sand and organic fragments, brown, moderate hydrocarbon odor, hydrocarbon odor becomes strong at approximately 9 feet below ground surface.		
9										
10		218	80		SP04-10-11				wet/sat	
11										
12		3.0			SP04-12-13		GP	Saturated, GRAVEL, some silt and sand, dark gray to black, trace hydrocarbon odor.		
			100						sat	
13								Boring refusal at 13 feet below ground surface. Boring backfilled with bentonite chips.		
14										
15										
16										
17										
18										
19										
20										

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BORING LOG
SP04

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Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Env. West / Marcus & Bill
Drilling Method:	Push Probe
Location:	31 feet north/41 feet west of southern utility pole at 804 North Main Street
Surface Condition:	GRAVEL
Total Depth:	15
First GW Depth:	7.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0										
1								4 inches of landscaping gravel aggregate. Moist, sandy SILT, some gravel, silt rich inclusions, brown to black, no hyrdrocarbon odor (Fill).		
2		0.3	40				FILL		moist	
3										
4										
5										
6			70					Wet to saturated, sandy SILT, fine-grained sand, brown, trace hydrocarbon odor.	wet/sat	
7		557			SP05-07-08					
8							SM-ML	Sandy SILT, fine-grained sand, strong hyrdrocarbon odor below 7.5 feet below ground surface.	▽	
9										
10		504	85		SP05-10-11				sat	
11										
12								Saturated, GRAVEL, some silt, gray to black, brown oxidation at 14.5 feet below ground surface, trace hydrocarbon odor.		
13		1.9	100		SP05-13-14		GP		sat	
14										
15								Boring refusal at 15 feet below ground surface. Boring backfilled with bentonite chips.		
16										
17										
18										
19										
20										

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BORING LOG
SP05

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Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Env. West / Marcus & Bill
Drilling Method:	Push Probe
Location:	5 feet north/47 feet west of southern utility pole at 804 North Main Street
Surface Condition:	GRASS
Total Depth:	12
First GW Depth:	7

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Surface grass over wet to damp, loose gravelly SAND with silt, brick fragments present, brownish gray, no hydrocarbon odor (Fill).		
1										
2			25						damp	
3		0.3			SP06-03-04					
4								Moist to wet, sandy SILT, fine-grained sand, brown to black, no hydrocarbon odor (Fill).		
5							FILL			
6			25						mst/wet	
7		0.4			SP06-07-08				▽	
8								Saturated, silty, gravelly SAND, brownish gray, no hydrocarbon odor, yellow plastic (Fill).		
9										
10			60					Saturated, sandy GRAVEL with silt, fine- to coarse-grained sand, brown, no hydrocarbon odor.	sat	
11		0.4			SP06-11-12		GP			
12								Boring refusal at 12 feet below ground surface. Boring backfilled with bentonite chips.		
13										
14										
15										
16										
17										
18										
19										
20										

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BORING LOG
SP06

Log of Exploratory Boring:

Notes

Drilling Co./Driller: Env. West / Marcus & Bill
Drilling Method: Push Probe
Location: 63 feet north/48 feet east of southern utility pole at 804 North Main Street
Surface Condition: GRAVEL
Total Depth: 13.8
First GW Depth: 6

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Soil and gravel surfacing over moist, silty, gravelly SAND, fine- to coarse-grained sand, brick fragments present, brown to black and orange, no odor (Fill).		
1							FILL			
2			75						moist	
3		0.8			SP07-03-04			Moist, SILT, trace to some fine-grained sand, some fine organics, brown, no hydrocarbon odor. Becomes wet to saturated at approximately 6 feet below ground surface.		
4										
5							ML		moist	
6			85						▽	
7		0.6			SP07-07-08			Saturated, silty SAND, fine-grained sand, brown, no hydrocarbon odor.		
8										
9										
10		0.4	75				SM		sat	
11								Saturated, silty SAND, some gravel, fine-grained sand, angular gravel, dark gray, no hydrocarbon odor.		
12		0.3			SP07-12.5-13.5					
13			100				GP	Saturated, GRAVEL, some silt and sand, no hydrocarbon odor.	sat	
14								Boring refusal at 13.8 feet below ground surface. Boring backfilled with bentonite chips.		
15										
16										
17										
18										
19										
20										

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BORING LOG
SP07

Page 1 of 1

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Env. West / Marcus & Bill
Drilling Method:	Push Probe
Location:	33 feet south/4 feet west of southern utility pole at 804 North Main Street
Surface Condition:	ASPHALT
Total Depth:	15
First GW Depth:	6.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0				☒		▨		2 inches of asphalt over gravel base. Mixed silt, sand, and gravel to approximately 3.8 feet below ground surface, no hydrocarbon odor (Fill).		
1										
2		1.8	70				FILL		moist	
3										
4				☒		‖		Moist to wet, SILT, trace fine-grained sand, dark gray to black, diesel fuel odor.		
5		3.2			SP03-05-06					
6		1.6	75						sat ▽	
7							ML			
8		0.8		☒						
9										
10		0.4	60		SP03-10-11			Wet, SILT, olive gray, no hydrocarbon odor.	sat	
11						○		Saturated, GRAVEL, some sand and silt, black with some brownish gray, no odor.		
12				☒						
13		0.5	100		SP03-13-14		GP		sat	
14		0.4								
15								Boring refusal at 15 feet below ground surface. Boring backfilled with bentonite chips.		
16										
17										
18										
19										
20										

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BORING LOG
SP08

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Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Env. West / Marcus & Bill
Drilling Method:	Push Probe
Location:	48 feet south/12 feet west of southern utility pole at 804 North Main Street
Surface Condition:	CONCRETE
Total Depth:	15
First GW Depth:	7

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								4 inches of concrete over ground base, gravel with black silt, no hydrocarbon odor (Fill).		
1										
2		0.2	40				FILL		damp	
3										
4										
5								Moist to damp, SILT, dark gray, mild diesel fuel odor.		
6		0.4	75		SP09-06-07				damp	
7								Saturated at 7 feet below ground surface.	▽	
8							ML			
9		0.3			SP09-09-10			Grades to olive gray color.		
10			100						sat	
11								Saturated SILT, dark brown, no hydrocarbon odor.		
12								Saturated, GRAVEL with silt and sand, no hydrocarbon odor.		
13		0.2	70		SP09-12-14		GP-GM		sat	
14										
15								Boring terminated at 15 feet below ground surface. Boring backfilled with bentonite chips.		
16										
17										
18										
19										
20										

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BORING LOG
SP09

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Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Env. West / Marcus & Bill
Drilling Method:	Push Probe
Location:	48 feet south/87 feet east of southern utility pole at 804 North Main Street
Surface Condition:	CONCRETE
Total Depth:	15
First GW Depth:	6.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								4 inches of concrete over gravel base with black silt and sand (Fill).		
1							FILL			
2			60						damp	
3								Damp, SILT, trace fine-grained sand, dark gray, trace diesel-fuel odor.		
4										
5										
6		0.7 0.1	80		SP-10-05-06		ML		damp/wet ▽	
7								Wet, SILT, olive gray, trace diesel-fuel odor.		
8										
9		0.8			SP-10-09-10			Saturated, fine- to coarse-grained SAND, tannish gray, no hydrocarbon odor.		
10		0.3	70				SP		wet/sat	
11								Saturated, GRAVEL, some sand and silt, dark gray grading to brown, no hydrocarbon odor.		
12										
13			30				GP		sat	
14		0.0			SP-10-14-15					
15								Boring refusal at 15 feet below ground surface. Boring backfilled with bentonite chips.		
16										
17										
18										
19										
20										

SOUND ENVIRONMENTAL STRATEGIES
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N. Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Date Started: 4/10/2008
Date Finished: 4/10/2008
Logged By: CCC
Chk By: JAC
SES Project No.: 0592-001
File ID.: P:\0592NO~1\TECHNI~1\GINTLO~1\0592_200903SI_SP01-SP17JAC.GPJ

BORING LOG
SP10

Log of Exploratory Boring:

Notes

Drilling Co./Driller: Env. West / Marcus & Bill
Drilling Method: Push Probe
Location: 36 feet south/37 feet east of southern utility pole at 804 North Main Street
Surface Condition: ASPHALT
Total Depth: 14
First GW Depth: 7

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0										
1							FILL	2 inches of asphalt over gravel. Moist, gravelly SAND with silt, graded to sandy GRAVEL with silt, brown to black (Fill).		
2			70						moist	
3		2.4			SP-11-03-04			Moist, SILT with sand and gravel, fine-grained sand, some organic fragments, trace diesel-fuel odor.		
4										
5		7.6			SP-11-05-06			Damp to wet, SILT, trace fine-grained sand, trace organics, brown, trace diesel fuel odor.		
6		5.2	100				ML		wet	
7									▽	
8										
9										
		0.3			SP-11-09.5-10.5					
10		0.2	90						sat	
							SM-ML	Saturated, sandy SILT, brown, trace diesel-fuel odor.		
11										
							SP	Saturated, gravelly SAND, fine- to coarse-grained sand, brown, no hydrocarbon odor.		
12										
							GP	Saturated, GRAVEL, some silt and sand, dark gray, no hydrocarbon odor.		
13		0.2	100		SP-11-13-14				sat	
							SM	Saturated, silty SAND with gravel, dark gray, no hydrocarbon odor.		
14								Boring refusal at 14 feet below ground surface. Boring backfilled with bentonite chips.		
15										
16										
17										
18										
19										
20										

SOUND ENVIRONMENTAL STRATEGIES
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N. Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Date Started: 4/9/2008
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Logged By: CCC
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BORING LOG
SP11

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Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Env. West / Marcus & Bill
Drilling Method:	Push Probe
Location:	57 feet south/107 feet east of southern utility pole at 804 North Main Street
Surface Condition:	CONCRETE
Total Depth:	15
First GW Depth:	6.75

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								6 inches of concrete, gravel base with coarse asphalt (Fill).		
1										
2		0.4	60				FILL	SILT with gravel, bricks present, black, no hydrocarbon odor (Fill).	damp	
3										
4								Moist, SILT, trace fine-grained sand, no hydrocarbon odor.		
5										
6		1.1	65				ML			
		0.5			SP-12-0.65-08			Wet to saturated, SILT, trace sand, tannish gray, trace hydrocarbon odor.	▽	
7									wet	
8								Saturated, broken GRAVEL with medium- to coarse-grained sand.		
9							GW			
10		19.2	70		SP-12-10-12			Saturated SILT, some sand and gravel, gray.	sat	
11							ML			
12								Saturated, GRAVEL, some sand and silt, gray grading to brown, gasoline odor, no hydrocarbon odor below 13.8 feet below ground surface.		
13		24.3			SP-12-13-14		GP			
			80						sat	
14		3.4			SP-12-14-15					
15								Boring refusal at 15 feet below ground surface. Boring backfilled with bentonite chips.		
16										
17										
18										
19										
20										

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N. Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

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BORING LOG
SP12

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Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Env. West / Marcus & Bill
Drilling Method:	Push Probe
Location:	95 feet south/122 feet east of southern utility pole at 804 North Main Street
Surface Condition:	ASPHALT
Total Depth:	15.8
First GW Depth:	8

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0		0.3	5				FILL	2 inches of asphalt over coarse gravel base, over broken gravel with silt-rich inclusions, no hydrocarbon odor (Fill).	damp	
4		10.0	75		SP-13-05.5-08.5		ML	Damp to wet, SILT, trace fine-grained sand, dark brown grading to dark gray to black, no hydrocarbon odor.	damp	
8		0.0	90		SP-13-09-10		SM-ML	Saturated, sandy SILT, to silt with trace sand, fine-grained sand, no hydrocarbon odor.	▽ sat	
10							SP	Saturated, fine- to medium-grained SAND, oxidized brown, no hydrocarbon odor.		
11							ML	3-inches of oxidized SILT.		
12		0.1			SP-13-12.5-13.5		SP	SAND, fine-grained, oxidized brown, no hydrocarbon odor.		
13			100				ML	Wet to saturated, SILT, tannish brown, no hydrocarbon odor.	sat	
15							GP-GM	Saturated, GRAVEL with silt and fine-grained sand, no hydrocarbon odor.		
16								Boring refusal at approximately 15.8 feet below ground surface. Boring backfilled with bentonite chips.		

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N. Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Date Started: 4/10/2008
Date Finished: 4/10/2008
Logged By: CCC
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BORING LOG
SP13

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Env. West / Marcus & Bill
Drilling Method:	Push Probe
Location:	102 feet south/72 feet east of southern utility pole at 804 North Main Street
Surface Condition:	ASPHALT
Total Depth:	16
First GW Depth:	9

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0						▨		2 inches of asphalt over coarse gravel base, over moist SILT with sand and gravel, no hydrocarbon odor (Fill).		
1						▨				
2		0.3	75			▨	FILL		damp	
3						▨				
4		1.0			SP14-4.5-5.5	‖		Moist, SILT, trace fine-grained sand, dark gray, mild diesel-fuel odor.		
5						‖				
6			100			‖			moist	
7		1.5			SP14-07-08	‖	ML			
8						‖				
9						‖		Becoming moist to wet at 9 feet below ground surface, SILT, dark gray, trace diesel-fuel odor.	▽	
10		0.3	85			‖			moist/wet	
11						⁘		Wet to saturated, fine-grained SAND, trace to some silt, gray grading to brown, no hydrocarbon odor.		
12						⁘	SP			
13		0.1			SP14-13-14	⁘			wet/sat	
14		0.1	100			○		Saturated, GRAVEL some silt and sand, no hydrocarbon odor.		
15						○	GP			
16								Boring refusal at 16 feet below ground surface. Boring backfilled with bentonite chips.		
17										
18										
19										
20										

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N. Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Date Started: 4/10/2008
Date Finished: 4/10/2008
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BORING LOG
SP14

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Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Env. West / Marcus & Bill
Drilling Method:	Push Probe
Location:	120 feet south/11 feet east of southern utility pole at 804 North Main Street
Surface Condition:	ASPHALT
Total Depth:	16
First GW Depth:	9

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
∇ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0										
1							FILL	Asphalt over coarse gravel base, over gravel mixed with brown SILT (Fill).		
2		0.0	60						damp	
3										
4								Moist to damp, SILT, trace fine-grained sand and organics, dark gray, mild diesel-fuel odor at approximately 6.4 feet below ground surface.		
5										
6		2.5	60		SP15-06-07				damp	
7							ML			
8										
9								Wet, SILT, some fine-grained sand, gray, no hydrocarbon odor	∇	
10		6.4 0.3	75		SP15-10-11		SM-ML	Saturated, SILT to fine-grained sandy silt, gray, no hydrocarbon odor.	wet	
11										
12							SM	Saturated, silty SAND, fine-grained sand grading to medium- to coarse-grained at 13 feet below ground surface, gray, no hydrocarbon odor.		
13		0.1			SP15-13-14					
14		0.1	75					Saturated, GRAVEL, some silt and sand, no hydrocarbon odor.	sat	
15							GP			
16								Boring refusal at 16 feet below ground surface. Boring backfilled with bentonite chips.		
17										
18										
19										
20										

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N. Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Date Started: 4/10/2008
Date Finished: 4/10/2008
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SES Project No.: 0592-001
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BORING LOG
SP15

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Env. West / Marcus & Bill
Drilling Method:	Push Probe
Location:	78 feet south/40 feet west of southern utility pole at 804 North Main Street
Surface Condition:	ASPHALT
Total Depth:	16
First GW Depth:	9.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0				☒		▩		2 inches of asphalt over coarse gravel base, over gravel mixed with silt and sand (Fill).		
1						▩				
2		0.0	60			▩			damp	
3						▩				
4				☒		▩	FILL			
5						▩				
6		0.2	20			▩			damp	
7						▩		Moist, SILT with broken and angular gravel, asphalt present, no hydrocarbon odor (Fill).		
8				☒		▥		Wet to saturated, SILT with fine-grained sand, gray, no hydrocarbon odor.		
9		0.2			SP16-09.5-10.5	▥			▽	
10			70			▥	ML		wet	
11						▥				
12				☒		○		Saturated, GRAVEL, some silt and fine-grained sand, dark gray grading to brown at 15 feet below ground surface, no hydrocarbon odor.		
13		0.0			SP16-13-14	○				
14			100			○	GP		sat	
15						○				
16								Boring refusal 16 feet below ground surface. Boring backfilled with bentonite chips.		
17										
18										
19										
20										

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N. Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Date Started: 4/10/2008
Date Finished: 4/10/2008
Logged By: CCC
Chk By: JAC
SES Project No.: 0592-001
File ID.: P:\0592NO~1\TECHNI~1\GINTLO~1\0592_200903SI_SP01-SP17JAC.GPJ

BORING LOG
SP16

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Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Env. West / Marcus & Bill
Drilling Method:	Push Probe
Location:	2 feet south/16 feet east of southern utility pole at 804 North Main Street
Surface Condition:	CONCRETE
Total Depth:	13
First GW Depth:	6.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							FILL	4 inches of concrete over gravel base (Fill).		
1										
2		0.2	30					Moist, SILT, trace fine-grained sand, brown, no hydrocarbon odor.	moist	
3										
4										
5							ML			
6		0.3	65		SP17-06-07			Wet to saturated, SILT, trace fine-grained sand, brown, no hydrocarbon odor.	wet ▽	
7									wet/sat	
8										
9								Saturated, silty SAND with gravel, fine-grained sand, 3 inches of broken gravel with sand, no hydrocarbon odor.		
10		0.2	75		SP17-10-11		SP-SM		sat	
11										
12							GP	Saturated, GRAVEL with silt and sand, no hydrocarbon odor.		
13								Boring refusal at 13 feet below ground surface. Boring backfilled with bentonite chips.		
14										
15										
16										
17										
18										
19										
20										

SOUND ENVIRONMENTAL STRATEGIES
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N. Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Date Started: 4/9/2008
Date Finished: 4/9/2008
Logged By: CCC
Chk By: JAC
SES Project No.: 0592-001
File ID.: P:\0592NO~1\TECHNI~1\GINTLO~1\0592_200903SI_SP01-SP17JAC.GPJ

BORING LOG
SP17

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Log of Exploratory Boring:

Notes

Drilling Co./Driller: NRC
Drilling Method: Backhoe
Location: 193 feet south/35 feet west of southern utility pole at 804 North Main Street
Surface Condition: Grass Lawn
Total Depth: 12
First GW Depth: 9

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Surface grass over loose, moist, SILT, some Basalt rubble, brown to grayish brown, no hydrocarbon odor (Fill).		
1										
2							FILL		Mst	
3										
4		1.4			TP01-04			Moist, SILT, trace to some clay, dark brownish gray, no hydrocarbon odor.		
5										
6		1.9								
7		0.8			TP01-07		ML		Mst	
8										
9									▽	
10		219			TP01-10			Wet, fine- to medium-grained SAND interbedded with fine-grained sandy SILT, stained gray, moderate to strong hydrocarbon odor.		
11							SP-SM		Wet	
12		4,732			TP01-12					
13								Test pit terminated at 12 feet below ground surface, impacted soil from test pit stockpiled on plastic sheeting. Test pit backfilled with clean overburden soil and imported pea gravel.		
14										
15										

SOUND ENVIRONMENTAL STRATEGIES
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NCPC Site
North Main Street and East Tyler Street
Colfax, Washington

Date Started: 3/2/2009
Date Finished: 3/2/2009
Logged By: CCC/JAB
Chk By: JAC
SES Project No.: 0592-001
File ID.: P:\0592NO~1\TECHNI~1\GINTLO~1\0592_TEST PITS_JAC.GPJ

BORING LOG
TP01

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Log of Exploratory Boring:

Notes

Drilling Co./Driller:	NRC
Drilling Method:	Backhoe
Location:	216 feet south/22 feet west of southern utility pole at 804 North Main Street
Surface Condition:	Grass Lawn
Total Depth:	12.5
First GW Depth:	9

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Surface grass over moist, fine-grained sandy SILT, some Basalt rubble to 1-inch diameter, no hydrocarbon odor (Fill).		
1										
2							FILL		Mst	
3										
4		1.4			TP02-04			Moist, SILT, trace to some clay, trace fine-grained sand, tannish brown, no hydrocarbon odor. Wet at 9-feet below ground surface.		
5										
6									Dmp-Mst	
7		1.3			TP02-07					
8							ML			
9									▽	
		0.9								
10										
		3,903			TP02-9.5			Grades to stained gray, strong hydrocarbon odor	Wet	
11										
12					TP02-10.5		SM-ML	Wet, fine-grained sandy SILT to silty fine-grained SAND with silt-rich zones, stained gray, strong hydrocarbon odor.	Wet	
		4,701			TP02-12.5					
13								Test pit terminated at 12.5 feet below ground surface. Test pit backfilled with clean overburden and imported pea gravel.		
14										
15										

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NCPC Site
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Colfax, Washington

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BORING LOG
TP02

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Log of Exploratory Boring:

Notes

Drilling Co./Driller:	NRC
Drilling Method:	Backhoe
Location:	175 feet south/25 feet west of southern utility pole at 804 North Main Street
Surface Condition:	Grass Lawn
Total Depth:	12.5
First GW Depth:	9.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Surface grass over SILT, some clay and Basalt rubble, minor oxidation, tannish brown, no hydrocarbon odor (Fill).		
1							FILL		Mst	
2										
3								Moist, SILT, some clay, trace fine-grained sand, tannish brown, no hydrocarbon odor.		
4		0.7			TP03-04'					
5										
6										
7							ML	Damp to moist, brown, no hydrocarbon odor.		
		1.1			TP03-7.5'				Dmp-Mst	
8										
9									▽	
10		1.1			TP03-10.0'			Grades to wet, tanish-brown, no hydrocarbon odor.	Wet	
11					TP03-11		CL-ML	Sharp contact at 11 feet below ground surface, wet, clayey SILT, stained gray, moderate hydrocarbon odor.		
12		120			TP03-12.5		ML	Wet, SILT, some sand and sand-rich interbeds, water seepage with minor sheen at the base of the pit, strong hydrocarbon odor.		
13								Test pit terminated at 12.5 feet below ground surface. Test pit backfilled with clean overburden and imported pea gravel.		
14										
15										

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NCPC Site
North Main Street and East Tyler Street
Colfax, Washington

Date Started: 3/2/2009
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BORING LOG
TP03

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Log of Exploratory Boring:

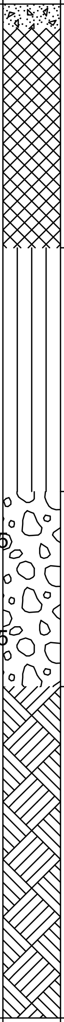
Notes

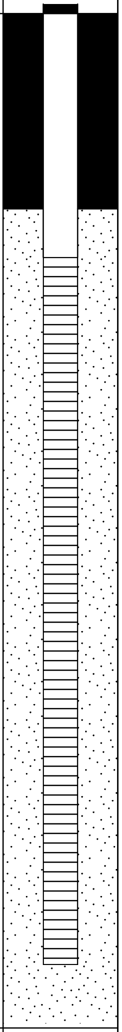
Drilling Co./Driller:	Env. West / Tim & Ron
Drilling Method:	Push Probe/Air Rotary
Location:	213 feet North/105 feet West of the southern utility pole at 804 North Main Street
Surface Condition:	Concrete
Total Depth:	20.8
First GW Depth:	7.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
∇ During Drilling





Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Concrete		
1								Gravel base over moist, SILT with sand and gravel, no hydrocarbon odor (Fill).		
2									Mst	
3		6.9	60		3'-4'		FILL			
5										
6		4.2	100		6'-7'			Moist, SILT with fine-grained sand, no hydrocarbon odor.		
7		3.7			B13-7-8-1630		ML		∇	
8								Becomes saturated.		
10									Sat	
11		5.4	60		B13-11-12-1645			Saturated, fine- to coarse-grained sandy GRAVEL, some silt, broken gravel at base, no hydrocarbon odor.		
12							GP			
13					B13-13-14-1655			Saturated, medium- to coarse-grained sandy GRAVEL over silty, fine- to medium-grained sandy GRAVEL.		
14								Drilling refusal at 14 feet below ground surface. Unweathered bedrock.		
22								Drilled using a push probe to approximately 14 feet below ground surface, overdrill with limited access air rotary rig to approximately 20.8 feet below ground surface. Two-inch-diameter monitoring well MW13 installed, 0.01-inch screen from screened from approximately 5 to 19.5 feet below ground surface.		

SOUND ENVIRONMENTAL STRATEGIES
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N. Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Date Started: 6/2/2008
Date Finished: 6/4/2008
Logged By: CCC
Chk By: JAC
SES Project No.: 0592-001

BORING LOG
B13/MW13

Log of Exploratory Boring:

Notes

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
∇ During Drilling

Drilling Co./Driller: Env. West / Tim & Ron
Drilling Method: Push Probe
Location: 60 feet North/122 feet West of the southern utility pole at 804 North Main Street
Surface Condition: Asphalt
Total Depth: 14.5
First GW Depth: 7.5

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt		
1							SM-ML	Minor gravel base over damp to wet, fine-grained sandy SILT with gravel, brown and black, no hydrocarbon odor.		
2									Mst	
3		5.2	60		3'-4'					
4							SP	Gravelly, medium- to coarse-grained SAND.		
5										
6								Damp-wet, SILT with fine-grained sand and gravel, dark gray with some brown, no hydrocarbon odor.		
7		6.4	30		B14-7-8-1745				∇	
8							ML			
9										
10									Sat	
11		702	30		B14-11-12-1755			Saturated, fine- to coarse-grained sandy GRAVEL, trace silt, stained gray, strong hydrocarbon odor, at 13 to 14 feet below ground surface (bgs), weak hydrocarbon odor.		
12							GW			
13		10.1	80		B14-13-14-1805					
14										
15								Boring refusal at 14.5 feet bgs. Boring backfilled with bentonite.		
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										

SOUND ENVIRONMENTAL STRATEGIES
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N. Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Date Started: 6/2/2008
Date Finished: 6/2/2008
Logged By: CCC
Chk By: JAC
SES Project No.: 0592-001

BORING LOG
B14

Log of Exploratory Boring:

Notes

Drilling Co./Driller: Env. West / Tim & Ron
Drilling Method: LAR Air Rotary
Location: 62 feet North/127 feet West of the southern utility pole at 804 North Main Street
Surface Condition: Asphalt/concrete
Total Depth: 18
First GW Depth: 7.5

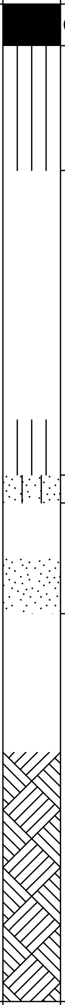
Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

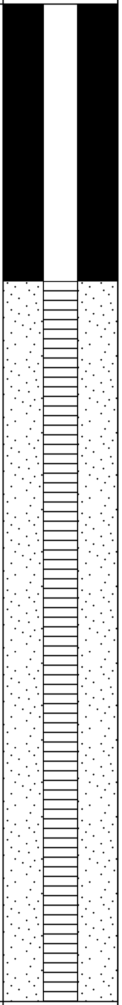
Water Levels
▼ After Completion
∇ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	USCS Class	Description	Moisture Content
0						CONC	Asphalt (2 inches) over concrete (6 inches)	
1						ML	Moist, SILT, some clay, brown, no hydrocarbon odor (soil cuttings). Hand dug to 3 feet below ground surface.	
3								
4								Mst
6								Wet
7.5	2 1 4	4,429	90	☒	B14A-07.5	ML	Wet, soft, SILT, some clay, trace fine-grained sand, stained gray, strong hydrocarbon odor.	∇
9						SM	Saturated, very loose, silty, fine-grained SAND, stained gray, strong hydrocarbon odor.	
10	22 50/5"	4,553	70	☒	B14A-10.0	SP	Saturated, medium dense, gravelly, fine- to coarse-grained SAND, some silt, stained gray, strong hydrocarbon odor with obvious sheen.	Mst
12.5	38 50/5"		10	☒			No recovery.	
13.5							Unweathered bedrock.	
18							Drilled using a push probe to approximately 13.5 feet below ground surface, overdrill with limited access air rotary rig to approximately 18 feet below ground surface. Two-inch-diameter monitoring well MW14 installed, 0.01-inch screen from screened from approximately 5 to 18 feet below ground surface.	

Lithography



Well Detail



SOUND ENVIRONMENTAL STRATEGIES
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N. Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Date Started: 3/3/2009
Date Finished: 3/3/2009
Logged By: CCC/JAB
Chk By: JAC
SES Project No.: 0592-001

BORING LOG
B14A/MW14

Log of Exploratory Boring:

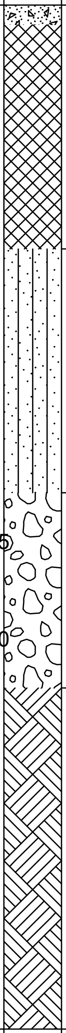
Notes

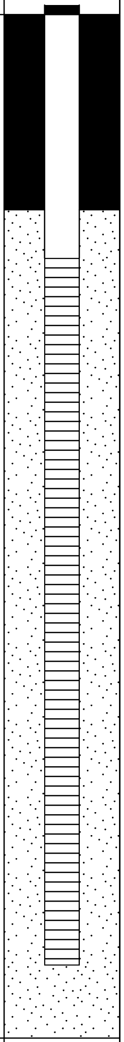
Drilling Co./Driller:	Env. West / Tim & Ron
Drilling Method:	Push Probe/Air Rotary
Location:	40 feet South/20 feet West of the southern utility pole at 804 North Main Street
Surface Condition:	Concrete
Total Depth:	21
First GW Depth:	10

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling





Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Concrete		
0–5		5.1	70	2–4	3'-4'		FILL	Moist, fine-grained sandy SILT to silty, fine-grained SAND, charcoal-like layerat 3.3 to 3.5 feet below ground surface (Fill).	Mst	
5–10		5.0	30	4–8	B15-7-8-1715		SM-ML	Moist, fine-grained sandy SILT, some gravel, brown, no hydrocarbon odor.		
10–14		6.8	40	8–12	B15-11-12-1725		GP	Saturated, fine- to coarse-grained sandy GRAVEL, some silt, tannish-brown, no hydrocarbon odor.	▽ Sat	
		7.0	100	12–14	B15-13-14-1730			Saturated, fine-grained sandy GRAVEL, trace silt, broken gravel, gray, no hydrocarbon odor. Refusal at 14 feet below ground surface.		
14–21								Bedrock.		
21–25								Drilled using a push probe to approximately 14 feet below ground surface, overdrill with limited access air rotary rig to approximately 21 feet below ground surface. Two-inch-diameter monitoring well MW15 installed, 0.01-inch screen from screened from approximately 5 to 19.5 feet below ground surface.		

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N. Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Date Started: 6/2/2008
Date Finished: 6/4/2008
Logged By: CCC
Chk By: JAC
SES Project No.: 0592-001

BORING LOG
B15/MW15

Log of Exploratory Boring:

Notes

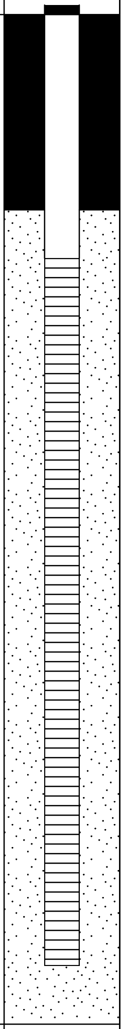
Drilling Co./Driller:	Env. West / Tim & Ron
Drilling Method:	Push Probe/Air Rotary
Location:	148 feet South/30 feet West of the southern utility pole at 804 North Main Street
Surface Condition:	Grass
Total Depth:	20.7
First GW Depth:	8.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Lawn.		
1								Crushed rock over moist, silty, gravelly SAND, some broken asphalt (Fill).		
2							FILL		Mst	
3		3.0	80		3'-4'			Damp to moist, SILT, some fine-grained sand, brown, charcoal-type material from approximtely 3.8 to 4 feet below ground surface (fill).		
4								Moist, SILT, trace fine-grained sand, tannish-brown, no hydrocarbon odor.		
5										
6		0.0	60		B16-6-7-1050					
7		0.0								
8									▽	
9							ML			
10								Wet to saturated, SILT, some fine-grained sand, brown, no hydrocarbon odor.		
11		25.8	80		B16-11-12-1105			Stained gray, weak hydrocarbon odor.	Sat	
12								No hydrocarbon odor from 12 to approximately 13.4 feet below ground surface.		
13										
14			95		B16-14-15-1110		SM-ML	Saturated, fine-grained sandy SILT to silty, fine-grained SAND, gray, no hydrocarbon odor.		
15							GP	Saturated, silty, medium- to coarse grained SAND, some gravel. GRAVEL dominant from 15 feet below ground surface.		
16										
17								Unweathered bedrock.		
18										
19										
20										
21										
22								Drilled using a push probe to approximately 16.5 feet below ground surface, overdrill with limited access air rotary rig to approximately 20.7 feet below ground surface. Two-inch-diameter monitoring well MW16 installed, 0.01-inch screen from screened from approximately 5 to 19.5 feet below ground surface.		
23										
24										
25										



SOUND ENVIRONMENTAL STRATEGIES
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N. Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Date Started: 6/2/2008
Date Finished: 6/3/2008
Logged By: CCC
Chk By: JAC
SES Project No.: 0592-001

BORING LOG
B16/MW16

Log of Exploratory Boring:

Notes

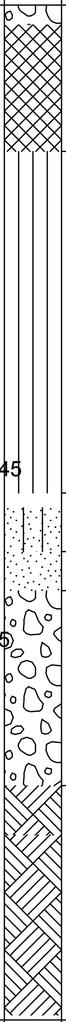
Drilling Co./Driller:	Env. West / Tim & Ron
Drilling Method:	Push Probe/Air Rotary
Location:	138 feet South/28 feet East of the southern utility pole at 804 North Main Street
Surface Condition:	Gravel
Total Depth:	20.8
First GW Depth:	9.5

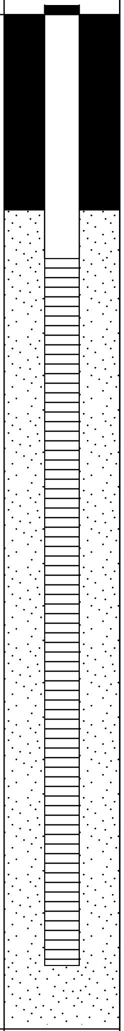
Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
∇ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0										
1							FILL	Gravel surfacing. Moist, gravelly, fine-grained SAND, some concrete and asphalt (Fill).		
2									Dp	
3		0.0	90		3'-4'					
4							ML	Moist, SILT, some fine-grained sand, dark gray, no hydrocarbon odor.		
5										
6		0.0	75		B17-6-7-1140					
7		0.0			7'-8'			Trace hydrocarbon odor at 7 feet below ground surface.		
8										
9								Moist becoming wet at 9 to 9.5 feet below ground surface, SILT, some fine-grained sand, dark gray, no hydrocarbon odor.	∇	
		0.0	90		B17-9.5-10.5-1145					
10										
11							SM	Wet, silty, fine-grained SAND, brown, no hydrocarbon odor.		
12							SP	Wet to saturated, gravelly fine- to coarse-grained SAND, no hydrocarbon odor.		
13		0.0	90		B17-13-14-1155		GP	Saturated, fine- to coarse-grained sandy GRAVEL to gravelly SAND, brown, no hydrocarbon odor.	Sat	
14										
15										
16								Fractured bedrock.		
17								Basalt bedrock.		
18										
19										
20										
21								Drilled using a push probe to approximately 16 feet below ground surface, overdrill with limited access air rotary rig to approximately 20.8 feet below ground surface. Two-inch-diameter monitoring well MW17 installed, 0.01-inch screen from screened from approximately 5 to 19.5 feet below ground surface.		
22										
23										
24										
25										





SOUND ENVIRONMENTAL STRATEGIES
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N. Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Date Started: 6/2/2008
Date Finished: 6/3/2008
Logged By: CCC
Chk By: JAC
SES Project No.: 0592-001

BORING LOG
B17/MW17

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Log of Exploratory Boring:

Notes

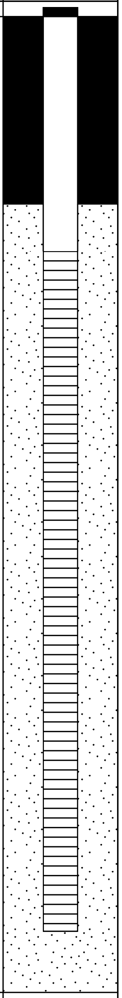
Drilling Co./Driller:	Env. West / Tim & Ron
Drilling Method:	Push Probe/Air Rotary
Location:	125 feet South/70 feet East of the southern utility pole at 804 North Main Street
Surface Condition:	Gravel
Total Depth:	20.8
First GW Depth:	10.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
∇ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Gravel.		
1								Moist, sandy GRAVEL with coal-like fragments (Fill).		
2							FILL			
3		0.0	75		3'-4'				Mst	
4								Moist, SILT, some fine-grained sand, dark brown, no hydrocarbon odor.		
5										
6		0.0	80		B18-6-7-1220					
7		0.0			6'-7'		ML			
8										
9										
10									∇	
11		0.0	90		B18-11-12-1230					
12							SP-SM	Saturated, fine- to medium-grained SAND, some silt to silty SAND, brown, no hydrocarbon odor.		
13		0.0	90		B18-13-14-1235					
14									Sat	
15							SM	Saturated, silty SAND with gravel, gray. No hydrocarbon odor. Boring refusal at 15.5 feet below ground surface.		
16								Basalt bedrock.		
17										
18										
19										
20										
21										
22								Drilled using a push probe to approximately 15.5 feet below ground surface, overdrill with limited access air rotary rig to approximately 20.8 feet below ground surface. Two-inch-diameter monitoring well MW18 installed, 0.01-inch screen from screened from approximately 5 to 19.5 feet below ground surface.		
23										
24										
25										
26										



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N. Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Date Started: 6/2/2008
Date Finished: 6/3/2008
Logged By: CCC
Chk By: JAC
SES Project No.: 0592-001

BORING LOG
B18/MW18

Log of Exploratory Boring:

Notes

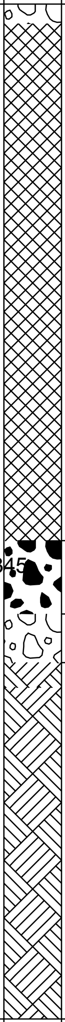
Drilling Co./Driller: Env. West / Tim & Ron
Drilling Method: Push Probe/Air Rotary
Location: 128 feet South/132 feet East of the southern utility pole at 804 North Main Street
Surface Condition: Gravel
Total Depth: 20.8
First GW Depth: 8

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

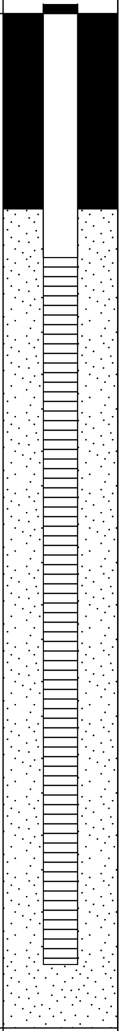
Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
∇ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content
0–1								Gravel. Moist, gravelly SAND (Fill).	
3		0.0			3'-4'				
4								Wet, SILT with gravel, grayish-brown, hydrocarbon odor at 5 feet below ground surface (Fill).	
6		0.0			B19-6-7-1305		FILL		
7								Moist to wet, SILT, some fine-grained sand and gravel, no hydrocarbon odor (Fill).	
8					B19-7-8-1320				∇
10		0.0	30						
11								Minor hydrocarbon odor at 10 feet below ground surface.	
11.5		0.0	100		B19-11.5-12.5-1345		GW	Saturated, GRAVEL, some with silt and sand, no hydrocarbon odor.	
13							GP	Saturated, gravelly, fine- to coarse-grained SAND to sandy GRAVEL, brown, no hydrocarbon odor.	
14								Weathered bedrock. Boring refusal at 14 feet below ground surface. Basalt bedrock.	



Well Detail



Drilled using a push probe to approximately 14 feet below ground surface, overdrill with limited access air rotary rig to approximately 20.8 feet below ground surface. Two-inch-diameter monitoring well MW19 installed, 0.01-inch screen from screened from approximately 5 to 19.5 feet below ground surface.

SOUND ENVIRONMENTAL STRATEGIES
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N. Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Date Started: 6/2/2008
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Chk By: JAC
SES Project No.: 0592-001

BORING LOG
B19/MW19

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Log of Exploratory Boring:

Notes

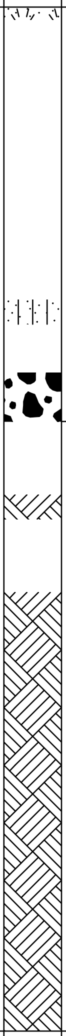
Drilling Co./Driller:	Env. West / Tim & Ron
Drilling Method:	LAR Air Rotary
Location:	111 feet North/166 feet East of the southern utility pole at 804 North Main Street
Surface Condition:	Grass
Total Depth:	21
First GW Depth:	7

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

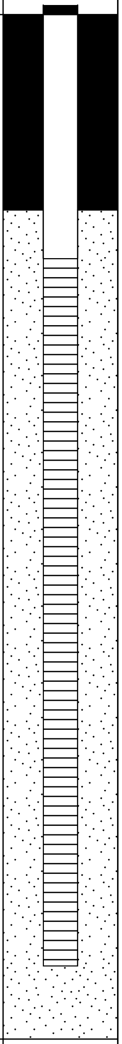
Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content
0								Lawn.	
3									Mst
6		0.0	100		B20-6.0-1755		SM-ML	Moist to wet, silty fine-grained SAND grading to fine sandy SILT.	Wet
7									▽
7.5					B20-7.5-1805				
8	38 50/5	0.0	75				GW	Saturated, medium dense, GRAVEL, some fine- to coarse-grained sand, trace silt, no hydrocarbon odor.	
10	50/1		0					Weathered bedrock.	
12								Basalt bedrock.	



Well Detail



Drilled using a limited access air rotary rig to approximately 21 feet below ground surface. Two-inch-diameter monitoring well MW20 installed, 0.01-inch screen from screened from approximately 5 to 19.5 feet below ground surface.

SOUND ENVIRONMENTAL STRATEGIES
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N. Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Date Started: 6/4/2008
Date Finished: 6/4/2008
Logged By: CCC
Chk By: JAC
SES Project No.: 0592-001

BORING LOG
B20/MW20

Page 1 of 1

Log of Exploratory Boring:

Notes

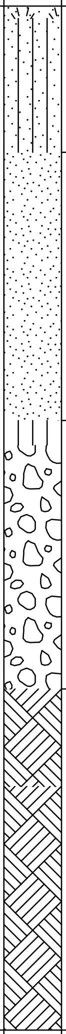
Drilling Co./Driller:	Env. West / Tim & Ron
Drilling Method:	Push Probe/Air Rotary
Location:	2 feet South/167 feet East of the southern utility pole at 804 North Main Street
Surface Condition:	Grass
Total Depth:	21
First GW Depth:	10

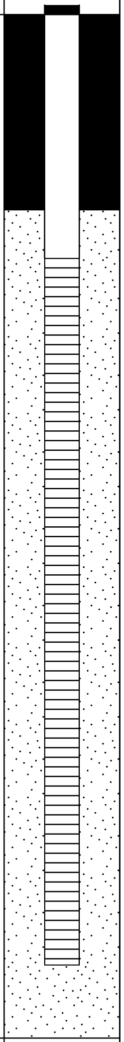
Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
∇ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Lawn.		
1							SM-ML	Thin topsoil over moist, fine-grained sandy SILT, tannish-brown, no hydrocarbon odor.		
2										
3		3.6	60		3'-4'			Moist, silty, fine-grained SAND with gravel, no hydrocarbon odor.	Mst	
4										
5										
6							SP			
7		5.1	15		7'-8'					
8							ML			
9		5.1	90		B21-9-10			Wet to saturated, SILT, brown, no hydrocarbon odor. Wet to saturated, GRAVEL, some silt, trace fine- to coarse-grained sand, gray, no hydrocarbon odor.		
10									∇	
11		3.9			B21-11-12		GP			
12					B21-12-13					
13		5.2	100							
14								Weathered bedrock.		
15										
16								Unweathered bedrock.		
17										
18										
19										
20										
21										
22										
23								Drilled using a push probe to approximately 14 feet below ground surface, overdrill with limited access air rotary rig to approximately 21 feet below ground surface. Two-inch-diameter monitoring well MW21 installed, 0.01-inch screen from screened from approximately 5 to 19.5 feet below ground surface.		
24										
25										





SOUND ENVIRONMENTAL STRATEGIES
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N. Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Date Started: 6/2/2008
Date Finished: 6/4/2008
Logged By: CCC
Chk By: JAC
SES Project No.: 0592-001

BORING LOG
B21/MW21

Log of Exploratory Boring:

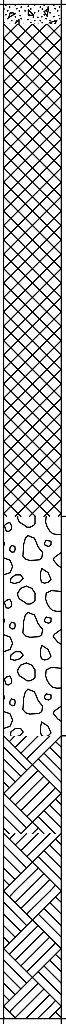
Notes

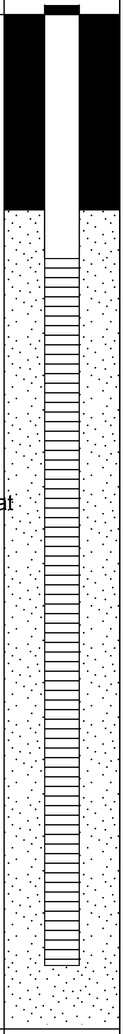
Drilling Co./Driller:	Env. West / Tim & Ron
Drilling Method:	Push Probe/Air Rotary
Location:	194 feet North/37 feet West of the southern utility pole at 804 North Main Street
Surface Condition:	Concrete
Total Depth:	20.8
First GW Depth:	7.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling





Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Concrete		
1								Gravel over moist, SILT, some fine-grained sand, tannish brown, no hydrocarbon odor (Fill).		
2										
3		4.4	75		3'-4'				Mst	
4										
5		5.4	80		B22-5-6		FILL			
6										
7		5.2	75		B22-7-8				▽	
8								Becomes wet at 7.5 feet below ground surface.		
9										
10								Moist-damp, silty, sandy, GRAVEL, fine-grained sand, dark gray, no hydrocarbon odor (Fill).	Wet-Sat	
11		4.8			B22-11-12			Saturated, fine- to coarse-grained sandy GRAVEL, no hydrocarbon odor.		
12										
13							GP			
14		5.3	70		14'-15'			Saturated, medium- to coarse-grained sandy GRAVEL, no hydrocarbon odor.		
15								Fractured basalt.		
16										
17								Basalt bedrock.		
18										
19										
20										
21								Drilled using a push probe to approximately 15 feet below ground surface, overdrilled with limited access air rotary rig to approximately 20.8 feet below ground surface. Two-inch-diameter monitoring well MW22 installed, 0.01-inch screen from screened from approximately 5 to 19.5 feet below ground surface.		
22										
23										
24										
25										

SOUND ENVIRONMENTAL STRATEGIES
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N. Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Date Started: 6/2/2008
Date Finished: 6/4/2008
Logged By: CCC
Chk By: JAC
SES Project No.: 0592-001

BORING LOG
B22/MW22

Page 1 of 1

Log of Exploratory Boring:

Notes

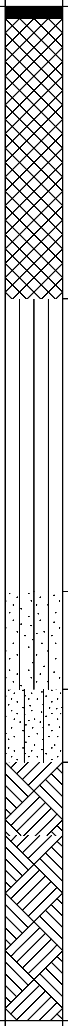
Drilling Co./Driller:	Env. West / Tim & Ron
Drilling Method:	Push Probe/Air Rotary
Location:	107 feet South/26 feet West of the southern utility pole at 804 North Main Street
Surface Condition:	Asphalt
Total Depth:	20.8
First GW Depth:	10.5

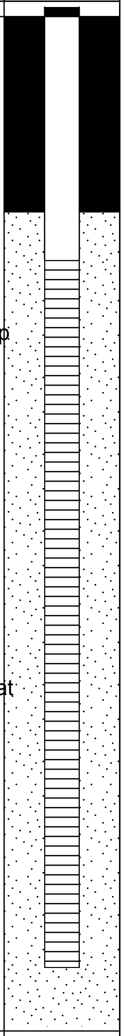
Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
∇ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt		
1								Gravel over gravelly, silty SAND (Fill).		
2		0.0								
3							FILL			
4										
5								Moist, SILT with sand and gravel, no hydrocarbon odor (Fill).		
6		0.0	60		B23-6-7-1445				Mst	
7								Moist to damp, SILT, trace fine-grained sand, tan and gray, no hydrocarbon odor.	Mst-Dp	
8										
9							ML			
10									∇	
11		0.0	70		B23-11-12					
12										
13							SM-ML	Wet to saturated, fine-grained sandy SILT, brown to gray, no hydrocarbon odor.		
14		0.0	25		B23-14-15				Wet-Sat	
15							SM	Saturated, silty, fine-grained SAND, tan, no hydrocarbon odor.	Sat	
16								Fractured bedrock.		
17										
18								Basalt Bedrock		
19										
20										
21										
22										
23								Drilled using a push probe to approximately 15.5 feet below ground surface, overdrill with limited access air rotary rig to approximately 20.8 feet below ground surface. Two-inch-diameter monitoring well MW23 installed, 0.01-inch screen from screened from approximately 5 to 19.5 feet below ground surface.		
24										
25										





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N. Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Date Started: 6/2/2008
Date Finished: 6/4/2008
Logged By: CCC
Chk By: JAC
SES Project No.: 0592-001

BORING LOG
B23/MW23

Log of Exploratory Boring:

Notes

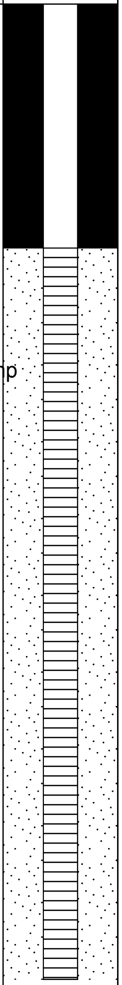
Drilling Co./Driller:	Env. West / Tim & Ron
Drilling Method:	LAR Air Rotary
Location:	178 feet South/42 feet West of the southern utility pole at 804 North Main Street
Surface Condition:	Grass
Total Depth:	20.5
First GW Depth:	10

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Lawn. Hand dig to 2.5 feet below ground surface.		
2.5	2 3 3	0.4	80	☒	B24-02.5'		FILL	Moist, soft, clayey SILT, some root fragments, dark brown, no hydrocarbon odor (Fill).	Mst	
5	3 4 5	0.5	70	☒	B24-05.0'		ML	Moist, medium stiff, SILT, some clay, dark brown, no hydrocarbon odor.	Mst	
7.5	3 7 9	0.7	100	☒	B24-07.5'		CL-ML	Damp to moist, stiff, SILT, some clay, to clayey SILT, medium tan to brown, no hydrocarbon odor.	Mst-Dmp	
10	6 7 12	0.3	80	☒	B24-10.0'		SM-ML	Wet, stiff, SILT, some clay grading to fine sandy SILT, no hydrocarbon odor.	▽	
12.5	70 50/1"	0.2	70	☒	B24-12.5'		SP	Saturated, medium dense, fine- to medium-grained SAND, some silt, tannish brown, no hydrocarbon odor.	Sat	
15	68 50/3"			☒				Unweathered bedrock.		
17.5	21 50/1"			☒				Unweathered bedrock.		
19								Unweathered bedrock.		
21–25								Drilled using a limited access air rotary rig to approximately 20.5 feet below ground surface. Two-inch-diameter monitoring well MW24 installed, 0.01-inch screen from screened from approximately 5 to 20 feet below ground surface.		



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N. Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Date Started: 3/2/2009
Date Finished: 3/2/2009
Logged By: CCC/JAB
Chk By: JAC
SES Project No.: 0592-001

BORING LOG
B24/MW24

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Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Env. West / Tim & Ron
Drilling Method:	LAR Air Rotary
Location:	268 feet South/8 feet West of the southern utility pole at 804 North Main Street
Surface Condition:	Asphalt
Total Depth:	18
First GW Depth:	8

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt.	Mst	
0.5–5							FILL	Moist, SILT, some clay, tannish brown, no hydrocarbon odor (Fill). Hand dig to 5 feet below ground surface (soil cuttings).		
5–6.5	2 4 4	0	80	☒	B25-05.0'		ML	Moist-damp, medium stiff, SILT, some clay, dark gray, no hydrocarbon odor.	Mst	
6.5–9	4 7 8	0	90	☒	B25-07.5'		SM-ML	Grades to wet, loose/stiff, silty, fine-grained SAND to fine-grained sandy SILT, no hydrocarbon odor.	▽	
9–11.5				☒				No recovery.		
11.5–13.5	50/0" 50/1"	0	25	☒	B25-12.5'		SP	Wet to saturated, dense, gravelly, fine-grained SAND, brown, no hydrocarbon odor.	Wet	
13.5–18								Unweathered bedrock.		
18–22								Drilled using a limited access air rotary rig to approximately 18 feet below ground surface. Two-inch-diameter monitoring well MW25 installed, 0.01-inch screen from screened from approximately 5 to 17.5 feet below ground surface.		

