UST # 7972

LIMITED PHASE II
ENVIRONMENTAL SITE ASSESSMENT

of the

CHEVRON GAS STATION PROPERTY
2021 6TH STREET
BREMERTON, WASHINGTON 98337

Prepared for:

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SECTION I.
INTRODUCTION

Pinnacle Environmental, Inc. (PEI) was retained by First Citizens Bank & Trust (formerly Temecula Valley Bank - Client) to perform a Limited Phase II Environmental Site Assessment (Limited Phase II) of the subject property at 2021 6th Street, Bremerton, Washington (subject property). The property consists of a single-story, 2,500-square-foot gasoline service station building and a free-standing pump island canopy on a 0.39-acre parcel of land. This Limited Phase II was performed in order to evaluate recognized environmental conditions (RECs) identified in a Phase I ESA report issued to the Client by PEI for the subject property on April 29, 2009. These RECs include the reported existence of up to three generations of gasoline-filled underground storage tanks (USTs), a used oil UST, a fuel oil UST, a 3-stage clarifier, and hydraulic lifts.

The scope of work for this Limited Phase II included a subsurface assessment performed in accordance with the June 24, 2009 proposal that was approved by the Client on July 1, 2009.

The scope of work for this Limited Phase II included a geophysical survey to evaluate potential boring locations and possible historic USTs, and the advancement of up to 15 soil borings. Select soil samples were collected from each boring for laboratory analysis of VOCs and TPH-gas/diesel and total lead, and some samples were also analyzed for PAHs and PCBs.

The geophysical survey results indicate notable radar anomalies interpreted to be historic USTs at the western edge of the subject property. It is suspected that these anomalies indicated the presence of three older generation USTs related to the original layout of the gas station at the subject property (circa 1940). Additionally, although the geophysical survey did not find direct evidence of the fuel oil UST formerly immediately west of the subject building; based upon the limitations of such surveys and the lack of any removal documentation on file for this UST, it should be presumed this UST remains in-place until proven otherwise. Soil samples from the vicinity of these historic USTs did not indicate elevated levels of petroleum hydrocarbons; however, visual and field PID indications of impact were found, and regulations typically require removal of abandoned USTs. **PEI recommends that these anomalies be further assessed, and if they are USTs, they should be removed in accordance with local and State regulations.**

The soil analytical results show that the constituents of gasoline (BTEX) exceed Washington Model Toxics Control Act (MTCA) cleanup levels in the vicinity of the dispenser islands.

Based upon the results of this Limited Phase II Investigation, PEI recommends further subsurface investigation of soil and possibly groundwater of the dispenser island area to further delineate the horizontal and vertical extent of impact. In addition, PEI recommends reporting of the results of this investigation to the appropriate regulatory body (Washington Department of Ecology, Toxics Cleanup Program).

SECTION II.
SCOPE OF WORK & LIMITATIONS

PURPOSE

The purpose of this Limited Phase II is to assess RECs identified in a 2009 Phase I ESA conducted by PEI. The objective of this limited Phase II Site Investigation is to collect and quantitatively analyze original samples of soil in such a manner as to reduce uncertainties about the physical and chemical characteristics of this media in limited areas. The information derived from this Limited Phase II and the opinions rendered are intended to provide information that will assist in evaluating the risk of potential significant value impairment of the security interest due to environmental impacts.

SCOPE OF WORK

Based on information available to PEI, the following general scope of work was proposed:

1. Preparation of Health and Safety Plan and Notification of Underground Service Alert (USA, aka Dig Alert).
2. Geophysical Survey of the majority of the exterior areas of the subject property to evaluate the property for current or past large buried metallic or concrete anomalies (e.g., USTs, septic systems, leach-fields, dry wells), the location of metallic utilities, and the "clearance" of proposed boring locations.
3. Drilling of 12 to 15 borings to a depth of up to 30 feet below ground surface (bgs) at the site based upon the borings' location, information provided by the geophysical survey, and visual observations. Three to four borings are planned in the area of the historic on-site gas station (western portion of site) to 30 feet bgs each; 3 borings are planned around the UST pit area to 30 feet bgs; 2 to 4 borings (depending upon subsurface utility clearance) in the area of the dispenser islands to 20 feet bgs; 1 boring in the area of the (potentially former) 1,000-gallon fuel oil UST to 20 feet bgs; 1 boring in the area of the current exterior clarifier to 10 feet bgs; and 2 interior borings in the area of the former hydraulic lifts and sump to 10 feet bgs. All direct push borings will be hand-augured to 4 feet bgs prior to drilling in an attempt to minimize potential interference with subsurface utilities. Borings will be completed using a direct push technology (DPT) using Geoprobe™ tools, except for the interior borings, which will be completed using hand-auger tools. If the direct push rig is unsuccessful in advancing to the proposed depths, samples will be collected from the deepest depths possible in each boring. Soil samples will be collected at 4-foot intervals (beginning at 4 feet bgs) in each boring, or as may be determined based on on-site field observations, drilling conditions, and proximity to potential sources of impact (e.g., current and former UST locations), if identifiable.
4. Initial laboratory analyses of up to 26 soil samples (two per boring in borings deeper than 10 feet and one per boring 10 feet or less), and based upon those results, potential analysis of additional samples with Client approval. Samples (estimated 16 to 20)

related to the existing gas station USTs and dispenser islands, and the historical gas station will be analyzed for total petroleum hydrocarbons – gasoline range organics (TPH-gas) by EPA Method 8015-modified; volatile organic compounds (VOCs) by EPA Method 8260B; and total lead by EPA Method 6020. Samples (estimated 2 to 4) related to the (former) fuel oil UST (and possibly some of the samples related to the historic gas station) will be analyzed for TPH-diesel & extended range organics (TPH-diesel/ext); benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA Method 8260B; and selected poly-nuclear aromatic hydrocarbons (PAHs) by EPA Method 8270. Samples (estimated 3) related to the former interior hydraulic lifts and sump and exterior clarifier will be analyzed for TPH-gas, TPH-diesel/ext; VOCs; total lead; select PAHs; and poly-chlorinated biphenyls (PCBs) by EPA Method 8082. The selections of the above-mentioned analyses are from the State of Washington's 2007 Model Toxics Control Act (MTCA) guidelines for petroleum release sites.

5. Preparation of a report by PEI.

LIMITATIONS

The Limited Phase II findings are based on the conditions existing at the site on July 19 and 20, 2009, when the field sampling was performed. This work was performed in accordance with the June 24, 2009 proposal that was approved by the Client. This Assessment has been conducted and prepared in accordance with generally accepted practices and procedures exercised by reputable professionals under similar circumstances. PEI makes no other warranties or guarantees, either expressed or implied, as to the findings, opinions, or recommendations contained in this report.

This Limited Phase II was not fully comprehensive in nature but was restricted to areas identified by the geophysical survey to attempt to assess the impact, if any, from past releases on the subject property related to former USTs; and from potential past fuel and waste oil USTs, a clarifier, and hydraulic lifts, if any. The findings presented in this report were based on the subsurface conditions encountered in the areas investigated during the time frame of this assessment. These findings may not be considered representative of future conditions in the areas investigated or conditions in any untested areas of the site.

It should be recognized that this study was not intended to be a definitive investigation of potential impact at the subject property. Given that the Scope of Services for this investigation was limited and that the investigation was further limited by the lack of accessibility in some areas, it is possible that currently unrecognized impacts (or higher levels than those found) may exist at the site. Therefore, PEI cannot act as insurers and cannot "certify" that a site is free of environmental contamination, that impact does not exist below a certain level in other areas of the site, or that some other, currently unrecognized, environmental impact does not exist at the site.

The recommendations provided in this report do not constitute legal advice and should not be relied upon in any way for legal interpretations. This report has been prepared for the sole use of the Clients, affiliates, and assigns of the Clients. This report may not be relied upon by

any other party without the written authorization of PEI and the Client. The Scope of Services performed in the execution of this investigation may not be appropriate to satisfy the needs of other private users or public agencies, and any re-use of this document or the findings, conclusions, or recommendations presented herein is at the sole risk of said user. This report is not necessarily designed to be used for regulatory review or closure purposes, but simply to facilitate a real estate transaction.

Please note that due to the on-going foreclosure process at the subject property, and the "abandonment" of the site by the property owner (borrower), the proposed interior borings for the historic hydraulic lifts and sump could not be performed due to a lack of access inside the subject building.

SECTION III.
GENERAL SITE DESCRIPTION

This section provides a brief description of the site, the physical setting of the site and vicinity, and a summary of previous environmental investigations.

A. DESCRIPTION OF SITE AND VICINITY

Pinnacle Environmental, Inc (PEI) was retained by First Citizens Bank and Trust (formerly Temecula Valley Bank - Client) to perform a Phase I Environmental Site Assessment (Phase I ESA or Assessment) of a site located at 2021 6th Street in Bremerton, Washington (**Figure 1, Appendix A**). At the time of the investigation, the subject property consisted of an approximate 0.39-acre parcel of land, occupied by a single-story gas station convenience store building, and a free-standing pump island canopy. The subject retail building has an area of approximately 2,500 square feet and was vacant/closed at the time of the investigation.

The subject property is located at the southeast corner of the intersection of 6th Street and Naval Avenue, within a commercial and residential area. The property is bordered by the following:

North:	Immediately by 6th Street, then by commercial-use properties occupied by a US Bank branch (2020 6th Street) and an Auto Zone parts store (2086 6th Street).
East:	Immediately and further by single-family residential-use properties.
South:	Immediately by an alleyway and tire storage area, then by single-family residential-use properties and an automotive tire shop (Quality Tires & Service at 500 Naval Avenue).
West:	Immediately by Naval Avenue, then by an Arco gas station (2101 6th Street).
Northwest:	Immediately by the Naval/6th intersection, then by a coffee shop and vacant fast food restaurant (601 Naval).

The site location and local topography is illustrated on **Figure 1, Appendix A** adapted from on-line versions of the Bremerton West, 7.5-minute USGS topographic quadrangle. An assessor's parcel map shows the six contiguous parcels that make up the property **(Figure 2)**. The site and adjoining properties are illustrated on a 2006 aerial photograph adapted as **Figure 4**. All figures are included in Appendix A. The geophysical survey report showing the locations of USTs associated with an historic gas station is provided in **Appendix B**.

B. PHYSIOGRAPHIC AND TOPOGRAPHIC CONDITIONS

The Bremerton West, Washington Quad USGS Topographic Map, (dated 1978) shows no physical features that are likely to environmentally impact the subject property. The subject property is identified as unspecified urban developed land. No mines, wells, above-ground storage tanks (ASTs), or wetlands were noted in the immediate area of the subject property. The elevation of the subject property is approximately 100 feet above mean sea level with a moderate topographic gradient to the southwest.

C. LOCAL AND SITE GEOLOGY

The subsurface soils encountered during this assessment were found to vary little with depth beneath the site and consist of (usually) pebbly brown silty sand to sandy silt, and rarely, clayey sandy silt. The subsurface soils exhibited characteristics consistent with an interpreted glacial advance sand unit (GSI 2001).

D. LOCAL AND SITE HYDROGEOLOGY

Groundwater was not encountered to depths of 28 feet below ground surface (bgs) during the current investigation. Clayey silts beneath the eastern half of the site at depths below 9 feet bgs are wet, making the soil sticky and moldable. However, groundwater did not collect in boreholes drilled deeper than 9 feet bgs and left open for 15 minutes. AGI (1990) estimated groundwater to be 70 to 75 feet bgs and flow in a southerly or southwesterly direction. Local groundwater may be influenced by several factors, and may not conform to interpreted patterns. Shallower, perched groundwater zones may also occur.

