INDEPENDENT CLEANUP ACTION FINAL REPORT

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RGI PROJECT NO. 2008-321B

INDEPENDENT CLEANUP ACTION
FINAL REPORT

SNOQUALMIE SUMMIT INN PROPERTY
SR 906
SNOQUALMIE PASS, WASHINGTON

NOVEMBER 12, 2009

TABLE OF CONTENTS

1.0 INTRODUCTION

The Snoqualmie Summit Inn Village Center property (hereafter referred to as the Site) consists of approximately 5.5-acres located on the west side of SR 906, Snoqualmie Pass, Kittitas County, Washington (Figure 1). The Site, Kittitas County Tax identification number 142436, is vacant. RGI understands that the client intends to enroll the Site into the Washington State Department of Ecology (Ecology) Voluntary Cleanup Program (VCP) with the goal of obtaining a determination of No Further Action (NFA).

The Riley Group, Inc. (RGI) was retained by Snoqualmie Summit Inn, Inc. (Client) to provide environmental oversight during the independent cleanup action. These activities included, but were not necessarily limited to, excavation oversight, characterizing soil quality, directing the segregation of petroleum contaminated soils (PCS), documenting removal of two underground storage tanks (USTs), coordinating and documenting the final disposition of the excavated Site soils, interim and final soil and groundwater grab sample collection; and, directing laboratory testing, conducting data review, consulting, and draft and final report preparation.

2.0 Project Background

The following Environmental Site Assessment (ESA) reports were completed prior to the independent cleanup action:

- Earth Consulting Inc. (ECI), *Phase I Environmental Site Assessment, Snoqualmie Pass Property Group, Forest Road and Interstate 90, Snoqualmie, Washington*, dated September 17, 2007;
- ECI, *Phase II Environmental Site Assessment Report, Snoqualmie Pass Property Group, Snoqualmie Pass, Washington,* dated December 13, 2007;
- RGI, *Phase I Environmental Site Assessment, Snoqualmie Summit Properties, SR 906, Snoqualmie Pass, Washington,* dated September 23, 2008; and,
- RGI, *Supplemental Phase II Subsurface Investigation, Snoqualmie Properties, Kittitas and King County, SR 906, Snoqualmie Pass, Washington*, dated October 2008.

A summary of the findings from these reports is provided below.

2.1 ECI Phase I ESA, September 2007

The Phase I ESA included two separate tax parcels. One parcel was located in King County. The second parcel was located in Kittitas County (the subject Site) and is wholly located on the west side of SR 906.

ECI's Phase I ESA concluded that a former gasoline station was located on the Kittitas County parcel. No evidence of this former facility was shown on Client's survey of existing conditions and buildings dated January 9, 1987 prepared by Group 4, Inc. The foundation had been exposed by snow plowing activities on the Site. ECI recommended a geophysical survey followed by soil testing in areas suspected of containing the former fuel system. ECI's findings associated with the King County parcel are not summarized herein.

2.2 ECI Phase II ESA, December 2007

During their Phase II ESA, ECI excavated 12 test pits, SP-EP1 through SP-EP12 on the Kittitas County parcel (subject Site) and collected soil samples for chemical analysis for total petroleum hydrocarbons (TPH), and polychlorinated biphenyl (PCB); and total lead.

ECI's Phase II ESA reported concentrations of gasoline, diesel and oil-range TPH and total lead that exceeded the MTCA Method A Soil Cleanup Levels for Unrestricted Land Use on the Kittitas County parcel. Soils surrounding the foundation of a service bay building (located on the northeast corner of the Site, and also not shown on the Client's survey of existing conditions and buildings dated January 9, 1987 and prepared by Group 4, Inc.; the foundation had been exposed by snow plowing activities on the Site) and soils surrounding the foundation of a former service station site (on the southeast corner of the Site) were found to be impacted by TPH. According to ECI, the former fuel tanks and dispensers had been removed. Shallow perched groundwater was encountered at a depth of approximately eight feet below ground surface (bgs) in contact with PCS.

2.3 RGI Phase I ESA, September 2008

RGI's Phase I ESA included two tax parcels on Snoqualmie Pass, one located in Kittitas County (the Subject Site) and the other was located in King County. The Phase I ESA found that the Subject Site parcel was vacant, although it had historically been developed with a gasoline service station on the southeast corner of the parcel, a retail store in the central portion of the parcel and a service bay building on the northeast corner of the parcel. The foundations for the former service station and the former retail store were in place; whereas the foundation for the former service bay building was not found. RGI recommended additional subsurface investigations be conducted on the Subject Site.

RGI's findings associated with the King County parcel are not summarized herein.

2.4 RGI Supplemental Phase II Subsurface Investigation, October 2008

RGI's Supplemental Phase II consisted of excavating five test pits on the Kittitas County parcel. RGI's Phase II reported elevated concentrations of gasoline-range TPH that exceeded the MTCA Method A Cleanup Levels for Unrestricted Land Use at the former gasoline service station site on the Kittitas County parcel.

RGI's findings regarding the King County parcel are not summarized herein.

3.0 SCOPE OF WORK

Saybr Contractors Inc. (Saybr) under subcontract to RGI provided earth work services for the remedial excavations, including: loading, transport, off-site disposal of PCS; importing and placing clean backfill soil. Marine Vacuum Services (Mar Vac) under subcontract to RGI, removed contaminated groundwater from the excavations, as needed, during the project.

RGI's scope of work during the cleanup effort consisted of, but was not necessarily limited to, the following tasks:

- Observing and directing Site soil excavation, soil segregation, stockpiling, and PCS exporting, placement and compaction of imported backfill soil.

- Collecting interim and final confirmation soil and groundwater grab samples for chemical analysis.
- Submitting samples for chemical analysis to a Washington-state accredited analytical laboratory for testing for the contaminants of concern (COCs).
- Comparing interim and final confirmation soil and groundwater sample concentrations of the COCs to the MTCA Method A Soil and Groundwater Cleanup Levels for Unrestricted Land Use (WAC 173-340, Tables 740-1 and 720-1).
- Preparing a draft and final independent cleanup action report discussing our field observations, findings, conclusions, and any recommendations.

This cleanup action was performed as an independent cleanup action, in accordance with the MTCA Cleanup Regulations (WAC 173-340). The cleanup action was performed in general accordance with our October 2008 Independent Cleanup Action proposal and subsequent work authorization.

4.0 GEOLOGY and GROUNDWATER

The Site geology, summarized below, is based on RGIs field observations during the independent cleanup action. During remedial excavations, PCS was encountered in two source areas at the subject Site as depicted on Figure 2, Site Plan. These two areas are discussed hereafter as the South Excavation (Snoqualmie Pass South, SPS) and North Excavation (Snoqualmie Pass North, SPN), which are depicted in Figures 3 and 4 respectively, and described below.

4.1 Soils

4.1.1 South Excavation (SPS)

Subsurface soil in SPS consisted of reddish brown gravelly silt with varying amounts of organics to approximately four feet bgs, underlain by gray bedded silt and sand to the maximum excavation depth, approximately nine feet bgs. The finer-grained materials appear consistent with an alpine glacial lake depositional environment. The bedded silt and sand was underlain by saturated, gray, sandy gravel at nine feet bgs. Shallow groundwater was encountered at approximately eight feet bgs.

Initial observations of groundwater noted prominent hydrocarbon-like (iridescent) sheen on the water surface. Subsequent to groundwater removal efforts the iridescent sheen was replaced by a monochromatic, white sheen, believed to be, in our opinion, biogenic in origin.

4.1.2 North Excavation (SPN)

The ground surface consisted of concrete and asphalt rubble with silt. From one to four feet bgs, the subsurface soil consisted of black fine sand and silt with roots and miscellaneous debris consisting of empty motor oil cans, wiring, liquor bottles, and broken pieces of metal auto parts. Field screening yielded an oily odor, heavy sheen and elevated photoionization detector (PID) readings. At four feet bgs, subsurface soil generally consisted of a laterally continuous band of black over beige, fine sand that was approximately one foot thick. This band of dark soil was noted at similar depths in the

south excavation and based on grain size and shape, relatively consistent thickness, and lateral continuity appears likely as a deposit of air-fall volcanic ash.

Strong sheen and elevated PID readings were commonly observed from this ash layer. From five feet to nine feet bgs, the subsurface soil consisted of gravel, cobbles and boulders in a coarse sand matrix which is consistent with an alpine glacial till or moraine depositional setting. Field screening frequently yielded PID readings in excess of 100 parts per million by volume (ppmv) and strong gasoline odor.

Sand content increased below nine feet bgs; and, the soil contact with the overlying material was gradational.

4.2 Petroleum Contaminated Soils

The South Excavation (SPS) (Former Gasoline Service Station) consisted of a concrete foundation and relict ceramic tile flooring. PCS was found predominantly on the west, south and southeast sides of the foundation. Figure 3 depict the limits of this remedial excavation and shows the soil sample locations.

The North Excavation (SPN) (Former Service Bay Building). The former floor slab/foundation location (identified by ECI) was not observed by RGI during this independent cleanup action. PCS was encountered predominantly west of the former foundation area. Figure 4 depicts the limits of this remedial excavation and shows the soil sample locations.

4.3 Groundwater

During the Site excavation activities, groundwater was encountered in each of the excavations at an approximate depth of eight feet bgs. Groundwater seepage into SPN was relatively slow (low), whereas seepage into SPS was relatively rapid (heavy). Petroleum (iridescent) sheen was not observed on standing water in SPN but was consistently observed on the standing water in SPS, suggesting that groundwater had been in contact with PCS.

5.0 Cleanup Regulations & PCS Designation

5.1 MTCA Cleanup Regulation

Washington's hazardous waste cleanup law, the Model Toxics Control Act (RCW 70.105D), mandates that site cleanups protect human health and the environment. The MTCA Cleanup Regulation (Ch 173-340 WAC) defines the approach for establishing cleanup requirements for individual sites, including the establishment of cleanup standards and selection of cleanup actions.

The MTCA regulation provides three options for establishing generic and site-specific cleanup levels for soil and groundwater. Method A cleanup levels have been adopted for specific purposes and are intended to provide conservative cleanup levels for sites undergoing routine site characterization or cleanup actions or those sites with relatively few hazardous substances. Method B and C cleanup levels are set using a site risk assessment, which focus on the use of "reasonable maximum exposure" assumptions based on site-specific characteristics and toxicity of the contaminants of concern.

The analytical data for this project are compared to the MTCA Method A Soil Cleanup Levels for Unrestricted Land Use (WAC 173-340-740, Table 740-1) and Groundwater Cleanup Levels (WAC 173-340-720, Table 720-1) and are summarized in Tables 1 and 2, and Table 3, respectively.

5.2 PCS Designation

During this project, PCS was segregated during excavation into clean and contaminated stockpiles. The two designations are described as follows:

1. **Clean/ Petroleum-Affected Soil (slightly contaminated soil) -** soil known to contain concentrations of contaminants of concern at concentrations below the MTCA Method A Cleanup Standards.
2. **Petroleum-contaminated Soil (PCS)-** soil known to contain concentrations of contaminants of concern exceeding those concentrations published in MTCA.

During soil excavation, RGI used one or all of the following criteria to classify the PCS:

1. **Field Screening Data.** Field screening methods included a portable gas analyzer equipped with a photoionization detector (PID), to determine total volatile organic compounds (TVOCs), and water sheen tests. Field screening data was most useful at the subject Site to determine if TVOCs were present in the soils. Water sheen tests were used to evaluate soil quality for the presence of diesel-range and oil-range TPH.
2. **Off-Site Analytical Laboratory.** An off-site analytical laboratory (Friedman Bruya, Inc. (FBI) of Seattle, Washington provided chemical analyses of soil and groundwater grab samples. Samples were generally submitted for expedited testing on a same day or 24-hour turnaround time.

6.0 Interim & Confirmation Soil Sampling

A total of 18 interim soil samples designated as removed (R) on Table 1 and Table 2. A total of 34 confirmation soil samples designated as in situ (I) on Table 1 and Table 2 were collected for chemical analysis to document soil quality during the cleanup action and at the final excavation limits. Interim soil samples generally had concentrations of the COCs at or above the MTCA Method A Soil Cleanup Levels and were subsequently excavated, transported and properly disposed of off-site as PCS. However, due to heterogeneity of the Site soils and heterogeneity of the TPH concentrations within the soil mass, some interim samples with non-detectable concentrations of the COCs may have been removed during the excavation activities. Approximate interim and confirmation soil sample locations are shown in the attached Figure 3 and Figure 4.

6.1 Sample Designation Nomenclature

Soil samples were identified by the sequential number and the depth (in feet below ground surface) as follows:

SP = Snoqualmie Pass

N or S = North or South Excavations

N, S, W, E = Directional Prefixes within each excavation

SW = Excavation Sidewall

BOT = Excavation Bottom

H2O = Groundwater (from excavation)

CLN (series #) = "Clean" Stockpile Material, Composite Sample; e.g. SPN-CLN-1

PCS (series #) = "Contaminated" Stockpile Material; Composite Sample; e.g. SPS-PCS-1

= Depth in Feet Below Ground Surface

For example, sample SPN-NSW-6 is from the north excavation, north sidewall, at six feet bgs. Excavation bottom samples were numbered in numeric series. For example SPS-BOT3-8 would be the third bottom sample from the south excavation at a depth of eight feet bgs. One exception to this sampling scheme is RGI sample SPN EP-10-5, which was an effort to duplicate a sample from ECI's 2007 exploration pit 10 (EP 10).

Stockpile samples were collected as composites and in time-series as work progressed. Example would be SPN-PCS1 for the first sample taken from the "contaminated" material at the north excavation. Samples numbered sequentially, i.e. SPN-PCS2, SPS-PCS3, etc.

Groundwater samples were labeled as either SPN or SPS with a H2O suffix. Example, sample SPN Pit H2O is for a groundwater sample from the north excavation, SPS Pit H2O 2 was the second groundwater sample from SPS.

7.0 Laboratory Analyses

All interim and final confirmation soil samples were submitted to Friedman & Bruya, Inc. of Seattle, Washington for chemical testing for the COC in accordance with Ecology's MTCA Required Testing for Petroleum Releases (WAC 173-340, Table 830-1).

Soil samples collected from the remedial areas were analyzed using one or more of the following test methods:

- Gasoline TPH by Northwest Method NWTPH-Gx;
- Diesel and heavy oil TPH by Northwest Method NWTPH-Dx with silica gel cleanup[1];
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) using EPA Method 8021B;
- Halogenated volatile organic compounds (HVOCs) using EPA Method 8260c;
- Carcinogenic PAHs (cPAHs) using EPA Method 8270/SIM; and/or,
- Total metals chromium, arsenic, cadmium, mercury and lead using EPA Methods 200.8 (soil) and 6010 and 7471 (water).

Interim and confirmation soil sample analytical results are discussed below and are summarized in Table 1 & 2. Groundwater sample analytical results are presented in Table 3. Appendix B presents copies of the laboratory certificates and chain-of-custody documentation.

[1] Silica Gel removes biogenic organic materials that can yield false positive results.

8.0 Remedial Excavations & UST Removal

Between August 31, 2009 and September 25, 2009, Saybr, under contract to and as directed by RGI, excavated a total of 1,720.75 tons (approximately 1,229 cubic yards) of PCS from the two remediation areas at the Site (north and south), see Figure 2, 3 and 4.

Following is a description of the remedial activities and findings in the two identified remedial areas.

8.1 South Excavation (SPS)

PCS was encountered predominantly on the south and west side of the former gasoline station foundation. On the southeast corner of the building foundation, PCS was found to be associated with an abandoned clay sewer pipe. RGI observed via field screening that PCS concentrated at the pipe joints.

Suspect UST piping was encountered near the southeast corner of the former foundation. Additionally, two 2-inch diameter metal pipes were exposed and removed to the west of the foundation as depicted on Figure 3 (see also Photograph 11, Appendix A-3). The two metal pipes were approximately 40 feet long and were interpreted to have been the former UST ventilation lines.

Interim soil confirmation and stockpile samples were analyzed for gasoline-, diesel- and oil-range TPH, BTEX, total lead and HVOC. One worst-case sample, SPS-ESW-6, contained gasoline TPH at 400 mg/kg, diesel-range TPH at 6,400 mg/kg and oil-range TPH at 15,000 mg/kg, which exceeded MTCA Method A Cleanup Levels for Unrestricted Land Use. Trace concentrations of toluene and ethylbenzene were detected that fell below MTCA Method A Cleanup Levels; and xylene was detected at 11 mg/kg. Carcinogenic (c) PAH were not detected in SPS above the (analytical) method reporting limits; and, total lead concentrations were detected that fell below MTCA Method A Cleanup Levels.

Concentrations of gasoline-range TPH ranged from non-detect to 400 mg/kg, diesel-range TPH ranged from non-detect to 6,400 mg/kg, and oil-range TPH ranged from none-detected to 16,000 mg/kg. Benzene was not detected above (analytical) method detection limits. Concentrations of toluene ranged from none-detected to 0.69 mg/kg; ethylbenzene ranged from non-detected to 1.7 mg/kg; and, xylene ranged from none-detected to 11 mg/kg.

A total of approximately 970.75 tons of PCS were removed from SPS. Soils were excavated based on field screening and interim sample analytical results. Confirmation soil samples at the excavation limits contained either non-detectable concentrations of the COCs identified for this area or concentrations below MTCA Method A Soil Cleanup Levels. Based on the soil confirmation sampling and analytical results, remaining soils are compliant with MTCA. Discussion of groundwater results missing?

8.2 North Excavation (SPN)

PCS was encountered beneath the former service bay building area located on the northeast corner of the Site. During remedial activities, two USTs were found east of the former service bay building (north excavation (SPN)) with product lines leading towards SR 906 (see Section 8.1.1 below). The presence of abandoned USTs in this area suggests past fueling operations (see Appendix A-1, Photograph 2). Past Site use as an auto repair and servicing garage was consistent with our observations of oily debris, empty oil cans,

miscellaneous broken and rusted auto parts, pieces of tire chains, etc. within the shallow fill material. East and south of the USTs, the subsurface soil consisted of predominantly large cobble and boulders with a dry silty fine sand matrix (Appendix A-2, Photograph 5).

Interim soil confirmation and stockpile samples were analyzed for gasoline-, diesel- and oil-range TPH, BTEX, total lead and HVOC. The worst-case sample, SPN-PCS2, contained gasoline TPH at 610 mg/kg, diesel-range TPH at 90,000 mg/kg and oil TPH at 3,300 mg/kg; these concentrations exceeded MTCA Method A Cleanup Levels[2].

Concentrations of gasoline-range TPH ranged from non-detected to 610 mg/kg. Diesel-range TPH ranged from non-detected to 90,000 mg/kg, and oil-range TPH ranged from non-detected to 3,300 mg/kg. Neither benzene nor toluene was detected above the method reporting limits for any of the samples from SPN. Concentrations of ethylbenzene ranged from none detected to 0.75 mg/kg; and xylene was detected ranging from none detected to 0.43 mg/kg, which were below MTCA Method A Cleanup Levels for Unrestricted Land Use.

Trace concentrations of total lead ranged from 5.92 mg/kg to 67 mg/kg, which were below MTCA Method A Cleanup Levels. Neither HVOCs nor cPAH were detected above the method detection limits.

Approximately 750 tons of PCS were removed from SPN. Soils were excavated based on field screening and interim sample analytical results. Based on the analytical results for the confirmation soil samples, remaining soil at SPN are MTCA compliant.

Minor groundwater seepage was encountered in SPN at the maximum depth achieved of 10 feet bgs. A groundwater grab sample collected on September 14, 2009 did not yield detectable concentrations of the COC. Surface sheen was not observed on standing water in SPN.