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N. Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Date Started: 3/3/2009
Date Finished: 3/3/2009
Logged By: CCC/JAB
Chk By: JAC
SES Project No.: 0592-001

BORING LOG
B25/MW25

Log of Exploratory Boring:

Notes

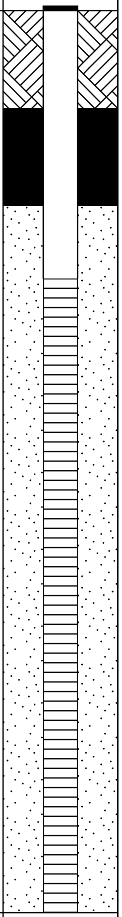
Drilling Co./Driller:	Env. West / Dean & Tim
Drilling Method:	Push Probe/Air Rotary
Location:	
Surface Condition:	ASPHALT
Total Depth:	18.5
First GW Depth:	7

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0										
1							FILL	Asphalt.		
2			50					Moist to damp, SILT, dark brown, no hydrocarbon odor.	Mst to Dp	
3										
4		0.0			B26-04					
5								Same as above, some fine organics, no hydrocarbon odor.		
6			60				ML			
7									▽	
8									▼	
9										
10		0.0	50		B26-10			Same as above, wet, no organics, gray.	Wet	
11										
12							GP	Saturated, fine-grained sandy GRAVEL, gray, no hydrocarbon odor.	Sat	
13			90							
14		0.0			B26-14		GP-GM	Silty, sandy, angular GRAVEL, gray with brown oxidation, no hydrocarbon odor.		
15										
16								Unweathered bedrock.		
17										
18										
19								Drilled using a push probe to approximately 15 feet below ground surface (bgs), overdrilled with a limited access air rotary rig to approximately 18.5 feet bgs. Two-inch diameter monitoring well MW26 installed using 0.01-inch slot screen from approximately 5.5 to 18.5 feet bgs.		
20										
21										
22										
23										
24										
25										



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North Main Street and East Tyler Street
Colfax, Washington

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BORING LOG
B26/MW26

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Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Env. West / Dean & Tim
Drilling Method:	Push Probe/Air Rotary
Location:	
Surface Condition:	ASPHALT
Total Depth:	18
First GW Depth:	7

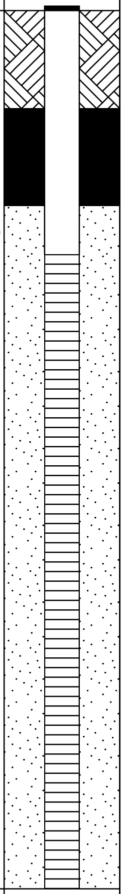
Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	USCS Class	Description	Moisture Content
0							Asphalt.	
1							Moist, SILT, some fine-grained sand and angular gravel, dark brown, no hydrocarbon odor (Fill).	
2			40			FILL		
3								Mst
4		0.0			B27-04			
5							Damp to wet, SILT grading to SILT with angular gravel, dark brown, no hydrocarbon odor.	Dp to Wet
6			50			SM-ML		
7								▽ ▼
8		0.0			B27-08			
9							Wet, SILT, some wood fragments, dark gray, no hydrocarbon odor.	Wet
10			70			ML		
11								
12		0.0			B27-12			
13			60			SP-SM	Saturated, silty, gravelly, fine- to coarse-grained SAND, angular gravel, dark gray to black, no hydrocarbon odor.	Sat
14						GP	Saturated, medium- to coarse-grained sandy GRAVEL, no hydrocarbon odor.	
15		0.0			B27-14.5		Drilling refusal at 14.5 feet below ground surface. Unweathered bedrock.	
16								
17								
18								
19							Drilled using a push probe to approximately 14.5 feet below ground surface (bgs), overdrilled with a limited access air rotary rig to approximately 18 feet bgs. Two-inch-diameter monitoring well MW27 installed using 0.01-inch slot screen from approximately 5 to 18 feet bgs.	
20								
21								
22								
23								
24								
25								

Well Detail



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N. Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Date Started: 5/18/2009
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BORING LOG
B27/MW27

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Log of Exploratory Boring:

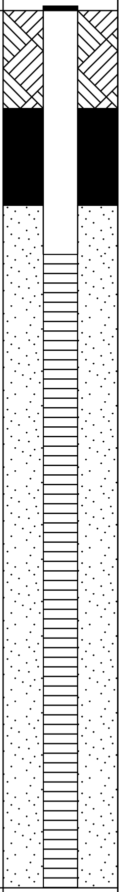
Notes

Drilling Co./Driller: Env. West / Dean & Tim
Drilling Method: Push Probe/Air Rotary
Location:
Surface Condition: ASPHALT
Total Depth: 18
First GW Depth: 9.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt.		
1							FILL			
2			30					Moist, SILT, some fine-grained sand, brown, no hydrocarbon odor.	Mst	
3										
4		0.0			B28-04			Same as above, trace fine-grained sand and organics.		
5										
6		0.0	80							
7										
8							ML		▼	
9								Same as above, moist to wet, tannish-gray.	▽	
10		0.0	85		B28-10..5				Mst to Wet	
11										
12								Same as above, wet, some angular gravel, brown.	Wet	
13										
14			85							
15		12.1			B28-15		GP	Six-inch gray zone, very faint hydrocarbon odor. Saturated, medium- to coarse-grained sandy GRAVEL, brown, no hydrocarbon odor. Unweathered bedrock.	Sat	
16										
17										
18								Drilled using a push probe to approximately 16 feet below ground surface (bgs), overdrill with limited access air rotary rig to approximately 18 feet bgs. Two-inch diameter monitoring well MW28 installed using 0.01-inch slot screen from approximately 5 to 18 feet bgs.		
19										
20										
21										
22										
23										
24										
25										

SOUND ENVIRONMENTAL STRATEGIES
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BORING LOG
B28/MW28

Log of Exploratory Boring:

Notes

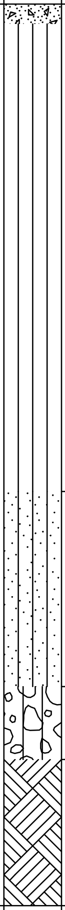
Drilling Co./Driller:	Env. West / Dean & Tim
Drilling Method:	Push Probe/Air Rotary
Location:	
Surface Condition:	CONCRETE
Total Depth:	18.5
First GW Depth:	9

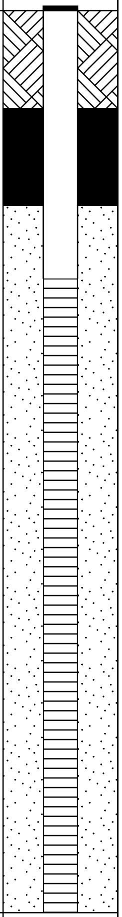
Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Concrete.		
1								Moist, SILT, trace fine-grained sand, mottled brown and black, no hydrocarbon odor.	Mst	
2			80							
3										
4		0.0			B29-04					
5							ML			
6			100							
7									▼	
8								Same as above, damp to wet, brown, no hydrocarbon odor.	Dp to Wet	
9									▽	
10			95							
11		218			B29-11			Wet, SILT, some fine sand, 2.5-inch-gravelly sand layer at approximately 11.75 feet below ground surface (bgs), tannish-gray, moderate hydrocarbon odor.	Wet	
12							SM-ML	Saturated, SILT with angular gravel, no hydrocarbon odor.		
13										
14			70				GM	Saturated, silty, fine-grained sandy, angular GRAVEL, no hydrocarbon odor.	Sat	
15		0.0			B29-15			Drilling refusal at 15.5 feet bgs, weathered bedrock.		
16								Unweathered bedrock.		
17										
18										
19								Drilled using a push probe to approximately 15.5 feet bgs, overdrill with limited access air rotary rig to approximately 18.5 feet bgs. Two-inch diameter monitoring well MW29 installed using 0.01-inch slot screen from approximately 5.5 to 18.5 feet bgs.		
20										
21										
22										
23										
24										
25										





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N. Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

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BORING LOG
B29/MW29

Log of Exploratory Boring:

Notes
NE = not encountered

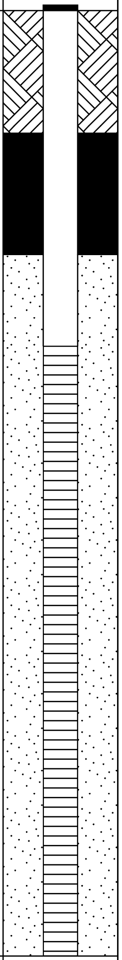
Drilling Co./Driller:	Env. West / Dean & Tim
Drilling Method:	Push Probe/Air Rotary
Location:	
Surface Condition:	ASPHALT
Total Depth:	15.5
First GW Depth:	6.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt.		
1								Damp to moist, SILT, trace fine-grained sand, brown, no hydrocarbon odor.	Mst to Dp	
2			75							
3										
4		0.0			B30-04		ML	Same as above, moist to wet.	Dp to Wet	
5										
6			85						▽	
7								Wet, silty, fine-grained SAND, gray staining, strong hydrocarbon odor.	Wet	
8		258			B30-08		SM			
9		258	90					Wet, gravelly, fine- to medium-grained SAND, angular gravel, gray staining, strong hydrocarbon odor. Drilling reusal at 11 feet below ground surface (bgs), weathered bedrock.		
10							SP			
11		381			B30-11			Weathered bedrock.		
12										
13								Unweathered fractured bedrock.		
14										
15										
16								Drilled using a push probe to approximately 11 feet bgs, overdrill with limited access air rotary rig to approximately 15.5 feet bgs. Two-inch diameter monitoring well MW30 installed using 0.01-inch slot screen from approximately 5.5 to 15.5 feet bgs.		
17										
18										
19										
20										



SOUND ENVIRONMENTAL STRATEGIES
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N. Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Date Started: 5/18/2009
Date Finished: 5/20/2009
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SES Project No.: 0592-001
File ID.: P:\0592NO~1\TECHNI~1\GINTLO~1\0592_B26-B33 JAC.GPJ

BORING LOG
B30/MW30

Log of Exploratory Boring:

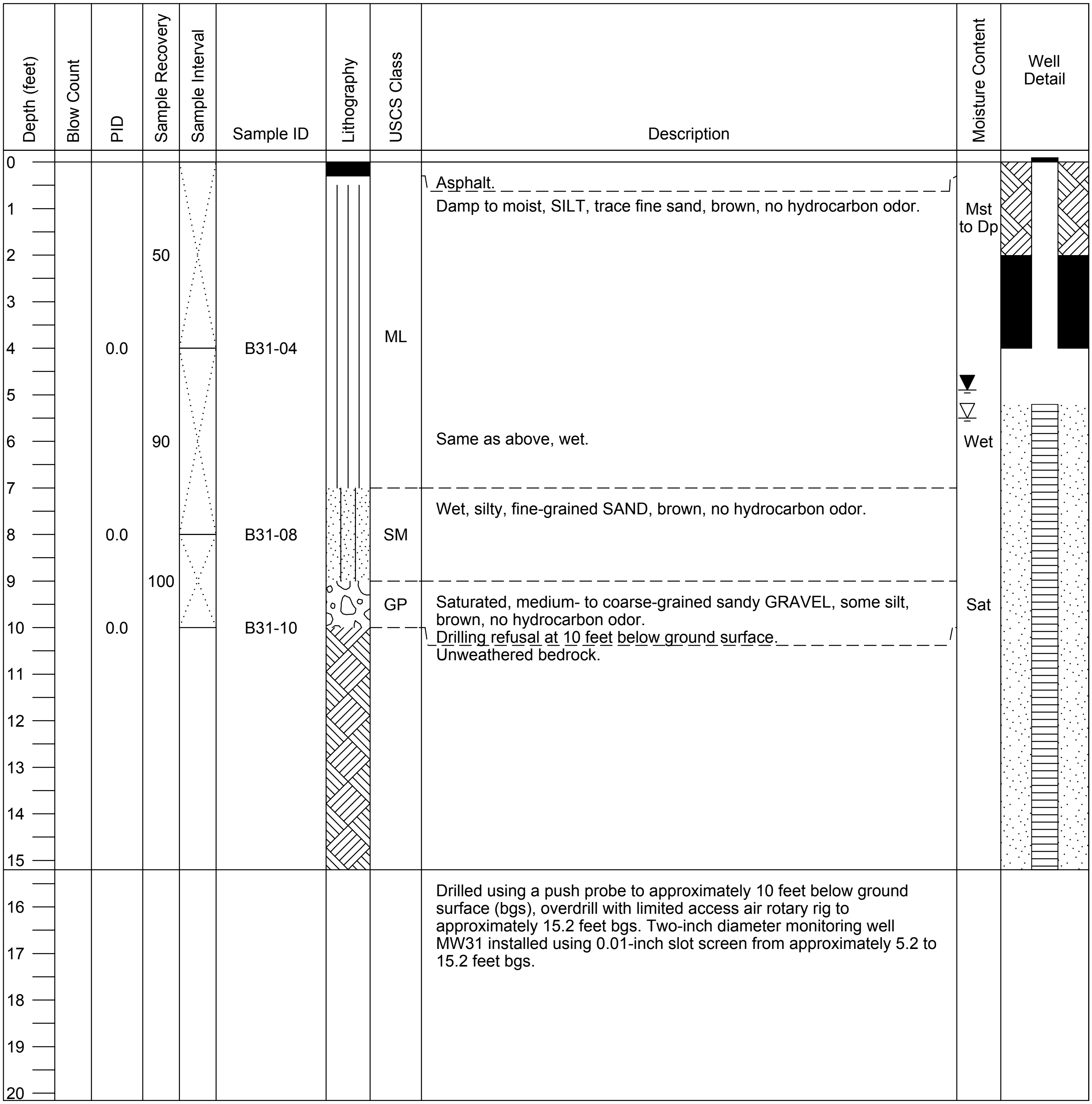
Notes

Drilling Co./Driller: Env. West / Dean & Tim
Drilling Method: Push Probe/Air Rotary
Location:
Surface Condition: ASPHALT
Total Depth: 15.2
First GW Depth: 5.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling



Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt.		
1								Damp to moist, SILT, trace fine sand, brown, no hydrocarbon odor.	Mst to Dp	
2			50							
3										
4		0.0			B31-04		ML			
5									▼ ▽	
6			90					Same as above, wet.	Wet	
7										
8		0.0			B31-08		SM	Wet, silty, fine-grained SAND, brown, no hydrocarbon odor.		
9			100				GP	Saturated, medium- to coarse-grained sandy GRAVEL, some silt, brown, no hydrocarbon odor.	Sat	
10		0.0			B31-10			Drilling refusal at 10 feet below ground surface. Unweathered bedrock.		
11										
12										
13										
14										
15										
16								Drilled using a push probe to approximately 10 feet below ground surface (bgs), overdrill with limited access air rotary rig to approximately 15.2 feet bgs. Two-inch diameter monitoring well MW31 installed using 0.01-inch slot screen from approximately 5.2 to 15.2 feet bgs.		
17										
18										
19										
20										

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

N. Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Date Started: 5/18/2009
Date Finished: 5/20/2009
Logged By: CCC
Chk By: JAC
SES Project No.: 0592-001
File ID.: P:\0592NO~1\TECHNI~1\GINTLO~1\0592_B26-B33 JAC.GPJ

BORING LOG
B31/MW31

APPENDIX E

Laboratory Analytical Reports

April 2008 Subsurface Investigation

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

May 1, 2008

Ryan Bixby, Project Manager
Sound Environmental Strategies Corporation
2400 Airport Way S., Suite 200
Seattle, WA 98134-2020

Dear Mr. Bixby:

Included are the results from the testing of material submitted on April 11, 2008 from the North Colfax Petroleum Contamination (NCPC), F&BI 804141 project. There are 69 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: Erin Rothman
SOU0501R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on April 11, 2008 by Friedman & Bruya, Inc. from the Sound Environmental Strategies North Colfax Petroleum Contamination (NCPC), F&BI 804141 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Sound Environmental Strategies
804141-01	SP01-06.5-07.5
804141-02	SP01-11-12
804141-03	SP01-13-14
804141-04	SP02-03-04
804141-05	SP02-07-08
804141-06	SP02-13-14
804141-07	SP03-07-08
804141-08	SP03-10-11
804141-09	SP03-12-13
804141-10	SP04-07-08
804141-11	SP04-10-11
804141-12	SP04-12-13
804141-13	SP05-07-08
804141-14	SP05-10-11
804141-15	SP05-13-14
804141-16	SP06-03-04
804141-17	SP06-07-08
804141-18	SP06-11-12
804141-19	SP07-03-04
804141-20	SP07-07-08
804141-21	SP07-12.5-13.5
804141-22	SP07-05-06
804141-23	SP08-10-11
804141-24	SP08-13-14
804141-25	SP09-06-07
804141-26	SP09-09-10
804141-27	SP09-13-14
804141-28	SP10-05-06
804141-29	SP10-09-10
804141-30	SP10-14-15
804141-31	SP11-03-04
804141-32	SP11-05-06
804141-33	SP11-09.5-10.5
804141-34	SP11-13-14
804141-35	SP12-06.5-08
804141-36	SP12-10-12
804141-37	SP12-13-14
804141-38	SP12-14-15

CASE NARRATIVE (continued)

Laboratory ID	Sound Environmental Strategies
804141-39	SP13-05.5-06.5
804141-40	SP13-09-10
804141-41	SP13-12.5-13.5
804141-42	SP14-04.5-05.5
804141-43	SP14-07-08
804141-44	SP14-13-14
804141-45	SP15-06-07
804141-46	SP15-10-11
804141-47	SP15-13-14
804141-48	SP16-09.5-10.5
804141-49	SP16-13-14
804141-50	SP17-06-07
804141-51	SP17-10-11
804141-52	Decon Water 041008
804141-53	Trip Blank

The samples SP02-07-08, SP05-07-08, SP11-05-06, SP12-10-12, SP14-07-08, and SP15-060-07 were sent to Analytical Resources, Inc. for EPH/VPH analyses. The report is enclosed.

All quality control requirements were acceptable.

Date of Report: 05/01/08
Date Received: 04/11/08
Project: North Colfax Petroleum Contamination (NCPC), F&BI 804141
Date Extracted: 04/17/08 and 04/18/08
Date Analyzed: 04/17/08 and 04/19/08

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

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

Sample ID Laboratory ID	Gasoline	Diesel	Heavy Oil	Surrogate (% Recovery) (Limit 50-150)
SP01-06.5-07.5 804141-01	ND	ND	ND	112
SP01-11-12 804141-02	ND	ND	ND	113
SP01-13-14 804141-03	ND	ND	ND	115
SP03-07-08 804141-07	ND	ND	ND	111
SP03-10-11 804141-08	ND	ND	ND	112
SP03-12-13 804141-09	ND	ND	ND	110
SP06-03-04 804141-16	ND	ND	ND	112
SP06-07-08 804141-17	ND	ND	ND	114
SP06-11-12 804141-18	ND	ND	ND	114
SP07-03-04 804141-19	ND	ND	ND	111

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

Date of Report: 05/01/08
Date Received: 04/11/08
Project: North Colfax Petroleum Contamination (NCPC), F&BI 804141
Date Extracted: 04/17/08 and 04/18/08
Date Analyzed: 04/17/08 and 04/19/08

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR GASOLINE, DIESEL AND HEAVY OIL BY NWTPH-HCID

Results Reported as Not Detected (ND) or Detected (D)

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

Sample ID Laboratory ID	Gasoline	Diesel	Heavy Oil	Surrogate (% Recovery) (Limit 50-150)
SP07-07-08 804141-20	ND	ND	ND	112
SP07-12.5-13.5 804141-21	ND	ND	ND	114
SP07-05-06 804141-22	ND	ND	ND	112
SP08-10-11 804141-23	ND	ND	ND	112
SP08-13-14 804141-24	ND	ND	ND	106
SP09-06-07 804141-25	ND	ND	ND	107
SP09-09-10 804141-26	ND	ND	ND	107
SP09-13-14 804141-27	ND	ND	ND	108
SP10-05-06 804141-28	ND	ND	ND	107
SP10-09-10 804141-29	ND	ND	ND	106

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

Date of Report: 05/01/08
Date Received: 04/11/08
Project: North Colfax Petroleum Contamination (NCPC), F&BI 804141
Date Extracted: 04/17/08 and 04/18/08
Date Analyzed: 04/17/08 and 04/19/08

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

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

Sample ID Laboratory ID	Gasoline	Diesel	Heavy Oil	Surrogate (% Recovery) (Limit 50-150)
SP10-14-15 804141-30	ND	ND	ND	108
SP13-05.5-06.5 804141-39	ND	ND	ND	107
SP13-09-10 804141-40	ND	ND	ND	108
SP13-12.5-13.5 804141-41	ND	ND	ND	109
SP16-09.5-10.5 804141-48	ND	ND	ND	108
SP16-13-14 804141-49	ND	ND	ND	109
SP17-06-07 804141-50	ND	ND	ND	109
SP17-10-11 804141-51	ND	ND	ND	108

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

Date of Report: 05/01/08
Date Received: 04/11/08
Project: North Colfax Petroleum Contamination (NCPC), F&BI 804141
Date Extracted: 04/17/08 and 04/18/08
Date Analyzed: 04/17/08 and 04/19/08

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR GASOLINE, DIESEL AND HEAVY OIL BY NWTPH-HCID

Results Reported as Not Detected (ND) or Detected (D)

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

Sample ID Laboratory ID	Gasoline	Diesel	Heavy Oil	Surrogate (% Recovery) (Limit 50-150)
Method Blank	ND	ND	ND	114
Method Blank	ND	ND	ND	108

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

Date of Report: 05/01/08
Date Received: 04/11/08
Project: North Colfax Petroleum Contamination (NCPC), F&BI 804141
Date Extracted: 04/16/08
Date Analyzed: 04/16/08 and 04/17/08

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

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

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
SP02-07-08 d 804141-05 1/50	3,300	ip
SP05-07-08 d 804141-13 1/10	2,400	ip
SP11-05-06 804141-32	6	128
SP12-10-12 804141-36	140	ip
SP14-07-08 804141-43	<2	115
SP15-06-07 804141-45	3	118
Method Blank	<2	86
Method Blank	<2	86

Date of Report: 05/01/08
Date Received: 04/11/08
Project: North Colfax Petroleum Contamination (NCPC), F&BI 804141
Date Extracted: 04/16/08
Date Analyzed: 04/16/08 and 04/17/08

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 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)
SP02-03-04 d 804141-04 1/10	1.6	11	10	64	670	ip
SP02-13-14 804141-06	<0.02	<0.02	<0.02	<0.06	<2	95
SP04-07-08 804141-10	<0.02	0.03	0.12	0.35	34	128
SP04-10-11 d 804141-11 1/10	<0.02	1.2	24	24	1,100	ip
SP04-12-13 804141-12	<0.02	<0.02	<0.02	<0.06	<2	98
SP05-10-11 804141-14	<0.02	0.12	3.5	2.0	280	ip
SP05-13-14 804141-15	<0.02	<0.02	<0.02	<0.06	<2	104
SP11-03-04 804141-31	0.37	0.02	0.05	0.59	11	102
SP11-09.5-10.5 804141-33	<0.02	<0.02	<0.02	<0.06	2	102
SP11-13-14 804141-34	<0.02	<0.02	<0.02	<0.06	<2	96

Date of Report: 05/01/08
Date Received: 04/11/08
Project: North Colfax Petroleum Contamination (NCPC), F&BI 804141
Date Extracted: 04/16/08
Date Analyzed: 04/16/08 and 04/17/08

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 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)
SP12-06.5-08 804141-35	<0.02	<0.02	<0.02	<0.06	<2	107
SP12-13-14 804141-37	<0.02	0.26	0.60	2.9	66	116
SP12-14-15 804141-38	<0.02	<0.02	<0.02	<0.06	<2	101
SP14-04.5-05.5 804141-42	0.11	0.02	0.02	<0.06	3	105
SP14-13-14 804141-44	<0.02	<0.02	<0.02	<0.06	<2	99
SP15-10-11 804141-46	0.03	<0.02	<0.02	0.06	<2	104
SP15-13-14 804141-47	<0.02	<0.02	<0.02	<0.06	<2	95
Method Blank	<0.02	<0.02	<0.02	<0.06	<2	81
Method Blank	<0.02	<0.02	<0.02	<0.06	<2	82

Date of Report: 05/01/08
Date Received: 04/11/08
Project: North Colfax Petroleum Contamination (NCPC), F&BI 804141
Date Extracted: 04/16/08
Date Analyzed: 04/16/08

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

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 52-124)
Trip Blank 804141-53	<1	<1	<1	<3	<100	79
Method Blank	<1	<1	<1	<3	<100	95

Date of Report: 05/01/08
Date Received: 04/11/08
Project: North Colfax Petroleum Contamination (NCPC), F&BI 804141
Date Extracted: 04/17/08
Date Analyzed: 04/17/08

RESULTS FROM THE ANALYSIS OF THE 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 50-150)
SP02-03-04 804141-04	150 x	<250	90
SP02-07-08 804141-05	850 x	<250	91
SP02-13-14 804141-06	<50	<250	91
SP04-07-08 804141-10	<50	<250	92
SP04-10-11 804141-11	160 x	<250	92
SP04-12-13 804141-12	<50	<250	97
SP05-07-08 804141-13	1,200 x	<250	94
SP05-10-11 804141-14	120 x	<250	91
SP05-13-14 804141-15	<50	<250	99
SP11-03-04 804141-31	<50	<250	93
SP11-05-06 804141-32	<50	<250	91
SP11-09.5-10.5 804141-33	<50	<250	93

Date of Report: 05/01/08
Date Received: 04/11/08
Project: North Colfax Petroleum Contamination (NCPC), F&BI 804141
Date Extracted: 04/17/08
Date Analyzed: 04/17/08

RESULTS FROM THE ANALYSIS OF THE 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 50-150)
SP11-13-14 804141-34	<50	<250	93
SP12-06.5-08 804141-35	<50	<250	92
SP12-10-12 804141-36	<50	<250	91
SP12-13-14 804141-37	<50	<250	93
SP12-14-15 804141-38	<50	<250	88
SP14-04.5-05.5 804141-42	<50	<250	92
SP14-07-08 804141-43	<50	<250	93
SP14-13-14 804141-44	<50	<250	93
SP15-06-07 804141-45	<50	<250	92
SP15-10-11 804141-46	<50	<250	88
SP15-13-14 804141-47	<50	<250	89
Method Blank	<50	<250	96
Method Blank	<50	<250	88

Date of Report: 05/01/08
Date Received: 04/11/08
Project: North Colfax Petroleum Contamination (NCPC), F&BI 804141
Date Extracted: 04/18/08
Date Analyzed: 04/18/08

RESULTS FROM THE ANALYSIS OF THE 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 50-150)
Trip Blank dv 804141-53	<120	<620	124
Method Blank	<50	<250	98

Analysis For Total Metals By EPA Method 200.8

Client ID:	SP02-03-04	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-04
Date Analyzed:	04/17/08	Data File:	804141-04.010
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	103	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	11.5

Analysis For Total Metals By EPA Method 200.8

Client ID:	SP02-07-08	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-05
Date Analyzed:	04/17/08	Data File:	804141-05.011
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	107	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	31.7

Analysis For Total Metals By EPA Method 200.8

Client ID:	SP02-13-14	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-06
Date Analyzed:	04/17/08	Data File:	804141-06.012
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	104	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	1.97

Analysis For Total Metals By EPA Method 200.8

Client ID:	SP04-07-08	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-10
Date Analyzed:	04/17/08	Data File:	804141-10.013
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	104	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	31.2

Analysis For Total Metals By EPA Method 200.8

Client ID:	SP04-10-11	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-11
Date Analyzed:	04/17/08	Data File:	804141-11.014
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	103	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	9.82

Analysis For Total Metals By EPA Method 200.8

Client ID:	SP04-12-13	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-12
Date Analyzed:	04/17/08	Data File:	804141-12.015
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	103	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	2.33

Analysis For Total Metals By EPA Method 200.8

Client ID:	SP05-07-08	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-13
Date Analyzed:	04/17/08	Data File:	804141-13.016
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	102	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	36.7

Analysis For Total Metals By EPA Method 200.8

Client ID:	SP05-10-11	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-14
Date Analyzed:	04/17/08	Data File:	804141-14.017
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	104	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	9.40

Analysis For Total Metals By EPA Method 200.8

Client ID:	SP05-13-14	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-15
Date Analyzed:	04/17/08	Data File:	804141-15.019
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	103	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	1.96

Analysis For Total Metals By EPA Method 200.8

Client ID:	SP11-03-04	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-31
Date Analyzed:	04/17/08	Data File:	804141-31.020
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	99	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	339

Analysis For Total Metals By EPA Method 200.8

Client ID:	SP11-05-06	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-32
Date Analyzed:	04/17/08	Data File:	804141-32.023
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	99	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	7.11

Analysis For Total Metals By EPA Method 200.8

Client ID:	SP11-09.5-10.5	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-33
Date Analyzed:	04/17/08	Data File:	804141-33.024
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	100	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	6.69

Analysis For Total Metals By EPA Method 200.8

Client ID:	SP11-13-14	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-34
Date Analyzed:	04/17/08	Data File:	804141-34.025
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	102	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	2.89

Analysis For Total Metals By EPA Method 200.8

Client ID:	SP12-06.5-08	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-35
Date Analyzed:	04/17/08	Data File:	804141-35.026
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	105	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	6.62

Analysis For Total Metals By EPA Method 200.8

Client ID:	SP12-10-12	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-36
Date Analyzed:	04/17/08	Data File:	804141-36.027
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	103	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	5.75

Analysis For Total Metals By EPA Method 200.8

Client ID:	SP12-13-14	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-37
Date Analyzed:	04/17/08	Data File:	804141-37.028
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	105	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	13.9

Analysis For Total Metals By EPA Method 200.8

Client ID:	SP12-14-15	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-38
Date Analyzed:	04/17/08	Data File:	804141-38.030
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	109	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	2.41

Analysis For Total Metals By EPA Method 200.8

Client ID:	SP14-04.5-05.5	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-42
Date Analyzed:	04/17/08	Data File:	804141-42.031
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	105	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	6.43

Analysis For Total Metals By EPA Method 200.8

Client ID:	SP14-07-08	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-43
Date Analyzed:	04/17/08	Data File:	804141-43.032
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	109	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	6.02

Analysis For Total Metals By EPA Method 200.8

Client ID:	SP14-13-14	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-44
Date Analyzed:	04/17/08	Data File:	804141-44.033
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	102	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	3.14

Analysis For Total Metals By EPA Method 200.8

Client ID:	SP15-06-07	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-45
Date Analyzed:	04/17/08	Data File:	804141-45.036
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	104	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	10.9

Analysis For Total Metals By EPA Method 200.8

Client ID:	SP15-10-11	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-46
Date Analyzed:	04/17/08	Data File:	804141-46.037
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	104	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	5.18

Analysis For Total Metals By EPA Method 200.8

Client ID:	SP15-13-14	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-47
Date Analyzed:	04/17/08	Data File:	804141-47.038
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	104	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	3.00

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Sound Environmental Strategies
Date Received:	NA	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	I8-145 mb
Date Analyzed:	04/17/08	Data File:	I8-145 mb.008
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	98	60	125

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

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Sound Environmental Strategies
Date Received:	NA	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	I8-146 mb
Date Analyzed:	04/17/08	Data File:	I8-146 mb.034
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	95	60	125

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

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	SP02-07-08	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/18/08	Lab ID:	804141-05
Date Analyzed:	04/22/08	Data File:	042131.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	98	42	142
1,2-Dichloroethane-d4	102	42	152
Toluene-d8	105	36	149
4-Bromofluorobenzene	146	50	150

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.05	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	46 ve
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	120 ve
Methylene chloride	<0.5	o-Xylene	70 ve
Methyl t-butyl ether (MTBE)	2.0	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	8.2
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	27 ve
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	43 ve
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon Tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	3.3	1,2,4-Trimethylbenzene	68 ve
Trichloroethene	<0.03	sec-Butylbenzene	4.2
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	2.1
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.05
Toluene	40 ve	1,2,4-Trichlorobenzene	<0.1
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.1
1,1,2-Trichloroethane	<0.05	Naphthalene	11 ve
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.1

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	SP02-07-08	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/18/08	Lab ID:	804141-05 1/200
Date Analyzed:	04/22/08	Data File:	042138.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	105	42	142
1,2-Dichloroethane-d4	108	42	152
Toluene-d8	107	36	149
4-Bromofluorobenzene	116	50	150

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<100	1,3-Dichloropropane	<10
Chloromethane	<10	Tetrachloroethene	<5
Vinyl chloride	<10	Dibromochloromethane	<10
Bromomethane	<100	1,2-Dibromoethane (EDB)	<10
Chloroethane	<100	Chlorobenzene	<10
Trichlorofluoromethane	<100	Ethylbenzene	78
Acetone	<100	1,1,1,2-Tetrachloroethane	<10
1,1-Dichloroethene	<10	m,p-Xylene	350
Methylene chloride	<100	o-Xylene	130
Methyl t-butyl ether (MTBE)	<10	Styrene	<10
trans-1,2-Dichloroethene	<10	Isopropylbenzene	<10
1,1-Dichloroethane	<10	Bromoform	<10
2,2-Dichloropropane	<10	n-Propylbenzene	35
cis-1,2-Dichloroethene	<10	Bromobenzene	<10
Chloroform	<10	1,3,5-Trimethylbenzene	72
2-Butanone (MEK)	<100	1,1,2,2-Tetrachloroethane	<10
1,2-Dichloroethane (EDC)	<10	1,2,3-Trichloropropane	<10
1,1,1-Trichloroethane	<10	2-Chlorotoluene	<10
1,1-Dichloropropene	<10	4-Chlorotoluene	<10
Carbon Tetrachloride	<10	tert-Butylbenzene	<10
Benzene	<6	1,2,4-Trimethylbenzene	220
Trichloroethene	<6	sec-Butylbenzene	<10
1,2-Dichloropropane	<10	p-Isopropyltoluene	<10
Bromodichloromethane	<10	1,3-Dichlorobenzene	<10
Dibromomethane	<10	1,4-Dichlorobenzene	<10
4-Methyl-2-pentanone	<100	1,2-Dichlorobenzene	<10
cis-1,3-Dichloropropene	<10	1,2-Dibromo-3-chloropropane	<10
Toluene	62	1,2,4-Trichlorobenzene	<20
trans-1,3-Dichloropropene	<10	Hexachlorobutadiene	<20
1,1,2-Trichloroethane	<10	Naphthalene	15
2-Hexanone	<100	1,2,3-Trichlorobenzene	<20

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	SP05-07-08	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/18/08	Lab ID:	804141-13
Date Analyzed:	04/22/08	Data File:	042139.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	107	42	142
1,2-Dichloroethane-d4	108	42	152
Toluene-d8	109	36	149
4-Bromofluorobenzene	121	50	150

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.05	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	0.48
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Methylene chloride	<0.5	o-Xylene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	0.37
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	0.58
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon Tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.03	sec-Butylbenzene	0.28
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	0.28
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.05
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.1
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.1
1,1,2-Trichloroethane	<0.05	Naphthalene	1.1
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.1

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	SP11-05-06	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/18/08	Lab ID:	804141-32
Date Analyzed:	04/22/08	Data File:	042137.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	106	42	142
1,2-Dichloroethane-d4	111	42	152
Toluene-d8	111	36	149
4-Bromofluorobenzene	122	50	150

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.05	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	0.15
Methylene chloride	<0.5	o-Xylene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	0.061
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon Tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	0.29	1,2,4-Trimethylbenzene	0.063
Trichloroethene	<0.03	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.05
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.1
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.1
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.1

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: SP12-10-12
Date Received: 04/11/08
Date Extracted: 04/18/08
Date Analyzed: 04/22/08
Matrix: Soil
Units: mg/kg (ppm)

Client: Sound Environmental Strategies
Project: NCPC, F&BI 804141
Lab ID: 804141-36
Data File: 042133.D
Instrument: GCMS5
Operator: MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	102	42	142
1,2-Dichloroethane-d4	105	42	152
Toluene-d8	108	36	149
4-Bromofluorobenzene	114	50	150

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.05	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	0.75
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	2.9
Methylene chloride	<0.5	o-Xylene	0.068
Methyl t-butyl ether (MTBE)	<0.05	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	0.080
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	0.31
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	0.51
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon Tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	0.034	1,2,4-Trimethylbenzene	1.7
Trichloroethene	<0.03	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.05
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.1
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.1
1,1,2-Trichloroethane	<0.05	Naphthalene	0.20
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.1

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	SP14-07-08	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/18/08	Lab ID:	804141-43
Date Analyzed:	04/22/08	Data File:	042134.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	109	42	142
1,2-Dichloroethane-d4	116	42	152
Toluene-d8	115	36	149
4-Bromofluorobenzene	120	50	150

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.05	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
Methylene chloride	<0.5	o-Xylene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon Tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	0.074	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.03	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.05
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.1
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.1
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.1

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	SP15-06-07	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/18/08	Lab ID:	804141-45
Date Analyzed:	04/22/08	Data File:	042135.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	102	42	142
1,2-Dichloroethane-d4	109	42	152
Toluene-d8	108	36	149
4-Bromofluorobenzene	115	50	150

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.05	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	0.29
Methylene chloride	<0.5	o-Xylene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon Tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	0.21	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.03	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.05
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.1
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.1
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.1

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	Method Blank	Client:	Sound Environmental Strategies
Date Received:	NA	Project:	NCPC, F&BI 804141
Date Extracted:	04/18/08	Lab ID:	080582 mb
Date Analyzed:	04/21/08	Data File:	042107.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	107	42	142
1,2-Dichloroethane-d4	110	42	152
Toluene-d8	109	36	149
4-Bromofluorobenzene	121	50	150

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

Analysis For Semivolatile Compounds By EPA Method 8270C SIM

Client Sample ID:	SP02-07-08	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-05 1/5
Date Analyzed:	04/17/08	Data File:	041714.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	87	50	150
Benzo(a)anthracene-d12	96	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	6.9 ve, J
2-Methylnaphthalene	11 ve, J
1-Methylnaphthalene	5.6 ve, J
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270C SIM

Client Sample ID:	SP02-07-08	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-05 1/50
Date Analyzed:	04/17/08	Data File:	041712.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	218 ds	50	150
Benzo(a)anthracene-d12	91	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	9.3
2-Methylnaphthalene	12
1-Methylnaphthalene	5.7
Benz(a)anthracene	<0.1
Chrysene	<0.1
Benzo(a)pyrene	<0.1
Benzo(b)fluoranthene	<0.1
Benzo(k)fluoranthene	<0.1
Indeno(1,2,3-cd)pyrene	<0.1
Dibenz(a,h)anthracene	<0.1

Analysis For Semivolatile Compounds By EPA Method 8270C SIM

Client Sample ID:	SP05-07-08	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/23/08	Lab ID:	804141-13 1/5
Date Analyzed:	04/24/08	Data File:	042414.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	87	50	150
Benzo(a)anthracene-d12	90	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	6.4 ve
2-Methylnaphthalene	4.9 ve
1-Methylnaphthalene	2.4
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270C SIM

Client Sample ID:	SP05-07-08	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/23/08	Lab ID:	804141-13 1/50
Date Analyzed:	04/23/08	Data File:	042307.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	190 ds	50	150
Benzo(a)anthracene-d12	96	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	9.1
2-Methylnaphthalene	5.1
1-Methylnaphthalene	2.4
Benz(a)anthracene	<0.1
Chrysene	<0.1
Benzo(a)pyrene	<0.1
Benzo(b)fluoranthene	<0.1
Benzo(k)fluoranthene	<0.1
Indeno(1,2,3-cd)pyrene	<0.1
Dibenz(a,h)anthracene	<0.1

Analysis For Semivolatile Compounds By EPA Method 8270C SIM

Client Sample ID:	SP11-05-06	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-32 1/5
Date Analyzed:	04/17/08	Data File:	041706.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	83	50	150
Benzo(a)anthracene-d12	80	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
2-Methylnaphthalene	<0.01
1-Methylnaphthalene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270C SIM

Client Sample ID:	SP12-10-12	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-36 1/5
Date Analyzed:	04/17/08	Data File:	041709.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	84	50	150
Benzo(a)anthracene-d12	86	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.12
2-Methylnaphthalene	0.36
1-Methylnaphthalene	0.17
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270C SIM

Client Sample ID:	SP14-07-08	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-43 1/5
Date Analyzed:	04/17/08	Data File:	041710.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	83	50	150
Benzo(a)anthracene-d12	83	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
2-Methylnaphthalene	<0.01
1-Methylnaphthalene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270C SIM

Client Sample ID:	SP15-06-07	Client:	Sound Environmental Strategies
Date Received:	04/11/08	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	804141-45 1/5
Date Analyzed:	04/17/08	Data File:	041711.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	82	50	150
Benzo(a)anthracene-d12	85	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
2-Methylnaphthalene	<0.01
1-Methylnaphthalene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270C SIM

Client Sample ID:	Method Blank	Client:	Sound Environmental Strategies
Date Received:	NA	Project:	NCPC, F&BI 804141
Date Extracted:	04/23/08	Lab ID:	080627mb 1/5
Date Analyzed:	04/23/08	Data File:	042306.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	86	50	150
Benzo(a)anthracene-d12	90	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
2-Methylnaphthalene	<0.01
1-Methylnaphthalene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270C SIM

Client Sample ID:	Method Blank	Client:	Sound Environmental Strategies
Date Received:	NA	Project:	NCPC, F&BI 804141
Date Extracted:	04/17/08	Lab ID:	080598mb 1/5
Date Analyzed:	04/17/08	Data File:	041705.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	82	50	150
Benzo(a)anthracene-d12	83	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
2-Methylnaphthalene	<0.01
1-Methylnaphthalene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Date of Report: 05/01/08
Date Received: 04/11/08
Project: North Colfax Petroleum Contamination (NCPC), F&BI 804141

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: 804141-44 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (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	70-130
Toluene	mg/kg (ppm)	0.5	88	70-130
Ethylbenzene	mg/kg (ppm)	0.5	88	70-130
Xylenes	mg/kg (ppm)	1.5	88	70-130
Gasoline	mg/kg (ppm)	20	95	70-130

Date of Report: 05/01/08
Date Received: 04/11/08
Project: North Colfax Petroleum Contamination (NCPC), F&BI 804141

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: 804141-47 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (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	94	70-130
Toluene	mg/kg (ppm)	0.5	88	70-130
Ethylbenzene	mg/kg (ppm)	0.5	88	70-130
Xylenes	mg/kg (ppm)	1.5	88	70-130
Gasoline	mg/kg (ppm)	20	91	70-130

Date of Report: 05/01/08
Date Received: 04/11/08
Project: North Colfax Petroleum Contamination (NCPC), F&BI 804141

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: 804172-02 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (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	85	65-118
Toluene	ug/L (ppb)	50	90	72-122
Ethylbenzene	ug/L (ppb)	50	88	73-126
Xylenes	ug/L (ppb)	150	90	74-118
Gasoline	ug/L (ppb)	1,000	100	69-134

Date of Report: 05/01/08
Date Received: 04/11/08
Project: North Colfax Petroleum Contamination (NCPC), F&BI 804141

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

Laboratory Code: 804141-31 (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	108	109	50-150	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	107	70-130

Date of Report: 05/01/08
Date Received: 04/11/08
Project: North Colfax Petroleum Contamination (NCPC), F&BI 804141

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

Laboratory Code: 804141-46 (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	107	108	69-125	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	108	70-127

Date of Report: 05/01/08
Date Received: 04/11/08
Project: North Colfax Petroleum Contamination (NCPC), F&BI 804141

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	123	106	70-130	15

Date of Report: 05/01/08
Date Received: 04/11/08
Project: North Colfax Petroleum Contamination (NCPC), F&BI 804141

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

Laboratory Code: 804141-31 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Lead	mg/kg (ppm)	339	277	20	0-20

Laboratory Code: 804141-31 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Lead	mg/kg (ppm)	20	339	0 b	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/kg (ppm)	20	115	70-130

Date of Report: 05/01/08
Date Received: 04/11/08
Project: North Colfax Petroleum Contamination (NCPC), F&BI 804141

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

Laboratory Code: 803285-02 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Lead	mg/kg (ppm)	23.3	23.5	1	0-20

Laboratory Code: 803285-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Lead	mg/kg (ppm)	20	23.3	114 b	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/kg (ppm)	20	117	70-130

Date of Report: 05/01/08
Date Received: 04/11/08
Project: North Colfax Petroleum Contamination (NCPC), F&BI 804141

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

Laboratory Code: 804184-22 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	<0.05	<0.05	nm
Chloromethane	mg/kg (ppm)	<0.05	<0.05	nm
Vinyl chloride	mg/kg (ppm)	<0.05	<0.05	nm
Bromomethane	mg/kg (ppm)	<0.5	<0.5	nm
Chloroethane	mg/kg (ppm)	<0.5	<0.5	nm
Trichlorofluoromethane	mg/kg (ppm)	<0.5	<0.5	nm
Acetone	mg/kg (ppm)	<0.5	<0.5	nm
1,1-Dichloroethene	mg/kg (ppm)	<0.05	<0.05	nm
Methylene chloride	mg/kg (ppm)	<0.5	<0.5	nm
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	<0.05	<0.05	nm
trans-1,2-Dichloroethene	mg/kg (ppm)	<0.05	<0.05	nm
1,1-Dichloroethane	mg/kg (ppm)	<0.05	<0.05	nm
2,2-Dichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
cis-1,2-Dichloroethene	mg/kg (ppm)	<0.05	<0.05	nm
Chloroform	mg/kg (ppm)	<0.05	<0.05	nm
2-Butanone (MEK)	mg/kg (ppm)	<0.5	<0.5	nm
1,2-Dichloroethane (EDC)	mg/kg (ppm)	<0.05	<0.05	nm
1,1,1-Trichloroethane	mg/kg (ppm)	<0.05	<0.05	nm
1,1-Dichloropropene	mg/kg (ppm)	<0.05	<0.05	nm
Carbon Tetrachloride	mg/kg (ppm)	<0.05	<0.05	nm
Benzene	mg/kg (ppm)	<0.03	<0.03	nm
Trichloroethene	mg/kg (ppm)	<0.03	<0.03	nm
1,2-Dichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
Bromodichloromethane	mg/kg (ppm)	<0.05	<0.05	nm
Dibromomethane	mg/kg (ppm)	<0.05	<0.05	nm
4-Methyl-2-pentanone	mg/kg (ppm)	<0.5	<0.5	nm
cis-1,3-Dichloropropene	mg/kg (ppm)	<0.05	<0.05	nm
Toluene	mg/kg (ppm)	<0.05	<0.05	nm
trans-1,3-Dichloropropene	mg/kg (ppm)	<0.05	<0.05	nm
1,1,2-Trichloroethane	mg/kg (ppm)	<0.05	<0.05	nm
2-Hexanone	mg/kg (ppm)	<0.5	<0.5	nm
1,3-Dichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
Tetrachloroethene	mg/kg (ppm)	<0.025	<0.025	nm
Dibromochloromethane	mg/kg (ppm)	<0.05	<0.05	nm
1,2-Dibromoethane (EDB)	mg/kg (ppm)	<0.05	<0.05	nm
Chlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
Ethylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	<0.05	<0.05	nm
m,p-Xylene	mg/kg (ppm)	<0.1	<0.1	nm
o-Xylene	mg/kg (ppm)	<0.05	<0.05	nm
Styrene	mg/kg (ppm)	<0.05	<0.05	nm
Isopropylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
Bromoform	mg/kg (ppm)	<0.05	<0.05	nm
n-Propylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
Bromobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,3,5-Trimethylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	<0.05	<0.05	nm
1,2,3-Trichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
2-Chlorotoluene	mg/kg (ppm)	<0.05	<0.05	nm
4-Chlorotoluene	mg/kg (ppm)	<0.05	<0.05	nm
tert-Butylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,2,4-Trimethylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
sec-Butylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
p-Isopropyltoluene	mg/kg (ppm)	<0.05	<0.05	nm
1,3-Dichlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,4-Dichlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,2-Dichlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	<0.05	<0.05	nm
1,2,4-Trichlorobenzene	mg/kg (ppm)	<0.1	<0.1	nm
Hexachlorobutadiene	mg/kg (ppm)	<0.1	<0.1	nm
Naphthalene	mg/kg (ppm)	<0.05	<0.05	nm
1,2,3-Trichlorobenzene	mg/kg (ppm)	<0.1	<0.1	nm

Date of Report: 05/01/08
Date Received: 04/11/08
Project: North Colfax Petroleum Contamination (NCPC), F&BI 804141

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2.5	58	53	25-133	9
Chloromethane	mg/kg (ppm)	2.5	87	81	48-121	7
Vinyl chloride	mg/kg (ppm)	2.5	88	80	57-125	10
Bromomethane	mg/kg (ppm)	2.5	85	81	55-141	5
Chloroethane	mg/kg (ppm)	2.5	81	76	43-152	6
Trichlorofluoromethane	mg/kg (ppm)	2.5	63	56	37-158	12
Acetone	mg/kg (ppm)	2.5	146 vo	153 vo	69-129	5
1,1-Dichloroethene	mg/kg (ppm)	2.5	79	73	60-123	8
Methylene chloride	mg/kg (ppm)	2.5	87	91	57-130	4
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	96	96	82-112	0
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	92	89	78-118	3
1,1-Dichloroethane	mg/kg (ppm)	2.5	94	91	81-116	3
2,2-Dichloropropane	mg/kg (ppm)	2.5	98	94	74-122	4
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	97	95	82-118	2
Chloroform	mg/kg (ppm)	2.5	97	93	80-117	4
2-Butanone (MEK)	mg/kg (ppm)	2.5	106	107	63-146	1
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	94	92	82-120	2
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	91	87	79-120	4
1,1-Dichloropropene	mg/kg (ppm)	2.5	85	81	76-122	5
Carbon Tetrachloride	mg/kg (ppm)	2.5	74	70	70-125	6
Benzene	mg/kg (ppm)	2.5	93	89	80-112	4
Trichloroethene	mg/kg (ppm)	2.5	91	90	79-115	1
1,2-Dichloropropane	mg/kg (ppm)	2.5	98	95	84-119	3
Bromodichloromethane	mg/kg (ppm)	2.5	107	104	87-122	3
Dibromomethane	mg/kg (ppm)	2.5	100	101	87-118	1
4-Methyl-2-pentanone	mg/kg (ppm)	2.5	101	101	88-124	0
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	107	105	84-125	2
Toluene	mg/kg (ppm)	2.5	89	87	80-116	2
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	107	105	84-129	2
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	99	98	85-117	1
2-Hexanone	mg/kg (ppm)	2.5	102	103	88-129	1
1,3-Dichloropropane	mg/kg (ppm)	2.5	96	96	84-119	0
Tetrachloroethene	mg/kg (ppm)	2.5	82	80	79-119	2
Dibromochloromethane	mg/kg (ppm)	2.5	90	87	76-123	3
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	100	100	86-120	0
Chlorobenzene	mg/kg (ppm)	2.5	91	90	81-111	1
Ethylbenzene	mg/kg (ppm)	2.5	89	87	81-115	2
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	106	104	82-121	2
m,p-Xylene	mg/kg (ppm)	5	91	88	80-118	3
o-Xylene	mg/kg (ppm)	2.5	95	91	78-122	4
Styrene	mg/kg (ppm)	2.5	97	94	84-121	3
Isopropylbenzene	mg/kg (ppm)	2.5	90	86	79-124	5
Bromoform	mg/kg (ppm)	2.5	90	88	73-111	2
n-Propylbenzene	mg/kg (ppm)	2.5	91	87	80-123	4
Bromobenzene	mg/kg (ppm)	2.5	96	94	83-117	2
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	93	90	81-122	3
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	100	96	82-119	4
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	97	96	82-116	1
2-Chlorotoluene	mg/kg (ppm)	2.5	92	89	78-120	3
4-Chlorotoluene	mg/kg (ppm)	2.5	92	89	81-119	3
tert-Butylbenzene	mg/kg (ppm)	2.5	90	87	79-124	3
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	95	91	81-123	4
sec-Butylbenzene	mg/kg (ppm)	2.5	88	84	79-124	5
p-Isopropyltoluene	mg/kg (ppm)	2.5	92	88	82-125	4
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	94	90	80-116	4
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	92	89	59-133	3
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	94	92	82-116	2
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	91	95	74-126	4
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	96	99	73-124	3
Hexachlorobutadiene	mg/kg (ppm)	2.5	91	90	74-128	1
Naphthalene	mg/kg (ppm)	2.5	97	101	70-122	4
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	96	99	76-125	3

Date of Report: 05/01/08
Date Received: 04/11/08
Project: North Colfax Petroleum Contamination (NCPC), F&BI 804141

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PNA'S BY EPA METHOD 8270C SIM

Laboratory Code: 804211-22 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Naphthalene	mg/kg (ppm)	28	28	0
2-Methylnaphthalene	mg/kg (ppm)	72	73	1
1-Methylnaphthalene	mg/kg (ppm)	36	37	3
Benz(a)anthracene	mg/kg (ppm)	<0.1	<0.1	nm
Chrysene	mg/kg (ppm)	0.22	0.22	0
Benzo(b)fluoranthene	mg/kg (ppm)	<0.1	<0.1	nm
Benzo(k)fluoranthene	mg/kg (ppm)	<0.1	<0.1	nm
Benzo(a)pyrene	mg/kg (ppm)	<0.1	<0.1	nm
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	<0.1	<0.1	nm
Dibenz(a,h)anthracene	mg/kg (ppm)	<0.1	<0.1	nm

Laboratory Code: 804240-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Naphthalene	mg/kg (ppm)	0.17	<0.01	87	50-150
2-Methylnaphthalene	mg/kg (ppm)	0.17	<0.01	86	50-150
1-Methylnaphthalene	mg/kg (ppm)	0.17	<0.01	83	50-150
Benz(a)anthracene	mg/kg (ppm)	0.17	<0.01	80	17-134
Chrysene	mg/kg (ppm)	0.17	<0.01	85	10-157
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	<0.01	86	28-134
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	<0.01	81	55-115
Benzo(a)pyrene	mg/kg (ppm)	0.17	<0.01	81	37-123
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	<0.01	88	61-104
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	<0.01	90	69-100

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	mg/kg (ppm)	0.17	92	88	72-112	4
2-Methylnaphthalene	mg/kg (ppm)	0.17	90	88	60-114	2
1-Methylnaphthalene	mg/kg (ppm)	0.17	86	84	74-118	2
Benz(a)anthracene	mg/kg (ppm)	0.17	87	82	58-108	6
Chrysene	mg/kg (ppm)	0.17	93	88	64-115	6
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	99	92	54-119	7
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	95	88	61-123	8
Benzo(a)pyrene	mg/kg (ppm)	0.17	87	81	54-111	7
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	95	91	46-126	4
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	90	88	57-119	2

Date of Report: 05/01/08
Date Received: 04/11/08
Project: North Colfax Petroleum Contamination (NCPC), F&BI 804141

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PNA'S BY EPA METHOD 8270C SIM

Laboratory Code: 804141-32 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Naphthalene	mg/kg (ppm)	<0.01	<0.01	nm
2-Methylnaphthalene	mg/kg (ppm)	<0.01	<0.01	nm
1-Methylnaphthalene	mg/kg (ppm)	<0.01	<0.01	nm
Benz(a)anthracene	mg/kg (ppm)	<0.01	<0.01	nm
Chrysene	mg/kg (ppm)	<0.01	<0.01	nm
Benzo(b)fluoranthene	mg/kg (ppm)	<0.01	<0.01	nm
Benzo(k)fluoranthene	mg/kg (ppm)	<0.01	<0.01	nm
Benzo(a)pyrene	mg/kg (ppm)	<0.01	<0.01	nm
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	<0.01	<0.01	nm
Dibenz(a,h)anthracene	mg/kg (ppm)	<0.01	<0.01	nm

Laboratory Code: 804141-32 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Naphthalene	mg/kg (ppm)	0.17	<0.01	87	50-150
2-Methylnaphthalene	mg/kg (ppm)	0.17	<0.01	84	50-150
1-Methylnaphthalene	mg/kg (ppm)	0.17	<0.01	80	50-150
Benz(a)anthracene	mg/kg (ppm)	0.17	<0.01	83	17-134
Chrysene	mg/kg (ppm)	0.17	<0.01	91	10-157
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	<0.01	91	28-134
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	<0.01	90	55-115
Benzo(a)pyrene	mg/kg (ppm)	0.17	<0.01	83	37-123
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	<0.01	91	61-104
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	<0.01	92	69-100

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	mg/kg (ppm)	0.17	88	86	72-112	2
2-Methylnaphthalene	mg/kg (ppm)	0.17	84	83	60-114	1
1-Methylnaphthalene	mg/kg (ppm)	0.17	83	81	74-118	2
Benz(a)anthracene	mg/kg (ppm)	0.17	81	81	58-108	0
Chrysene	mg/kg (ppm)	0.17	89	88	64-115	1
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	90	88	54-119	2
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	86	88	61-123	2
Benzo(a)pyrene	mg/kg (ppm)	0.17	78	78	54-111	0
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	90	89	46-126	1
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	91	91	57-119	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.

A1 – More than one compound of similar molecule structure was identified with equal probablility.

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 this range fell outside of acceptance criteria. The value reported is an estimate.

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

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - The analyte indicated was found in the method blank. The result should be considered an estimate.

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. The variability is attributed to sample inhomogeneity.

ht - The sample was extracted outside of holding time. Results should be considered estimates.

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

j – The result is below normal reporting limits. 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 analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is 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 compound indicated 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 in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration should be considered an estimate.

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

x - The pattern of peaks present is not indicative of diesel.

y - The pattern of peaks present is not indicative of motor oil.

804 141

SAMPLE CHAIN OF CUSTODY

ME 04-11-08 VI/BI3/BI4

Send Report To Ryan Bixby
Company Sound Environmental Strategies
Address 2400 Airport Way South
City, State, ZIP Seattle WA 98134
Phone # 206 306 1900 Fax # 206 306 1907

SAMPLERS (signature)

PROJECT NAME/NO. North Colfax Petroleum Contamination Site 0592-001-01

PO #

REMARKS

GEMS [✓ Y] N

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

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

								ANALYSES REQUESTED								
Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	Total Lead ~~RCRA-8 Metals~~	NWTPH-HCID	EPH/VPH	Notes
SP01-06.5-07.5	SP01	6.5-7.5	01A-G	4/9/08	1120	Soil	7							X		⊗-per CC 4/21/08 MC
SP01-11-12		11-12	02A-G		1135		7							X		
SP01-13-14		13-14	03A-G		1150		7							X		
SP02-03-04	SP02	3-4	04A-G		1205		7	X	X	X			X			
SP02-07-08		7-8	05A-H		1215		8	X	X		X	X	X		X	
SP02-13-14		13-14	06A-G		1230		7	X	X	X			X			
SP03-07-08	SP03	7-8	07A-G		1250		7							X		
SP03-10-11		10-11	08A-G		1300		7							X		
SP03-12-13		12-13	09A-G		1310		7							X		
SP04-07-08	SP04	7-8	10A-G		1330		7	X	X	X			X			
SP04-10-11		10-11	11A-H		1345		7	X	X	X			X			< added one
SP04-12-13		12-13	12A-G		1400		7	X	X	X			X			container for lab ID
SP05-07-08	SP05	7-8	13A-H		1510		8	X	X		⊗	⊗	X		⊗	

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

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Charles Cacek	SES	4/11/08	1405
Received by:	Eric Young	F&B	4/11/08	1905
Relinquished by:				
Received by:				

FORMS\COC\SESGEMSR1.DOC (Revision 1)

Samples received at 3 °C

804141

SAMPLE CHAIN OF CUSTODY ME 04-11-08 VI/BI3 /BI4

Page # 2 of ~~4~~ 6

Send Report To Ryan Bixby
Company Sound Environmental Strategies
Address 2400 Airport Way South
City, State, ZIP Seattle WA 98134
Phone # 206 306 1900 Fax # 206 306 1907

SAMPLERS (signature)

PROJECT NAME/NO.
North Colfax Petroleum ~~site~~ Contamination Site
0592-001-01

PO #

REMARKS

GEMS [✓ Y] N

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

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

								ANALYSES REQUESTED								
Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	Total Lead ~~RCRA-8 Metals~~	NWTPH-HCID	EPH/VPH	Notes
SP05-10-11	SP05	10-11	14A-G	4/9/08	1525	Soil	8	X	X	⊗			X			-Minus one
SP05-13-14		13-14	15A-G		1540		7	X	X	⊗			X			Container In lab ID
SP06-03-04	SP06	3'-4'	16A-G		1410		7							X		
SP06-07-08		7'-8'	17A-G		1420		7							X		* SP05 samples
SP06-11-12		11'-12'	18A-G		1450		7							X		
SP07-03-04	SP07	3'-4'	19A-G		1600		7							X		
SP07-07-08		7-8'	20A-G		1610		7							X		
SP07-12.5-13.5		12.5-13.5	21A-G		1625		7							X		
SP08-05-06	SP08	5-6	22A-G	4/10/08	1300		7							X		
SP08-10-11		10-11	23A-G		1315		7							X		
SP08-13-14		13-14	24A-G		1335		7							X		
SP09-06-07	SP09	6-7	25A-G		1205		7							X		
SP09-09-10		9-10	26A-H		1225		8							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:	Charles Cacek	SES	4/11/08	1405
Received by:	Eric Young	F&B	4/11/08	1405
Relinquished by:				
Received by:				

FORMS\COC\SESGEMSR1.DOC (Revision 1)

Samples received at 3 °C

804141

SAMPLE CHAIN OF CUSTODY

ME 04-11-08 V1/BI3/BI4

Page # 3 of 6

Send Report To Ryan Bixby
Company Sound Environmental Strategies
Address 2400 Airport Way South
City, State, ZIP Seattle WA 98134
Phone # 206 306 1900 Fax # 206 306 1907

SAMPLERS (signature)

PROJECT NAME/NO. North Colfax Petroleum Contamination Site 0592-001-01

PO #

REMARKS

GEMS [✓ Y] N

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

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
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								ANALYSES REQUESTED									
Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	Total Lead ~~RCRA-8 Metals~~	NWTPH-HCID	EPH/VPH	Notes
SP09-13-14	SP09	13-14	27A-G	4/10/08	1240	Soil	7							X		
SP10-05-06	SP10	5-6	28A-G		1355		7							X		
SP10-09-10		9-10	29A-G		1405		7							X		
SP10-14-15		14-15	30A-G		1420		7							X		
SP11-03-04	SP11	3-4	31A-G	4/9/08	1735		7	X	X	X			X			
SP11-05-06		5-6	32A-G		1750		7	X	X		X	X	X		X	
SP11-09.5-10.5		9.5-10.5	33A-G		1805		7	X	X	X			X			
SP11-13-14		13-14	34A-G		1815		7	X	X	X			X			
SP12-06.5-08	SP12	6.5-8	35A-G	4/10/08	1500		7	X	X	X			X			
SP12-10-12		10-12	36A-H		1515		8	X	X		X	X	X		X	
SP12-13-14		13-14	37A-G		1530		7	X	X	X			X			
SP12-14-15		14-15	38A-G		1555		7	X	X	X			X			
SP13-05.5-06.5	SP13	5.5-6.5	39A-G		0850		7							X		

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	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	C. Cacek	Charles Cacek	SES	4/11/08	1405
Received by:		Eric Young	F&B	4/11/08	1405
Relinquished by:					
Received by:					

FORMS\COC\SESGEMSR1.DOC (Revision 1)

Samples received at 3 °C

804141

SAMPLE CHAIN OF CUSTODY

ME 04-11-08 V1/BI3/BI4

Page # 4 of ~~4~~6

Send Report To Ryan Bixby

Company Sound Environmental Strategies

Address 2400 Airport Way South

City, State, ZIP Seattle WA 98134

Phone # 206 306 1900 Fax # 206-306-1807

SAMPLERS (signature)

PROJECT NAME/NO.
North Colfax Petroleum Contamination Site
0592-001-01

PO #

REMARKS

GEMS [✓ Y] / N

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

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

								ANALYSES REQUESTED									
Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	Total Lead ~~RCRA-8 Metals~~	NWTPH-HC ID	EPH/VPH	Notes
SP13-09-10	SP13	9-10	40 A-G	4/10/08	0910	Soil	7							X		Hold
SP13-12.5-13.5		12.5-13.5	41 A-G		0920		7							X		
SP14-04.5-05.5	SP14	4.5-5.5	42 A-G		0935		7	X	X	X			X			
SP14-07-08		7-8	43 A-G		0950		7	X	X		X	X	X		X	
SP14-13-14		13-14	44 A-G		1005		7	X	X	X			X			
SP15-06-07	SP15	6-7	45 A-G		1020		7	X	X		X	X	X		X	
SP15-10-11		10-11	46 A-G		1035		7	X	X	X			X			
SP15-13-14		13-14	47 A-G		1050		7	X	X	X			X			
SP16-09.5-10.5	SP16	9.5-10.5	48 A-H		1125		8							X		
SP16-13-14		13-14	49 A-G		1140		7							X		
SP17-06-07	SP17	6-7	50 A-G	4/9/08	1655		7							X		
SP17-10-11	↓	10-11	51 A-G	↓	1705		7							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:	Charles Cacek	SES	4/11/08	1405
Received by:	Eric Young	F&B	4/11/08	1405
Relinquished by:				
Received by:				

FORMS\COC\SESGEMSR1.DOC (Revision 1)

Samples received at 3 °C

804141

SAMPLE CHAIN OF CUSTODY

ME 04-11-08 VI/BI3/BI4

Send Report To Ryan Bixby
Company Sound Environmental Strategies
Address 2400 Airport Way South
City, State, ZIP Seattle WA 98134
Phone # 206 306 1900 Fax # 206 306 1907

SAMPLERS (signature)

PROJECT NAME/NO. North Colfax Petroleum Contamination Site 0592-001-01

PO #

REMARKS

GEMS Y / N

Page # 5 of 6

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

SAMPLE DISPOSAL
☐ Dispose after 30 days
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								ANALYSES REQUESTED								
Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	Total Lead ~~RCRA-8 Metals~~	NWTPH-HCID	EPH/VPH	Notes
Decon water 041008-			52 A-G	4/10/08	1645	water	7									Hold

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Seattle, WA 98119-2029
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Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Charles Cacek	SES	4/11/08	1405
Received by:	Eric Young	F&B	4/11/08	1405
Relinquished by:				
Received by:				

FORMS\COC\SESGEMSR1.DOC (Revision 1)

Samples received at 3 °C

804141

SAMPLE CHAIN OF CUSTODY ME 04-11-08 V1 / BI3 / BI4

Page # 6 of 6

Send Report To Ryan Bixby

Company Sound Environmental Strategies

Address 2400 Airport Way South

City, State, ZIP Seattle WA 98134

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

SAMPLERS *(signature)*

PROJECT NAME/NO. North Colfax Petroleum contamination Site 0592-001-01

PO #

REMARKS

GEMS Y / N

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

SAMPLE DISPOSAL
☐ Dispose after 30 days
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								ANALYSES REQUESTED								
Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
Trip Blanks			53 AF			Water	6	x	x	x						

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

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: C. Cacez	Charles Cacez	SES	4/11/08	1405
Received by:	Eric Young	FEB	4/11/08	1405
Relinquished by:				
Received by:				

FORMS\COC\SESGEMSR1.DOC (Revision 1)

Samples received at 3 °C

Analytical Resources, Incorporated
Analytical Chemists and Consultants

April 29, 2008

Mike Erdahl
Friedman & Bruya
3012 – 16th Avenue West
Seattle, WA 9819-2029

Project: 804141 PO# H-1388
ARI Job: MS71

Dear Mr. Erdahl:

Please find enclosed the original Chain of Custody record, sample receipt documentation, and analytical results for the project referenced above. Analytical Resources, Inc. accepted five soil samples in good condition on April 17, 2008. Please refer to the enclosed Cooler Receipt Form for further details regarding sample receipt.

The samples were analyzed for EPH (Extractable Petroleum Hydrocarbon) and VPH (Volatile Petroleum Hydrocarbon), on an expedited turnaround, as requested on the Chain of Custody. The analyses were completed successfully, with points of interest detailed below.

VPH

Reporting Limits vary according to detection of target compounds.

EPH

The o-Terphenyl surrogate recovery for the Aromatic portion of the Method Blank run on 04/23/08 was slightly below the Control Limit. The sample had low volume to begin with, which affected this aspect of the analysis. This falls within ARI's Marginal Exceedance policy, and no corrective action was deemed necessary by the QC supervisor.

Quality control analysis results are included for your review. Copies of the reports and all associated raw data will be kept on file electronically at ARI. If you have any questions or require additional information, please contact me at your convenience.