E. SUMMARY OF PREVIOUS INVESTIGATIONS

In 1990 Pacific Environmental Services Company (PESCO) removed four steel 4,000-gallon-capacity USTs, one steel 6,000-gallon-capacity UST, and one 550-gallon-capacity waste oil UST from the east half of the subject property. Applied Geotechnology, Inc. (AGI), who provided oversight, noted that the waste-oil UST had a leak in it and that PESCO reported a leaking pipe in the gasoline-UST tank pit. AGI collected nine soil samples from the main gasoline UST excavation, and an additional 2 soil samples from the waste oil excavation. Six of the nine soil samples from the main UST pit showed gasoline concentrations (maximum of 10,230 mg/kg (parts per million)) above the guidelines proposed under the Model Toxics Control Act (MTCA). Based upon these data, AGI excavated two test pits to the southeast and east of the gasoline tank excavation. Gasoline was found at a concentration level of 634 mg/kg in Test Pit 1.

In November 2000, GeoScience Management, Inc. (GSM) conducted a soil investigation outside the limits of the excavation completed in 1990 to remove the above 4 gasoline storage tanks. Seven push borings were completed and soil samples collected to depths of 15 feet bgs. Elevated concentrations of gasoline-related compounds were detected in soil at the southeast corner of the gasoline UST pit. GSM oversaw the removal of 20 cubic yards of impacted soil from this corner of the UST excavation. GSM proposed a cleanup level of

2,000 mg/kg for the Site, assuming there was no benzene detected in the soil samples analyzed (2,000 mg/kg is the suggested cleanup level for diesel and heavy oils suggested by the MTCA, 2007, Table 740-1).

Three Phase 1 ESA reports have been completed for this Site:

- *Phase I Environmental Site Assessment and Visual Asbestos Survey,* issued by ADaPT Engineering, Inc., (Adapt), May 25, 2000.

  The following conclusions were presented related to this ESA (directly excerpted):

  Conclusions: The possible presence of soil and ground water contamination at the subject site is not well documented at this time. It is ADaPT's understanding that there is no current proposal to sell or renovate the subject site, and, at this time, Washington State Department of Ecology (Ecology) is not actively enforcing cleanup of contaminated soil on properties that are fully developed and unlikely to change in use. If site use remains constant as a service station, it is unlikely Ecology would initiate aggressive clean-up and closure actions. There are currently undefined potential clean-up and closure liabilities associated with a future property change in use, property transfer actions, or third party legal actions. It would be prudent to discuss these issues with an environmental attorney.

- *Phase I Environmental Site Assessment,* issued by Associated Environmental Group (AEG), February 6, 2006.

  The following conclusions were presented related to this ESA (directly excerpted):

  In the professional opinion of AEG, an appropriate level of inquiry has been made into the current and previous ownership and uses of the subject property consistent with good commercial and customary practice in an effort to minimize liability.

  We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527 for the subject property located at 2021 6th Street in Bremerton, Washington. Any exceptions to, or deletions form this practice are described in Section 8.0 of this report. This assessment has revealed the following Recognized Environmental Conditions in connection with the subject property:

  - *Former UST System*

    Recommendation: None

  - *Documented Soil Contamination surrounding the UST area*

Recommendation: Operate the current station according to the restrictive covenant. Additional soil excavation and delineation are not recommended at this time. However, in the event the UST system is replaced the subsurface conditions should be evaluated for the presence of petroleum hydrocarbons.

- *Current UST System*

  Recommendation: Continue operations and maintenance of the current UST system while retaining maintenance records according to WAC 173-360.

- *Phase I Environmental Site Assessment,* issued by Pinnacle Environmental Inc (PEI), April 29, 2009.

  As it relates to this Phase II Investigation, PEI recommended the following (summarized):

  - A subsurface investigation of the subject property USTs and dispensers to evaluate the property for possible unknown or unreported leakage.
  - A subsurface investigation of the western portion of the subject property to evaluate possible impact from the historic gas station operations.
  - The investigation of the 1,000-gallon-capacity fuel oil UST noted in the 1961 Site Plan.
  - A subsurface investigation of the former auto repair areas, including former sumps, hydraulic lifts, and 3-stage clarifier.

SECTION IV.
FIELD ACTIVITIES

A. GEOPHYSICAL SURVEY AND SITE RESEARCH

PEI's Historical Research and Review

Two separate (possibly three) Phase I ESA reports (dated 2000, 2006 and possibly 2004) previous to PEI's 2009 report indicated that the subject property had been used as a gas station back to at least 1942, although it is likely it existed for a longer time period prior to and after these dates (e.g., between 1928 and 1961). None of these previous Phase I ESAs or Phase II subsurface efforts (prior to PEI's current 2009 Phase I and Phase II assessments) acknowledged or investigated this historical gas station, and although the prior Phase I ESAs noted that the property had been used as a gas station since the 1940s, none of these reports indicated that the historical station was separate from the existing gas station and on a different area of the property. No specific installation or removal documentation was found by PEI related to the USTs likely utilized by this original gas station, leading to PEI's recommendation that both the current and historic gas stations be evaluated.

PEI's 2009 Phase I review of Bremerton Building Department records revealed a 1961 Site Plan for proposed Texaco gas station improvements on the east-central portion of the property (and includes a portion of the existing building). That map showed a 1,000-gallon fuel oil UST located immediately west of the gas station building. Based on the records reviewed, this fuel oil UST was not acknowledged or addressed by the UST removal work in 1990 or the subsequent efforts in 2001. Additionally, none of the prior Phase I ESAs mentioned this UST, as they did not appear to have reviewed building permit records. During PEI's site visit observations, no obvious visual evidence of this UST was noted; however, the subject property has been re-paved and other alterations have occurred since the 1961 map was drawn.

PEI (2009) recommended a geophysical survey of the property to confirm the presence or absence of the reported historic "western" gas station USTs (or their former locations, if possible), as well as the presence or evidence of the former existence of the 1,000-gallon-capacity fuel oil UST west of the current gas station building.

PEI reviewed Sanborn Fire Insurance Maps for the area as provided by EDR. The following information was obtained:

Year	Source	Description
1914	Sanborn	The subject property is comprised of three separate parcels. The western one-third contains only a small shed. The central portion contains a small dwelling and a shed. The eastern one-third is vacant.
1925	Sanborn	The subject property remains comprised of three separate parcels. The western and eastern thirds are vacant while the central portion contains a small dwelling and a shed.

1928	Sanborn	The subject property remains comprised of three separate parcels (possibly four) and contains two dwellings and two small auto garages.
1947	Sanborn	The subject property remains comprised of three separate parcels (possibly four). The western one-third is occupied by an apparent gas station ("greasing" and "gas & oil") and a portion of a 4-car garage. The remaining eastern two-thirds contain two dwellings and a garage.
1968	Sanborn	The property is now one large parcel. A portion of the existing gas station structure (western two-thirds of the current building) is centrally located on the property. The property is noted as used for "gas & oil", but no reference to USTs is made. An apparent fuel dispenser canopy of "iron" construction is located on the north-central portion of the site, similar to the current canopy location.

PEI performed other limited historical research (building permits, city public works department maps, etc.) in an effort to evaluate possible UST, fuel or waste oil UST, hydraulic lift, sump or clarifier locations. PEI contacted the city of Bremerton Building Department for an in-person review of the building permit file. It was during this review that PEI found a 1961 Site Plan with a diagram showing the locations of four 4,000-gallon-capacity gasoline USTs, one 550-gallon-capacity waste oil UST, a 1,000-gallon-capacity fuel oil UST; as well as 2 hydraulic lifts and one sump inside the service bay. In 1990 a permit was also issued to install a grease interceptor, which is assumed to be the interceptor (clarifier) currently located north of the subject building. The 4,000-gallon fuel USTs and 550-gallon waste oil UST were removed in 1990 and replaced with three current fuel USTs (the 550-gallon waste oil UST was not replaced). However, no removal information was on file for the 1,000-gallon fuel oil UST.

The locations of some of the borings were based upon the results of the review of aerial photos, Sanborn maps, building permits, etc.

USA/Dig Alert Clearance and Geophysical Survey

PEI contacted Underground Service Alert (USA, or DigAlert) on July 14, 2009. The USA/Dig Alert ticket number was 9168633. PEI also contracted a private geophysical firm, Underground Detection Services, Inc. (UDSI) to locate utilities within the proposed work areas, and to identify possible historic UST location(s). The geophysical survey used a combination of ground penetrating radar (GPR) and electromagnetic (EM) methods. A report of findings is provided as **Appendix B**.

Three large radar anomalies, believed by UDSI to be buried USTs, were detected in the westernmost portion of the subject property adjacent to Naval Avenue. The locations of these anomalies correspond to the former site of a 1940's-vintage gasoline service station that existed on this portion of the Site. A magnetic locator, used in conjunction with the radar, did not respond with a strong signal. This may suggest that the USTs are either badly corroded or are possibly slurry-filled.

Three boring locations (BM-1, -2 & -3) near the three suspected USTs were selected based on the results of the radar survey.

Additionally, although the geophysical survey did not find direct evidence of the 1,000-gallon fuel oil UST, reported in a 1961 diagram as immediately west of the subject building; based upon the limitations of such surveys and the lack of any removal documentation on file for this UST, it should be presumed this UST remains in-place until proven otherwise.

Two boring locations (BM-9 and -9A) near this suspected UST were selected based on the results of the radar survey.

B. HEALTH AND SAFETY PLAN

A site-specific Health and Safety Plan (HASP), compliant with the requirements of 29 CFR Part 1910.120, 8 CCR 5192, and the EPA Standard Operating Safety Guides for Hazardous Waste Operations (1986) was developed by PEI prior to field activities. Based on the conditions of the site, the expected levels of constituents present in the soil, and the type of work performed, all activities were conducted in Level D Personal Protective Equipment (PPE). The HASP provided the requisite details and guidance. All employees involved in field work at this site previously completed the required 40 hours initial training, had maintained qualification through annual refresher training, are under a program of medical monitoring, and are certified to wear respiratory protection, as specified in 29 CFR part 1910.134 and 8 CCR 5144. The site safety officer conducted a tailgate safety meeting prior to the start of drilling activities and all personnel on-site signed the document. PEI retains the signed Health and Safety Plan in the project file.

C. DRILLING METHODS

PEI obtained the drilling services of Environmental Services Network Northwest (ESN) Inc. for the July 19 and 20, 2009 field work to drill the borings at the subject property, using Geoprobe® tooling with Macro-Core® samplers. The field work was accomplished in two field days using a Strataprobe (#30) direct push technology (DPT) rig. Weather conditions at the time of the drilling consisted of clear skies with temperatures between 65 and 75°F.

PEI installed a total of thirteen borings (BM-1 through BM-9, BM-9A, and BM-10 through BM-13) at this site to depths ranging from 20 to 28 feet bgs (see **Figure 3, Appendix A** for locations).

All down-hole drilling equipment was decontaminated using a three stage process of a non-phosphate grade detergent (Alconox) mixed with potable water, a potable water rinse and a de-ionized water rinse.

D. SOIL SAMPLING

Soil was collected continuously in all borings four feet at a time in acrylic liners. Borings BM-1, -2, -3 (historic western UST farm), -10, -11, and -12 (newer UST farm and BM-11 also near the exterior clarifier) were scheduled to be advanced to 30 feet bgs. Borings BM-4, -5, -6, -7 (dispenser islands), -8, (former waste oil UST location), -9, and -9A (former fuel oil UST location) were scheduled to be drilled to 20 feet bgs. Disposable gloves (changed between each boring) were utilized to limit cross-contamination between core samples. Discrete soil samples were collected based on visual observations. Samples were collected in six-inch long sections of the liners, which were cut out at the appropriate depths using a hacksaw. The sample sections were sealed with Teflon™ sheeting and plastic caps and labeled with the depth, sample time, and an arrow showing the "down" direction. Each of these soil samples was immediately placed in a cooler maintained at 4°C with ice. The remaining portion of each sleeve was used for lithologic description ("logged") by visual/manual methods (Unified Soil Classification System) and observed for staining, olfactory, and soil vapor readings using a photo-ionization detector (PID), equipped with a 10.6 eV lamp. Boring logs are included as **Appendix C**. Organic vapors were detected in parts per million (ppm) directly from the open borehole at 4-foot intervals in every borehole and recorded in a field log book.