8.2.1 Underground Storage Tanks (USTs) Decommissioning

On September 1, 2009 two single wall steel USTs were encountered approximately 12-inches bgs adjacent and east of excavation SPN. The larger UST was an approximately 1,000 gallon tank and the smaller UST was an approximately 650 gallon tank. The USTs appeared to be relatively intact, free of holes and pitting. Each UST was full of liquid, which was later determined (via analytical testing) to be gasoline-impacted water. The USTs were oriented perpendicular to each other (see Figure 4 and Photograph 3, Appendix A-1). In addition, single wall steel product piping led from each UST toward SR 906. The 12 foot long product piping was not connected at its eastern terminus, which RGI surmises may have connected with a former fuel dispenser (pump) location.

A single water sample was collected from each UST and evaluated via Ecology's NWTPH HCID with the result that the product last contained in each was identified as gasoline (see Table 3). Diesel- and/or Oil-range TPH were not identified in the HCID sample.

Prior to removing the USTs from the ground, the content of each tank was pumped by Marine Vacuum Services (Mar Vac). Once emptied of liquid, the USTs were removed from the ground by Saybr. No inspection or removal permit was required per Kittitas County. Following removal from the ground, the USTs were cut open before flattening for

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[2] The MTCA Method A Soil Cleanup Levels for Unrestricted Land Use for the contaminants of concern are presented in the attached Table 1 and Table 2.

transport to an offsite facility for recycling (by Saybr).

Following removal, RGI performed a UST site assessment in accordance with Ch 173-360 Underground Storage Tank Regulations. The site assessment consisted of collecting soil samples from beneath the bottom of each tank. Soil samples SPN-UST1-BOT-6, SPN-UST2-BOT-6-East and SPN-UST2-BOT-6 West, were submitted for chemical testing for gasoline-range and diesel-range TPH and BETX with the results that none were detected (ND) (see Table 2).

Based on our UST Site Assessment findings, the former UST system did not appear to release petroleum hydrocarbons to the subsurface environment.

9.0 PCS Volume

A total of 1,720.75 tons (approximately 1,229 cubic yards) of PCS containing TPH concentrations exceeding MTCA Method A Soil Cleanup Levels for Unrestricted Land Use was transported to Regional Disposal Company/Allied Waste transfer station in Seattle, Washington for disposal at their Washington-licensed landfill.

The off-site transportation, treatment and recycling of PCS was in accordance with applicable local, state, and federal regulations.

10.0 Site Dewatering & Groundwater Sampling

Groundwater seeped into each of the excavations from a depth of approximately eight feet bgs. Excavation dewatering was accomplished by using a vacuum truck operated by Marine Vacuum (Mar Vac) of Seattle, Washington. The collected water was transported off-site for treatment and disposal at Mar Vacs' facility in Seattle. (The water pumped from the former USTs were also transported to Mar Vacs' facility for treatment and disposal).

Excavation SPN was dewatered three times between September 8, 2009 and September 16, 2009. On September 8, 500 gallons were removed; on September 11, 300 gallons were removed; and on September 16, 2009, 300 gallons were removed. The purpose of the intermediate dewatering was to enable field screening and collection of bottom soil samples. An iridescent sheen was never observed in SPN; and, a single groundwater sample, SPN Pit H2O collected September 14, indicated none-detected for all COC. A total of approximately 1,100 gallons of non-petroleum impacted groundwater was removed from SPN between September 8, 2009 and September 16, 2009.

Excavation SPS was dewatered ten times between September 2, 2009 and October 1, 2009. The purpose of the intermediate dewatering was to determine if groundwater impacts were limited to the immediate tank cavity or were more extensive; whereby groundwater monitoring and/or more extensive groundwater remediation was warranted. Groundwater grab samples were collected after groundwater recharged into the pumped excavation. Analytical testing of groundwater grab samples was conducted to evaluate progress. Removal of PCS was completed on September 25, 2009. Subsequently, groundwater grab samples SPS Pit H20 8, SPS Pit H2O 9 and SPS Pit H2O 10 yielded analytical test results that were MTCA compliant.

Summary of Groundwater Volume Removed from SPS

Groundwater Pump Date	Gallons pumped	Subsequent Water Sample Number
September 2, 2009	3,000	SPS Pit H2O
September 8, 2009	2,000	Pit H2O 2
September 11, 2009	500	Pit H2O 3
September 16, 2009	1,000	Pit H2O 4
September 18, 2009	2,800	Pit H2O 5
September 21, 2009	1,000	Pit H2O 6
September 22, 2009	1,000	SPS Pit H2O 7
September 29, 2009	500	SPS Pit H2O 8
September 30, 2009	500	SPS Pit H2O 9
October 1, 2009	500	SPS Pit H2O 10

A total of approximately 11,300 gallons of petroleum contaminated water was removed from SPS from September 2nd through September 22nd; and 1,500 gallons of non-petroleum impacted groundwater was removed between September 29, 2009 and October 1, 2009.

As PCS was removed, groundwater quality steadily improved. The final three groundwater samples from SPS indicated that petroleum contaminated groundwater was no longer present at the Site. Based on our findings, the impacted water was limited to the tank basin's immediate area. Consequently, groundwater monitoring wells or additional groundwater monitoring were not warranted, in our opinion.

10.1 Groundwater Sampling

Groundwater grab samples were collected from both excavations and submitted for analytical testing (see Table 3). A single groundwater grab sample (SPN Pit H2O) was collected from the north excavation on September 14, 2009, which yielded none detected for all COC.

An iridescent sheen was observed on the water surface in SPS from September 3rd through September 22nd, until all suspect PCS was removed from the sidewalls and bottom of the excavation on September 25, 2009. Groundwater grab samples' SPS Pit H2O and Pit H2O 3, which contained the highest concentrations of gasoline TPH (2,000 µg/L to 2,300 µg/L) and benzene (10 µg/L to 15 µg/L) were collected directly from the standing water with a disposable bailer. These two samples also yielded toluene (6 µg/L to 8 µg/L), ethylbenzene (70 µg/L to 71 µg/L), total xylenes (180 µg/L to 270 µg/L); diesel TPH (1,100 µg/L to 2,100 µg/L), oil TPH (1,400 µg/L to 3,200 µg/L) were also detected at concentrations above their respective MTCA Method A Groundwater Cleanup Levels. Groundwater grab sample SPS Pit H2O 2 contained intermediate concentrations of the COC.

Groundwater grab samples Pit H2O 4, Pit H2O 5, Pit H2O 6 and SPS Pit H2O 7 yielded none-detected concentrations of gasoline-range TPH, benzene, ethylbenzene and toluene.

These three samples yielded concentrations of xylene from none detected to 5 µg/L, diesel-range TPH from 64 µg/L to 260 µg/L, and oil range TPH from none detected to 510 µg/L.

Groundwater grab samples, SPS Pit H2O 8, SPS Pit H2O 9 and SPS Pit H2O 10, yielded concentrations of the COC (see Table 3), compliant with MTCA Groundwater Cleanup Levels (see Table 3).

11.0 CONCLUSIONS & RECOMMENDATIONS

11.1 Soil

A total of 1,720.75 tons (approximately 1,229 cubic yards) of PCS was excavated and exported from the Site for this independent cleanup action. PCS with concentrations above the MTCA Method A Soil Cleanup Levels was removed from the following areas:

- A former service bay building (SPN) (approximately 750 tons of PCS) on the northeast corner of the Site; and,
- A former gasoline service station (SPS) (approximately 970.75 tons of PCS) on the southeast corner of the Site.

Based on the confirmation soil sampling analytical results, the independent cleanup action was successful in bringing all Site soils into compliance with the MTCA Method A Soil Cleanup Regulations.

11.2 Groundwater

A total of approximately 1,100 gallons of non-petroleum impacted groundwater was removed from the SPN between September 8, 2009 and September 16, 2009.

PCS was observed to be in contact with and affecting the shallow groundwater quality in excavation SPS. Following PCS removal, Approximately 11,300 gallons of petroleum contaminated water was removed from SPS from September 2nd through September 22nd. Approximately 1,500 gallons of non-petroleum contaminated groundwater was removed between September 29, 2009 and October 1, 2009.

Analytical testing confirmed that contaminated groundwater was limited to the immediate UST location and/or contact with elevated TPH in soil.

RGI understands that Ecology would normally recommend that groundwater monitoring wells be constructed at similar Sites; however, in our professional opinion, monitoring wells are not necessary since PCS has been removed and groundwater formerly in contact with PCS has also been removed. Analytical testing of groundwater grab samples subsequent to final Site cleanup were compliant with MTCA.

11.3 Recommendations

RGI recommends the Site be enrolled into the Ecology Voluntary Cleanup Program (VCP). Based on our findings, it is RGI's professional opinion that the completed independent cleanup action has met the substantive requirements of MTCA and warrants a No Further Action (NFA) determination under the VCP.

12.0 LIMITATIONS

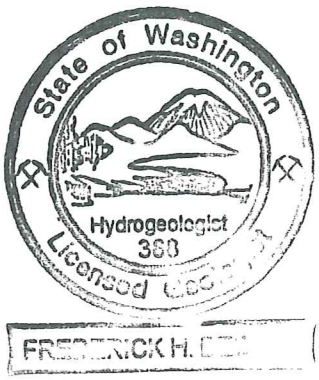
This report is the property of The Riley Group, Inc., Snoqualmie Summit Inn, Inc., and their authorized representatives and was prepared in a manner consistent with the level of skill and care ordinarily exercised by members of the profession currently practicing in the same locality and under similar conditions. This report intends for specific application to the Snoqualmie Summit Inn Village Center property, Kittitas County, Snoqualmie Pass, Washington. No other warranty, expressed or implied, is made.

The analyses and recommendations presented in this report are based upon data obtained from our review of available information at the time of preparing this report, our test pits excavated on-site, or other noted data sources. Conditional changes may occur through time by natural or man-made process on this or adjacent properties. Additional change may occur in legislative standards, which may or may not be applicable to this report. These changes, beyond RGI's control, may render this report invalid, partially or wholly. If variations appear evident, RGI should be requested to reevaluate the recommendations in this report prior to proceeding with construction.

Any questions regarding the work within this report, the presentation of the information, or the interpretation of the data are welcome and should be referred to the undersigned.

Sincerely,
THE RILEY GROUP, INC.

Jason Cass, L.G.
Project Geologist



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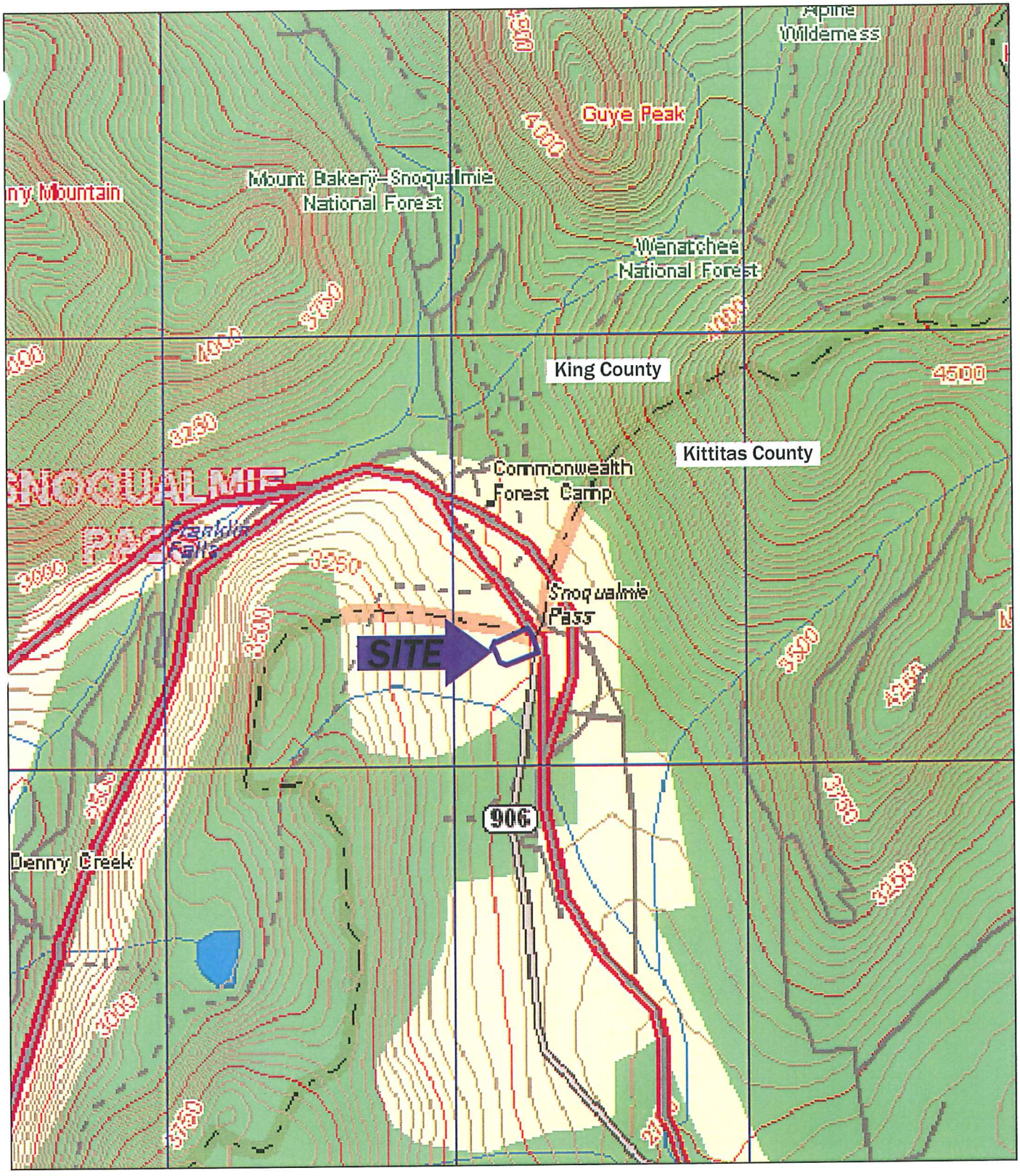

USGS, 1989 Snoqualmie, Washington
7.5-Minute Quadrangle

Approximate Scale: 1"=2000'

0 100 2000 4000

N

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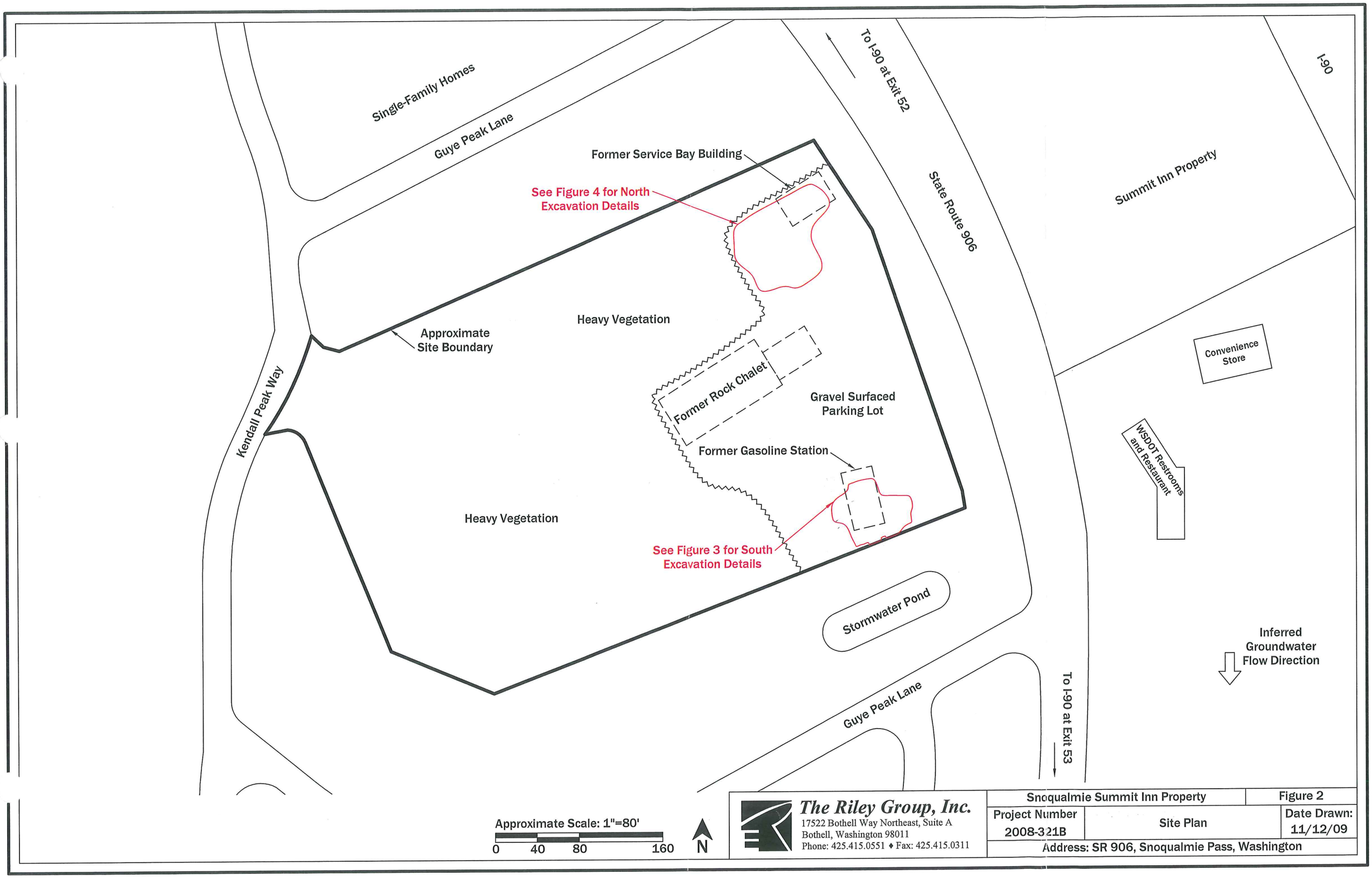
Snoqualmie Summit Inn Property		Figure 1
Project Number 2008-321B	Site Vicinity Map	Date Drawn: 11/12/09
Address: SR 906, Snoqualmie Pass, Washington		



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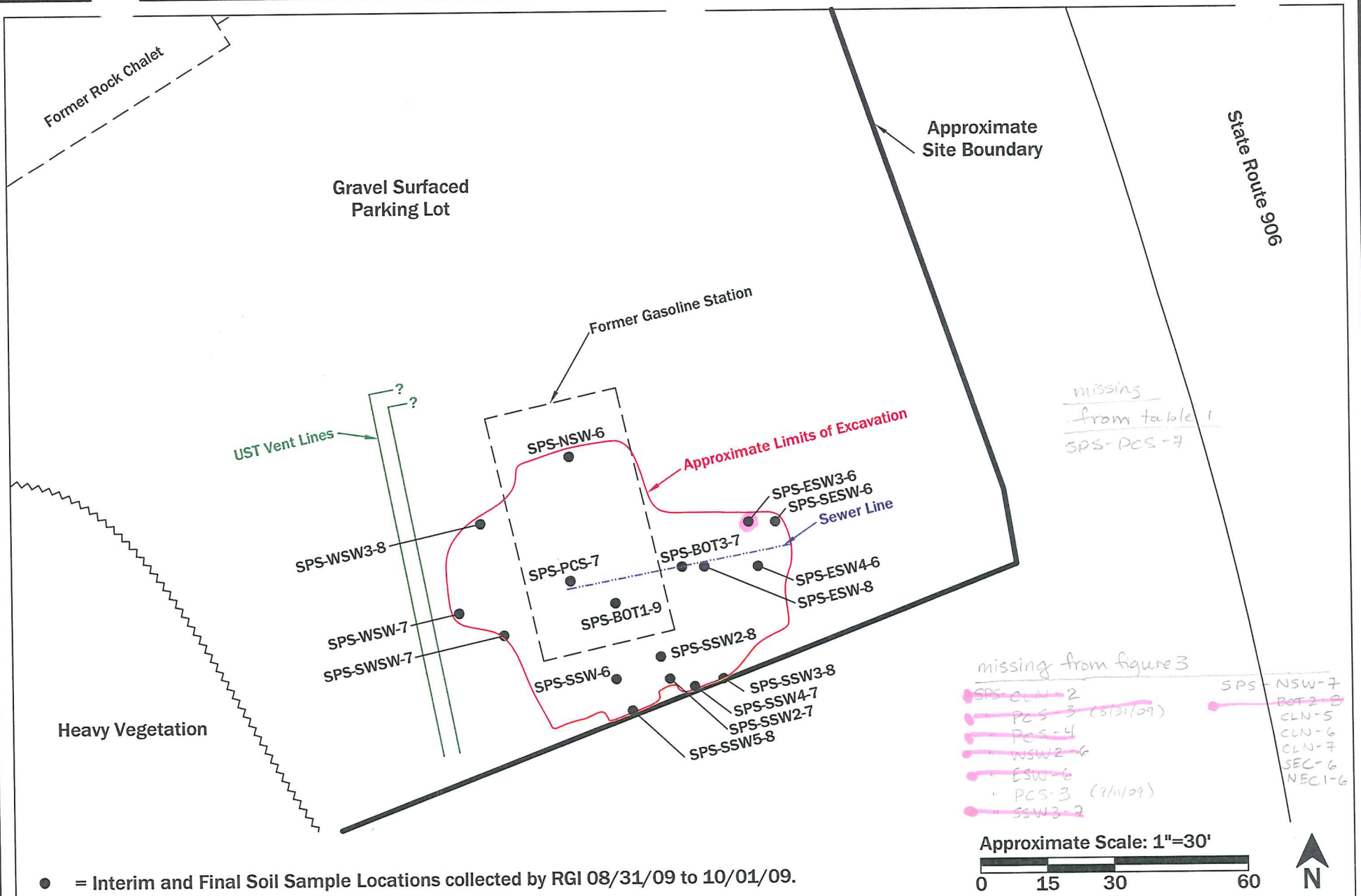
Snoqualmie Summit Inn Property		Figure 2
Project Number 2008-321B	Site Plan	Date Drawn: 11/12/09
Address: SR 906, Snoqualmie Pass, Washington		



● = Interim and Final Soil Sample Locations collected by RGI 08/31/09 to 10/01/09.