Respectfully,

Eric Branson

Eric Branson
Client Services - Project Support
ANALYTICAL RESOURCES, INC.
(206) 695-6213
eric@arilabs.com
www.arilabs.com

• Enclosures •

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: F & B

Project Name: 804141

COC No: ______

Delivered by: HAND

Assigned ARI Job No: MS71

Tracking No: ______

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES [✓ NO]

Were custody papers included with the cooler? .... [✓ YES] NO

Were custody papers properly filled out (ink, signed, etc.) .... [✓ YES] NO

Record cooler temperature (recommended 2.0-6.0 °C for chemistry .... 8 6 °C

Cooler Accepted by: ______ Date: 4/17/08 Time: 740

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? .... YES [✓ NO]

What kind of packing material was used? .... —

Was sufficient ice used (if appropriate)? .... YES [✓ NO]

Were all bottles sealed in individual plastic bags? .... YES [✓ NO]

Did all bottle arrive in good condition (unbroken)? .... [✓ YES] NO

Were all bottle labels complete and legible? .... [✓ YES] NO

Did all bottle labels and tags agree with custody papers? .... [✓ YES] NO

Were all bottles used correct for the requested analyses? .... [✓ YES] NO

Do any of the analyses (bottles) require preservation? (attach preservation checklist) .... YES [✓ NO]

Were all VOC vials free of air bubbles? .... [✓ NA] YES NO

Was sufficient amount of sample sent in each bottle? .... [✓ YES] NO

Samples Logged by: BC Date: 4/17/08 Time: 800

***** Notify Project Manager of discrepancies or concerns *****

Explain discrepancies or negative responses:

By: Date:

ORGANICS ANALYSIS DATA SHEET
VPH by Method WA VPH
Page 1 of 1

Sample ID: SP02-07-08
SAMPLE

Lab Sample ID: MS71A
LIMS ID: 08-7995
Matrix: Soil
Data Release Authorized:
Reported: 04/23/08

QC Report No: MS71-Friedman & Bruya, Inc.
Project: H-1388
804141
Date Sampled: 04/09/08
Date Received: 04/17/08

Date Analyzed: 04/22/08 13:31
Instrument/Analyst: PID1/PKC

Purge Volume: 5.0 mL
Sample Amount: 2.00 mg-dry-wt

CAS Number	Analyte	RL	Result
71-43-2	Benzene	12000	< 12,000 U
108-88-3	**Toluene**	**12000**	**36,000**
100-41-4	**Ethylbenzene**	**12000**	**51,000**
	m,p-Xylene	**25000**	**210,000**
95-47-6	**o-Xylene**	**12000**	**78,000**
1634-04-4	Methyl tert-Butyl Ether	12000	< 12,000 U
109-66-0	n-Pentane	12000	< 12,000 U
110-54-3	n-Hexane	12000	< 12,000 U
111-65-9	**n-Octane**	**12000**	**41,000**
124-18-5	**n-Decane**	**12000**	**13,000**
112-40-3	**n-Dodecane**	**12000**	**35,000**

Range	RL	Result
C8-C10 Aromatics (PID)	**120,000**	**930,000**
C10-C12 Aromatics (PID)	**120,000**	**250,000**
C12-C13 Aromatics (PID)	120,000	< 120,000 U
C5-C6 Aliphatics	120,000	< 120,000 U
C6-C8 Aliphatics	**120,000**	**260,000**
C8-C10 Aliphatics	120,000	< 120,000 U
C10-C12 Aliphatics	**120,000**	**780,000**

Values reported in µg/kg (ppb)

VPH Surrogate Recovery

PID: 2,5-Dibromotoluene	109%
FID: 2,5-Dibromotoluene	108%

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET
VPH by Method WA VPH
Page 1 of 1

Sample ID: SP11-05-06
SAMPLE

Lab Sample ID: MS71B
LIMS ID: 08-7996
Matrix: Soil
Data Release Authorized:
Reported: 04/23/08

QC Report No: MS71-Friedman & Bruya, Inc.
Project: H-1388
804141
Date Sampled: 04/09/08
Date Received: 04/17/08

Date Analyzed: 04/22/08 14:00
Instrument/Analyst: PID1/PKC

Purge Volume: 5.0 mL
Sample Amount: 27.0 mg-dry-wt

CAS Number	**Analyte**	**RL**	**Result**
71-43-2	Benzene	930	< 930 U
108-88-3	Toluene	930	< 930 U
100-41-4	Ethylbenzene	930	< 930 U
	m,p-Xylene	1900	< 1,900 U
95-47-6	o-Xylene	930	< 930 U
1634-04-4	Methyl tert-Butyl Ether	930	< 930 U
109-66-0	n-Pentane	930	< 930 U
110-54-3	n-Hexane	930	< 930 U
111-65-9	n-Octane	930	< 930 U
124-18-5	n-Decane	930	< 930 U
112-40-3	n-Dodecane	930	< 930 U

Range	**RL**	**Result**
C8-C10 Aromatics (PID)	9,300	< 9,300 U
C10-C12 Aromatics (PID)	9,300	< 9,300 U
C12-C13 Aromatics (PID)	9,300	< 9,300 U
C5-C6 Aliphatics	9,300	< 9,300 U
C6-C8 Aliphatics	9,300	< 9,300 U
C8-C10 Aliphatics	9,300	< 9,300 U
C10-C12 Aliphatics	9,300	< 9,300 U

Values reported in μg/kg (ppb)

VPH Surrogate Recovery

PID: 2,5-Dibromotoluene	117%
FID: 2,5-Dibromotoluene	102%

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

ORGANICS ANALYSIS DATA SHEET
VPH by Method WA VPH
Page 1 of 1

Sample ID: SP12-10-12
SAMPLE

Lab Sample ID: MS71C
LIMS ID: 08-7997
Matrix: Soil
Data Release Authorized:
Reported: 04/23/08

QC Report No: MS71-Friedman & Bruya, Inc.
Project: H-1388
804141
Date Sampled: 04/10/08
Date Received: 04/17/08

Date Analyzed: 04/22/08 14:28
Instrument/Analyst: PID1/PKC

Purge Volume: 5.0 mL
Sample Amount: 27.0 mg-dry-wt

CAS Number	**Analyte**	**RL**	**Result**
71-43-2	Benzene	930	< 930 U
108-88-3	Toluene	930	< 930 U
100-41-4	Ethylbenzene	930	< 930 U
	m,p-Xylene	**1900**	**2,400**
95-47-6	o-Xylene	930	< 930 U
1634-04-4	Methyl tert-Butyl Ether	930	< 930 U
109-66-0	n-Pentane	930	< 930 U
110-54-3	n-Hexane	930	< 930 U
111-65-9	n-Octane	930	< 930 U
124-18-5	n-Decane	930	< 930 U
112-40-3	n-Dodecane	930	< 930 U

Range	**RL**	**Result**
C8-C10 Aromatics (PID)	9,300	< 9,300 U
C10-C12 Aromatics (PID)	9,300	< 9,300 U
C12-C13 Aromatics (PID)	9,300	< 9,300 U
C5-C6 Aliphatics	9,300	< 9,300 U
C6-C8 Aliphatics	9,300	< 9,300 U
C8-C10 Aliphatics	9,300	< 9,300 U
C10-C12 Aliphatics	9,300	< 9,300 U

Values reported in µg/kg (ppb)

VPH Surrogate Recovery

PID: 2,5-Dibromotoluene	112%
FID: 2,5-Dibromotoluene	98.6%

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET
VPH by Method WA VPH
Page 1 of 1

Sample ID: SP14-07-08
SAMPLE

Lab Sample ID: MS71D
LIMS ID: 08-7998
Matrix: Soil
Data Release Authorized:
Reported: 04/23/08

QC Report No: MS71-Friedman & Bruya, Inc.
Project: H-1388
804141
Date Sampled: 04/10/08
Date Received: 04/17/08

Date Analyzed: 04/22/08 14:57
Instrument/Analyst: PID1/PKC

Purge Volume: 5.0 mL
Sample Amount: 24.0 mg-dry-wt

CAS Number	**Analyte**	**RL**	**Result**
71-43-2	Benzene	1000	< 1,000 U
108-88-3	Toluene	1000	< 1,000 U
100-41-4	Ethylbenzene	1000	< 1,000 U
	m,p-Xylene	2100	< 2,100 U
95-47-6	o-Xylene	1000	< 1,000 U
1634-04-4	Methyl tert-Butyl Ether	1000	< 1,000 U
109-66-0	n-Pentane	1000	< 1,000 U
110-54-3	n-Hexane	1000	< 1,000 U
111-65-9	n-Octane	1000	< 1,000 U
124-18-5	n-Decane	1000	< 1,000 U
112-40-3	n-Dodecane	1000	< 1,000 U

Range	**RL**	**Result**
C8-C10 Aromatics (PID)	10,000	< 10,000 U
C10-C12 Aromatics (PID)	10,000	< 10,000 U
C12-C13 Aromatics (PID)	10,000	< 10,000 U
C5-C6 Aliphatics	10,000	< 10,000 U
C6-C8 Aliphatics	10,000	< 10,000 U
C8-C10 Aliphatics	10,000	< 10,000 U
C10-C12 Aliphatics	10,000	< 10,000 U

Values reported in μg/kg (ppb)

VPH Surrogate Recovery

PID: 2,5-Dibromotoluene	114%
FID: 2,5-Dibromotoluene	104%

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

ORGANICS ANALYSIS DATA SHEET
VPH by Method WA VPH
Page 1 of 1

Sample ID: SP15-06-07
SAMPLE

Lab Sample ID: MS71E
LIMS ID: 08-7999
Matrix: Soil
Data Release Authorized:
Reported: 04/23/08

QC Report No: MS71-Friedman & Bruya, Inc.
Project: H-1388
804141
Date Sampled: 04/10/08
Date Received: 04/17/08

Date Analyzed: 04/22/08 15:26
Instrument/Analyst: PID1/PKC

Purge Volume: 5.0 mL
Sample Amount: 25.0 mg-dry-wt

CAS Number	**Analyte**	**RL**	**Result**
71-43-2	Benzene	1000	< 1,000 U
108-88-3	Toluene	1000	< 1,000 U
100-41-4	Ethylbenzene	1000	< 1,000 U
	m,p-Xylene	2000	< 2,000 U
95-47-6	o-Xylene	1000	< 1,000 U
1634-04-4	Methyl tert-Butyl Ether	1000	< 1,000 U
109-66-0	n-Pentane	1000	< 1,000 U
110-54-3	n-Hexane	1000	< 1,000 U
111-65-9	n-Octane	1000	< 1,000 U
124-18-5	n-Decane	1000	< 1,000 U
112-40-3	n-Dodecane	1000	< 1,000 U

Range	**RL**	**Result**
C8-C10 Aromatics (PID)	10,000	< 10,000 U
C10-C12 Aromatics (PID)	10,000	< 10,000 U
C12-C13 Aromatics (PID)	10,000	< 10,000 U
C5-C6 Aliphatics	10,000	< 10,000 U
C6-C8 Aliphatics	10,000	< 10,000 U
C8-C10 Aliphatics	10,000	< 10,000 U
C10-C12 Aliphatics	10,000	< 10,000 U

Values reported in µg/kg (ppb)

VPH Surrogate Recovery

PID: 2,5-Dibromotoluene	110%
FID: 2,5-Dibromotoluene	97.8%

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

VPH SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: MS71-Friedman & Bruya, Inc.
Project: H-1388
804141

Client ID	PDBT	FDBT	TOT OUT
MB-042208	105%	93.6%	0
LCS-042208	104%	105%	0
LCSD-042208	102%	104%	0
SP02-07-08	109%	108%	0
SP11-05-06	117%	102%	0
SP12-10-12	112%	98.6%	0
SP14-07-08	114%	104%	0
SP15-06-07	110%	97.8%	0

	LCS/MB LIMITS	QC LIMITS
(PDBT) = 2,5-Dibromotoluene	(60-140)	(60-140)
(FDBT) = 2,5-Dibromotoluene	(60-140)	(60-140)

Prep Method: METHOD
Log Number Range: 08-7995 to 08-7999

ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET
VPH by Method WA VPH
Page 1 of 1

Sample ID: LCS-042208
LCS/LCSD

Lab Sample ID: LCS-042208
LIMS ID: 08-7995
Matrix: Soil
Data Release Authorized:
Reported: 04/23/08

QC Report No: MS71-Friedman & Bruya, Inc.
Project: H-1388
804141
Date Sampled: NA
Date Received: NA

Date Analyzed LCS: 04/22/08 11:03
Date Analyzed LCSD: 04/22/08 11:31
Instrument/Analyst: PID1/PKC

Purge Volume: 5.0 mL
Sample Amount: 55.6 mg-dry-wt

Analyte/Range	**LCS**	**Spike Added-LCS**	**LCS Recovery**	**LCSD**	**Spike Added-LCSD**	**LCSD Recovery**	**RPD**
Benzene	4460	4500	99.1%	4390	4500	97.6%	1.6%
Toluene	4480	4500	99.6%	4460	4500	99.1%	0.4%
Ethylbenzene	4550	4500	101%	4460	4500	99.1%	2.0%
m,p-Xylene	9000	8990	100%	8730	8990	97.1%	3.0%
o-Xylene	4470	4500	99.3%	4360	4500	96.9%	2.5%
Methyl tert-Butyl Ether	4370	4500	97.1%	4310	4500	95.8%	1.4%
Naphthalene	4360	4500	96.9%	4430	4500	98.4%	1.6%
1,2,3-Trimethylbenzene	4420	4500	98.2%	4320	4500	96.0%	2.3%
1-Methylnaphthalene	4660	4500	104%	4680	4500	104%	0.4%
n-Pentane	5620	4500	125%	5550	4500	123%	1.3%
n-Hexane	4910	4500	109%	4770	4500	106%	2.9%
n-Octane	4560	4500	101%	4520	4500	100%	0.9%
n-Decane	5050	4500	112%	4810	4500	107%	4.9%
n-Dodecane	5210	4500	116%	5180	4500	115%	0.6%

Values reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.

VPH Surrogate Recovery

	LCS	**LCSD**
PID: 2,5-Dibromotoluene	104%	102%
FID: 2,5-Dibromotoluene	105%	104%

ORGANICS ANALYSIS DATA SHEET
VPH by Method WA VPH
Page 1 of 1

Sample ID: MB-042208
METHOD BLANK

Lab Sample ID: MB-042208
LIMS ID: 08-7995
Matrix: Soil
Data Release Authorized:
Reported: 04/23/08

QC Report No: MS71-Friedman & Bruya, Inc.
Project: H-1388
804141
Date Sampled: NA
Date Received: NA

Date Analyzed: 04/22/08 12:27
Instrument/Analyst: PID1/PKC

Purge Volume: 5.0 mL
Sample Amount: 55.6 mg-dry-wt

CAS Number	Analyte	RL	Result
71-43-2	Benzene	450	< 450 U
108-88-3	Toluene	450	< 450 U
100-41-4	Ethylbenzene	450	< 450 U
	m,p-Xylene	900	< 900 U
95-47-6	o-Xylene	450	< 450 U
1634-04-4	Methyl tert-Butyl Ether	450	< 450 U
109-66-0	n-Pentane	450	< 450 U
110-54-3	n-Hexane	450	< 450 U
111-65-9	n-Octane	450	< 450 U
124-18-5	n-Decane	450	< 450 U
112-40-3	n-Dodecane	450	< 450 U

Range	RL	Result
C8-C10 Aromatics (PID)	4,500	< 4,500 U
C10-C12 Aromatics (PID)	4,500	< 4,500 U
C12-C13 Aromatics (PID)	4,500	< 4,500 U
C5-C6 Aliphatics	4,500	< 4,500 U
C6-C8 Aliphatics	4,500	< 4,500 U
C8-C10 Aliphatics	4,500	< 4,500 U
C10-C12 Aliphatics	4,500	< 4,500 U

Values reported in µg/kg (ppb)

VPH Surrogate Recovery

PID: 2,5-Dibromotoluene	105%
FID: 2,5-Dibromotoluene	93.6%

ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Page 1 of 1

Sample ID: SP02-07-08
SAMPLE

Lab Sample ID: MS71A
LIMS ID: 08-7995
Matrix: Soil
Data Release Authorized: VTS
Reported: 04/25/08

QC Report No: MS71-Friedman & Bruya, Inc.
Project: H-1388
804141
Date Sampled: 04/09/08
Date Received: 04/17/08

Date Extracted: 04/21/08
Percent Moisture: 27.0%

Sample Amount: 7.33 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 04/22/08 23:24
Instrument/Analyst: FID4B/MS
Dilution Factor: 1.00

Aromatic
Date Analyzed: 04/22/08 23:24
Instrument/Analyst: FID4A/MS
Dilution Factor: 1.00

Range	**RL**	**Result**
C8-C10 Aliphatics	**2,700**	**120,000**
C10-C12 Aliphatics	**2,700**	**43,000**
C12-C16 Aliphatics	**2,700**	**11,000**
C16-C21 Aliphatics	2,700	< 2,700 U
C21-C34 Aliphatics	2,700	< 2,700 U
C8-C10 Aromatics	**2,700**	**190,000**
C10-C12 Aromatics	**2,700**	**120,000**
C12-C16 Aromatics	**2,700**	**43,000**
C16-C21 Aromatics	**2,700**	**6,300**
C21-C34 Aromatics	2,700	< 2,700 U

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	62.9%
Aromatic	Ortho-terphenyl	88.0%

FORM I

ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
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Sample ID: SP11-05-06
SAMPLE

Lab Sample ID: MS71B
LIMS ID: 08-7996
Matrix: Soil
Data Release Authorized: VTS
Reported: 04/25/08

QC Report No: MS71-Friedman & Bruya, Inc.
Project: H-1388
804141
Date Sampled: 04/09/08
Date Received: 04/17/08

Date Extracted: 04/21/08
Percent Moisture: 23.5%

Sample Amount: 7.67 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 04/22/08 23:46
Instrument/Analyst: FID4B/MS
Dilution Factor: 1.00

Aromatic
Date Analyzed: 04/22/08 23:46
Instrument/Analyst: FID4A/MS
Dilution Factor: 1.00

Range	**RL**	**Result**
C8-C10 Aliphatics	2,600	< 2,600 U
C10-C12 Aliphatics	2,600	< 2,600 U
C12-C16 Aliphatics	2,600	< 2,600 U
C16-C21 Aliphatics	2,600	< 2,600 U
C21-C34 Aliphatics	2,600	< 2,600 U
C8-C10 Aromatics	2,600	< 2,600 U
C10-C12 Aromatics	2,600	< 2,600 U
C12-C16 Aromatics	2,600	< 2,600 U
C16-C21 Aromatics	2,600	< 2,600 U
C21-C34 Aromatics	2,600	< 2,600 U

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	72.2%
Aromatic	Ortho-terphenyl	72.7%

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Page 1 of 1

Sample ID: SP12-10-12
SAMPLE

Lab Sample ID: MS71C
LIMS ID: 08-7997
Matrix: Soil
Data Release Authorized:
Reported: 04/28/08

QC Report No: MS71-Friedman & Bruya, Inc.
Project: H-1388
804141
Date Sampled: 04/10/08
Date Received: 04/17/08

Date Extracted: 04/23/08
Percent Moisture: 26.1%

Sample Amount: 7.42 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 04/24/08 19:34
Instrument/Analyst: FID4B/MS
Dilution Factor: 1.00

Aromatic
Date Analyzed: 04/24/08 19:34
Instrument/Analyst: FID4A/MS
Dilution Factor: 1.00

Range	**RL**	**Result**
C8-C10 Aliphatics	**2,700**	**6,300**
C10-C12 Aliphatics	2,700	< 2,700 U
C12-C16 Aliphatics	2,700	< 2,700 U
C16-C21 Aliphatics	2,700	< 2,700 U
C21-C34 Aliphatics	2,700	< 2,700 U
C8-C10 Aromatics	**2,700**	**6,100**
C10-C12 Aromatics	**2,700**	**6,300**
C12-C16 Aromatics	2,700	< 2,700 U
C16-C21 Aromatics	2,700	< 2,700 U
C21-C34 Aromatics	2,700	< 2,700 U

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	74.1%
Aromatic	Ortho-terphenyl	95.8%

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Page 1 of 1

Sample ID: SP14-07-08
SAMPLE

Lab Sample ID: MS71D
LIMS ID: 08-7998
Matrix: Soil
Data Release Authorized:
Reported: 04/28/08

QC Report No: MS71-Friedman & Bruya, Inc.
Project: H-1388
804141
Date Sampled: 04/10/08
Date Received: 04/17/08

Date Extracted: 04/23/08
Percent Moisture: 23.4%

Sample Amount: 7.66 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 04/24/08 19:56
Instrument/Analyst: FID4B/MS
Dilution Factor: 1.00

Aromatic
Date Analyzed: 04/24/08 19:55
Instrument/Analyst: FID4A/MS
Dilution Factor: 1.00

Range	**RL**	**Result**
C8-C10 Aliphatics	2,600	< 2,600 U
C10-C12 Aliphatics	2,600	< 2,600 U
C12-C16 Aliphatics	2,600	< 2,600 U
C16-C21 Aliphatics	2,600	< 2,600 U
C21-C34 Aliphatics	2,600	< 2,600 U
C8-C10 Aromatics	2,600	< 2,600 U
C10-C12 Aromatics	2,600	< 2,600 U
C12-C16 Aromatics	2,600	< 2,600 U
C16-C21 Aromatics	2,600	< 2,600 U
C21-C34 Aromatics	2,600	< 2,600 U

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	64.6%
Aromatic	Ortho-terphenyl	90.2%

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Page 1 of 1

Sample ID: SP15-06-07
SAMPLE

Lab Sample ID: MS71E
LIMS ID: 08-7999
Matrix: Soil
Data Release Authorized: VTS
Reported: 04/25/08

QC Report No: MS71-Friedman & Bruya, Inc.
Project: H-1388
804141
Date Sampled: 04/10/08
Date Received: 04/17/08

Date Extracted: 04/21/08
Percent Moisture: 22.3%

Sample Amount: 7.79 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 04/22/08 00:07
Instrument/Analyst: FID4B/MS
Dilution Factor: 1.00

Aromatic
Date Analyzed: 04/22/08 00:07
Instrument/Analyst: FID4A/MS
Dilution Factor: 1.00

Range	**RL**	**Result**
C8-C10 Aliphatics	2,600	< 2,600 U
C10-C12 Aliphatics	2,600	< 2,600 U
C12-C16 Aliphatics	2,600	< 2,600 U
C16-C21 Aliphatics	2,600	< 2,600 U
C21-C34 Aliphatics	2,600	< 2,600 U
C8-C10 Aromatics	2,600	< 2,600 U
C10-C12 Aromatics	2,600	< 2,600 U
C12-C16 Aromatics	2,600	< 2,600 U
C16-C21 Aromatics	2,600	< 2,600 U
C21-C34 Aromatics	2,600	< 2,600 U

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	69.2%
Aromatic	Ortho-terphenyl	83.9%

ALEPH SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: MS71-Friedman & Bruya, Inc.
Project: H-1388
804141

Client ID	COD	TOT OUT
MB-042108	41.9%	0
LCS-042108	59.1%	0
LCSD-042108	69.5%	0
SP02-07-08	62.9%	0
SP11-05-06	72.2%	0
MB-042308	29.3%	0
LCS-042308	75.1%	0
SP12-10-12	74.1%	0
SP14-07-08	64.6%	0
SP15-06-07	69.2%	0

	LCS/MB LIMITS	QC LIMITS
(COD) = 1-Chlorooctadecane	(25-117)	(21-112)

Prep Method: SW3550B
Log Number Range: 08-7995 to 08-7999

FORM-II ALEPH

AREPH SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: MS71-Friedman & Bruya, Inc.
Project: H-1388
804141

Client ID	OTER	TOT OUT
MB-042108	49.0%	0
LCS-042108	81.9%	0
LCSD-042108	86.9%	0
SP02-07-08	88.0%	0
SP11-05-06	72.7%	0
MB-042308	34.7%*	1
LCS-042308	91.5%	0
SP12-10-12	95.8%	0
SP14-07-08	90.2%	0
SP15-06-07	83.9%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = Ortho-terphenyl	(41-116)	(28-121)

Prep Method: SW3550B
Log Number Range: 08-7995 to 08-7999

ANALYTICAL
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ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Page 1 of 1

Sample ID: LCS-042108
LCS/LCSD

Lab Sample ID: LCS-042108
LIMS ID: 08-7995
Matrix: Soil
Data Release Authorized: VTS
Reported: 04/25/08

QC Report No: MS71-Friedman & Bruya, Inc.
Project: H-1388
804141
Date Sampled: NA
Date Received: NA

Date Extracted LCS/LCSD: 04/21/08

Sample Amount LCS: 10.0 mL
LCSD: 10.0 mL
Final Extract Volume LCS: 1.0 mL
LCSD: 1.0 mL

Aliphatic
Date Analyzed LCS: 04/22/08 21:13
LCSD: 04/22/08 21:35
Instrument/Analyst LCS: FID4B/MS
LCSD: FID4B/MS

Dilution Factor LCS: 1.00
LCSD: 1.00

Aromatic
Date Analyzed LCS: 04/22/08 21:13
LCSD: 04/22/08 21:35
Instrument/Analyst LCS: FID4A/MS
LCSD: FID4A/MS

Dilution Factor LCS: 1.00
LCSD: 1.00

Range	**LCS**	**Spike Added-LCS**	**LCS Recovery**	**LCSD**	**Spike Added-LCSD**	**LCSD Recovery**	**RPD**
C8-C10 Aliphatics	7300	15000	48.7%	8700	15000	58.0%	17.5%
C10-C12 Aliphatics	8200	15000	54.7%	9900	15000	66.0%	18.8%
C12-C16 Aliphatics	10000	15000	66.7%	12500	15000	83.3%	22.2%
C16-C21 Aliphatics	11000	15000	73.3%	12700	15000	84.7%	14.3%
C10-C12 Aromatics	9700	15000	64.7%	10300	15000	68.7%	6.0%
C12-C16 Aromatics	11500	15000	76.7%	12400	15000	82.7%	7.5%
C16-C21 Aromatics	24200	30000	80.7%	26200	30000	87.3%	7.9%
C21-C34 Aromatics	25500	30000	85.0%	27500	30000	91.7%	7.5%

EPH Surrogate Recovery

		LCS	**LCSD**
Aliphatic	1-Chlorooctadecane	59.1%	69.5%
Aromatic	Ortho-terphenyl	81.9%	86.9%

Results reported in µg/kg
RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Page 1 of 1

Sample ID: LCS-042308
LAB CONTROL

Lab Sample ID: LCS-042308
LIMS ID: 08-7997
Matrix: Soil
Data Release Authorized:
Reported: 04/28/08

QC Report No: MS71-Friedman & Bruya, Inc.
Project: H-1388
804141
Date Sampled: NA
Date Received: NA

Date Extracted: 04/23/08

Sample Amount: 10.0 g-as-rec
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 04/24/08 15:36
Instrument/Analyst: FID4B/MS
Dilution Factor: 1.00

Aromatic
Date Analyzed: 04/24/08 15:36
Instrument/Analyst: FID4A/MS
Dilution Factor: 1.00

Range	**Lab Control**	**Spike Added**	**Recovery**
C8-C10 Aliphatics	9500	15000	63.3%
C10-C12 Aliphatics	11000	15000	73.3%
C12-C16 Aliphatics	14000	15000	93.3%
C16-C21 Aliphatics	14000	15000	93.3%
C10-C12 Aromatics	11800	15000	78.7%
C12-C16 Aromatics	13400	15000	89.3%
C16-C21 Aromatics	28300	30000	94.3%
C21-C34 Aromatics	28200	30000	94.0%

Results reported in µg/kg

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	75.1%
Aromatic	Ortho-terphenyl	91.5%

ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Page 1 of 1

Sample ID: MB-042108
METHOD BLANK

Lab Sample ID: MB-042108
LIMS ID: 08-7995
Matrix: Soil
Data Release Authorized: VTS
Reported: 04/25/08

QC Report No: MS71-Friedman & Bruya, Inc.
Project: H-1388
804141
Date Sampled: NA
Date Received: NA

Date Extracted: 04/21/08
Percent Moisture: NA

Sample Amount: 10.0 g-as-rec
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 04/22/08 20:51
Instrument/Analyst: FID4B/MS
Dilution Factor: 1.00

Aromatic
Date Analyzed: 04/22/08 20:51
Instrument/Analyst: FID4A/MS
Dilution Factor: 1.00

Range	**RL**	**Result**
C8-C10 Aliphatics	2,000	< 2,000 U
C10-C12 Aliphatics	2,000	< 2,000 U
C12-C16 Aliphatics	2,000	< 2,000 U
C16-C21 Aliphatics	2,000	< 2,000 U
C21-C34 Aliphatics	2,000	< 2,000 U
C8-C10 Aromatics	2,000	< 2,000 U
C10-C12 Aromatics	2,000	< 2,000 U
C12-C16 Aromatics	2,000	< 2,000 U
C16-C21 Aromatics	2,000	< 2,000 U
C21-C34 Aromatics	2,000	< 2,000 U

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	41.9%
Aromatic	Ortho-terphenyl	49.0%

FORM I

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Page 1 of 1

Sample ID: MB-042308
METHOD BLANK

Lab Sample ID: MB-042308
LIMS ID: 08-7997
Matrix: Soil
Data Release Authorized:
Reported: 04/28/08

QC Report No: MS71-Friedman & Bruya, Inc.
Project: H-1388
804141
Date Sampled: NA
Date Received: NA

Date Extracted: 04/23/08
Percent Moisture: NA

Sample Amount: 10.0 g-as-rec
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 04/24/08 15:14
Instrument/Analyst: FID4B/MS
Dilution Factor: 1.00

Aromatic
Date Analyzed: 04/24/08 15:14
Instrument/Analyst: FID4A/MS
Dilution Factor: 1.00

Range	**RL**	**Result**
C8-C10 Aliphatics	2,000	< 2,000 U
C10-C12 Aliphatics	2,000	< 2,000 U
C12-C16 Aliphatics	2,000	< 2,000 U
C16-C21 Aliphatics	2,000	< 2,000 U
C21-C34 Aliphatics	2,000	< 2,000 U
C8-C10 Aromatics	2,000	< 2,000 U
C10-C12 Aromatics	2,000	< 2,000 U
C12-C16 Aromatics	2,000	< 2,000 U
C16-C21 Aromatics	2,000	< 2,000 U
C21-C34 Aromatics	2,000	< 2,000 U

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	29.3%
Aromatic	Ortho-terphenyl	34.7%

Analytical Resources, Incorporated
Analytical Chemists and Consultants

RECEIVED
MAY 0 2 2008

April 30, 2008

Mike Erdahl
Friedman & Bruya
3012 – 16th Avenue West
Seattle, WA 9819-2029

Project: 804141 PO# H-1388
ARI Job: MT14

Dear Mr. Erdahl:

Please find enclosed the original Chain of Custody record, sample receipt documentation, and analytical results for the project referenced above. Analytical Resources, Inc. accepted one soil sample in good condition on April 21, 2008. Please refer to the enclosed Cooler Receipt Form for further details regarding sample receipt.

The sample was analyzed for EPH (Extractable Petroleum Hydrocarbon) and VPH (Volatile Petroleum Hydrocarbon), as requested on the Chain of Custody.

The analyses were completed routinely.

Quality control analysis results are included for your review. Copies of the reports and all associated raw data will be kept on file electronically at ARI. If you have any questions or require additional information, please contact me at your convenience.

Respectfully,

Eric Branson

Eric Branson
Client Services - Project Support
ANALYTICAL RESOURCES, INC.
(206) 695-6213
eric@arilabs.com
www.arilabs.com

• Enclosures •

MT/4

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

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

SUBCONTRACTER

PROJECT NAME/NO. 804141

PO # H-1388

REMARKS

Please Email Results
merdahl@friedmanandbruya.com

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

						ANALYSES REQUESTED										
Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	Oil and Grease	EPH	VPH	Nitrate	Sulfate	Alkalinity					Notes Dry wt.
SP05-67-08		4/9/08	15:10	S	2		X	X								66%
																MeoH Kit has no
																surrogate.
																Tare wt. includes VOA
																and 5 ml of MeoH
																ME

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

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Michael Erdahl	Friedman & Bruya	4/21/08	2:25
Received by:				
Relinquished by:				
Received by:				

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Fand B
Project Name:
COC No:
Delivered by: Hand
Assigned ARI Job No: MT14
Tracking No:

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES [✓ NO]
Were custody papers included with the cooler? .... [✓ YES] NO
Were custody papers properly filled out (ink, signed, etc.) .... [✓ YES] NO
Record cooler temperature (recommended 2.0-6.0 °C for chemistry .... 12.4 °C
Cooler Accepted by: Date: 4/21/08 Time: 1540

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? .... YES [✓ NO]
What kind of packing material was used? .... BW
Was sufficient ice used (if appropriate)? .... YES [✓ NO]
Were all bottles sealed in individual plastic bags? .... YES [✓ NO]
Did all bottle arrive in good condition (unbroken)? .... [✓ YES] NO
Were all bottle labels complete and legible? .... [✓ YES] NO
Did all bottle labels and tags agree with custody papers? .... [✓ YES] NO
Were all bottles used correct for the requested analyses? .... [✓ YES] NO
Do any of the analyses (bottles) require preservation? (attach preservation checklist) .... YES [✓ NO]
Were all VOC vials free of air bubbles? .... [✓ NA] YES NO
Was sufficient amount of sample sent in each bottle? .... [✓ YES] NO

Samples Logged by: JL Date: 4/21/08 Time: 1619

***** Notify Project Manager of discrepancies or concerns *****

Explain discrepancies or negative responses:

By: Date:

ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET
VPH by Method WA VPH
Page 1 of 1

Sample ID: SP05-07-08
SAMPLE

Lab Sample ID: MT14A
LIMS ID: 08-8228
Matrix: Soil
Data Release Authorized:
Reported: 04/24/08

QC Report No: MT14-Friedman & Bruya, Inc.
Project: H-1388
804141
Date Sampled: 04/09/08
Date Received: 04/21/08

Date Analyzed: 04/22/08 15:54
Instrument/Analyst: PID1/PKC

Purge Volume: 5.0 mL
Sample Amount: 14.0 mg-dry-wt

CAS Number	Analyte	RL	Result
71-43-2	Benzene	1800	< 1,800 U
108-88-3	Toluene	1800	< 1,800 U
100-41-4	**Ethylbenzene**	**1800**	**22,000**
	m,p-Xylene	3600	< 3,600 U
95-47-6	**o-Xylene**	**1800**	**5,500**
1634-04-4	Methyl tert-Butyl Ether	1800	< 1,800 U
109-66-0	n-Pentane	1800	< 1,800 U
110-54-3	n-Hexane	1800	< 1,800 U
111-65-9	**n-Octane**	**1800**	**1,900**
124-18-5	**n-Decane**	**1800**	**28,000**
112-40-3	**n-Dodecane**	**1800**	**29,000**

Range	RL	Result	
C8-C10 Aromatics (PID)	**18,000**	**660,000**	
C10-C12 Aromatics (PID)	**18,000**	**660,000**	
C12-C13 Aromatics (PID)	**18,000**	**72,000**	
C5-C6 Aliphatics	18,000	< 18,000	U
C6-C8 Aliphatics	**18,000**	**71,000**	
C8-C10 Aliphatics	**18,000**	**430,000**	
C10-C12 Aliphatics	**18,000**	**540,000**	

Values reported in μg/kg (ppb)

VPH Surrogate Recovery

PID: 2,5-Dibromotoluene	134%
FID: 2,5-Dibromotoluene	115%

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

VPH SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: MT14-Friedman & Bruya, Inc.
Project: H-1388
804141

Client ID	PDBT	FDBT	TOT OUT
MB-042208	105%	93.6%	0
LCS-042208	104%	105%	0
LCSD-042208	102%	104%	0
SP05-07-08	134%	115%	0

	LCS/MB LIMITS	QC LIMITS
(PDBT) = 2,5-Dibromotoluene	(60-140)	(60-140)
(FDBT) = 2,5-Dibromotoluene	(60-140)	(60-140)

Prep Method: METHOD
Log Number Range: 08-8228 to 08-8228

ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET
VPH by Method WA VPH
Page 1 of 1

Sample ID: LCS-042208
LCS/LCSD

Lab Sample ID: LCS-042208
LIMS ID: 08-8228
Matrix: Soil
Data Release Authorized:
Reported: 04/24/08

QC Report No: MT14-Friedman & Bruya, Inc.
Project: H-1388
804141
Date Sampled: NA
Date Received: NA

Date Analyzed LCS: 04/22/08 11:03
Date Analyzed LCSD: 04/22/08 11:31
Instrument/Analyst: PID1/PKC

Purge Volume: 5.0 mL
Sample Amount: 55.6 mg-dry-wt

Analyte/Range	**LCS**	**Spike Added-LCS**	**LCS Recovery**	**LCSD**	**Spike Added-LCSD**	**LCSD Recovery**	**RPD**
Benzene	4460	4500	99.1%	4390	4500	97.6%	1.6%
Toluene	4480	4500	99.6%	4460	4500	99.1%	0.4%
Ethylbenzene	4550	4500	101%	4460	4500	99.1%	2.0%
m,p-Xylene	9000	8990	100%	8730	8990	97.1%	3.0%
o-Xylene	4470	4500	99.3%	4360	4500	96.9%	2.5%
Methyl tert-Butyl Ether	4370	4500	97.1%	4310	4500	95.8%	1.4%
Naphthalene	4360	4500	96.9%	4430	4500	98.4%	1.6%
1,2,3-Trimethylbenzene	4420	4500	98.2%	4320	4500	96.0%	2.3%
1-Methylnaphthalene	4660	4500	104%	4680	4500	104%	0.4%
n-Pentane	5620	4500	125%	5550	4500	123%	1.3%
n-Hexane	4910	4500	109%	4770	4500	106%	2.9%
n-Octane	4560	4500	101%	4520	4500	100%	0.9%
n-Decane	5050	4500	112%	4810	4500	107%	4.9%
n-Dodecane	5210	4500	116%	5180	4500	115%	0.6%

Values reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.

VPH Surrogate Recovery

	LCS	**LCSD**
PID: 2,5-Dibromotoluene	104%	102%
FID: 2,5-Dibromotoluene	105%	104%

ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET
VPH by Method WA VPH
Page 1 of 1

Sample ID: MB-042208
METHOD BLANK

Lab Sample ID: MB-042208
LIMS ID: 08-8228
Matrix: Soil
Data Release Authorized:
Reported: 04/24/08

QC Report No: MT14-Friedman & Bruya, Inc.
Project: H-1388
804141
Date Sampled: NA
Date Received: NA

Date Analyzed: 04/22/08 12:27
Instrument/Analyst: PID1/PKC

Purge Volume: 5.0 mL
Sample Amount: 55.6 mg-dry-wt

CAS Number	**Analyte**	**RL**	**Result**
71-43-2	Benzene	450	< 450 U
108-88-3	Toluene	450	< 450 U
100-41-4	Ethylbenzene	450	< 450 U
	m,p-Xylene	900	< 900 U
95-47-6	o-Xylene	450	< 450 U
1634-04-4	Methyl tert-Butyl Ether	450	< 450 U
109-66-0	n-Pentane	450	< 450 U
110-54-3	n-Hexane	450	< 450 U
111-65-9	n-Octane	450	< 450 U
124-18-5	n-Decane	450	< 450 U
112-40-3	n-Dodecane	450	< 450 U

Range	**RL**	**Result**
C8-C10 Aromatics (PID)	4,500	< 4,500 U
C10-C12 Aromatics (PID)	4,500	< 4,500 U
C12-C13 Aromatics (PID)	4,500	< 4,500 U
C5-C6 Aliphatics	4,500	< 4,500 U
C6-C8 Aliphatics	4,500	< 4,500 U
C8-C10 Aliphatics	4,500	< 4,500 U
C10-C12 Aliphatics	4,500	< 4,500 U

Values reported in µg/kg (ppb)

VPH Surrogate Recovery

PID: 2,5-Dibromotoluene	105%
FID: 2,5-Dibromotoluene	93.6%

ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Page 1 of 1

Sample ID: SP05-07-08
SAMPLE

Lab Sample ID: MT14A
LIMS ID: 08-8228
Matrix: Soil
Data Release Authorized: VTS
Reported: 04/25/08

QC Report No: MT14-Friedman & Bruya, Inc.
Project: H-1388
804141
Date Sampled: 04/09/08
Date Received: 04/21/08

Date Extracted: 04/22/08
Percent Moisture: 34.0%

Sample Amount: 6.63 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 04/23/08 17:49
Instrument/Analyst: FID4B/MS
Dilution Factor: 1.00

Aromatic
Date Analyzed: 04/23/08 17:49
Instrument/Analyst: FID4A/MS
Dilution Factor: 1.00

Range	**RL**	**Result**
C8-C10 Aliphatics	**3,000**	**550,000**
C10-C12 Aliphatics	**3,000**	**560,000**
C12-C16 Aliphatics	**3,000**	**62,000**
C16-C21 Aliphatics	3,000	< 3,000 U
C21-C34 Aliphatics	**3,000**	**4,700**
C8-C10 Aromatics	**3,000**	**32,000**
C10-C12 Aromatics	**3,000**	**150,000**
C12-C16 Aromatics	**3,000**	**49,000**
C16-C21 Aromatics	3,000	< 3,000 U
C21-C34 Aromatics	3,000	< 3,000 U

Reported in μg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	67.3%
Aromatic	Ortho-terphenyl	85.3%

ALEPH SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: MT14-Friedman & Bruya, Inc.
Project: H-1388
804141

Client ID	COD	TOT OUT
MB-042208	72.5%	0
LCS-042208	63.9%	0
SP05-07-08	67.3%	0

	LCS/MB LIMITS	QC LIMITS
(COD) = 1-Chlorooctadecane	(25-117)	(21-112)

Prep Method: SW3550B
Log Number Range: 08-8228 to 08-8228

AREPH SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: MT14-Friedman & Bruya, Inc.
Project: H-1388
804141

Client ID	OTER	TOT OUT
MB-042208	94.1%	0
LCS-042208	99.0%	0
SP05-07-08	85.3%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = Ortho-terphenyl	(41-116)	(28-121)

Prep Method: SW3550B
Log Number Range: 08-8228 to 08-8228

ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Page 1 of 1

Sample ID: LCS-042208
LAB CONTROL

Lab Sample ID: LCS-042208
LIMS ID: 08-8228
Matrix: Soil
Data Release Authorized: VTS
Reported: 04/25/08

QC Report No: MT14-Friedman & Bruya, Inc.
Project: H-1388
804141
Date Sampled: NA
Date Received: NA

Date Extracted: 04/22/08

Sample Amount: 10.0 g-as-rec
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 04/23/08 17:28
Instrument/Analyst: FID4B/MS

Dilution Factor: 1.00

Aromatic
Date Analyzed: 04/23/08 17:28
Instrument/Analyst: FID4A/MS

Dilution Factor: 1.00

Range	**Lab Control**	**Spike Added**	**Recovery**
C8-C10 Aliphatics	10000	15000	66.7%
C10-C12 Aliphatics	11000	15000	73.3%
C12-C16 Aliphatics	12000	15000	80.0%
C16-C21 Aliphatics	12000	15000	80.0%
C10-C12 Aromatics	12500	15000	83.3%
C12-C16 Aromatics	14200	15000	94.7%
C16-C21 Aromatics	29300	30000	97.7%
C21-C34 Aromatics	30200	30000	101%

Results reported in µg/kg

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	63.9%
Aromatic	Ortho-terphenyl	99.0%

ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Page 1 of 1

Sample ID: MB-042208
METHOD BLANK

Lab Sample ID: MB-042208
LIMS ID: 08-8228
Matrix: Soil
Data Release Authorized: VTS
Reported: 04/25/08

QC Report No: MT14-Friedman & Bruya, Inc.
Project: H-1388
804141
Date Sampled: NA
Date Received: NA

Date Extracted: 04/22/08
Percent Moisture: NA

Sample Amount: 10.0 g-as-rec
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 04/23/08 17:06
Instrument/Analyst: FID4B/MS
Dilution Factor: 1.00

Aromatic
Date Analyzed: 04/23/08 17:06
Instrument/Analyst: FID4A/MS
Dilution Factor: 1.00

Range	**RL**	**Result**
C8-C10 Aliphatics	2,000	< 2,000 U
C10-C12 Aliphatics	2,000	< 2,000 U
C12-C16 Aliphatics	2,000	< 2,000 U
C16-C21 Aliphatics	2,000	< 2,000 U
C21-C34 Aliphatics	2,000	< 2,000 U
C8-C10 Aromatics	2,000	< 2,000 U
C10-C12 Aromatics	2,000	< 2,000 U
C12-C16 Aromatics	2,000	< 2,000 U
C16-C21 Aromatics	2,000	< 2,000 U
C21-C34 Aromatics	2,000	< 2,000 U

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	72.5%
Aromatic	Ortho-terphenyl	94.1%

June 2008 Subsurface Investigation

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

June 23, 2008

Ryan Bixby, Project Manager
Sound Environmental Strategies Corporation
2400 Airport Way S., Suite 200
Seattle, WA 98134-2020

Dear Mr. Bixby:

Included are the results from the testing of material submitted on June 4, 2008 from the NCPCS SOU_0592-001-01_20080604, F&BI 806044 project. There are 49 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: Mark Chandler, Erin Rothman
SOU0623R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on June 4, 2008 by Friedman & Bruya, Inc. from the Sound Environmental Strategies NCPCS SOU_0592-001-01_20080604, F&BI 806044 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Sound Environmental Strategies
806044-01	B13-7-8
806044-02	B13-11-12
806044-03	B13-13-14
806044-04	B14-7-8
806044-05	B14-11-12
806044-06	B14-13-14
806044-07	B15-7-8
806044-08	B15-11-12
806044-09	B15-13-14
806044-10	B16-6-7
806044-11	B16-11-2
806044-12	B16-14-15
806044-13	B17-6-7
806044-14	B17-9.5-10.5
806044-15	B17-13-14
806044-16	B18-6-7
806044-17	B18-11-12
806044-18	B18-13-14
806044-19	B19-6-7
806044-20	B19-7-8
806044-21	B19-11.5-12.5
806044-22	B21-9-10
806044-23	B21-11-12
806044-24	B21-12-13
806044-25	B22-5-6
806044-26	B22-7-8
806044-27	B22-11-12
806044-28	B23-6-7
806044-29	B23-14-15
806044-30	Trip Blank
806044-31	Rinsate

Samples B14-11-12 and B16-11-12 were sent to Analytical Resources, Inc. for EPH/VPH analyses. The report generated by ARI will be forwarded to your office upon receipt.

The rinsate lead sample was received in a 40ml VOA vial with HCl preservative. The data was flagged accordingly. All other quality control requirements were acceptable.

Date of Report: 06/23/08
Date Received: 06/04/08
Project: NCPCS SOU_0592-001-01_20080604, F&BI 806044
Date Extracted: 06/10/08
Date Analyzed: 06/10/08 and 06/11/08

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR GASOLINE, DIESEL AND HEAVY OIL BY NWTPH-HCID

Results Reported as Not Detected (ND) or Detected (D)

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

Sample ID Laboratory ID	Gasoline	Diesel	Heavy Oil	Surrogate (% Recovery) (Limit 50-150)
B13-7-8 806044-01	ND	ND	ND	100
B13-11-12 806044-02	ND	ND	ND	107
B13-13-14 806044-03	ND	ND	ND	103
B15-7-8 806044-07	ND	ND	ND	103
B15-11-12 806044-08	ND	ND	ND	103
B15-13-14 806044-09	ND	ND	ND	100
B17-6-7 806044-13	ND	ND	ND	104
B17-9.5-10.5 806044-14	ND	ND	ND	103
B17-13-14 806044-15	ND	ND	ND	101
B18-6-7 806044-16	ND	ND	ND	101

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

Date of Report: 06/23/08
Date Received: 06/04/08
Project: NCPCS SOU_0592-001-01_20080604, F&BI 806044
Date Extracted: 06/10/08
Date Analyzed: 06/10/08 and 06/11/08

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR GASOLINE, DIESEL AND HEAVY OIL BY NWTPH-HCID

Results Reported as Not Detected (ND) or Detected (D)

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

Sample ID Laboratory ID	Gasoline	Diesel	Heavy Oil	Surrogate (% Recovery) (Limit 50-150)
B18-11-12 806044-17	ND	ND	ND	111
B18-13-14 806044-18	ND	ND	ND	103
B21-9-10 806044-22	ND	ND	ND	102
B21-11-12 806044-23	ND	ND	ND	104
B21-12-13 806044-24	ND	ND	ND	103
B22-5-6 806044-25	ND	ND	ND	103
B22-7-8 806044-26	ND	ND	ND	104
B22-11-12 806044-27	ND	ND	ND	103
B23-6-7 806044-28	ND	ND	ND	104

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

Date of Report: 06/23/08
Date Received: 06/04/08
Project: NCPCS SOU_0592-001-01_20080604, F&BI 806044
Date Extracted: 06/10/08
Date Analyzed: 06/10/08 and 06/11/08

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR GASOLINE, DIESEL AND HEAVY OIL BY NWTPH-HCID

Results Reported as Not Detected (ND) or Detected (D)

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

Sample ID Laboratory ID	Gasoline	Diesel	Heavy Oil	Surrogate (% Recovery) (Limit 50-150)
B23-14-15 806044-29	ND	ND	ND	96
Method Blank	ND	ND	ND	105

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

Date of Report: 06/23/08
Date Received: 06/04/08
Project: NCPCS SOU_0592-001-01_20080604, F&BI 806044
Date Extracted: 06/10/08
Date Analyzed: 06/10/08 and 06/12/08

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

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

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
B14-11-12 d 806044-05 1/10	140	110
B16-11-2 806044-11	140	111
B19-11.5-12.5 806044-21	2	66
Method Blank	<2	110

Date of Report: 06/23/08
Date Received: 06/04/08
Project: NCPCS SOU_0592-001-01_20080604, F&BI 806044
Date Extracted: 06/10/08
Date Analyzed: 06/10/08 and 06/12/08

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 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 50-132)
B14-7-8 806044-04	<0.02	<0.02	<0.02	<0.06	<2	78
B14-13-14 806044-06	<0.02	2.0	0.22	0.42	84	85
B16-6-7 806044-10	<0.02	<0.02	<0.02	<0.06	<2	77
B16-14-15 806044-12	<0.02	<0.02	<0.02	<0.06	<2	136 vo
B19-6-7 806044-19	<0.02	<0.02	<0.02	<0.06	<2	94
B19-7-8 806044-20	<0.02	<0.02	<0.02	<0.06	<2	79
Method Blank	<0.02	<0.02	<0.02	<0.06	<2	82

Date of Report: 06/23/08
Date Received: 06/04/08
Project: NCPCS SOU_0592-001-01_20080604, F&BI 806044
Date Extracted: 06/12/08
Date Analyzed: 06/12/08

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

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 52-124)
Trip Blank 806044-30	<1	<1	<1	<3	<100	100
Rinsate 806044-31	<1	<1	<1	<3	<100	103
Method Blank	<1	<1	<1	<3	<100	89

Date of Report: 06/23/08
Date Received: 06/04/08
Project: NCPCS SOU_0592-001-01_20080604, F&BI 806044
Date Extracted: 06/10/08
Date Analyzed: 06/10/08 and 06/11/08

RESULTS FROM THE ANALYSIS OF THE 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 50-150)
B14-7-8 806044-04	<50	<250	95
B14-11-12 806044-05	<50	<250	99
B14-13-14 806044-06	95 x	<250	107
B16-6-7 806044-10	<50	<250	106
B16-11-2 806044-11	<50	<250	97
B16-14-15 806044-12	<50	<250	106
B19-6-7 806044-19	<50	<250	98
B19-7-8 806044-20	<50	<250	104
B19-11.5-12.5 806044-21	<50	<250	111
Method Blank	<50	<250	100

Date of Report: 06/23/08
Date Received: 06/04/08
Project: NCPCS SOU_0592-001-01_20080604, F&BI 806044
Date Extracted: 06/11/08
Date Analyzed: 06/11/08

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

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 51-132)
Rinsate 806044-31	<50	<250	95
Method Blank	<50	<250	98

Analysis For Total Metals By EPA Method 200.8

Client ID:	B14-7-8	Client:	Sound Environmental Strategies
Date Received:	06/04/08	Project:	NCPCS SOU_0592-001-01_20080604
Date Extracted:	06/10/08	Lab ID:	806044-04
Date Analyzed:	06/10/08	Data File:	806044-04.049
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	91	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	18.1

Analysis For Total Metals By EPA Method 200.8

Client ID:	B14-11-12	Client:	Sound Environmental Strategies
Date Received:	06/04/08	Project:	NCPCS SOU_0592-001-01_20080604
Date Extracted:	06/10/08	Lab ID:	806044-05
Date Analyzed:	06/10/08	Data File:	806044-05.050
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	90	60	125
Indium	90	60	125
Holmium	90	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	3.82
Arsenic	<1
Selenium	<1
Silver	<1
Cadmium	<1
Barium	34.3
Lead	1.75

Analysis For Total Metals By EPA Method 200.8

Client ID:	B14-13-14	Client:	Sound Environmental Strategies
Date Received:	06/04/08	Project:	NCPCS SOU_0592-001-01_20080604
Date Extracted:	06/10/08	Lab ID:	806044-06
Date Analyzed:	06/10/08	Data File:	806044-06.052
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	89	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	1.38

Analysis For Total Metals By EPA Method 200.8

Client ID:	B16-6-7	Client:	Sound Environmental Strategies
Date Received:	06/04/08	Project:	NCPCS SOU_0592-001-01_20080604
Date Extracted:	06/16/08	Lab ID:	806044-10
Date Analyzed:	06/16/08	Data File:	806044-10.048
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	85	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	6.33

Analysis For Total Metals By EPA Method 200.8

Client ID:	B16-11-2	Client:	Sound Environmental Strategies
Date Received:	06/04/08	Project:	NCPCS SOU_0592-001-01_20080604
Date Extracted:	06/10/08	Lab ID:	806044-11
Date Analyzed:	06/10/08	Data File:	806044-11.053
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	87	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	5.26

Analysis For Total Metals By EPA Method 200.8

Client ID:	B16-14-15	Client:	Sound Environmental Strategies
Date Received:	06/04/08	Project:	NCPCS SOU_0592-001-01_20080604
Date Extracted:	06/16/08	Lab ID:	806044-12
Date Analyzed:	06/16/08	Data File:	806044-12.049
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	85	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	4.71

Analysis For Total Metals By EPA Method 200.8

Client ID:	B19-6-7	Client:	Sound Environmental Strategies
Date Received:	06/04/08	Project:	NCPCS SOU_0592-001-01_20080604
Date Extracted:	06/10/08	Lab ID:	806044-19
Date Analyzed:	06/10/08	Data File:	806044-19.054
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	87	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	88.3

Analysis For Total Metals By EPA Method 200.8

Client ID:	B19-7-8	Client:	Sound Environmental Strategies
Date Received:	06/04/08	Project:	NCPCS SOU_0592-001-01_20080604
Date Extracted:	06/10/08	Lab ID:	806044-20
Date Analyzed:	06/10/08	Data File:	806044-20.055
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	92	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	4.93

Analysis For Total Metals By EPA Method 200.8

Client ID:	B19-11.5-12.5	Client:	Sound Environmental Strategies
Date Received:	06/04/08	Project:	NCPCS SOU_0592-001-01_20080604
Date Extracted:	06/10/08	Lab ID:	806044-21
Date Analyzed:	06/10/08	Data File:	806044-21.056
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	88	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	9.20

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Sound Environmental Strategies
Date Received:	NA	Project:	NCPCS SOU_0592-001-01_20080604
Date Extracted:	06/10/08	Lab ID:	I8-218 mb
Date Analyzed:	06/10/08	Data File:	I8-218 mb.041
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	94	60	125
Indium	99	60	125
Holmium	97	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	<2
Arsenic	<1
Selenium	<1
Silver	<1
Cadmium	<1
Barium	<1
Lead	<1

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Sound Environmental Strategies
Date Received:	NA	Project:	NCPCS SOU_0592-001-01_20080604
Date Extracted:	06/16/08	Lab ID:	I8-224 mb
Date Analyzed:	06/16/08	Data File:	I8-224 mb.032
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	85	60	125

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

Analysis For Total Metals By EPA Method 200.8

Client ID:	Rinsate	Client:	Sound Environmental Strategies
Date Received:	06/04/08	Project:	NCPCS SOU_0592-001-01_20080604
Date Extracted:	06/10/08	Lab ID:	806044-31
Date Analyzed:	06/10/08	Data File:	806044-31.025
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	91	60	125

Analyte:	Concentration ug/L (ppb)
Lead	27.3 pc, pr

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Sound Environmental Strategies
Date Received:	NA	Project:	NCPCS SOU_0592-001-01_20080604
Date Extracted:	06/10/08	Lab ID:	I8-216 mb
Date Analyzed:	06/10/08	Data File:	I8-216 mb.016
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	103	60	125

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

Date of Report: 06/23/08
Date Received: 06/04/08
Project: NCPCS SOU_0592-001-01_20080604, F&BI 806044
Date Extracted: 06/10/08
Date Analyzed: 06/16/08

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

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

Sample ID Laboratory ID	Total Mercury
B14-16-12 806044-05	<0.2
Method Blank	<0.2

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	B14-11-12	Client:	Sound Environmental Strategies
Date Received:	06/04/08	Project:	NCPCS SOU_0592-001-01_20080604
Date Extracted:	06/09/08	Lab ID:	806044-05
Date Analyzed:	06/09/08	Data File:	060911.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	74	43	128
1,2-Dichloroethane-d4	78	44	125
Toluene-d8	82	42	130
4-Bromofluorobenzene	93	27	154

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Ethanol	<50	1,1,2-Trichloroethane	<0.05
Dichlorodifluoromethane	<0.5	2-Hexanone	<0.5
Chloromethane	<0.05	1,3-Dichloropropane	<0.05
Vinyl chloride	<0.05	Tetrachloroethene	<0.025
Bromomethane	<0.5	Dibromochloromethane	<0.05
Chloroethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Trichlorofluoromethane	<0.5	Chlorobenzene	<0.05
Acetone	<0.5	Ethylbenzene	0.26
1,1-Dichloroethene	<0.05	1,1,1,2-Tetrachloroethane	<0.05
Methylene chloride	<0.5	m,p-Xylene	<0.1
t-Butyl alcohol (TBA)	<3	o-Xylene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	0.42
Diisopropyl ether (DIPE)	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	2.6
Ethyl t-butyl ether (ETBE)	<0.05	Bromobenzene	<0.05
2,2-Dichloropropane	<0.05	1,3,5-Trimethylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,1,2,2-Tetrachloroethane	<0.05
Chloroform	<0.05	1,2,3-Trichloropropane	<0.05
2-Butanone (MEK)	<0.5	2-Chlorotoluene	<0.05
t-Amyl methyl ether (TAME)	<0.05	4-Chlorotoluene	<0.05
1,2-Dichloroethane (EDC)	<0.05	tert-Butylbenzene	<0.05
1,1,1-Trichloroethane	<0.05	1,2,4-Trimethylbenzene	<0.05
1,1-Dichloropropene	<0.05	sec-Butylbenzene	0.71
Carbon Tetrachloride	<0.05	p-Isopropyltoluene	<0.05
Benzene	<0.03	1,3-Dichlorobenzene	<0.05
Trichloroethene	<0.03	1,4-Dichlorobenzene	<0.05
1,2-Dichloropropane	<0.05	1,2-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,2-Dibromo-3-chloropropane	<0.05
Dibromomethane	<0.05	1,2,4-Trichlorobenzene	<0.1
4-Methyl-2-pentanone	<0.5	Hexachlorobutadiene	<0.1
cis-1,3-Dichloropropene	<0.05	Naphthalene	0.23
Toluene	<0.05	1,2,3-Trichlorobenzene	<0.1
trans-1,3-Dichloropropene	<0.05		

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	B16-11-2	Client:	Sound Environmental Strategies
Date Received:	06/04/08	Project:	NCPCS SOU_0592-001-01_20080604
Date Extracted:	06/09/08	Lab ID:	806044-11
Date Analyzed:	06/09/08	Data File:	060912.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	114	43	128
1,2-Dichloroethane-d4	117	44	125
Toluene-d8	118	42	130
4-Bromofluorobenzene	132	27	154

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Ethanol	<50	1,1,2-Trichloroethane	<0.05
Dichlorodifluoromethane	<0.5	2-Hexanone	<0.5
Chloromethane	<0.05	1,3-Dichloropropane	<0.05
Vinyl chloride	<0.05	Tetrachloroethene	<0.025
Bromomethane	<0.5	Dibromochloromethane	<0.05
Chloroethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Trichlorofluoromethane	<0.5	Chlorobenzene	<0.05
Acetone	<0.5	Ethylbenzene	<0.05
1,1-Dichloroethene	<0.05	1,1,1,2-Tetrachloroethane	<0.05
Methylene chloride	<0.5	m,p-Xylene	<0.1
t-Butyl alcohol (TBA)	<3	o-Xylene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
Diisopropyl ether (DIPE)	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
Ethyl t-butyl ether (ETBE)	<0.05	Bromobenzene	<0.05
2,2-Dichloropropane	<0.05	1,3,5-Trimethylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,1,2,2-Tetrachloroethane	<0.05
Chloroform	<0.05	1,2,3-Trichloropropane	<0.05
2-Butanone (MEK)	<0.5	2-Chlorotoluene	<0.05
t-Amyl methyl ether (TAME)	<0.05	4-Chlorotoluene	<0.05
1,2-Dichloroethane (EDC)	<0.05	tert-Butylbenzene	<0.05
1,1,1-Trichloroethane	<0.05	1,2,4-Trimethylbenzene	<0.05
1,1-Dichloropropene	<0.05	sec-Butylbenzene	<0.05
Carbon Tetrachloride	<0.05	p-Isopropyltoluene	<0.05
Benzene	<0.03	1,3-Dichlorobenzene	<0.05
Trichloroethene	<0.03	1,4-Dichlorobenzene	<0.05
1,2-Dichloropropane	<0.05	1,2-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,2-Dibromo-3-chloropropane	<0.05
Dibromomethane	<0.05	1,2,4-Trichlorobenzene	<0.1
4-Methyl-2-pentanone	<0.5	Hexachlorobutadiene	<0.1
cis-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
Toluene	<0.05	1,2,3-Trichlorobenzene	<0.1
trans-1,3-Dichloropropene	<0.05		

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	B19-11.5-12.5	Client:	Sound Environmental Strategies
Date Received:	06/04/08	Project:	NCPCS SOU_0592-001-01_20080604
Date Extracted:	06/16/08	Lab ID:	806044-21
Date Analyzed:	06/16/08	Data File:	061620.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	88	43	128
1,2-Dichloroethane-d4	92	44	125
Toluene-d8	87	42	130
4-Bromofluorobenzene	90	27	154