After the samples were logged, a portion of each was placed in re-sealable plastic Ziploc™-bag. Each Ziploc™ bag was labeled and exposed to direct sunlight to allow volatilization of organic vapors. After allowing at least 15 minutes for adequate volatilization, each bag was punctured with the tip of the field-calibrated PID and a reading of the organic vapor concentration was recorded in a field log book.

The selected samples were delivered with a completed chain-of-custody to Environmental Service Network Northwest (ESN) Inc. a Washington certified analytical laboratory. Samples related to the existing gas station USTs and dispenser islands, and the historical gas station were analyzed for total petroleum hydrocarbons – gasoline range organics (TPH-gas) by EPA Method 8015-modified; volatile organic compounds (VOCs) by EPA Method 8260B; and total lead by EPA Method 6020. Samples related to the (former) fuel oil and waste oil USTs and exterior clarifier were analyzed for TPH-diesel & extended range organics (TPH-diesel/ext); BTEX by EPA Method 8260B; selected poly-nuclear aromatic hydrocarbons (PAHs) by EPA Method 8270; Poly-Chlorinated Biphenyls (PCBs) by EPA Method 8082; and total lead by EPA Method 6020.

After collection of the soil samples, each borehole was backfilled to near-surface with hydrated bentonite, then sealed with an asphalt or concrete plug to match the existing ground cover.

Please note that due to the on-going foreclosure process at the subject property, and the reported "abandonment" of the site by the property owner (borrower), the proposed interior borings for the historic hydraulic lifts and sump could not be performed due to a lack of access inside the subject building. It may be prudent to perform such sampling in the future

should interior access be available or if the site usage changes. However, hydraulic lifts and sumps typically do not present a significant risk of major environmental impairment.

SECTION V.
EVALUATION OF RESULTS

The soils encountered during drilling consisted largely of fine silt and fine- to coarse-grained sand with varying shades of brown and gray color. The interbedded sand and silt units are typically less than one-foot thick and occasionally much thinner. The beds are almost universally pebbly or gravelly, with individual pebbles usually less than 1.5 inches in the longest direction. The soil column is generally loose and dry to the depth of all borings (maximum of 28 feet bgs). Soil boring logs and a geologic cross-section (**Appendix C**) have been crafted from lithologic data collected during drilling. The cross-section shows the relative consistency of the soil across the Site; however the individual beds of sand and silt become thinner and more chaotic towards the west. This may suggest that the direction of deposition may have shifted from east/west to more north/south towards the western side of the Site. The subsurface soils exhibit characteristics consistent with the interpreted glacial advance sand unit (GSI 2001).

PID readings of the open borehole BM-2 at 24 feet bgs near the historic UST farm yielded a "high" of 25 ppm. PID readings also peaked at 8 feet bgs in this boring. PID "highs" near the dispenser island were 20 ppm at 12 feet bgs in boring BM-4. The PID readings peaked in all four open boreholes drilled near the dispenser islands at 12 feet bgs. Head space samples registered PID "highs" of 75 ppm in BM-2 at 24 feet bgs and 110 ppm at 12 feet bgs in BM-4. Ambient air background levels ranged from 1.5 ppm to 4.4 ppm for the two days of fieldwork. Staining interpreted as "dead gasoline" was observed in BM-2 at 8 feet bgs and in BM-3 at 9 feet bgs (both near the historic UST farm). Possible "old oil" was observed in BM-9 at 4 feet bgs (near the former fuel oil UST location). No borehole PID or headspace "highs" were recorded corresponding to this "old oil", however. Very strong gasoline odors were noted in borings BM-4, -5, -6, and -7 (near the dispenser islands) from depths of 12 feet bgs to the total depth (TD) of each boring. All soil samples with PID "highs" were selected for laboratory analysis.

Because of the pebbly nature of the soils encountered beneath the Site, the soils tended to "lock" the DPT drill pipe into the boring, which resulted in extraordinary effort to recover the drill pipe and sampler from depth. As a result, the desired depth of 30 feet bgs was not attained in any of the borings. 'Refusal' was established to be from 24 to 28 feet bgs. The bottom soil sample collected from each boring was submitted for analysis, as well as one other sample from each boring. Only one sample was submitted from BM-9 because it was only 10 feet deep. BM-9A was drilled in an attempt to confirm the presence of "old oil" detected in BM-9, but no "old oil" was found and no soil sample was submitted from this boring. BM-8 served to test the soil near the former location of the waste oil tank removed in 1991. BM-11 was drilled near the 3-stage clarifier and to test the soil near the clarifier and near the former (and current) UST farm. Therefore it was drilled to 24 feet bgs (refusal).

No PAHs, PCBs, or elevated concentrations of lead were detected in any of the soil samples submitted for analysis.

Gasoline-range organics (TPH and BTEX) were detected at elevated levels, especially at 12-feet bgs, in the soil samples analyzed from the dispenser area of the Site (BM-4, -5, -6, and -7). The results are shown below in Table 1. A laboratory report is provided in the Laboratory Results, **Appendix D**.

TABLE 1
Soil Sample Analytical Results

Soil Sample #	TPH (8015M) (Gasoline Range) C4-C10 (mg/kg)	Benzene (8260B) (ug/kg)	Toluene (8260B) (ug/kg)	Ethyl-benzene (8260B) (ug/kg)	Xylenes (8260B) (ug/kg)	Isopropyl-benzene (8260B) (ug/kg)	n-Propyl-benzene (8260B) (ug/kg)	1,3,5-Trimethyl-benzene (8260B) (ug/kg)	1,2,4-Trimethyl-benzene (8260B) (ug/kg)	Isopropyl-toluene (8260B) (ug/kg)	Naphtha-lene (8260B) (ug/kg)
BM-1 10-11	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BM-1 15-16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BM-2 11-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BM-2 23-24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BM-3 11-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BM-3 25-26	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BM-4 11-12	1600	1800	39000	14000	110000	ND	6900	12000	39000	1700	5900
BM-4 15-16	1800	1800	83000	39000	310000	4300	21000	32000	100000	3600	13000
BM-4 15-16 d	1600	1000	48000	23000	190000	2600	13000	20000	66000	2500	9300
BM-5 11-12	4100	9500	198000	105000	770000	9700	43000	63000	204000	7100	21000
BM-5 11-12 d	4400	10000	200000	11000	790000	11000	48000	84000	220000	8500	22000
BM-5 19-20	160	99	950	650	5100	110	530	610	2000	ND	390
BM-6 11-12	2200	1900	74000	29000	220000	2700	520000	20000	64000	2400	7200
BM-7 11-12	39	3100	3700	930	4800	ND	180	230	810	ND	ND
BM-8 7-8	190	230	300	370	2600	ND	ND	200	230	ND	65
BM-8 11-12	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BM-9 9-10	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BM-10 15-16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BM-10 23-24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BM-11 11-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BM-11 19-20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BM-12 11-12	ND	110	120	64	560	ND	ND	ND	110	ND	ND
BM-12 23-24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BM-13 15-16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BM-13 27-28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTCA Method A cleanup level	100 mg/kg*	30 ug/kg	7,000 ug/kg	6,000 ug/kg	9,000 ug/kg	NL	NL	NL	NL	NL	5,000 ug/kg

mg/kg = milligrams per kilogram (parts per million)
ug/kg = micrograms per kilogram (parts per billion)
NS = Not Sampled
NA = Not Analyzed
ND = Not Detected above laboratory detection limits (PQL)
NL = Not listed in the MTCA guide
* where no benzene is present and toluene, ethylbenzene, and xylene concentrations do not exceed 1% of TPH concentration

SECTION VI.
CONCLUSIONS AND RECOMMENDATIONS

Pinnacle Environmental, Inc. (PEI) was retained by First Citizens Bank (formerly Temecula Valley Bank) to perform a Limited Phase II Environmental Site Assessment of a site consisting of 13 borings and soil sample collection and analysis, at a Chevron Gasoline Service Station property, located at 2021 6th Street in the city of Bremerton, Washington. This Limited Phase II was performed in order to assess recognized environmental conditions (RECs) identified in a previous April 29, 2009 Phase I ESA report issued by PEI for the subject property. These RECs included the reported past use of three generations of gasoline USTs, 3-stage clarifier, fuel oil and waste oil USTs, hydraulic lifts, and sump on the property.

The scope of work for this Limited Phase II included a subsurface assessment was performed in accordance with the June 24, 2009 proposal that was approved by the Client on July 1, 2009.

The scope of work for this Limited Phase II included a subsurface soil assessment which included a geophysical survey to evaluate potential boring locations, and the advancement of thirteen soil borings. Select soil samples were collected from each boring for laboratory analysis of VOCs and TPH-gas or diesel and total lead, and some samples were also analyzed for PAHs and PCBs.

The geophysical survey results indicated three radar anomalies interpreted as USTs located at the western edge of the property. Borings BM-1, -2, and -3 were selected to test the soil near these anomalies. In addition, a 1,000-gallon fuel oil UST was (formerly) located immediately west of the subject building. Borings B-9 and -9A selected to test soil near this UST. The laboratory results of samples from these areas did not indicate elevated levels of petroleum hydrocarbons.

The analytical results showed the soil beneath the dispenser islands are impacted by the constituents of gasoline, especially benzene (see **Table 1**). Washington Model Toxics Control Act (MTCA) cleanup regulations (Publication 94-06 [revised November 2007], Tables 740-1 [unrestricted] and 745-1 [industrial], Method A) allow a maximum concentration of benzene of 0.03 mg/kg (30 ug/kg) in soil to be protective of human health and the environment. The MTCA values for toluene, ethyl benzene, and xylenes are 7-, 6-, and 9 mg/kg, respectively. Further, the concentration of BTEX cannot exceed 1% of the volume of gasoline present in the soil. The concentrations of these gasoline constituents found beneath the dispenser islands at the subject property exceed these MTCA guidelines. Specifically, the maximum benzene concentration identified during this limited assessment was 9,500 ug/kg in boring BM-5 at 12 feet bgs. Other BTEX constituents also exceeded MTCA guidelines in soil samples from the dispenser island area.

The components of gasoline were detected in high concentrations to the total depth of the borings around the dispenser islands. In some borings, the concentrations of these components increased with depth. At the present time, the subject gas station is "abandoned"

and further active leakage from the dispensers and/or piping is not anticipated; although the source of the leakage will require diagnosis and repair prior to re-activation of the fuel dispensing operations. **PEI concludes that further investigation (deeper borings) of the soil and possibly the groundwater beneath the dispenser islands is warranted to further delineate the horizontal and vertical extent of impact. In addition, PEI recommends reporting of the results of this investigation to the appropriate regulatory body (Washington Department of Ecology, Toxics Cleanup Program).**

Although laboratory data did not indicate elevated petroleum hydrocarbon impact in the vicinity of the three apparently abandoned USTs on the western edge of the property, or in the vicinity of the former fuel oil UST west of the subject building, there is evidence (e.g., staining and elevated PID readings) that the soil near the three historic USTs and the former fuel oil UST have been impacted by petroleum hydrocarbons. **PEI recommends further subsurface assessment of these anomalies. If these anomalies are USTs, PEI recommends their removal in accordance with State and local regulations.**

The soils in the vicinity of three current USTs and the site of the former waste oil UST were found to be impacted with only low to moderate levels of petroleum hydrocarbons (maximum TPH 190 mg/kg; maximum benzene 230 ug/kg, both in BM-8), similar to the levels found by previous investigations. The previously identified impact which was left in place in the vicinity of the current USTs resulted in the placement of a restrictive covenant on the subject property title in 2003. Based upon the petroleum hydrocarbon impact identified in the area of the dispensers from this current Assessment, the existing restrictive covenant may require modifications, at the discretion of the WDOE.

The soils around, the 3-stage clarifier were found to be un-impacted by this structure.

The former interior hydraulic lifts and indoor sump were not investigated because access to inside the former store and service bay (later a deli) was not available to PEI on the days the current investigation was conducted.