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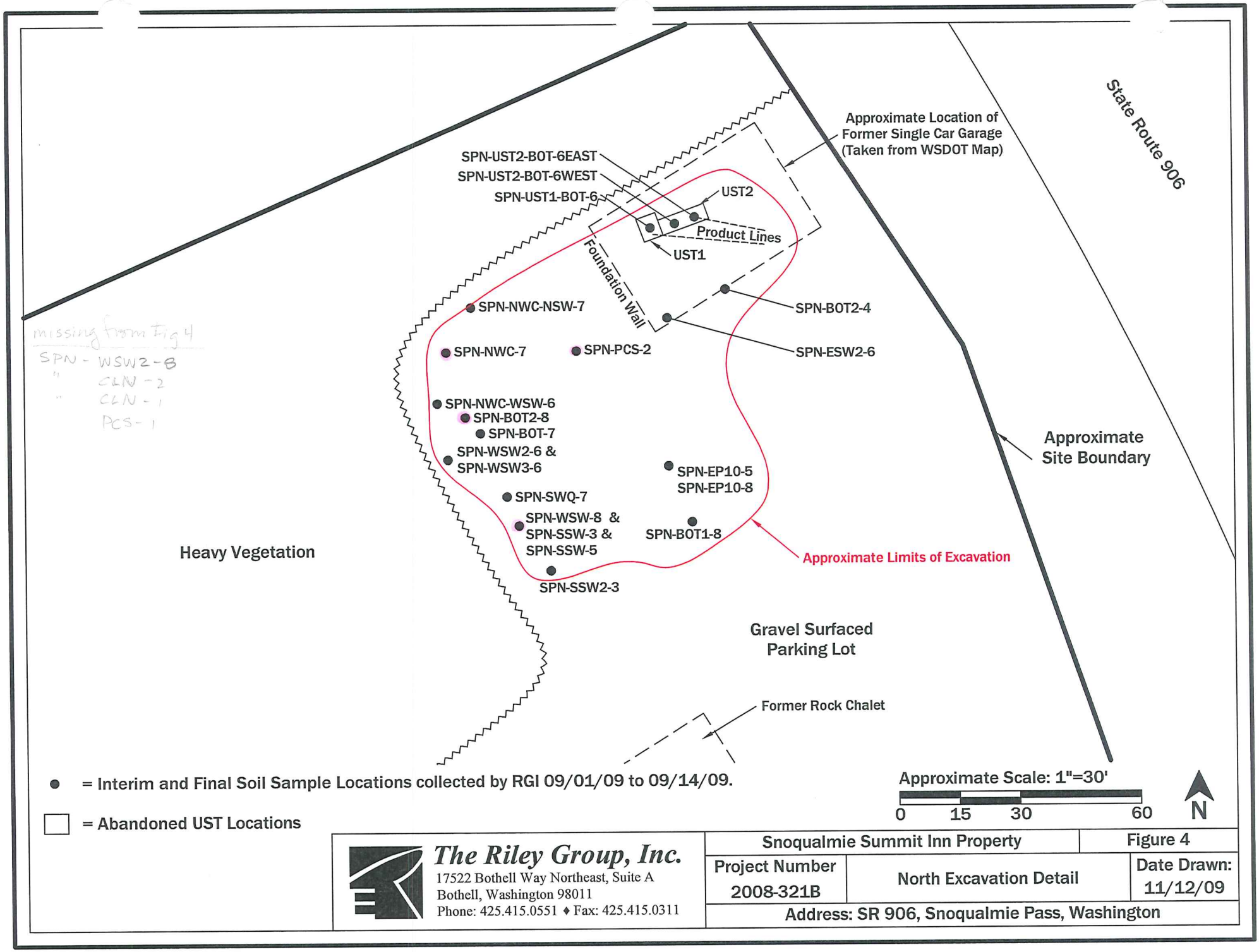
Snoqualmie Summit Inn Property		Figure 3
Project Number 2008-321B	South Excavation Detail	Date Drawn: 11/12/09
Address: SR 906, Snoqualmie Pass, Washington		



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Snoqualmie Summit Inn Property		Figure 4
Project Number 2008-321B	North Excavation Detail	Date Drawn: 11/12/09
Address: SR 906, Snoqualmie Pass, Washington		

Table 1. Summary of Soil Sample Analytical Laboratory Results - South Excavation
Kittitas County Property, SR 906, Snoqualmie Pass, Washington
The Riley Group, Inc. Project #2008-321B

motor

Sample Number	Date Sampled	Sample Depth	PID	Sheen	Gasoline TPH	BTEX				Diesel TPH	Oil TPH	HVOC	Total Lead
						B	T	E	X				
Final Confirmation Samples (19)													
SPS-SWSW-7 ✓	08/31/09	7	4	No	<2	<0.02	<0.02	<0.02	<0.06	<50	<250	---	---
SPS-WSW-7 ✓	09/01/09	7	0	No	3	<0.02	<0.02	<0.02	<0.06	<50	<250	---	---
SPS-NSW-7	09/02/09	7	2	No	4	<0.02	<0.02	<0.02	<0.06	<50	<250	---	---
SPS-BOT1-9 ✓	09/02/09	9	0	Yes	<2	<0.02	<0.02	<0.02	<0.06	<50	<250	---	---
SPS-SSW-6 ✓	09/02/09	6	0	No	<2	<0.02	<0.02	<0.02	<0.06	<50	<250	---	---
SPS-BOT2-8	09/03/09	8	15	No	78	<0.02	0.03	0.15	0.11	1,200	310	---	---
SPS-CLN-5	09/03/09	NA	10	No	6	<0.02	<0.02	<0.02	<0.06	870	<250	---	---
SPS-CLN-6	09/03/09	NA	10	No	13	<0.02	<0.02	<0.02	<0.06	510	<250	---	---
SPS-CLN-7	09/03/09	NA	10	No	<2	<0.02	<0.02	<0.02	<0.06	390	<250	---	---
SPS-WSW3-8 ✓	09/08/09	8	2	No	<2	<0.02	<0.02	<0.02	<0.06	<50	<250	---	---
SPS-SSW-6 ✓	09/10/09	6	4	No	<2	<0.02	<0.02	<0.02	<0.06	---	---	---	---
SPS-NSW-6 ✓	09/10/09	6	10	No	21	<0.02	0.03	<0.02	0.08	---	---	---	---
SPS-SEC-6	09/10/09	6	15	No	<2	<0.02	<0.02	<0.02	<0.06	---	---	---	---
SPS-ESW4-6 ✓	09/14/09	6	0	No	<2	<0.02	<0.02	<0.02	<0.06	<50	<250	---	---
SPS-NEC1-6	09/14/09	6	10	No	<2	<0.02	<0.02	<0.02	<0.06	<50	<250	---	---
SPS-BOT3-7 ✓	09/16/09	7	0	No	3	<0.02	<0.02	<0.02	<0.06	<50	<250	---	---
SPS-SSW2-7 ✓	09/16/09	7	0	Yes	21	<0.02	0.04	0.22	1.7	<50	<250	---	---
SPS-SSW4-7 ✓	09/25/09	7	---	No	<2	<0.02	<0.02	<0.02	<0.06	<50	<250	---	---
SPS-SSW5-8 ✓	09/25/09	8	---	No	<2	<0.02	<0.02	<0.02	<0.06	<50	<250	---	----
Interim Samples (10)													
SPS-SESW-6	08/31/09	6	0	No	<2	<0.02	<0.02	<0.02	<0.06	<50	<250	---	---
SPS-CLN-2	08/31/09	NA	15	No	**160**	<0.02	0.16	0.41	2.1	83	<250	---	---
VOC SPS-PCS-3	08/31/09	NA	120	Yes	**130**	<0.02	0.14	0.86	2.0	490x	1,400	ND	---
VOC SPS-PCS-4	08/31/09	NA	100	Yes	**300**	<0.02	0.69	1.7	**9.3**	**3,100**	**2,300**	ND	---
SPS-ESW-8	09/02/09	8	0	No	<2	<0.02	<0.02	<0.02	<0.06	<50	<250	---	---
SPS-WSW2-6	09/03/09	6	200	Yes	**250**	<0.2	<0.2	<0.2	<0.6	**5,100**	<250	---	---
SPS-ESW-6	09/10/09	6	150	Yes	**400**	<0.2	0.36	0.42	**11**	**6,400**	**15,000**	ND	11.9
SPS-ESW3-6	09/11/09	6	---	Yes	27	<0.02	0.02	0.06	0.07	**2,800**	<250	---	---
SPS-PCS-3	09/11/09	NA	20	Yes	4	<0.02	<0.02	<0.02	0.09	91	<250	---	---
SPS-SSW3-7	09/16/09	7	5	Yes	13	<0.02	0.05	0.09	0.59	**3,700** [x]	**16,000**	---	---
MTCA Method A Soil Cleanup Levels					**30/100**[1]	**0.03**	**7**	**6**	**9**	**2,000**	**2,000**	**Analyte Specific**	**250**

Samples collected by The Riley Group, Inc. August and September 2009.
Except as noted, all results and detection limits are given in mg/kg.
Sample Depth = feet below ground surface (bgs).
PID = Photoionization Detector.
TPH = Total Petroleum Hydrocarbons.
Gasoline TPH determined using Northwest Method NWTPH Gx.
BTEX (benzene, toluene, ethylbenzene, and xylenes) determined using EPA Test Method 8021B.
Diesel and Oil TPH determined using Northwest Method NWTPH Dx with silica gel cleanup.
HVOCs (Halogenated Volatile Organic Compounds) determined using EPA Test Method 8260C.
Total lead determined using EPA Test Method 200.8.
[1] The higher cleanup level applies for gasoline mixtures without benzene and the total of ethyl benzene, toluene and xylene are less than 1% of the gasoline mixture
[2] Cleanup level for carcinogenic PAHs based on total weighted sums using the toxicity equivalency methodology in WAC 173 340 708(8).
[x] The pattern of peaks is not indicative of diesel according to the analytical report.
---- = not analyzed or not applicable.
ND = Not Detected at noted analytical detection limit.
MTCA Method A Cleanup Level, Ecology Model Toxics Control Act Method A Soil Cleanup Levels for Unrestricted Land Use (WAC 173-340-900, Table 740-1).
Bold & yellow highlighted results indicate concentrations (if any) that exceed MTCA Method A Soil Cleanup Levels.

Table 2. Summary of Soil Sample Analytical Laboratory Results - North Excavation
Kittitas County Property, SR 906, Snoqualmie Pass, Washington
The Riley Group, Inc. Project #2008-321B

Sample Number	Date Sampled	Sample Depth	PID	Sheen	Gasoline TPH	BTEX				Diesel TPH	Oil TPH	cPAH	HVOC	Total Lead
						B	T	E	X					
Final Confirmation Samples (14)														
SPN-BOT1-8	09/01/09	8	0	No	<2	<0.02	<0.02	<0.02	<0.06	<50	<250	---	---	---
SPN-BOT2-4	09/01/09	4	0	No	<2	<0.02	<0.02	<0.02	<0.06	<50	<250	---	---	---
SPN-UST1-	09/02/09	6	0	No	<2	<0.02	<0.02	<0.02	<0.06	<50	<250	---	---	---
SPN-UST2-	09/02/09	6	0	No	<2	<0.02	<0.02	<0.02	<0.06	<50	<250	---	---	---
SPN-UST2-BOT-6-West	09/02/09	6	0	No	<2	<0.02	<0.02	<0.02	<0.06	<50	<250	---	---	---
SPN-NWC-WSW-6	09/02/09	6	0	No	<2	<0.02	<0.02	<0.02	<0.06	<50	<250	---	---	---
SPN-ESW2-6	09/08/09	6	0	No	<2	<0.02	<0.02	<0.02	<0.06	<50	<250	---	---	---
SVOCs SPN-BOT2-8	09/09/09	8	0	No	<2	<0.02	<0.02	<0.02	<0.06	<50	<250	ND	---	---
SPN-WSW2-8	09/09/09	8	0	No	<2	<0.02	<0.02	<0.02	<0.06	<50	<250	---	---	---
SPN-SSW-5	09/09/09	5	0	No	<2	<0.02	<0.02	<0.02	<0.06	<50	<250	---	---	---
SPN-WSW3-6	09/10/09	6	0	No	<2	<0.02	<0.02	<0.02	<0.06	---	---	---	---	---
SPN-NWC-	09/10/09	6	0	No	12	<0.02	<0.02	<0.02	<0.06	---	---	---	---	---
SPN-SSW2-3	09/14/09	3	0	No	<2	<0.02	<0.02	<0.02	<0.06	<50	<250	---	---	---
SPN-SSW-5	09/16/09	5	0	No	<2	<0.02	<0.02	<0.02	<0.06	<50	<250	---	---	---
Interim Samples (7)														
VOC SPN-NWC-7	09/01/09	7	250	Yes	**220**	<0.02	<0.02	0.75	0.14	290	<250	---	ND	6.29
VOC SPN-EP10-5	09/01/09	5	5	Yes	4	<0.02	<0.02	0.04	<0.06	<50	<250	---	ND	5.92
SPN-CLN-2	09/02/09	NA	10	No	6	<0.02	<0.02	<0.02	<0.06	<50	<250	---	---	---
SPN-CLN-1	09/02/09	NA	18	No	5	<0.02	<0.02	<0.02	<0.06	71	<250	---	---	---
VOC SPN-PCS-1	09/02/09	NA	200	Yes	**220**	<0.02	<0.02	0.11	0.13	**3,300**	<250	---	ND	67
SPN-PCS-2	09/03/09	NA	300+	Yes	**610**	<0.02	<0.02	0.16	0.43	**90,000**	**3,300**	---	---	---
SPN-SSW-3	09/10/09	3	20	Yes	**120**	<0.02	<0.02	<0.02	<0.06	850	<250	---	---	---
MTCA Method A Soil Cleanup Levels					**30/100[1]**	**0.03**	**7**	**6**	**9**	**2,000**	**2,000**	**Analyte Specific**	**Analyte Specific**	**250**

Samples collected by The Riley Group, Inc. September 2009.
Except as noted, all results and detection limits are given in mg/kg.
Sample Depth = feet below ground surface (bgs).
PID = Photoionization Detector.
TPH = Total Petroleum Hydrocarbons.
Gasoline TPH determined using Northwest Method NWTPH Gx.
BTEX (benzene, toluene, ethylbenzene, and xylenes) determined using EPA Test Method 8021B.
Diesel and Oil TPH determined using Northwest Method NWTPH Dx with silica gel cleanup.
cPAHs (Carcinogenic Polycyclic Aromatic Hydrocarbons) determined using EPA Test Method 8270D SIM.
HVOCs (Halogenated Volatile Organic Compounds) determined using EPA Test Method 8260C.
Total lead determined using EPA Test Method 200.8.
[1] The higher cleanup level applies for gasoline mixtures without benzene and the total of ethyl benzene, toluene and xylene are less than 1% of the gasoline mixture.
[2] Cleanup level for carcinogenic PAHs based on total weighted sums using the toxicity equivalency methodology in WAC 173 340 708(8).
[x] The pattern of peaks is not indicative of diesel according to the analytical report.
---- = not analyzed or not applicable.
ND = Not Detected at noted analytical detection limit.
MTCA Method A Cleanup Level, Ecology Model Toxics Control Act Method A Soil Cleanup Levels for Unrestricted Land Use (WAC 173-340-900, Table 740-1).
Bold & yellow highlighted results indicate concentrations (if any) that exceed MTCA Method A Soil Cleanup Levels.