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Ethanol	<50	1,1,2-Trichloroethane	<0.05
Dichlorodifluoromethane	<0.5	2-Hexanone	<0.5
Chloromethane	<0.05	1,3-Dichloropropane	<0.05
Vinyl chloride	<0.05	Tetrachloroethene	<0.025
Bromomethane	<0.5	Dibromochloromethane	<0.05
Chloroethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Trichlorofluoromethane	<0.5	Chlorobenzene	<0.05
Acetone	<0.5	Ethylbenzene	<0.05
1,1-Dichloroethene	<0.05	1,1,1,2-Tetrachloroethane	<0.05
Methylene chloride	<0.5	m,p-Xylene	<0.1
t-Butyl alcohol (TBA)	<3	o-Xylene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
Diisopropyl ether (DIPE)	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
Ethyl t-butyl ether (ETBE)	<0.05	Bromobenzene	<0.05
2,2-Dichloropropane	<0.05	1,3,5-Trimethylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,1,2,2-Tetrachloroethane	<0.05
Chloroform	<0.05	1,2,3-Trichloropropane	<0.05
2-Butanone (MEK)	<0.5	2-Chlorotoluene	<0.05
t-Amyl methyl ether (TAME)	<0.05	4-Chlorotoluene	<0.05
1,2-Dichloroethane (EDC)	<0.05	tert-Butylbenzene	<0.05
1,1,1-Trichloroethane	<0.05	1,2,4-Trimethylbenzene	<0.05
1,1-Dichloropropene	<0.05	sec-Butylbenzene	<0.05
Carbon Tetrachloride	<0.05	p-Isopropyltoluene	<0.05
Benzene	<0.03	1,3-Dichlorobenzene	<0.05
Trichloroethene	<0.03	1,4-Dichlorobenzene	<0.05
1,2-Dichloropropane	<0.05	1,2-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,2-Dibromo-3-chloropropane	<0.05
Dibromomethane	<0.05	1,2,4-Trichlorobenzene	<0.1
4-Methyl-2-pentanone	<0.5	Hexachlorobutadiene	<0.1
cis-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
Toluene	<0.05	1,2,3-Trichlorobenzene	<0.1
trans-1,3-Dichloropropene	<0.05		

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	Method Blank	Client:	Sound Environmental Strategies
Date Received:	NA	Project:	NCPCS SOU_0592-001-01_20080604
Date Extracted:	06/09/08	Lab ID:	080875 mb
Date Analyzed:	06/09/08	Data File:	060906.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	66	43	128
1,2-Dichloroethane-d4	66	44	125
Toluene-d8	68	42	130
4-Bromofluorobenzene	76	27	154

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Ethanol	<50	1,1,2-Trichloroethane	<0.05
Dichlorodifluoromethane	<0.5	2-Hexanone	<0.5
Chloromethane	<0.05	1,3-Dichloropropane	<0.05
Vinyl chloride	<0.05	Tetrachloroethene	<0.025
Bromomethane	<0.5	Dibromochloromethane	<0.05
Chloroethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Trichlorofluoromethane	<0.5	Chlorobenzene	<0.05
Acetone	<0.5	Ethylbenzene	<0.05
1,1-Dichloroethene	<0.05	1,1,1,2-Tetrachloroethane	<0.05
Methylene chloride	<0.5	m,p-Xylene	<0.1
t-Butyl alcohol (TBA)	<3	o-Xylene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
Diisopropyl ether (DIPE)	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
Ethyl t-butyl ether (ETBE)	<0.05	Bromobenzene	<0.05
2,2-Dichloropropane	<0.05	1,3,5-Trimethylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,1,2,2-Tetrachloroethane	<0.05
Chloroform	<0.05	1,2,3-Trichloropropane	<0.05
2-Butanone (MEK)	<0.5	2-Chlorotoluene	<0.05
t-Amyl methyl ether (TAME)	<0.05	4-Chlorotoluene	<0.05
1,2-Dichloroethane (EDC)	<0.05	tert-Butylbenzene	<0.05
1,1,1-Trichloroethane	<0.05	1,2,4-Trimethylbenzene	<0.05
1,1-Dichloropropene	<0.05	sec-Butylbenzene	<0.05
Carbon Tetrachloride	<0.05	p-Isopropyltoluene	<0.05
Benzene	<0.03	1,3-Dichlorobenzene	<0.05
Trichloroethene	<0.03	1,4-Dichlorobenzene	<0.05
1,2-Dichloropropane	<0.05	1,2-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,2-Dibromo-3-chloropropane	<0.05
Dibromomethane	<0.05	1,2,4-Trichlorobenzene	<0.1
4-Methyl-2-pentanone	<0.5	Hexachlorobutadiene	<0.1
cis-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
Toluene	<0.05	1,2,3-Trichlorobenzene	<0.1
trans-1,3-Dichloropropene	<0.05		

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	Method Blank	Client:	Sound Environmental Strategies
Date Received:	NA	Project:	NCPCS SOU_0592-001-01_20080604
Date Extracted:	06/13/08	Lab ID:	080932 mb
Date Analyzed:	06/13/08	Data File:	061306.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	79	43	128
1,2-Dichloroethane-d4	77	44	125
Toluene-d8	74	42	130
4-Bromofluorobenzene	82	27	154

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Ethanol	<50	1,1,2-Trichloroethane	<0.05
Dichlorodifluoromethane	<0.5	2-Hexanone	<0.5
Chloromethane	<0.05	1,3-Dichloropropane	<0.05
Vinyl chloride	<0.05	Tetrachloroethene	<0.025
Bromomethane	<0.5	Dibromochloromethane	<0.05
Chloroethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Trichlorofluoromethane	<0.5	Chlorobenzene	<0.05
Acetone	<0.5	Ethylbenzene	<0.05
1,1-Dichloroethene	<0.05	1,1,1,2-Tetrachloroethane	<0.05
Methylene chloride	<0.5	m,p-Xylene	<0.1
t-Butyl alcohol (TBA)	<3	o-Xylene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
Diisopropyl ether (DIPE)	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
Ethyl t-butyl ether (ETBE)	<0.05	Bromobenzene	<0.05
2,2-Dichloropropane	<0.05	1,3,5-Trimethylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,1,2,2-Tetrachloroethane	<0.05
Chloroform	<0.05	1,2,3-Trichloropropane	<0.05
2-Butanone (MEK)	<0.5	2-Chlorotoluene	<0.05
t-Amyl methyl ether (TAME)	<0.05	4-Chlorotoluene	<0.05
1,2-Dichloroethane (EDC)	<0.05	tert-Butylbenzene	<0.05
1,1,1-Trichloroethane	<0.05	1,2,4-Trimethylbenzene	<0.05
1,1-Dichloropropene	<0.05	sec-Butylbenzene	<0.05
Carbon Tetrachloride	<0.05	p-Isopropyltoluene	<0.05
Benzene	<0.03	1,3-Dichlorobenzene	<0.05
Trichloroethene	<0.03	1,4-Dichlorobenzene	<0.05
1,2-Dichloropropane	<0.05	1,2-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,2-Dibromo-3-chloropropane	<0.05
Dibromomethane	<0.05	1,2,4-Trichlorobenzene	<0.1
4-Methyl-2-pentanone	<0.5	Hexachlorobutadiene	<0.1
cis-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
Toluene	<0.05	1,2,3-Trichlorobenzene	<0.1
trans-1,3-Dichloropropene	<0.05		

Analysis For Semivolatile Compounds By EPA Method 8270C SIM

Client Sample ID:	B14-16-12	Client:	Sound Environmental Strategies
Date Received:	06/04/08	Project:	NCPCS SOU_0592-001-01_20080604
Date Extracted:	06/10/08	Lab ID:	806044-05 1/5
Date Analyzed:	06/11/08	Data File:	061104.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	116	50	150
Benzo(a)anthracene-d12	99	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.070
2-Methylnaphthalene	0.42
1-Methylnaphthalene	0.18
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270C SIM

Client Sample ID:	B16-11-2	Client:	Sound Environmental Strategies
Date Received:	06/04/08	Project:	NCPCS SOU_0592-001-01_20080604
Date Extracted:	06/10/08	Lab ID:	806044-11 1/5
Date Analyzed:	06/10/08	Data File:	061017.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	112	50	150
Benzo(a)anthracene-d12	99	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
2-Methylnaphthalene	<0.01
1-Methylnaphthalene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270C SIM

Client Sample ID:	B19-11.5-12.5	Client:	Sound Environmental Strategies
Date Received:	06/04/08	Project:	NCPCS SOU_0592-001-01_20080604
Date Extracted:	06/12/08	Lab ID:	806044-21 1/5
Date Analyzed:	06/12/08	Data File:	061211.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	117	50	150
Benzo(a)anthracene-d12	100	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
2-Methylnaphthalene	<0.01
1-Methylnaphthalene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270C SIM

Client Sample ID:	Method Blank	Client:	Sound Environmental Strategies
Date Received:	NA	Project:	NCPCS SOU_0592-001-01_20080604
Date Extracted:	06/12/08	Lab ID:	080922mb 1/5
Date Analyzed:	06/12/08	Data File:	061208.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	121	50	150
Benzo(a)anthracene-d12	100	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
2-Methylnaphthalene	<0.01
1-Methylnaphthalene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270C SIM

Client Sample ID:	Method Blank	Client:	Sound Environmental Strategies
Date Received:	NA	Project:	NCPCS SOU_0592-001-01_20080604
Date Extracted:	06/10/08	Lab ID:	080904mb 1/5
Date Analyzed:	06/10/08	Data File:	061006.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	102	50	150
Benzo(a)anthracene-d12	89	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
2-Methylnaphthalene	<0.01
1-Methylnaphthalene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Date of Report: 06/23/08
Date Received: 06/04/08
Project: NCPCS SOU_0592-001-01_20080604, F&BI 806044

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: 806044-21 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (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	8	120 a

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	96	66-121
Toluene	mg/kg (ppm)	0.5	94	72-128
Ethylbenzene	mg/kg (ppm)	0.5	90	69-132
Xylenes	mg/kg (ppm)	1.5	92	69-131
Gasoline	mg/kg (ppm)	20	106	61-153

Date of Report: 06/23/08
Date Received: 06/04/08
Project: NCPCS SOU_0592-001-01_20080604, F&BI 806044

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: 806105-37 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (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	97	65-118
Toluene	ug/L (ppb)	50	98	72-122
Ethylbenzene	ug/L (ppb)	50	99	73-126
Xylenes	ug/L (ppb)	150	98	74-118
Gasoline	ug/L (ppb)	1,000	82	69-134

Date of Report: 06/23/08
Date Received: 06/04/08
Project: NCPCS SOU_0592-001-01_20080604, F&BI 806044

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

Laboratory Code: 806088-04 (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	115	107	50-150	7

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	112	70-130

Date of Report: 06/23/08
Date Received: 06/04/08
Project: NCPCS SOU_0592-001-01_20080604, F&BI 806044

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	101	92	67-141	9

Date of Report: 06/23/08
Date Received: 06/04/08
Project: NCPCS SOU_0592-001-01_20080604, F&BI 806044

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

Laboratory Code: 805103-03 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/kg (ppm)	15.3	15.1	1	0-20
Arsenic	mg/kg (ppm)	2.56	2.68	5	0-20
Selenium	mg/kg (ppm)	<1	<1	nm	0-20
Silver	mg/kg (ppm)	<1	<1	nm	0-20
Cadmium	mg/kg (ppm)	<1	<1	nm	0-20
Barium	mg/kg (ppm)	76.2	80.5	5	0-20
Lead	mg/kg (ppm)	370	379	2	0-20

Laboratory Code: 805103-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Chromium	mg/kg (ppm)	50	15.3	103 b	50-150
Arsenic	mg/kg (ppm)	10	2.56	102 b	50-150
Selenium	mg/kg (ppm)	5	<1	95	50-150
Silver	mg/kg (ppm)	10	<1	80	50-150
Cadmium	mg/kg (ppm)	10	<1	102	50-150
Barium	mg/kg (ppm)	50	76.2	127 b	50-150
Lead	mg/kg (ppm)	50	370	0 b	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chromium	mg/kg (ppm)	50	111	70-130
Arsenic	mg/kg (ppm)	10	99	70-130
Selenium	mg/kg (ppm)	5	100	70-130
Silver	mg/kg (ppm)	10	82	70-130
Cadmium	mg/kg (ppm)	10	103	70-130
Barium	mg/kg (ppm)	50	99	70-130
Lead	mg/kg (ppm)	50	102	70-130

Date of Report: 06/23/08
Date Received: 06/04/08
Project: NCPCS SOU_0592-001-01_20080604, F&BI 806044

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

Laboratory Code: 806159-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Lead	mg/kg (ppm)	18.8	17.6	7	0-20

Laboratory Code: 806159-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Lead	mg/kg (ppm)	50	18.8	100 b	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/kg (ppm)	50	99	70-130

Date of Report: 06/23/08
Date Received: 06/04/08
Project: NCPCS SOU_0592-001-01_20080604, F&BI 806044

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

Laboratory Code: 806039-02 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Lead	ug/L (ppb)	<1	<1	nm	0-20

Laboratory Code: 806039-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Lead	ug/L (ppb)	10	<1	95	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	ug/L (ppb)	10	96	70-130

Date of Report: 06/23/08
Date Received: 06/04/08
Project: NCPCS SOU_0592-001-01_20080604, F&BI 806044

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Laboratory Code: 805103-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Mercury	mg/kg (ppm)	0.125	<0.2	107	101	50-150	6

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Mercury	mg/kg (ppm)	0.125	104	70-130

Date of Report: 06/23/08
Date Received: 06/04/08
Project: NCPCS SOU_0592-001-01_20080604, F&BI 806044

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

Laboratory Code: 806060-18 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Ethanol	mg/kg (ppm)	<50	<50	nm
Dichlorodifluoromethane	mg/kg (ppm)	<0.05	<0.05	nm
Chloromethane	mg/kg (ppm)	<0.05	<0.05	nm
Vinyl chloride	mg/kg (ppm)	<0.05	<0.05	nm
Bromomethane	mg/kg (ppm)	<0.05	<0.05	nm
Chloroethane	mg/kg (ppm)	<0.05	<0.05	nm
Trichlorofluoromethane	mg/kg (ppm)	<0.05	<0.05	nm
Acetone	mg/kg (ppm)	<0.5	<0.5	nm
1,1-Dichloroethene	mg/kg (ppm)	<0.05	<0.05	nm
Methylene chloride	mg/kg (ppm)	<0.5	<0.5	nm
t-Butyl alcohol (TBA)	mg/kg (ppm)	<3	<3	nm
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	<0.05	<0.05	nm
trans-1,2-Dichloroethene	mg/kg (ppm)	<0.05	<0.05	nm
Diisopropyl ether (DIPE)	mg/kg (ppm)	<0.05	<0.05	nm
1,1-Dichloroethane	mg/kg (ppm)	<0.05	<0.05	nm
Ethyl t-butyl ether (ETBE)	mg/kg (ppm)	<0.05	<0.05	nm
2,2-Dichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
cis-1,2-Dichloroethene	mg/kg (ppm)	<0.05	<0.05	nm
Chloroform	mg/kg (ppm)	<0.05	<0.05	nm
2-Butanone (MEK)	mg/kg (ppm)	<0.5	<0.5	nm
t-Amyl methyl ether (TAME)	mg/kg (ppm)	<0.05	<0.05	nm
1,2-Dichloroethane (EDC)	mg/kg (ppm)	<0.05	<0.05	nm
1,1,1-Trichloroethane	mg/kg (ppm)	<0.05	<0.05	nm
1,1-Dichloropropene	mg/kg (ppm)	<0.05	<0.05	nm
Carbon Tetrachloride	mg/kg (ppm)	<0.05	<0.05	nm
Benzene	mg/kg (ppm)	<0.03	<0.03	nm
Trichloroethene	mg/kg (ppm)	<0.03	<0.03	nm
1,2-Dichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
Bromodichloromethane	mg/kg (ppm)	<0.05	<0.05	nm
Dibromomethane	mg/kg (ppm)	<0.05	<0.05	nm
4-Methyl-2-pentanone	mg/kg (ppm)	<0.5	<0.5	nm
cis-1,3-Dichloropropene	mg/kg (ppm)	<0.05	<0.05	nm
Toluene	mg/kg (ppm)	0.11	0.11	0
trans-1,3-Dichloropropene	mg/kg (ppm)	<0.05	<0.05	nm
1,1,2-Trichloroethane	mg/kg (ppm)	<0.05	<0.05	nm
2-Hexanone	mg/kg (ppm)	<0.5	<0.5	nm
1,3-Dichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
Tetrachloroethene	mg/kg (ppm)	<0.025	<0.025	nm
Dibromochloromethane	mg/kg (ppm)	<0.05	<0.05	nm
1,2-Dibromoethane (EDB)	mg/kg (ppm)	<0.05	<0.05	nm
Chlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
Ethylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	<0.05	<0.05	nm
m,p-Xylene	mg/kg (ppm)	<0.1	<0.1	nm
o-Xylene	mg/kg (ppm)	<0.05	<0.05	nm
Styrene	mg/kg (ppm)	<0.05	<0.05	nm
Isopropylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
Bromoform	mg/kg (ppm)	<0.05	<0.05	nm
n-Propylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
Bromobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,3,5-Trimethylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	<0.05	<0.05	nm
1,2,3-Trichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
2-Chlorotoluene	mg/kg (ppm)	<0.05	<0.05	nm
4-Chlorotoluene	mg/kg (ppm)	<0.05	<0.05	nm
tert-Butylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,2,4-Trimethylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
sec-Butylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
p-Isopropyltoluene	mg/kg (ppm)	<0.05	<0.05	nm
1,3-Dichlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,4-Dichlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,2-Dichlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	<0.05	<0.05	nm
1,2,4-Trichlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
Hexachlorobutadiene	mg/kg (ppm)	<0.05	<0.05	nm
Naphthalene	mg/kg (ppm)	<0.05	<0.05	nm
1,2,3-Trichlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm

Date of Report: 06/23/08
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Project: NCPCS SOU_0592-001-01_20080604, F&BI 806044

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Ethanol	mg/kg (ppm)	125	97	85	43-146	13
Dichlorodifluoromethane	mg/kg (ppm)	2.5	95	95	10-146	0
Chloromethane	mg/kg (ppm)	2.5	102	96	6-137	6
Vinyl chloride	mg/kg (ppm)	2.5	104	99	22-139	5
Bromomethane	mg/kg (ppm)	2.5	123 vo	121 vo	41-119	2
Chloroethane	mg/kg (ppm)	2.5	110	103	38-142	7
Trichlorofluoromethane	mg/kg (ppm)	2.5	89	87	28-177	2
Acetone	mg/kg (ppm)	2.5	101	108	52-161	7
1,1-Dichloroethene	mg/kg (ppm)	2.5	98	96	46-132	2
Methylene chloride	mg/kg (ppm)	2.5	107	103	46-131	4
t-Butyl alcohol (TBA)	mg/kg (ppm)	12.5	94	96	66-130	2
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	111	110	69-124	1
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	109	104	67-120	5
Diisopropyl ether (DIPE)	mg/kg (ppm)	2.5	109	106	80-129	3
1,1-Dichloroethane	mg/kg (ppm)	2.5	107	105	77-117	2
Ethyl t-butyl ether (ETBE)	mg/kg (ppm)	2.5	109	107	79-128	2
2,2-Dichloropropane	mg/kg (ppm)	2.5	114	107	53-139	6
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	104	102	75-122	2
Chloroform	mg/kg (ppm)	2.5	108	105	73-118	3
2-Butanone (MEK)	mg/kg (ppm)	2.5	102	105	60-134	3
t-Amyl methyl ether (TAME)	mg/kg (ppm)	2.5	109	108	79-129	1
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	111	110	74-122	1
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	108	105	74-125	3
1,1-Dichloropropene	mg/kg (ppm)	2.5	101	100	73-120	1
Carbon Tetrachloride	mg/kg (ppm)	2.5	110	106	72-125	4
Benzene	mg/kg (ppm)	2.5	102	100	70-122	2
Trichloroethene	mg/kg (ppm)	2.5	101	99	76-119	2
1,2-Dichloropropane	mg/kg (ppm)	2.5	107	105	77-131	2
Bromodichloromethane	mg/kg (ppm)	2.5	113	110	75-125	3
Dibromomethane	mg/kg (ppm)	2.5	109	108	80-125	1
4-Methyl-2-pentanone	mg/kg (ppm)	2.5	105	111	61-148	6
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	113	111	75-136	2
Toluene	mg/kg (ppm)	2.5	93	92	66-126	1
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	111	110	72-132	1
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	98	98	65-136	0
2-Hexanone	mg/kg (ppm)	2.5	99	105	62-152	6
1,3-Dichloropropane	mg/kg (ppm)	2.5	100	100	72-130	0
Tetrachloroethene	mg/kg (ppm)	2.5	95	94	79-127	1
Dibromochloromethane	mg/kg (ppm)	2.5	107	107	76-130	0
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	100	100	74-132	0
Chlorobenzene	mg/kg (ppm)	2.5	97	95	79-115	2
Ethylbenzene	mg/kg (ppm)	2.5	98	96	64-123	2
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	102	100	69-135	2
m,p-Xylene	mg/kg (ppm)	5	100	99	66-120	1
o-Xylene	mg/kg (ppm)	2.5	98	96	66-118	2
Styrene	mg/kg (ppm)	2.5	101	99	81-112	2
Isopropylbenzene	mg/kg (ppm)	2.5	101	99	79-112	2
Bromoform	mg/kg (ppm)	2.5	84	85	76-129	1
n-Propylbenzene	mg/kg (ppm)	2.5	100	100	81-117	0
Bromobenzene	mg/kg (ppm)	2.5	94	93	72-122	1
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	98	98	74-111	0
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	93	98	56-143	5
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	92	98	61-137	6
2-Chlorotoluene	mg/kg (ppm)	2.5	96	94	83-114	2
4-Chlorotoluene	mg/kg (ppm)	2.5	98	97	82-113	1
tert-Butylbenzene	mg/kg (ppm)	2.5	101	100	78-111	1
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	94	94	75-110	0
sec-Butylbenzene	mg/kg (ppm)	2.5	106	105	78-119	1
p-Isopropyltoluene	mg/kg (ppm)	2.5	105	104	74-114	1
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	97	96	82-114	1
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	95	95	79-109	0
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	94	93	81-117	1
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	86	92	42-166	7
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	93	95	70-129	2
Hexachlorobutadiene	mg/kg (ppm)	2.5	105	105	50-153	0
Naphthalene	mg/kg (ppm)	2.5	69	76	65-138	10
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	75	81	74-125	8

Note: The calibration verification result for bromoform, naphthalene and 1,2,3-trichlorobenzene exceeded 15% deviation. The average deviation for all compounds was not greater than 15%; therefore, the calibration is considered valid.

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

Laboratory Code: 806112-17 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Ethanol	mg/kg (ppm)	<50	<50	nm
Dichlorodifluoromethane	mg/kg (ppm)	<0.05	<0.05	nm
Chloromethane	mg/kg (ppm)	<0.05	<0.05	nm
Vinyl chloride	mg/kg (ppm)	<0.05	<0.05	nm
Bromomethane	mg/kg (ppm)	<0.05	<0.05	nm
Chloroethane	mg/kg (ppm)	<0.05	<0.05	nm
Trichlorofluoromethane	mg/kg (ppm)	<0.05	<0.05	nm
Acetone	mg/kg (ppm)	<0.5	<0.5	nm
1,1-Dichloroethene	mg/kg (ppm)	<0.05	<0.05	nm
Methylene chloride	mg/kg (ppm)	<0.5	<0.5	nm
t-Butyl alcohol (TBA)	mg/kg (ppm)	<3	<3	nm
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	<0.05	<0.05	nm
trans-1,2-Dichloroethene	mg/kg (ppm)	<0.05	<0.05	nm
Diisopropyl ether (DIPE)	mg/kg (ppm)	<0.05	<0.05	nm
1,1-Dichloroethane	mg/kg (ppm)	<0.05	<0.05	nm
Ethyl t-butyl ether (ETBE)	mg/kg (ppm)	<0.05	<0.05	nm
2,2-Dichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
cis-1,2-Dichloroethene	mg/kg (ppm)	<0.05	<0.05	nm
Chloroform	mg/kg (ppm)	<0.05	<0.05	nm
2-Butanone (MEK)	mg/kg (ppm)	<0.5	<0.5	nm
t-Amyl methyl ether (TAME)	mg/kg (ppm)	<0.05	<0.05	nm
1,2-Dichloroethane (EDC)	mg/kg (ppm)	<0.05	<0.05	nm
1,1,1-Trichloroethane	mg/kg (ppm)	<0.05	<0.05	nm
1,1-Dichloropropene	mg/kg (ppm)	<0.05	<0.05	nm
Carbon Tetrachloride	mg/kg (ppm)	<0.05	<0.05	nm
Benzene	mg/kg (ppm)	<0.03	<0.03	nm
Trichloroethene	mg/kg (ppm)	<0.03	<0.03	nm
1,2-Dichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
Bromodichloromethane	mg/kg (ppm)	<0.05	<0.05	nm
Dibromomethane	mg/kg (ppm)	<0.05	<0.05	nm
4-Methyl-2-pentanone	mg/kg (ppm)	<0.5	<0.5	nm
cis-1,3-Dichloropropene	mg/kg (ppm)	<0.05	<0.05	nm
Toluene	mg/kg (ppm)	<0.05	<0.05	nm
trans-1,3-Dichloropropene	mg/kg (ppm)	<0.05	<0.05	nm
1,1,2-Trichloroethane	mg/kg (ppm)	<0.05	<0.05	nm
2-Hexanone	mg/kg (ppm)	<0.5	<0.5	nm
1,3-Dichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
Tetrachloroethene	mg/kg (ppm)	<0.025	<0.025	nm
Dibromochloromethane	mg/kg (ppm)	<0.05	<0.05	nm
1,2-Dibromoethane (EDB)	mg/kg (ppm)	<0.05	<0.05	nm
Chlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
Ethylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	<0.05	<0.05	nm
m,p-Xylene	mg/kg (ppm)	<0.1	<0.1	nm
o-Xylene	mg/kg (ppm)	<0.05	<0.05	nm
Styrene	mg/kg (ppm)	<0.05	<0.05	nm
Isopropylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
Bromoform	mg/kg (ppm)	<0.05	<0.05	nm
n-Propylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
Bromobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,3,5-Trimethylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	<0.05	<0.05	nm
1,2,3-Trichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
2-Chlorotoluene	mg/kg (ppm)	<0.05	<0.05	nm
4-Chlorotoluene	mg/kg (ppm)	<0.05	<0.05	nm
tert-Butylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,2,4-Trimethylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
sec-Butylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
p-Isopropyltoluene	mg/kg (ppm)	<0.05	<0.05	nm
1,3-Dichlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,4-Dichlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,2-Dichlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	<0.05	<0.05	nm
1,2,4-Trichlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
Hexachlorobutadiene	mg/kg (ppm)	<0.05	<0.05	nm
Naphthalene	mg/kg (ppm)	<0.05	<0.05	nm
1,2,3-Trichlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Ethanol	mg/kg (ppm)	125	117	118	43-146	1
Dichlorodifluoromethane	mg/kg (ppm)	2.5	96	90	10-146	6
Chloromethane	mg/kg (ppm)	2.5	102	101	6-137	1
Vinyl chloride	mg/kg (ppm)	2.5	114	108	22-139	5
Bromomethane	mg/kg (ppm)	2.5	152 vo	151 vo	41-119	1
Chloroethane	mg/kg (ppm)	2.5	265 vo	254 vo	38-142	4
Trichlorofluoromethane	mg/kg (ppm)	2.5	118	110	28-177	7
Acetone	mg/kg (ppm)	2.5	88	87	52-161	1
1,1-Dichloroethene	mg/kg (ppm)	2.5	127	122	46-132	4
Methylene chloride	mg/kg (ppm)	2.5	108	106	46-131	2
t-Butyl alcohol (TBA)	mg/kg (ppm)	12.5	74	77	66-130	4
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	80	75	69-124	6
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	108	106	67-120	2
Diisopropyl ether (DIPE)	mg/kg (ppm)	2.5	102	93	80-129	9
1,1-Dichloroethane	mg/kg (ppm)	2.5	111	108	77-117	3
Ethyl t-butyl ether (ETBE)	mg/kg (ppm)	2.5	87	85	79-128	2
2,2-Dichloropropane	mg/kg (ppm)	2.5	133	127	53-139	5
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	109	107	75-122	2
Chloroform	mg/kg (ppm)	2.5	115	113	73-118	2
2-Butanone (MEK)	mg/kg (ppm)	2.5	102	104	60-134	2
t-Amyl methyl ether (TAME)	mg/kg (ppm)	2.5	86	85	79-129	1
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	119	117	74-122	2
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	129 vo	124	74-125	4
1,1-Dichloropropene	mg/kg (ppm)	2.5	110	107	73-120	3
Carbon Tetrachloride	mg/kg (ppm)	2.5	133 vo	129 vo	72-125	3
Benzene	mg/kg (ppm)	2.5	104	102	70-122	2
Trichloroethene	mg/kg (ppm)	2.5	108	106	76-119	2
1,2-Dichloropropane	mg/kg (ppm)	2.5	101	100	77-131	1
Bromodichloromethane	mg/kg (ppm)	2.5	118	114	75-125	3
Dibromomethane	mg/kg (ppm)	2.5	110	111	80-125	1
4-Methyl-2-pentanone	mg/kg (ppm)	2.5	97	99	61-148	2
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	112	111	75-136	1
Toluene	mg/kg (ppm)	2.5	102	99	66-126	3
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	118	117	72-132	1
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	100	100	65-136	0
2-Hexanone	mg/kg (ppm)	2.5	95	97	62-152	2
1,3-Dichloropropane	mg/kg (ppm)	2.5	102	102	72-130	0
Tetrachloroethene	mg/kg (ppm)	2.5	123	120	79-127	2
Dibromochloromethane	mg/kg (ppm)	2.5	121	120	76-130	1
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	109	108	74-132	1
Chlorobenzene	mg/kg (ppm)	2.5	108	108	79-115	0
Ethylbenzene	mg/kg (ppm)	2.5	109	107	64-123	2
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	123	121	69-135	2
m,p-Xylene	mg/kg (ppm)	5	109	107	66-120	2
o-Xylene	mg/kg (ppm)	2.5	110	108	66-118	2
Styrene	mg/kg (ppm)	2.5	112	112	81-112	0
Isopropylbenzene	mg/kg (ppm)	2.5	120 vo	118 vo	79-112	2
Bromoform	mg/kg (ppm)	2.5	96	97	76-129	1
n-Propylbenzene	mg/kg (ppm)	2.5	103	101	81-117	2
Bromobenzene	mg/kg (ppm)	2.5	104	104	72-122	0
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	110	107	74-111	3
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	89	91	56-143	2
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	88	90	61-137	2
2-Chlorotoluene	mg/kg (ppm)	2.5	100	99	83-114	1
4-Chlorotoluene	mg/kg (ppm)	2.5	101	100	82-113	1
tert-Butylbenzene	mg/kg (ppm)	2.5	117 vo	115 vo	78-111	2
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	104	102	75-110	2
sec-Butylbenzene	mg/kg (ppm)	2.5	120 vo	118	78-119	2
p-Isopropyltoluene	mg/kg (ppm)	2.5	125 vo	123 vo	74-114	2
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	110	109	82-114	1
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	109	107	79-109	2
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	109	109	81-117	0
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	95	96	42-166	1
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	130 vo	126	70-129	3
Hexachlorobutadiene	mg/kg (ppm)	2.5	174 vo	167 vo	50-153	4
Naphthalene	mg/kg (ppm)	2.5	85	86	65-138	1
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	102	102	74-125	0

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QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PNA'S BY EPA METHOD 8270C SIM

Laboratory Code: 806044-21 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Naphthalene	mg/kg (ppm)	<0.01	<0.01	nm
2-Methylnaphthalene	mg/kg (ppm)	<0.01	<0.01	nm
1-Methylnaphthalene	mg/kg (ppm)	<0.01	<0.01	nm
Benz(a)anthracene	mg/kg (ppm)	<0.01	<0.01	nm
Chrysene	mg/kg (ppm)	<0.01	<0.01	nm
Benzo(b)fluoranthene	mg/kg (ppm)	<0.01	<0.01	nm
Benzo(k)fluoranthene	mg/kg (ppm)	<0.01	<0.01	nm
Benzo(a)pyrene	mg/kg (ppm)	<0.01	<0.01	nm
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	<0.01	<0.01	nm
Dibenz(a,h)anthracene	mg/kg (ppm)	<0.01	<0.01	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	mg/kg (ppm)	0.17	85	80	72-112	6
2-Methylnaphthalene	mg/kg (ppm)	0.17	84	76	60-114	10
1-Methylnaphthalene	mg/kg (ppm)	0.17	88	83	74-118	6
Benz(a)anthracene	mg/kg (ppm)	0.17	77	72	58-108	7
Chrysene	mg/kg (ppm)	0.17	85	80	64-115	6
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	83	77	54-119	7
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	82	77	61-123	6
Benzo(a)pyrene	mg/kg (ppm)	0.17	74	71	54-111	4
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	73	67	46-126	9
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	80	75	57-119	6

Note: The calibration verification result for anthracene-d10 exceeded 15% deviation. The average deviation for all compounds was not greater than 15%; therefore, the initial calibration is considered valid.

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QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PNA'S BY EPA METHOD 8270C SIM

Laboratory Code: 806080-06 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Naphthalene	mg/kg (ppm)	<0.01	<0.01	nm
2-Methylnaphthalene	mg/kg (ppm)	<0.01	<0.01	nm
1-Methylnaphthalene	mg/kg (ppm)	<0.01	<0.01	nm
Benz(a)anthracene	mg/kg (ppm)	<0.01	<0.01	nm
Chrysene	mg/kg (ppm)	<0.01	<0.01	nm
Benzo(b)fluoranthene	mg/kg (ppm)	<0.01	<0.01	nm
Benzo(k)fluoranthene	mg/kg (ppm)	<0.01	<0.01	nm
Benzo(a)pyrene	mg/kg (ppm)	<0.01	<0.01	nm
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	<0.01	<0.01	nm
Dibenz(a,h)anthracene	mg/kg (ppm)	<0.01	<0.01	nm

Laboratory Code: 806080-06 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Naphthalene	mg/kg (ppm)	0.17	<0.01	85	50-150
2-Methylnaphthalene	mg/kg (ppm)	0.17	<0.01	86	50-150
1-Methylnaphthalene	mg/kg (ppm)	0.17	<0.01	87	50-150
Benz(a)anthracene	mg/kg (ppm)	0.17	<0.01	81	17-134
Chrysene	mg/kg (ppm)	0.17	<0.01	84	10-157
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	<0.01	82	28-134
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	<0.01	84	55-115
Benzo(a)pyrene	mg/kg (ppm)	0.17	<0.01	78	37-123
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	<0.01	83	61-104
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	<0.01	82	69-100

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QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PNA'S BY EPA METHOD 8270C SIM

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	mg/kg (ppm)	0.17	84	91	72-112	8
2-Methylnaphthalene	mg/kg (ppm)	0.17	83	88	60-114	6
1-Methylnaphthalene	mg/kg (ppm)	0.17	86	91	74-118	6
Benz(a)anthracene	mg/kg (ppm)	0.17	78	81	58-108	4
Chrysene	mg/kg (ppm)	0.17	84	91	64-115	8
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	80	84	54-119	5
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	83	91	61-123	9
Benzo(a)pyrene	mg/kg (ppm)	0.17	74	78	54-111	5
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	83	87	46-126	5
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	83	89	57-119	7

Note: The calibration verification result for anthracene-d10 exceeded 15% deviation. The average deviation for all compounds was not greater than 15%; therefore, the initial calibration is considered valid.

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.

A1 – More than one compound of similar molecule structure was identified with equal probablility.

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 this range fell outside of acceptance criteria. The value reported is an estimate.

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

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - The analyte indicated was found in the method blank. The result should be considered an estimate.

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. The variability is attributed to sample inhomogeneity.

ht - The sample was extracted outside of holding time. Results should be considered estimates.

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

j – The result is below normal reporting limits. 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 analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is 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 compound indicated 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 in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration should be considered an estimate.

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

x - The pattern of peaks present is not indicative of diesel.

y - The pattern of peaks present is not indicative of motor oil.

806044

SAMPLE CHAIN OF CUSTODY

ME 06-04-08

CI3/C05/3/V2

Page # 1 of 3

Send Report To Ryan Bixby cc Chuck Cacek
Company SES
Address 2400 Airport Way S
City, State, ZIP Seattle, WA, 98134
Phone # 2063061900 Fax # 2063061907

SAMPLERS (signature) ADayal

PROJECT NAME/NO. NCPCS 0592-001-01

PO #

REMARKS Hold all samples until R. Bixby or C. Cacek instruct

GEMS Y / N

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

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

								ANALYSES REQUESTED								
Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	Total Lead ~~RCR 1-8~~ Metals	NWTPH-HCID	EPH-VPH	Notes
B13-7-8	B13	7-8	01 A-G	20080602	1630	S	7							X		X-percc 6/6/08
B13-11-12	↓	11-12	02 A-G	↓	1645	↓	↓							X		MG
B13-13-14		13-14	03 A-G		1655									X		✓-percc 6/11/08
B14-7-8	B14	7-8	04 A-G		1745			X	X	X			X			MG
B14-11-12	↓	11-12	05 A-G		1755			X	X		X	X	X		X	(X)-percc email
B14-13-14		13-14	06 A-G		1805			X	X	X			✓			6/12/08
B15-7-8	B15	7-8	07 A-G		1715									X		> MG
B15-11-12	↓	11-12	08 A-G		1725									X		
B15-13-14		13-14	09 A-G		1730									X		
B16-6-7	B16	6-7	10 A-G		1050			X	X	X			✓			
B16-11-12	↓	11-12	11 A-G		1105			X	X		X	X	X		X	
B16-14-15		14-15	12 A-G		1110			X	X	X			✓			
B17-6-7	B17	6-7	13 A-G		1140									X		

RCRA 8

✓

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: ADayal	ARCHANA DAYALU	SES	6/3/08	12:00
Received by:	Nhan Phan	FeBI	6/4/08	09:00
Relinquished by:				
Received by:		Samples received at 2 °C		

FORMS\COC\SESGEMSR1.DOC (Revision 1)

806044

SAMPLE CHAIN OF CUSTODY

ME 06-04-08 CI3/CO5/Vc

Send Report To Ryan Bixby cc Chuck Cacek
Company SES
Address \
City, State, ZIP pg
Phone # SEV Fax #

SAMPLERS *(signature)* A Dayal

PROJECT NAME/NO.	PO #
NCPCS 0592.061.01	

REMARKS	
Hold all samples until R. Bixby or C. Cacek instruct.	GEMS Y / N

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

								ANALYSES REQUESTED									
Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	Total Lead ~~RCRA-8 Metals~~	NWTPH-HCID	EPH-VPH	Notes
B17-9.5-10.5	B17	9.5-10.5	14 A-G	20080602	1145	S	7							X		
B17-13-14	↓	13-14	15 A-G	↓	1155	↓	↓							X		
B18-6-7	B18	6-7	16 A-G		1220									X		
B18-11-12	↓	11-12	17 A-G		1230									X		
B18-13-14	↓	13-14	18 A-G		1235									X		
B19-6-7	B19	6-7	19 A-G		1305			X	X	X			X			
B19-7-8	↓	7-8	20 A-G		1320			X	X	X			X			
B19-11.5-12.5	↓	11.5-12.5	21 A-G		1345			X	X	X	⊗	⊗	X			B19-12.5-13.5 Sample label N
B21-9-10	B21	9-10	22 A-G		1850									X		
B21-11-12	↓	11-12	23 A-G		1855									X		
B21-12-13	↓	12-13	24 A-G		1920									X		
B22-5-6	B22	5-6	25 A-G		1530									X		
B22-7-8	↓	7-8	26 A-G	↓	1535	↓	↓							X		

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

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	A Dayal	ARCHANA DAYALU	SES	6/3/08	12:00
Received by:		Nhan Phan	FeBI	6/4/08	09:00
Relinquished by:					
Received by:			Samples received at 2 °C		

806044

SAMPLE CHAIN OF COUSTODY

ME 06-04-08

CI3 / C05 / V.

Page # 3 of 3

Send Report To
Company
Address
City, State, ZIP
Phone # Fax #

see pg 1

SAMPLERS *(signature)* ADayal

PROJECT NAME/NO.
NCPCS
0592-001-EI

PO #

REMARKS
HOLD UNTIL R.Bixby or C. Cacek instruct.

GEMS Y / N

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

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

								ANALYSES REQUESTED								
Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals	Lead	NWTPH-HCID	Notes
B22-11-12	B22	11-12	27 A-G	20080602	1550	S	7								x	
B23-6-7	B23	6-7	28 A-G	↓	1445	↓	↓								x	
B23-14-15	↓	14-15	29 A-G	↓	1500	↓	↓								x	
Trip Blank		–	30 A-H	–	–	water	8		x	x						
Rinsate		–	31 A-D	20080602	19:15	V	4	x	x	x				x		

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

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: ADayal	ARCHANA DAYAL	SES	6/3/08	12:00
Received by:	Nhan Phan	FeBI	6/4/08	09:00
Relinquished by:				
Received by:		Samples received at 2 °C		

FORMS\COC\SESGEMSR1.DOC (Revision 1)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

June 26, 2008

Mike Erdahl
Friedman & Bruya
3012 – 16th Avenue West
Seattle, WA 9819-2029

Project: 806044 PO# H-1461
ARI Job: NA50

Dear Mr. Erdahl:

Please find enclosed the original Chain of Custody record, sample receipt documentation, and analytical results for the project referenced above. Analytical Resources, Inc. accepted two soil samples with limited holding time remaining in good condition on June 12, 2008. Please refer to the enclosed Cooler Receipt Form for further details regarding sample receipt.

The samples were analyzed for EPH (Extractable Petroleum Hydrocarbon) and VPH (Volatile Petroleum Hydrocarbon), as requested on the Chain of Custody.

The analyses were completed routinely.

Quality control analysis results are included for your review. Copies of the reports and all associated raw data will be kept on file electronically at ARI. If you have any questions or require additional information, please contact me at your convenience.

Respectfully,
ANALYTICAL RESOURCES, INC.

Eric Branson

Eric Branson
Client Services - Project Support
(206) 695-6213
eric@arilabs.com
www.arilabs.com

• Enclosures •

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: FBI
COC No: —
Assigned ARI Job No: ______

Project Name: 806044
Delivered by: Courier
Tracking No: —

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES [✓ NO]
Were custody papers included with the cooler? [✓ YES] NO
Were custody papers properly filled out (ink, signed, etc.) [✓ YES] NO
Record cooler temperature (recommended 2.0-6.0 °C for chemistry 4.6 °C

Cooler Accepted by: ______ Date: 6/11/08 Time: 0940

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES [✓ NO]
What kind of packing material was used? Bw
Was sufficient ice used (if appropriate)? [✓ YES] NO
Were all bottles sealed in individual plastic bags? YES [✓ NO]
Did all bottle arrive in good condition (unbroken)? [✓ YES] NO
Were all bottle labels complete and legible? YES NO
Did all bottle labels and tags agree with custody papers? YES NO
Were all bottles used correct for the requested analyses? [✓ YES] NO
Do any of the analyses (bottles) require preservation? (attach preservation checklist) YES [✓ NO]
Were all VOC vials free of air bubbles? [✓ NA] YES NO
Was sufficient amount of sample sent in each bottle? [✓ YES] NO

Samples Logged by: ______ Date: ______ Time: ______

*** Notify Project Manager of discrepancies or concerns ***

Explain discrepancies or negative responses:

By: Date:

ORGANICS ANALYSIS DATA SHEET
VPH by Method WA VPH
Page 1 of 1

Sample ID: B14-11-12
SAMPLE

Lab Sample ID: NA50A
LIMS ID: 08-12378
Matrix: Soil
Data Release Authorized:
Reported: 06/20/08

QC Report No: NA50-Friedman & Bruya, Inc.
Project: PO# H-1461
806044
Date Sampled: 06/02/08
Date Received: 06/12/08

Date Analyzed: 06/13/08 13:53
Instrument/Analyst: PID1/PKC

Purge Volume: 10. mL
Sample Amount: 45.0 mg-dry-wt

CAS Number	Analyte	RL	Result
71-43-2	Benzene	1100	< 1,100 U
108-88-3	Toluene	1100	< 1,100 U
100-41-4	**Ethylbenzene**	**1100**	**1,400**
	m,p-Xylene	2200	< 2,200 U
95-47-6	o-Xylene	1100	< 1,100 U
1634-04-4	Methyl tert-Butyl Ether	1100	< 1,100 U
109-66-0	n-Pentane	1100	< 1,100 U
110-54-3	**n-Hexane**	**1100**	**4,900**
111-65-9	**n-Octane**	**1100**	**10,000**
124-18-5	**n-Decane**	**1100**	**2,800**
112-40-3	**n-Dodecane**	**1100**	**1,300**

Range	RL	Result
C8-C10 Aromatics (PID)	**11,000**	**56,000**
C10-C12 Aromatics (PID)	**11,000**	**66,000**
C12-C13 Aromatics (PID)	**11,000**	**15,000**
C5-C6 Aliphatics	**11,000**	**17,000**
C6-C8 Aliphatics	**11,000**	**340,000**
C8-C10 Aliphatics	**11,000**	**80,000**
C10-C12 Aliphatics	**11,000**	**53,000**

Values reported in µg/kg (ppb)

VPH Surrogate Recovery	
PID: 2,5-Dibromotoluene	104%
FID: 2,5-Dibromotoluene	103%

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
VPH by Method WA VPH
Page 1 of 1

Sample ID: B16-11-12
SAMPLE

Lab Sample ID: NA50B
LIMS ID: 08-12379
Matrix: Soil
Data Release Authorized:
Reported: 06/20/08

QC Report No: NA50-Friedman & Bruya, Inc.
Project: PO# H-1461
806044
Date Sampled: 06/02/08
Date Received: 06/12/08

Date Analyzed: 06/13/08 14:21
Instrument/Analyst: PID1/PKC

Purge Volume: 10. mL
Sample Amount: 54.0 mg-dry-wt

CAS Number	Analyte	RL	Result
71-43-2	Benzene	930	< 930 U
108-88-3	Toluene	930	< 930 U
100-41-4	Ethylbenzene	930	< 930 U
	m,p-Xylene	1900	< 1,900 U
95-47-6	o-Xylene	930	< 930 U
1634-04-4	Methyl tert-Butyl Ether	930	< 930 U
109-66-0	n-Pentane	930	< 930 U
110-54-3	n-Hexane	930	< 930 U
111-65-9	n-Octane	930	< 930 U
124-18-5	n-Decane	930	< 930 U
112-40-3	n-Dodecane	930	< 930 U

Range	RL	Result
C8-C10 Aromatics (PID)	**9,300**	**17,000**
C10-C12 Aromatics (PID)	**9,300**	**17,000**
C12-C13 Aromatics (PID)	9,300	< 9,300 U
C5-C6 Aliphatics	9,300	< 9,300 U
C6-C8 Aliphatics	9,300	< 9,300 U
C8-C10 Aliphatics	**9,300**	**13,000**
C10-C12 Aliphatics	**9,300**	**18,000**

Values reported in μg/kg (ppb)

VPH Surrogate Recovery

PID: 2,5-Dibromotoluene	99.2%
FID: 2,5-Dibromotoluene	90.8%

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

VPH SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: NA50-Friedman & Bruya, Inc.
Project: PO# H-1461
806044

Client ID	PDBT	FDBT	TOT OUT
MB-061308	99.4%	90.4%	0
LCS-061308	91.4%	95.4%	0
LCSD-061308	91.6%	91.2%	0
B14-11-12	104%	103%	0
B16-11-12	99.2%	90.8%	0

	LCS/MB LIMITS	QC LIMITS
(PDBT) = 2,5-Dibromotoluene	(60-140)	(60-140)
(FDBT) = 2,5-Dibromotoluene	(60-140)	(60-140)

Prep Method: METHOD
Log Number Range: 08-12378 to 08-12379

ORGANICS ANALYSIS DATA SHEET
VPH by Method WA VPH
Page 1 of 1

Sample ID: LCS-061308
LCS/LCSD

Lab Sample ID: LCS-061308
LIMS ID: 08-12378
Matrix: Soil
Data Release Authorized:
Reported: 06/20/08

QC Report No: NA50-Friedman & Bruya, Inc.
Project: PO# H-1461
806044
Date Sampled: NA
Date Received: NA

Date Analyzed LCS: 06/13/08 10:41
Date Analyzed LCSD: 06/13/08 11:09
Instrument/Analyst: PID1/PKC

Purge Volume: 10. mL
Sample Amount: 111 mg-dry-wt

Analyte/Range	**LCS**	**Spike Added-LCS**	**LCS Recovery**	**LCSD**	**Spike Added-LCSD**	**LCSD Recovery**	**RPD**
Benzene	4150	4500	92.2%	4000	4500	88.9%	3.7%
Toluene	4210	4500	93.6%	4100	4500	91.1%	2.6%
Ethylbenzene	4220	4500	93.8%	4140	4500	92.0%	1.9%
m,p-Xylene	8390	9010	93.1%	8160	9010	90.6%	2.8%
o-Xylene	4140	4500	92.0%	4040	4500	89.8%	2.4%
Methyl tert-Butyl Ether	3900	4500	86.7%	3770	4500	83.8%	3.4%
Naphthalene	4150	4500	92.2%	4160	4500	92.4%	0.2%
1,2,3-Trimethylbenzene	4240	4500	94.2%	4230	4500	94.0%	0.2%
1-Methylnaphthalene	4060	4500	90.2%	4240	4500	94.2%	4.3%
n-Pentane	4890	4500	109%	4760	4500	106%	2.7%
n-Hexane	4530	4500	101%	4370	4500	97.1%	3.6%
n-Octane	4500	4500	100%	4180	4500	92.9%	7.4%
n-Decane	4780	4500	106%	4130	4500	91.8%	14.6%
n-Dodecane	4500	4500	100%	4480	4500	99.6%	0.4%

Values reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.

VPH Surrogate Recovery

	LCS	**LCSD**
PID: 2,5-Dibromotoluene	91.4%	91.6%
FID: 2,5-Dibromotoluene	95.4%	91.2%

ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET
VPH by Method WA VPH
Page 1 of 1

Sample ID: MB-061308
METHOD BLANK

Lab Sample ID: MB-061308
LIMS ID: 08-12378
Matrix: Soil
Data Release Authorized:
Reported: 06/20/08

QC Report No: NA50-Friedman & Bruya, Inc.
Project: PO# H-1461
806044
Date Sampled: NA
Date Received: NA

Date Analyzed: 06/13/08 11:38
Instrument/Analyst: PID1/PKC

Purge Volume: 10. mL
Sample Amount: 111 mg-dry-wt

CAS Number	Analyte	RL	Result
71-43-2	Benzene	450	< 450 U
108-88-3	Toluene	450	< 450 U
100-41-4	Ethylbenzene	450	< 450 U
	m,p-Xylene	900	< 900 U
95-47-6	o-Xylene	450	< 450 U
1634-04-4	Methyl tert-Butyl Ether	450	< 450 U
109-66-0	n-Pentane	450	< 450 U
110-54-3	n-Hexane	450	< 450 U
111-65-9	n-Octane	450	< 450 U
124-18-5	n-Decane	450	< 450 U
112-40-3	n-Dodecane	450	< 450 U

Range	RL	Result
C8-C10 Aromatics (PID)	4,500	< 4,500 U
C10-C12 Aromatics (PID)	4,500	< 4,500 U
C12-C13 Aromatics (PID)	4,500	< 4,500 U
C5-C6 Aliphatics	4,500	< 4,500 U
C6-C8 Aliphatics	4,500	< 4,500 U
C8-C10 Aliphatics	4,500	< 4,500 U
C10-C12 Aliphatics	4,500	< 4,500 U

Values reported in µg/kg (ppb)

VPH Surrogate Recovery

PID: 2,5-Dibromotoluene	99.4%
FID: 2,5-Dibromotoluene	90.4%

FORM I

ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Page 1 of 1

Sample ID: B14-11-12
SAMPLE

Lab Sample ID: NA50A
LIMS ID: 08-12378
Matrix: Soil
Data Release Authorized: VTS
Reported: 06/25/08

QC Report No: NA50-Friedman & Bruya, Inc.
Project: PO# H-1461
806044
Date Sampled: 06/02/08
Date Received: 06/12/08

Date Extracted: 06/12/08
Percent Moisture: 12.5%

Sample Amount: 8.80 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 06/17/08 18:54
Instrument/Analyst: FID4B/MS

Dilution Factor: 1.00

Aromatic
Date Analyzed: 06/17/08 18:54
Instrument/Analyst: FID4A/MS

Dilution Factor: 1.00

Range	**RL**	**Result**
C8-C10 Aliphatics	**2,300**	**38,000**
C10-C12 Aliphatics	**2,300**	**25,000**
C12-C16 Aliphatics	**2,300**	**11,000**
C16-C21 Aliphatics	2,300	< 2,300 U
C21-C34 Aliphatics	2,300	< 2,300 U
C8-C10 Aromatics	**2,300**	**2,300**
C10-C12 Aromatics	**2,300**	**30,000**
C12-C16 Aromatics	**2,300**	**24,000**
C16-C21 Aromatics	**2,300**	**4,900**
C21-C34 Aromatics	2,300	< 2,300 U

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	88.3%
Aromatic	Ortho-terphenyl	67.4%

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Page 1 of 1

Sample ID: B16-11-12
SAMPLE

Lab Sample ID: NA50B
LIMS ID: 08-12379
Matrix: Soil
Data Release Authorized: VTS
Reported: 06/25/08

QC Report No: NA50-Friedman & Bruya, Inc.
Project: PO# H-1461
806044
Date Sampled: 06/02/08
Date Received: 06/12/08

Date Extracted: 06/12/08
Percent Moisture: 24.1%

Sample Amount: 7.64 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 06/17/08 19:16
Instrument/Analyst: FID4B/MS
Dilution Factor: 1.00

Aromatic
Date Analyzed: 06/17/08 19:16
Instrument/Analyst: FID4A/MS
Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	2,600	< 2,600 U
C10-C12 Aliphatics	2,600	< 2,600 U
C12-C16 Aliphatics	2,600	< 2,600 U
C16-C21 Aliphatics	2,600	< 2,600 U
C21-C34 Aliphatics	2,600	< 2,600 U
C8-C10 Aromatics	2,600	< 2,600 U
C10-C12 Aromatics	2,600	< 2,600 U
C12-C16 Aromatics	2,600	< 2,600 U
C16-C21 Aromatics	2,600	< 2,600 U
C21-C34 Aromatics	2,600	< 2,600 U

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	51.9%
Aromatic	Ortho-terphenyl	40.1%

ALEPH SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: NA50-Friedman & Bruya, Inc.
Project: PO# H-1461
806044

Client ID	COD	TOT OUT
MB-061208	57.3%	0
LCS-061208	66.1%	0
B14-11-12	88.3%	0
B16-11-12	51.9%	0

	LCS/MB LIMITS	QC LIMITS
(COD) = 1-Chlorooctadecane	(25-117)	(21-112)

Prep Method: SW3550B
Log Number Range: 08-12378 to 08-12379

AREPH SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: NA50-Friedman & Bruya, Inc.
Project: PO# H-1461
806044

Client ID	OTER	TOT OUT
MB-061208	43.4%	0
LCS-061208	51.0%	0
B14-11-12	67.4%	0
B16-11-12	40.1%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = Ortho-terphenyl	(41-116)	(28-121)

Prep Method: SW3550B
Log Number Range: 08-12378 to 08-12379

FORM-II AREPH

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Page 1 of 1

Sample ID: LCS-061208
LAB CONTROL

Lab Sample ID: LCS-061208
LIMS ID: 08-12378
Matrix: Soil
Data Release Authorized: VTS
Reported: 06/25/08

QC Report No: NA50-Friedman & Bruya, Inc.
Project: PO# H-1461
806044
Date Sampled: NA
Date Received: NA

Date Extracted: 06/12/08

Sample Amount: 10.0 g-as-rec
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 06/17/08 18:32
Instrument/Analyst: FID4B/MS
Dilution Factor: 1.00

Aromatic
Date Analyzed: 06/17/08 18:32
Instrument/Analyst: FID4A/MS
Dilution Factor: 1.00

Range	**Lab Control**	**Spike Added**	**Recovery**
C8-C10 Aliphatics	7300	15000	48.7%
C10-C12 Aliphatics	8300	15000	55.3%
C12-C16 Aliphatics	10000	15000	66.7%
C16-C21 Aliphatics	12000	15000	80.0%
C10-C12 Aromatics	6100	15000	40.7%
C12-C16 Aromatics	8200	15000	54.7%
C16-C21 Aromatics	19500	30000	65.0%
C21-C34 Aromatics	21900	30000	73.0%

Results reported in µg/kg

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	66.1%
Aromatic	Ortho-terphenyl	51.0%

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Page 1 of 1

Sample ID: MB-061208
METHOD BLANK

Lab Sample ID: MB-061208
LIMS ID: 08-12378
Matrix: Soil
Data Release Authorized: VTS
Reported: 06/25/08

QC Report No: NA50-Friedman & Bruya, Inc.
Project: PO# H-1461
806044
Date Sampled: NA
Date Received: NA

Date Extracted: 06/12/08
Percent Moisture: NA

Sample Amount: 10.0 g-as-rec
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 06/17/08 18:09
Instrument/Analyst: FID4B/MS
Dilution Factor: 1.00

Aromatic
Date Analyzed: 06/17/08 18:09
Instrument/Analyst: FID4A/MS
Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	2,000	< 2,000 U
C10-C12 Aliphatics	2,000	< 2,000 U
C12-C16 Aliphatics	2,000	< 2,000 U
C16-C21 Aliphatics	2,000	< 2,000 U
C21-C34 Aliphatics	2,000	< 2,000 U
C8-C10 Aromatics	2,000	< 2,000 U
C10-C12 Aromatics	2,000	< 2,000 U
C12-C16 Aromatics	2,000	< 2,000 U
C16-C21 Aromatics	2,000	< 2,000 U
C21-C34 Aromatics	2,000	< 2,000 U

Reported in μg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	57.3%
Aromatic	Ortho-terphenyl	43.4%

NA50 4.6°C Ice-yes

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

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

SUBCONTRACTER ARI

PROJECT NAME/NO. 806044

PO # H-1461

REMARKS

Please Email Results
merdahl@friedmanandbruya.com

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

						ANALYSES REQUESTED										
Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	Oil and Grease	EPH	VPH	Nitrate	Sulfate	Alkalinity					Notes
B14-11-12		6/2/08		S	2+		X	X								
B16-11-12		↓		↓	2+		X	X								

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

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Michael Erdahl	Friedman & Bruya	6/10/08	12:40
Received by:	BRIAN KEGEL	ARI	6/11/08	0940
Relinquished by:				
Received by:				

12378/79

CI3 / CO5 M2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

June 10, 2008

Ryan Bixby, Project Manager
Sound Environmental Strategies Corporation
2400 Airport Way S., Suite 200
Seattle, WA 98134-2020

Dear Mr. Bixby:

Included are the results from the testing of material submitted on June 6, 2008 from the NCPCS SOU_0592-001-01_20080606, F&BI 806084 project. There are 3 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: Erin Rothman, Chuck Cacek
SOU0610R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on June 6, 2008 by Friedman & Bruya, Inc. from the Sound Environmental Strategies NCPCS SOU_0592-001-01_20080606, F&BI 806084 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Sound Environmental Strategies
806084-01	B20-06
806084-02	B20-07.5

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/10/08
Date Received: 06/06/08
Project: NCPCS SOU_0592-001-01_20080606, F&BI 806084
Date Extracted: 06/09/08
Date Analyzed: 06/09/08

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR GASOLINE, DIESEL AND HEAVY OIL BY NWTPH-HCID

Results Reported as Not Detected (ND) or Detected (D)

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

Sample ID Laboratory ID	Gasoline	Diesel	Heavy Oil	Surrogate (% Recovery) (Limit 50-150)
B20-06 806084-01	ND	ND	ND	114
B20-07.5 806084-02	ND	ND	ND	116
Method Blank	ND	ND	ND	103

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

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.

A1 – More than one compound of similar molecule structure was identified with equal probablility.

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 this range fell outside of acceptance criteria. The value reported is an estimate.

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

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - The analyte indicated was found in the method blank. The result should be considered an estimate.

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. The variability is attributed to sample inhomogeneity.

ht - The sample was extracted outside of holding time. Results should be considered estimates.

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

j – The result is below normal reporting limits. 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 analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is 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 compound indicated 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 in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration should be considered an estimate.

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

x - The pattern of peaks present is not indicative of diesel.

y - The pattern of peaks present is not indicative of motor oil.