SECTION VII.
REFERENCES

The following references were utilized during the preparation of this report:

ADaPT Engineering, Inc., 2000, *Phase I Environmental Site Assessment and Visual Asbestos Survey,* May 25.

Sanborn Maps supplied by EDR, Inc.

Applied Geotechnology, Inc. (AGI), 1990, *Work Plan, Vapor Extraction System, Newman Texaco*, October.

Associated Environmental Group (AEG), 2006, *Phase I Environmental Site Assessment,* February 6.

Geoscience Management, Inc (GMI), 2001, Additional Surface Assessment, Interim TPH Evaluation, and Soil Excavation Report, Newman's Chevron, March 26.

Kane Environmental, Inc. (KEI), 2001, Underground Storage Tank Removal Report, 6th & Naval Avenue, Bremerton, Washington, September 12.

Pacific Environmental Services Company (PESCO), 1990,

Pinnacle Environmental, Inc. (PEI), 2009, *Phase I Environmental Site Assessment,* April 29.

Underground Detection Services, Inc (UDSI), 2009, letter report, July 17.

USGS Topographic Map, *Bremerton, West,* Washington Quad, dated 1978.

Washington Model Toxics Control Act (MTCA) cleanup regulations (Publication 94-06 [revised November 2007], Tables 740-1 [unrestricted] and 745-1 [industrial], Method A)

SECTION VIII.
STATEMENT OF THE ENVIRONMENTAL PROFESSIONALS

This Assessment has been performed for the exclusive use and benefit of the addressee(s) identified on the cover of this report, or agents directly specified by it (them), for the transaction at issue concerning the subject property described in this report. This Assessment shall not be used or relied upon by others without the prior written consent of Pinnacle Environmental, Inc. and of the addressee(s) named on the cover of this report.

The objective of this limited subsurface investigation was to discover potential environmental impact from historical usage of the subject property to subsurface soils, as specified in the scope of services, with the limitations identified in the proposal. The field and laboratory procedures described herein were conducted in accordance with generally accepted environmental consulting practices in order to accomplish the stated objectives.

Signature of Environmental Consultant – David W. Copp, REA #05148:

Signature/Environmental Consultant

Signature/Stamp of CA Certified Engineering Geologist #1605
and WA State Professional Geologist #2782 – Mark Slatten:

Signature/Stamp of Professional Geologist

PINNACLE ENVIRONMENTAL, INC.
QUALIFICATIONS OF PERSONNEL INVOLVED IN THIS ASSESSMENT

Mark H. Slatten, CEG, CHG, RGP, RG, and REA II

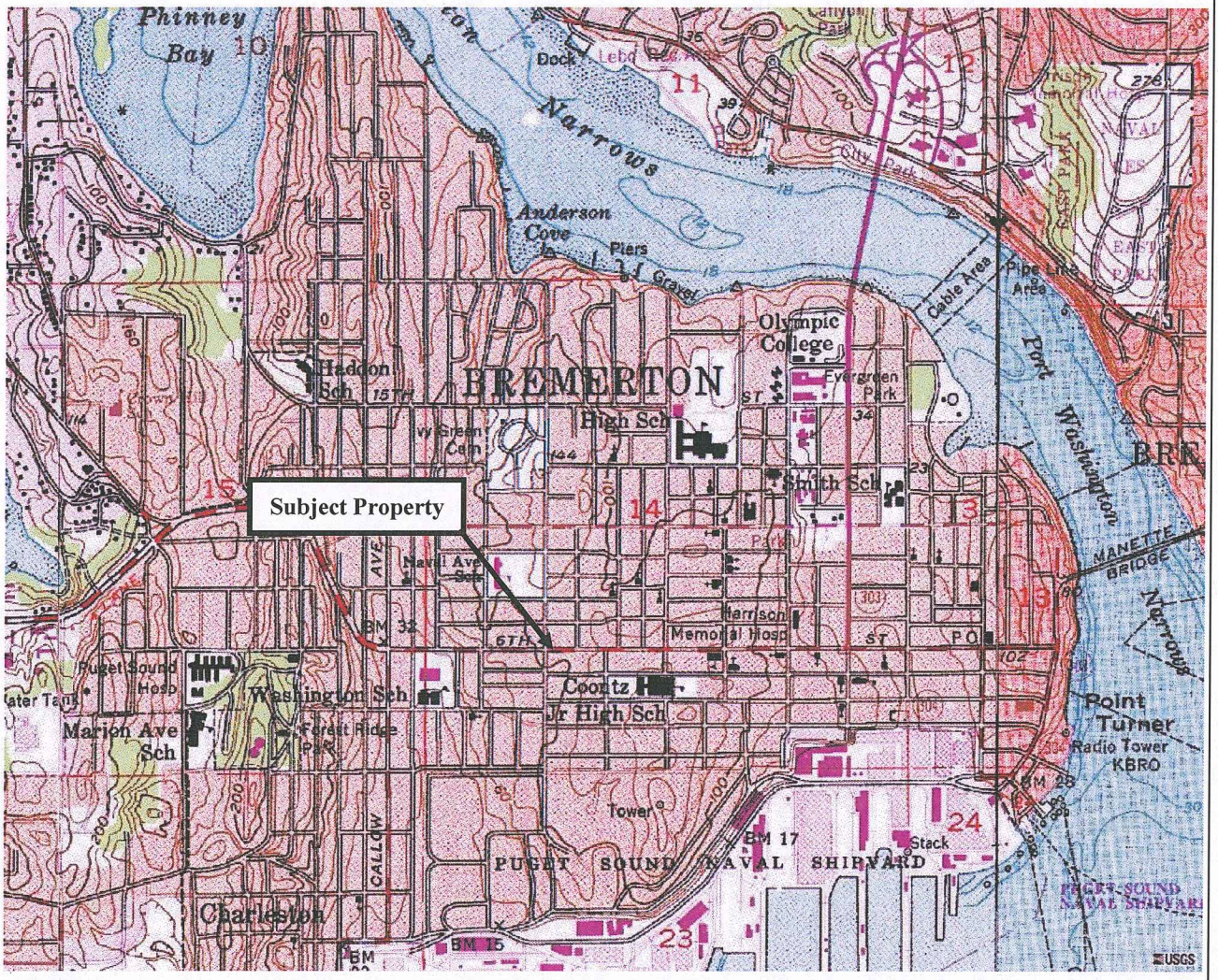
Mr. Slatten has 30 years experience as a geologist, geophysicist, engineering geologist, and hydrogeologist. He has extensive experience managing over 1,200 projects, including program management for major energy corporations, municipal well sitings, groundwater basin and aquifer modeling, and groundwater monitoring well installation, monitoring, sample collection, and data interpretation at military installations, government facilities, refineries, landfills, and industrial sites, among others. These job functions require a comprehensive understanding of the multidisciplinary tasks he uses to characterize the difficult sites that he has been charged with investigating. Mr. Slatten worked for the zone contractor for USEPA Region 9 in 1987 and 1988, conducting original preliminary assessments (PAs) to establish site rankings on the National Priorities List (NPL). Throughout his career, Mr. Slatten has sought to broaden the scientific approach to environmental site investigations. He was invited to round-table discussions with the Regional Water Quality Control Board (RWQCB) to discuss the viability and scientific credibility of soil vapor analysis as a predictive tool. Mr. Slatten uses hand-held geophysical instruments (GPR, EM, resistivity, seismic reflection and refraction) to evaluate certain subsurface conditions ahead of, or instead of, the drilling rig. He oversees the collection of 3-D seismic survey data, uses aerial photographs, and evaluates historical topographic maps to better understand the relationship between local groundwater flow and joints and faults beneath his sites. Mr. Slatten was one of the first environmental managers to recommend and use release compounds (ORC, HRC, and MRC) into petroleum-contaminated soil and groundwater (in 1995). He has owned, at separate times, a drilling company (two DPT drilling rigs), a company that provided Phase I investigations, a geophysical service company, and most recently, a soil remediation company.

David W. Copp, CHMM, REA #05148

Mr. Copp earned a B.A. degree in Environmental Science from California State University, San Bernardino (1987) and a Certificate in Hazardous Materials Management from the University of California, Riverside (1992). Mr. Copp has over 20 years of experience within the environmental consulting industry. Mr. Copp is responsible for performing project work (Phase I and II Environmental Assessments [Phase I ESA's], Property Condition Assessments, etc.), as well as business development and customer service roles. Mr. Copp has extensive experience in performing ESAs (personally over 2,000 projects in 23 states), Phase II Investigations, and Asbestos and Lead Surveys. Mr. Copp's multi-disciplinary skills in environmental consulting have been instrumental in the completion of Phase I ESAs and many other projects on time and within budget. Mr. Copp holds certifications as a Registered Environmental Assessor, AHERA asbestos inspector, Cal-DHS lead-based paint inspector/assessor, and USEPA 40-hour HAZWOPER. Mr. Copp co-manages the environmental operations of PINNACLE including scheduling, client services and development, QA/OC, field work, and the development of ESA protocols and report formats. Mr. Copp has also been a member of the ASTM committees on ESAs and PCAs.