VOCs - includes VOCs, but not MTBE or EDB
SVOCs - includes cPAHs

Table 3. Summary of Groundwater Grab Sample Analytical Laboratory Results
Kittitas County Property, SR 906, Snoqualmie Pass, Washington
The Riley Group, Inc. Project #2008-321B

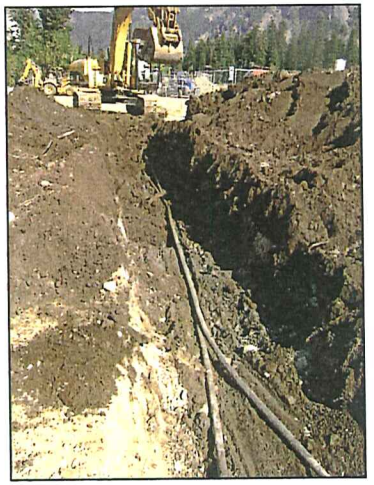
Sample Number	Date Sampled	Sheen	Gasoline TPH	BTEX				Diesel TPH	Oil TPH	Dissolved Metals	Total Metals
				B	T	E	X				
North Excavation											
Small UST H2O*	09/02/09	Yes	D	---	---	---	---	ND<500	ND<500	---	---
Big UST H2O*	09/02/09	Yes	D	---	---	---	---	ND<500	ND<500	---	---
SPN Pit H2O	09/14/09	No	<100	<1	<1	<1	<3	<50	<250	---	---
South Excavation											
SPS-Pit H2O	09/03/09	Yes	**2,300**	**10**	8	70	180	**2,100 [x]**	**3,200**	---	---
Pit H2O-2	09/09/09	Yes	730	3	3	6	76	**580 [x]**	**810**	As = 2.61 Cd = ND<1 Cr = 9.01 Pb = ND<1 Hg = ND<0.2	As = 27.9 Cd = ND<1 Cr = 22.8 Pb = 95.4 Hg = ND<0.2
Pit H2O 3	09/11/09	Yes	**2,000**	**15**	6	71	270	**1,100 [x]**	**1,400**	---	---
Pit H2O 4	09/16/09	Yes	<100	<1	<1	<1	5	260 [x]	**700**	---	---
Pit H2O-5	09/18/09	Yes	<100	<1	<1	1	3	64	<250	---	---
Pit H2O-6	09/21/09	Yes	<100	<1	<1	<1	<3	140 [x]	490	---	---
SPS Pit H2O 7	09/22/09	Yes	<100	<1	<1	<1	4	200 [x]	**510**	---	---
SPS Pit H2O 8	09/29/09	Yes	<100	<1	<1	<1	<3	91	320	---	---
SPS Pit H2O 9	09/30/09	Yes	<100	<1	<1	<1	<3	110	330	---	---
SPS Pit H2O 10	10/01/09	Yes	<100	<1	<1	<1	<3	<50	<250	Pb = 1.1	Pb = 1.1
MTCA Method A Groundwater Cleanup Levels			**800/1000**	**5**	**1,000**	**700**	**1,000**	**500**	**500**	**As = 5 Cr = 50**	**As = 5 Cr = 50 Pb = 15**

Samples collected by The Riley Group, Inc. September and October 2009.
All results and detection limits are given in ug/L; equivalent to parts per billion (ppb).
Sample Depth = Groundwater sample depth is feet below ground surface (bgs).
PID = Photoionization Detector.
TPH = Total Petroleum Hydrocarbons.
Gasoline TPH determined using Northwest Method NWTPH Gx.
BTEX (benzene, toluene, ethylbenzene, and xylenes) determined using EPA Test Method 8021B.
Diesel and Oil TPH determined using Northwest Method NWTPH Dx with silica gel cleanup.
Dissolved and Total Metals determined using EPA Test Method 200.8 and 1631E.
(As = Arsenic, Cd = Cadmium, Cr = Chromium, Pb = Lead, Hg = Murcury)
[1] The higher cleanup level applies for gasoline mixtures without benzene.
[2] Cleanup level for carcinogenic PAHs based on total weighted sums using the toxicity equivalency methodology in WAC 173 340 708(8).
[x] The pattern of peaks is not indicative of diesel according to the analytical report.
* Analysis via Ecology's Hydrocarbon Identification (HCID) test, which yields qualitative results (Detected = D; or ND).
---- = not analyzed or not applicable.
ND = Not Detected at noted analytical detection limit.
MTCA Method A Cleanup Level, Ecology Model Toxics Control Act Method A Groundwater Cleanup Levels for Unrestricted Land Use (WAC 173-340-900, Table 720-1).
Bold & yellow highlighted results indicate concentrations (if any) that exceed MTCA Method A Groundwater Cleanup Levels.

Photograph 1: Exposing former gasoline station foundation in south excavation (SPS). View looking west.

Photograph 2: SPS soil stratigraphy showing fill materials overlying glacial lacustrine sediments on south sidewall. View looking south.

Photograph 3: SPS, looking east.



Photograph 4: Single wall, steel vent lines west and adjacent to SPS. Former UST vent lines trend from the southern property margin northward and around the former service station foundation. View looking north.

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Snoqualmie Summit Inn Property		Figure A-1
Project Number 2008-321B	Site Photographs - SPS	Date Drawn: 11/12/09
Address: SR 906, Snoqualmie Pass, Washington		

Photograph 5: View east across south end of SPS during backfilling. SR906 in background.

Photograph 6: View looking south across SPS after final excavation of PCS. Excavation has been partially backfilled.

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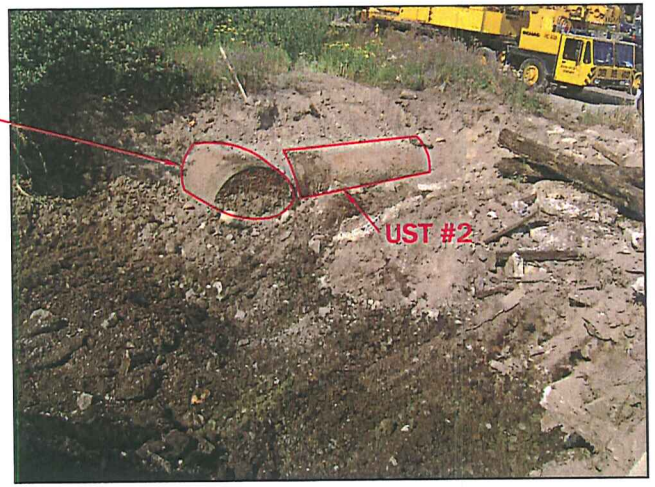
Snoqualmie Summit Inn Property		Figure A-2
Project Number 2008-321B	Site Photographs - SPS	Date Drawn: 11/12/09
Address: SR 906, Snoqualmie Pass, Washington		

Photograph 1: Concrete debris in north excavation (SPN).

Photograph 2: Shallow soil and auto parts, piping, organic tree roots debris exposed in SPN.



Photograph 3: USTs discovered east and adjacent to SPN, looking northeast. Refer to Figure 4.

Photograph 4: Rubble and UST in SPN, looking east. UST #1 in foreground.

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Snoqualmie Summit Inn Property		Figure A-3
Project Number 2008-321B	Site Photographs - SPN	Date Drawn: 11/12/09
Address: SR 906, Snoqualmie Pass, Washington		

Photograph 5: Eastern end of SPN south of USTs. View looking south. Large cobbles with very little soil matrix precluded sampling but not field screening.

Photograph 6: Profile of debris-containing fill soils overlying native glacial till in SPN on September 9, 2009. View looking south.

Photograph 7: Placing backfill in SPN. View looking north.

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Snoqualmie Summit Inn Property		Figure A-4
Project Number 2008-321B	Site Photographs - SPN	Date Drawn: 11/12/09
Address: SR 906, Snoqualmie Pass, Washington		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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October 5, 2009

Fred Becker, Project Manager
The Riley Group, Inc.
17522 Bothell Way NE
Bothell, WA 98011

Dear Mr. Becker:

Included are the results from the testing of material submitted on September 29, 2009 from the 2008-321B, F&BI 909287 project. There are 6 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
TRG1005R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on September 29, 2009 by Friedman & Bruya, Inc. from the The Riley Group, Inc. 2008-321B, F&BI 909287 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group, Inc.
909287-01	SPS PIT H2O 8

All quality control requirements were acceptable.

Date of Report: 10/05/09
Date Received: 09/29/09
Project: 2008-321B, F&BI 909287
Date Extracted: 09/29/09
Date Analyzed: 09/29/09

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 50-150)
SPS PIT H2O 8 909287-01	<1	<1	<1	<3	<100	100
Method Blank	<1	<1	<1	<3	<100	100

Date of Report: 10/05/09
Date Received: 09/29/09
Project: 2008-321B, F&BI 909287
Date Extracted: 09/29/09
Date Analyzed: 09/29/09

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
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)
SPS PIT H2O 8 909287-01	91 x	320	91
Method Blank	<50	<250	89

Date of Report: 10/05/09
Date Received: 09/29/09
Project: 2008-321B, F&BI 909287

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: 909241-01 (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	97	70-130
Toluene	ug/L (ppb)	50	94	70-130
Ethylbenzene	ug/L (ppb)	50	96	70-130
Xylenes	ug/L (ppb)	150	95	70-130
Gasoline	ug/L (ppb)	1,000	95	70-130

Date of Report: 10/05/09
Date Received: 09/29/09
Project: 2008-321B, F&BI 909287

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 Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	108	111	69-135	3

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.

909287

SAMPLE CHAIN OF CUSTODY

ME 9/29/09 VI/804

Page # 1 of 1

Send Report To Fred Becker

Company Riley Group Inc

Address 17522 Bothell Way NE

City, State, ZIP Bothell WA 98011

Phone # 4254150551 Fax # 4254150311

SAMPLERS (signature)

PROJECT NAME/NO. 2008-321B

PO #

REMARKS

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

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

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS						Notes
SPSPITH208	01 A-D	9/29	10:15	H_2O	4	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:		Tamara	RGI	9/29/09	11:43
Received by:	S. Olson	S. Olson	F+B, Inc	9.29.09	11:45
Relinquished by:					
Received by:					

Samples received at 8

FORMS\C OC.DOC

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

October 5, 2009

Fred Becker, Project Manager
The Riley Group, Inc.
17522 Bothell Way NE
Bothell, WA 98011

Dear Mr. Becker:

Included are the results from the testing of material submitted on October 1, 2009 from the 2008-321B, F&BI 910007 project. There are 6 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
TRG1005R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on October 1, 2009 by Friedman & Bruya, Inc. from the The Riley Group, Inc. 2008-321B, F&BI 910007 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group, Inc.
910007-01	SPS PIT H2O 10

All quality control requirements were acceptable.

Date of Report: 10/05/09
Date Received: 10/01/09
Project: 2008-321B, F&BI 910007
Date Extracted: 10/01/09
Date Analyzed: 10/01/09

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)
SPS PIT H2O 10 910007-01	<1	<1	<1	<3	<100	79
Method Blank	<1	<1	<1	<3	<100	80

Date of Report: 10/05/09
Date Received: 10/01/09
Project: 2008-321B, F&BI 910007
Date Extracted: 10/01/09
Date Analyzed: 10/01/09

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
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 52-134)
SPS PIT H2O 10 910007-01	<50	<250	85
Method Blank	<50	<250	83

Date of Report: 10/05/09
Date Received: 10/01/09
Project: 2008-321B, F&BI 910007

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: 910007-01 (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	94	65-118
Toluene	ug/L (ppb)	50	94	72-122
Ethylbenzene	ug/L (ppb)	50	93	73-126
Xylenes	ug/L (ppb)	150	95	74-118
Gasoline	ug/L (ppb)	1,000	105	69-134

Date of Report: 10/05/09
Date Received: 10/01/09
Project: 2008-321B, F&BI 910007

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 Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	89	103	64-125	15

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.

~~910007~~ 910007

SAMPLE CHAIN OF CUSTODY ME 10-01-09

V1/C05

Page # 1 of 1

Send Report To Fred Becker
Company Riley Group Inc
Address 17522 Bothell Way NE
City, State, ZIP Bothell WA 98011
Phone # 425 415 0551 Fax # 425 415 0311

SAMPLERS (signature)

PROJECT NAME/NO. 2008-321B

PO #

REMARKS

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

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

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS							Notes
						ANALYSES REQUESTED												
SPSPITH2010	01 A-C	10/1/09	10:00	H_2O	3	X		X										
																		Samples received at 14 °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:		Tamara Adams	RGI	10/1/09	12:00
Received by:		Nhan Phan	FEBT	10/1/09	V
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

October 6, 2009

Fred Becker, Project Manager
The Riley Group, Inc.
17522 Bothell Way NE
Bothell, WA 98011

Dear Mr. Becker:

Included are the results from the testing of material submitted on September 30, 2009 from the 2008-321B, F&BI 909297 project. There are 6 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
TRG1006R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on September 30, 2009 by Friedman & Bruya, Inc. from the The Riley Group, Inc. 2008-321B, F&BI 909297 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group, Inc.
909297-01	SPS PIT H2O 9

All quality control requirements were acceptable.

Date of Report: 10/06/09
Date Received: 09/30/09
Project: 2008-321B, F&BI 909297
Date Extracted: 09/30/09
Date Analyzed: 09/30/09

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)
SPS PIT H2O 9 909297-01	<1	<1	<1	<3	<100	81
Method Blank	<1	<1	<1	<3	<100	80

Date of Report: 10/06/09
Date Received: 09/30/09
Project: 2008-321B, F&BI 909297
Date Extracted: 09/30/09
Date Analyzed: 09/30/09

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
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 52-134)
SPS PIT H2O 9 909297-01	110 x	330	88
Method Blank	<50	<250	84

Date of Report: 10/06/09
Date Received: 09/30/09
Project: 2008-321B, F&BI 909297

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: 909241-01 (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	97	70-130
Toluene	ug/L (ppb)	50	94	70-130
Ethylbenzene	ug/L (ppb)	50	96	70-130
Xylenes	ug/L (ppb)	150	95	70-130
Gasoline	ug/L (ppb)	1,000	95	70-130

Date of Report: 10/06/09
Date Received: 09/30/09
Project: 2008-321B, F&BI 909297

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 Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	84	91	64-125	8

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.

909297

SAMPLE CHAIN OF CUSTODY

ME 09/30/09 VI/B04

Page # 1 of 1

Send Report To Fred Becker
Company Riley Group Inc
Address 17522 Bothell Way NE
City, State, ZIP Bothell WA 98011
Phone # 425 415 0551 Fax # 425 415 0311

SAMPLERS (signature) [signature]
PROJECT NAME/NO. 2008-321 B
PO #
REMARKS

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

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

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS						Notes
SPSPITH209	01 A-D	9/30/09	9:15	H2O	4	X		X									

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	[signature]	Tamara Adams	RGI	9/30/09	10:40
Received by:	[signature]	[illegible]	FedEx	9/30/09	
Relinquished by:					
Received by:					

Samples received at 1C

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

FORMS\C OC.DOC

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

October 8, 2009

Fred Becker, Project Manager
The Riley Group, Inc.
17522 Bothell Way NE
Bothell, WA 98011

Dear Mr. Becker:

Included are the additional results from the testing of material submitted on October 1, 2009 from the 2008-321B, F&BI 910007 project. There are 5 pages included in this report.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
TRG1008R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on October 1, 2009 by Friedman & Bruya, Inc. from the The Riley Group, Inc. 2008-321B, F&BI 910007 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group, Inc.
910007-01	SPS Pit H2O 10

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	SPS Pit H2O 10	Client:	The Riley Group, Inc.
Date Received:	10/01/09	Project:	2008-321B, F&BI 910007
Date Extracted:	10/07/09	Lab ID:	910007-01
Date Analyzed:	10/07/09	Data File:	910007-01.025
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	62	60	125

Analyte:	Concentration ug/L (ppb)
Lead	1.10

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	The Riley Group, Inc.
Date Received:	Not Applicable	Project:	2008-321B, F&BI 910007
Date Extracted:	10/07/09	Lab ID:	I9-414 mb
Date Analyzed:	10/07/09	Data File:	I9-414 mb.009
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	77	60	125

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

Date of Report: 10/08/09
Date Received: 10/01/09
Project: 2008-321B, F&BI 910007

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

Laboratory Code: 910036-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Lead	ug/L (ppb)	<1	<1	nm	0-20

Laboratory Code: 910036-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Lead	ug/L (ppb)	10	<1	98	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	ug/L (ppb)	10	103	70-130

Data Qualifiers & Definitions

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

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.

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

jl - The 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.

~~910007~~ 7 910007

SAMPLE CHAIN OF CUSTODY ME 10-01-09

V1, 25

Page # 1 of 1

Send Report To Fred Becker
Company Riley Group Inc
Address 17522 Bothell Way NE
City, State, ZIP Bothell WA 98011
Phone # 425 415 0551 Fax # 425 415 0311

SAMPLERS (signature)

PROJECT NAME/NO. 2008-321B

PO #

REMARKS

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

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

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	Total Lead	5 day TAT					Notes
SPSPITH2010	01 A-C	10/1/09	10:00	H_2O	3	X		X				✓						✓ pcFB 10/5/09 mc
												Samples received at 14 °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:	Tamara Adams	RGI	10/1/09	12:00
Received by:	Rheem Phan	FeBT	10/1/09	V
Relinquished by:				
Received by:				

FORMS\COC\COC.DOC

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

September 2, 2009

Fred Becker, Project Manager
The Riley Group, Inc.
17522 Bothell Way NE
Bothell, WA 98011

Dear Mr. Becker:

Included are the results from the testing of material submitted on September 1, 2009 from the 2008-321B Snoqualmie Pass, F&BI 909001 project. There are 10 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Jason Cass
TRG0902R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on September 1, 2009 by Friedman & Bruya, Inc. from the The Riley Group, Inc. 2008-321B Snoqualmie Pass, F&BI 909001 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group, Inc.
909001-01	SPS-PCS-7
909001-02	SPS-SESW-6
909001-03	SPS-PCS-2
909001-04	SPS-CLN-1
909001-05	SPS-SWSW-7
909001-06	SPS-CLN-2
909001-07	SPS-PCS-3
909001-08	SPS-PCS-4
909001-09	SPS-PCS
909001-10	SPS-PCS-SEC

The 8260C surrogate 4-bromofluorobenzene exceeded the acceptance criteria for the method blank. No analytes were detected, therefore the data is acceptable. All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/02/09
Date Received: 09/01/09
Project: 2008-321B Snoqualmie Pass, F&BI 909001
Date Extracted: 09/01/09
Date Analyzed: 09/01/09

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 50-132)
SPS-SESW-6 909001-02	<0.02	<0.02	<0.02	<0.06	<2	94
SPS-SWSW-7 909001-05	<0.02	<0.02	<0.02	<0.06	<2	94
SPS-CLN-2 909001-06	<0.02	0.16	0.41	2.1	160	114
SPS-PCS-3 909001-07	<0.02	0.14	0.86	2.0	130	123
SPS-PCS-4 d 909001-08 1/10	<0.02	0.69	1.7	9.3	300	ip
Method Blank	<0.02	<0.02	<0.02	<0.06	<2	90

Date of Report: 09/02/09
Date Received: 09/01/09
Project: 2008-321B Snoqualmie Pass, F&BI 909001
Date Extracted: 09/01/09
Date Analyzed: 09/01/09

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
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)
SPS-SESW-6 909001-02	<50	<250	107
SPS-SWSW-7 909001-05	<50	<250	112
SPS-CLN-2 909001-06	83	<250	109
SPS-PCS-3 909001-07	490 x	1,400	103
SPS-PCS-4 909001-08	3,100	2,300	115
Method Blank	<50	<250	111

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	SPS-PCS-3	Client:	The Riley Group, Inc.
Date Received:	09/01/09	Project:	2008-321B Snoqualmie Pass, F&BI 909001
Date Extracted:	09/01/09	Lab ID:	909001-07
Date Analyzed:	09/01/09	Data File:	090109.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	120	62	142
Toluene-d8	128	55	145
4-Bromofluorobenzene	130	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.03
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	SPS-PCS-4	Client:	The Riley Group, Inc.
Date Received:	09/01/09	Project:	2008-321B Snoqualmie Pass, F&BI 909001
Date Extracted:	09/01/09	Lab ID:	909001-08
Date Analyzed:	09/01/09	Data File:	090110.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	132	62	142
Toluene-d8	129	55	145
4-Bromofluorobenzene	133	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.03
Tetrachloroethene	<0.025

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	The Riley Group, Inc.
Date Received:	NA	Project:	2008-321B Snoqualmie Pass, F&BI 909001
Date Extracted:	09/01/09	Lab ID:	091139 mb rr
Date Analyzed:	09/01/09	Data File:	090115.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	136	62	142
Toluene-d8	139	55	145
4-Bromofluorobenzene	149 vo	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.03
Tetrachloroethene	<0.025

Date of Report: 09/02/09
Date Received: 09/01/09
Project: 2008-321B Snoqualmie Pass, F&BI 909001

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: 908224-01 (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	3	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	88	70-130
Toluene	mg/kg (ppm)	0.5	86	70-130
Ethylbenzene	mg/kg (ppm)	0.5	90	70-130
Xylenes	mg/kg (ppm)	1.5	85	70-130
Gasoline	mg/kg (ppm)	20	115	70-130

Date of Report: 09/02/09
Date Received: 09/01/09
Project: 2008-321B Snoqualmie Pass, F&BI 909001

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

Laboratory Code: 909001-02 (Matrix Spike) Silica Gel

Analyte	Reporting Units	Spike Level	(Wet wt) Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	118	123	78-126	4

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	110	70-127

Date of Report: 09/02/09
Date Received: 09/01/09
Project: 2008-321B Snoqualmie Pass, F&BI 909001

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

Laboratory Code: 908233-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Vinyl chloride	mg/kg (ppm)	<0.05	<0.05	nm
Chloroethane	mg/kg (ppm)	<0.5	<0.05	nm
1,1-Dichloroethene	mg/kg (ppm)	<0.05	<0.05	nm
Methylene chloride	mg/kg (ppm)	<0.5	<0.5	nm
trans-1,2-Dichloroethene	mg/kg (ppm)	<0.05	<0.05	nm
1,1-Dichloroethane	mg/kg (ppm)	<0.05	<0.05	nm
cis-1,2-Dichloroethene	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
Trichloroethene	mg/kg (ppm)	<0.03	<0.03	nm
Tetrachloroethene	mg/kg (ppm)	<0.025	<0.025	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	74	74	22-139	0
Chloroethane	mg/kg (ppm)	2.5	86	82	38-142	5
1,1-Dichloroethene	mg/kg (ppm)	2.5	88	91	75-132	3
Methylene chloride	mg/kg (ppm)	2.5	86	86	74-131	0
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	90	93	67-127	3
1,1-Dichloroethane	mg/kg (ppm)	2.5	92	97	71-124	5
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	93	97	77-125	4
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	92	93	74-122	1
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	98	100	74-125	2
Trichloroethene	mg/kg (ppm)	2.5	94	97	73-122	3
Tetrachloroethene	mg/kg (ppm)	2.5	95	97	79-127	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.