806084

SAMPLE CHAIN OF CUSTODY

ME 06-06-08 ~~VSI~~ / AI1

CI3/

Page # 1 of 1

Send Report To Ryan Bixby cc: Chuck Cacek

Company SES

Address 2400 Airport Way South

City, State, ZIP Seattle WA 98134

Phone # 2063061900 Fax # 2063061907

SAMPLERS (signature)

PROJECT NAME/NO.
NCPCS
0572-001-01

PO #

REMARKS

GEMS Y / N

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

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

								ANALYSES REQUESTED								
Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals	NWTPH-HCID		Notes
B20-6		6	01A-B	6-4-08	1750	Soil	7							X		
B20-7.5		7.5	02A-B	↓	1805	↓	↓							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: C.C	Charles Cacek	SES	6/6/08	1823
Received by: Dan	Dd VO	FBI	11	11
Relinquished by:				
Received by:		Samples received at 5	°C	

FORMS\COC\SESGEMSR1.DOC (Revision 1)

March 2009 Subsurface Investigation

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

March 20, 2009

Ryan Bixby, Project Manager
Sound Environmental Strategies Corporation
2400 Airport Way S., Suite 200
Seattle, WA 98134-2020

Dear Mr. Bixby:

Included are the results from the testing of material submitted on March 4, 2009 from the NCPCS_0592-001-01_20090304, F&BI 903042 project. There are 30 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: Erin Rothman, Chuck Cacek
SOU0320R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on March 4, 2009 by Friedman & Bruya, Inc. from the Sound Environmental Strategies NCPCS_0592-001-01_20090304 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Sound Environmental Strategies
903042-01	TP01-04
903042-02	TP01-07
903042-03	TP01-10
903042-04	TP01-12
903042-05	TP02-04
903042-06	TP02-07
903042-07	TP02-09.5
903042-08	TP02-10.5
903042-09	TP02-12.5
903042-10	TP03-04
903042-11	TP03-07.5
903042-12	TP03-10
903042-13	TP03-11
903042-14	TP03-12.5
903042-15	B24-02.5
903042-16	B24-05
903042-17	B24-07.5
903042-18	B24-10
903042-19	B24-12.5
903042-20	B14A-07.5
903042-21	B14A-10
903042-22	B25-05
903042-23	B25-07.5
903042-24	B25-12.5

Samples TP01-12 and TP14A-10 were sent to Fremont Analytical for EPH/VPH analysis. The report is enclosed.

All quality control requirements were acceptable.

Date of Report: 03/20/09
Date Received: 03/04/09
Project: NCPCS_0592-001-01_20090304
Date Extracted: 03/06/09
Date Analyzed: 03/06/09 and 03/07/09

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR GASOLINE, DIESEL AND HEAVY OIL BY NWTPH-HCID

Results Reported as Not Detected (ND) or Detected (D)

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

Sample ID Laboratory ID	Gasoline	Diesel	Heavy Oil	Surrogate (% Recovery) (Limit 50-150)
TP01-07 903042-02	ND	ND	ND	96
TP02-04 903042-05	ND	ND	ND	100
TP02-09.5 903042-07	ND	ND	ND	98
TP03-07.5 903042-11	ND	ND	ND	100
B24-02.5 903042-15	ND	ND	ND	100
B24-07.5 903042-17	ND	ND	ND	96
B24-12.5 903042-19	ND	ND	ND	97
B25-05 903042-22	ND	ND	ND	104
B25-07.5 903042-23	ND	ND	ND	99

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

Date of Report: 03/20/09
Date Received: 03/04/09
Project: NCPCS_0592-001-01_20090304
Date Extracted: 03/06/09
Date Analyzed: 03/06/09 and 03/07/09

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR GASOLINE, DIESEL AND HEAVY OIL BY NWTPH-HCID

Results Reported as Not Detected (ND) or Detected (D)

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

Sample ID Laboratory ID	Gasoline	Diesel	Heavy Oil	Surrogate (% Recovery) (Limit 50-150)
B25-12.5 903042-24	ND	ND	ND	98
Method Blank	ND	ND	ND	97

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

Date of Report: 03/20/09
Date Received: 03/04/09
Project: NCPCS_0592-001-01_20090304
Date Extracted: 03/06/09
Date Analyzed: 03/06/09 and 03/09/09

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

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

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
TP01-12 d 903042-04 1/10	700	ip
TP02-12.5 d 903042-09 1/10	190	ip
TP03-11 903042-13	16	108
B14A-07.5 903042-20	24	86
B14A-10 d 903042-21 1/20	1,300	ip
Method Blank	<2	99

Date of Report: 03/20/09
Date Received: 03/04/09
Project: NCPCS_0592-001-01_20090304
Date Extracted: 03/06/09
Date Analyzed: 03/06/09

RESULTS FROM THE ANALYSIS OF THE 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 67-127)
TP01-12 903042-04	390 x	<250	84
TP02-12.5 903042-09	<50	<250	83
TP03-11 903042-13	<50	<250	87
B14A-07.5 903042-20	230 x	<250	84
B14A-10 903042-21	260 x	<250	84
Method Blank	<50	<250	87

Analysis For Total Metals By EPA Method 200.8

Client ID:	TP01-12	Client:	Sound Environmental Strategies
Date Received:	03/04/09	Project:	NCPCS_0592-001-01_20090304
Date Extracted:	03/06/09	Lab ID:	903042-04
Date Analyzed:	03/06/09	Data File:	903042-04.013
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	103	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	5.13

Analysis For Total Metals By EPA Method 200.8

Client ID:	TP02-12.5	Client:	Sound Environmental Strategies
Date Received:	03/04/09	Project:	NCPCS_0592-001-01_20090304
Date Extracted:	03/06/09	Lab ID:	903042-09
Date Analyzed:	03/06/09	Data File:	903042-09.017
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	95	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	4.01

Analysis For Total Metals By EPA Method 200.8

Client ID:	TP03-11	Client:	Sound Environmental Strategies
Date Received:	03/04/09	Project:	NCPCS_0592-001-01_20090304
Date Extracted:	03/06/09	Lab ID:	903042-13
Date Analyzed:	03/06/09	Data File:	903042-13.014
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	103	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	5.96

Analysis For Total Metals By EPA Method 200.8

Client ID:	B14A-07.5	Client:	Sound Environmental Strategies
Date Received:	03/04/09	Project:	NCPCS_0592-001-01_20090304
Date Extracted:	03/06/09	Lab ID:	903042-20
Date Analyzed:	03/06/09	Data File:	903042-20.015
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	104	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	4.55

Analysis For Total Metals By EPA Method 200.8

Client ID:	B14A-10	Client:	Sound Environmental Strategies
Date Received:	03/04/09	Project:	NCPCS_0592-001-01_20090304
Date Extracted:	03/06/09	Lab ID:	903042-21
Date Analyzed:	03/06/09	Data File:	903042-21.016
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	100	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	10.4

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Sound Environmental Strategies
Date Received:	NA	Project:	NCPCS_0592-001-01_20090304
Date Extracted:	03/06/09	Lab ID:	I9-096 mb
Date Analyzed:	03/06/09	Data File:	I9-096 mb.008
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	100	60	125

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

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	TP01-12	Client:	Sound Environmental Strategies
Date Received:	03/04/09	Project:	NCPCS_0592-001-01_20090304
Date Extracted:	03/12/09	Lab ID:	903042-04
Date Analyzed:	03/12/09	Data File:	031217.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	42	152
Toluene-d8	94	36	149
4-Bromofluorobenzene	102	50	150

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

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	TP02-12.5	Client:	Sound Environmental Strategies
Date Received:	03/04/09	Project:	NCPCS_0592-001-01_20090304
Date Extracted:	03/12/09	Lab ID:	903042-09
Date Analyzed:	03/12/09	Data File:	031219.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	89	42	152
Toluene-d8	91	36	149
4-Bromofluorobenzene	101	50	150

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

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	TP03-11	Client:	Sound Environmental Strategies
Date Received:	03/04/09	Project:	NCPCS_0592-001-01_20090304
Date Extracted:	03/12/09	Lab ID:	903042-13
Date Analyzed:	03/12/09	Data File:	031222.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	92	42	152
Toluene-d8	94	36	149
4-Bromofluorobenzene	102	50	150

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

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B14A-07.5	Client:	Sound Environmental Strategies
Date Received:	03/04/09	Project:	NCPCS_0592-001-01_20090304
Date Extracted:	03/12/09	Lab ID:	903042-20
Date Analyzed:	03/13/09	Data File:	031223.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	90	42	152
Toluene-d8	91	36	149
4-Bromofluorobenzene	99	50	150

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

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B14A-10	Client:	Sound Environmental Strategies
Date Received:	03/04/09	Project:	NCPCS_0592-001-01_20090304
Date Extracted:	03/12/09	Lab ID:	903042-21
Date Analyzed:	03/13/09	Data File:	031225.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	86	42	152
Toluene-d8	88	36	149
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.05	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	29 ve
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	2.0
Methylene chloride	<0.5	o-Xylene	0.098
Methyl t-butyl ether (MTBE)	<0.05	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	3.2
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	9.0
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	0.78
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	0.32
Trichloroethene	<0.03	sec-Butylbenzene	0.84
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	0.30
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.05
Toluene	0.057	1,2,4-Trichlorobenzene	<0.1
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.1
1,1,2-Trichloroethane	<0.05	Naphthalene	8.1
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: B14A-10
Date Received: 03/04/09
Date Extracted: 03/12/09
Date Analyzed: 03/13/09
Matrix: Soil
Units: mg/kg (ppm)

Client: Sound Environmental Strategies
Project: NCPCS_0592-001-01_20090304
Lab ID: 903042-21 1/20
Data File: 031224.D
Instrument: GCMS5
Operator: MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	93	42	152
Toluene-d8	91	36	149
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<10	1,3-Dichloropropane	<1
Chloromethane	<1	Tetrachloroethene	<0.5
Vinyl chloride	<1	Dibromochloromethane	<1
Bromomethane	<10	1,2-Dibromoethane (EDB)	<1
Chloroethane	<10	Chlorobenzene	<1
Trichlorofluoromethane	<10	Ethylbenzene	45
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	2.1
Methylene chloride	19	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	3.8
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	13
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<0.6	1,2,4-Trimethylbenzene	<1
Trichloroethene	<0.6	sec-Butylbenzene	1.4
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<1
Toluene	<1	1,2,4-Trichlorobenzene	<2
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<2
1,1,2-Trichloroethane	<1	Naphthalene	9.1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<2

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Sound Environmental Strategies
Date Received:	NA	Project:	NCPCS_0592-001-01_20090304
Date Extracted:	03/12/09	Lab ID:	090343 mb
Date Analyzed:	03/12/09	Data File:	031216.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	93	42	152
Toluene-d8	91	36	149
4-Bromofluorobenzene	101	50	150

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

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	TP01-12	Client:	Sound Environmental Strategies
Date Received:	03/04/09	Project:	NCPCS_0592-001-01_20090304
Date Extracted:	03/10/09	Lab ID:	903042-04 1/5
Date Analyzed:	03/13/09	Data File:	031308.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	87	50	150
Benzo(a)anthracene-d12	127	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
1-Methylnaphthalene	<0.01
2-Methylnaphthalene	<0.01
Acenaphthylene	<0.01
Acenaphthene	<0.01
Fluorene	<0.01
Phenanthrene	<0.01
Anthracene	<0.01
Fluoranthene	<0.01
Pyrene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01
Benzo(g,h,i)perylene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	B14A-10	Client:	Sound Environmental Strategies
Date Received:	03/04/09	Project:	NCPCS_0592-001-01_20090304
Date Extracted:	03/10/09	Lab ID:	903042-21 1/5
Date Analyzed:	03/13/09	Data File:	031310.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	87	50	150
Benzo(a)anthracene-d12	123	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	3.1 ve
1-Methylnaphthalene	2.5 ve
2-Methylnaphthalene	4.9 ve
Acenaphthylene	0.019
Acenaphthene	0.037
Fluorene	0.041
Phenanthrene	0.077
Anthracene	0.021
Fluoranthene	0.019
Pyrene	0.032
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01
Benzo(g,h,i)perylene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	B14A-10	Client:	Sound Environmental Strategies
Date Received:	03/04/09	Project:	NCPCS_0592-001-01_20090304
Date Extracted:	03/10/09	Lab ID:	903042-21 1/50
Date Analyzed:	03/13/09	Data File:	031309.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	32 ds	50	150
Benzo(a)anthracene-d12	99	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	4.0
1-Methylnaphthalene	3.2
2-Methylnaphthalene	6.5
Acenaphthylene	<0.1
Acenaphthene	<0.1
Fluorene	<0.1
Phenanthrene	<0.1
Anthracene	<0.1
Fluoranthene	<0.1
Pyrene	<0.1
Benz(a)anthracene	<0.1
Chrysene	<0.1
Benzo(a)pyrene	<0.1
Benzo(b)fluoranthene	<0.1
Benzo(k)fluoranthene	<0.1
Indeno(1,2,3-cd)pyrene	<0.1
Dibenz(a,h)anthracene	<0.1
Benzo(g,h,i)perylene	<0.1

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	Sound Environmental Strategies
Date Received:	NA	Project:	NCPCS_0592-001-01_20090304
Date Extracted:	03/10/09	Lab ID:	09-334mb 1/5
Date Analyzed:	03/13/09	Data File:	031306.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	73	50	150
Benzo(a)anthracene-d12	99	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
1-Methylnaphthalene	<0.01
2-Methylnaphthalene	<0.01
Acenaphthylene	<0.01
Acenaphthene	<0.01
Fluorene	<0.01
Phenanthrene	<0.01
Anthracene	<0.01
Fluoranthene	<0.01
Pyrene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01
Benzo(g,h,i)perylene	<0.01

Date of Report: 03/20/09
Date Received: 03/04/09
Project: NCPCS_0592-001-01_20090304

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

Laboratory Code: 903051-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Gasoline	mg/kg (ppm)	18	17	6

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	mg/kg (ppm)	20	112	70-130

Date of Report: 03/20/09
Date Received: 03/04/09
Project: NCPCS_0592-001-01_20090304

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

Laboratory Code: 903043-01 (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	94	95	78-126	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	94	70-127

Date of Report: 03/20/09
Date Received: 03/04/09
Project: NCPCS_0592-001-01_20090304

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

Laboratory Code: 903044-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Lead	mg/kg (ppm)	11.9	12.0	1	0-20

Laboratory Code: 903044-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Lead	mg/kg (ppm)	50	11.9	170 b	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/kg (ppm)	50	101	70-130

Date of Report: 03/20/09
Date Received: 03/04/09
Project: NCPCS_0592-001-01_20090304

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

Laboratory Code: 903042-04 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	<0.5	<0.5	nm
Chloromethane	mg/kg (ppm)	<0.05	<0.05	nm
Vinyl chloride	mg/kg (ppm)	<0.05	<0.05	nm
Bromomethane	mg/kg (ppm)	<0.5	<0.5	nm
Chloroethane	mg/kg (ppm)	<0.5	<0.5	nm
Trichlorofluoromethane	mg/kg (ppm)	<0.5	<0.5	nm
Acetone	mg/kg (ppm)	<0.5	<0.5	nm
1,1-Dichloroethene	mg/kg (ppm)	<0.05	<0.05	nm
Methylene chloride	mg/kg (ppm)	<0.5	<0.5	nm
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	<0.05	<0.05	nm
trans-1,2-Dichloroethene	mg/kg (ppm)	<0.05	<0.05	nm
1,1-Dichloroethane	mg/kg (ppm)	<0.05	<0.05	nm
2,2-Dichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
cis-1,2-Dichloroethene	mg/kg (ppm)	<0.05	<0.05	nm
Chloroform	mg/kg (ppm)	<0.05	<0.05	nm
2-Butanone (MEK)	mg/kg (ppm)	<0.5	<0.5	nm
1,2-Dichloroethane (EDC)	mg/kg (ppm)	<0.05	<0.05	nm
1,1,1-Trichloroethane	mg/kg (ppm)	<0.05	<0.05	nm
1,1-Dichloropropene	mg/kg (ppm)	<0.05	<0.05	nm
Carbon tetrachloride	mg/kg (ppm)	<0.05	<0.05	nm
Benzene	mg/kg (ppm)	<0.03	<0.03	nm
Trichloroethene	mg/kg (ppm)	<0.03	<0.03	nm
1,2-Dichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
Bromodichloromethane	mg/kg (ppm)	<0.05	<0.05	nm
Dibromomethane	mg/kg (ppm)	<0.05	<0.05	nm
4-Methyl-2-pentanone	mg/kg (ppm)	<0.5	<0.5	nm
cis-1,3-Dichloropropene	mg/kg (ppm)	<0.05	<0.05	nm
Toluene	mg/kg (ppm)	<0.05	<0.05	nm
trans-1,3-Dichloropropene	mg/kg (ppm)	<0.05	<0.05	nm
1,1,2-Trichloroethane	mg/kg (ppm)	<0.05	<0.05	nm
2-Hexanone	mg/kg (ppm)	<0.5	<0.5	nm
1,3-Dichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
Tetrachloroethene	mg/kg (ppm)	<0.025	<0.025	nm
Dibromochloromethane	mg/kg (ppm)	<0.05	<0.05	nm
1,2-Dibromoethane (EDB)	mg/kg (ppm)	<0.05	<0.05	nm
Chlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
Ethylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	<0.05	<0.05	nm
m,p-Xylene	mg/kg (ppm)	<0.1	<0.1	nm
o-Xylene	mg/kg (ppm)	<0.05	<0.05	nm
Styrene	mg/kg (ppm)	<0.05	<0.05	nm
Isopropylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
Bromoform	mg/kg (ppm)	<0.05	<0.05	nm
n-Propylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
Bromobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,3,5-Trimethylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	<0.05	<0.05	nm
1,2,3-Trichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
2-Chlorotoluene	mg/kg (ppm)	<0.05	<0.05	nm
4-Chlorotoluene	mg/kg (ppm)	<0.05	<0.05	nm
tert-Butylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,2,4-Trimethylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
sec-Butylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
p-Isopropyltoluene	mg/kg (ppm)	<0.05	<0.05	nm
1,3-Dichlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,4-Dichlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,2-Dichlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	<0.05	<0.05	nm
1,2,4-Trichlorobenzene	mg/kg (ppm)	<0.1	<0.1	nm
Hexachlorobutadiene	mg/kg (ppm)	<0.1	<0.1	nm
Naphthalene	mg/kg (ppm)	<0.05	<0.05	nm
1,2,3-Trichlorobenzene	mg/kg (ppm)	<0.1	<0.1	nm

Date of Report: 03/20/09
Date Received: 03/04/09
Project: NCPCS_0592-001-01_20090304

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	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2.5	105	101	25-133	4
Chloromethane	mg/kg (ppm)	2.5	98	93	48-121	5
Vinyl chloride	mg/kg (ppm)	2.5	107	101	57-125	6
Bromomethane	mg/kg (ppm)	2.5	94	90	55-141	4
Chloroethane	mg/kg (ppm)	2.5	98	92	43-152	6
Trichlorofluoromethane	mg/kg (ppm)	2.5	107	99	37-158	8
Acetone	mg/kg (ppm)	2.5	85	83	69-129	2
1,1-Dichloroethene	mg/kg (ppm)	2.5	106	104	60-123	2
Methylene chloride	mg/kg (ppm)	2.5	89	83	57-130	7
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	100	98	82-112	2
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	109	104	78-118	5
1,1-Dichloroethane	mg/kg (ppm)	2.5	106	100	81-116	6
2,2-Dichloropropane	mg/kg (ppm)	2.5	106	100	74-122	6
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	108	103	82-118	5
Chloroform	mg/kg (ppm)	2.5	106	102	80-117	4
2-Butanone (MEK)	mg/kg (ppm)	2.5	92	92	63-146	0
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	101	98	82-120	3
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	111	105	79-120	6
1,1-Dichloropropene	mg/kg (ppm)	2.5	104	99	76-122	5
Carbon tetrachloride	mg/kg (ppm)	2.5	99	93	70-125	6
Benzene	mg/kg (ppm)	2.5	102	97	80-112	5
Trichloroethene	mg/kg (ppm)	2.5	105	100	79-115	5
1,2-Dichloropropane	mg/kg (ppm)	2.5	105	101	84-119	4
Bromodichloromethane	mg/kg (ppm)	2.5	115	110	87-122	4
Dibromomethane	mg/kg (ppm)	2.5	107	105	87-118	2
4-Methyl-2-pentanone	mg/kg (ppm)	2.5	100	99	88-124	1
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	110	106	84-125	4
Toluene	mg/kg (ppm)	2.5	109	106	80-116	3
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	119	116	84-129	3
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	112	111	85-117	1
2-Hexanone	mg/kg (ppm)	2.5	111	109	88-129	2
1,3-Dichloropropane	mg/kg (ppm)	2.5	110	107	84-119	3
Tetrachloroethene	mg/kg (ppm)	2.5	114	109	79-119	4
Dibromochloromethane	mg/kg (ppm)	2.5	106	104	76-123	2
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	115	113	86-120	2
Chlorobenzene	mg/kg (ppm)	2.5	110	105	81-111	5
Ethylbenzene	mg/kg (ppm)	2.5	109	105	81-115	4
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	127 vo	123 vo	82-121	3
m,p-Xylene	mg/kg (ppm)	5	109	105	80-118	4
o-Xylene	mg/kg (ppm)	2.5	111	108	78-122	3
Styrene	mg/kg (ppm)	2.5	113	109	84-121	4
Isopropylbenzene	mg/kg (ppm)	2.5	111	106	79-124	5
Bromoform	mg/kg (ppm)	2.5	106	105	73-111	1
n-Propylbenzene	mg/kg (ppm)	2.5	110	107	80-123	3
Bromobenzene	mg/kg (ppm)	2.5	122 vo	119 vo	83-117	2
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	112	109	81-122	3
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	113	112	82-119	1
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	110	109	82-116	1
2-Chlorotoluene	mg/kg (ppm)	2.5	111	107	78-120	4
4-Chlorotoluene	mg/kg (ppm)	2.5	109	106	81-119	3
tert-Butylbenzene	mg/kg (ppm)	2.5	113	109	79-124	4
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	113	109	81-123	4
sec-Butylbenzene	mg/kg (ppm)	2.5	112	108	79-124	4
p-Isopropyltoluene	mg/kg (ppm)	2.5	113	109	82-125	4
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	111	108	80-116	3
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	110	107	59-133	3
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	112	110	82-116	2
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	99	99	74-126	0
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	114	110	73-124	4
Hexachlorobutadiene	mg/kg (ppm)	2.5	114	109	74-128	4
Naphthalene	mg/kg (ppm)	2.5	114	113	70-122	1
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	117	114	76-125	3

Date of Report: 03/20/09
Date Received: 03/04/09
Project: NCPCS_0592-001-01_20090304

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PNA'S BY EPA METHOD 8270D SIM

Laboratory Code: 903086-19 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Naphthalene	mg/kg (ppm)	<0.01	<0.01	nm
2-Methylnaphthalene	mg/kg (ppm)	<0.01	<0.01	nm
1-Methylnaphthalene	mg/kg (ppm)	<0.01	<0.01	nm
Acenaphthylene	mg/kg (ppm)	<0.01	<0.01	nm
Acenaphthene	mg/kg (ppm)	<0.01	<0.01	nm
Fluorene	mg/kg (ppm)	<0.01	<0.01	nm
Phenanthrene	mg/kg (ppm)	<0.011	<0.01	nm
Anthracene	mg/kg (ppm)	<0.01	<0.01	nm
Fluoranthene	mg/kg (ppm)	<0.01	<0.01	nm
Pyrene	mg/kg (ppm)	<0.01	<0.01	nm
Benz(a)anthracene	mg/kg (ppm)	<0.01	<0.01	nm
Chrysene	mg/kg (ppm)	<0.01	<0.01	nm
Benzo(b)fluoranthene	mg/kg (ppm)	<0.01	<0.01	nm
Benzo(k)fluoranthene	mg/kg (ppm)	<0.01	<0.01	nm
Benzo(a)pyrene	mg/kg (ppm)	<0.01	<0.01	nm
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	<0.01	<0.01	nm
Dibenz(a,h)anthracene	mg/kg (ppm)	<0.01	<0.01	nm
Benzo(g,h,i)perylene	mg/kg (ppm)	<0.01	<0.01	nm

Laboratory Code: 903086-19 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Naphthalene	mg/kg (ppm)	0.17	<0.01	96	26-148
2-Methylnaphthalene	mg/kg (ppm)	0.17	<0.01	93	50-150
1-Methylnaphthalene	mg/kg (ppm)	0.17	<0.01	97	15-162
Acenaphthylene	mg/kg (ppm)	0.17	<0.01	101	40-131
Acenaphthene	mg/kg (ppm)	0.17	<0.01	91	58-108
Fluorene	mg/kg (ppm)	0.17	<0.01	93	57-113
Phenanthrene	mg/kg (ppm)	0.17	<0.01	90	30-138
Anthracene	mg/kg (ppm)	0.17	<0.01	84	42-132
Fluoranthene	mg/kg (ppm)	0.17	<0.01	104	45-145
Pyrene	mg/kg (ppm)	0.17	<0.01	104	44-139
Benz(a)anthracene	mg/kg (ppm)	0.17	<0.01	104	47-113
Chrysene	mg/kg (ppm)	0.17	<0.01	93	45-122
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	<0.01	112	24-145
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	<0.01	99	51-118
Benzo(a)pyrene	mg/kg (ppm)	0.17	<0.01	114	30-134
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	<0.01	111	40-138
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	<0.01	92	51-122
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	<0.01	87	54-115

Date of Report: 03/20/09
Date Received: 03/04/09
Project: NCPCS_0592-001-01_20090304

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PNA'S BY EPA METHOD 8270D SIM

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	mg/kg (ppm)	0.17	99	91	72-112	8
2-Methylnaphthalene	mg/kg (ppm)	0.17	100	91	60-114	9
1-Methylnaphthalene	mg/kg (ppm)	0.17	105	95	59-113	10
Acenaphthylene	mg/kg (ppm)	0.17	99	89	68-112	11
Acenaphthene	mg/kg (ppm)	0.17	93	86	70-111	8
Fluorene	mg/kg (ppm)	0.17	90	83	69-110	8
Phenanthrene	mg/kg (ppm)	0.17	93	86	68-111	8
Anthracene	mg/kg (ppm)	0.17	86	78	67-110	10
Fluoranthene	mg/kg (ppm)	0.17	99	91	68-114	8
Pyrene	mg/kg (ppm)	0.17	100	91	68-114	9
Benz(a)anthracene	mg/kg (ppm)	0.17	99	91	58-108	8
Chrysene	mg/kg (ppm)	0.17	93	86	64-115	8
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	106	100	54-119	6
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	102	95	61-123	7
Benzo(a)pyrene	mg/kg (ppm)	0.17	98	95	54-111	3
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	104	103	52-118	1
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	93	89	57-119	4
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	86	83	60-116	4

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.

A1 – More than one compound of similar molecule structure was identified with equal probability.

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 this range fell outside of acceptance criteria. The value reported is an estimate.

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

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - The analyte indicated was found in the method blank. The result should be considered an estimate.

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. The variability is attributed to sample inhomogeneity.

ht - The sample was extracted outside of holding time. Results should be considered estimates.

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

j – The result is below normal reporting limits. 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 analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is 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 compound indicated 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 in a container not approved by the method. The value reported should be considered an estimate.

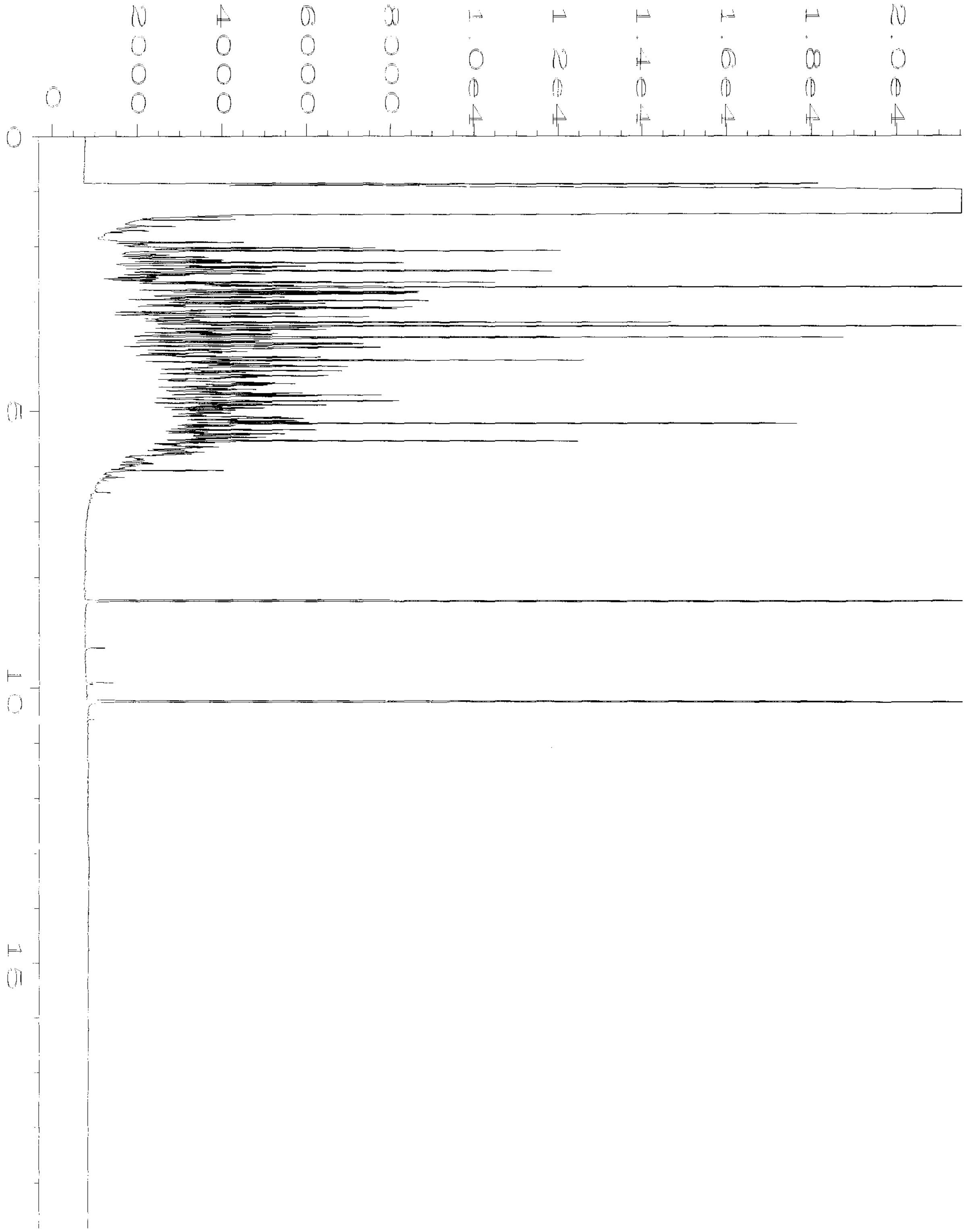
pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration should be considered an estimate.

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

x - The pattern of peaks present is not indicative of diesel.

y - The pattern of peaks present is not indicative of motor oil.



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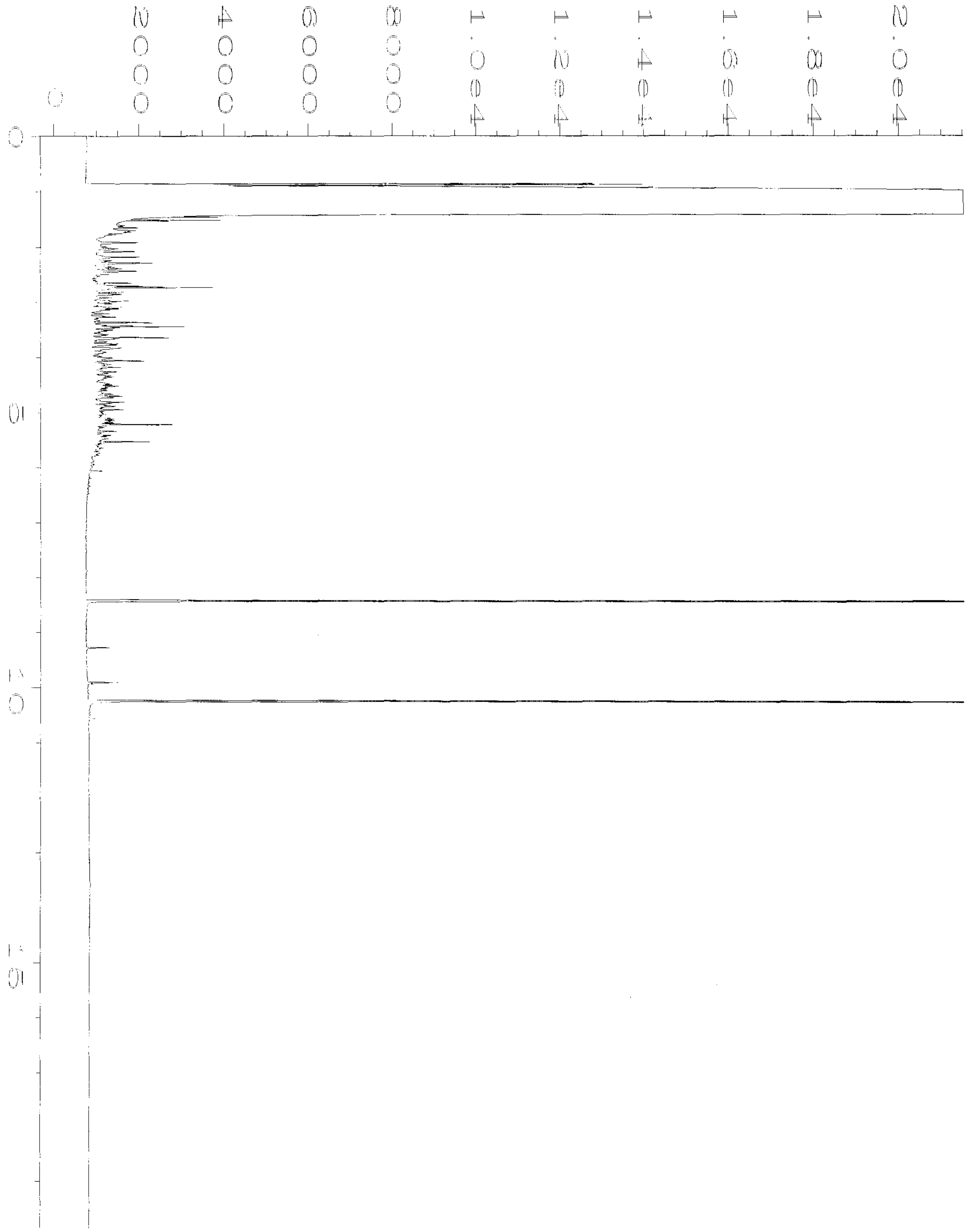
Operator   : ay
Instrument   : GC#4
Sample Name   : 903042-04
Run Time Bar Code:
Acquired on   : 06 Mar 09   08:33 PM
Report Created on: 09 Mar 09   09:58 AM

Page Number   : 1
Vial Number   : 17
Injection Number : 1
Sequence Line   : 8
Instrument Method: TPHD.MTH
Analysis Method   : BAKEOUT.MTH



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Instrument        : GC#4                             Vial Number       : 18
Sample Name       : 903042-09                        Injection Number  : 1
Run Time Bar Code:                                   Sequence Line     : 8
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Report Created on: 09 Mar 09   09:58 AM              Analysis Method   : BAKEOUT.MTH
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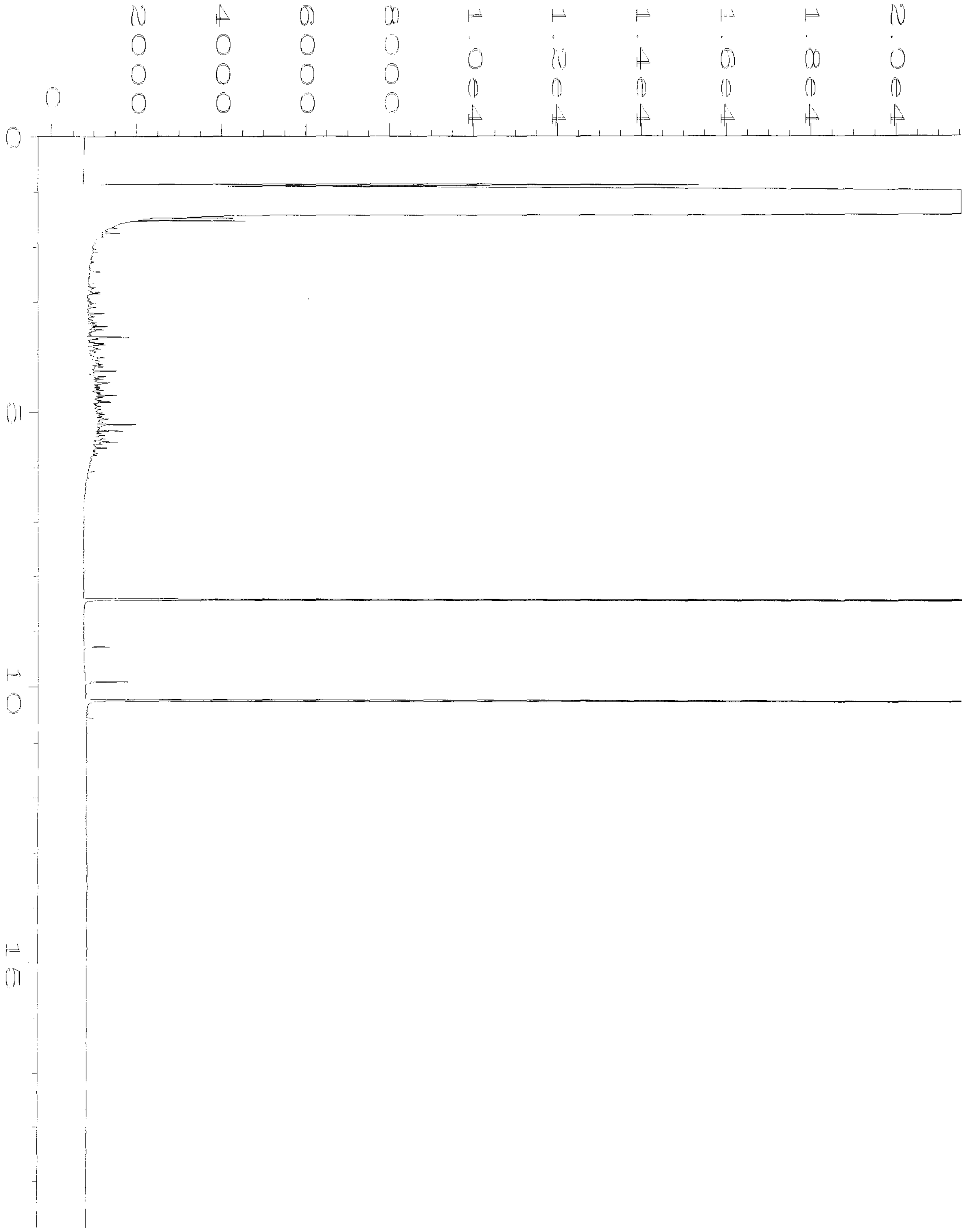

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Instrument        : GC#4                            Vial Number       : 19
Sample Name       : 903042-13                       Injection Number : 1
Run Time Bar Code:                                  Sequence Line     : 8
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Report Created on: 09 Mar 09  09:58 AM              Analysis Method   : BAKEOUT.MTH
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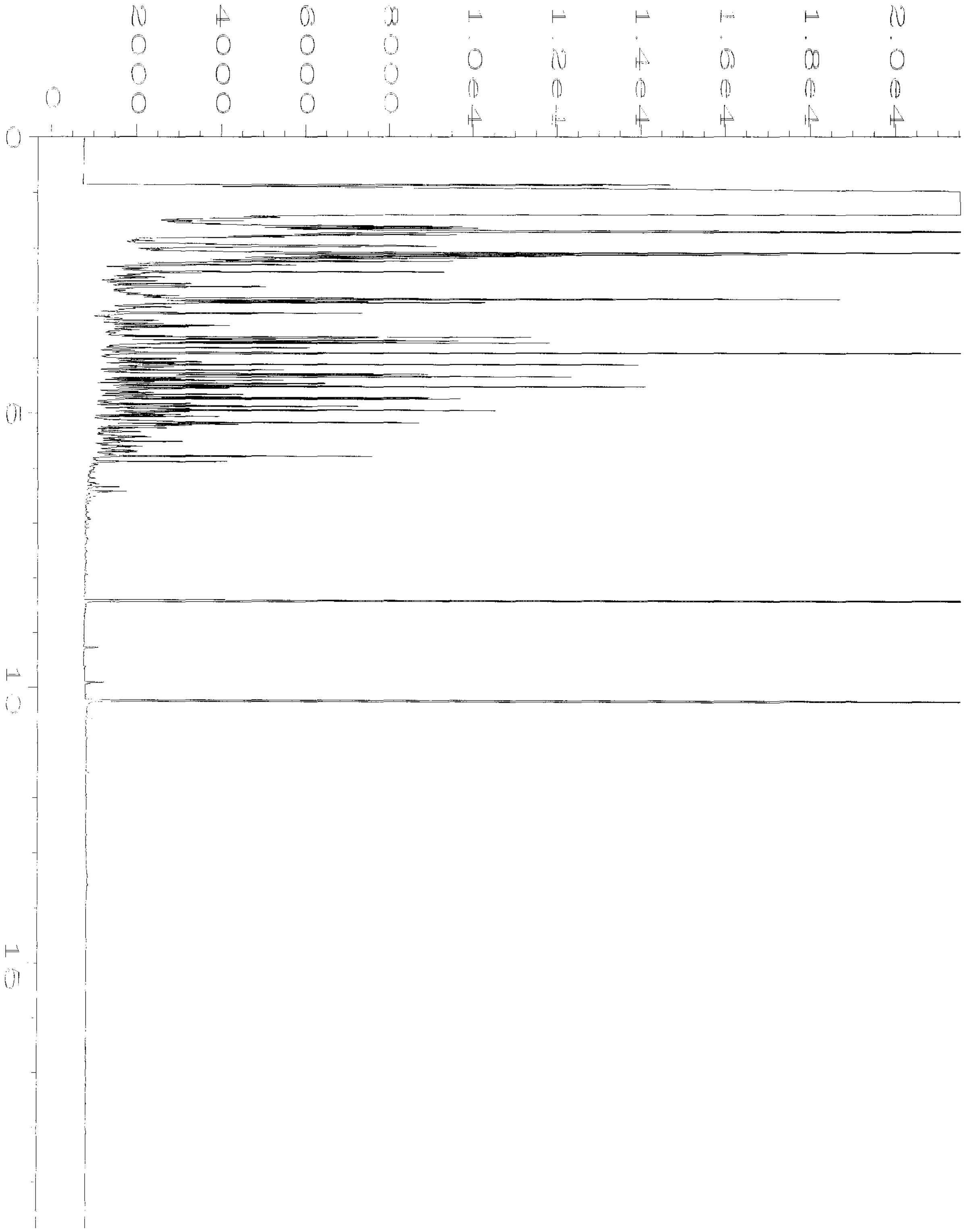

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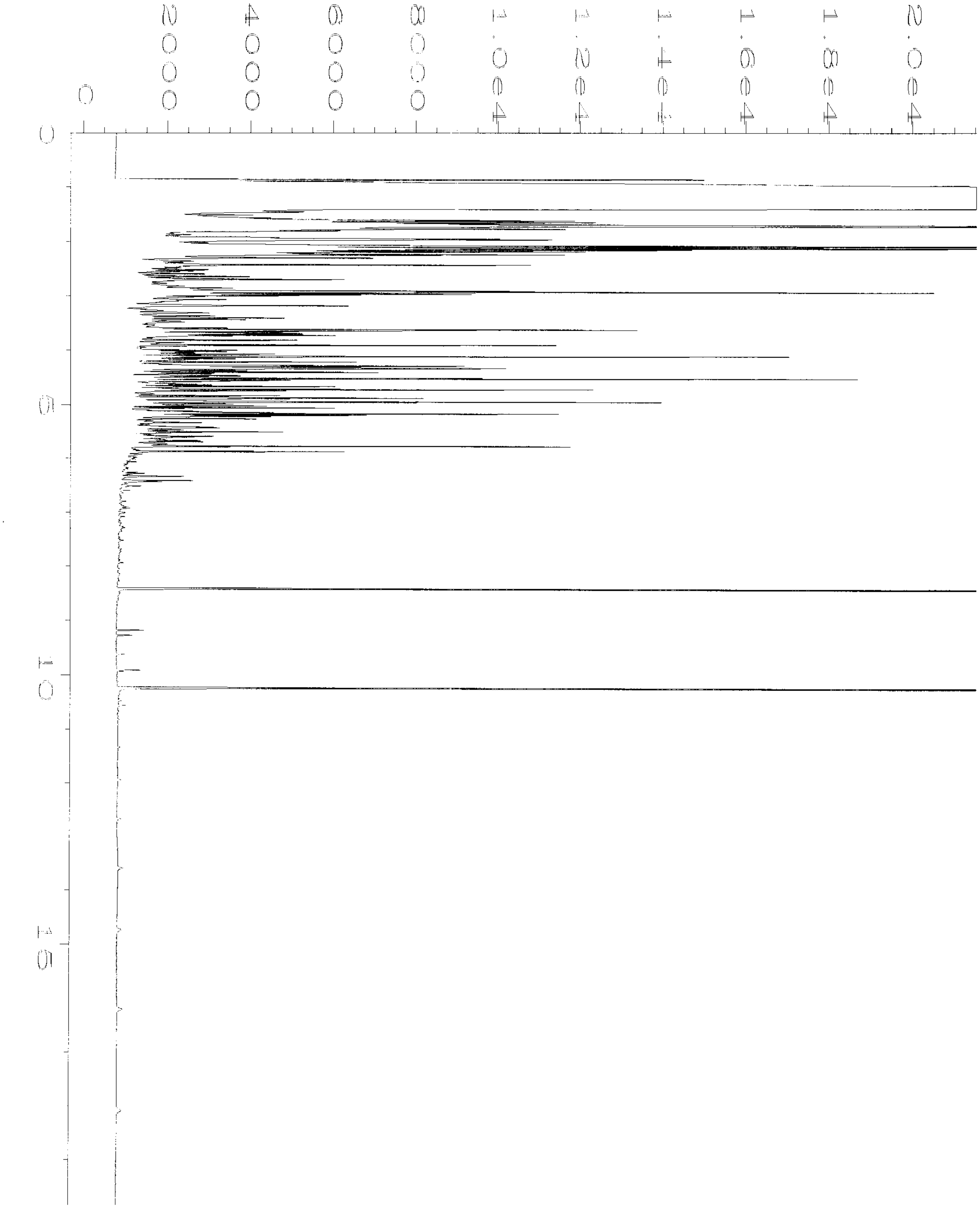
Sample Name   : 903042-20
Run Time Bar Code:
Acquired on   : 06 Mar 09   09:52 PM
Report Created on: 09 Mar 09   09:58 AM

Page Number   : 1
Vial Number   : 20
Injection Number : 1
Sequence Line   : 8
Instrument Method: TPHD.MTH
Analysis Method : BAKEOUT.MTH