APPENDIX A

FIGURES

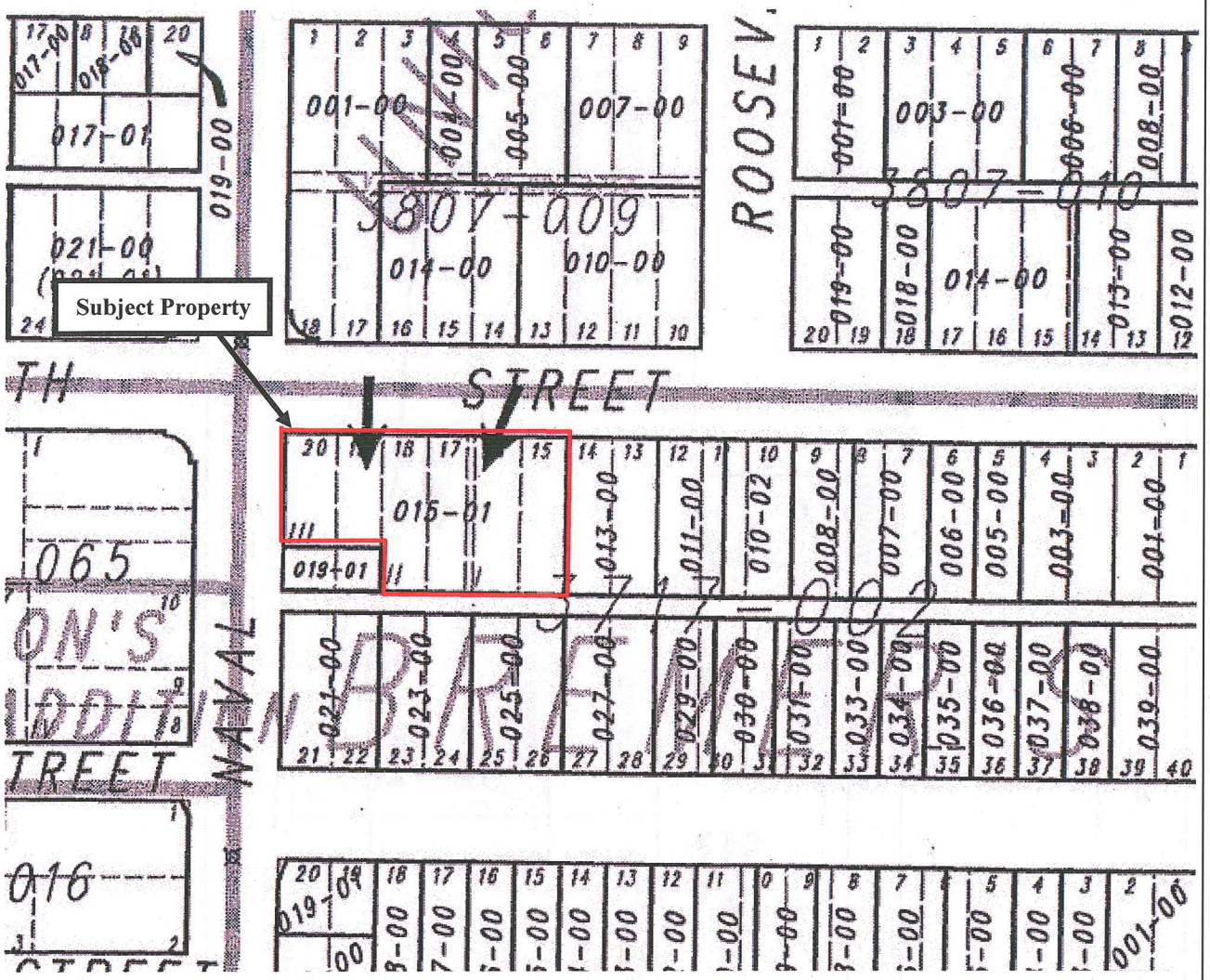


USGS 7.5 Minute Topographic Map
1978 - Bremerton West, Quadrangle

NORTH

FIGURE: 1

2021 6th Street; Bremerton, WA



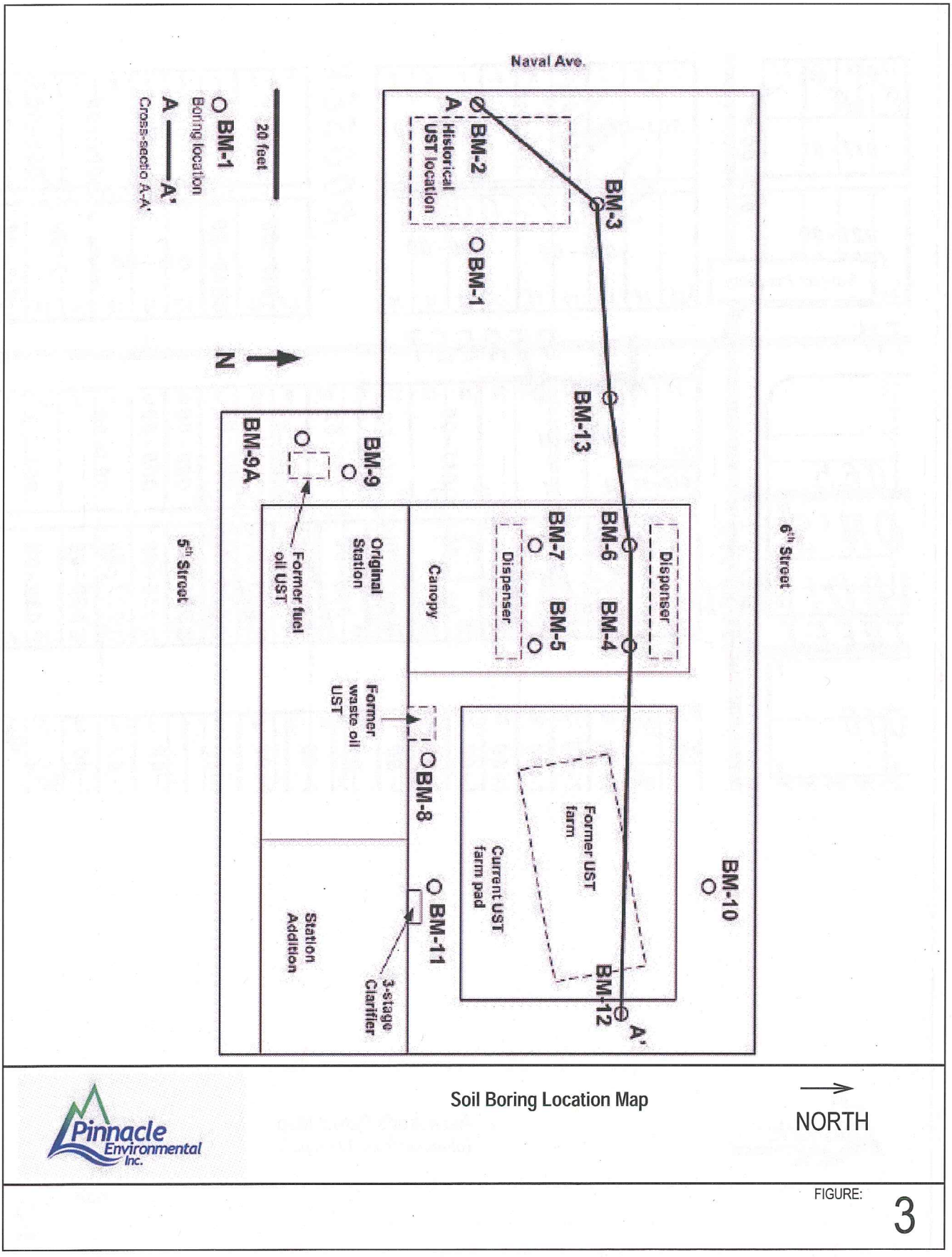
Pinnacle Environmental Inc.

Assessor's Parcel Map
(*obtained from title report*)

NORTH

FIGURE: 2

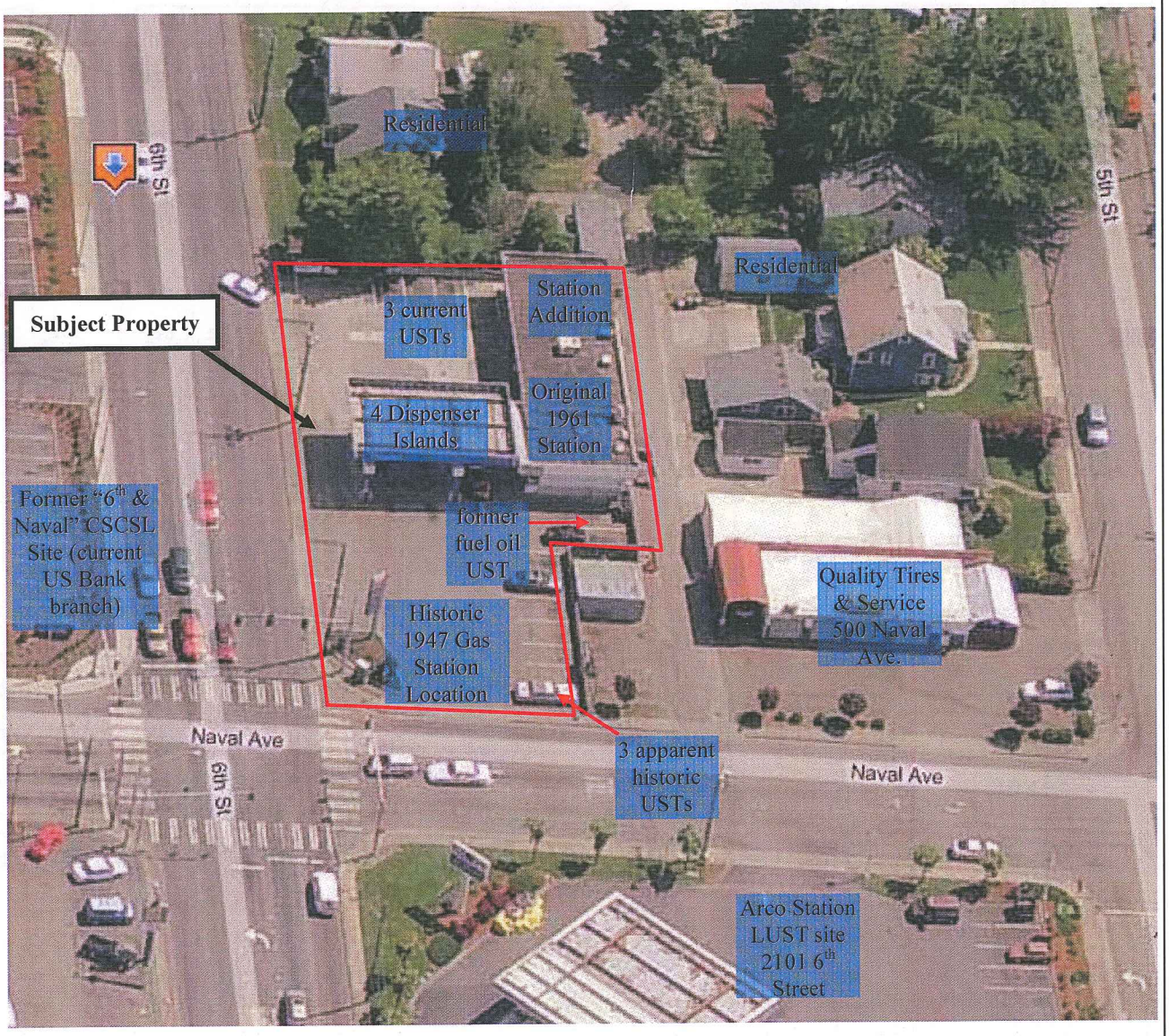
2021 6th Street; Bremerton, WA



Pinnacle Environmental Inc.

FIGURE: 3

2021 6th Street, Bremerton, WA



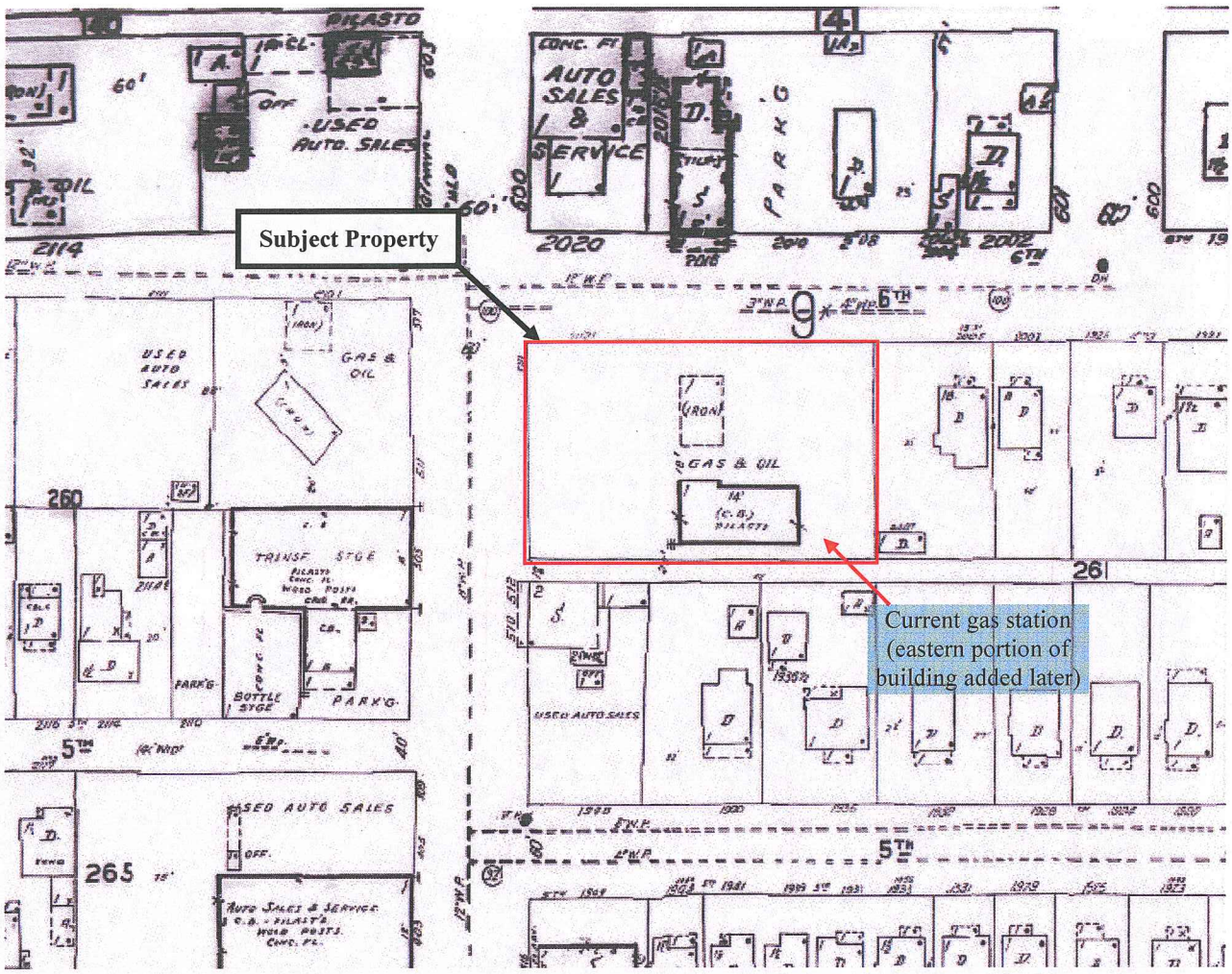
Pinnacle Environmental Inc.