909001

SAMPLE CHAIN OF CUSTODY ME 9/1/09 A03/VS2

Send Report To Fred Becker
Company The Riley Group
Address 17522 Bothell Way NE
City, State, ZIP Bothell, WA 98011
Phone # (425)415-0551 Fax # (425)415-0311

SAMPLERS (signature) Jason Cass
PROJECT NAME/NO. 2008-321B Snoqualmie Pass
PO #
REMARKS

Page # 1 of 1

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

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

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel (X)	TPH-Gasoline	BTEX by 8021B	Chlorinated VOCs by 8260	SVOCs by 8270	HFS						Notes
SPS-PCS-7	01	8/31/09	~~9:30~~ 9:45	Soil	4												
SPS-SESW-6	02 A-D	8/31/09	12:15		4	X	X	X									
SPS-PCS-2	03 A-D	8/31/09	12:45		4												
SPS-CLN-1	04 A-D	8/31/09	12:45		4												
SPS-SWSW-7	05	8/31/09	2:00		4	X	X	X									
SPS-CLN-2	06 A-C	8/31/09	3:15		~~4~~ 3	X	X	X									Composite
SPS-PCS-3	07 A-H	8/31/09	5:30		8	X	X	X	X								
SPS-PCS-4	08 A-D	8/31/09	5:45		4	X	X	X	X								
SAS-ACS	09	8/31	10:50	40z Jar	1												Listed at Lab
SAS-ACS-SEC	10 A-C	8/31	10:50	VOA's	3												Listed at Lab

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

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Jason Cass	Jason Cass	R.G.F.	9/1/09	07:55
Received by:	Michael Erdahl	Michael Erdahl	F&B	1	↓
Relinquished by:					
Received by:					

FORMS\COCV DOC

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

September 3, 2009

Fred Becker, Project Manager
The Riley Group, Inc.
17522 Bothell Way NE
Bothell, WA 98011

Dear Mr. Becker:

Included are the results from the testing of material submitted on September 1, 2009 from the 2008-321B Snoqualmie Pass, F&BI 909016 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
TRG0903R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on September 1, 2009 by Friedman & Bruya, Inc. from the The Riley Group, Inc. 2008-321B Snoqualmie Pass, F&BI 909016 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group, Inc.
909016-01	SPN-NWC-4
909016-02	SPS-WSW-7
909016-03	SPN-NWC-7
909016-04	SPS-CLN-4
909016-05	SPN-EP10-5
909016-06	SPN-EP10-8
909016-07	SPN-BOT1-8
909016-08	SPN-BOT2-4
909016-09	SPN-NSW-6

The 8260C surrogates exceeded the acceptance criteria for the samples and method blank. No analytes were detected, therefore the data is acceptable. All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/03/09
Date Received: 09/01/09
Project: 2008-321B Snoqualmie Pass, F&BI 909016
Date Extracted: 09/02/09
Date Analyzed: 09/02/09

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)
SPS-WSW-7 909016-02	<0.02	<0.02	<0.02	<0.06	3	91
SPN-NWC-7 909016-03	<0.02	<0.02	0.75	0.14	220	150
SPN-EP10-5 909016-05	<0.02	<0.02	0.04	<0.06	4	101
SPN-BOT1-8 909016-07	<0.02	<0.02	<0.02	<0.06	<2	93
SPN-BOT2-4 909016-08	<0.02	<0.02	<0.02	<0.06	<2	87
Method Blank	<0.02	<0.02	<0.02	<0.06	<2	95

Date of Report: 09/03/09
Date Received: 09/01/09
Project: 2008-321B Snoqualmie Pass, F&BI 909016
Date Extracted: 09/02/09
Date Analyzed: 09/02/09

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
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)
SPS-WSW-7 909016-02	<50	<250	92
SPN-NWC-7 909016-03	290	<250	88
SPN-EP10-5 909016-05	<50	<250	100
SPN-BOT1-8 909016-07	<50	<250	98
SPN-BOT2-4 909016-08	<50	<250	91
Method Blank	<50	<250	89

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	SPN-NWC-7	Client:	The Riley Group, Inc.
Date Received:	09/01/09	Project:	2008-321B Snoqualmie Pass, F&BI 909016
Date Extracted:	09/02/09	Lab ID:	909016-03
Date Analyzed:	09/02/09	Data File:	909016-03.038
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	6.29

Analysis For Total Metals By EPA Method 200.8

Client ID:	SPN-EP10-5	Client:	The Riley Group, Inc.
Date Received:	09/01/09	Project:	2008-321B Snoqualmie Pass, F&BI 909016
Date Extracted:	09/02/09	Lab ID:	909016-05
Date Analyzed:	09/02/09	Data File:	909016-05.039
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	93	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	5.92

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	The Riley Group, Inc.
Date Received:	NA	Project:	2008-321B Snoqualmie Pass, F&BI 909016
Date Extracted:	09/02/09	Lab ID:	I9-362 mb
Date Analyzed:	09/02/09	Data File:	I9-362 mb.040
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	93	60	125

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

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	SPN-NWC-7	Client:	The Riley Group, Inc.
Date Received:	09/01/09	Project:	2008-321B Snoqualmie Pass, F&BI 909016
Date Extracted:	09/02/09	Lab ID:	909016-03
Date Analyzed:	09/02/09	Data File:	090205.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	160 vo	62	142
Toluene-d8	162 vo	55	145
4-Bromofluorobenzene	173 vo	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.03
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	SPN-EP10-5	Client:	The Riley Group, Inc.
Date Received:	09/01/09	Project:	2008-321B Snoqualmie Pass, F&BI 909016
Date Extracted:	09/02/09	Lab ID:	909016-05
Date Analyzed:	09/02/09	Data File:	090206.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	180 vo	62	142
Toluene-d8	173 vo	55	145
4-Bromofluorobenzene	192 vo	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.03
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	The Riley Group, Inc.
Date Received:	NA	Project:	2008-321B Snoqualmie Pass, F&BI 909016
Date Extracted:	09/02/09	Lab ID:	091140 mb2
Date Analyzed:	09/02/09	Data File:	090204.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	134	62	142
Toluene-d8	138	55	145
4-Bromofluorobenzene	150 vo	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.03
Tetrachloroethene	<0.025

Date of Report: 09/03/09
Date Received: 09/01/09
Project: 2008-321B Snoqualmie Pass, F&BI 909016

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: 908229-12 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Benzene	mg/kg (ppm)	0.15	0.06	86 a
Toluene	mg/kg (ppm)	0.07	0.05	33 a
Ethylbenzene	mg/kg (ppm)	0.28	0.22	23 hr
Xylenes	mg/kg (ppm)	1.44	1.14	23 hr
Gasoline	mg/kg (ppm)	30	27	11

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	90	70-130
Toluene	mg/kg (ppm)	0.5	90	70-130
Ethylbenzene	mg/kg (ppm)	0.5	92	70-130
Xylenes	mg/kg (ppm)	1.5	87	70-130
Gasoline	mg/kg (ppm)	20	101	70-130

Date of Report: 09/03/09
Date Received: 09/01/09
Project: 2008-321B Snoqualmie Pass, F&BI 909016

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

Laboratory Code: 909016-05 (Matrix Spike) Silica Gel

Analyte	Reporting Units	Spike Level	(Wet wt) Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	101	109	78-126	8

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	112	70-127

Date of Report: 09/03/09
Date Received: 09/01/09
Project: 2008-321B Snoqualmie Pass, F&BI 909016

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

Laboratory Code: 909013-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Lead	mg/kg (ppm)	1.94	1.88	3	0-20

Laboratory Code: 909013-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Lead	mg/kg (ppm)	20	1.94	124	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/kg (ppm)	20	110	70-130

Date of Report: 09/03/09
Date Received: 09/01/09
Project: 2008-321B Snoqualmie Pass, F&BI 909016

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

Laboratory Code: 908233-20 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Vinyl chloride	mg/kg (ppm)	<0.05	<0.05	nm
Chloroethane	mg/kg (ppm)	<0.5	<0.05	nm
1,1-Dichloroethene	mg/kg (ppm)	<0.05	<0.05	nm
Methylene chloride	mg/kg (ppm)	<0.5	<0.5	nm
trans-1,2-Dichloroethene	mg/kg (ppm)	<0.05	<0.05	nm
1,1-Dichloroethane	mg/kg (ppm)	<0.05	<0.05	nm
cis-1,2-Dichloroethene	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
Trichloroethene	mg/kg (ppm)	<0.03	<0.03	nm
Tetrachloroethene	mg/kg (ppm)	<0.025	<0.025	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	76	70	22-139	8
Chloroethane	mg/kg (ppm)	2.5	94	89	38-142	5
1,1-Dichloroethene	mg/kg (ppm)	2.5	94	86	75-132	9
Methylene chloride	mg/kg (ppm)	2.5	82	81	74-131	1
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	89	84	67-127	6
1,1-Dichloroethane	mg/kg (ppm)	2.5	93	87	71-124	7
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	89	84	77-125	6
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	92	89	74-122	3
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	92	83	74-125	10
Trichloroethene	mg/kg (ppm)	2.5	91	83	73-122	9
Tetrachloroethene	mg/kg (ppm)	2.5	91	82	79-127	10

Data Qualifiers & Definitions

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

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.

909016

SAMPLE CHAIN OF CUSTODY

ME 9.1.09 C13, V51

Send Report To Fred Becker
Company The Riley Group
Address 17522 Bothell Way NE
City, State, ZIP Bothell, WA 98011
Phone #(425) 415-0551 Fax # (425) 415-0311

SAMPLERS (signature) Jason Cass
PROJECT NAME/NO. 2009.321B Snoqualmie Pass
PO #
REMARKS

Page # ____ of ____

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

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

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	~~Halogenated~~ VOCs by 8260	SVOCs by 8270	HFS	Lead Pb					Notes
SPN-NWC-4	01	9/1/09		Soil	1												
SPS-WSW-7	02A-E	9/1/09	10:20		5	X	X	X									
SPN-NWC-7	03A-E	9/1/09	13:40		5	X	X	X	X			X					
SPS-CLN-4	04A-C	9/1/09			3												
SPN-EP10-5	05A-E	9/1/09			5	X	X	X	X			X					
SPN-EP10-8	06	9/1/09			1												
SPN-BOT1-8	07	9/1/09			1	X	X	X									
SPN-BOT2-4	08	9/1/09			1	X	X	X									
SPN-NSW-6	09	9/1/09			1												

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:	Jason Cass	Jason Cass	RGI	9/1/09	4:55
Received by:		Michael Erdahl	FEBruya	1	1
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

September 8, 2009

Fred Becker, Project Manager
The Riley Group, Inc.
17522 Bothell Way NE
Bothell, WA 98011

Dear Mr. Becker:

Included are the results from the testing of material submitted on September 3, 2009 from the 2008-321B Snoqualmie Pass, F&BI 909031 project. There are 15 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Jason Cass
TRG0908R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on September 3, 2009 by Friedman & Bruya, Inc. from the The Riley Group, Inc. 2008-321B Snoqualmie Pass, F&BI 909031 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group, Inc.
909031-01	SPN-BOT4-5
909031-02	SPN-UST1-BOT-6
909031-03	SPN-NWC-NSW-7
909031-04	SPN-NWC-ESW-4
909031-05	SPN-UST2-BOT-6-East
909031-06	SPN-SSW-5
909031-07	SPN-UST2-BOT-6-West
909031-08	SPS-NSW-7
909031-09	SPS-ESW-8
909031-10	SPN-NWC-WSW-6
909031-11	SPS-BOT1-9
909031-12	SPS-SSW-6
909031-13	SPN-CLN-2
909031-14	SPN-CLN-1
909031-15	SPN-PCS-1
909031-16	Small UST H2O
909031-17	Big UST H2O

Samples 909031-01–07, 10 and 11 were not sampled using method 5035 containers. The samples are flagged accordingly.

Surrogate recoveries were above laboratory control limits for the 8260C analysis. The samples were non-detect, therefore the data was considered acceptable.

Laboratory control sample percent recoveries were outside of control limits for the 8260C analysis of methylene chloride and 1,1-dichloroethene. The results are flagged accordingly.

All other quality assurance was acceptable.

Date of Report: 09/08/09
Date Received: 09/03/09
Project: 2008-321B Snoqualmie Pass, F&BI 909031
Date Extracted: 09/03/09
Date Analyzed: 09/03/09

RESULTS FROM THE ANALYSIS OF THE WATER 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)
Small UST H2O 909031-16	D	ND	ND	99
Big UST H2O 909031-17	D	ND	ND	95
Method Blank	ND	ND	ND	89

ND - Material not detected at or above 0.2 mg/L gas, 0.5 mg/L diesel and 0.5 mg/L heavy oil.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/08/09
Date Received: 09/03/09
Project: 2008-321B Snoqualmie Pass, F&BI 909031
Date Extracted: 09/03/09
Date Analyzed: 09/03/09

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 50-132)
SPN-UST1-BOT-6 pc 909031-02	<0.02	<0.02	<0.02	<0.06	<2	89
SPN-UST2-BOT-6-East pc 909031-05	<0.02	<0.02	<0.02	<0.06	<2	91
SPN-UST2-BOT-6-West pc 909031-07	<0.02	<0.02	<0.02	<0.06	<2	89
SPS-NSW-7 909031-08	<0.02	<0.02	<0.02	<0.06	4	94
SPS-ESW-8 909031-09	<0.02	<0.02	<0.02	<0.06	<2	87
SPN-NWC-WSW-6 pc 909031-10	<0.02	<0.02	<0.02	<0.06	<2	106
SPS-BOT1-9 pc 909031-11	<0.02	<0.02	<0.02	<0.06	<2	88
SPS-SSW-6 909031-12	<0.02	<0.02	<0.02	<0.06	<2	81
SPN-CLN-2 909031-13	<0.02	<0.02	<0.02	<0.06	6	88

Date of Report: 09/08/09
Date Received: 09/03/09
Project: 2008-321B Snoqualmie Pass, F&BI 909031
Date Extracted: 09/03/09
Date Analyzed: 09/03/09

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 50-132)
SPN-CLN-1 909031-14	<0.02	<0.02	<0.02	<0.06	5	90
SPN-PCS-1 909031-15	<0.02	<0.02	0.11	0.13	220	133
Method Blank	<0.02	<0.02	<0.02	<0.06	<2	98

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/08/09
Date Received: 09/03/09
Project: 2008-321B Snoqualmie Pass, F&BI 909031
Date Extracted: 09/03/09
Date Analyzed: 09/03/09

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
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)
SPN-UST1-BOT-6 909031-02	<50	<250	119
SPN-UST2-BOT-6-East 909031-05	<50	<250	106
SPN-UST2-BOT-6-West 909031-07	<50	<250	102
SPS-NSW-7 909031-08	<50	<250	102
SPS-ESW-8 909031-09	<50	<250	91
SPN-NWC-WSW-6 909031-10	<50	<250	98
SPS-BOT1-9 909031-11	<50	<250	87
SPS-SSW-6 909031-12	<50	<250	101
SPN-CLN-2 909031-13	<50	<250	89
SPN-CLN-1 909031-14	71	<250	95

Date of Report: 09/08/09
Date Received: 09/03/09
Project: 2008-321B Snoqualmie Pass, F&BI 909031
Date Extracted: 09/03/09
Date Analyzed: 09/03/09

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
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)
SPN-PCS-1 909031-15	3,300	<250	125
Method Blank	<50	<250	86

Analysis For Total Metals By EPA Method 200.8

Client ID:	SPN-PCS-1	Client:	The Riley Group, Inc.
Date Received:	09/03/09	Project:	2008-321B, F&BI 909031
Date Extracted:	09/03/09	Lab ID:	909031-15
Date Analyzed:	09/03/09	Data File:	909031-15.009
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	101	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	67.0

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	The Riley Group, Inc.
Date Received:	Not Applicable	Project:	2008-321B, F&BI 909031
Date Extracted:	09/03/09	Lab ID:	I9-362 mb 2
Date Analyzed:	09/03/09	Data File:	I9-362 mb 2.008
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	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	SPN-PCS-1	Client:	The Riley Group, Inc.
Date Received:	09/03/09	Project:	2008-321B, F&BI 909031
Date Extracted:	09/04/09	Lab ID:	909031-15
Date Analyzed:	09/04/09	Data File:	090411.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	194 vo	62	142
Toluene-d8	185 vo	55	145
4-Bromofluorobenzene	204 vo	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05 jl
Methylene chloride	<0.5 jl
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.03
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	The Riley Group, Inc.
Date Received:	Not Applicable	Project:	2008-321B, F&BI 909031
Date Extracted:	09/04/09	Lab ID:	091143 mb
Date Analyzed:	09/04/09	Data File:	090410.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	142	62	142
Toluene-d8	141	55	145
4-Bromofluorobenzene	154 vo	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05 jl
Methylene chloride	<0.5 jl
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.03
Tetrachloroethene	<0.025

Date of Report: 09/08/09
Date Received: 09/03/09
Project: 2008-321B Snoqualmie Pass, F&BI 909031

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: 909031-02 (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	88	66-121
Toluene	mg/kg (ppm)	0.5	88	72-128
Ethylbenzene	mg/kg (ppm)	0.5	90	69-132
Xylenes	mg/kg (ppm)	1.5	87	69-131
Gasoline	mg/kg (ppm)	20	114	61-153

Date of Report: 09/08/09
Date Received: 09/03/09
Project: 2008-321B Snoqualmie Pass, F&BI 909031

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

Laboratory Code: 909031-10 (Matrix Spike) Silica Gel

Analyte	Reporting Units	Spike Level	(Wet wt) Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	111	105	63-146	6

Laboratory Code. Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	108	79-144

Date of Report: 09/08/09
Date Received: 09/03/09
Project: 2008-321B Snoqualmie Pass, F&BI 909031

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

Laboratory Code: 909013-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Lead	mg/kg (ppm)	1.94	1.88	3	0-20

Laboratory Code: 909013-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Lead	mg/kg (ppm)	20	1.94	124	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/kg (ppm)	20	110	70-130

Date of Report: 09/08/09
Date Received: 09/03/09
Project: 2008-321B Snoqualmie Pass, F&BI 909031

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)
Vinyl chloride	mg/kg (ppm)	2.5	68	62	22-139	9
Chloroethane	mg/kg (ppm)	2.5	69	65	38-142	6
1,1-Dichloroethene	mg/kg (ppm)	2.5	80	73 vo	75-132	9
Methylene chloride	mg/kg (ppm)	2.5	80	73 vo	74-131	9
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	88	78	67-127	12
1,1-Dichloroethane	mg/kg (ppm)	2.5	89	80	71-124	11
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	93	85	77-125	9
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	94	88	74-122	7
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	95	85	74-125	11
Trichloroethene	mg/kg (ppm)	2.5	89	83	73-122	7
Tetrachloroethene	mg/kg (ppm)	2.5	92	85	79-127	8

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.