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Operator          : ay                            Page Number      : 1
Instrument        : GC#4                          Vial Number      : 21
Sample Name       : 903042-21                     Injection Number : 1
Run Time Bar Code:                                Sequence Line    : 8
Acquired on       : 06 Mar 09   10:19 PM          Instrument Method: TPHD.MTH
Report Created on: 09 Mar 09   09:58 AM           Analysis Method  : BAKEOUT.MTH
```

Fremont
Analytical

2930 Westlake Ave N Suite 100
Seattle, WA 98109
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Friedman and Bruya
Attn: Michael Erdahl
3012 16th Ave W.
Seattle, WA 98119

RE: 903042
Fremont Project No: CHM090309-1
Friedman and Bruya Project No: H-1794

March 19th, 2009

Michael:

Enclosed are the analytical results for the **903042** soil samples (*Sample IDs: TP01-12 & B14A-10*) picked up by Fremont Analytical on March 9th, 2009.

The samples were received in good condition - in the proper container (4oz. soil jars, 40mL VOAs preserved with MeOH) properly sealed, labeled and within holding time. The sample was received from refrigeration at Friedman and Bruya, placed in a cooler with gel ice and delivered to the laboratory. The cooler temperature upon sample check-in was 4.2°C , which is within the laboratory cooler temperature range (<4°C - 10°C). The samples were analyzed and stored in a refrigeration unit at the USEPA-recommended temperature of 4°C ± 2°C. There were no sample receipt issues to report.

Examination of these samples was conducted for the presence of the following:

- ***Volatile Petroleum Hydrocarbons (VPH) in Soil by NWVPH***
- ***Extractable Petroleum Hydrocarbons (EPH) in Soil by NWEPH***

All appropriate Quality Assurance / Quality Control method parameters have been applied.

Laboratory Notations:

NWVPH: Sample ID = TP01-12: The Relative Percent Difference (RPD%) for *C8-C10 (FID) Aliphatics* exceeded the laboratory control limit. All other laboratory control limits were within range.

NWVPH: Sample ID = B14A-10: Coelution prevented the determination/recovery of the surrogate *Bromofluorobenzene*.

Please contact the laboratory if you should have any questions about the report.

Thank you for using Fremont Analytical.

Sincerely,

Michael Dee
Sr. Chemist / Principal

mikedee@fremontanalytical.com

Fremont
Analytical

2930 Westlake Ave. N., Suite 100
Seattle, WA 98109

T: 206.352.3790
F: 206.352.7178
email: info@fremontanalytical.com

Analysis of Volatile Petroleum Hydrocarbons in Soil by NWVPH

Project: 903042
Client: Friedman and Bruya, Inc.
Client Project #: H-1794
Lab Project #: CHM090309-1

					Duplicate			MS
NWVPH (mg/kg)	**MRL**	**Method Blank**	**LCS**	**TP01-12**	**TP01-12**	**RPD**	**B14A-10**	*Batch 090304-4-7*
Date Preserved				3/2/09	3/2/09	%	3/3/09	3/7/09
Date Analyzed		3/14/09	3/14/09	3/14/09	3/14/09		3/14/09	3/14/09
Matrix				Soil	Soil		Soil	Soil
Targeted Analytes								
methyl *tert*-butyl ether (MTBE)	0.05	nd		nd	nd		nd	
Benzene	0.05	nd		nd	nd		**0.19**	
Toluene	0.05	nd	96%	nd	nd		**0.48**	97%
Ethylbenzene	0.05	nd		**0.16**	**0.15**	6%	**15**	
m,p-Xylenes	0.05	nd		nd	nd		**1.1**	
o-Xylenes	0.05	nd		nd	nd		**1.2**	
Naphthalene	0.05	nd	93%	**0.65**	**0.55**	17%	**9.3**	94%
Hydrocarbon Parameters								
C5-C6 (FID) *Aliphatics**	0.05	nd		**0.70**	**0.50**	33%	**10**	
C6-C8 (FID) *Aliphatics**	0.05	nd	63%	**1.4**	**0.95**	38%	**90**	66%
C8-C10 (FID) *Aliphatics**	0.05	nd		**1.7**	**3.1**	58%	**19**	
C10-C12 (FID) *Aliphatics**	0.05	nd	105%	**3.3**	**4.4**	29%	**40**	106%
C8-C10 (PID) *Aromatics*	0.05	nd		**5.1**	**5.9**	15%	**50**	
C10-C12 (PID) *Aromatics*	0.05	nd	93%	**14**	**14**	0%	**140**	94%
C12-C13 (PID) *Aromatics*	0.05	nd		**2.0**	**2.1**	5%	**0.17**	
Surrogate Recovery								
Bromofluorobenzene		91%	92%	89%	90%		C	89%

"nd" Indicates not detected at listed reporting limits
"int" Indicates that interference prevents determination
"*" Excludes MTBE and BTEX Compounds
"C" Indicates coelution prevents determination
"J" Indicates estimated value
"MRL" Indicates Method Reporting Limit
"LCS" Indicates Laboratory Control Sample
"MS" Indicates Matrix Spike
"RPD" Indicates Relative Percent Difference

Acceptable RPD is determined to be less than 50%
Acceptable Recovery Limits:
Surrogate = 60% to 140%
MS, MSD, LCS, LCSD = 50% to 150%
Surrogates and Spike Concentration = 20 ug/L

Analysis of Extractable Petroleum Hydrocarbons in Soil by NWEPH

Project: 903042
Client: Friedman and Bruya, Inc.
Client Project #: H-1794
Lab Project #: CHM090309-1

				Duplicate				MS	MSD	
NWEPH (mg/kg)	**MRL**	**Method Blank**	**LCS**	**TP01-12**	**TP01-12**	**RPD**	**B14A-10**	**TP01-12**	**TP01-12**	**RPD**
Date Extracted				3/15/09	3/15/09	%	3/15/09	3/15/09	3/15/09	%
Date Analyzed		3/17/09	3/17/09	3/17/09	3/17/09		3/17/09	3/17/09	3/17/09	
Matrix				Soil	Soil		Soil	Soil	Soil	
Aromatic Hyrdrocarbon (Ranges)										
C8-C10	2.0	nd	64%	**6.4**	**5.8**	10%	**60**	116%	99%	16%
C10-C12	2.0	nd		nd	nd		**32**			
C12-C16	2.0	nd		nd	nd		**25**			
C16-C21	2.0	nd		nd	nd		nd			
C21-C34	2.0	nd	61%	nd	nd		nd	60%	64%	6%
Aliphatic Hydrocarbon (Ranges)										
C8-C10	2.0	nd	129%	**8.3**	**8.0**	4%	**81**	144%	144%	0%
C10-C12	2.0	nd		**4.8**	**4.9**	2%	**90**			
C12-C16	2.0	nd		**8.3**	**8.0**	4%	**44**			
C16-C21	2.0	nd	130%	nd	nd		nd	132%	132%	0%
C21-C34	2.0	nd		nd	nd		nd			
Surrogate Recovery										
o-terphenyl		99%	98%	70%	71%		64%	92%	77%	
1-chlorooctadecane		115%	109%	108%	102%		97%	86%	113%	

"nd" Indicates not detected at listed reporting limits
"int" Indicates that interference prevents determination
* Instrument Detection Limit
"J" Indicates estimated value
"MRL" Indicates Method Reporting Limit
"LCS" Indicates Laboratory Control Sample
"MS" Indicates Matrix Spike
"MSD" Indicates Matrix Spike Duplicate
"RPD" Indicates Relative Percent Difference

Acceptable RPD is determined to be less than 50%
Acceptable Recovery Limits:
Surrogate = 60% to 140%
MS, MSD, LCS, LCSD = 50% to 150%
Surrogates and Spike Concentration = 10 mg/L

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

Send Report To Michael Erdahl
Company Friedman and Bruya, Inc.
Address 3012 16th Ave W
City, State, ZIP Seattle, WA 98119
Phone # (206) 285-8282 Fax # (206) 283-5044

SUBCONTRACTER CHM090309-1

PROJECT NAME/NO. 903042

PO # H-1794

REMARKS

Please Email Results
merdahl@friedmanandbruya.com

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

						ANALYSES REQUESTED										
Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	Oil and Grease	EPH	VPH	Nitrate	Sulfate	Alkalinity					Notes
TP01-12		3/2/09	0935	S			X	X								
B14A-10		3/3/09	0740	S			X	X								

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

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Michael Erdahl	Friedman & Bruya	3/9/09	10:25
Received by	MICHAEL C. RIDGEWAY	FREMONT ANALYTICAL	3/9/09	1330
Relinquished by:				
Received by				

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

March 26, 2009

Ryan Bixby, Project Manager
Sound Environmental Strategies Corporation
2400 Airport Way S., Suite 200
Seattle, WA 98134-2020

Dear Mr. Bixby:

Included are the amended results from the testing of material submitted on March 4, 2009 from the NCPCS_0592-001-01_20090304, F&BI 903042 project. The methylene chloride detection in sample B14A-10 was flagged as due to laboratory contamination.

We apologize for the inconvenience and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Erin Rothman, Chuck Cacek
SOU0320R.DOC

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B14A-10	Client:	Sound Environmental Strategies
Date Received:	03/04/09	Project:	NCPCS_0592-001-01_20090304
Date Extracted:	03/12/09	Lab ID:	903042-21 1/20
Date Analyzed:	03/13/09	Data File:	031224.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	93	42	152
Toluene-d8	91	36	149
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<10	1,3-Dichloropropane	<1
Chloromethane	<1	Tetrachloroethene	<0.5
Vinyl chloride	<1	Dibromochloromethane	<1
Bromomethane	<10	1,2-Dibromoethane (EDB)	<1
Chloroethane	<10	Chlorobenzene	<1
Trichlorofluoromethane	<10	Ethylbenzene	45
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	2.1
Methylene chloride	19 lc	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	3.8
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	13
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<0.6	1,2,4-Trimethylbenzene	<1
Trichloroethene	<0.6	sec-Butylbenzene	1.4
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<1
Toluene	<1	1,2,4-Trichlorobenzene	<2
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<2
1,1,2-Trichloroethane	<1	Naphthalene	9.1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<2

903042

SAMPLE CHAIN OF CUSTODY

ME 03/04/09

A05/~~A05~~

Page # 1 of 2

Send Report To Ryan Bixby cc: Charles Cacez

Company Sound Environmental Strategies

Address 2400 Airport Way South

City, State, ZIP Seattle WA 98134

Phone # 206-306-1900 Fax # 206-306-1906

SAMPLERS (signature) Jessica Brown

PROJECT NAME/NO. North Colfax Petroleum Contamination Site

PO #

REMARKS ↓ 0592-001-01

[✓ GEMS Y] N

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	VOC's by 8260	SVOC's by 8270	EPH - VPH ~~RCRA-8 Metals~~	NWTPH-HCID	Total Lead	Notes
TP01-04		4'	01 A-G	3/2/09	0855	Soil	7									analyze X per Charles ~~Hold~~ 3/5/09
TP01-07		7'	02 A-G	↓	0910	↓	↓							X		MC ↓
TP01-10		10'	03 A-G		0925											
TP01-12		12'	04 A-G		0935			X	X		X	X	X		X	
TP02-04		4'	05 A-G		1000									X		
TP02-07		7'	06 A-G		1005											
TP02-09.5		9.5'	07 A-G		1020									X		
TP02-10.5		10.5	08 A-G		1025											
TP02-12.5		12.5	09 A-G		1040			X	X		X				X	
TP03-04		4'	10 A-G		1155											
TP03-07.5		7.5'	11 A-G		1205									X		
TP03-10		10'	12 A-G		1215											
TP03-11		11'	13 A-G	↓	1220	↓	↓	X	X		X				X	↓

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

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Charles Cacez	SES	3/4/09	17:00
Received by:	Brad Benson	FdBI	3/4/09	17:00
Relinquished by:				
Received by:		Samples received at 5 °C		

FORMS\COC\SESGEMSR1.DOC (Revision 1)

903042

SAMPLE CHAIN OF CUSTODY

ME 03/04/09

A05/ CJ2 ~~A05~~

Page # 2 of 2

Send Report To Ryan Bixby cc: Chuck Cacek
Company Sound Environmental Strategies
Address 2400 Airport Way South
City, State, ZIP Seattle WA 98134
Phone # 206-306-1900 Fax # 206-306-1906

SAMPLERS (signature) C. C. Jessica Brown

PROJECT NAME/NO. North Colfax petroleum Contamination Site

PO#

REMARKS 0592-001-01

GEMS [✓ Y] / N

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

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

								ANALYSES REQUESTED								
Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	EPH/VPH ~~RCRA-8 Metals~~	NWTPH - HCID	Total Lead	Notes
TP03-12.5		12.5	14 A-G	3/2/09	1225	Soil	7									Hold
B24-02.5		2.5	15 A-G	↓	1403	↓	↓							X		↓
B24-05		5	16 A-G		1410											
B24-07.5		7.5	17 A-G		1425									X		
B24-10		10	18 A-G		1432											
B24-12.5		12.5	19 A-G		1448									X		
B14A-07.5		7.5	20 A-G	3/3/09	0730			X	X		X				X	
B14A-10		10	21 A-G	↓	0740			X	X		X	X	X		X	
B25-05		5	22 A-G		1110									X		
B25-07.5		7.5	23 A-G		1120									X		
B25-12.5		12.5	24 A-G		1140									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: C. C.	Charles Cacek	SES	3/4/09	17:00
Received by:	Brad Benn	Fd Bt	3/4/09	17:00
Relinquished by:				
Received by:		Samples received at	5 °C	

FORMS\COC\SESGEMSR1.DOC (Revision 1)

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

March 10, 2009

Ryan Bixby, Project Manager
Sound Environmental Strategies Corporation
2400 Airport Way S., Suite 200
Seattle, WA 98134-2020

Dear Mr. Bixby:

Included are the results from the testing of material submitted on March 4, 2009 from the NCPCS_0592-001-01_20090304, F&BI 903044 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: Erin Rothman, Chuck Cacek
SOU0310R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on March 4, 2009 by Friedman & Bruya, Inc. from the Sound Environmental Strategies NCPCS, F&BI 903044 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Sound Environmental Strategies
903044-01	SP01
903044-02	SP02
903044-03	SP03
903044-04	SP Comp

Per your request, the samples were composited prior to analysis and labeled as SP Comp. All quality control requirements were acceptable.

Date of Report: 03/10/09
Date Received: 03/04/09
Project: NCPCS, F&BI 903044
Date Extracted: 03/05/09
Date Analyzed: 03/05/09

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

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

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
SP Comp 903044-04	38	144
Method Blank	<2	106

Date of Report: 03/10/09
Date Received: 03/04/09
Project: NCPCS, F&BI 903044
Date Extracted: 03/05/09
Date Analyzed: 03/05/09

RESULTS FROM THE ANALYSIS OF THE 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 50-150)
SP Comp 903044-04	<50	<250	78
Method Blank	<50	<250	84

Analysis For Total Metals By EPA Method 200.8

Client ID:	SP Comp	Client:	Sound Environmental Strategies
Date Received:	03/04/09	Project:	NCPCS_0592-001-01_20090304, F&BI 903044
Date Extracted:	03/06/09	Lab ID:	903044-04
Date Analyzed:	03/06/09	Data File:	903044-01 comp.010
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	84	60	125
Indium	87	60	125
Holmium	101	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	7.80
Arsenic	1.43
Selenium	<1
Silver	<1
Cadmium	<1
Barium	116
Lead	11.9

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Sound Environmental Strategies
Date Received:	NA	Project:	NCPCS_0592-001-01_20090304, F&BI 903044
Date Extracted:	03/06/09	Lab ID:	I9-096 mb
Date Analyzed:	03/06/09	Data File:	I9-096 mb.008
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	80	60	125
Indium	87	60	125
Holmium	100	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	<2
Arsenic	<1
Selenium	<1
Silver	<1
Cadmium	<1
Barium	<1
Lead	<1

Date of Report: 03/10/09
Date Received: 03/04/09
Project: NCPCS, F&BI 903044
Date Extracted: 03/06/09
Date Analyzed: 03/06/09

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

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

Sample ID Laboratory ID	Total Mercury
SP Comp 903044-04	<0.2
Method Blank	<0.2

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	SP Comp	Client:	Sound Environmental Strategies
Date Received:	03/04/09	Project:	NCPCS_0592-001-01_20090304, F&BI 903044
Date Extracted:	03/05/09	Lab ID:	903044-04
Date Analyzed:	03/05/09	Data File:	030507.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	91	42	152
Toluene-d8	95	36	149
4-Bromofluorobenzene	91	50	150

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.05	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
Methylene chloride	<0.5	o-Xylene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	0.050
Trichloroethene	<0.03	sec-Butylbenzene	0.057
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	0.056
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.05
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.1
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.1
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Sound Environmental Strategies
Date Received:	NA	Project:	NCPCS_0592-001-01_20090304, F&BI 903044
Date Extracted:	03/05/09	Lab ID:	090312 mb
Date Analyzed:	03/05/09	Data File:	030506.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	42	152
Toluene-d8	101	36	149
4-Bromofluorobenzene	97	50	150

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

Date of Report: 03/10/09
Date Received: 03/04/09
Project: NCPCS, F&BI 903044

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

Laboratory Code: 903051-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Gasoline	mg/kg (ppm)	18	17	6

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	mg/kg (ppm)	20	112	70-130

Date of Report: 03/10/09
Date Received: 03/04/09
Project: NCPCS, F&BI 903044

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

Laboratory Code: 903028-02 (Duplicate)

Analyte	Reporting Units	Sample Result (Dry wt)	Duplicate Result (Dry wt)	Relative Percent Difference	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	340	340	0	0-20

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	115	105	79-144	9

Date of Report: 03/10/09
Date Received: 03/04/09
Project: NCPCS, F&BI 903044

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

Laboratory Code: 903044-04 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/kg (ppm)	7.80	7.14	9	0-20
Arsenic	mg/kg (ppm)	1.43	1.25	13	0-20
Selenium	mg/kg (ppm)	<1	<1	nm	0-20
Silver	mg/kg (ppm)	<1	<1	nm	0-20
Cadmium	mg/kg (ppm)	<1	<1	nm	0-20
Barium	mg/kg (ppm)	116	113	3	0-20
Lead	mg/kg (ppm)	11.9	12.0	1	0-20

Laboratory Code: 903044-04 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Chromium	mg/kg (ppm)	50	7.80	95	50-150
Arsenic	mg/kg (ppm)	10	1.43	87	50-150
Selenium	mg/kg (ppm)	5	<1	82	50-150
Silver	mg/kg (ppm)	10	<1	95	50-150
Cadmium	mg/kg (ppm)	5	<1	98	50-150
Barium	mg/kg (ppm)	50	116	106 b	50-150
Lead	mg/kg (ppm)	50	11.9	170 b	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chromium	mg/kg (ppm)	50	104	70-130
Arsenic	mg/kg (ppm)	10	89	70-130
Selenium	mg/kg (ppm)	5	92	70-130
Silver	mg/kg (ppm)	10	96	70-130
Cadmium	mg/kg (ppm)	5	101	70-130
Barium	mg/kg (ppm)	50	101	70-130
Lead	mg/kg (ppm)	50	101	70-130

Date of Report: 03/10/09
Date Received: 03/04/09
Project: NCPCS, F&BI 903044

QUALITY ASSURANCE RESULTS
FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL MERCURY
USING EPA METHOD 1631E

Laboratory Code: 903044-04 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Mercury	mg/kg (ppm)	0.125	<0.2	92	87	50-150	6

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Mercury	mg/kg (ppm)	0.125	105	70-130

Date of Report: 03/10/09
Date Received: 03/04/09
Project: NCPCS, F&BI 903044

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	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2.5	83	80	25-133	4
Chloromethane	mg/kg (ppm)	2.5	68	66	48-121	3
Vinyl chloride	mg/kg (ppm)	2.5	81	78	57-125	4
Bromomethane	mg/kg (ppm)	2.5	80	82	55-141	2
Chloroethane	mg/kg (ppm)	2.5	84	95	43-152	12
Trichlorofluoromethane	mg/kg (ppm)	2.5	86	87	37-158	1
Acetone	mg/kg (ppm)	2.5	124	104	69-129	18
1,1-Dichloroethene	mg/kg (ppm)	2.5	112	95	60-123	16
Methylene chloride	mg/kg (ppm)	2.5	96	84	57-130	13
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	106	104	82-112	2
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	111	106	78-118	5
1,1-Dichloroethane	mg/kg (ppm)	2.5	111	109	81-116	2
2,2-Dichloropropane	mg/kg (ppm)	2.5	120	118	74-122	2
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	113	109	82-118	4
Chloroform	mg/kg (ppm)	2.5	111	110	80-117	1
2-Butanone (MEK)	mg/kg (ppm)	2.5	134	127	63-146	5
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	108	106	82-120	2
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	118	116	79-120	2
1,1-Dichloropropene	mg/kg (ppm)	2.5	112	110	76-122	2
Carbon tetrachloride	mg/kg (ppm)	2.5	108	104	70-125	4
Benzene	mg/kg (ppm)	2.5	107	106	80-112	1
Trichloroethene	mg/kg (ppm)	2.5	111	110	79-115	1
1,2-Dichloropropane	mg/kg (ppm)	2.5	111	110	84-119	1
Bromodichloromethane	mg/kg (ppm)	2.5	122	119	87-122	2
Dibromomethane	mg/kg (ppm)	2.5	113	112	87-118	1
4-Methyl-2-pentanone	mg/kg (ppm)	2.5	116	117	88-124	1
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	120	118	84-125	2
Toluene	mg/kg (ppm)	2.5	98	96	80-116	2
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	115	113	84-129	2
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	105	104	85-117	1
2-Hexanone	mg/kg (ppm)	2.5	109	110	88-129	1
1,3-Dichloropropane	mg/kg (ppm)	2.5	103	102	84-119	1
Tetrachloroethene	mg/kg (ppm)	2.5	110	107	79-119	3
Dibromochloromethane	mg/kg (ppm)	2.5	102	101	76-123	1
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	106	105	86-120	1
Chlorobenzene	mg/kg (ppm)	2.5	100	99	81-111	1
Ethylbenzene	mg/kg (ppm)	2.5	102	100	81-115	2
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	117	115	82-121	2
m,p-Xylene	mg/kg (ppm)	5	99	98	80-118	1
o-Xylene	mg/kg (ppm)	2.5	100	99	78-122	1
Styrene	mg/kg (ppm)	2.5	102	100	84-121	2
Isopropylbenzene	mg/kg (ppm)	2.5	102	101	79-124	1
Bromoform	mg/kg (ppm)	2.5	106	104	73-111	2
n-Propylbenzene	mg/kg (ppm)	2.5	103	102	80-123	1
Bromobenzene	mg/kg (ppm)	2.5	102	101	83-117	1
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	102	101	81-122	1
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	97	97	82-119	0
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	100	99	82-116	1
2-Chlorotoluene	mg/kg (ppm)	2.5	101	99	78-120	2
4-Chlorotoluene	mg/kg (ppm)	2.5	101	100	81-119	1
tert-Butylbenzene	mg/kg (ppm)	2.5	102	102	79-124	0
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	101	101	81-123	0
sec-Butylbenzene	mg/kg (ppm)	2.5	103	101	79-124	2
p-Isopropyltoluene	mg/kg (ppm)	2.5	104	103	82-125	1
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	100	99	80-116	1
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	97	97	59-133	0
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	96	97	82-116	1
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	112	111	74-126	1
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	99	98	73-124	1
Hexachlorobutadiene	mg/kg (ppm)	2.5	104	101	74-128	3
Naphthalene	mg/kg (ppm)	2.5	97	96	70-122	1
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	103	101	76-125	2

Data Qualifiers & Definitions

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

A1 – More than one compound of similar molecule structure was identified with equal probability.

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 this range fell outside of acceptance criteria. The value reported is an estimate.

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

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - The analyte indicated was found in the method blank. The result should be considered an estimate.

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. The variability is attributed to sample inhomogeneity.

ht - The sample was extracted outside of holding time. Results should be considered estimates.

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

j – The result is below normal reporting limits. 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 analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is 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 compound indicated 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 in a container not approved by the method. The value reported should be considered an estimate.

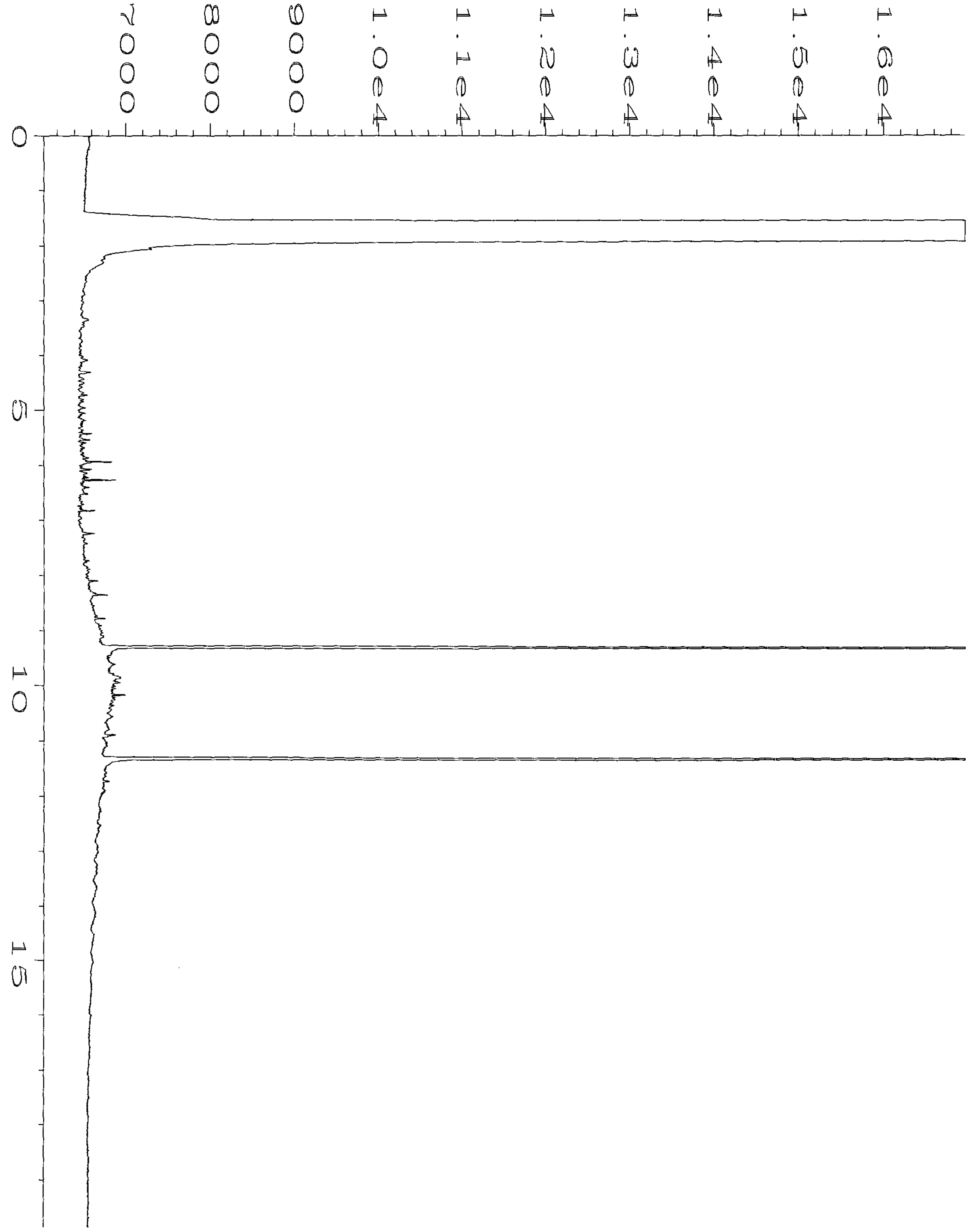
pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration should be considered an estimate.

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

x - The pattern of peaks present is not indicative of diesel.

y - The pattern of peaks present is not indicative of motor oil.



Data File Name   : C:\HPCHEM\1\DATA\03-05-09\016F0601.D
Operator   : ay
Instrument   : GC1
Sample Name   : 903044-01-03comp
Run Time Bar Code:
Acquired on   : 05 Mar 09 02:40 PM
Report Created on: 10 Mar 09 01:46 PM

Page Number   : 1
Vial Number   : 16
Injection Number : 1
Sequence Line   : 6
Instrument Method: TPHD.MTH
Analysis Method   : BAKEOUT.MTH

903044

SAMPLE CHAIN OF COUSTODY

ME 03/04/09

~~CI~~ CI2

Send Report To Ryan Bixby cc: Chuck Cacek

Company Sound Environmental Strategies

Address 2400 Airport Way South

City, State, ZIP Seattle WA 98134

Phone # 206-306-1900 Fax # 206-306-1906

SAMPLERS (signature) C. C. Jessica Brown

PROJECT NAME/NO. North Colfax Petroleum Contamination Site

PO #

REMARKS 0592-001-01

[✓ GEMS Y] / N

Page # 1 of 1

TURNAROUND TIME

☐ Standard (2 Weeks)

☒ RUSH 24hr.

Rush charges authorized by:

SAMPLE DISPOSAL

☐ Dispose after 30 days

☐ Return samples

☐ Will call with instructions

								ANALYSES REQUESTED								
Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars NP 3/4/09	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
SP01			01 A-F	3/2/09	1300	Soil	6 ~~8~~	X	X		X		X			Composite into
SP02			02 A-F	↓	1305	↓	↓									one sample.
SP03			03 A-F	↓	1310	↓	↓									
																per CC email
																3/5/09
																MG

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: C. C.	Charles Cacek	SES	3/4/09	17:00
Received by:	Brad Benser	F&BI	3/4/09	17:00
Relinquished by:				
Received by:				

FORMS\COC\SESGEMSR1.DOC (Revision 1)

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

March 10, 2009

Ryan Bixby, Project Manager
Sound Environmental Strategies Corporation
2400 Airport Way S., Suite 200
Seattle, WA 98134-2020

Dear Mr. Bixby:

Included are the results from the testing of material submitted on March 4, 2009 from the NCPCS_0592-001-01_20090304, F&BI 903045 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: Erin Rothman, Chuck Cacek
SOU0310R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on March 4, 2009 by Friedman & Bruya, Inc. from the Sound Environmental Strategies NCPCS_0592-001-01_20090304, F&BI 903045 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Sound Environmental Strategies
903045-01	Rinsate Blank
903045-02	Trip Blank

All quality control requirements were acceptable.

Date of Report: 03/10/09
Date Received: 03/04/09
Project: NCPCS_0592-001-01_20090304, F&BI 903045
Date Extracted: 03/06/09
Date Analyzed: 03/06/09

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 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)
Rinsate Blank 903045-01	<1	5	11	6	220	88
Trip Blank 903045-02	<1	<1	<1	<3	<100	71
Method Blank	<1	<1	<1	<3	<100	73

Date of Report: 03/10/09
Date Received: 03/04/09
Project: NCPCS_0592-001-01_20090304, F&BI 903045

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: 903041-01 (Duplicate)

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	100	65-118
Toluene	ug/L (ppb)	50	105	72-122
Ethylbenzene	ug/L (ppb)	50	98	73-126
Xylenes	ug/L (ppb)	150	98	74-118
Gasoline	ug/L (ppb)	1,000	97	69-134

Data Qualifiers & Definitions

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A1 – More than one compound of similar molecule structure was identified with equal probability.

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 this range fell outside of acceptance criteria. The value reported is an estimate.

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pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration should be considered an estimate.

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

x - The pattern of peaks present is not indicative of diesel.

y - The pattern of peaks present is not indicative of motor oil.

903045

SAMPLE CHAIN OF CUSTODY

ME 03/04/09 V1

Send Report To Ryan Bixby c/o Chuck Cacek
Company Sound Environmental Strategies
Address 2400 Airport Way South
City, State, ZIP Seattle WA 98134
Phone # 206-306-1900 Fax # 206-306-1906

SAMPLERS (signature) Jessica Brown

PROJECT NAME/NO. North Colfax Petroleum Contamination Site

PO #

REMARKS

GEMS [✓ Y] / N

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

								ANALYSES REQUESTED								
Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
Rinsate Blank			01 A-B	3/3/09	1200	Water	2		X	X						~~Hold~~ Analyze
Trip Blank			02 A-B	–	–	↓	2		X	X						↓ a email
																3/5/9
																ME

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:	C. Cacek	Charles Cacek	SES	3/4/09	17:00
Received by:		Michael Bruya	F&BI	3/4/09	17:00
Relinquished by:					
Received by:					

Samples received at 5 °C

FORMS\COC\SESGEMSR1.DOC (Revision 1)

May 2009 Subsurface Investigation

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

June 4, 2009

Ryan Bixby, Project Manager
Sound Environmental Strategies Corporation
2400 Airport Way S., Suite 200
Seattle, WA 98134-2020

Dear Mr. Bixby:

Included are the results from the testing of material submitted on May 20, 2009 from the SOU_NCPCS 0592-001-01_20090520, F&BI 905190 project. There are 27 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: Chuck Cacek, Erin Rothman
SOU0604R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on May 20, 2009 by Friedman & Bruya, Inc. from the Sound Environmental Strategies SOU_NCPCS 0592-001-01_20090520, F&BI 905190 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Sound Environmental Strategies
905190-01	B27-04
905190-02	B27-08
905190-03	B27-12
905190-04	B27-14.5
905190-05	B32-04
905190-06	B32-08
905190-07	B32-12
905190-08	B32-15
905190-09	B28-04
905190-10	B28-10.5
905190-11	B28-15
905190-12	B26-04
905190-13	B26-10
905190-14	B26-14
905190-15	B29-04
905190-16	B29-11
905190-17	B29-15
905190-18	B33-04
905190-19	B33-11
905190-20	B33-14
905190-21	B30-04
905190-22	B30-08
905190-23	B30-11
905190-24	B31-04
905190-25	B31-08
905190-26	B31-10
905190-27	Rinsate Blank
905190-28	Trip Blank

Sample B30-11 was sent to Fremont Analytical for EPH/VPH analysis. The report is enclosed.

All quality control requirements were acceptable.

Date of Report: 06/04/09
Date Received: 05/20/09
Project: SOU_NCPCS 0592-001-01_20090520, F&BI 905190
Date Extracted: 05/26/09
Date Analyzed: 05/26/09 and 05/27/09

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

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

Sample ID Laboratory ID	Gasoline	Diesel	Heavy Oil	Surrogate (% Recovery) (Limit 50-150)
B27-04 905190-01	ND	ND	ND	88
B27-08 905190-02	ND	ND	ND	90
B27-12 905190-03	ND	ND	ND	89
B27-14.5 905190-04	ND	ND	ND	91
B32-04 905190-05	ND	ND	ND	96
B32-08 905190-06	ND	ND	ND	91
B32-12 905190-07	ND	ND	ND	92
B32-15 905190-08	ND	ND	ND	94
B28-04 905190-09	ND	ND	ND	91
B28-10.5 905190-10	ND	ND	ND	91

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

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Results Reported as Not Detected (ND) or Detected (D)

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

Sample ID Laboratory ID	Gasoline	Diesel	Heavy Oil	Surrogate (% Recovery) (Limit 50-150)
B26-04 905190-12	ND	ND	ND	93
B26-10 905190-13	ND	ND	ND	96
B26-14 905190-14	ND	ND	ND	92
B29-04 905190-15	ND	ND	ND	90
B29-15 905190-17	ND	ND	ND	91
B33-04 905190-18	ND	ND	ND	91
B33-11 905190-19	ND	ND	ND	93
B33-14 905190-20	ND	ND	ND	93
B30-04 905190-21	ND	ND	ND	94
B31-04 905190-24	ND	ND	ND	94

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

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Date Extracted: 05/26/09
Date Analyzed: 05/26/09 and 05/27/09

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR GASOLINE, DIESEL AND HEAVY OIL BY NWTPH-HCID

Results Reported as Not Detected (ND) or Detected (D)

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

Sample ID Laboratory ID	Gasoline	Diesel	Heavy Oil	Surrogate (% Recovery) (Limit 50-150)
B31-08 905190-25	ND	ND	ND	91
B31-10 905190-26	ND	ND	ND	90
Method Blank	ND	ND	ND	91
Method Blank	ND	ND	ND	93

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

Date of Report: 06/04/09
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Date Extracted: 05/26/09
Date Analyzed: 05/26/09

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

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

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
B30-11 905190-23	25	146
Method Blank	<2	103

Date of Report: 06/04/09
Date Received: 05/20/09
Project: SOU_NCPCS 0592-001-01_20090520, F&BI 905190
Date Extracted: 05/27/09
Date Analyzed: 05/28/09

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 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)
Rinsate Blank 905190-27	<1	<1	<1	<3	<100	95
Trip Blank 905190-28	<1	<1	<1	<3	<100	94
Method Blank	<1	<1	<1	<3	<100	81

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Date Extracted: 05/26/09
Date Analyzed: 05/26/09 and 05/27/09

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 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)
B28-15 905190-11	<0.02	0.03	<0.02	0.07	13	98
B29-11 d 905190-16 1/10	<0.02	0.91	3.9	2.7	310	ip
B30-08 905190-22	<0.02	<0.02	0.14	0.12	27	119
Method Blank	<0.02	<0.02	<0.02	<0.06	<2	92

Date of Report: 06/04/09
Date Received: 05/20/09
Project: SOU_NCPCS 0592-001-01_20090520, F&BI 905190
Date Extracted: 05/26/09
Date Analyzed: 05/27/09

RESULTS FROM THE ANALYSIS OF THE 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 50-150)
B28-15 905190-11	<50	<250	106
B29-11 905190-16	<50	<250	106
B30-08 905190-22	1,200	<250	97
B30-11 905190-23	770	<250	110
Method Blank	<50	<250	98

Analysis For Total Metals By EPA Method 200.8

Client ID: B28-15
Date Received: 05/20/09
Date Extracted: 05/27/09
Date Analyzed: 05/27/09
Matrix: Soil
Units: mg/kg (ppm)

Client: Sound Environmental Strategies
Project: SOU_NCPCS 0592-001-01_20090520
Lab ID: 905190-11
Data File: 905190-11.062
Instrument: ICPMS1
Operator: btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	89	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	12.0

Analysis For Total Metals By EPA Method 200.8

Client ID:	B29-11	Client:	Sound Environmental Strategies
Date Received:	05/20/09	Project:	SOU_NCPCS 0592-001-01_20090520
Date Extracted:	05/27/09	Lab ID:	905190-16
Date Analyzed:	05/27/09	Data File:	905190-16.063
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	97	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	6.18

Analysis For Total Metals By EPA Method 200.8

Client ID:	B30-08	Client:	Sound Environmental Strategies
Date Received:	05/20/09	Project:	SOU_NCPCS 0592-001-01_20090520
Date Extracted:	05/27/09	Lab ID:	905190-22
Date Analyzed:	05/27/09	Data File:	905190-22.064
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	95	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	4.87

Analysis For Total Metals By EPA Method 200.8

Client ID:	B30-11	Client:	Sound Environmental Strategies
Date Received:	05/20/09	Project:	SOU_NCPCS 0592-001-01_20090520
Date Extracted:	05/27/09	Lab ID:	905190-23
Date Analyzed:	05/27/09	Data File:	905190-23.065
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	97	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	4.78

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Sound Environmental Strategies
Date Received:	NA	Project:	SOU_NCPCS 0592-001-01_20090520
Date Extracted:	05/27/09	Lab ID:	I9-217 mb
Date Analyzed:	05/27/09	Data File:	I9-217 mb.059
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	97	60	125

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

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B30-11	Client:	Sound Environmental Strategies
Date Received:	05/20/09	Project:	SOU_NCPCS 0592-001-01_20090520
Date Extracted:	05/29/09	Lab ID:	905190-23
Date Analyzed:	05/29/09	Data File:	052904.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	63	42	152
Toluene-d8	66	36	149
4-Bromofluorobenzene	68	50	150

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

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Sound Environmental Strategies
Date Received:	NA	Project:	SOU_NCPCS 0592-001-01_20090520
Date Extracted:	05/29/09	Lab ID:	090709 mb2
Date Analyzed:	05/29/09	Data File:	052903.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	42	152
Toluene-d8	102	36	149
4-Bromofluorobenzene	107	50	150

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

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	B30-11	Client:	Sound Environmental Strategies
Date Received:	05/20/09	Project:	SOU_NCPCS 0592-001-01_20090520
Date Extracted:	05/27/09	Lab ID:	905190-23 1/5
Date Analyzed:	06/01/09	Data File:	060107.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	82	50	150
Benzo(a)anthracene-d12	83	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
Acenaphthylene	<0.01
Acenaphthene	0.043
Fluorene	0.10
Phenanthrene	0.086
Anthracene	<0.01
Fluoranthene	<0.01
Pyrene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01
Benzo(g,h,i)perylene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	Sound Environmental Strategies
Date Received:	NA	Project:	SOU_NCPCS 0592-001-01_20090520
Date Extracted:	05/27/09	Lab ID:	09721mb2 1/5
Date Analyzed:	05/27/09	Data File:	052711.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	81	50	150
Benzo(a)anthracene-d12	80	50	129

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
Acenaphthylene	<0.01
Acenaphthene	<0.01
Fluorene	<0.01
Phenanthrene	<0.01
Anthracene	<0.01
Fluoranthene	<0.01
Pyrene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01
Benzo(g,h,i)perylene	<0.01

Date of Report: 06/04/09
Date Received: 05/20/09
Project: SOU_NCPCS 0592-001-01_20090520, F&BI 905190

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

Laboratory Code: 905232-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	mg/kg (ppm)	20	99	70-130

Date of Report: 06/04/09
Date Received: 05/20/09
Project: SOU_NCPCS 0592-001-01_20090520, F&BI 905190

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: 905220-25 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (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	99	65-118
Toluene	ug/L (ppb)	50	99	72-122
Ethylbenzene	ug/L (ppb)	50	100	73-126
Xylenes	ug/L (ppb)	150	98	74-118
Gasoline	ug/L (ppb)	1,000	94	69-134

Date of Report: 06/04/09
Date Received: 05/20/09
Project: SOU_NCPCS 0592-001-01_20090520, F&BI 905190

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: 905232-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (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	98	70-130
Toluene	mg/kg (ppm)	0.5	96	70-130
Ethylbenzene	mg/kg (ppm)	0.5	90	70-130
Xylenes	mg/kg (ppm)	1.5	93	70-130
Gasoline	mg/kg (ppm)	20	99	70-130

Date of Report: 06/04/09
Date Received: 05/20/09
Project: SOU_NCPCS 0592-001-01_20090520, F&BI 905190

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

Laboratory Code: 905209-08 (Duplicate)

Analyte	Reporting Units	(Dry wt) Sample Result	(Dry wt) Duplicate Result	Relative Percent Difference	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	530	650	20	0-20

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	114	111	79-144	3

Date of Report: 06/04/09
Date Received: 05/20/09
Project: SOU_NCPCS 0592-001-01_20090520, F&BI 905190

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

Laboratory Code: 905199-11 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Lead	mg/kg (ppm)	4.07	5.45	29 a	0-20

Laboratory Code: 905199-11 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Lead	mg/kg (ppm)	20	4.07	89 b	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/kg (ppm)	20	98	70-130

Date of Report: 06/04/09
Date Received: 05/20/09
Project: SOU_NCPCS 0592-001-01_20090520, F&BI 905190

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

Laboratory Code: 905267-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	<0.5	<0.5	nm
Chloromethane	mg/kg (ppm)	<0.05	<0.05	nm
Vinyl chloride	mg/kg (ppm)	<0.05	<0.05	nm
Bromomethane	mg/kg (ppm)	<0.5	<0.5	nm
Chloroethane	mg/kg (ppm)	<0.5	<0.5	nm
Trichlorofluoromethane	mg/kg (ppm)	<0.5	<0.5	nm
Acetone	mg/kg (ppm)	<0.5	<0.5	nm
1,1-Dichloroethene	mg/kg (ppm)	<0.05	<0.05	nm
Methylene chloride	mg/kg (ppm)	<0.5	<0.5	nm
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	<0.05	<0.05	nm
trans-1,2-Dichloroethene	mg/kg (ppm)	<0.05	<0.05	nm
1,1-Dichloroethane	mg/kg (ppm)	<0.05	<0.05	nm
2,2-Dichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
cis-1,2-Dichloroethene	mg/kg (ppm)	<0.05	<0.05	nm
Chloroform	mg/kg (ppm)	<0.05	<0.05	nm
2-Butanone (MEK)	mg/kg (ppm)	<0.5	<0.5	nm
1,2-Dichloroethane (EDC)	mg/kg (ppm)	<0.05	<0.05	nm
1,1,1-Trichloroethane	mg/kg (ppm)	<0.05	<0.05	nm
1,1-Dichloropropene	mg/kg (ppm)	<0.05	<0.05	nm
Carbon tetrachloride	mg/kg (ppm)	<0.05	<0.05	nm
Benzene	mg/kg (ppm)	<0.03	<0.03	nm
Trichloroethene	mg/kg (ppm)	<0.03	<0.03	nm
1,2-Dichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
Bromodichloromethane	mg/kg (ppm)	<0.05	<0.05	nm
Dibromomethane	mg/kg (ppm)	<0.05	<0.05	nm
4-Methyl-2-pentanone	mg/kg (ppm)	<0.5	<0.5	nm
cis-1,3-Dichloropropene	mg/kg (ppm)	<0.05	<0.05	nm
Toluene	mg/kg (ppm)	<0.05	<0.05	nm
trans-1,3-Dichloropropene	mg/kg (ppm)	<0.05	<0.05	nm
1,1,2-Trichloroethane	mg/kg (ppm)	<0.05	<0.05	nm
2-Hexanone	mg/kg (ppm)	<0.5	<0.5	nm
1,3-Dichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
Tetrachloroethene	mg/kg (ppm)	0.48	0.5	4
Dibromochloromethane	mg/kg (ppm)	<0.05	<0.05	nm
1,2-Dibromoethane (EDB)	mg/kg (ppm)	<0.05	<0.05	nm
Chlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
Ethylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	<0.05	<0.05	nm
m,p-Xylene	mg/kg (ppm)	<0.1	<0.1	nm
o-Xylene	mg/kg (ppm)	<0.05	<0.05	nm
Styrene	mg/kg (ppm)	<0.05	<0.05	nm
Isopropylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
Bromoform	mg/kg (ppm)	<0.05	<0.05	nm
n-Propylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
Bromobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,3,5-Trimethylbenzene	mg/kg (ppm)	1.6	1.6	0
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	<0.05	<0.05	nm
1,2,3-Trichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
2-Chlorotoluene	mg/kg (ppm)	<0.05	<0.05	nm
4-Chlorotoluene	mg/kg (ppm)	<0.05	<0.05	nm
tert-Butylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,2,4-Trimethylbenzene	mg/kg (ppm)	1.6	1.7	6
sec-Butylbenzene	mg/kg (ppm)	0.14	0.15	7
p-Isopropyltoluene	mg/kg (ppm)	0.38	0.40	5
1,3-Dichlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,4-Dichlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,2-Dichlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	<0.05	<0.05	nm
1,2,4-Trichlorobenzene	mg/kg (ppm)	<0.1	<0.1	nm
Hexachlorobutadiene	mg/kg (ppm)	<0.1	<0.1	nm
Naphthalene	mg/kg (ppm)	0.056	0.055	2
1,2,3-Trichlorobenzene	mg/kg (ppm)	<0.1	<0.1	nm

Date of Report: 06/04/09
Date Received: 05/20/09
Project: SOU_NCPCS 0592-001-01_20090520, F&BI 905190

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	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2.5	98	89	25-133	10
Chloromethane	mg/kg (ppm)	2.5	98	90	48-121	9
Vinyl chloride	mg/kg (ppm)	2.5	107	102	57-125	5
Bromomethane	mg/kg (ppm)	2.5	98	90	55-141	9
Chloroethane	mg/kg (ppm)	2.5	105	104	43-152	1
Trichlorofluoromethane	mg/kg (ppm)	2.5	119	107	37-158	11
Acetone	mg/kg (ppm)	2.5	132 vo	129	69-129	2
1,1-Dichloroethene	mg/kg (ppm)	2.5	88	101	60-123	14
Methylene chloride	mg/kg (ppm)	2.5	111	96	57-130	14
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	94	93	82-112	1
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	109	104	78-118	5
1,1-Dichloroethane	mg/kg (ppm)	2.5	107	105	81-116	2
2,2-Dichloropropane	mg/kg (ppm)	2.5	115	115	74-122	0
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	109	106	82-118	3
Chloroform	mg/kg (ppm)	2.5	110	107	80-117	3
2-Butanone (MEK)	mg/kg (ppm)	2.5	121	122	63-146	1
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	109	108	82-120	1
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	116	114	79-120	2
1,1-Dichloropropene	mg/kg (ppm)	2.5	107	104	76-122	3
Carbon tetrachloride	mg/kg (ppm)	2.5	102	101	70-125	1