Circa 2006 – Oblique Aerial Photo

NORTH

FIGURE: 4

2021 6th Street, Bremerton, WA

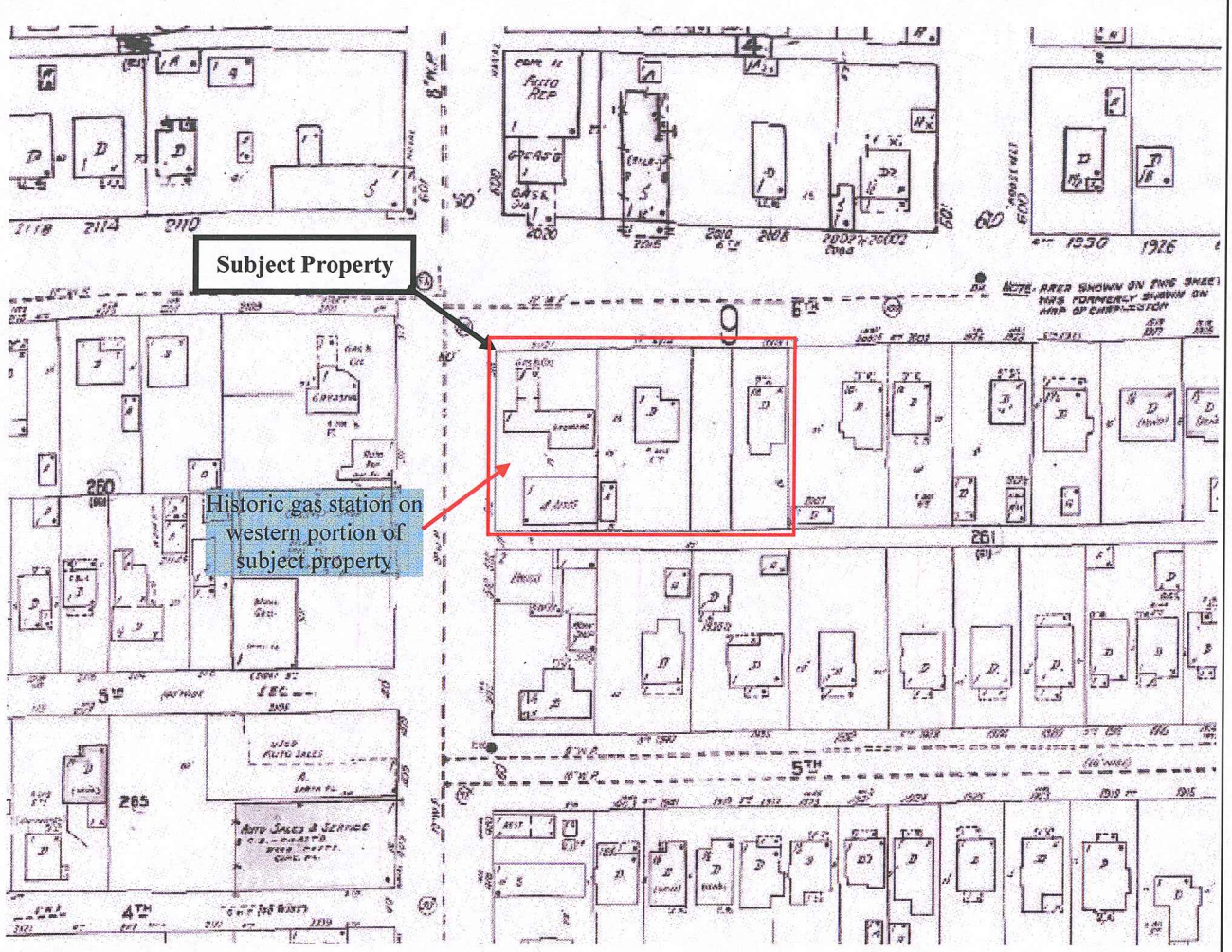


Sanborn Map - 1968

NORTH

FIGURE: 5

2021 6th Street; Bremerton, WA



Sanborn Map - 1947

NORTH

FIGURE: 6

2021 6th Street; Bremerton, WA

APPENDIX B

GEOPHYSICAL SURVEY REPORT

Underground Detection Services, Inc.

P.O. Box 47164
Seattle, WA 98146

425/747-8804 tel
206/282-1866 tel
206/286-9889 fax

July 17, 2009

David Copp
Pinnacle Environmental
PO Box 1956
Paradise, CA 95967

Dear David:

This is a report on the equipment, procedures, and results of the geophysical survey performed at 2021 6th Street in Bremerton, Washington. The purpose of the survey was to identify if underground storage tanks (UST) exist on the site.

The equipment that was used for the survey included, but was not limited to a Schonstedt GA-52 magnetic locator, GSSI Sir 3000 System ground penetrating radar (GPR) with 270 MHz antenna, and a MetroTech 810 pipe and cable locator.

The magnetic locator measures the magnetic field simultaneously from two separate elevations within the same piece of equipment. A high pitch sound is emitted from the equipment when in the proximity of ferrous material. The equipment is carried over the survey area and swung back and forth to cover as much area as possible in a reasonable time frame.

The GPR utilizes high frequency radio waves to probe the subsurface. A radio wave is emitted from the antenna and travels through the soil, if there is an anomaly below the antenna; the radio wave is reflected back. The data that is collected is displayed in real time, through a color display. After processing on a desktop computer printouts can be available.

The data that is produced is a cross section of the geology directly below the antenna. The top of the data represents the ground surface while the bottom of the page is a reading depth of the equipment. The data is collected and displayed from left to right, with left being the beginning and right being the end of the particular survey line. Anomalies typically appear white on a color screen.

The depth of the signal penetration is dependent upon geological factors beyond the control of the surveyor. Conductive soils, clays, and saturated soils, do not allow the GPR signal to penetrate as deeply as less resistive sandy soil.

The pipe and cable locator uses a defined radio frequency induced on the line from a transmitter attached to the line at the surface. The frequency travels the length of the line and acts as an antenna below the surface. A receiver tuned to that frequency is carried above the surface and locates the line with that frequency.

The GPR survey was performed over a ority of the site. Focus initially was on the area west of the building a a concrete wall. This can be seen in FILE 003A. No anomalies were indicated in this area.

The survey continued to the west leading to Naval Avenue. Upon reaching the western boundary line, three distinct anomalies were indicated. These can be seen in FILE 030A. This is a reading perpendicular of the anomalies. An additional print has been provided is a parallel reading of each anomaly. The largest anomaly was furthest to the south while the middle reading appeared to be the smallest. A magnetic locater was used over the top of these anomalies. The signature from this survey was not very strong. The ferrous quality of these possible UST's may have diminished over the years. Surface pictures of this area have also been provided.

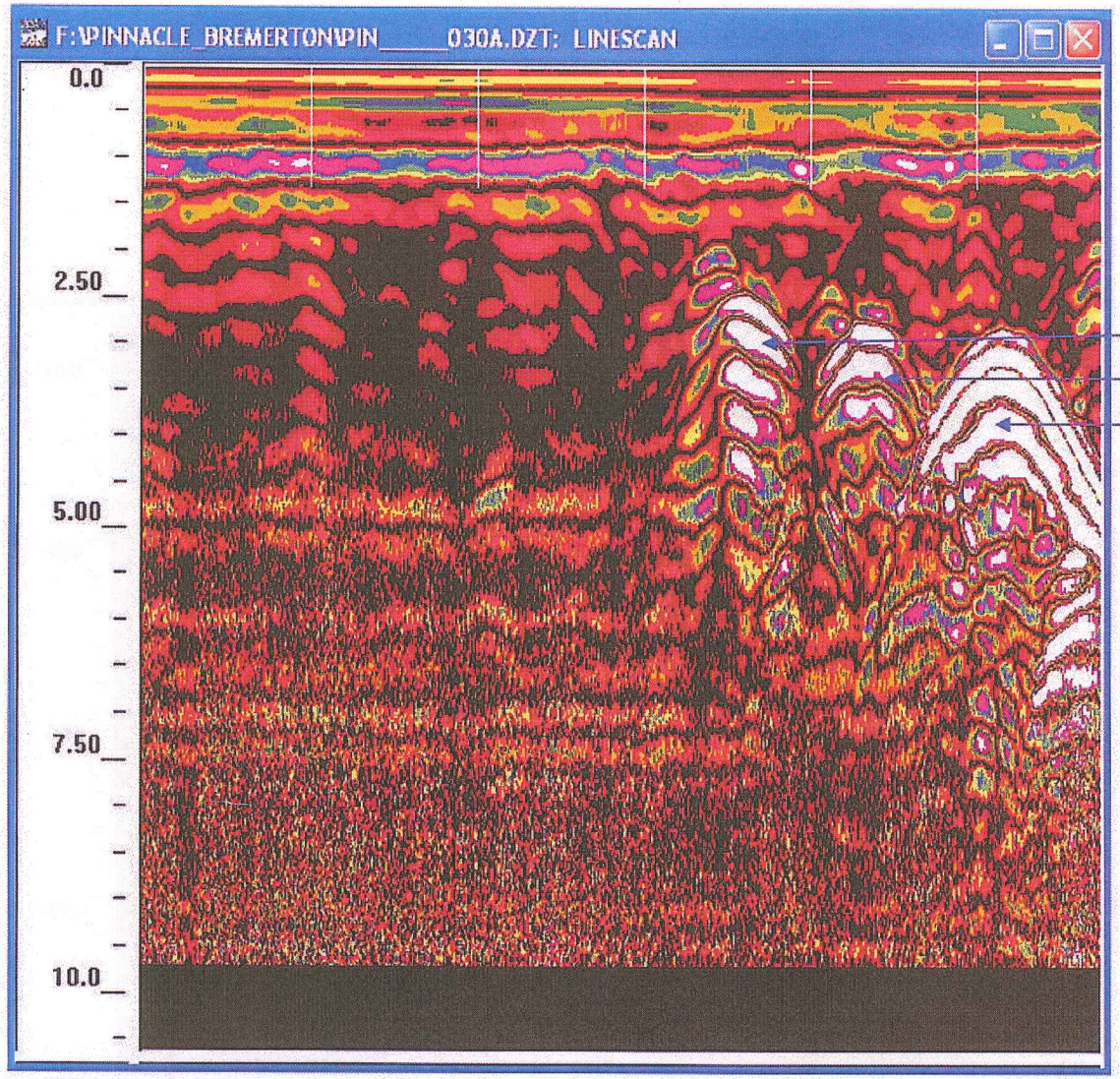
On the back side of the building there were four vents. Only one vent was still leading to the roof. The other three lines were capped off. Being that there were four vents and only three possible UST's, there may be another UST on the property to the south. Due to vehicles in the area and no authorization the survey did not continue onto this property.