909-31

SAMPLE CH OF CUSTODY ME 09/03/09

VSI / V. / AOY

Page # 1 of 2

Send Report To Fred Becker

Company The Riley Group

Address 17522 Bothell Way N.E.

City, State, ZIP Bothell, WA 98011

Phone # (425) 415-0551 Fax # (425) 415-0311

SAMPLERS (signature) Jason Cass

PROJECT NAME/NO. 2008.321B Snoqualmie Pass

PO #

REMARKS

TURNAROUND TIME
- ☐ Standard (2 Weeks)
- ☒ RUSH
- Rush charges authorized by: 52

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

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS					Notes
SPN-BOT4-5	01	9/2/09		Soil	1											
SPN-UST1-BOT-6	02				1	X	X	X								
SPN-NWC-NSW-7	03				1											
SPN-NWC-ESW-4	04				1											
NP SPN-UST2-BOT-6-East	05				1	X	X	X								sample label NP SPN-UST2 BOT-6-
SPN-SSW-5	06				1											
NP SPN-UST2-BOT-6-West	07				1	X	X	X								
SPS-NSW-7	08 A-D				4	X	X	X								
SPS-ESW-8	09 A-E				5	X	X	X								
SPN-NWC-WSW-6	10				1	X	X	X								

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

FORMS\COC\COC.DOC

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Jason Cass	Jason Cass	RGZ	9/3	8:00
Received by:		Michael Erdahl	FGBru	1	1
Relinquished by:					
Received by:					

Samples received at 3 °C

909031

SAMPLE CHAIN OF CUSTODY ME 09/03/09 VSI / VI / A04

Page # 2 of 2

Send Report To Fred Becker
Company The Riley Group
Address 17522 Bothell Way NE.
City, State, ZIP Bothell, WA 98011
Phone #(425)415-0551 Fax #(425)415-0311

SAMPLERS (signature) Jason Cass
PROJECT NAME/NO. 2008-321B Snoqualmie Pass
PO #
REMARKS

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

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

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	HCID	Lead	HVOCs			Notes
																	√-PCJC
SPS-BOT-9	11	9/2/09		Soil	4	X	X	X									9/4 10a mc
SPS-SSW-6	12 A-D			Soil	4	X	X	X									
SPN-CLN-2	13 A-C			Soil	3	X	X	X									Composite
SPN-CLN-1	14 A-G			Soil	7	X	X	X									Composite
SPN-PCS-1	15 A-C			Soil	3	X	X	X					X	√			Composite
Small UST H2O	16 A-C			H2O	3							X					
Big UST H2O	17 A-C			H2O	3							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:	Jason Cass	Jason Cass	RGI	9/3	8:00
Received by:		Michael Erdahl	FBrue	1	1
Relinquished by:					
Received by:					

FORMS\COC .DOC

Samples received at 3

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

September 11, 2009

Fred Becker, Project Manager
The Riley Group, Inc.
17522 Bothell Way NE
Bothell, WA 98011

Dear Mr. Becker:

Included are the results from the testing of material submitted on September 10, 2009 from the 2008-321B Snoqualmie Pass, F&BI 909092 project. There are 24 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
TRG0911R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on September 10, 2009 by Friedman & Bruya, Inc. from the The Riley Group, Inc. 2008-321B Snoqualmie Pass, F&BI 909092 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group, Inc.
909092-01	SPN-SWQ-7
909092-02	SPN-ESW2-6
909092-03	SPS-WSW3-8
909092-04	SPN-WSW-8
909092-05	SPN-BOT-7
909092-06	SPN-BOT2-8
909092-07	SPN-WSW2-8
909092-08	Pit H2O-2
909092-09	SPN-SSW-5
909092-10	SPN-WSW2-5
909092-11	WPN-WSW2-6
909092-12	SPN-SWQ-BOT-6
909092-13	NSP-SWQ-WSW-6
909092-14	NSP-ESW1-5

The 8270D laboratory control sample failed the acceptance criteria for anthracene. The data was flagged accordingly. All other quality control requirements were acceptable.

Date of Report: 09/11/09
Date Received: 09/10/09
Project: 2008-321B Snoqualmie Pass, F&BI 909092
Date Extracted: 09/10/09
Date Analyzed: 09/10/09

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)
Pit H2O-2 909092-08	3	3	6	76	730	60
Method Blank	<1	<1	<1	<3	<100	69

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/11/09
Date Received: 09/10/09
Project: 2008-321B Snoqualmie Pass, F&BI 909092
Date Extracted: 09/10/09
Date Analyzed: 09/10/09

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)
SPN-ESW2-6 pc 909092-02	<0.02	<0.02	<0.02	<0.06	<2	103
SPS-WSW3-8 909092-03	<0.02	<0.02	<0.02	<0.06	<2	93
SPN-BOT2-8 pc 909092-06	<0.02	<0.02	<0.02	<0.06	<2	94
SPN-WSW2-8 pc 909092-07	<0.02	<0.02	<0.02	<0.06	<2	95
SPN-SSW-5 pc 909092-09	<0.02	<0.02	<0.02	<0.06	<2	101
Method Blank	<0.02	<0.02	<0.02	<0.06	<2	97

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/11/09
Date Received: 09/10/09
Project: 2008-321B Snoqualmie Pass, F&BI 909092
Date Extracted: 09/10/09
Date Analyzed: 09/10/09

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
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)
SPN-ESW2-6 909092-02	<50	<250	113
SPS-WSW3-8 909092-03	<50	<250	99
SPN-BOT2-8 909092-06	<50	<250	102
SPN-WSW2-8 909092-07	<50	<250	104
SPN-SSW-5 909092-09	<50	<250	88
Method Blank	<50	<250	108

Date of Report: 09/11/09
Date Received: 09/10/09
Project: 2008-321B Snoqualmie Pass, F&BI 909092
Date Extracted: 09/10/09
Date Analyzed: 09/10/09

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
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)
Pit H2O-2 909092-08	580 x	810	74
Method Blank	<50	<250	85

Analysis For Total Metals By EPA Method 200.8

Client ID:	Pit H2O-2	Client:	The Riley Group, Inc.
Date Received:	09/10/09	Project:	2008-321B Snoqualmie Pass, F&BI 909092
Date Extracted:	09/10/09	Lab ID:	909092-08
Date Analyzed:	09/10/09	Data File:	909092-08.012
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	94	60	125
Indium	88	60	125
Holmium	92	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	22.8
Arsenic	27.9
Cadmium	<1
Lead	95.4

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	The Riley Group, Inc.
Date Received:	NA	Project:	2008-321B Snoqualmie Pass, F&BI 909092
Date Extracted:	09/10/09	Lab ID:	I9-370 m
Date Analyzed:	09/10/09	Data File:	I9-370 mb.010
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	92	60	125
Indium	94	60	125
Holmium	97	60	125

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

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	Pit H2O-2	Client:	The Riley Group, Inc.
Date Received:	09/10/09	Project:	2008-321B Snoqualmie Pass, F&BI 909092
Date Extracted:	09/10/09	Lab ID:	909092-08
Date Analyzed:	09/10/09	Data File:	909092-08.009
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	92	60	125
Indium	92	60	125
Holmium	92	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	9.01
Arsenic	2.61
Cadmium	<1
Lead	<1

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	The Riley Group, Inc.
Date Received:	NA	Project:	2008-321B Snoqualmie Pass, F&BI 909092
Date Extracted:	09/10/09	Lab ID:	I9-366 mb
Date Analyzed:	09/10/09	Data File:	I9-366 mb.008
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	99	60	125
Indium	95	60	125
Holmium	98	60	125

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

Date of Report: 09/11/09
Date Received: 09/10/09
Project: 2008-321B Snoqualmie Pass, F&BI 909092
Date Extracted: 09/10/09
Date Analyzed: 09/11/09

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Total Mercury
Pit H2O-2 909092-08	<0.2
Method Blank	<0.2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/11/09
Date Received: 09/10/09
Project: 2008-321B Snoqualmie Pass, F&BI 909092
Date Extracted: 09/10/09
Date Analyzed: 09/11/09

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR DISSOLVED MERCURY USING EPA METHOD 1631E

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Dissolved Mercury
Pit H2O-2 909092-08	<0.2
Method Blank	<0.2

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SPN-BOT2-8	Client:	The Riley Group, Inc.
Date Received:	09/10/09	Project:	2008-321B Snoqualmie Pass, F&BI 909092
Date Extracted:	09/10/09	Lab ID:	909092-06 1/5
Date Analyzed:	09/10/09	Data File:	091006.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	78	50	150
Benzo(a)anthracene-d12	79	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
Acenaphthylene	<0.01
Acenaphthene	<0.01
Fluorene	<0.01
Phenanthrene	<0.01
Anthracene	<0.01 jl
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:	The Riley Group, Inc.
Date Received:	NA	Project:	2008-321B Snoqualmie Pass, F&BI 909092
Date Extracted:	09/10/09	Lab ID:	091311mb 1/5
Date Analyzed:	09/10/09	Data File:	091005.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	91	50	150
Benzo(a)anthracene-d12	101	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
Acenaphthylene	<0.01
Acenaphthene	<0.01
Fluorene	<0.01
Phenanthrene	<0.01
Anthracene	<0.01 jl
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: 09/11/09
Date Received: 09/10/09
Project: 2008-321B Snoqualmie Pass, F&BI 909092

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: 909065-05 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	9	9	0
Ethylbenzene	ug/L (ppb)	25	25	0
Xylenes	ug/L (ppb)	8	8	0
Gasoline	ug/L (ppb)	1,000	1,000	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	79	65-118
Toluene	ug/L (ppb)	50	78	72-122
Ethylbenzene	ug/L (ppb)	50	78	73-126
Xylenes	ug/L (ppb)	150	80	74-118
Gasoline	ug/L (ppb)	1,000	104	69-134

Date of Report: 09/11/09
Date Received: 09/10/09
Project: 2008-321B Snoqualmie Pass, F&BI 909092

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: 909092-07 (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	88	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	85	70-130
Gasoline	mg/kg (ppm)	20	95	70-130

Date of Report: 09/11/09
Date Received: 09/10/09
Project: 2008-321B Snoqualmie Pass, F&BI 909092

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

Laboratory Code: 909083-03 (Matrix Spike) Silica Gel

Analyte	Reporting Units	Spike Level	(Wet wt) Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	120	133 vo	78-126	10

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	116	70-127

Date of Report: 09/11/09
Date Received: 09/10/09
Project: 2008-321B Snoqualmie Pass, F&BI 909092

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 Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	96	101	69-135	5

Date of Report: 09/11/09
Date Received: 09/10/09
Project: 2008-321B Snoqualmie Pass, F&BI 909092

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

Laboratory Code: 909092-08 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	ug/L (ppb)	22.8	22.7	0	0-20
Arsenic	ug/L (ppb)	27.9	27.1	3	0-20
Cadmium	ug/L (ppb)	<1	<1	nm	0-20
Lead	ug/L (ppb)	95.4	92.9	3	0-20

Laboratory Code: 909092-08 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Chromium	ug/L (ppb)	20	22.8	73 b	50-150
Arsenic	ug/L (ppb)	10	27.9	76 b	50-150
Cadmium	ug/L (ppb)	5	<1	94	50-150
Lead	ug/L (ppb)	10	95.4	8 b	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chromium	ug/L (ppb)	20	101	70-130
Arsenic	ug/L (ppb)	10	98	70-130
Cadmium	ug/L (ppb)	5	104	70-130
Lead	ug/L (ppb)	10	103	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/11/09
Date Received: 09/10/09
Project: 2008-321B Snoqualmie Pass, F&BI 909092

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

Laboratory Code: 908239-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	ug/L (ppb)	5.18	5.51	6	0-20
Arsenic	ug/L (ppb)	<1	<1	nm	0-20
Cadmium	ug/L (ppb)	<1	<1	nm	0-20
Lead	ug/L (ppb)	<1	<1	nm	0-20

Laboratory Code: 908239-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Chromium	ug/L (ppb)	20	5.18	105 b	50-150
Arsenic	ug/L (ppb)	10	<1	113	50-150
Cadmium	ug/L (ppb)	5	<1	103	50-150
Lead	ug/L (ppb)	10	<1	107	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chromium	ug/L (ppb)	20	96	70-130
Arsenic	ug/L (ppb)	10	96	70-130
Cadmium	ug/L (ppb)	5	104	70-130
Lead	ug/L (ppb)	10	103	70-130

Date of Report: 09/11/09
Date Received: 09/10/09
Project: 2008-321B Snoqualmie Pass, F&BI 909092

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED MERCURY USING EPA METHOD 1631E

Laboratory Code: 909092-08 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MS	Acceptance Criteria	RPD (Limit 20)
Mercury	ug/L (ppb)	0.5	<0.2	90	100	50-150	10

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Mercury	ug/L (ppb)	0.5	104	70-130

Date of Report: 09/11/09
Date Received: 09/10/09
Project: 2008-321B Snoqualmie Pass, F&BI 909092

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Laboratory Code: 909092-08 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MS	Acceptance Criteria	RPD (Limit 20)
Mercury	ug/L (ppb)	0.5	<0.2	96	98	50-150	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Mercury	ug/L (ppb)	0.5	89	70-130

Date of Report: 09/11/09
Date Received: 09/10/09
Project: 2008-321B Snoqualmie Pass, F&BI 909092

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PNA'S BY EPA METHOD 8270D SIM

Laboratory Code: 909092-06 (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: 909092-06 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Naphthalene	mg/kg (ppm)	0.17	<0.01	81	26-148
Acenaphthylene	mg/kg (ppm)	0.17	<0.01	85	40-131
Acenaphthene	mg/kg (ppm)	0.17	<0.01	79	58-108
Fluorene	mg/kg (ppm)	0.17	<0.01	81	57-113
Phenanthrene	mg/kg (ppm)	0.17	<0.01	78	30-138
Anthracene	mg/kg (ppm)	0.17	<0.01	73	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	75	47-113
Chrysene	mg/kg (ppm)	0.17	<0.01	74	45-122
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	<0.01	78	24-145
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	<0.01	74	51-118
Benzo(a)pyrene	mg/kg (ppm)	0.17	<0.01	80	30-134
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	<0.01	93	40-138
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	<0.01	84	51-122
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	<0.01	81	54-115

Date of Report: 09/11/09
Date Received: 09/10/09
Project: 2008-321B Snoqualmie Pass, F&BI 909092

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	81	72-112	9
Acenaphthylene	mg/kg (ppm)	0.17	75	84	68-112	11
Acenaphthene	mg/kg (ppm)	0.17	71	80	70-111	12
Fluorene	mg/kg (ppm)	0.17	73	82	69-110	12
Phenanthrene	mg/kg (ppm)	0.17	70	78	68-111	11
Anthracene	mg/kg (ppm)	0.17	65 vo	72	67-110	10
Fluoranthene	mg/kg (ppm)	0.17	72	81	68-114	12
Pyrene	mg/kg (ppm)	0.17	72	81	68-114	12
Benz(a)anthracene	mg/kg (ppm)	0.17	70	77	58-108	10
Chrysene	mg/kg (ppm)	0.17	68	76	64-115	11
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	73	84	54-119	14
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	69	76	61-123	10
Benzo(a)pyrene	mg/kg (ppm)	0.17	72	83	54-111	14
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	88	102	52-118	15
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	78	88	57-119	12
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	74	84	60-116	13

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.

~~9999~~ 090992

SAMPLE CHAIN OF CUSTODY

ME 09-10-09 AI3/VS1/V1

Page # 1 of 2

Send Report To Fred Becker

Company The Riley Group

Address 17522 Bothell Way NE

City, State, ZIP Bothell, WA 98011

Phone # (425) 415-0551 Fax # (425) 415-0311

SAMPLERS (signature) Susan Cass

PROJECT NAME/NO. 2009-32.13 Snoqualmie Pass

PO #

REMARKS

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

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

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	MTCA 5 Metals Filtered	MTCA 5 Metals unfiltered				Notes
~~SPN~~ NSP-SWQ-7	01	9/8/09		Soil	1												
SPN-ESW2-6	02	9/9/09			1	X	X	X									
SPS-WSW3-8	03 A-D	9/9/09			4 ~~5~~	X	X	X									NTP 9-10-09
~~SPN-SSW5-7~~		~~9/9/09~~			1												not received
SPN-WSW-8	04	9/9/09			1												
SPN-BOT-7	05	9/9/09			1												sample labels NSP-SWQ-BOT-7
SPN-BOT2-8	06	9/9/09			1	X	X	X		X							SPN-SWQ-BOT2-8
SPN-W SW2-8	07	9/9/09			1	X	X	X									SPS WSW3-8
Pit H2O-2	08 A-F	9/9/09		H2O	6	X	X	X				X	X				
SPN-SSW-5	09	9/9/09			1	X	X	X									

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Susan Cass	Susan Cass	RGI	9/10/09	7:30
Received by: Michael Edehl	Michael Edehl	FEBI-C	1	1
Relinquished by:				
Received by:				

Samples received at 1 °C

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

FORM CCOC.DOC

909092

SAMPLE CHAIN OF CUSTODY

ME 09-10-09

AI3/VS1/V1

Page # 2 of 2

Send Report To Fred Becker

Company The Riley Group

Address 17522 Bothell way NE

City, State, ZIP Bothell, WA 98011

Phone #425-415-0551 Fax #

SAMPLERS (signature)

PROJECT NAME/NO. 2008-3213 Snoqualmie Pass

PO #

REMARKS

* COC generated in lab 9/10/09 (AP)

TURNAROUND TIME

- ☐ Standard (2 Weeks)
- ☐ RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

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

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS					Notes
SPN-WSW2-5	10	-	-	Soil	1											
SPN-WSW2-6	11	-	-	"	1											
SPN-SWQ-BOT-6	12	-	-	"	1											
NSP-SWQ-WSW-6	13	-	-	"	1											
NSP-ESW1-5	14	-	-	"	1											

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:					
Received by:	[signature]	Nhan Phan	FEBI	9/10/09	09:00
Relinquished by:					
Received by:					

Samples received at 1 °C

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

FORMS\COC\COC.DOC

FRIEDMAN & BRUYA, INC.

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

September 8, 2009

Fred Becker, Project Manager
The Riley Group, Inc.
17522 Bothell Way NE
Bothell, WA 98011

Dear Mr. Becker:

Included are the results from the testing of material submitted on September 4, 2009 from the 2008-321B Snoqualmie Pass, F&BI 909050 project. There are 10 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
TRG0908R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on September 4, 2009 by Friedman & Bruya, Inc. from the The Riley Group, Inc. 2008-321B Snoqualmie Pass, F&BI 909050 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group, Inc.
909050-01	SPS-Pit H2O
909050-02	SPS-WSW2-6
909050-03	SPS-BOT2-8
909050-04	SPS-CLN-5
909050-05	SPS-CLN-6
909050-06	SPS-CLN-7
909050-07	SPN-PCS-2
909050-08	SPN-WBOT-8

The relative percent difference from the NWTPH-Dx water laboratory control sample and duplicate analysis exceeded laboratory acceptance criteria. The data is flagged accordingly.