Benzene	mg/kg (ppm)	2.5	103	101	80-112	2
Trichloroethene	mg/kg (ppm)	2.5	104	104	79-115	0
1,2-Dichloropropane	mg/kg (ppm)	2.5	106	106	84-119	0
Bromodichloromethane	mg/kg (ppm)	2.5	121	119	87-122	2
Dibromomethane	mg/kg (ppm)	2.5	111	112	87-118	1
4-Methyl-2-pentanone	mg/kg (ppm)	2.5	134 vo	135 vo	88-124	1
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	115	112	84-125	3
Toluene	mg/kg (ppm)	2.5	102	100	80-116	2
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	117	118	84-129	1
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	108	107	85-117	1
2-Hexanone	mg/kg (ppm)	2.5	139 vo	138 vo	88-129	1
1,3-Dichloropropane	mg/kg (ppm)	2.5	106	105	84-119	1
Tetrachloroethene	mg/kg (ppm)	2.5	103	101	79-119	2
Dibromochloromethane	mg/kg (ppm)	2.5	105	102	76-123	3
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	110	109	86-120	1
Chlorobenzene	mg/kg (ppm)	2.5	102	100	81-111	2
Ethylbenzene	mg/kg (ppm)	2.5	102	100	81-115	2
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	119	116	82-121	3
m,p-Xylene	mg/kg (ppm)	5	99	97	80-118	2
o-Xylene	mg/kg (ppm)	2.5	103	101	78-122	2
Styrene	mg/kg (ppm)	2.5	104	101	84-121	3
Isopropylbenzene	mg/kg (ppm)	2.5	103	101	79-124	2
Bromoform	mg/kg (ppm)	2.5	106	105	73-111	1
n-Propylbenzene	mg/kg (ppm)	2.5	104	102	80-123	2
Bromobenzene	mg/kg (ppm)	2.5	104	103	83-117	1
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	103	101	81-122	2
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	108	107	82-119	1
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	106	106	82-116	0
2-Chlorotoluene	mg/kg (ppm)	2.5	103	101	78-120	2
4-Chlorotoluene	mg/kg (ppm)	2.5	104	101	81-119	3
tert-Butylbenzene	mg/kg (ppm)	2.5	103	101	79-124	2
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	104	101	81-123	3
sec-Butylbenzene	mg/kg (ppm)	2.5	103	100	79-124	3
p-Isopropyltoluene	mg/kg (ppm)	2.5	103	101	82-125	2
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	102	100	80-116	2
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	100	98	59-133	2
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	101	100	82-116	1
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	107	105	74-126	2
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	100	98	73-124	2
Hexachlorobutadiene	mg/kg (ppm)	2.5	102	98	74-128	4
Naphthalene	mg/kg (ppm)	2.5	100	98	70-122	2
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	101	98	76-125	3

Date of Report: 06/04/09
Date Received: 05/20/09
Project: SOU_NCPCS 0592-001-01_20090520, F&BI 905190

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PNA'S BY EPA METHOD 8270D SIM

Laboratory Code: 905199-11 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Naphthalene	mg/kg (ppm)	<0.01	<0.01	nm
Acenaphthylene	mg/kg (ppm)	<0.01	<0.01	nm
Acenaphthene	mg/kg (ppm)	<0.01	<0.01	nm
Fluorene	mg/kg (ppm)	<0.01	<0.01	nm
Phenanthrene	mg/kg (ppm)	<0.01	<0.01	nm
Anthracene	mg/kg (ppm)	<0.01	<0.01	nm
Fluoranthene	mg/kg (ppm)	<0.01	<0.01	nm
Pyrene	mg/kg (ppm)	<0.01	<0.01	nm
Benz(a)anthracene	mg/kg (ppm)	<0.01	<0.01	nm
Chrysene	mg/kg (ppm)	<0.01	<0.01	nm
Benzo(b)fluoranthene	mg/kg (ppm)	<0.01	<0.01	nm
Benzo(k)fluoranthene	mg/kg (ppm)	<0.01	<0.01	nm
Benzo(a)pyrene	mg/kg (ppm)	<0.01	<0.01	nm
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	<0.01	<0.01	nm
Dibenz(a,h)anthracene	mg/kg (ppm)	<0.01	<0.01	nm
Benzo(g,h,i)perylene	mg/kg (ppm)	<0.01	<0.01	nm

Laboratory Code: 905199-11 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Naphthalene	mg/kg (ppm)	0.17	<0.01	86	26-148
Acenaphthylene	mg/kg (ppm)	0.17	<0.01	76	40-131
Acenaphthene	mg/kg (ppm)	0.17	<0.01	81	58-108
Fluorene	mg/kg (ppm)	0.17	<0.01	82	57-113
Phenanthrene	mg/kg (ppm)	0.17	<0.01	81	30-138
Anthracene	mg/kg (ppm)	0.17	<0.01	84	42-132
Fluoranthene	mg/kg (ppm)	0.17	<0.01	81	45-145
Pyrene	mg/kg (ppm)	0.17	<0.01	81	44-139
Benz(a)anthracene	mg/kg (ppm)	0.17	<0.01	72	47-113
Chrysene	mg/kg (ppm)	0.17	<0.01	84	45-122
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	<0.01	76	24-145
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	<0.01	82	51-118
Benzo(a)pyrene	mg/kg (ppm)	0.17	<0.01	78	30-134
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	<0.01	104	40-138
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	<0.01	79	51-122
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	<0.01	79	54-115

Date of Report: 06/04/09
Date Received: 05/20/09
Project: SOU_NCPCS 0592-001-01_20090520, F&BI 905190

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PNA'S BY EPA METHOD 8270D SIM

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	mg/kg (ppm)	0.17	74	89	72-112	18
Acenaphthylene	mg/kg (ppm)	0.17	77	79	68-112	3
Acenaphthene	mg/kg (ppm)	0.17	85	85	70-111	0
Fluorene	mg/kg (ppm)	0.17	84	86	69-110	2
Phenanthrene	mg/kg (ppm)	0.17	86	86	68-111	0
Anthracene	mg/kg (ppm)	0.17	92	88	67-110	4
Fluoranthene	mg/kg (ppm)	0.17	86	86	68-114	0
Pyrene	mg/kg (ppm)	0.17	86	86	68-114	0
Benz(a)anthracene	mg/kg (ppm)	0.17	74	77	58-108	4
Chrysene	mg/kg (ppm)	0.17	87	87	64-115	0
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	76	79	54-119	4
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	97	94	61-123	3
Benzo(a)pyrene	mg/kg (ppm)	0.17	84	79	54-111	6
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	76	77	52-118	1
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	83	81	57-119	2
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	82	79	60-116	4

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.

A1 – More than one compound of similar molecule structure was identified with equal probability.

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 this range fell outside of acceptance criteria. The value reported is an estimate.

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

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - The analyte indicated was found in the method blank. The result should be considered an estimate.

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. The variability is attributed to sample inhomogeneity.

ht - The sample was extracted outside of holding time. Results should be considered estimates.

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

j – The result is below normal reporting limits. 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 analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is 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 compound indicated 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 in a container not approved by the method. The value reported should be considered an estimate.

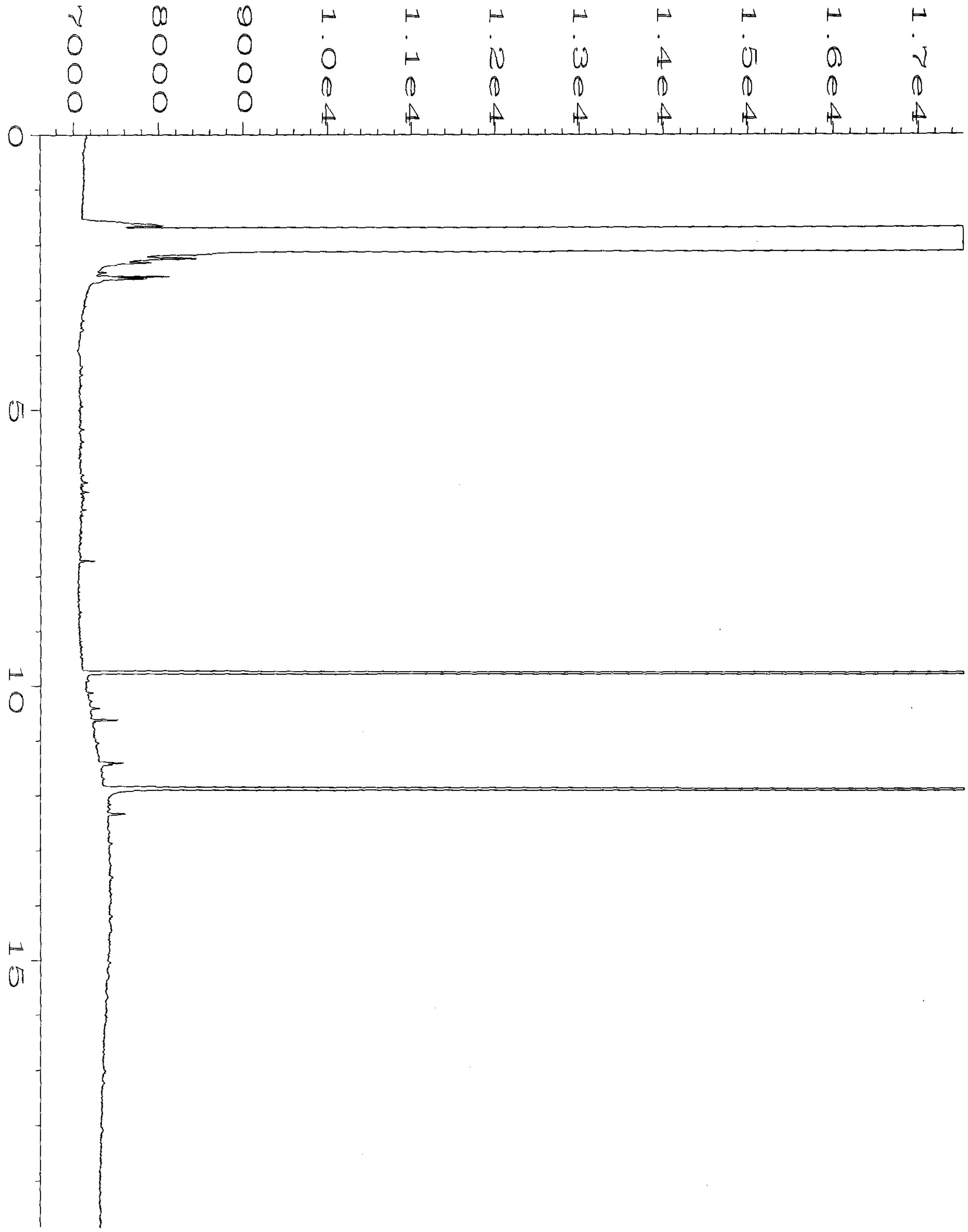
pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration should be considered an estimate.

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

x - The pattern of peaks present is not indicative of diesel.

y - The pattern of peaks present is not indicative of motor oil.



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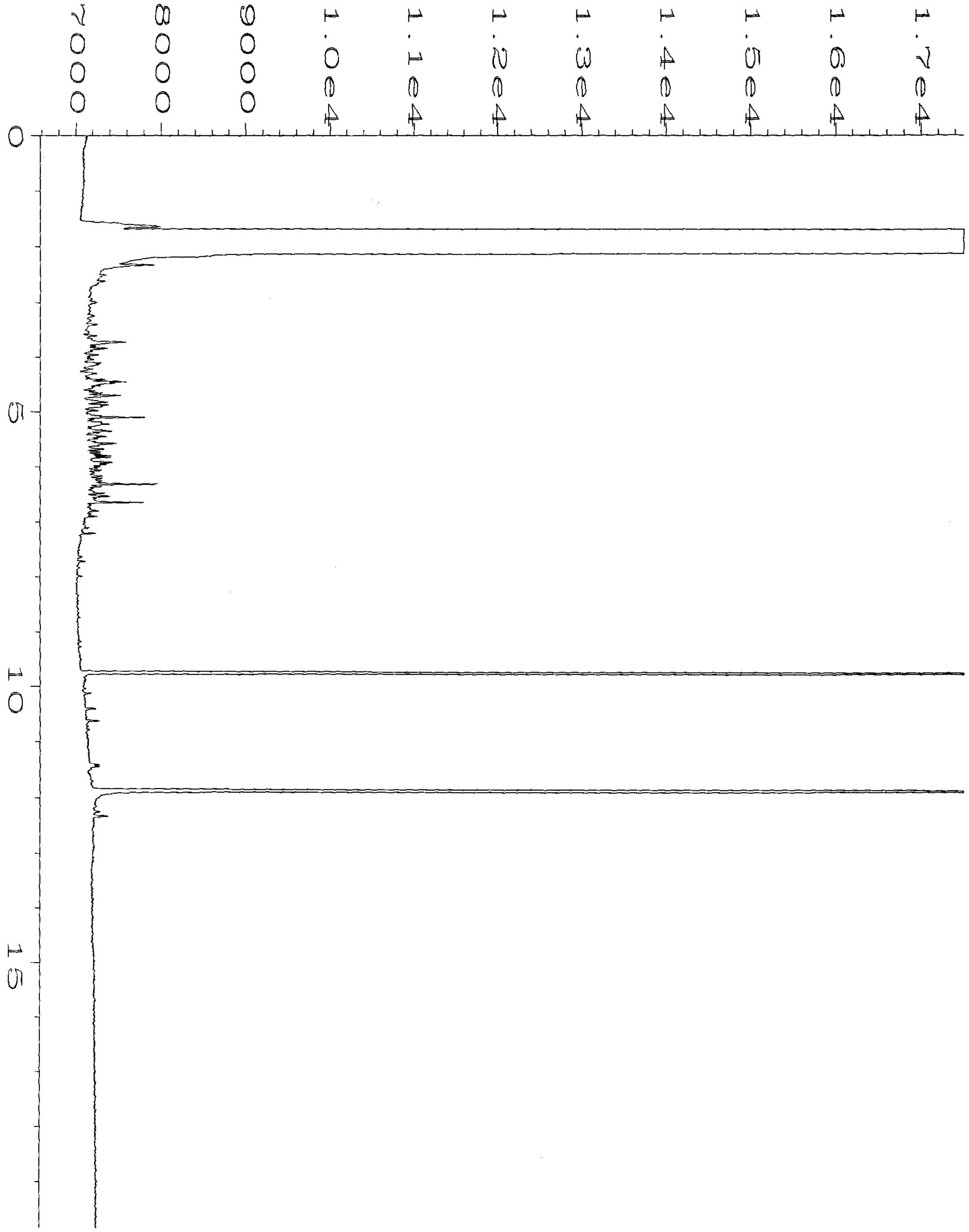
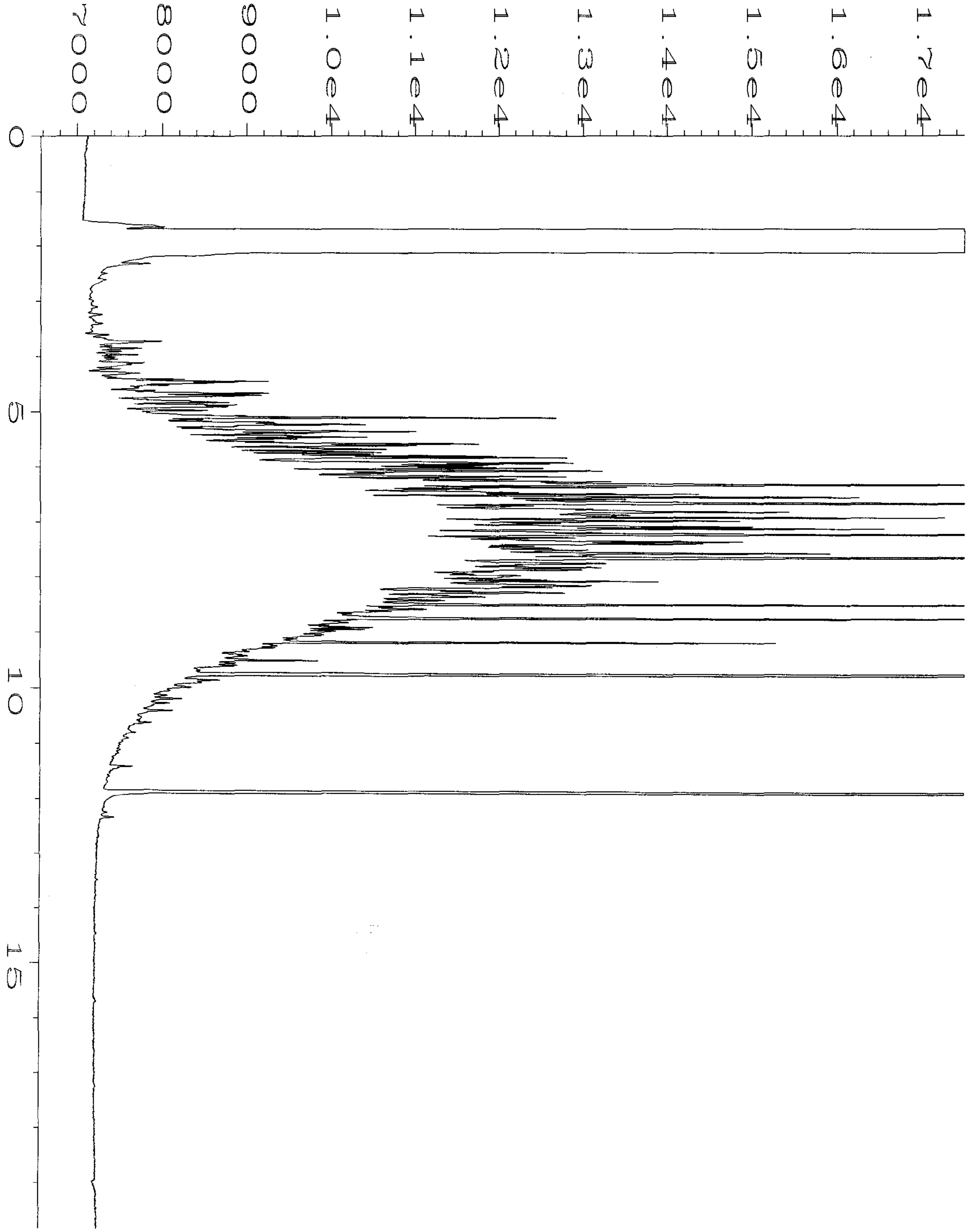
Operator   : ay
Instrument   : GC1
Sample Name   : 905190-11
Run Time Bar Code:
Acquired on   : 27 May 09   01:25 AM
Report Created on: 27 May 09   09:17 AM

Page Number   : 1
Vial Number   : 23
Injection Number : 1
Sequence Line   : 7
Instrument Method: TPHD.MTH
Analysis Method   : TPHD.MTH



Data File Name : C:\HPCHEM\1\DATA\05-26-09\024F0701.D
Operator : ay
Instrument : GC1
Sample Name : 905190-16
Run Time Bar Code:
Acquired on : 27 May 09 01:52 AM
Report Created on: 27 May 09 09:17 AM

Page Number : 1
Vial Number : 24
Injection Number : 1
Sequence Line : 7
Instrument Method: TPHD.MTH
Analysis Method : TPHD.MTH



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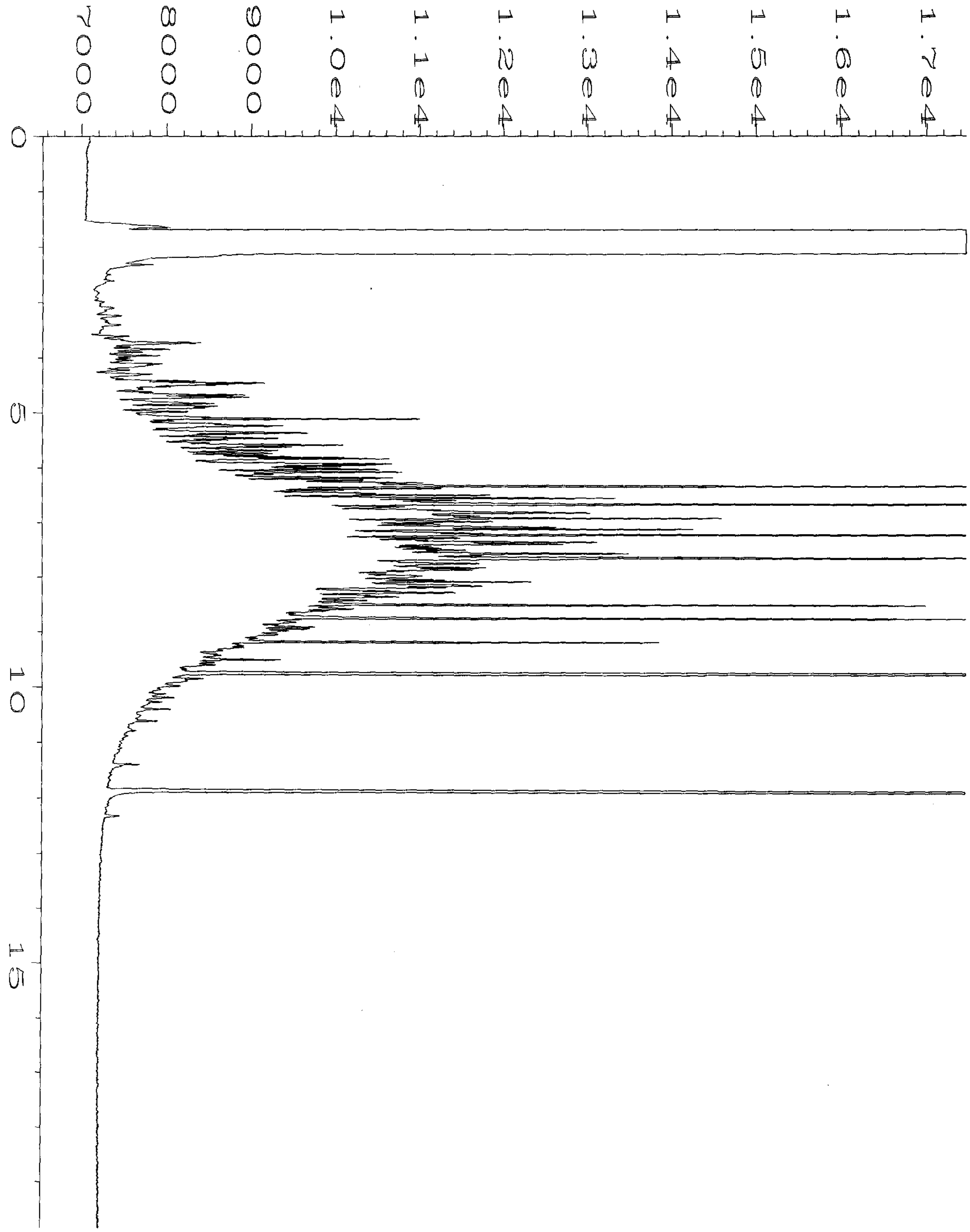
Operator : ay
Instrument : GC1
Sample Name : 905190-22
Run Time Bar Code:
Acquired on : 27 May 09 02:19 AM
Report Created on: 27 May 09 09:17 AM

Page Number : 1
Vial Number : 25
Injection Number : 1
Sequence Line : 7
Instrument Method: TPHD.MTH
Analysis Method : TPHD.MTH



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Operator	: ay		Page Number	:	1
Instrument	: GC1		Vial Number	:	26
Sample Name	: 905190-23		Injection Number	:	1
Run Time Bar Code:			Sequence Line	:	9
Acquired on	: 27 May 09	03:39 AM	Instrument Method:		TPHD.MTH
Report Created on:	27 May 09	09:17 AM	Analysis Method	:	TPHD.MTH

Fremont
Analytical

2930 Westlake Ave N Suite 100
Seattle, WA 98109
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Friedman and Bruya
Attn: Michael Erdahl
3012 16th Ave W.
Seattle, WA 98119

RE: 905190
Fremont Project No: CHM090526-5

June 3rd, 2009

Michael:

Enclosed are the analytical results for the ***905190*** soil sample picked up by Fremont Analytical on May 26th, 2009.

The sample was received in good condition – in the proper containers, properly sealed, labeled and within holding time. The sample was contained in 2– 40mL VOAs and 1 – 4oz soil jar. The sample was received in a cooler with gel ice with a cooler temperature of 6.6°C, which is within the laboratory recommended cooler temperature range (<4°C - 10°C). The sample was analyzed and stored in a refrigeration unit at the USEPA-recommended temperature of 4°C ± 2°C.

Examination of this sample was conducted for the presence of the following:

- ***Volatile Petroleum Hydrocarbons in Soil by NWVPH***
- ***Extractable Petroleum Hydrocarbons in Soil by NWEPH***

All appropriate Quality Assurance / Quality Control method parameters have been applied.

Please contact the laboratory if you should have any questions about the report.

Thank you for using Fremont Analytical.

Sincerely,

Michael Dee
Sr. Chemist / Principal

mikedee@fremontanalytical.com

Fremont
Analytical

2930 Westlake Ave. N., Suite 100
Seattle, WA 98109

T: 206.352.3790
F: 206.352.7178
email: info@fremontanalytical.com

Analysis of Volatile Petroleum Hydrocarbons in Soil by NWVPH

Project: 905190
Client: Friedman and Bruya, Inc.
Client Project #: H-1877
Lab Project #: CHM090529-7

					Duplicate		MS
NWVPH (mg/kg)	**MRL**	**Method Blank**	**LCS**	**B-30-11**	**B-30-11**	**RPD**	*Batch 090529-7-2*
Date Preserved				5/18/09	5/18/09	%	5/28/09
Date Analyzed		6/1/09	6/1/09	6/1/09	6/1/09		6/1/09
Matrix				Soil	Soil		Soil
Targeted Analytes							
methyl *tert*-butyl ether (MTBE)	0.05	nd	85%	nd	nd		70%
Benzene	0.05	nd	70%	nd	nd		68%
Toluene	0.05	nd	71%	nd	nd		94%
Ethylbenzene	0.05	nd	71%	**0.29**	**0.33**	13%	106%
Total Xylenes	0.05	nd	73%	**0.50**	**0.55**	10%	108%
Naphthalene	0.05	nd	85%	**3.3**	**2.9**	13%	110%
Hydrocarbon Parameters							
C5-C6 (FID) *Aliphatics**	0.05	nd		nd	nd		
C6-C8 (FID) *Aliphatics**	0.05	nd		**19**	**20**	5%	
C8-C10 (FID) *Aliphatics**	0.05	nd		**43**	**45**	5%	
C10-C12 (FID) *Aliphatics**	0.05	nd		**130**	**130**	0%	
C8-C10 (PID) *Aromatics*	0.05	nd		**39**	**41**	5%	
C10-C12 (PID) *Aromatics*	0.05	nd		**50**	**52**	4%	
C12-C13 (PID) *Aromatics*	0.05	nd		**47**	**47**	0%	
Surrogate Recovery							
Triflourotoluene		107%	112%	105%	110%		113%
Bromoflourobenzene		83%	89%	C	C		C

"nd" Indicates not detected at listed reporting limits
"int" Indicates that interference prevents determination
"*" Excludes MTBE and BTEX Compounds
"J" Indicates estimated value
"MRL" Indicates Method Reporting Limit
"LCS" Indicates Laboratory Control Sample
"MS" Indicates Matrix Spike
"RPD" Indicates Relative Percent Difference

Acceptable RPD is determined to be less than 30%
Acceptable Recovery Limits:
Surrogate = 65% to 135%
LCS, LCSD = 65% to 135%
Surrogates Concentration = 0.5 mg/kg
Spike Concentration = 5.0 mg/kg

Analysis of Extractable Petroleum Hydrocarbons in Soil by NWEPH

Project: 905274
Client: Friedman and Bruya, Inc.
Client Project #: H-1877
Lab Project #: CHM090529-7

					QA	QA Duplicate		MS
NWEPH (mg/kg)	**MRL**	**Method Blank**	**LCS**	**B-30-11**	*Batch 090529-7-1*	*Batch 090529-7-1*	**RPD**	**B-30-11**
Date Extracted		6/1/09	6/1/09	6/1/09	6/1/09	6/1/09	%	6/1/09
Date Analyzed		6/1/09	6/1/09	6/1/09	6/1/09	6/1/09		6/1/09
Matrix				Soil	Soil	Soil		Soil
Aromatic Hyrdrocarbon (Ranges)								
C8-C10	2.0	nd	110%	nd	**11**	**11.2**	2%	109%
C10-C12	2.0	nd	94%	**4.9**	**11**	**9.2**	18%	
C12-C16	2.0	nd	97%	**6.4**	**48**	**36**	29%	
C16-C21	2.0	nd	90%	**4.6**	**56**	**44**	24%	
C21-C34	2.0	nd	78%	nd	**1.7**	**2.0**	16%	70%
Aliphatic Hydrocarbon (Ranges)								
C8-C10	2.0	nd	112%	**9.9**	**47**	**46**	2%	111%
C10-C12	2.0	nd	83%	**45**	**160**	**170**	6%	87%
C12-C16	2.0	nd	93%	**110**	**430**	**440**	2%	
C16-C21	2.0	nd	130%	**160**	**800**	**860**	7%	
C21-C34	2.0	nd	88%	**3.0**	**77**	**70**	10%	
Surrogate Recovery								
o-Terphenyl		112%	121%	70%	77%	74%		76%
1-Chlorooctadecane		84%	84%	110%	C	C		112%

"nd" Indicates not detected at listed reporting limits
"int" Indicates that interference prevents determination
* Instrument Detection Limit
"J" Indicates estimated value
"MRL" Indicates Method Reporting Limit
"LCS" Indicates Laboratory Control Sample
"MS" Indicates Matrix Spike
"MSD" Indicates Matrix Spike Duplicate
"RPD" Indicates Relative Percent Difference

Acceptable RPD is determined to be less than 30%
Acceptable Recovery Limits:
Surrogate = 60% to 140%
LCS, LCSD = 65% to 135%
Surrogates and Spike Concentration = 10 mg/kg

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

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

SUBCONTRACTER

PROJECT NAME/NO. 905190

PO #

REMARKS

Please Email Results
merdahl@friedmanandbruya.com

Page # of

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

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

						ANALYSES REQUESTED										
Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	Oil and Grease	EPH	VPH	Nitrate	Sulfate	Alkalinity					Notes
B30-11		05/18	1900	SOIL	3		⊗	⊗								

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

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	~~Michael Erdahl~~ Eric Young	Friedman & Bruya	5/20	1135
Received by:	MICHAEL [illegible]	FREMONT ANALYTICAL	5/20	1520
Relinquished by:				
Received by:				

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

July 24, 2009

Ryan Bixby, Project Manager
Sound Environmental Strategies Corporation
2400 Airport Way S., Suite 200
Seattle, WA 98134-2020

Dear Mr. Bixby:

Included are the results from the additional testing of material submitted on May 20, 2009 from the SOU_NCPCS 0592-001-01_20090520, F&BI 905190 project.

The samples B30-08 and B30-11 were extracted and analyzed using a gas chromatograph with a flame ionization detector (GC/FID). The data generated yielded information on the boiling range and general chemical composition of the material present. The GC/FID traces are enclosed. A GC/FID trace of a standard consisting of normal alkanes is also provided for reference purposes.

Please contact us if additional consultation is needed by our firm in the interpretation of the analytical results provided. 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.

Kurt Johnson
Chemist

Enclosures
c: Chuck Cacek
mcp/KJ
SOU0724R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/24/09
Date Received: 05/20/09
Project: SOU_NCPCS 0592-001-01_20090520, F&BI 905190
Date Extracted: 06/25/09
Date Analyzed: 06/25/09

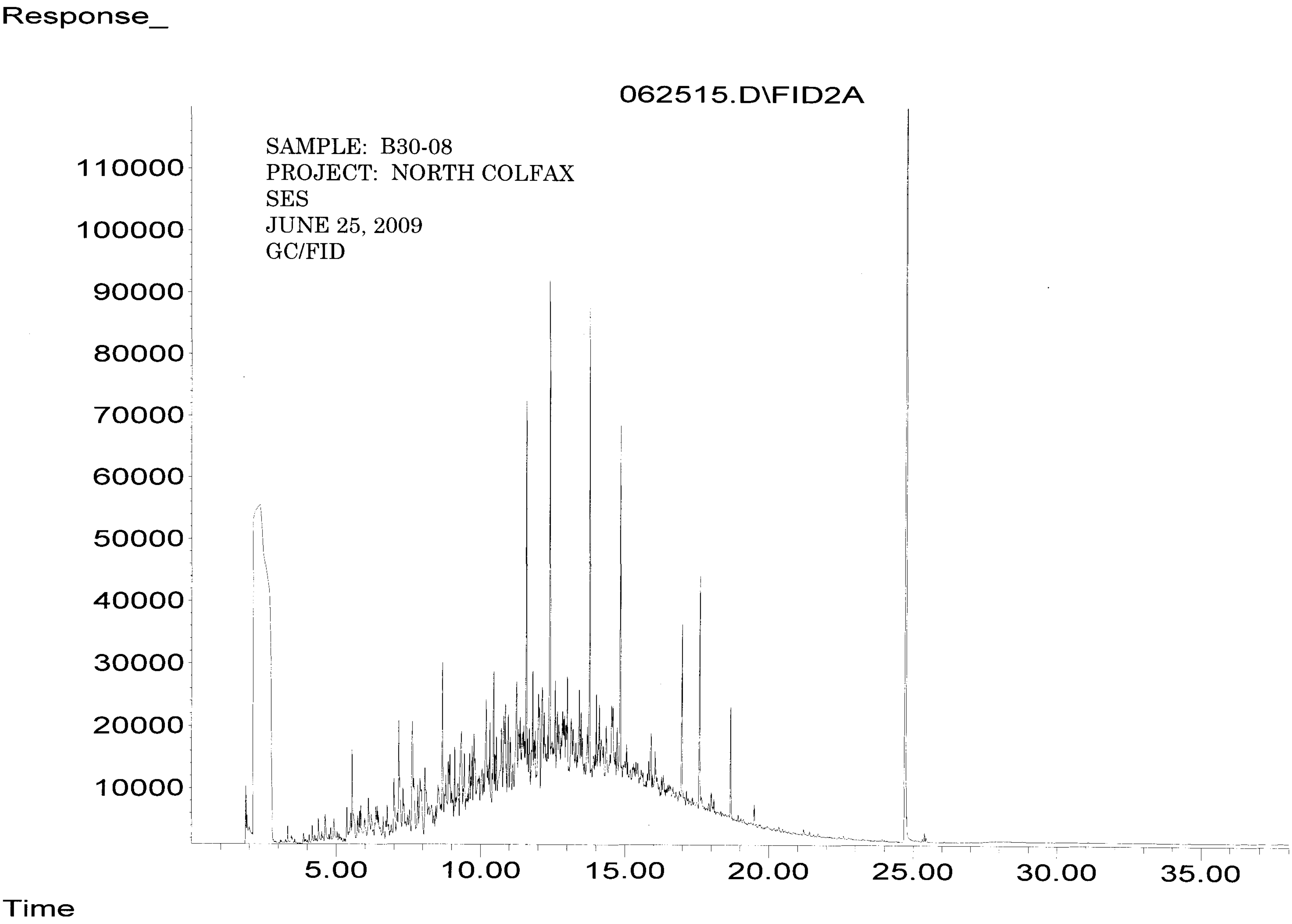
RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLE FOR FORENSIC EVALUATION BY CAPILLARY GAS CHROMATOGRAPHY USING A FLAME IONIZATION DETECTOR (FID)

Sample ID	GC Characterization
B30-08	The GC trace using the flame ionization detector (FID) showed the presence of medium boiling compounds. The patterns displayed by these peaks are indicative of a middle distillate such as diesel fuel, fuel oil, or similar materials. The medium boiling compounds appear as an irregular pattern of peaks on top of a broad hump or unresolved complex mixture (UCM). This material elutes from *n*-C_8 to *n*-C_{24} showing a maximum near *n*-C_{12}. This correlates with a temperature range of approximately 130°C to 390°C with a maximum near 220°C. Within this range, the dominant peaks present are indicative of isoprenoids including norpristane, pristane, and phytane. A discernible pattern of peaks characteristic of the normal alkanes was not present. The abundance of isoprenoids in conjunction with the apparent absence of normal alkanes indicates that the fuel present has undergone substantial biological degradation. The large peak seen near 25 minutes on the GC/FID trace is pentacosane, added as a quality assurance check for this GC analysis.

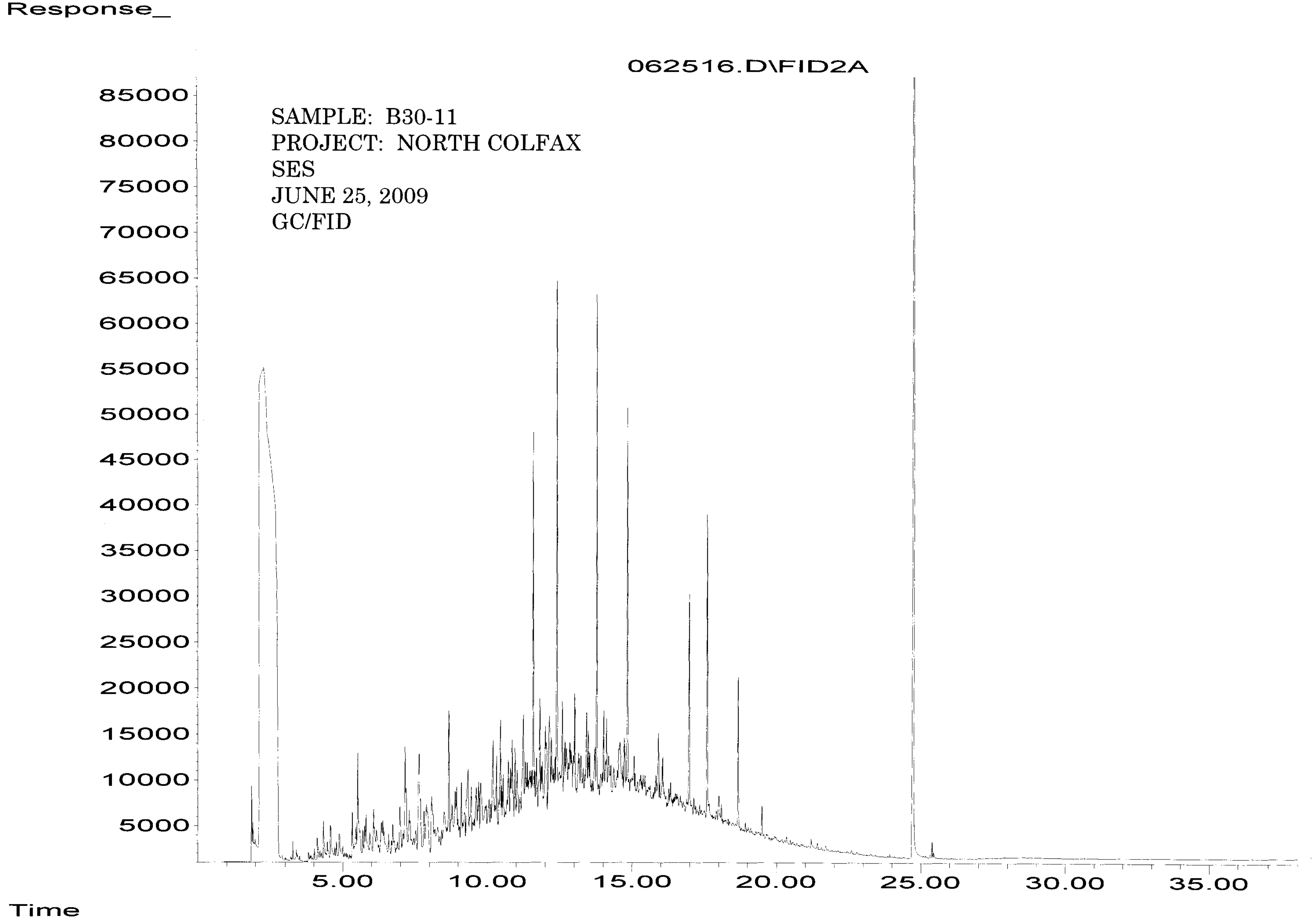
Date of Report: 07/24/09
Date Received: 05/20/09
Project: SOU_NCPCS 0592-001-01_20090520, F&BI 905190
Date Extracted: 06/25/09
Date Analyzed: 06/25/09

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLE FOR FORENSIC EVALUATION BY CAPILLARY GAS CHROMATOGRAPHY USING A FLAME IONIZATION DETECTOR (FID)

Sample ID	GC Characterization
B30-11	The GC trace using the flame ionization detector (FID) showed the presence of medium boiling compounds. The patterns displayed by these peaks are indicative of a middle distillate such as diesel fuel, fuel oil, or similar materials. The medium boiling compounds appear as an irregular pattern of peaks on top of a broad hump or unresolved complex mixture (UCM). This material elutes from n-C_{8} to n-C_{24} showing a maximum near n-C_{13}. This correlates with a temperature range of approximately 130°C to 390°C with a maximum near 240°C. Within this range, the dominant peaks present are indicative of isoprenoids including norpristane, pristane, and phytane. A discernible pattern of peaks characteristic of the normal alkanes was not present. The abundance of isoprenoids in conjunction with the apparent absence of normal alkanes indicates that the fuel present has undergone substantial biological degradation. The large peak seen near 25 minutes on the GC/FID trace is pentacosane, added as a quality assurance check for this GC analysis.

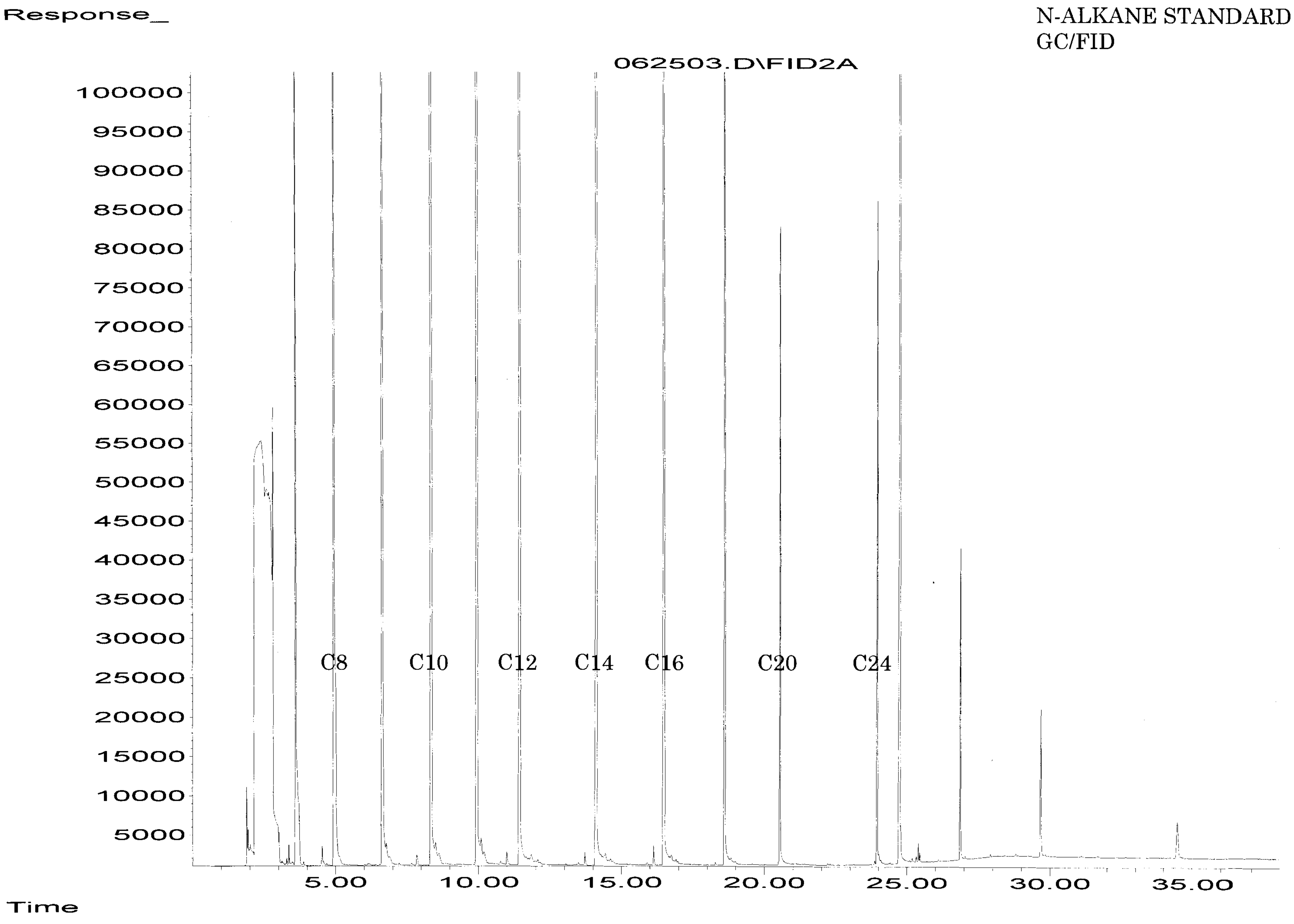


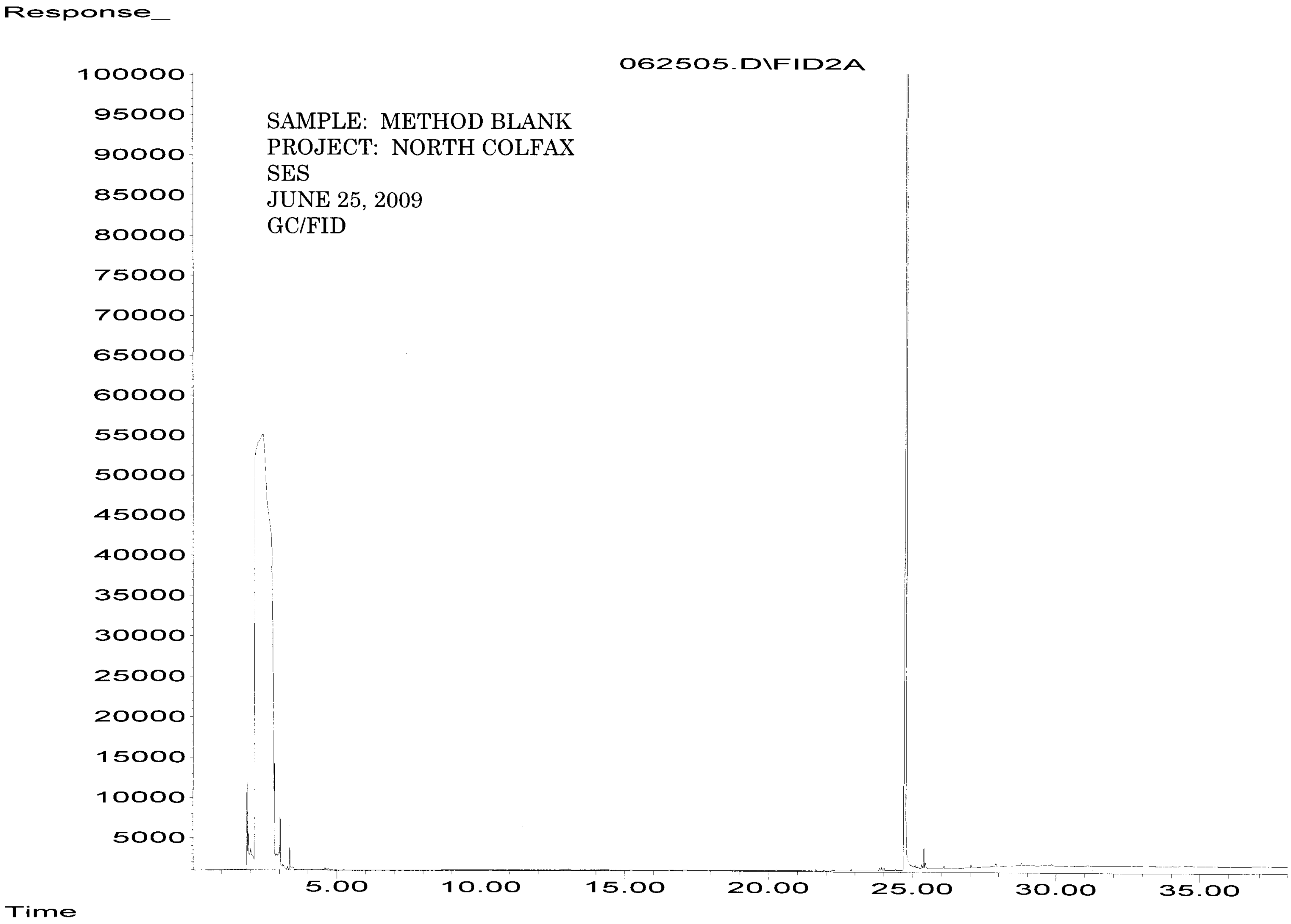
SAMPLE: B30-08
PROJECT: NORTH COLFAX
SES
JUNE 25, 2009
GC/FID



SAMPLE: B30-11
PROJECT: NORTH COLFAX
SES
JUNE 25, 2009
GC/FID

N-ALKANE STANDARD
GC/FID





SAMPLE: METHOD BLANK
PROJECT: NORTH COLFAX
SES
JUNE 25, 2009
GC/FID

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

August 26, 2009

Ryan Bixby, Project Manager
Sound Environmental Strategies Corporation
2400 Airport Way S., Suite 200
Seattle, WA 98134-2020

Dear Mr. Bixby:

Included are the results from the additional testing of material submitted on May 20, 2009 from the North Colfax Petroleum Contamination Site 0592-001-01, F&BI 905190 project.

The sample B30-08 was extracted and analyzed using a gas chromatograph with a flame ionization detector (GC/FID). The data generated yielded information on the boiling range and general chemical composition of the material present. The GC/FID traces are enclosed. A GC/FID trace of a standard consisting of normal alkanes is also provided for reference purposes. In addition, the sample B30-08 was analyzed for volatile organic compounds using a GC fitted with a mass spectrometer (MS); and organometallic compounds using a GC fitted with an electron capture detector (ECD) as well as an inductively coupled plasma mass spectrometer (ICP-MS). The results of this testing, including the associated quality assurance, are also enclosed.

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.

Kurt Johnson
Chemist

Enclosures
c: Chuck Cacek
mcp/KJ
SOU0826R.DOC

Date of Report: 08/26/09
Date Received: 05/20/09
Project: North Colfax Petroleum Contamination Site 0592-001-01, F&BI 905190
Date Extracted: 08/21/09
Date Analyzed: 08/21/09

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLE FOR FORENSIC EVALUATION BY CAPILLARY GAS CHROMATOGRAPHY USING A FLAME IONIZATION DETECTOR (FID)

Sample ID	GC Characterization
B30-08	The GC trace using the flame ionization detector (FID) showed the presence of medium boiling compounds. The patterns displayed by these peaks are indicative of a middle distillate such as diesel fuel or similar materials. The medium boiling compounds appear as an irregular pattern of peaks on top of a broad hump or unresolved complex mixture (UCM). This material elutes from *n*-C_9 to *n*-C_{24} showing a maximum near *n*-C_{13}. This correlates with a temperature range of approximately 150°C to 390°C with a maximum near 240°C. Within this range, the dominant peaks present are indicative of isoprenoids including norpristane, pristane, and phytane. A discernible pattern of peaks characteristic of the normal alkanes was not present. The abundance of isoprenoids in conjunction with the apparent absence of normal alkanes indicates that the fuel present has undergone substantial biological degradation. The large peak seen near 25 minutes on the GC/FID trace is pentacosane, added as a quality assurance check for this GC analysis.

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B30-08	Client:	Sound Environmental
Date Received:	05/20/09	Project:	North Colfax Petroleum
Date Extracted:	08/06/09	Lab ID:	905190-22
Date Analyzed:	08/06/09	Data File:	080611.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	42	152
Toluene-d8	107	36	149
4-Bromofluorobenzene	109	50	150

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.05	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
Methylene chloride	<0.5	o-Xylene	<0.05
t-Butyl alcohol (TBA)	<2.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
Diisopropyl ether (DIPE)	<0.05	n-Propylbenzene	0.058
1,1-Dichloroethane	<0.05	Bromobenzene	<0.05
Ethyl t-butyl ether (ETBE)	<0.05	1,3,5-Trimethylbenzene	<0.05
2,2-Dichloropropane	<0.05	1,1,2,2-Tetrachloroethane	<0.05
cis-1,2-Dichloroethene	<0.05	1,2,3-Trichloropropane	<0.05
Chloroform	<0.05	2-Chlorotoluene	<0.05
2-Butanone (MEK)	<0.5	4-Chlorotoluene	<0.05
t-Amyl methyl ether (TAME)	<0.05	tert-Butylbenzene	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,4-Trimethylbenzene	<0.05
1,1,1-Trichloroethane	<0.05	sec-Butylbenzene	0.080
1,1-Dichloropropene	<0.05	p-Isopropyltoluene	0.063
Carbon tetrachloride	<0.05	1,3-Dichlorobenzene	<0.05
Benzene	<0.03	1,4-Dichlorobenzene	<0.05
Trichloroethene	<0.03	1,2-Dichlorobenzene	<0.05
1,2-Dichloropropane	<0.05	1,2-Dibromo-3-chloropropane	<0.05
Bromodichloromethane	<0.05	1,2,4-Trichlorobenzene	<0.1
Dibromomethane	<0.05	Hexachlorobutadiene	<0.1
4-Methyl-2-pentanone	<0.5 jl	Naphthalene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2,3-Trichlorobenzene	<0.1
Toluene	<0.05	Butane	<0.5 L
trans-1,3-Dichloropropene	<0.05	Pentane	<0.5 L
1,1,2-Trichloroethane	<0.05	Isooctane	<0.5 L
2-Hexanone	<0.5 jl		

ht - The sample was extracted outside of holding time. Results should be considered estimates.

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Sound Environmental
Date Received:	Not Applicable	Project:	North Colfax Petroleum
Date Extracted:	08/06/09	Lab ID:	091113-mb
Date Analyzed:	08/06/09	Data File:	080606.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	112	42	152
Toluene-d8	108	36	149
4-Bromofluorobenzene	105	50	150

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.05	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
Methylene chloride	<0.5	o-Xylene	<0.05
t-Butyl alcohol (TBA)	<2.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
Diisopropyl ether (DIPE)	<0.05	n-Propylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromobenzene	<0.05
Ethyl t-butyl ether (ETBE)	<0.05	1,3,5-Trimethylbenzene	<0.05
2,2-Dichloropropane	<0.05	1,1,2,2-Tetrachloroethane	<0.05
cis-1,2-Dichloroethene	<0.05	1,2,3-Trichloropropane	<0.05
Chloroform	<0.05	2-Chlorotoluene	<0.05
2-Butanone (MEK)	<0.5	4-Chlorotoluene	<0.05
t-Amyl methyl ether (TAME)	<0.05	tert-Butylbenzene	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,4-Trimethylbenzene	<0.05
1,1,1-Trichloroethane	<0.05	sec-Butylbenzene	<0.05
1,1-Dichloropropene	<0.05	p-Isopropyltoluene	<0.05
Carbon tetrachloride	<0.05	1,3-Dichlorobenzene	<0.05
Benzene	<0.03	1,4-Dichlorobenzene	<0.05
Trichloroethene	<0.03	1,2-Dichlorobenzene	<0.05
1,2-Dichloropropane	<0.05	1,2-Dibromo-3-chloropropane	<0.05
Bromodichloromethane	<0.05	1,2,4-Trichlorobenzene	<0.1
Dibromomethane	<0.05	Hexachlorobutadiene	<0.1
4-Methyl-2-pentanone	<0.5 jl	Naphthalene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2,3-Trichlorobenzene	<0.1
Toluene	<0.05	Butane	<0.05
trans-1,3-Dichloropropene	<0.05	Pentane	<0.05
1,1,2-Trichloroethane	<0.05	Isooctane	<0.05
2-Hexanone	<0.5 jl		

Date of Report: 08/26/09
Date Received: 05/20/09
Project: North Colfax Petroleum Contamination Site 0592-001-01, F&BI 905190
Date Extracted: 08/11/09
Date Analyzed: 08/12/09

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR ORGANIC LEAD AND MANGANESE SPECIATION BY METHOD 8082 MODIFIED

Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	TML	TMEL	DMDEL	MTEL	TEL	MMT	Surrogate (% Rec.) (Limit 50-150)
B30-08 905190-22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	122
Method Blank	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	116

TML	Tetramethyl Lead
TMEL	Trimethylethyl Lead
DMDEL	Dimethyldiethyl Lead
MTEL	Methyltriethyl Lead
TEL	Tetraethyl Lead
MMT	Methylcyclopentadienyl Manganese Tricarbonyl

Analysis For Total Organic Lead and Manganese By EPA Method 200.8

Client ID:	B30-08	Client:	Sound Environmental
Date Received:	05/20/09	Project:	North Colfax Petroleum
Date Extracted:	08/11/09	Lab ID:	905190-22
Date Analyzed:	08/11/09	Data File:	905190-22.040
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Analyte:	Concentration mg/kg (ppm)
Organic Lead	<0.05
Organic Manganese	<0.05

Analysis For Total Organic Lead and Manganese By EPA Method 200.8

Client ID:	Method Blank	Client:	Sound Environmental
Date Received:	NA	Project:	North Colfax Petroleum
Date Extracted:	08/11/09	Lab ID:	I9-334 mb
Date Analyzed:	08/11/09	Data File:	I9-334 mb.036
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Analyte:	Concentration mg/kg (ppm)
Organic Lead	<0.05
Organic Manganese	<0.05

Date of Report: 08/26/09
Date Received: 05/20/09
Project: North Colfax Petroleum Contamination Site 0592-001-01, F&BI 905190

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

Laboratory Code: 905190-22 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	<0.5	<0.5	nm
Chloromethane	mg/kg (ppm)	<0.05	<0.05	nm
Vinyl chloride	mg/kg (ppm)	<0.05	<0.05	nm
Bromomethane	mg/kg (ppm)	<0.5	<0.5	nm
Chloroethane	mg/kg (ppm)	<0.5	<0.5	nm
Trichlorofluoromethane	mg/kg (ppm)	<0.5	<0.5	nm
Acetone	mg/kg (ppm)	<0.5	<0.5	nm
1,1-Dichloroethene	mg/kg (ppm)	<0.05	<0.05	nm
Methylene chloride	mg/kg (ppm)	<0.5	<0.5	nm
t-Butyl alcohol (TBA)	mg/kg (ppm)	<3	<3	nm
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	<0.05	<0.05	nm
trans-1,2-Dichloroethene	mg/kg (ppm)	<0.05	<0.05	nm
Diisopropyl ether (DIPE)	mg/kg (ppm)	<0.05	<0.05	nm
1,1-Dichloroethane	mg/kg (ppm)	<0.05	<0.05	nm
Ethyl t-butyl ether (ETBE)	mg/kg (ppm)	<0.05	<0.05	nm
2,2-Dichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
cis-1,2-Dichloroethene	mg/kg (ppm)	<0.05	<0.05	nm
Chloroform	mg/kg (ppm)	<0.05	<0.05	nm
2-Butanone (MEK)	mg/kg (ppm)	<0.5	<0.5	nm
t-Amyl methyl ether (TAME)	mg/kg (ppm)	<0.05	<0.05	nm
1,2-Dichloroethane (EDC)	mg/kg (ppm)	<0.05	<0.05	nm
1,1,1-Trichloroethane	mg/kg (ppm)	<0.05	<0.05	nm
1,1-Dichloropropene	mg/kg (ppm)	<0.05	<0.05	nm
Carbon tetrachloride	mg/kg (ppm)	<0.05	<0.05	nm
Benzene	mg/kg (ppm)	<0.03	<0.03	nm
Trichloroethene	mg/kg (ppm)	<0.03	<0.03	nm
1,2-Dichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
Bromodichloromethane	mg/kg (ppm)	<0.05	<0.05	nm
Dibromomethane	mg/kg (ppm)	<0.05	<0.05	nm
4-Methyl-2-pentanone	mg/kg (ppm)	<0.5	<0.5	nm
cis-1,3-Dichloropropene	mg/kg (ppm)	<0.05	<0.05	nm
Toluene	mg/kg (ppm)	<0.05	<0.05	nm
trans-1,3-Dichloropropene	mg/kg (ppm)	<0.05	<0.05	nm
1,1,2-Trichloroethane	mg/kg (ppm)	<0.05	<0.05	nm
2-Hexanone	mg/kg (ppm)	<0.5	<0.5	nm
1,3-Dichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
Tetrachloroethene	mg/kg (ppm)	<0.025	<0.025	nm
Dibromochloromethane	mg/kg (ppm)	<0.05	<0.05	nm
1,2-Dibromoethane (EDB)	mg/kg (ppm)	<0.05	<0.05	nm
Chlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
Ethylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	<0.05	<0.05	nm
m,p-Xylene	mg/kg (ppm)	<0.1	<0.1	nm
o-Xylene	mg/kg (ppm)	<0.05	<0.05	nm
Styrene	mg/kg (ppm)	<0.05	<0.05	nm
Isopropylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
Bromoform	mg/kg (ppm)	<0.05	<0.05	nm
n-Propylbenzene	mg/kg (ppm)	0.058	0.058	0
Bromobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,3,5-Trimethylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	<0.05	<0.05	nm
1,2,3-Trichloropropane	mg/kg (ppm)	<0.05	<0.05	nm
2-Chlorotoluene	mg/kg (ppm)	<0.05	<0.05	nm
4-Chlorotoluene	mg/kg (ppm)	<0.05	<0.05	nm
tert-Butylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,2,4-Trimethylbenzene	mg/kg (ppm)	<0.05	<0.05	nm
sec-Butylbenzene	mg/kg (ppm)	0.08	0.071	12
p-Isopropyltoluene	mg/kg (ppm)	0.063	0.064	2
1,3-Dichlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,4-Dichlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,2-Dichlorobenzene	mg/kg (ppm)	<0.05	<0.05	nm
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	<0.05	<0.05	nm
1,2,4-Trichlorobenzene	mg/kg (ppm)	<0.1	<0.1	nm
Hexachlorobutadiene	mg/kg (ppm)	<0.1	<0.1	nm
Naphthalene	mg/kg (ppm)	<0.05	<0.05	nm
1,2,3-Trichlorobenzene	mg/kg (ppm)	<0.1	<0.1	nm

Date of Report: 08/26/09
Date Received: 05/20/09
Project: North Colfax Petroleum Contamination Site 0592-001-01, F&BI 905190

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	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2.5	55	61	25-133	10
Chloromethane	mg/kg (ppm)	2.5	64	70	48-121	9
Vinyl chloride	mg/kg (ppm)	2.5	76	78	57-125	3
Bromomethane	mg/kg (ppm)	2.5	84	86	55-141	2
Chloroethane	mg/kg (ppm)	2.5	96	104	43-152	8
Trichlorofluoromethane	mg/kg (ppm)	2.5	105	114	37-158	8
Acetone	mg/kg (ppm)	2.5	84	83	69-129	1
1,1-Dichloroethene	mg/kg (ppm)	2.5	105	105	60-123	0
Methylene chloride	mg/kg (ppm)	2.5	100	93	57-130	7
t-Butyl alcohol (TBA)	mg/kg (ppm)	12.5	82	82	70-121	0
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	89	93	82-112	4
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	91	91	78-118	0
Diisopropyl ether (DIPE)	mg/kg (ppm)	2.5	89	90	85-117	1
1,1-Dichloroethane	mg/kg (ppm)	2.5	88	91	81-116	3
Ethyl t-butyl ether (ETBE)	mg/kg (ppm)	2.5	90	91	84-117	1
2,2-Dichloropropane	mg/kg (ppm)	2.5	83	85	74-122	2
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	92	94	82-118	2
Chloroform	mg/kg (ppm)	2.5	94	97	80-117	3
2-Butanone (MEK)	mg/kg (ppm)	2.5	72	81	63-146	12
t-Amyl methyl ether (TAME)	mg/kg (ppm)	2.5	89	93	84-118	4
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	92	95	82-120	3
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	93	96	79-120	3
1,1-Dichloropropene	mg/kg (ppm)	2.5	91	94	76-122	3
Carbon tetrachloride	mg/kg (ppm)	2.5	91	96	70-125	5
Benzene	mg/kg (ppm)	2.5	89	92	80-112	3
Trichloroethene	mg/kg (ppm)	2.5	92	95	79-115	3
1,2-Dichloropropane	mg/kg (ppm)	2.5	92	94	84-119	2
Bromodichloromethane	mg/kg (ppm)	2.5	100	104	87-122	4
Dibromomethane	mg/kg (ppm)	2.5	94	97	87-118	3
4-Methyl-2-pentanone	mg/kg (ppm)	2.5	77 vo	78 vo	88-124	1
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	94	97	84-125	3
Toluene	mg/kg (ppm)	2.5	89	92	80-116	3
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	96	99	84-129	3
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	94	96	85-117	2
2-Hexanone	mg/kg (ppm)	2.5	79 vo	81 vo	88-129	2
1,3-Dichloropropane	mg/kg (ppm)	2.5	93	95	84-119	2
Tetrachloroethene	mg/kg (ppm)	2.5	91	94	79-119	3
Dibromochloromethane	mg/kg (ppm)	2.5	105	108	76-123	3
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	97	97	86-120	0
Chlorobenzene	mg/kg (ppm)	2.5	93	94	81-111	1
Ethylbenzene	mg/kg (ppm)	2.5	94	95	81-115	1
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	100	103	82-121	3
m,p-Xylene	mg/kg (ppm)	5	90	91	80-118	1
o-Xylene	mg/kg (ppm)	2.5	90	92	78-122	2
Styrene	mg/kg (ppm)	2.5	94	96	84-121	2
Isopropylbenzene	mg/kg (ppm)	2.5	92	94	79-124	2
Bromoform	mg/kg (ppm)	2.5	93	98	73-111	5
n-Propylbenzene	mg/kg (ppm)	2.5	94	96	80-123	2
Bromobenzene	mg/kg (ppm)	2.5	93	95	83-117	2
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	91	94	81-122	3
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	95	97	82-119	2
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	91	93	82-116	2
2-Chlorotoluene	mg/kg (ppm)	2.5	91	94	78-120	3
4-Chlorotoluene	mg/kg (ppm)	2.5	93	95	81-119	2
tert-Butylbenzene	mg/kg (ppm)	2.5	91	93	79-124	2
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	91	94	81-123	3
sec-Butylbenzene	mg/kg (ppm)	2.5	92	96	79-124	4
p-Isopropyltoluene	mg/kg (ppm)	2.5	92	96	82-125	4
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	92	94	80-116	2
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	93	95	59-133	2
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	92	94	82-116	2
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	98	101	74-126	3
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	91	95	73-124	4
Hexachlorobutadiene	mg/kg (ppm)	2.5	93	98	74-128	5
Naphthalene	mg/kg (ppm)	2.5	93	95	70-122	2
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	90	93	76-125	3

Date of Report: 08/26/09
Date Received: 05/20/09
Project: North Colfax Petroleum Contamination Site 0592-001-01, F&BI 905190

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR ORGANIC LEAD AND MANGANESE BY EPA METHOD 8082 MODIFIED

Laboratory Code: 905190-22 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Tetramethyl lead	mg/kg (ppm)	<0.1	<0.1	nm
Tetraethyl lead	mg/kg (ppm)	<0.1	<0.1	nm
MMT	mg/kg (ppm)	<0.1	<0.1	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Tetramethyl lead	mg/kg (ppm)	5	108	110	70-130	2
Tetraethyl lead	mg/kg (ppm)	5	92	94	70-130	2
MMT	mg/kg (ppm)	5	83	84	70-130	1

Date of Report: 08/26/09
Date Received: 05/20/09
Project: North Colfax Petroleum Contamination Site 0592-001-01, F&BI 905190

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR ORGANIC LEAD AND MANGANESE USING EPA METHOD 200.8

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Organic Lead	mg/kg (ppm)	2.83	98	99	70-130	1
Organic Manganese	mg/kg (ppm)	0.5	109	109	70-130	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.

A1 – More than one compound of similar molecule structure was identified with equal probability.

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 this range fell outside of acceptance criteria. The value reported is an estimate.

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

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - The analyte indicated was found in the method blank. The result should be considered an estimate.

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. The variability is attributed to sample inhomogeneity.

ht - The sample was extracted outside of holding time. Results should be considered estimates.

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

j – The result is below normal reporting limits. 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 analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is 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 compound indicated 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 in a container not approved by the method. The value reported should be considered an estimate.

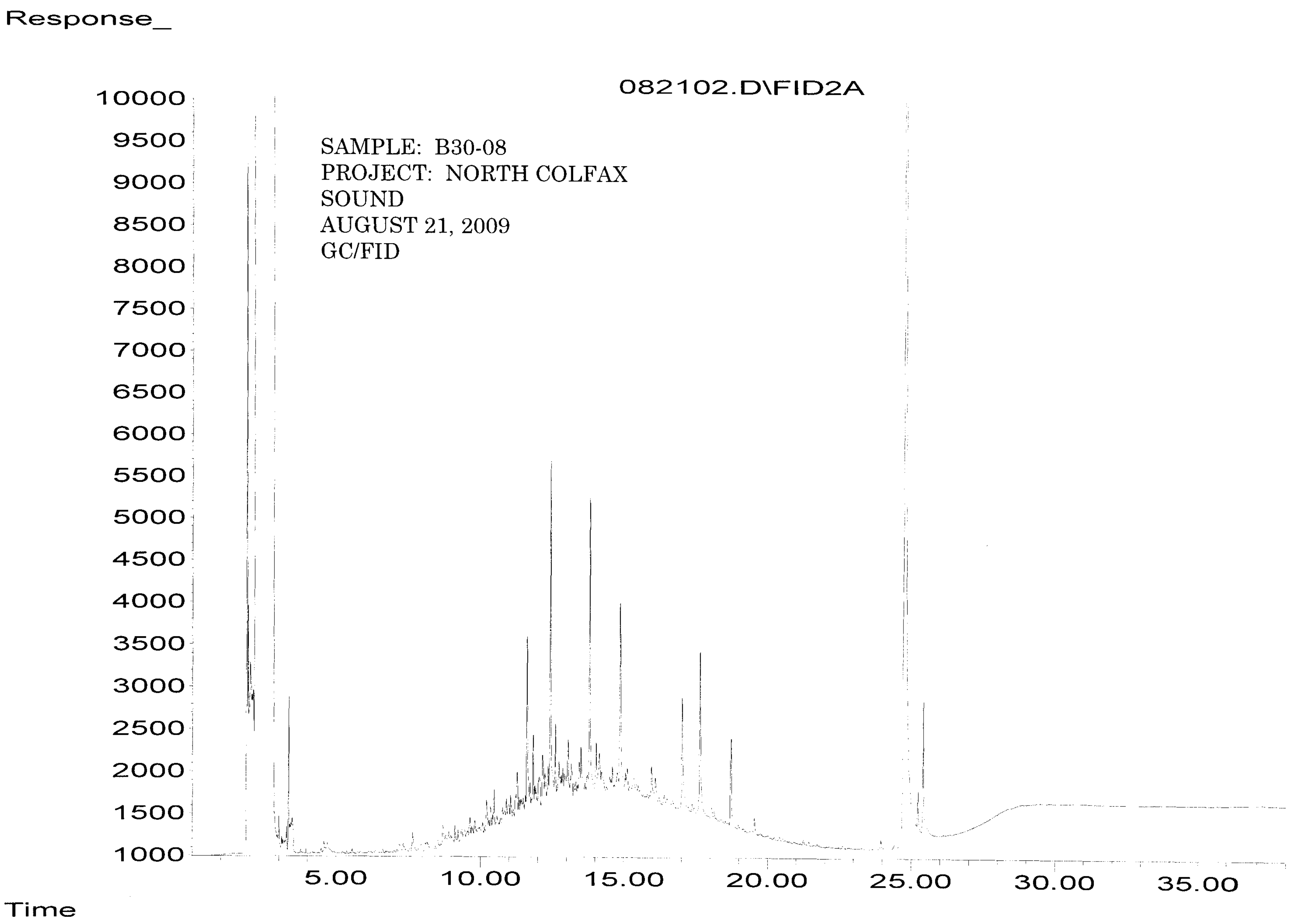
pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration should be considered an estimate.

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

x - The pattern of peaks present is not indicative of diesel.

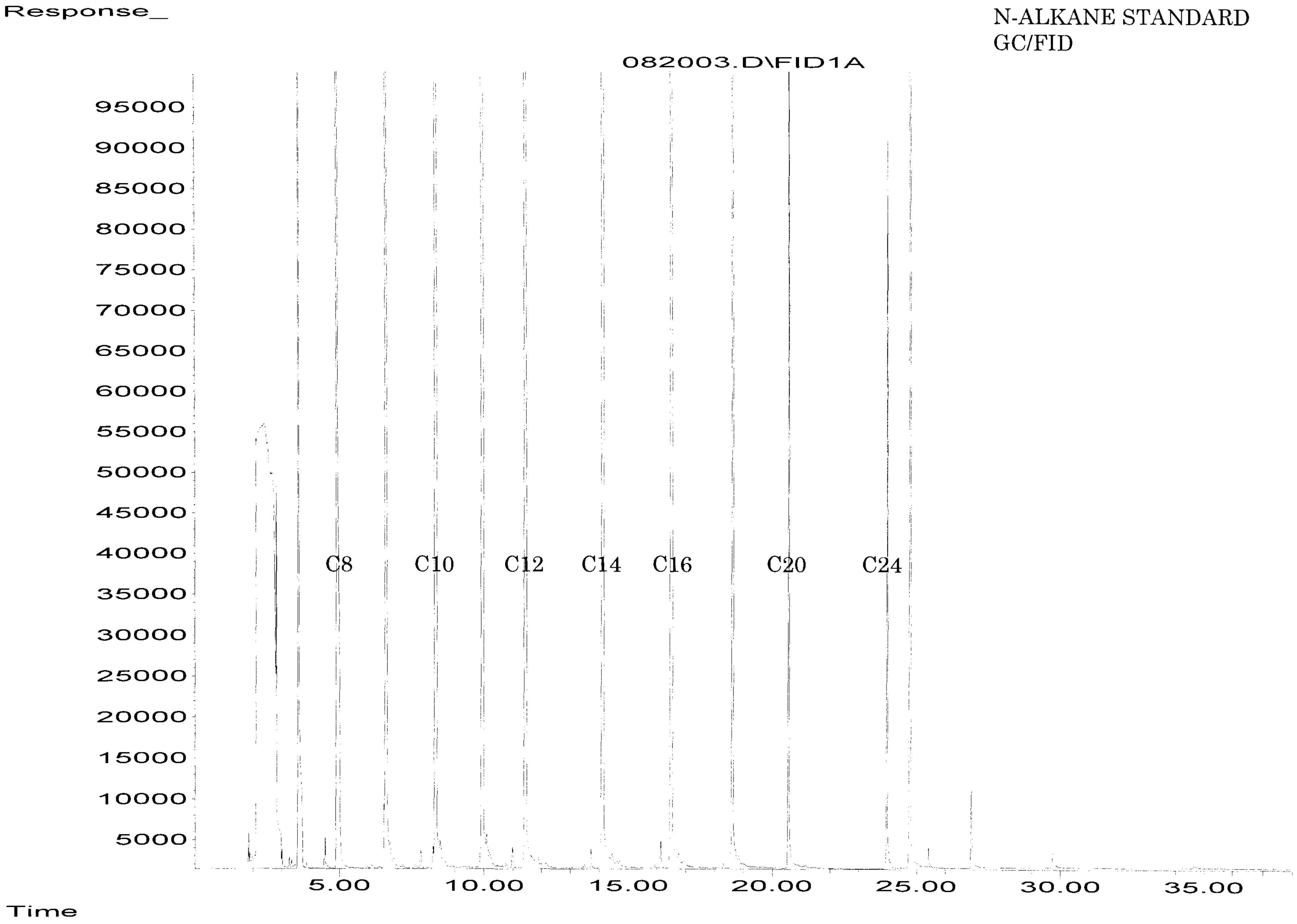
y - The pattern of peaks present is not indicative of motor oil.

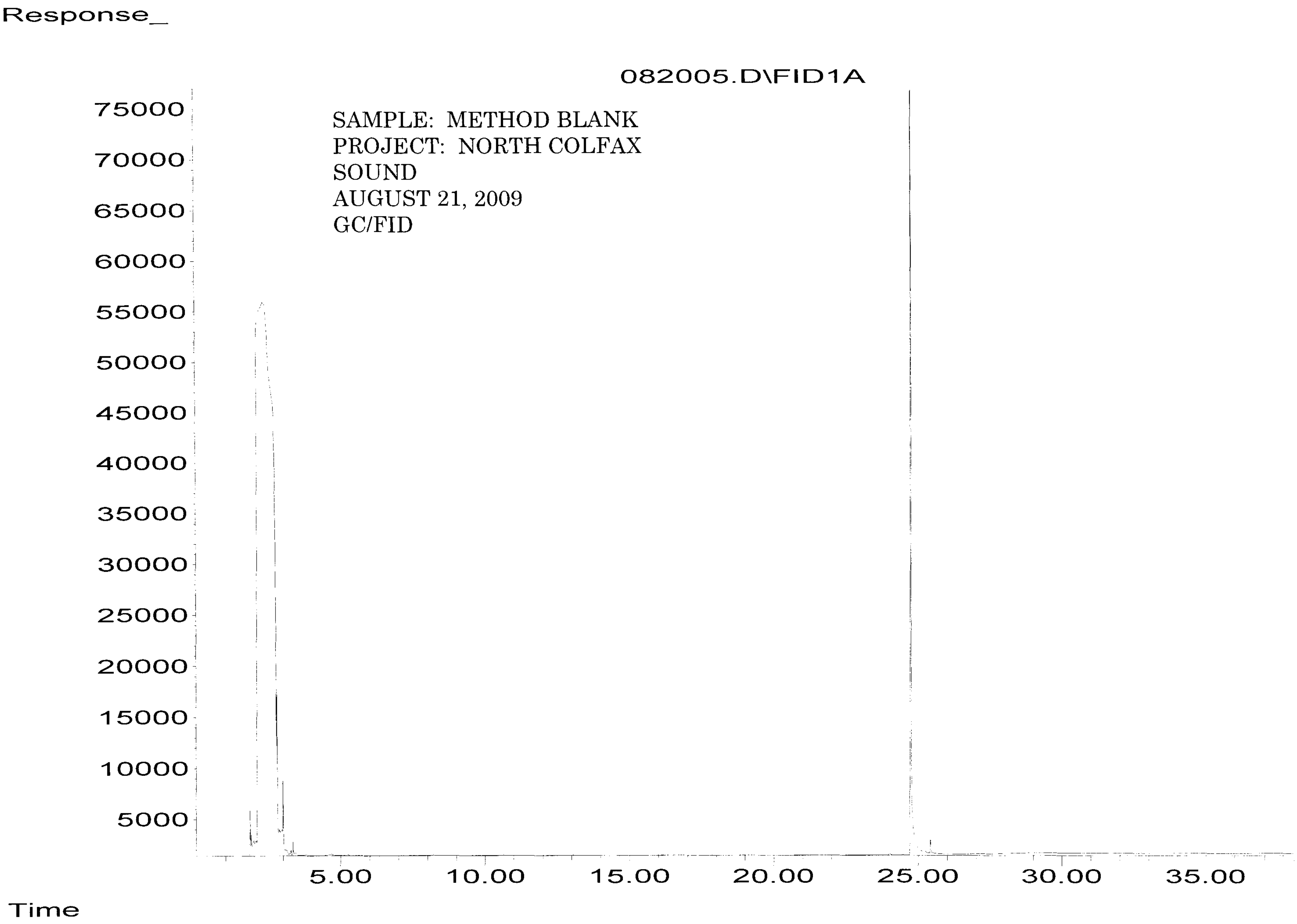


082102.D\FID2A

SAMPLE: B30-08
PROJECT: NORTH COLFAX
SOUND
AUGUST 21, 2009
GC/FID

N-ALKANE STANDARD
GC/FID





SAMPLE: METHOD BLANK
PROJECT: NORTH COLFAX
SOUND
AUGUST 21, 2009
GC/FID

905190

[redacted]

SAMPLE CHAIN OF CUSTODY

ME 5/20/09 BI 2

[redacted] 1 of 4

Send Report To Ryan Bixby cc: Chuck Cacek
Company SES
Address 2400 Airport Way South
City, State, ZIP Seattle WA 98134
Phone # 206 306 1900 Fax # 206 306 1906

SAMPLERS (signature) C C

PROJECT NAME/NO.
North colfax petroleum
Contamination site
0592-001-01

PO #

REMARKS

GEMS Y / N

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

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

								ANALYSES REQUESTED								
Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	Total Lead ~~RCRA-8 Metals~~	WTPH-HCID		Notes
B27-04		4	01 A-F	5-13-09	1146	Soil	6							☒		Hold
B27-08		8	02 A-F	↓	1155	↓	↓							☒		↓
B27-12		12	03 A-F		1205									☒		
B27-14.5		14.5	04 A-F		1215									☒		
B32-04		4	05 A-F		1240									☒		
B32-08		8	06 A-F		1250									☒		
B32-12		12	07 A-G		1300		7							☒		
B32-15		15	08 A-F		1310		6							☒		
B28-04		4	09 A-F		1420		6							☒		
B28-10.5		10.5	10 A-G		1430		7							☒		
B28-15		15	11 A-F		1445		6	☒	☒	☒			☒			
B26-04		4	12 A-F		1520		6							☒		
B26-~~10B~~ 10		10	13 A-G		1535		7							☒		

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

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: C. C	Charles Cacek	SES	5-19-09	
Received by:	HONG NGUYEN	FBI	5/20/09	9:30
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COC\SESGEMSR1.DOC (Revision 1)

Samples received at 3 °C

90570 905190

SAMPLE CHAIN OF CUSTODY

ME 5/20/09 BI 2

Send Report To Byron Bixby cc: Chuck Cacek

Company SES

Address 2400 Airport Way South

City, State, ZIP Seattle WA 98134

Phone # 206 306 1900 Fax # 206 306 1906

SAMPLERS (signature)

PROJECT NAME/NO. North Colfax Petroleum Contamination Site 0572-001-01

PO #

REMARKS Please Complete WTPH-HCID analyses so that any positive results can be quantified within

GEMS Y / N

Page # 2 of 4

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

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

				Hold time				ANALYSES REQUESTED								
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	~~RCRA-8 Metals~~ Total Lead	WTPH-HCID	EPH-VPH	Notes
B26-14		14	14 A-F	5-18-09	1540	Soil	6							☒		Hold
B29-04		4	15 A-F		1635		6							☒		
B29-11		11	16 A-G		1645		7	☒	☒	☒			☒			
B29-15		15	17 A-F		1655		6							☒		
B33-04		4	18 A-F		1800		6							☒		
B33-11		11	19 A-G		1805		7							☒		
B33-14		14	20 A-F		1810		6							☒		
B30-04		4	21 A-F		1845		6							☒		
B30-08		8	22 A-G		1850		7	☒	☒	☒			☒			sample B30-7
B30-11		11	23 A-G		1900		7	☒	☒		☒	☒	☒		☒	
B31-04		4	24 A-F		1925		6							☒		
B31-08		8	25 A-G		1935		7							☒		
B31-10		10	26 A-F		1940		6							☒		

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Relinquished by: C. C	Charles Cacek	SES	5/19/09	
Received by:	HONG NGUYEN	FBI	5/20/09	9:30
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Samples received at 3 °C

905190

SAMPLE CHAIN OF CUSTODY

ME 5/20/09 BI2

Page # 3 of 4

Send Report To Ryan Bixby cc: Chuck Cacek

Company SES

Address 2400 Airport Way South

City, State, ZIP Seattle WA 98134

Phone # 206-306-1900 Fax # 206-306-1906

SAMPLERS (signature)

PROJECT NAME/NO. North Colfax petroleum contamination site 0592-001-01

PO #

REMARKS

GEMS Y / N

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

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

								ANALYSES REQUESTED								
Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
Rinsate Blank			27 A-C	5-18-09		Water	3		X	X						Hold

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Relinquished by:	C. C	Charles Cacek	SES	5/19/09	
Received by:		HONG NGUYEN	FBI	5/20/09	9:30
Relinquished by:					
Received by:					

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Samples received at 3 °C

905190

SAMPLE CHAIN OF CUSTODY

ME 5/20/09 BI2

Page # 4 of 4

Send Report To Ryan Birley cc: Chuck Cacos

Company SES

Address 2400 Airport Way South

City, State, ZIP Seattle WA 98134

Phone # 206-306-1900 Fax # 206-306-1906

SAMPLERS *(signature)*

PROJECT NAME/NO. North Colfax Petroleum contamination site 0592-001-01

PO #

REMARKS

GEMS Y / N

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

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

								ANALYSES REQUESTED								
Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
trip Blank			28 A-F			water	4½		☒	☒						Hold +2

Friedman & Bruya, Inc.
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SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: C.C.	Charles Cacos	SES	5/19/09	
Received by: Hong Ng	HONG NGUYEN	FBI	5/20/09	9:30
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Samples received at 3 °C

905190

SAMPLE CHAIN OF CUSTODY

ME 5/20/09 BI 2/V1

Page # 1 of 4

Send Report To Ryan Bixby cc: Chuck Cacek

Company SES

Address 2400 Airport Way South

City, State, ZIP Seattle WA 98134

Phone # 206 306 1900 Fax # 206 306 1906

SAMPLERS ~~(signature)~~ C. C.

PROJECT NAME/NO. North colfax petroleum Contamination site 0592-001-01

PO #

REMARKS ✓added per Onnekis request 6/17/09 8

GEMS Y / N

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

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

								ANALYSES REQUESTED								
Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
B27-04		4	01 A-F	5-18-09	1146	Soil	6									Hold
B27-08		8	02 A-F	↓	1155	↓	↓									↓
B27-12		12	03 A-F		1205											
B27-14.5		14.5	04 A-F		1215											
B32-04		4	05 A-F		1240											
B32-08		8	06 A-F		1250											
B32-12		12	07 A-G		1300		7									
B32-15		15	08 A-F		1310		6									
B28-04		4	09 A-F		1420		6									
B28-10.5		10.5	10 A-G		1430		7									
B28-15		15	11 A-F		1445		6									
B26-04		4	12 A-F		1520		6									
B26 ~~10.5~~ 10		10	13 A-G		1535		7									

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Received by:	HONG NGUYEN	FBI	5/20/09	9:30
Relinquished by:				
Received by:				

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Samples received at 3 °C

~~90510~~ 905190

SAMPLE CHAIN OF COUSTODY

ME 5/20/09 BI 2/VI

~~Page # 2 of 4~~

Send Report To Byan Bixby cc: Chuck Cacek
Company SES
Address 2400 Airport Way South
City, State, ZIP Seattle WA 98134
Phone # 206 306 1900 Fax # 206 306 1906

SAMPLERS (signature)

PROJECT NAME/NO. North Colfax petroleum contamination site 0592-001-01

PO #

REMARKS

GEMS Y / N

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

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

								ANALYSES REQUESTED								
Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals	HRS		Notes
B26-14		14	14^{A-F}	5-18-09	1540	Soil	6									Hold
B29-04		4	15^{A-F}		1635		6									
B29-11		11	16^{A-G}		1645		7									
B29-15		15	17^{A-F}		1655		6									
B33-04		4	18^{A-F}		1800		6									
B33-11		11	19^{A-G}		1805		7									
B33-14		14	20^{A-F}		1810		6									
B30-04		4	21^{A-F}		1845		6									