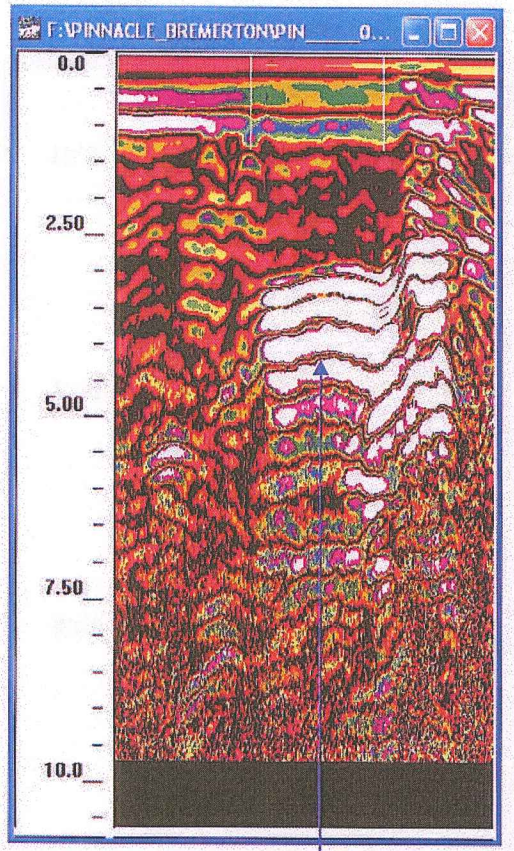
A private utility locate was also performed on the site. No site plans were provided of the subsurface utilities. Less than all lines may have been located. A public locate was not performed prior visit on the site.

In conclusion, during the GPR survey three large anomalies were indicated. These readings are believed to be UST's. A locate was also performed for possible borings to be placed on the site.

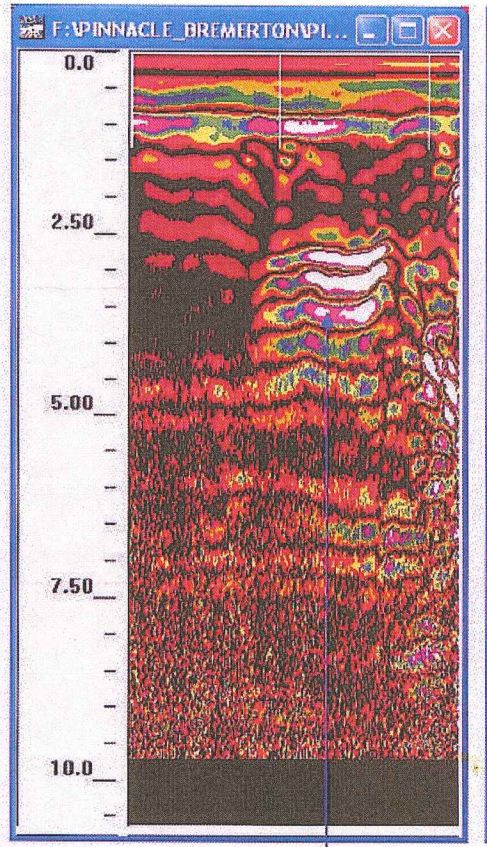
Respectfully,

Kemp Garcia

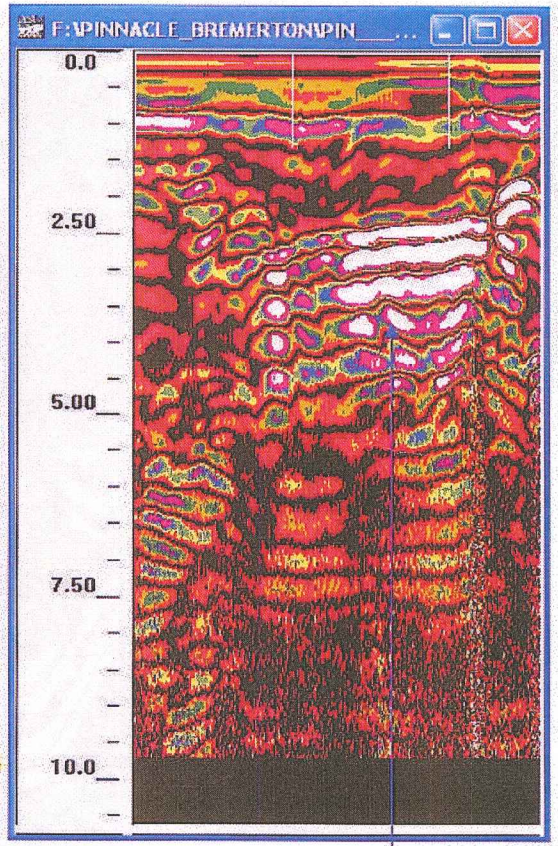

F:\PINNACLE_BREMERTON\PIN_____030A.DZT: LINESCAN
0.0
2.50
5.00
7.50
10.0
Possible UST's on SW property line, adjacent to Naval Street.



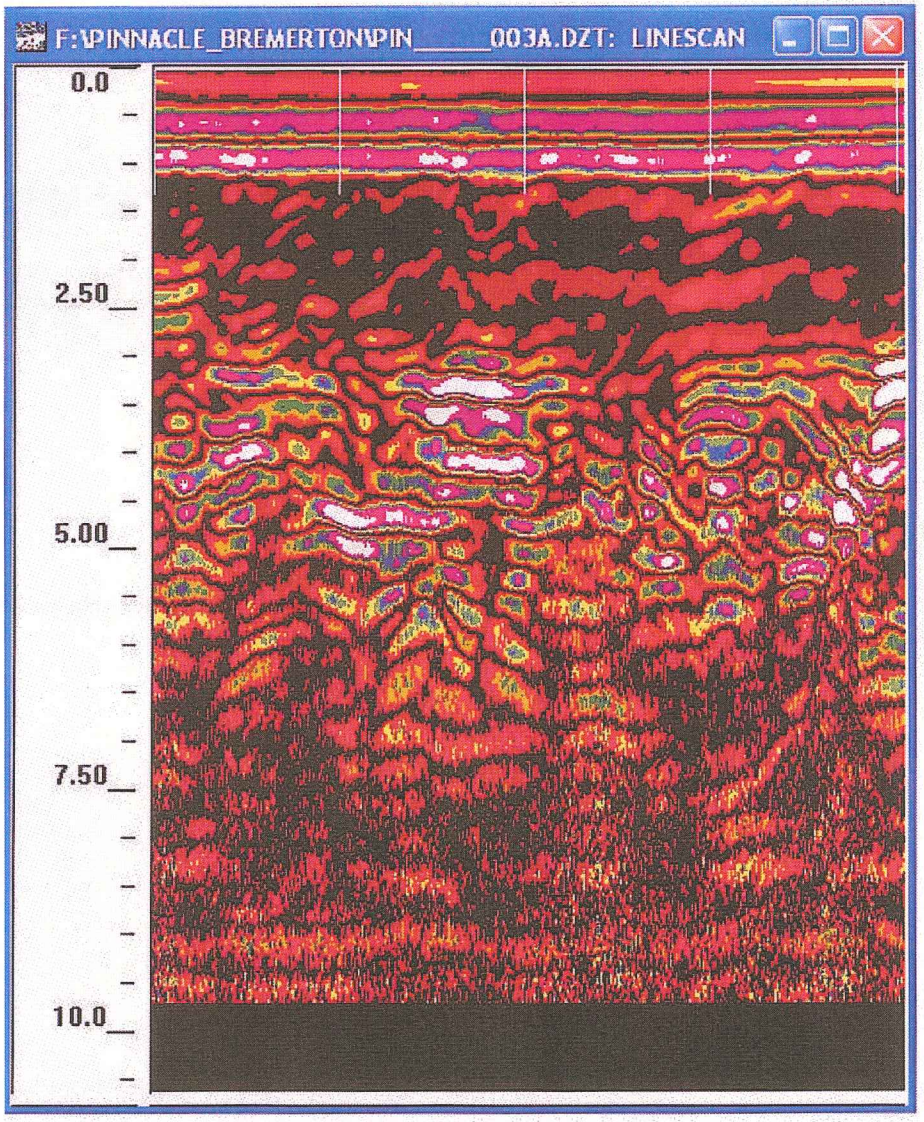
Parallel run over top of anomaly furthest to the south.



Parallel run over top of anomaly in the middle, appears to be smallest reading



Parallel run over top of anomaly furthest to the north



Scan in area just west of existing building. Between building and concrete wall. No anomalies indicated.

Areas in white and pink are the anomalies indicated on the site.

APPENDIX C

BORING LOGS AND CROSS-SECTION

BM-1
(composite of BM-1, -2, -3)

BOREHOLE LOG

Number: NO. 1 of 1

Sheet:

Client: Chevron Gas Station Property

Location: 2021 6th Street, Bremerton, WA

Date Started:	Date Finished:
7/29/09	7/29/09

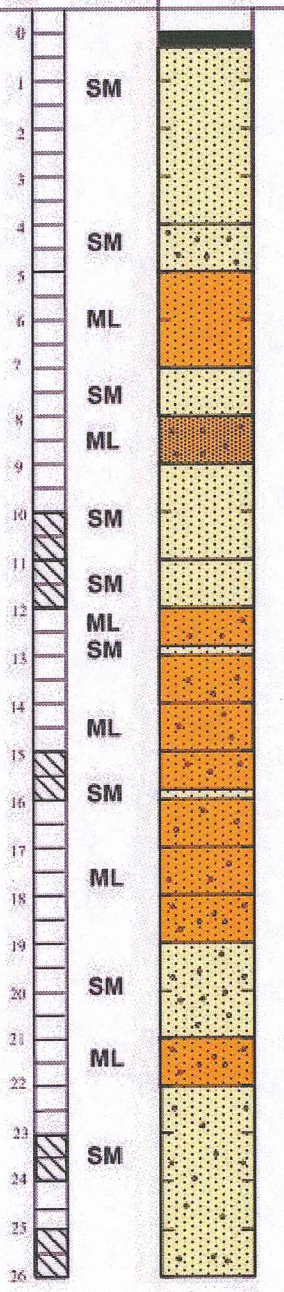
TLGRep: Mark Slatten, RG/CEG

Drill Rig/Sampling Method:	Borehole Dia.:	Casing Dia.:	Casing Elevation (AMSL):
Strataprobe #30	2"	NA	

SAMPLE LOG

Sample Number	Sample Time	PID (ppm)		Head Space
	0935	1.5		
BM-2	1048	2.0		4.0
BM-1	0940	1.0		2.0
BM-2	1051	2.0		25.0
BM-3				10.0
BM-1 10-11	0948	2.0		3.0
BM-2 11-12	1055	12.2		15.0
BM-3 11-12	1225	0.0		2.0
BM-2	1104	7.8		10.0
BM-1 15-16	1005	3.2		4.0
BM-2	1117	2.0		4.0
BM-2	1131	5.0		7.5
BM-3	1308	0.0		2.0
BM-2 23-24	1200			
BM-2	1142	25.0		75.0
BM-3 25-26	1245			2.0

BOREHOLE LOG



TD=26' bgs

Geologic Description
(Soil Type, Color, Grain, Minor Soil Component, Moisture, Density, Odor, Etc.)

SPUD, ASPHALT cover 4", hand auger to 4' bgs.
0-3', **SAND**, brown (7.5YR5/1), fine-grained, silty with gravel to ¾" to 50 % by volume, poorly-sorted, well-graded, organic, loose, dry, no odor; interbedded with:

3-3.5', **SAND**, gray (7.5YR5/1), fine-grained, silty, well-sorted, poorly-graded, organic, loose, dry, no odor; interbedded with:

3.5-4', **SAND**, yellow brown (7.5YR5/4), fine-grained, silty, well-sorted, poorly-graded, organic, loose, dry, no odor.

4-5', **SAND**, yellow brown (7.5YR5/4), fine-grained, poorly-sorted, well-graded, silty with gravel to 1.5" to 10% by volume, organic, loose, dry, no odor.

5-7', **SILT**, mottled yellow brown (7.5YR5/2), fine, sandy, loose, dry, no odor.

7-8', **SAND**, gray (7.5YR5/1), fine-grained, very well-sorted, poorly-graded, organic, loose, dry, no odor.

8-9', **SILT**, dark brown (7.5YR3/2), fine, sandy with gravel to 0.5" to 10% by volume, oily, stiff, dry, strong oily odor.

9-11', **SAND**, gray (7.5YR5/1), fine-grained, very well-sorted, poorly-graded, organic, loose, dry, no odor, grades to:

11-12', **SAND**, gray (7.5YR5/1), medium-grained, very well-sorted, poorly-graded, organic, loose, dry, no odor.