Samples 909050-02, 03 and 07 were not sampled using method 5035 containers. The data is flagged accordingly.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/08/09
Date Received: 09/04/09
Project: 2008-321B Snoqualmie Pass, F&BI 909050
Date Extracted: 09/04/09
Date Analyzed: 09/04/09

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)
SPS-WSW2-6 d, pc 909050-02 1/10	<0.2	<0.2	<0.2	<0.6	250	130
SPS-BOT2-8 pc 909050-03	<0.02	0.03	0.15	0.11	78	102
SPS-CLN-5 909050-04	<0.02	<0.02	<0.02	<0.06	6	90
SPS-CLN-6 909050-05	<0.02	<0.02	<0.02	<0.06	13	88
SPS-CLN-7 909050-06	<0.02	<0.02	<0.02	<0.06	<2	87
SPN-PCS-2 pc 909050-07	<0.02	<0.02	0.16	0.43	610	ip
Method Blank	<0.02	<0.02	<0.02	<0.06	<2	93

Date of Report: 09/08/09
Date Received: 09/04/09
Project: 2008-321B Snoqualmie Pass, F&BI 909050
Date Extracted: 09/04/09
Date Analyzed: 09/04/09

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)
SPS-Pit H2O d 909050-01 1/10	10	8	70	180	2,300	84
Method Blank	<1	<1	<1	<3	<100	82

Date of Report: 09/08/09
Date Received: 09/04/09
Project: 2008-321B Snoqualmie Pass, F&BI 909050
Date Extracted: 09/04/09
Date Analyzed: 09/04/09

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING EPA METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
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)
SPS-WSW2-6 909050-02	5,100	<250	97
SPS-BOT2-8 909050-03	1,200	310	97
SPS-CLN-5 909050-04	870	<250	98
SPS-CLN-6 909050-05	510	<250	111
SPS-CLN-7 909050-06	390	<250	110
SPN-PCS-2 909050-07	90,000	3,300	141
Method Blank	<50	<250	99

Date of Report: 09/08/09
Date Received: 09/04/09
Project: 2008-321B Snoqualmie Pass, F&BI 909050
Date Extracted: 09/04/09
Date Analyzed: 09/04/09

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
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 51-137)
SPS-Pit H2O 909050-01	2,100 x, jr	3,200 jr	109
Method Blank	<50	<250	101

Date of Report: 09/08/09
Date Received: 09/04/09
Project: 2008-321B Snoqualmie Pass, F&BI 909050

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: 909031-02 (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	88	66-121
Toluene	mg/kg (ppm)	0.5	88	72-128
Ethylbenzene	mg/kg (ppm)	0.5	90	69-132
Xylenes	mg/kg (ppm)	1.5	87	69-131
Gasoline	mg/kg (ppm)	20	114	61-153

Date of Report: 09/08/09
Date Received: 09/04/09
Project: 2008-321B Snoqualmie Pass, F&BI 909050

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: 909025-02 (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	90	65-118
Toluene	ug/L (ppb)	50	88	72-122
Ethylbenzene	ug/L (ppb)	50	91	73-126
Xylenes	ug/L (ppb)	150	90	74-118
Gasoline	ug/L (ppb)	1,000	104	69-134

Date of Report: 09/08/09
Date Received: 09/04/09
Project: 2008-321B Snoqualmie Pass, F&BI 909050

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

Laboratory Code: 909031-10 (Matrix Spike) Silica Gel

Analyte	Reporting Units	Spike Level	(Wet wt) Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	111	105	63-146	6

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	108	79-144

Date of Report: 09/08/09
Date Received: 09/04/09
Project: 2008-321B Snoqualmie Pass, F&BI 909050

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 Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	107	87	71-131	21

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.

909050

SAMPLE CHAIN OF CUSTODY

ME 09/04/09 VS1/V1/A05

Page # 1 of 1

Send Report To Fred Becker
Company The Riley Group
Address 17522 Bothell Way NE
City, State, ZIP Bothell, WA 98011
Phone # (425) 415-0551 Fax # (425) 415-0311

SAMPLERS (signature) Jason Cass
PROJECT NAME/NO. 2008-321 B Snoqualmie Pass
PO #
REMARKS

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

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

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS						Notes
SPS-Pit H2O	01 A-E	9/3/09		H2O	5	X	X	X									Grl 09/08
SPS-WSW2-6	02			Soil	1	X	X	X									
SPS-BOT2-8	03			Soil	1	X	X	X									
SPS-CLN-5	04 A-C				3	X	X	X									Composite
SPS-CLN-6	05 A-F				6	X	X	X									Composite
SPS-CLN-7	06 A-C				3	X	X	X									Composite
SPN-PCS-2	07				1	X	X	⊗									
SPN-WBOT-8	08				1												(ND) 9-4-09 Added in lab

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Jason Cass	Jason Cass	RGI	9/4	8:00
Received by: James Bruya	James Bruya	F&B	9/4	8:30
Relinquished by:				
Received by:				

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

FORMS\COC[illegible].DOC

Samples received at 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

September 17, 2009

Fred Becker, Project Manager
The Riley Group, Inc.
17522 Bothell Way NE
Bothell, WA 98011

Dear Mr. Becker:

Included are the results from the testing of material submitted on September 11, 2009 from the 2008-321B Snoqualmie Pass, F&BI 909113 project. There are 12 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
TRG0917R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on September 11, 2009 by Friedman & Bruya, Inc. from the The Riley Group, Inc. 2008-321B Snoqualmie Pass, F&BI 909113 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group, Inc.
909113-01	SPN-WSW3-6
909113-02	SPN-NWC-WSW-6
909113-03	SPN-SSW-3
909113-04	SPS-SSW-6
909113-05	SPS-NSW-6
909113-06	SPS-SEC-6
909113-07	SPS-ESW-6

All quality control requirements were acceptable.

Date of Report: 09/17/09
Date Received: 09/11/09
Project: 2008-321B Snoqualmie Pass, F&BI 909113
Date Extracted: 09/11/09
Date Analyzed: 09/11/09

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 50-132)
SPN-WSW3-6 909113-01	<0.02	<0.02	<0.02	<0.06	<2	98
SPN-NWC-WSW-6 909113-02	<0.02	<0.02	<0.02	<0.06	12	95
SPN-SSW-3 909113-03	<0.02	<0.02	<0.02	<0.06	120	115
SPS-SSW-6 909113-04	<0.02	<0.02	<0.02	<0.06	<2	82
SPS-NSW-6 909113-05	<0.02	0.03	<0.02	0.08	21	98
SPS-SEC-6 909113-06	<0.02	<0.02	<0.02	<0.06	<2	97
SPS-ESW-6 d 909113-07 1/10	<0.2	0.36	0.42	11	400	ip
Method Blank	<0.02	<0.02	<0.02	<0.06	<2	98

Date of Report: 09/17/09
Date Received: 09/11/09
Project: 2008-321B Snoqualmie Pass, F&BI 909113
Date Extracted: 09/11/09
Date Analyzed: 09/11/09

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
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)
SPN-SSW-3 909113-03	850	<250	115
SPS-ESW-6 909113-07	6,400	15,000	106
Method Blank	<50	<250	123

Analysis For Total Metals By EPA Method 200.8

Client ID:	SPS-ESW-6	Client:	The Riley Group, Inc.
Date Received:	09/11/09	Project:	2008-321B Snoqualmie Pass, F&BI 909113
Date Extracted:	09/14/09	Lab ID:	909113-07
Date Analyzed:	09/14/09	Data File:	909113-07.044
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	11.9

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	The Riley Group, Inc.
Date Received:	NA	Project:	2008-321B Snoqualmie Pass, F&BI 909113
Date Extracted:	09/14/09	Lab ID:	I9-374 mb
Date Analyzed:	09/14/09	Data File:	I9-374 mb.035
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	93	60	125

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

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	SPS-ESW-6	Client:	The Riley Group, Inc.
Date Received:	09/11/09	Project:	2008-321B Snoqualmie Pass, F&BI 909113
Date Extracted:	09/12/09	Lab ID:	909113-07
Date Analyzed:	09/12/09	Data File:	091209.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	113	42	152
Toluene-d8	92	36	149
4-Bromofluorobenzene	87	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.03
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	The Riley Group, Inc.
Date Received:	NA	Project:	2008-321B Snoqualmie Pass, F&BI 909113
Date Extracted:	09/12/09	Lab ID:	091290 mb
Date Analyzed:	09/12/09	Data File:	091205.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	112	42	152
Toluene-d8	102	36	149
4-Bromofluorobenzene	89	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.03
Tetrachloroethene	<0.025

Date of Report: 09/17/09
Date Received: 09/11/09
Project: 2008-321B Snoqualmie Pass, F&BI 909113

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: 909092-07 (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	88	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	85	70-130
Gasoline	mg/kg (ppm)	20	95	70-130

Date of Report: 09/17/09
Date Received: 09/11/09
Project: 2008-321B Snoqualmie Pass, F&BI 909113

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

Laboratory Code: 909108-02 (Matrix Spike) Silica Gel

Analyte	Reporting Units	Spike Level	(Wet wt) Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	117	113	64-134	3

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	117	70-135

Date of Report: 09/17/09
Date Received: 09/11/09
Project: 2008-321B Snoqualmie Pass, F&BI 909113

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

Laboratory Code: 909135-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Lead	mg/kg (ppm)	4.49	4.54	1	0-20

Laboratory Code: 909135-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Lead	mg/kg (ppm)	20	4.49	94 b	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/kg (ppm)	20	102	70-130

Date of Report: 09/17/09
Date Received: 09/11/09
Project: 2008-321B Snoqualmie Pass, F&BI 909113

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

Laboratory Code: 909080-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Vinyl chloride	mg/kg (ppm)	<0.05	<0.05	nm
Chloroethane	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
trans-1,2-Dichloroethene	mg/kg (ppm)	<0.05	<0.05	nm
1,1-Dichloroethane	mg/kg (ppm)	<0.05	<0.05	nm
cis-1,2-Dichloroethene	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
Trichloroethene	mg/kg (ppm)	<0.03	<0.03	nm
Tetrachloroethene	mg/kg (ppm)	<0.025	<0.025	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	88	87	39-130	1
Chloroethane	mg/kg (ppm)	2.5	86	100	10-281	15
1,1-Dichloroethene	mg/kg (ppm)	2.5	102	96	60-130	6
Methylene chloride	mg/kg (ppm)	2.5	95	92	48-139	3
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	99	96	74-124	3
1,1-Dichloroethane	mg/kg (ppm)	2.5	91	88	75-121	3
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	98	96	75-123	2
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	77	76	74-122	1
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	96	94	73-134	2
Trichloroethene	mg/kg (ppm)	2.5	86	84	75-120	2
Tetrachloroethene	mg/kg (ppm)	2.5	103	101	80-120	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.

909113

SAMPLE CHAIN OF CUSTODY

ME 9-11-09 VSZ / AO1

Send Report To: Fred Becker
Company: The Riley Group
Address: 17522 Bothell Way NE
City, State, ZIP: Bothell, WA 98011
Phone #: (425) 415-0551 Fax #: (425) 415-0311

SAMPLERS (signature): Jason Cass
PROJECT NAME/NO.: 2009-321B Snoqualmie Pass
PO #:
REMARKS:

Page # 1 of 1

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

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

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	cVOCs	Pb				Notes
SPN-WSW3-6	01 A-C	9/10/09		Soil	3		X	X									
SPN-NWC-WSW-6	02 A-C				3		X	X									
~~SPN-SSW-5~~ (ND)					3		X	X									(ND) 9-11-09 Do not received sample label NSP-SSW-3
SPN-SSW-3	03 A-D				4	X	X	X									
SPS-SSW-6	04 A-C				3		X	X									
SPS-NSW-6	05 A-C				3		X	X									
SPS-SEC-6	06 A-C				3		X	X									
SPS-ESW-6	07 A-C				3	X	X	X				✓	✓				

FB 9/11/09 ME

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Jason Cass	Jason Cass	RLZ	9/11/09	7:50
Received by:	Michael Erdahl	FFB	1	1
Relinquished by:				
Received by:		Samples received at 5 °C		

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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
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

September 17, 2009

Fred Becker, Project Manager
The Riley Group, Inc.
17522 Bothell Way NE
Bothell, WA 98011

Dear Mr. Becker:

Included are the results from the testing of material submitted on September 14, 2009 from the 2008-321B Snoqualmie Pass, F&BI 909137 project. There are 10 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
TRG0917R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on September 14, 2009 by Friedman & Bruya, Inc. from the The Riley Group, Inc. 2008-321B Snoqualmie Pass, F&BI 909137 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group, Inc.
909137-01	SPS-ESW3-6
909137-02	SPS-PCS-3
909137-03	Pit H2O 3

All quality control requirements were acceptable.

Date of Report: 09/17/09
Date Received: 09/14/09
Project: 2008-321B Snoqualmie Pass, F&BI 909137
Date Extracted: 09/14/09 and 09/16/09
Date Analyzed: 09/14/09 and 09/16/09

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)
Pit H2O 3 d 909137-03 1/10	15	6	71	270	2,000	71
Method Blank	<1	<1	<1	<3	<100	77

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/17/09
Date Received: 09/14/09
Project: 2008-321B Snoqualmie Pass, F&BI 909137
Date Extracted: 09/14/09
Date Analyzed: 09/14/09

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)
SPS-ESW3-6 909137-01	<0.02	0.02	0.06	0.07	27	99
SPS-PCS-3 909137-02	<0.02	<0.02	<0.02	0.09	4	96
Method Blank	<0.02	<0.02	<0.02	<0.06	<2	89

Date of Report: 09/17/09
Date Received: 09/14/09
Project: 2008-321B Snoqualmie Pass, F&BI 909137
Date Extracted: 09/14/09
Date Analyzed: 09/14/09

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
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 52-134)
Pit H2O 3 909137-03	1,100 x	1,400	67
Method Blank	<50	<250	80

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/17/09
Date Received: 09/14/09
Project: 2008-321B Snoqualmie Pass, F&BI 909137
Date Extracted: 09/14/09
Date Analyzed: 09/14/09

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
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)
SPS-ESW3-6 909137-01	2,800	<250	111
SPS-PCS-3 909137-02	91	<250	101
Method Blank	<50	<250	100

Date of Report: 09/17/09
Date Received: 09/14/09
Project: 2008-321B Snoqualmie Pass, F&BI 909137

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: 909128-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Benzene	ug/L (ppb)	110	110	0
Toluene	ug/L (ppb)	340	320	6
Ethylbenzene	ug/L (ppb)	34	32	6
Xylenes	ug/L (ppb)	410	380	8
Gasoline	ug/L (ppb)	3,300	3,200	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	92	65-118
Toluene	ug/L (ppb)	50	89	72-122
Ethylbenzene	ug/L (ppb)	50	91	73-126
Xylenes	ug/L (ppb)	150	91	74-118
Gasoline	ug/L (ppb)	1,000	92	69-134

Date of Report: 09/17/09
Date Received: 09/14/09
Project: 2008-321B Snoqualmie Pass, F&BI 909137

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: 909104-01 (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	82	70-130
Toluene	mg/kg (ppm)	0.5	80	70-130
Ethylbenzene	mg/kg (ppm)	0.5	80	70-130
Xylenes	mg/kg (ppm)	1.5	78	70-130
Gasoline	mg/kg (ppm)	20	89	70-130

Date of Report: 09/17/09
Date Received: 09/14/09
Project: 2008-321B Snoqualmie Pass, F&BI 909137

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 Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	82	76	64-125	8

Date of Report: 09/17/09
Date Received: 09/14/09
Project: 2008-321B Snoqualmie Pass, F&BI 909137

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

Laboratory Code: 909137-02 (Matrix Spike) Silica Gel

Analyte	Reporting Units	Spike Level	(Wet wt) Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	110	123	130	78-126	6

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	126	70-127

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.

909137

SAMPLE CHAIN OF CUSTODY ME 09-14-09

VI / VSI / CP3

Page # 1 of 1

Send Report To Fred Becker
Company The Riley Group
Address 17522 Bothell Way NE.
City, State, ZIP Bothell, WA 98011
Phone # (425) 415-0551 Fax # (425) 415-0311

SAMPLERS (signature) Jason Cass
PROJECT NAME/NO. 2008-321 B Snoqualmie Pass
PO #
REMARKS Silica Gel on Ds per Riley Gr Requirements

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

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

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS						Notes
						ANALYSES REQUESTED											
SPS-ESW3-6	01 A-D	9/14/09	14:30	Soil	4	X	X	X									
SPS-PCS-3	02 A-C	9/14/09	14:45	Soil	3	X	X	X									Composite
Pit H2O 3	03 A-D	1	13:40	water	4	X	X	X									
											Samples received at 3 °C						

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

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Jason Cass	Jason Cass	RGI	9/14/09	7:00
Received by:		F&B Jamie Bruya	F&B	9/14/09	7:07 PM
Relinquished by:					
Received by:					

FORMS \COC.DOC

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

September 17, 2009

Fred Becker, Project Manager
The Riley Group, Inc.
17522 Bothell Way NE
Bothell, WA 98011

Dear Mr. Becker:

Included are the results from the testing of material submitted on September 15, 2009 from the 2008-321B Snoqualmie Pass, F&BI 909149 project. There are 10 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
TRG0917R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on September 15, 2009 by Friedman & Bruya, Inc. from the The Riley Group, Inc. 2008-321B Snoqualmie Pass, F&BI 909149 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group, Inc.
909149-01	SPN-Pit H2O
909149-02	SPN-SSW2-3
909149-03	SPS-ESW4-6
909149-04	SPS-NEC1-6

The NWTPH-Dx matrix spike duplicate exceeded the control limits. No analytes were detected in the samples, therefore the data is acceptable. All other quality control requirements were acceptable.

Date of Report: 09/17/09
Date Received: 09/15/09
Project: 2008-321B Snoqualmie Pass, F&BI 909149
Date Extracted: 09/15/09
Date Analyzed: 09/15/09

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)
SPN-Pit H2O 909149-01	<1	<1	<1	<3	<100	73
Method Blank	<1	<1	<1	<3	<100	75

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/17/09
Date Received: 09/15/09
Project: 2008-321B Snoqualmie Pass, F&BI 909149
Date Extracted: 09/15/09
Date Analyzed: 09/15/09

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)
SPN-SSW2-3 909149-02	<0.02	<0.02	<0.02	<0.06	<2	100
SPS-ESW4-6 909149-03	<0.02	<0.02	<0.02	<0.06	<2	86
SPS-NEC1-6 909149-04	<0.02	<0.02	<0.02	<0.06	<2	94
Method Blank	<0.02	<0.02	<0.02	<0.06	<2	88

Date of Report: 09/17/09
Date Received: 09/15/09
Project: 2008-321B Snoqualmie Pass, F&BI 909149
Date Extracted: 09/15/09
Date Analyzed: 09/15/09

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
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 51-137)
SPN-Pit H2O 909149-01	<50	<250	85
Method Blank	<50	<250	98

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/17/09
Date Received: 09/15/09
Project: 2008-321B Snoqualmie Pass, F&BI 909149
Date Extracted: 09/15/09
Date Analyzed: 09/15/09

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
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)
SPN-SSW2-3 909149-02	<50	<250	108
SPS-ESW4-6 909149-03	<50	<250	113
SPS-NEC1-6 909149-04	<50	<250	112
Method Blank	<50	<250	111

Date of Report: 09/17/09
Date Received: 09/15/09
Project: 2008-321B Snoqualmie Pass, F&BI 909149

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: 909128-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Benzene	ug/L (ppb)	110	110	0
Toluene	ug/L (ppb)	340	320	6
Ethylbenzene	ug/L (ppb)	34	32	6
Xylenes	ug/L (ppb)	410	380	8
Gasoline	ug/L (ppb)	3,300	3,200	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	92	65-118
Toluene	ug/L (ppb)	50	89	72-122
Ethylbenzene	ug/L (ppb)	50	91	73-126
Xylenes	ug/L (ppb)	150	91	74-118
Gasoline	ug/L (ppb)	1,000	92	69-134

Date of Report: 09/17/09
Date Received: 09/15/09
Project: 2008-321B Snoqualmie Pass, F&BI 909149

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: 909104-01 (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	82	70-130
Toluene	mg/kg (ppm)	0.5	80	70-130
Ethylbenzene	mg/kg (ppm)	0.5	80	70-130
Xylenes	mg/kg (ppm)	1.5	78	70-130
Gasoline	mg/kg (ppm)	20	89	70-130

Date of Report: 09/17/09
Date Received: 09/15/09
Project: 2008-321B Snoqualmie Pass, F&BI 909149

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 Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	82	76	64-125	8

Date of Report: 09/17/09
Date Received: 09/15/09
Project: 2008-321B Snoqualmie Pass, F&BI 909149

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

Laboratory Code: 909137-02 (Matrix Spike) Silica Gel

Analyte	Reporting Units	Spike Level	(Wet wt) Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	110	123	130 vo	78-126	6

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	126	70-127

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.