B30-08		8	22^{A-G}		1850		7							✓		sample B30-7
B30-11		11	23^{A-G}		1900		7							✓		
B31-04		4	24^{A-F}		1925		6									
B31-08		8	25^{A-G}		1935		7									
B31-10		10	26^{A-F}		1940		6									

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:	Charles Cacek	SES	5/19/09	
Received by:	HONG NGUYEN	FBI	5/20/09	9:30
Relinquished by:				
Received by:				

FORMS\COC\SESGEMSR1.DOC (Revision 1)

Samples received at 3 °C

905190

SAMPLE CHAIN OF CUSTODY

ME 5/20/09 BI 2/M

Page # 3 of 4

Send Report To Ryan Bixby cc: Chuck Cacek

Company SES

Address 2400 Airport Way South

City, State, ZIP Seattle WA 98134

Phone # 206-306-1900 Fax # 206-306-1906

SAMPLERS (signature)

PROJECT NAME/NO. North Colfax Petroleum Contamination Site 0592-001-01

PO #

REMARKS

GEMS Y / N

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

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

								ANALYSES REQUESTED								
Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
Rinsate Blank			27 A-C	5-18-09		Water	3									Hold

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: C. C	Charles Cacek	SES	5/19/09	
Received by:	HONG NGUYEN	FBI	5/20/09	9:30
Relinquished by:				
Received by:				

FORMS\COC\SESGEMSR1.DOC (Revision 1)

Samples received at 3 °C

905190

SAMPLE CHAIN OF CUSTODY

ME 5/20/09 BI 2/V1

Page # 4 of 4

Send Report To Ryan Bixby cc: Chuck Cacek

Company SES

Address 2400 Airport Way South

City, State, ZIP Seattle WA 98134

Phone # 206-306-1900 Fax # 206-306-1906

SAMPLERS *(signature)*

PROJECT NAME/NO. North Colfax Petroleum Contamination Site 0592-001-01

PO #

REMARKS

GEMS Y / N

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

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

								ANALYSES REQUESTED								
Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
trip Blank			28 A-F			water	4+2									Hold +2

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:	C. C.	Charles Cacek	SES	5/19/09	
Received by:		HONG NGUYEN	FBI	5/20/09	9:30
Relinquished by:					
Received by:					

FORMS\COC\SESGEMSR1.DOC (Revision 1)

Samples received at 3 °C

905190

SAMPLE CHAIN OF CUSTODY

ME 5/20/09 BI 2/V1

Page # 1 of 4

Send Report To Ryan Bixby cc: Chuck Caces

Company SES

Address 2400 Airport Way South

City, State, ZIP Seattle WA 98134

Phone # 206 306 1900 Fax # 206 306 1906

SAMPLERS (signature) C C

PROJECT NAME/NO.
North colfax petroleum
Contamination site
0592-001-01

PO #

REMARKS
added per Chuck's Request
6/17/09 BB

GEMS Y / N

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

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

								ANALYSES REQUESTED								
Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
B27-04		4	01 A-F	5-18-09	1146	Soil	6									Hold
B27-08		8	02 A-F	↓	1155	↓	↓									↓
B27-12		12	03 A-F		1205											
B27-14.5		14.5	04 A-F		1215											
B32-04		4	05 A-F		1240											
B32-08		8	06 A-F		1250											
B32-12		12	07 A-G		1300		7									
B32-15		15	08 A-F		1310		6									
B28-04		4	09 A-F		1420		6									
B28-10.5		10.5	10 A-G		1430		7									
B28-15		15	11 A-F		1445		6									
B26-04		4	12 A-F		1520		6									
B26 ~~10.5~~ 10		10	13 A-G		1535		7									

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: C. C	Charles Caces	SES	5-19-09	
Received by:	HONG NGUYEN	FBI	5/20/09	9:30
Relinquished by:				
Received by:				

FORMS\COC\SESGEMSR1.DOC (Revision 1)

Samples received at 3 °C

~~90510~~ 905190

SAMPLE CHAIN OF CUSTODY

ME 5/20/09 : BI 2/VI

Send Report To Ryan Bixby cc: Chuck Cacek
Company SES
Address 2400 Airport Way South
City, State, ZIP Seattle WA 98134
Phone # 206 306 1900 Fax # 206 306 1906

SAMPLERS (signature)

PROJECT NAME/NO. North Colfax petroleum contamination site 0592-001-01

PO #

REMARKS

GEMS Y / N

Page # 2 of 4

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

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

								ANALYSES REQUESTED								
Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	[illegible] by GC/ECD ~~SVOC's by 8270~~	[illegible] by ICP/MS ~~RCRA-8 Metals~~	HRS		Notes
B26-14		14	14 A-F	5-18-09	1540	Soil	6									Hold
B29-04		4	15 A-F		1635		6									
B29-11		11	16 A-G		1645		7									
B29-15		15	17 A-F		1655		6									
B33-04		4	18 A-F		1800		6									
B33-11		11	19 A-G		1805		7									
B33-14		14	20 A-F		1810		6									
B30-04		4	21 A-F		1845		6									
B30-08		8	22 A-G		1850		7				✓	✓	✓	✓		sample B30-7
B30-11		11	23 A-G		1900		7							✓		cancel per request [illegible]
B31-04		4	24 A-F		1925		6									
B31-08		8	25 A-G		1935		7									
B31-10		10	26 A-F		1940		6									

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:	C. C	Charles Cacek	SES	5/19/09	
Received by:		HONG NGUYEN	FBI	5/20/09	9:30
Relinquished by:					
Received by:					

905190

SAMPLE CHAIN OF CUSTODY

ME 5/20/09 BI2/V1

Send Report To Ryan Bixby cc: Chuck Cacek

Company SES

Address 2400 Airport Way South

City, State, ZIP Seattle WA 98134

Phone # 206-306-1900 Fax # 206-306-1906

SAMPLERS (signature)

PROJECT NAME/NO. North Colfax Petroleum Contamination Site 0592-001-01

PO #

REMARKS

GEMS Y / N

Page # 3 of 4

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

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

								ANALYSES REQUESTED								
Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
Rinsate Blank			27 A-C	5-18-09		Water	3									Hold

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: C. C	Charles Cacek	SES	5/19/09	
Received by:	HONG NGUYEN	FBI	5/20/09	9:30
Relinquished by:				
Received by:				

FORMS\COC\SESGEMSR1.DOC (Revision 1)

Samples received at 3 °C

905190

SAMPLE CHAIN OF CUSTODY

ME 5/20/09 BI 2/VI

Page # 4 of 4

Send Report To Ryan Birby cc: Chuck Cacek
Company SES
Address 2400 Airport Way South
City, State, ZIP Seattle WA 98134
Phone # 206-306-1900 Fax # 206-306-1906

SAMPLERS *(signature)*

PROJECT NAME/NO. North Colfax Petroleum contamination Site 0592-001-05

PO #

REMARKS

GEMS Y / N

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

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

								ANALYSES REQUESTED								
Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
trip Blanks			28 A-F			water	4+2									Hold +2

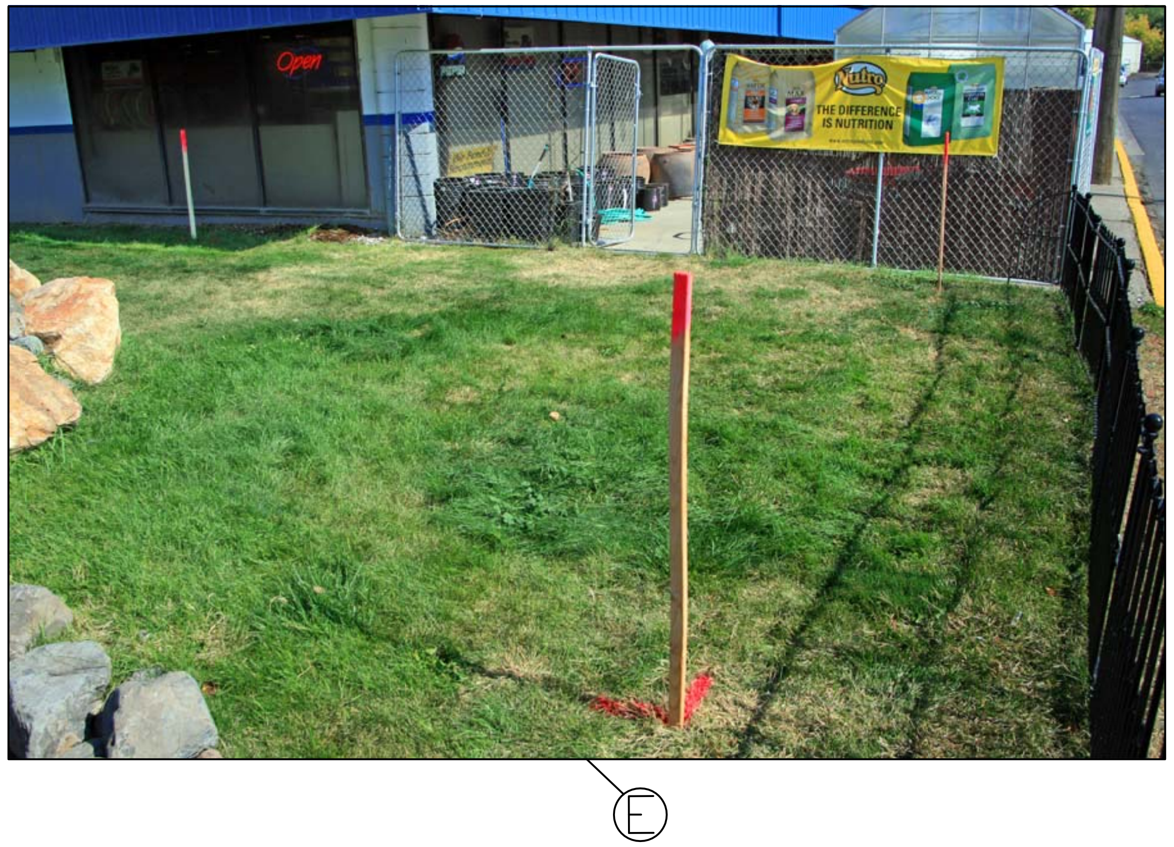
Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

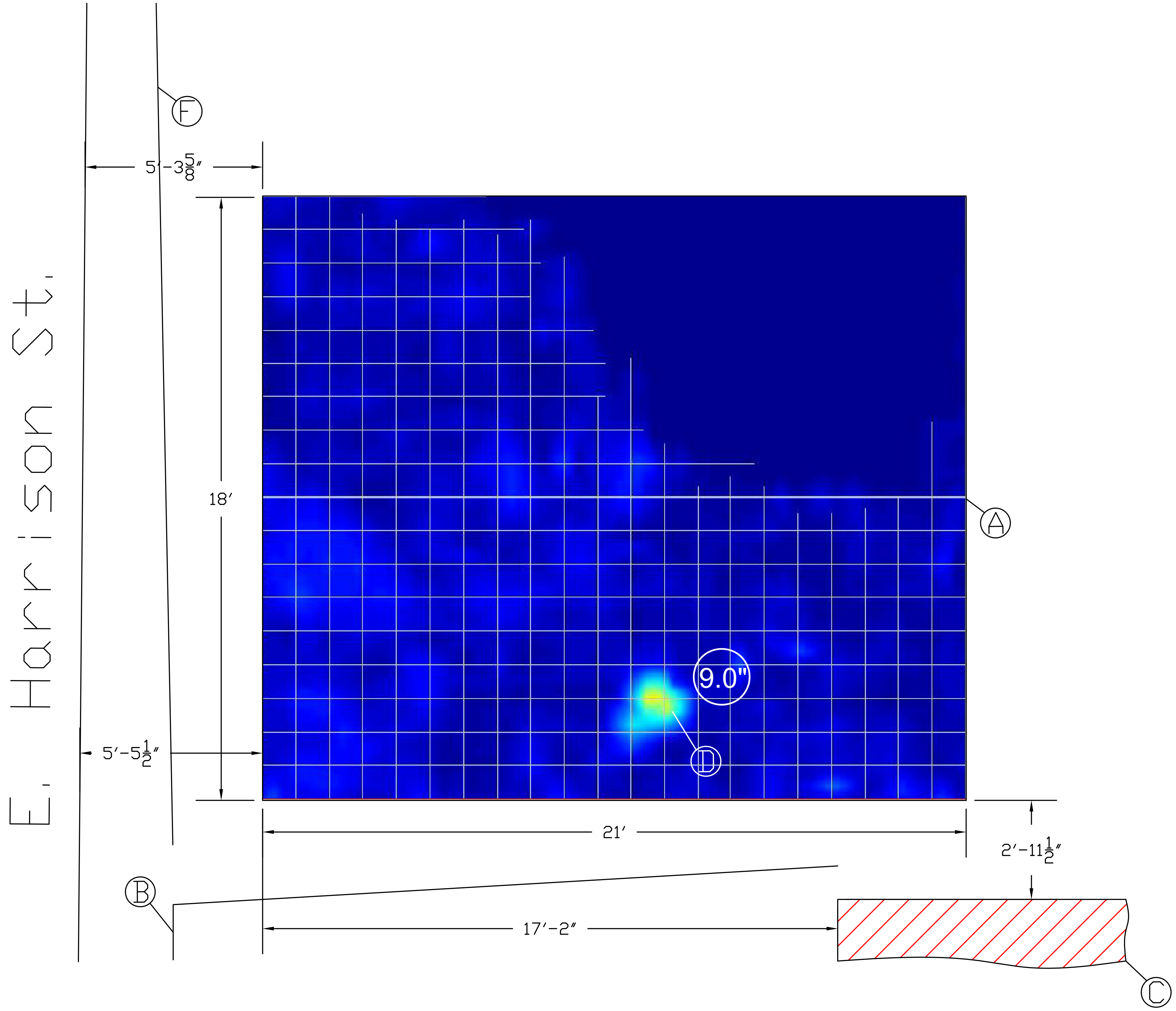
SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: C. C.	Charles Cacek	SES	5/19/09	
Received by:	HONG NGUYEN	FBI	5/20/09	9:30
Relinquished by:				
Received by:				

Samples received at 7 °C

APPENDIX F
Ground-Penetrating Radar Survey

Perspective: Overhead





Item	Description
A	Composite Image of Scan Area.
B	Chain Link enclosure Fence.
C	Building.
D	Unknown object at 9.0 Inches deep. Possibly metal.
E	Photo of Scan area with corners marked by painted stakes.
F	Black decorative fence.

Please Note: This document represents interpretation of data collected according to the provisions and limitations of **Services Agreement No: 2008-1038**. **Please review the Services Agreement regarding use of this document.**

Title: South End of Front Lawn

Subsurface 3D Imaging
P.O. Box 190, Usk, Wa. 99180
Phone: (877) 977-3347 **Fax:** (509) 445-0965
Web: www.SS3DI.com **Email:** info@SS3DI.com

Customer: Colfax Grange Supply Co. Inc.
105 E. Harrison St. Colfax, Wa. 99111

Location: 105 E. Harrison St. Colfax, Wa. 99111
(208) 765-2308

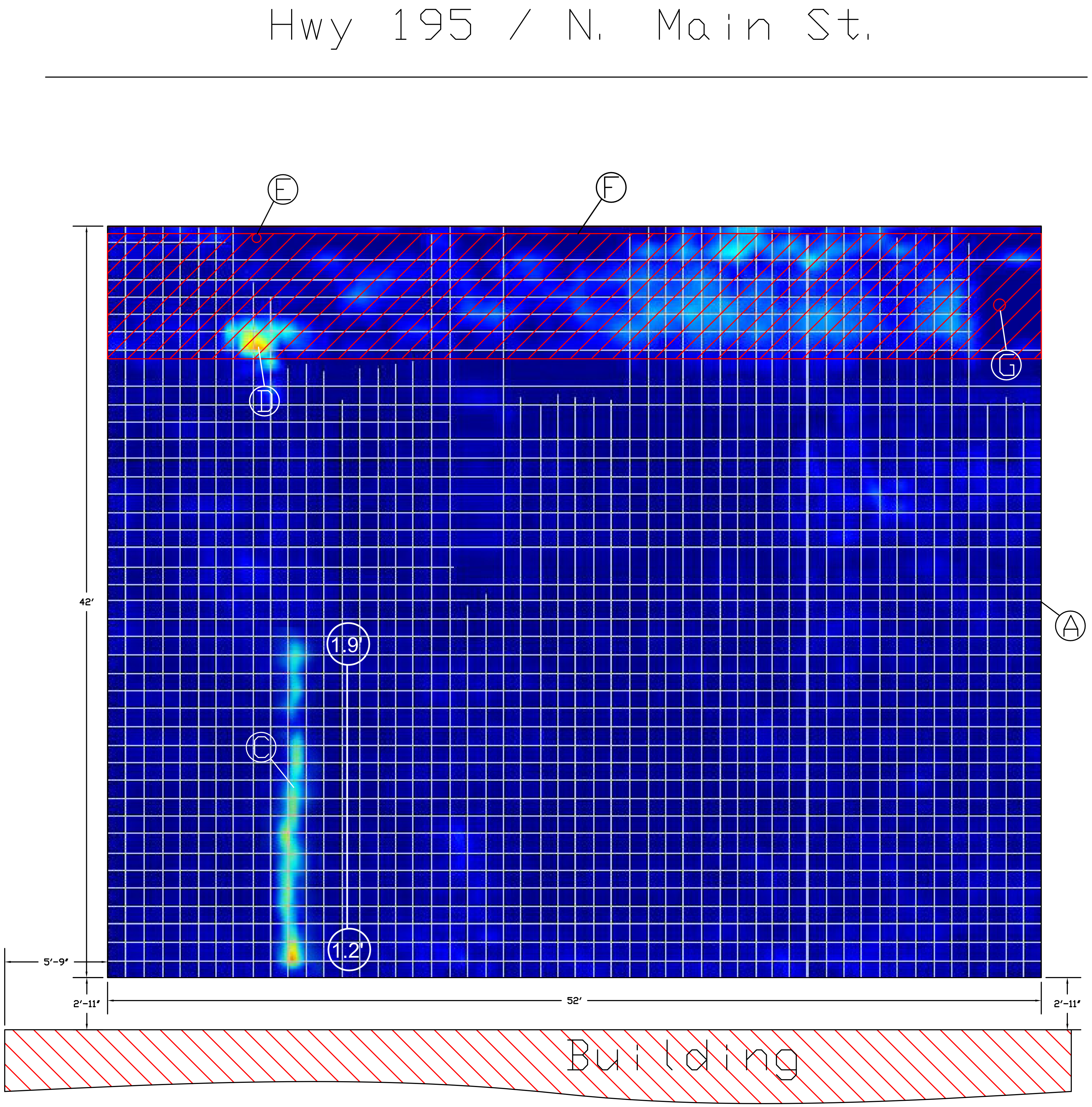
Data Collection Date: 10/01/2008
Documentation Date: 10/02/2008
Prepared By: S.F.H.

Notes: Grid Spacing is on 1' interval.
All elevations relative to surface.
Surface was thick grass with rough subsurface.

Scale: .026 = 1

Drawing Number: D-2008-1038-01

Perspective: Overhead



Item	Description
A	Composite Image of Scan Area.
B	Photo of Scan area with corners marked by painted stakes.
C	Unknown linear object at 1.2 ft. depth to 1.9 ft. depth.
D	Metal cover imbedded in sidewalk.
E	Light Post.
F	Hatched area is Sidewalk
G	Rail Road Crossing Sign.

Please Note: This document represents interpretation of data collected according to the provisions and limitations of **Services Agreement No: 2008-1038**. **Please review the Services Agreement regarding use of this document.**

Title: North Side of Front Lawn

Subsurface 3D Imaging
P.O. Box 190, Usk, Wa. 99180
Phone: (877) 977-3347 **Fax:** (509) 445-0965
Web: www.SS3DI.com **Email:** info@SS3DI.com

Customer: Colfax Grange Supply Co. Inc.
105 E. Harrison St. Colfax, Wa. 99111

Location: 105 E. Harrison St. Colfax, Wa. 99111
(208) 765-2308

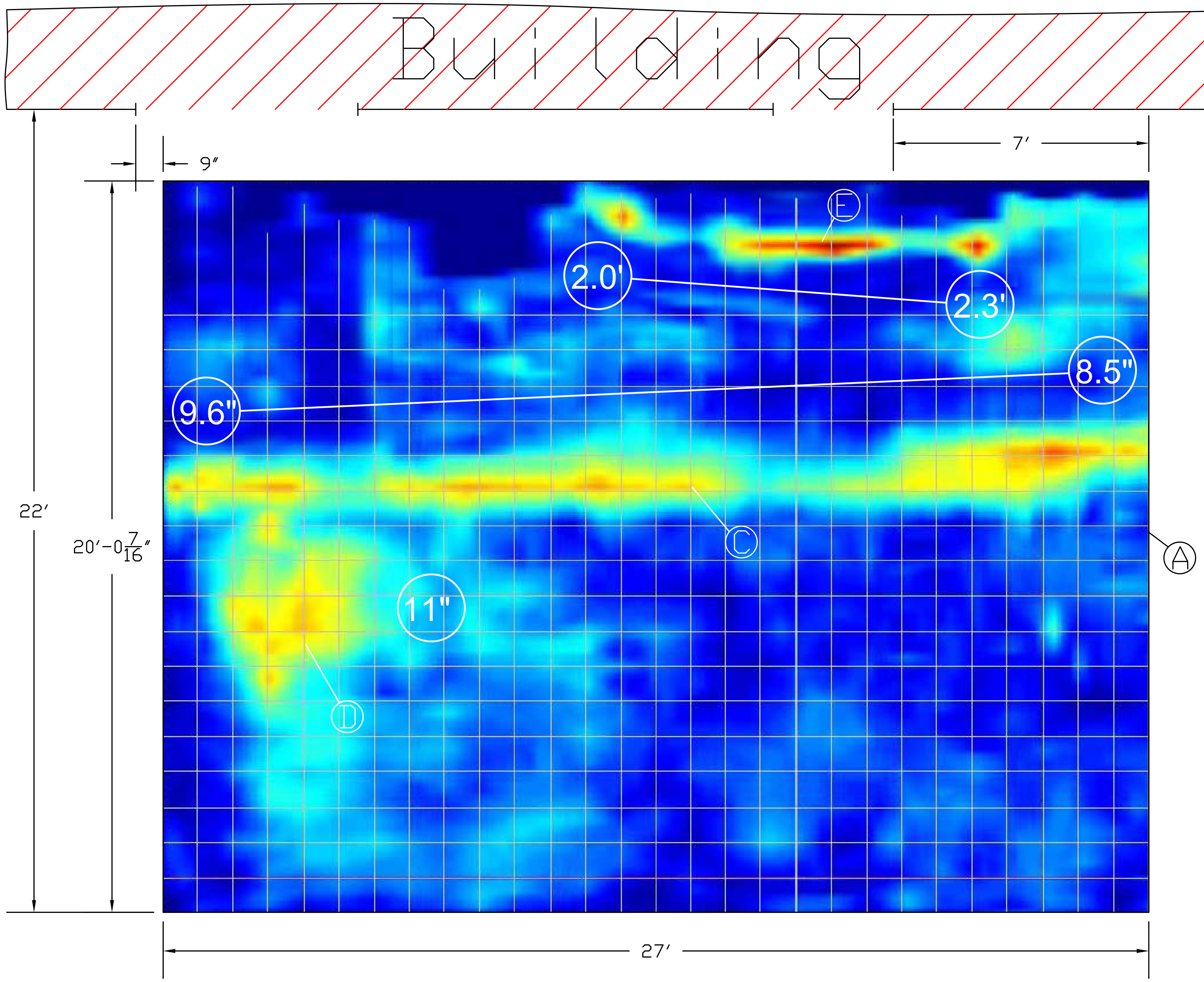
Data Collection Date: 10/01/2008
Documentation Date: 10/02/2008
Prepared By: S.F.H.

Notes: Grid Spacing is on 1' interval.
All elevations relative to surface.
Surface was thick grass with rough subsurface.

Scale: .014 = 1

Drawing Number: D-2008-1038-02

Perspective: Overhead



Item	Description
A	Composite Image of Scan Area.
B	Photo of Scan area with corners marked by paint on surface
C	Unknown linear object at 9.6 inch depth to 8.5 inch depth.
D	Unknown Possible object at 11" depth.
E	Unknown linear object at 2.0 ft. depth to 2.3 ft. depth.

Please Note: This document represents interpretation of data collected according to the provisions and limitations of **Services Agreement No: 2008-1038**.
Please review the Services Agreement regarding use of this document.

Title: North Side - West

Subsurface 3D Imaging
P.O. Box 190, Usk, Wa. 99180
Phone: (877) 977-3347 **Fax:** (509) 445-0965
Web: www.SS3DI.com **Email:** info@SS3DI.com

Customer: Colfax Grange Supply Co. Inc.
105 E. Harrison St. Colfax, Wa. 99111

Location: 105 E. Harrison St. Colfax, Wa. 99111
(208) 765-2308

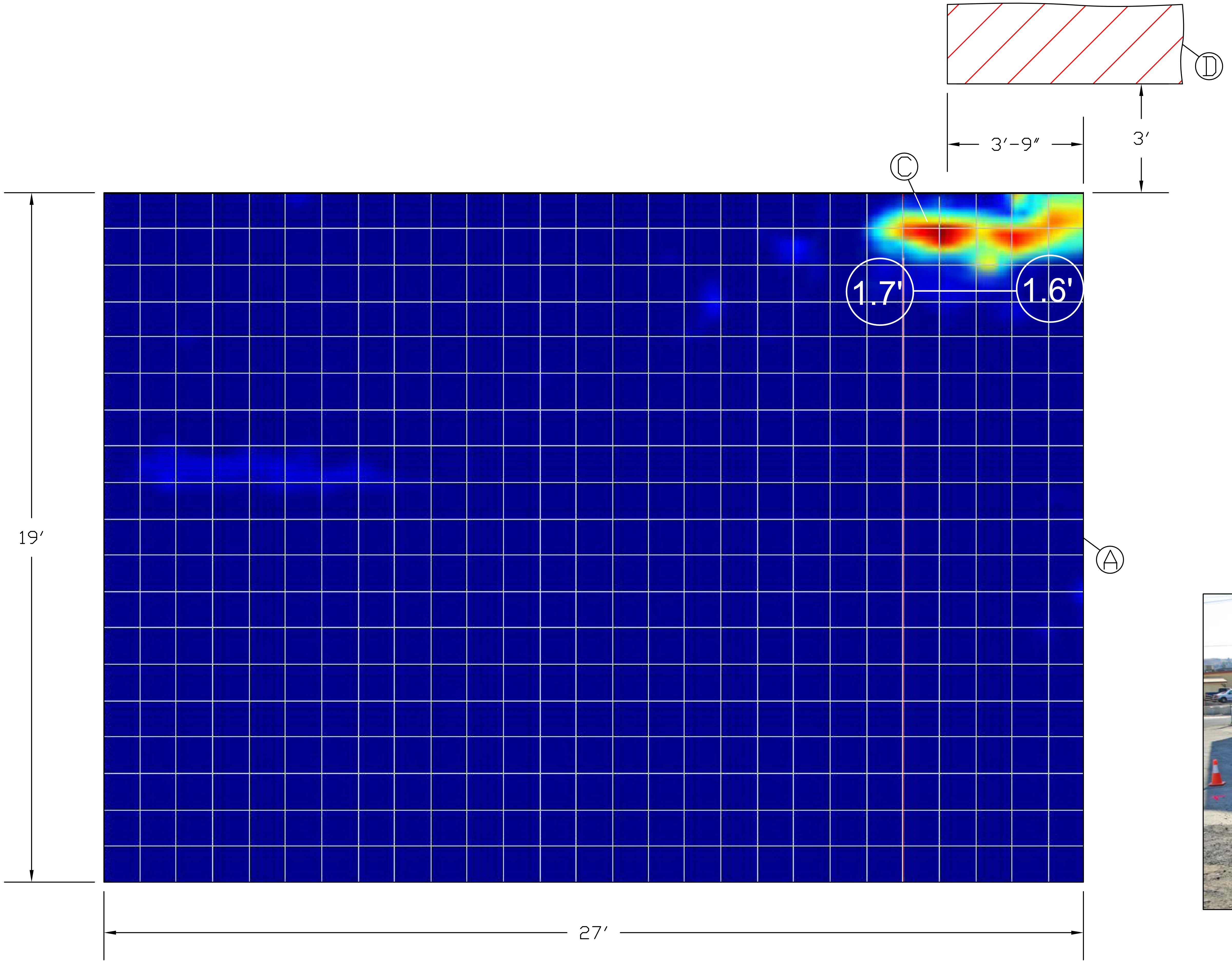
Data Collection Date: 10/01/2008
Documentation Date: 10/03/2008
Prepared By: S.F.H.

Notes: Grid Spacing is on 1' interval. All elevations relative to surface.
Surface was dry gravel and concrete.
Items C & D: Non circular profile, possibly rectangular in shape.

Scale: .026 = 1

Drawing Number: D-2008-1038-03

Perspective: Overhead



Item	Description
A	Composite Image of Scan Area.
B	Photos of Scan area with corners marked by paint on surface
C	Unknown linear object at 1.7 ft. depth to 1.6 ft. depth.
D	Building.

Please Note: This document represents interpretation of data collected according to the provisions and limitations of **Services Agreement No: 2008-1038**.
Please review the Services Agreement regarding use of this document.

Title: North Side - East Corner

Subsurface 3D Imaging
P.O. Box 190, Usk, Wa. 99180
Phone: (877) 977-3347 **Fax:** (509) 445-0965
Web: www.SS3DI.com **Email:** info@SS3DI.com

Customer: Colfax Grange Supply Co. Inc.
105 E. Harrison St. Colfax, Wa. 99111

Location: 105 E. Harrison St. Colfax, Wa. 99111
(208) 765-2308

Data Collection Date: 10/01/2008
Documentation Date: 10/03/2008
Prepared By: S.F.H.

Notes: Grid Spacing is on 1' interval.
All elevations relative to surface.
Surface was dry gravel and concrete.

Scale: .031 = 1

Drawing Number: D-2008-1038-04

APPENDIX G

Investigative-Derived Waste Disposal Records

Headquarters
4150 N. Suttle Road
Portland, Oregon 97217
Phone 503-286-8352
Toll Free 800-367-8894
EPA# ORD980975692

ORRCO
Oil Re-Refining Company

Eugene, OR: EPA# ORQ000024941
Hoquiam, WA: EPA# WAD988519419
Klamath Falls, OR: EPA# ORD980980775
Kennewick, WA: EPA# WAH000011577
Medford, OR: EPA# ORD987197092
North Bend, OR: EPA# ORD980978266
Salt Lake City, UT: EPA# UTD982589459
Spokane, WA: EPA# WAH000011585

BILL OF LANDING 197939

Date: 4-8-08
Customer ID Number: 17945
Dispatch #: 4577

Generator
Name: Colfax Grange
Contact Person: Artis
Phone: 509 397-4324
Address: 105 E. Harrison St
City: Colfax
State: WA
Zip: 99111
County: Whitman

Billing Address
LFR - Colfax Grange
105 E Harrison St
Colfax, WA 99111
Check#:
PO# 17746
Profile Date: 4-8-08

Transportation
Consigned To: ORRCO
Destination: 11916 E. Empire Spokane, WA 99206
Via Carrier: Oil Rerefining Co.
Driver: Bill Martin Truck # 3034
Miles Run:
Load Ticket # 7080408001

Gal./Brl.	Description	Sniffer P / F	CDT/ HCDT	pH	Flash Point	Rate per Gal./Brl.	Rate per Hour	Charge
108	purge water	P		7				200.00

Above material being transported for Recycling
EPA# none
Total:

Customer warrants that the waste petroleum products being transferred by the above collector do not contain any contaminants including, without limitation, pesticides, chlorinated solvents at concentrations greater than 1000 PPM, PCBs at concentrations greater than 2 PPM (or 50 PPM with Analytical), or any other material classified as hazardous waste by 40 CFR part 261, Subparts C and D (implementing the federal Resource Conservation and Recovery Act), or by any equivalent state hazardous substance classification program. Should Laboratory tests find this waste not in compliance with 40 CFR Part 261, customer (generator) agrees to pay for all disposal costs incurred.

SIGNED X

DATE: 4/8/08

*** IN CASE OF EMERGENCY CALL 1-800-424-9300 ***

NON-HAZARDOUS WASTE MANIFEST

RECEIVED AUG 05 2008

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. EXEMPT

Manifest Document No. 04274

2. Page 1 of 1

3. Generator's Name and Mailing Address
NORTH COLFAX PROPERTIES
2400 AIRPORT WAY S, STE. 200
SEATTLE, WA 98134

4. Generator's Phone (206-306-1900

5. Transporter 1 Company Name ENVIROTECH SYSTEMS

6. US EPA ID Number WAH000012450 118274

A. State Transporter's ID

B. Transporter 1 Phone (206) 363-9000

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
EMERALD RECYCLING
1500 AIRPORT WAY S.
SEATTLE, WA 98134

10. US EPA ID Number WAD058367152

E. State Facility's ID

F. Facility's Phone (206) 832-3090

11. WASTE DESCRIPTION	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non Regulated Waste Liquid	009	DM	495	G
b.				
c.				
d.				

GENERATOR

G. Additional Descriptions for Materials Listed Above

a) G00501 OILY WATER/WASTEWATER WITH <10% SLUDGE, <10% NON-REG

H. Handling Codes for Wastes Listed Above

a) NA

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name Cassandra Dijstelbergen

Signature C. Dijst

Date Month Day Year 07 22 08

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name Keith Mitchell

Signature

Date Month Day Year 07 22 08

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Date Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name Antonio Pedroza

Signature

Date Month Day Year 7 30 08

NON-HAZARDOUS WASTE

RECEIVED AUG 06 2008

*** IN CASE OF EMERGENCY CALL 1-800-424-9300 ***

NON-HAZARDOUS WASTE MANIFEST

18203487 - conc ticket

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. EXEMPT

Manifest Document No. 04276

2. Page 1 of 1

3. Generator's Name and Mailing Address
NORTH COLFAX PROPERTIES
2400 AIRPORT WAY S, STE. 200
SEATTLE, WA 98134

4. Generator's Phone (206-306-1900

118274

5. Transporter 1 Company Name: ENVIROTECH SYSTEMS

6. US EPA ID Number: WAH000012450

A. State Transporter's ID

B. Transporter 1 Phone: (206) 363-9000

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
RINKER MATERIALS
6300 GLENWOOD AVE
EVERETT, WA 98203

10. US EPA ID Number

E. State Facility's ID

F. Facility's Phone: (425) 356-6619

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. MATERIAL NOT REGULATED BY DOT	008	DM	6400	P
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above

a) IDWSOILTOC IDW SOIL

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

GENERATOR

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: Cassandra Dijstelbergen

Signature: C Dijst

Date: Month 07 Day 22 Year 08

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Keith Mitchell

Signature

Date: Month 07 Day 22 Year 08

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Date: Month Day Year

TRANSPORTER

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name: Maria Leake

Signature: Maria Leake

Date: Month Day Year

FACILITY

NON-HAZARDOUS WASTE

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*** IN CASE OF EMERGENCY CALL 1-800-424-9300 ***

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE

GENERATOR

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. EXEMPT

Manifest Document No. 17715

2. Page 1 of 1

3. Generator's Name and Mailing Address
COLFAX SITE
2400 AIRPORT WAY S, STE. 200
SEATTLE, WA 98134

4. Generator's Phone ( ) 206-306-1900

5. Transporter 1 Company Name EMERALD SERVICES, INC.

6. US EPA ID Number 119727 WAD058364647

A. State Transporter's ID

B. Transporter 1 Phone (206) 832-3000

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
EMERALD RECYCLING
1500 AIRPORT WAY S.
SEATTLE, WA 98134

10. US EPA ID Number WAD058367152

E. State Facility's ID

F. Facility's Phone (206) 832-3090

11. WASTE DESCRIPTION	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non Regulated Waste Liquid	2	DM	110	G
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above

a) G00501 OILY WATER/WASTEWATER WITH <10% SLUDGE, <10% NON-REG

H. Handling Codes for Wastes Listed Above

a) NA

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name Cassandra Dijstelbergen

Signature C Dijs

Date Month 11 Day 07 Year 08

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name Ron LaChance

Signature

Date Month 11 Day 7 Year 08

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Date Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name Antonio Pedroza

Signature

Date Month 11 Day 14 Year 08

CF14

CEMEX **Soil Remediation**
EVERETT, WA 98213

1876044371

Location: 1876
Customer: 3089172 SOUND ENVIRONMENTAL STRA
EVERETT WA 98213
Order:
COLFAX GRANGE PROPERTY
TO EVERETT SOILS
Job# :
P.O. : COLFAX GRANGE PROPERTY
Product: 1192508
CLASS 3 SOIL DUMPED BY TON
NRC 2145

Qty: 14.06 **04/01/2009**

	LB	MTon	TON
G	55,260	25.07	27.63
T	27,140	12.31	13.57
N	28,120	12.76	14.06

~ Manual Weight, * P.T.

Today Loads:	1.00
Today Qty:	14.06

FUEL SURCHARGE APPLIES

Carrier:
Vehicle: 2092891 1876-6,EVERETT SOIL GENERIC
IN
OUT 1:57 pm
Received: ______________________

Credit terms: all approved credit sales accounts are due and payable on or before the 15th of the month following the date of purchase. Buyer assumes responsibility after truck reaches delivery site or, if independent trucker, after tr. leaves pick-up point. This Delivery Ticket incorporates herein by reference Buyer's previously executed Credit Application, if any, Seller's Standard Terms and Conditions, Seller's Quotation, if any, and Seller's Order Confirmation (including limitations of warranties), as if fully set forth on this Delivery Ticket ("Agreement"). Seller will provide the Standard Terms and Conditions upon request. Buyer agrees that, unless otherwise noted on the front hereof, all quantities and items were delivered as indicated and further expressly agrees to pay in accordance with this Agreement.

Original SEE REVERSE SIDE FOR PRODUCT LABEL INFORMATION

CEMEX **Soil Remediation**
EVERETT, WA 98213

1876044370

Location: 1876
Customer: 3089172 SOUND ENVIRONMENTAL STRA
EVERETT WA 98213
Order:
COLFAX GRANGE PROPERTY
TO EVERETT SOILS
Job# :
P.O. : COLFAX GRANGE PROPERTY
Product: 1192517
CLASS 3 SOIL DUMPED BY DRUM
NRC 2145

Qty: 4.00 **04/01/2009**

	LB	MTon	TON
G	55,260	25.07	27.63
T	27,140	12.31	13.57
N	28,120	12.76	14.06

* Manual Weight

Today Loads:	1.00
Today Qty:	4.00

FUEL SURCHARGE APPLIES

Carrier:
Vehicle: 2092891 1876-6,EVERETT SOIL GENERIC
IN
OUT 1:56 pm
Received: ______________________

Credit terms: all approved credit sales accounts are due and payable on or before the 15th of the month following the date of purchase. Buyer assumes responsibility after truck reaches delivery site or, if independent trucker, after tr. leaves pick-up point. This Delivery Ticket incorporates herein by reference Buyer's previously executed Credit Application, if any, Seller's Standard Terms and Conditions, Seller's Quotation, if any, and Seller's Order Confirmation (including limitations of warranties), as if fully set forth on this Delivery Ticket ("Agreement"). Seller will provide the Standard Terms and Conditions upon request. Buyer agrees that, unless otherwise noted on the front hereof, all quantities and items were delivered as indicated and further expressly agrees to pay in accordance with this Agreement.

1377610

Thermo Fluids Inc.
The Responsible Solution
(800) 350-7565

INVOICE/Bill of Lading - C
PO # 341245

Next Pickup ________ Days

Truck Gross Wt ________
Tare Wt ________
Truck Net Wt ________
Truck # ________

FED ID 59-3210374 US DOT # 641752
CUST LOC # 116664

Cust/Gen Name Colfax Grange	Transporter Name 140	Receiving Facility 140
Address 105 E Harrison St	Address	Address
City, St Zip Colfax WA 99111	City, St Zip	City, St Zip
Phone 536-5960	Phone	Phone
EPA # (if required)	EPA # (if required)	EPA # (if required)

Billing Address (if Different) 664244 NRC Environmental

Materials	Inventory/ Tank Size	QTY		U of M	Rate	Total
		P/U	DEL			
Used Oil Halogen results						
Field Screen Halogen Test (Type)						
Gas/Diesel/Unused Fuel (Circle)						
Non RCRA Waste Antifreeze (>RQ use shipping name #2 on reverse)						
AF Premix/Conc/Extended Life (Circle) (>RQ use shipping name #2 on reverse)						
Filters						
Specialty Filters (Approval for sulfides)						
Sludge/Absorbent/Dirt (Circle) Approval #						
Oil/Water Mixture Approval #		935		Gal	[redacted]	[redacted]
Oil Water Separator/Sump (Circle) Approval #					[redacted]	[redacted]
Catch Basin Approval #						[redacted]
Service Fee						[redacted]
Other Truck Time			1			[redacted]
Other					Total	[redacted]
Other					TAX	[redacted]

SHIPPING NAME FOR OTHER: ________ TOTAL [redacted]

GENERATOR SIGNED BELOW, Subject to terms and conditions as specified on reverse side of form.

Generator Signature	Transporter Signature	Receiver Signature
Name Fred [illegible]	Name	Name Stephe [illegible]
Date 6/15/09	Date	Date 69-15-09

REMIT TO: **THERMO FLUIDS INC.**
39354 TREASURY CENTER
CHICAGO, IL 60694-9300

METHOD OF PAYMENT:
CASH/CREDIT/
CHECK # ________

EGR System Cleaner

CEMEX **Soil Remediation**
EVERETT, WA 98213

1876045833

Location: 1876
Customer: 3089172 SOUND ENVIRONMENTAL STRA
Order: SEATTLE WA 988213
105 HARRISON ST COLFAX
TO EVERETT SOILS
Job# : NRC
P.O. : 00001
Product: 1192517
CLASS 3 SOIL DUMPED BY DRUM
NRC 1126

Qty: 8.00 **07/15/2009**

	LB	**MTon**	**TON**
G	16,400	7.44	8.20
T	16,400	7.44	8.20
N	0	0.00	0.00

Today Loads: 1.00
Today Qty: 8.00

FUEL SURCHARGE APPLIES

Carrier:
Vehicle: 2034263 1876-1,EVERETT SOIL GENERIC

Received: ____________________

IN 12:05 pm
OUT 12:05 pm

Credit terms: all approved credit sales accounts are due and payable on or before the 15th of the month following the date of purchase. Buyer assumes responsibility after truck reaches delivery site or, if independent trucker, after tru
leaves pick-up point. This Delivery Ticket incorporates herein by reference Buyer's previously executed Credit Application, if any, Seller's Standard Terms and Conditions; Seller's Quotation, if any, and Seller's Order Confirmation
(including limitations of warranties), as if fully set forth on this Delivery Ticket ("Agreement"). Seller will provide the Standard Terms and Conditions upon request. Buyer agrees that, unless otherwise noted on the front hereof, all
quantities and items were delivered as indicated and further expressly agrees to pay in accordance with this Agreement

Original SEE REVERSE SIDE FOR PRODUCT LABEL INFORMATION

APPENDIX H

Terrestrial Ecological Evaluation Form

Washington State Department of Ecology
Toxics Cleanup Program

Table 749-1

Simplified Terrestrial Ecological Evaluation-Exposure Analysis Procedure

<table>
<tr><td colspan="2">Estimate the area of contiguous (connected) undeveloped land on the site or within 500 feet of any area of the site to the nearest 1/2 acre (1/4 acre if the area is less than 0.5 acre).</td></tr>
<tr><td>1) From the table below, find the number of points corresponding to the area and enter this number in the field to the right.</td><td></td></tr>
<tr><td><table><tr><th>Area (acres)</th><th>Points</th></tr><tr><td>0.25 or less</td><td>4</td></tr><tr><td>0.5</td><td>5</td></tr><tr><td>1.0</td><td>6</td></tr><tr><td>1.5</td><td>7</td></tr><tr><td>2.0</td><td>8</td></tr><tr><td>2.5</td><td>9</td></tr><tr><td>3.0</td><td>10</td></tr><tr><td>3.5</td><td>11</td></tr><tr><td>4.0 or more</td><td>12</td></tr></table></td><td>6</td></tr>
<tr><td>2) Is this an industrial or commercial property? If yes, enter a score of 3. If no, enter a score of 1</td><td>3</td></tr>
<tr><td>3)[a] Enter a score in the box to the right for the habitat quality of the site, using the following rating system[b]. High=1, Intermediate=2, Low=3</td><td>3</td></tr>
<tr><td>4) Is the undeveloped land likely to attract wildlife? If yes, enter a score of 1 in the box to the right. If no, enter a score of 2.[c]</td><td>2</td></tr>
<tr><td>5) Are there any of the following soil contaminants present: Chlorinated dioxins/furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, pentachlorobenzene? If yes, enter a score of 1 in the box to the right. If no, enter a score of 4.</td><td>4</td></tr>
<tr><td>6) Add the numbers in the boxes on lines 2-5 and enter this number in the box to the right. If this number is larger than the number in the box on line 1, the simplified evaluation may be ended.</td><td>12</td></tr>
</table>

Notes for Table 749-1

[a] It is expected that this habitat evaluation will be undertaken by an experienced field biologist. If this is not the case, enter a conservative score of (1) for questions 3 and 4.

[b] **Habitat rating system.** Rate the quality of the habitat as high, intermediate or low based on your professional judgment as a field biologist. The following are suggested factors to consider in making this evaluation:

> **Low:** Early successional vegetative stands; vegetation predominantly noxious, nonnative, exotic plant species or weeds. Areas severely disturbed by human activity, including intensively cultivated croplands. Areas isolated from other habitat used by wildlife.

High: Area is ecologically significant for one or more of the following reasons: Late-successional native plant communities present; relatively high species diversity; used by an uncommon or rare species; priority habitat (as defined by the Washington Department of fish and Wildlife); part of a larger area of habitat where size or fragmentation may be important for the retention of some species.

Intermediate: Area does not rate as either high or low.

[c] Indicate "yes" if the area attracts wildlife or is likely to do so. Examples: Birds frequently visit the area to feed; evidence of high use b mammals (tracks, scat, etc.); habitat "island" in an industrial area; unusual features of an area that make it important for feeding animals; heavy use during seasonal migrations.

[Area Calculation Aid] [Aerial Photo with Area Designations] [TEE Table 749-1] [Index of Tables]

[Exclusions Main] [TEE Definitions] [Simplified or Site-Specific?] [Simplified Ecological Evaluation] [Site-Specific Ecological Evaluation] [WAC 173-340-7493]

[TEE Home]

Terrestrial Ecological Evaluation Process-Simplified or Site-Specific Evaluation?

Documentation Form

	Terrestrial Concern	Response (Circle One)
*1	Is the site is located on or directly adjacent to an area where management or land use plans will maintain or restore native or semi-native vegetation?	Yes / [✓ No]
*2a	Is the site used by a threatened or endangered species?	Yes / [✓ No]
*2b	Is the site used by a wildlife species classified by the state department of fish and wildlife as a "priority species" or "species of concern" under Title 77 RCW?	Yes / [✓ No]
*2c	Is the site used by a plant species classified by the Washington state department of Natural Resources natural heritage program as "endangered," "threatened," or "sensitive" under Title 79 RCW.	Yes / [✓ No]
*3	Is the site (area where the contamination is located) located on a property that contains at least ten acres of native vegetation within 500 feet of the area where the contamination is located?	Yes / [✓ No]
4	Has the department determined that the site may present a risk to significant wildlife populations?	Yes / [✓ No]

*1 This includes for example, green-belts, protected wetlands, forestlands, locally designated environmentally sensitive areas, open space areas managed for wildlife, and some parks or outdoor recreation areas. This does not include park areas used for intensive sport activities such as baseball or football.

*2a What are the threatened or endangered species in Washington state?

*2b Which plant species are classified as threatened, endangered, or sensitive? Where can I find out more information about this topic?

*2c For plants, "used" means that a plant species grows at the site or has been found growing at the site. For animals, "used" means that individuals of a species have been observed to live, feed or breed at the site.

*3 For this analysis, do not include native vegetation beyond the property boundary.

The following sources shall be used in making this determination: Natural Vegetation of Oregon and Washington, J.F. Franklin and C.T. Dyrness, Oregon State University Press, 1988, and L.C. Hitchcock, C.L. Hitchcock, J.W. Thompson and A. Cronquist, 1955-1969, Vascular Plants of the Pacific Northwest(5 volumes). Areas planted with native species for ornamental or landscaping purposes shall not be considered to be native vegetation. [WAC 173-340-7491(2)(c)(i)]

(Here's a link to the Seattle Public Library and the Washington State Library to borrow a copy of Natural Vegetation of Oregon and Washington, J.F. Franklin and C.T. Dyrness, Oregon State University Press, 1988, or you may purchase it through your favorite bookseller. Here's an additional link to a useful online Field Guide to Selected Rare Plants of Washington developed by the Washington State Department of Natural Resources' Natural Heritage Program (WNHP) and the Spokane District of the U.S.D.I. Bureau of Land Management (BLM) which contains fact sheets for 139 vascular plant species and one lichen species.

Here is an aid to calculating area and an aerial photo depicting a site, its 500 foot boundary and several labeled circles identifying various areas for reference in judging the area of native vegetation within the 500 foot radius.

[Exclusions Main] [TEE Definitions] [Simplified or Site-Specific?] [Simplified Ecological Evaluation] [Site-Specific Ecological Evaluation] [WAC 173-340-7493] [Index of Tables]

[TEE Home]

APPENDIX I

Soil EPH-VPH Calculations

Table I-1A
Raw Data Summary for
Benzene, Toluene, Ethylbenzene, Total Xylenes
North Colfax Petroleum Contamination Site
Time Oil Property Samples

Well ID	Benzene	Toluene	Ethylbenzene	Total Xylenes
SP01	0.03	0.02	0.02	0.06
	0.03	0.02	0.02	0.06
	0.03	0.02	0.02	0.06
SP02	1.6	11	10	64
	3.3	62	78	480
	0.02	0.02	0.02	0.06
	12	36	51	288
SP03	0.03	0.02	0.02	0.06
	0.03	0.02	0.02	0.06
	0.03	0.02	0.02	0.06
SP04	0.02	0.03	0.12	0.35
	0.02	1.2	24	24
	0.02	0.02	0.02	0.06
SP05	0.03	0.05	0.48	0.15
	0.02	0.12	3.5	2
	0.02	0.02	0.02	0.06
SP06	0.03	0.02	0.02	0.06
	0.03	0.02	0.02	0.06
	0.03	0.02	0.02	0.06
SP07	0.03	0.02	0.02	0.06
	0.03	0.02	0.02	0.06
	0.03	0.02	0.02	0.06
SP17	0.03	0.02	0.02	0.06
	0.03	0.02	0.02	0.06
B22	0.03	0.02	0.02	0.06
	0.03	0.02	0.02	0.06
	0.03	0.02	0.02	0.06
B26	0.03	0.02	0.02	0.06
	0.03	0.02	0.02	0.06
	0.03	0.02	0.02	0.06
A_mean	0.59	3.70	5.59	28.66

NOTES:

All units are in milligrams per kilogram.

A_mean = arithmetic mean

www.soundenvironmental.com

Table I-2A
Raw Data Summary for
Volatile and Extractable Hydrocarbons - Aliphatics
North Colfax Petroleum Contamination Site
Time Oil Property Samples

Well ID	AL_EC >5-6	AL_EC >6-8	AL_EC >8-10	AL_EC >10-12	AL_EC >12-16	AL_EC >16-21	AL_EC >21-34
SP01	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
SP02	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
SP03	ND	ND	ND	ND	ND	ND	ND
	120	260	120	780	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
SP04	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
SP05	ND	71	550	560	62	ND	4.7
	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
SP06	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
SP07	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
SP17	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
B22	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
B26	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
A_mean	120	165.5	335	670	62	ND	4.7

NOTES:

All units are in milligrams per kilogram.

A_mean = arithmetic mean

ND = no data or not detected

Table I-3A
Raw Data Summary for
Volatile and Extractable Hydrocarbons - Aromatics
North Colfax Petroleum Contamination Site
Time Oil Property Samples

Well ID	AR_EC >8-10	AR_EC >10-12	AR_EC >12-16	AR_EC >16-21	AR_EC >21-34
SP01	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
SP02	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
SP03	ND	ND	ND	ND	ND
	930	250	120	ND	ND
	ND	ND	ND	ND	ND
SP04	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
SP05	660	660	72	ND	ND
	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
SP06	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
SP07	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
SP17	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
B22	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
B26	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
A_mean	795	455	96	ND	ND

NOTES:

All units are in milligrams per kilogram.

A_mean = arithmetic mean

ND = no data or not detected

Table I-1B
Raw Data Summary for
Benzene, Toluene, Ethylbenzene, and Total Xylenes
North Colfax Petroleum Contamination Site
Cenex Property Soil Samples

Sample ID	Benzene	Toluene	Ethylbenzene	Total Xylenes
SP08	0.02	0.02	0.02	0.06
	0.02	0.02	0.02	0.06
	0.02	0.02	0.02	0.06
SP09	0.02	0.02	0.02	0.06
	0.02	0.02	0.02	0.06
	0.02	0.02	0.02	0.06
SP10	0.02	0.02	0.02	0.06
	0.02	0.02	0.02	0.06
	0.02	0.02	0.02	0.06
SP11	0.37	0.02	0.05	0.59
	0.29	0.05	0.05	0.15
	0.02	0.02	0.02	0.06
	0.02	0.02	0.02	0.06
SP12	0.02	0.02	0.02	0.06
	0.034	0.05	0.75	2.97
	0.02	0.26	0.6	2.9
	0.02	0.02	0.02	0.06
SP13	0.02	0.02	0.02	0.06
	0.02	0.02	0.02	0.06
	0.02	0.02	0.02	0.06
SP14	0.11	0.02	0.02	0.06
	0.074	0.05	0.05	0.15
	0.02	0.02	0.02	0.06
SP15	0.21	0.05	0.05	0.29
	0.03	0.02	0.02	0.06
	0.02	0.02	0.02	0.06
SP16	0.02	0.02	0.02	0.06
	0.02	0.02	0.02	0.06
B17	0.02	0.02	0.02	0.06
	0.02	0.02	0.02	0.06
	0.02	0.02	0.02	0.06
B18	0.02	0.02	0.02	0.06
	0.02	0.02	0.02	0.06
	0.02	0.02	0.02	0.06
B19	0.02	0.02	0.02	0.06
	0.02	0.02	0.02	0.06
	0.03	0.05	0.05	0.15
B23	0.02	0.02	0.02	0.06
	0.02	0.02	0.02	0.06
A_mean or value used for Method B Calc	0.05	0.03	0.06	0.23

NOTES:

All units are in milligrams per kilogram.

A_mean = arithmetic mean

Table I-2B
Raw Data Summary for
Volatile and Extractable Petroleum Hydrocarbons - Aliphatics
North Colfax Petroleum Contamination Site
Cenex Property Soil Samples

Sample ID	AL_EC >5-6	AL_EC >6-8	AL_EC >8-10	AL_EC >10-12	AL_EC >12-16	AL_EC >16-21	AL_EC >21-34
SP08	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
SP09	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
SP10	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
SP11	< 9.3	< 9.3	< 9.3	< 9.3	<2.6	<2.6	<2.6
	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
SP12	< 9.3	< 9.3	6.3	< 9.3	<2.7	<2.7	<2.7
	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
SP13	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
SP14	<10	<10	<10	<10	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
SP15	<10	<10	<10	<10	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
SP16	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
B17	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
B18	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
B19	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
B23	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND
A_mean or value used for Method B Calc			6.3	ND	ND	ND	ND

NOTES:

All units are in milligrams per kilogram.

<10 denotes value not detected at detection limit.

A_mean = arithmetic mean

ND = no data or not detected

Table I-3B
Raw Data Summary for
Volatile and Extractable Petroleum Hydrocarbons - Aromatics
North Colfax Petroleum Contamination Site
Cenex Property Soil Samples

Sample ID	AR_EC >8-10	AR_EC >10-12	AR_EC >12-16	AR_EC >16-21	AR_EC >21-34
SP08	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
SP09	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
SP10	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
SP11	<9.3	<9.3	<9.3	<2.6	<2.6
	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
SP12	6.1	6.3	<9.3	<2.7	<2.7
	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
SP13	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
SP14	<10	<10	<10	ND	ND
	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
SP15	<10	<10	<10	ND	ND
	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
SP16	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
B17	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
B18	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
B19	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
B23	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
A_mean or value used for Method B Calc	6.1	6.3	ND	ND	ND

NOTES:

All units are in milligrams per kilogram.

<10 denotes value not detected at detection limit.

A_mean = arithmetic mean

ND = no data or not detected

Table I-1C
Raw Data Summary for
Benzene, Toluene, Ethylbenzene, Total Xylenes
North Colfax Petroleum Contamination Site
Colfax Grange Property Soil Samples

Well ID	Benzene	Toluene	Ethylbenzene	Total Xylenes
B16	0.02	0.02	0.02	0.06
	0.03	0.05	0.26	0.15
	0.02	0.02	0.02	0.06
B24	0.02	0.02	0.02	0.06
	0.02	0.02	0.02	0.06
	0.02	0.02	0.02	0.06
B25	0.02	0.02	0.02	0.06
	0.02	0.02	0.02	0.06
	0.02	0.02	0.02	0.06
B28	0.02	0.02	0.02	0.06
	0.02	0.02	0.02	0.06
	0.02	0.03	0.02	0.07
B29	0.02	0.02	0.02	0.06
	0.02	0.91	3.9	2.7
	0.02	0.02	0.02	0.06
B33	0.02	0.02	0.02	0.06
	0.02	0.02	0.02	0.06
	0.02	0.02	0.02	0.06
TP01	0.02	0.02	0.02	0.06
	0.03	0.05	0.05	0.15
TP02	0.02	0.02	0.02	0.06
	0.02	0.02	0.02	0.06
	0.03	0.05	0.05	0.15
TP03	0.02	0.02	0.02	0.06
	0.03	0.05	0.05	0.15
A_mean or value used for Method B Calc	0.02	0.06	0.19	0.18

NOTES:

All units are in milligrams per kilogram.

A_mean = arithmetic mean

Table I-2C
Raw Data Summary for
Volatile and Extractable Petroleum Hydrocarbons - Aliphatics
North Colfax Petroleum Contamination Site
Colfax Grange Property Soil Samples

Well ID	AL_EC >5-6	AL_EC >6-8	AL_EC >8-10	AL_EC >10-12	AL_EC >12-16	D_AL_EC>12-16	AL_EC >16-21	D_AL_EC>16-21	AL_EC >21-34
B16	ND	ND	13	18	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND	ND	ND
B24	ND	ND	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND	ND	ND
B25	ND	ND	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND	ND	ND
B28	ND	ND	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND	ND	ND
B29	ND	ND	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND	ND	ND
B33	ND	ND	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND	ND	ND
TP01	0.6	1.175	8.3	4.9	8.15	1	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND	ND	ND
TP02	ND	ND	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND	ND	ND
TP03	ND	ND	ND	ND	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND	ND	ND	ND	ND
A_mean or value used for Method B Calc	0.60	1.18	10.65	11.45	8.15	1.00	ND	ND	ND

NOTES:

All units are in milligrams per kilogram.

A_mean = arithmetic mean

ND = no data or not detected

Table I-3C
Raw Data Summary for
Volatile and Extractable Petroleum Hydrocarbons - Aromatics
North Colfax Petroleum Contamination Site
Colfax Grange Property Soil Samples

Well ID	AR_EC >8-10	AR_EC >10-12	AR_EC >12-16	AR_EC >16-21
B16	17	17	ND	ND
	ND	ND	ND	ND
	ND	ND	ND	ND
B24	ND	ND	ND	ND
	ND	ND	ND	ND
	ND	ND	ND	ND
B25	ND	ND	ND	ND
	ND	ND	ND	ND
	ND	ND	ND	ND
B28	ND	ND	ND	ND
	ND	ND	ND	ND
	ND	ND	ND	ND
B29	ND	ND	ND	ND
	ND	ND	ND	ND
	ND	ND	ND	ND
B33	ND	ND	ND	ND
	ND	ND	ND	ND
	ND	ND	ND	ND
TP01	6.4	14	2.05	ND
	ND	ND	ND	ND
TP02	ND	ND	ND	ND
	ND	ND	ND	ND
	ND	ND	ND	ND
TP03	ND	ND	ND	ND
	ND	ND	ND	ND
A_mean or value used for Method B Calc	11.70	15.50	2.05	ND

NOTES:

All units are in milligrams per kilogram.

A_mean = arithmetic mean

ND = no data or not detected

APPENDIX J

Vapor Intrusion Risk Calculations

SL-ADV
Version 3.1; 02/04

Reset to Defaults

CALCULATE RISK-BASED SOIL CONCENTRATION (enter "X" in "YES" box)

YES ☒ X

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL SOIL CONCENTRATION (enter "X" in "YES" box and initial soil conc. below)

YES ☐

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Initial soil conc., C_R (μg/kg)	Chemical
71432		Benzene

MORE ↓

ENTER Average soil temperature, T_S (°C)	ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Depth below grade to top of contamination, L_t (cm)	ENTER Depth below grade to bottom of contamination, (enter value of 0 if value is unknown) L_b (cm)	ENTER Totals must add up to value of L_t (cell G28) Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
11.67	20	150	240	150			SI		

MORE ↓

ENTER Stratum A SCS soil type Lookup Soil Parameters	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum A soil organic carbon fraction, f_{oc}^A (unitless)	ENTER Stratum B SCS soil type Lookup Soil Parameters	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum B soil organic carbon fraction, f_{oc}^B (unitless)	ENTER Stratum C SCS soil type Lookup Soil Parameters	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)	ENTER Stratum C soil organic carbon fraction, f_{oc}^C (unitless)
SI	1.35	0.489	0.167	0.002		1.5	0.43		0.002		1.5	0.43		0.002

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP (g/cm-s^2)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	1000	1000	366	0.1	0.25	5

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)	ENTER Target risk for carcinogens, TR (unitless)	ENTER Target hazard quotient for noncarcinogens, THQ (unitless)
70	30	30	86.9047619	1.0E-06	1

Used to calculate risk-based soil concentration.

END

RESULTS SHEET

RISK-BASED SOIL CONCENTRATION CALCULATIONS:

INCREMENTAL RISK CALCULATIONS:

Indoor exposure soil conc., carcinogen (μg/kg)	Indoor exposure soil conc., noncarcinogen (μg/kg)	Risk-based indoor exposure soil conc., (μg/kg)	Soil saturation conc., C_{sat} (μg/kg)	Final indoor exposure soil conc., (μg/kg)
2.30E+02	2.31E+04	2.30E+02	4.86E+05	2.30E+02

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
NA	NA

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

MESSAGE: The values of Csource and Cbuilding on the INTERCALCS worksheet are based on unity and do not represent actual values.

SCROLL DOWN TO "END"

END