909149

SAMPLE CHAIN OF CUSTODY

ME 9/15/09 V1/VS1/A01

Send Report To Fred Becker
Company The Riley Group
Address 17522 Bothell Way NE.
City, State, ZIP Bothell, WA 98011
Phone # (425) 415-0551 Fax # (425) 415-0311

SAMPLERS (signature): Jason Cass
PROJECT NAME/NO.: 2008-321 B Snoqualmie Pass
PO #:
REMARKS:

Page # 1 of 1

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

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

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS						Notes
SPN-Pit H2O	01 A-D	9/14/09	9:50	H2O	4	X	X	X									SG-on dreads per RG and AG
SPN-SSW2-3	02 A-D	9/14/09	10:00	Soil	4	X	X	X									
SPS-ESW4-6	03 A-D	9/14/09	10:30	Soil	4	X	X	X									
SPS-NEC1-6	04 A-D	9/14/09	11:15	Soil	4	X	X	X									

ANALYSES REQUESTED

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

FORMS \COC.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Jason Cass	Jason Cass	RGI	9/15/09	7:40
Received by: Michael Erdahl	Michael Erdahl	FEBinc	1	1
Relinquished by:				
Received by:				

Samples received at 7 °C

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

September 23, 2009

Fred Becker, Project Manager
The Riley Group, Inc.
17522 Bothell Way NE
Bothell, WA 98011

Dear Mr. Becker:

Included are the results from the testing of material submitted on September 17, 2009 from the 2008-321B Snoqualmie Pass, F&BI 909172 project. There are 10 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
TRG0923R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on September 17, 2009 by Friedman & Bruya, Inc. from the The Riley Group, Inc. 2008-321B Snoqualmie Pass, F&BI 909172 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group, Inc.
909172-01	SPS-BOT3-7
909172-02	SPS-SSW2-7
909172-03	SPS-SSW3-7
909172-04	Pit H2O 4
909172-05	SPN-SSW-5
909172-06	SPS-SSW2-8

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/23/09
Date Received: 09/17/09
Project: 2008-321B Snoqualmie Pass, F&BI 909172
Date Extracted: 09/17/09
Date Analyzed: 09/17/09

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 50-132)
SPS-BOT3-7 909172-01	<0.02	<0.02	<0.02	<0.06	3	94
SPS-SSW2-7 909172-02	<0.02	0.04	0.22	1.7	21	82
SPS-SSW3-7 909172-03	<0.02	0.05	0.09	0.59	13	89
SPN-SSW-5 909172-05	<0.02	<0.02	<0.02	<0.06	<2	94
Method Blank	<0.02	<0.02	<0.02	<0.06	<2	74

Date of Report: 09/23/09
Date Received: 09/17/09
Project: 2008-321B Snoqualmie Pass, F&BI 909172
Date Extracted: 09/17/09
Date Analyzed: 09/17/09

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 50-150)
Pit H2O 4 909172-04	<1	<1	<1	5	<100	87
Method Blank	<1	<1	<1	<3	<100	86

Date of Report: 09/23/09
Date Received: 09/17/09
Project: 2008-321B Snoqualmie Pass, F&BI 909172
Date Extracted: 09/17/09
Date Analyzed: 09/17/09

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

Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
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 51-137)
Pit H2O 4 909172-04	260 x	700	87
Method Blank	<50	<250	91

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/23/09
Date Received: 09/17/09
Project: 2008-321B Snoqualmie Pass, F&BI 909172
Date Extracted: 09/17/09
Date Analyzed: 09/17/09

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 53-144)
SPS-BOT3-7 909172-01	<50	<250	98
SPS-SSW2-7 909172-02	<50	<250	100
SPS-SSW3-7 909172-03	3,700 x	16,000	105
SPN-SSW-5 909172-05	<50	<250	100
Method Blank	<50	<250	96

Date of Report: 09/23/09
Date Received: 09/17/09
Project: 2008-321B Snoqualmie Pass, F&BI 909172

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: 909172-05 (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	82	66-121
Toluene	mg/kg (ppm)	0.5	80	72-128
Ethylbenzene	mg/kg (ppm)	0.5	82	69-132
Xylenes	mg/kg (ppm)	1.5	81	69-131
Gasoline	mg/kg (ppm)	20	102	61-153

Date of Report: 09/23/09
Date Received: 09/17/09
Project: 2008-321B Snoqualmie Pass, F&BI 909172

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: 909153-02 (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	88	65-118
Toluene	ug/L (ppb)	50	87	72-122
Ethylbenzene	ug/L (ppb)	50	91	73-126
Xylenes	ug/L (ppb)	150	84	74-118
Gasoline	ug/L (ppb)	1,000	92	69-134

Date of Report: 09/23/09
Date Received: 09/17/09
Project: 2008-321B Snoqualmie Pass, F&BI 909172

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 Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	98	111	71-131	12

Date of Report: 09/23/09
Date Received: 09/17/09
Project: 2008-321B Snoqualmie Pass, F&BI 909172

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

Laboratory Code: 909172-01 (Matrix Spike) Silica Gel

Analyte	Reporting Units	Spike Level	(Wet wt) Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	104	113	64-134	8

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	104	70-135

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.

SAMPLE CHAIN OF CUSTODY ME 9/17/09 V1/VS1/A01

909172

Page 1 of 1

Send Report To Fred Becker
Company The Riley Group
Address 12522 Bothell Way NE.
City, State, ZIP Bothell, WA 98011
Phone # (425)415-0551 Fax # (425)415-0311

SAMPLERS (signature) Jason Cass
PROJECT NAME/NO. 2009-321B Snoqualmie Pass
PO #
REMARKS

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

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

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS						Notes
SPS-BOT3-7	01 A-D	9/16/09	9:25	Soil	4	X	X	X									
SPS.SSW2-7	02 A-D	9/16/09	9:10	Soil	4	X	X	X									
SPS-SSW3-7	03 A-D	9/16/09	11:25	Soil	4	X	X	X									
Pit H2O 4	04 A-C	9/16/09	15:00	H2O	3	X	X	X									
SPN-SSW-5	05 A-C			Soil	3 VOA	X	X	X									
SPS.SSW2-8	06																add 9/17/09 (M)

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Jason Cass	Jason Cass	RGI	9/17/09	07:50
Received by:	Michael Erdahl	FRBinc	↓	↓
Relinquished by:				
Received by:				

Samples received at 10

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

FORMS\COC.DOC

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

September 23, 2009

Fred Becker, Project Manager
The Riley Group, Inc.
17522 Bothell Way NE
Bothell, WA 98011

Dear Mr. Becker:

Included are the results from the testing of material submitted on September 18, 2009 from the 2008-321B Snoqualmie Pass, F&BI 909194 project. There are 6 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
TRG0923R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on September 18, 2009 by Friedman & Bruya, Inc. from the The Riley Group, Inc. 2008-321B Snoqualmie Pass, F&BI 909194 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group, Inc.
909194-01	Pit H2O-5

All quality control requirements were acceptable.

Date of Report: 09/23/09
Date Received: 09/18/09
Project: 2008-321B Snoqualmie Pass, F&BI 909194
Date Extracted: 09/21/09
Date Analyzed: 09/21/09

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 50-150)
Pit H2O-5 909194-01	<1	<1	1	3	<100	84
Method Blank	<1	<1	<1	<3	<100	80

Date of Report: 09/23/09
Date Received: 09/18/09
Project: 2008-321B Snoqualmie Pass, F&BI 909194
Date Extracted: 09/21/09
Date Analyzed: 09/21/09

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
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 51-137)
Pit H2O-5 909194-01	64	<250	89
Method Blank	<50	<250	99

Date of Report: 09/23/09
Date Received: 09/18/09
Project: 2008-321B Snoqualmie Pass, F&BI 909194

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: 909183-03 (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	90	70-130
Toluene	ug/L (ppb)	50	88	70-130
Ethylbenzene	ug/L (ppb)	50	91	70-130
Xylenes	ug/L (ppb)	150	86	70-130
Gasoline	ug/L (ppb)	1,000	88	70-130

Date of Report: 09/23/09
Date Received: 09/18/09
Project: 2008-321B Snoqualmie Pass, F&BI 909194

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 Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	99	116	71-131	16

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.

909194

SAMPLE CHAIN OF CUSTODY ME 9/18/09 V1 / B03

Page 1 of 1

Send Report To Fred Becker
Company The Riley Group
Address 17522 Bothell Way NE
City, State, ZIP Bothell, WA 98011
Phone # (425) 415-0551 Fax # (425) 415-0311

SAMPLERS (signature): Jason Cass
PROJECT NAME/NO.: 2009-321B Snoqualmie Pass
PO #:
REMARKS:

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

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

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS						Notes
Pit H2O-5	01 AD	9/18/09	11:30	H2O	4	X	X	X									

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Jason Cass	Jason Cass	RGE	9/18/09	12:20
Received by:		STEVE BISETT	SAYBR	9.18.09	1220
Relinquished by:		STEVE BISETT	SAYBR	9.18.09	14:18
Received by:		B Sundquist	FSBA	9	

Samples received at 1 C

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

FORMS\CO. C.DOC

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
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e-mail: fbi@isomedia.com

September 23, 2009

Fred Becker, Project Manager
The Riley Group, Inc.
17522 Bothell Way NE
Bothell, WA 98011

Dear Mr. Becker:

Included are the results from the testing of material submitted on September 21, 2009 from the 2008-321B Snoqualmie Pass, F&BI 909205 project. There are 6 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
TRG0923R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on September 21, 2009 by Friedman & Bruya, Inc. from the The Riley Group, Inc. 2008-321B Snoqualmie Pass, F&BI 909205 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group, Inc.
909205-01	Pit H2O-6

All quality control requirements were acceptable.

Date of Report: 09/23/09
Date Received: 09/21/09
Project: 2008-321B Snoqualmie Pass, F&BI 909205
Date Extracted: 09/21/09
Date Analyzed: 09/21/09

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 50-150)
Pit H2O-6 909205-01	<1	<1	<1	<3	<100	86
Method Blank	<1	<1	<1	<3	<100	80

Date of Report: 09/23/09
Date Received: 09/21/09
Project: 2008-321B Snoqualmie Pass, F&BI 909205
Date Extracted: 09/21/09
Date Analyzed: 09/21/09

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
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 51-137)
Pit H2O-6 909205-01	140 x	490	102
Method Blank	<50	<250	99

Date of Report: 09/23/09
Date Received: 09/21/09
Project: 2008-321B Snoqualmie Pass, F&BI 909205

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: 909183-03 (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	90	70-130
Toluene	ug/L (ppb)	50	88	70-130
Ethylbenzene	ug/L (ppb)	50	91	70-130
Xylenes	ug/L (ppb)	150	86	70-130
Gasoline	ug/L (ppb)	1,000	88	70-130

Date of Report: 09/23/09
Date Received: 09/21/09
Project: 2008-321B Snoqualmie Pass, F&BI 909205

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 Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	99	116	71-131	16

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.

909205

SAMPLE CHAIN OF CUSTODY

ME 09-21-09 VI/BOF

Send Report To Fred Becker
Company The Riley Group
Address 17522 Bothell Way NE
City, State, ZIP Bothell, WA 98011
Phone #(425) 415-0551 Fax # (425) 415-0311

SAMPLERS (signature) Jason Cass

PROJECT NAME/NO. 2007-321B Snoqualmie Pass

PO #

REMARKS

Page # 1 of 1

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

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

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS						Notes
Pit H2O-6	01.A.D	9/21	11:00	H2O	4	X	X	X									

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

FORMS\COC\COC.DOC

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Jason Cass	Jason Cass	RGI	9/21/09	12:25
Received by:	My Pham	Nhan Pham	FBI	9/21/09	12:25
Relinquished by:					
Received by:					

Samples received at 4

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

September 29, 2009

Fred Becker, Project Manager
The Riley Group, Inc.
17522 Bothell Way NE
Bothell, WA 98011

Dear Mr. Becker:

Included are the results from the testing of material submitted on September 22, 2009 from the Snoqualmie Summit/2008-321B, F&BI 909218 project. There are 6 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
TRG0929R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on September 22, 2009 by Friedman & Bruya, Inc. from the The Riley Group, Inc. Snoqualmie Summit/2008-321B, F&BI 909218 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group, Inc.
909218-01	SPS Pit H2O 7

All quality control requirements were acceptable.

Date of Report: 09/29/09
Date Received: 09/22/09
Project: Snoqualmie Summit/2008-321B, F&BI 909218
Date Extracted: 09/22/09
Date Analyzed: 09/22/09

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 50-150)
SPS Pit H2O 7 909218-01	<1	<1	<1	4	<100	88
Method Blank	<1	<1	<1	<3	<100	88

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/29/09
Date Received: 09/22/09
Project: Snoqualmie Summit/2008-321B, F&BI 909218
Date Extracted: 09/22/09
Date Analyzed: 09/23/09

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
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)
SPS Pit H2O 7 909218-01	200 x	510	92
Method Blank	<50	<250	93

Date of Report: 09/29/09
Date Received: 09/22/09
Project: Snoqualmie Summit/2008-321B, F&BI 909218

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: 909183-03 (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	90	70-130
Toluene	ug/L (ppb)	50	88	70-130
Ethylbenzene	ug/L (ppb)	50	91	70-130
Xylenes	ug/L (ppb)	150	86	70-130
Gasoline	ug/L (ppb)	1,000	88	70-130

Date of Report: 09/29/09
Date Received: 09/22/09
Project: Snoqualmie Summit/2008-321B, F&BI 909218

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 Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	99	116	71-131	16

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.

909218

SAMPLE CHAIN OF CUSTODY

ME 9/22/09 B03/V1

Page 1 of 1

Send Report To Fred Becker
Company The Riley Group
Address 17522 Bothell Way NE
City, State, ZIP Bothell, WA 98011
Phone # 425-415-0551 Fax # 425-415-0311

SAMPLERS (signature) Nicole Vafrese

PROJECT NAME/NO. Snoqualmie Summit / 2008-3213

PO #

REMARKS * silica gel cleanup on Dx

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

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

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS					Notes
SPS Pit H20 7	01 A-E	9/22/09	12:50	GW	5	X	X	X								

ANALYSES REQUESTED

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Nicole Vafrese	Nicole Vafrese	RGI	9/22/09	14:50
Received by:		Eric Young	F&B	9/22/09	1450
Relinquished by:					
Received by:					

Samples received at 7

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

FORMS\COC.DOC

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

September 30, 2009

Fred Becker, Project Manager
The Riley Group, Inc.
17522 Bothell Way NE
Bothell, WA 98011

Dear Mr. Becker:

Included are the results from the testing of material submitted on September 25, 2009 from the 2008-321B, F&BI 909262 project. There are 6 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
TRG0930R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on September 25, 2009 by Friedman & Bruya, Inc. from the The Riley Group, Inc. 2008-321B, F&BI 909262 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group, Inc.
909262-01	SPS-SSW4-7
909262-02	SPS-SSW5-8

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/30/09
Date Received: 09/25/09
Project: 2008-321B, F&BI 909262
Date Extracted: 09/25/09
Date Analyzed: 09/25/09

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)
SPS-SSW4-7 909262-01	<0.02	<0.02	<0.02	<0.06	<2	79
SPS-SSW5-8 909262-02	<0.02	<0.02	<0.02	<0.06	<2	92
Method Blank	<0.02	<0.02	<0.02	<0.06	<2	95

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/30/09
Date Received: 09/25/09
Project: 2008-321B, F&BI 909262
Date Extracted: 09/25/09
Date Analyzed: 09/26/09

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
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)
SPS-SSW4-7 909262-01	<50	<250	98
SPS-SSW5-8 909262-02	<50	<250	95
Method Blank	<50	<250	92

Date of Report: 09/30/09
Date Received: 09/25/09
Project: 2008-321B, F&BI 909262

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: 909253-01 (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	84	70-130
Toluene	mg/kg (ppm)	0.5	84	70-130
Ethylbenzene	mg/kg (ppm)	0.5	84	70-130
Xylenes	mg/kg (ppm)	1.5	81	70-130
Gasoline	mg/kg (ppm)	20	93	70-130

Date of Report: 09/30/09
Date Received: 09/25/09
Project: 2008-321B, F&BI 909262

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

Laboratory Code: 909255-01 (Matrix Spike) Silica Gel

Analyte	Reporting Units	Spike Level	(Wet wt) Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	54	117	127	63-146	8

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	130	79-144

Data Qualifiers & Definitions

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

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.

909262

SAMPLE CHAIN OF CUSTODY

ME 09/25/09 B01/V51

Page # 1 of 1

Send Report To Fred Becker
Company Riley Group Inc
Address 17522 Bothell Way NE
City, State, ZIP Bothell WA 98011
Phone # 4254150551 Fax # 4254150311

SAMPLERS (signature)

PROJECT NAME/NO. 2008-321B

PO #

REMARKS

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

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

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED: Extended TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS						Notes
SPS-SSW4-7	01 A-E	9-25	10:15	soil	5	X		X									
SPS-SSW5-8	02 A-E	9-25	12:00	soil	5	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:		Tamara Adams	RGI	9-25	12:30
Received by:		Steve Bisett	Sayre Corp.	9.25	12:30
Relinquished by:		Steve Bisett	Sayre Corp.	9:25	14:37
Received by:		Nhan Phan	FEBI	9/25/09	V

Samples received at 24

ALLIED WASTE SERVICES

Certificate of Disposal

November 12, 2009

Saybr Construction
3852 South 66th Street
Tacoma, WA 98409

Job # LW-91212

This is to certify that 1720.75 tons of Petroleum Contaminated soil, from jobsite SR 906 I-90 Snoqualmie, Washington was shipped by Snoqualmie Summit Inn, LLC and received by Regional Disposal Company. The waste was shipped by rail to Roosevelt Regional Landfill, 500 Roosevelt Grade Road, Roosevelt WA 98356 for final disposal. The above-described NON-DANGEROUS WASTE was managed in compliance with all Permits and Laws Regulating this Facility.

Final Disposition: **Subtitle D and WAC 173-351 MSW Landfill**

Leslie Whiteman
Signature

For Regional Disposal Company

54 S. Dawson Street
Seattle, WA 98134
206.332.7700 / FAX 206.764.1234
www.disposal.com