12-14', **SILT**, brown (7.5YR4/4), fine, sandy with gravel to 0.5" to 5% by volume, loose, dry, no odor, interbedded with **SAND**, gray (7.5YR5/1), fine-grained, very well-sorted, poorly-graded, organic, loose, dry, no odor.

14-15', **SILT**, dark brown (7.5YR3/2), fine, sandy with gravel to 0.25" to 5% by volume, loose, dry, no odor.

15-17', **SILT**, brown (7.5YR4/4), fine, sandy with gravel to 0.5" to 5% by volume, loose, dry, no odor, interbedded with **SAND**, gray (7.5YR5/1), fine-grained, very well-sorted, poorly-graded, organic, loose, dry, no odor.

17-18', **SILT**, dark brown (7.5YR3/2), fine, sandy with gravel to 0.25" to 5% by volume, loose, dry, no odor.

18-19', **SILT**, dark brown (7.5YR3/2), fine, sandy with gravel to 0.5" to 10% by volume, loose, dry, no odor.

19-21', **SAND**, brown (7.5YR4/4), medium-grained, silty with gravel to 0.5" to 15% by volume, loose, dry, no odor, grades to **SILT**, brown (7.5YR4/4), fine, sandy with large pebbles (to 2") to 15% by volume.

21-22', **SILT**, dark brown (7.5YR3/2), fine, sandy with gravel to 0.5" to 10% by volume, loose, dry, no odor.

22-26', **SAND**, reddish brown (5YR4/3), medium- to coarse-grained, silty with pebbles to 1" to 5% by volume, poorly-sorted, well-graded, organic, arsosic, loose, dry, no odor.

BM-4
(composite of BM-4, -5, -6, -7)

BOREHOLE LOG

Number: NO. 1 of 1

Sheet:

Client: Chevron Gas Station Property

Location: 2021 6th Street, Bremerton, WA

Date Started:	Date Finished:	TLGRep:	Drill Rig/Sampling Method:	Borehole Dia.:	Casing Dia.:	Casing Elevation (AMSL):
7/30/09	7/30/09	Mark Slatten, RG/CEG	Strataprobe #30	2"	NA	

SAMPLE LOG				BOREHOLE LOG				
Sample Number	Sample Time	PID (ppm)		Head Space	Depth In Feet	USCS Symbol	Graphic Log	Geologic Description (Soil Type, Color, Grain, Minor Soil Component, Moisture, Density, Odor, Etc.)
	0922	4.4			0			SPUD, CEMENT cover 6", hand auger to 4' bgs.
					1			0-3', **PEA GRAVEL**
					2	GP		
					3			
BM-7	1033	3.8		4.0	4	SM		3-5', **SAND**, brown (7.5YR4/4), fine-grained, silty, well-sorted, poorly-graded, organic, loose, dry, mild gasoline odor.
					5			
					6	ML		
					7			5-12', **SILT**, yellow brown (7.5YR5/2), fine-grained, sandy with pebbles to 0.5" to 5% by volume, organic, loose, moist, strong gasoline odor, interbedded with: **SAND**, brown (7.5YR5/4), fine- to medium-grained, poorly-sorted, well-graded, silty with gravel to 1.5" to 10% by volume, organic, loose, dry, no odor.
BM-6	1010	5.6		2.0	8	SM		
BM-5	0927	2.1		2.0	9	ML		
BM-4 11-12	1345	20.0		110.0	10	SM		
BM-5 11-12	0934	10.0		12.0	11			
BM-6 11-12	1012	10.2		25.0	12	ML		
BM-7 11-12	1039	10.0		15.0	13			
					14	SM		12-14.5', **SAND**, brown (7.5YR4/4), fine, poorly-sorted, well-graded, sandy with gravel to 0.5" to 5% by volume, organic, loose, wet, strong gasoline odor.
BM-4 15-16	1355	4.0		8.0	15			
BM-6	1015	12.3		20.0	16	ML		14.5-20', **SAND**, brown (7.5YR5/3), medium-grained, poorly-sorted, well-graded, silty with gravel to 0.5" to 15% by volume, loose, moist, no odor; interbedded with: **SILT**, gray (7.5YR6/1), fine, sandy with large pebbles (to 2") to 15% by volume, wet, sticky, strong gasoline odor.
					17	SM		
					18			
BM-5 19-20	0947	6.3		12.0	19			
BM-6 19-20	1022	10.0		22.0	20	ML		
BM-7 19-20	1047	9.4		14.0				TD=20' bgs

BM-10
(composite of BM-10, -11, -12)

BOREHOLE LOG

Number: NO. 1 of 1

Sheet:

Client: Chevron Gas Station Property

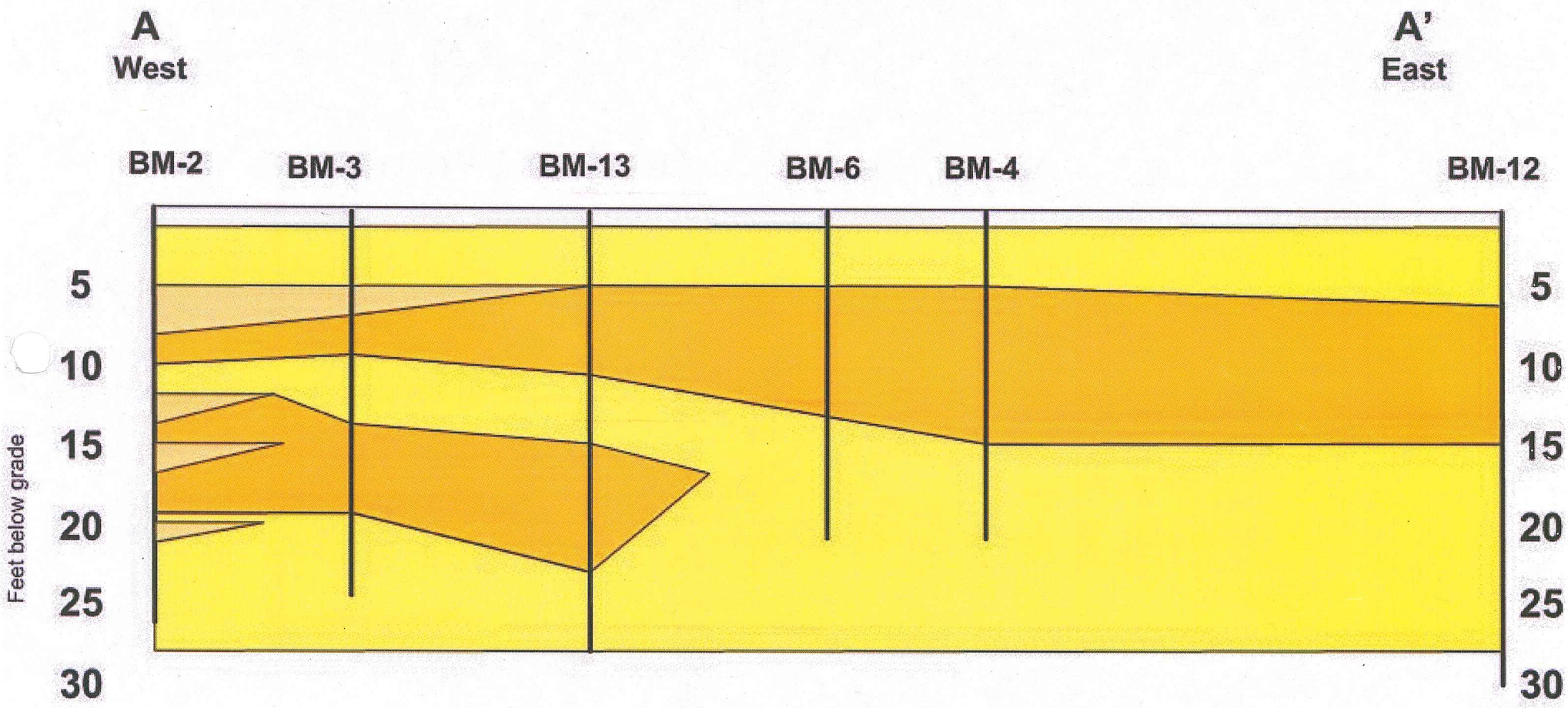
Location: 2021 6th Street, Bremerton, WA

Date Started:	Date Finished:
7/30/09	7/30/09

TLGRep: Mark Slatten, RG/CEG

Drill Rig/Sampling Method:	Borehole Dia.:	Casing Dia.:	Casing Elevation (AMSL):
Strataprobe #30	2"	NA	

SAMPLE LOG					BOREHOLE LOG			
Sample Number	Sample Time	PID (ppm)		Head Space	Depth In Feet	USCS Symbol	Graphic Log	Geologic Description (Soil Type, Color, Grain, Minor Soil Component, Moisture, Density, Odor, Etc.)
	1055	0.0			0			SPUD, CEMENT cover 6", hand auger to 4' bgs. 0-4', **SAND**, brown (7.5YR5/3), fine-grained, silty, well-sorted, poorly-graded, organic, loose, dry, no odor.
					1	SM		
					2			
					3			
BM-10	1105	0.0		0.0	4	SM		4-5', **SAND**, brown (7.5YR4/4), fine-grained, silty, well-sorted, poorly-graded, organic, loose, dry, no odor.
					5	ML		5-9', **SILT**, mottled yellow brown (10YR5/8) to reddish yellow (5YR6/8), fine-grained, sandy with pebbles to 0.5" to 5% by volume, organic with rootlets pervasive, loose, moist to wet, no odor, interbedded with: **SAND**, brown (7.5YR5/4), fine- to medium-grained, poorly-sorted, well-graded, silty with gravel to 1.5" to 10% by volume, organic, loose, dry, no odor.
					6	SM		
					7	ML		
BM-10	1109	0.0		0.0	8			
					9	SM		
					10			
BM-10	1112	0.0		0.0	11	ML		9-15', **SILT**, brown (7.5YR4/4), fine, clayey, sandy with large pebbles (to 2") to 15% by volume, wet, sticky, no odor.
BM-11 11-12	1149	0.0		1.0	12			
BM-12 11-12	1306	0.0		1.0	13			
					14			
BM-10 15-16	1116	0.0		0.0	15			
					16			
					17	SM		15-20', **SAND**, gray (7.5YR6/1), fine, poorly-sorted, well-graded, sandy with gravel to 0.5" to 5% by volume, organic, loose, wet, no odor.
					18			
					19			
BM-10	1121	0.0		1.0	20			
BM-10 23-24	1124	0.0		1.0	21			
BM-11 23-24	1154	0.0		0.0	22	SM		20-24', **SAND**, brown (7.5YR5/3), medium-grained, poorly-sorted, well-graded, silty with gravel to 0.5" to 15% by volume, loose, moist, no odor.
BM-12 23-24	1335	0.0		0.0	23			
					24			TD=24' bgs



Cross Section A-A'

Vertical exaggeration approximately 16 to 1

APPENDIX D

ANALYTICAL REPORT & CHAIN OF CUSTODY

ESN NORTHWEST, INC. | Environmental Services Network

Olympia: (360) 459-4670
Bellevue: (360) 957-9872

CHAIN-OF-CUSTODY RECORD

CLIENT: Pinnacle Environmental

ADDRESS:

PHONE: 530-872-2958 FAX:

CLIENT PROJECT #: PROJECT MANAGER: David Cepp

DATE: 7-20-09 PAGE 1 OF 1

PROJECT NAME: Bremerton

LOCATION: 2021 6th St Bremerton

COLLECTOR: Mark MH Slatten DATE OF COLLECTION 7-20-09

Sample Number	Depth	Time	Sample Type	Container Type	TPH-HCID-92's	VOA 8021B BTEX	VOA 8260 B	TPH-Gasoline	TPH-Diesel	TPH-Diesel & Oil-EPA	SemiVol 8270	PAH's 8270	PCB's 8082	GL Pesticides 8081	RCRA 8 Metals	MTCA 5 Metals	Pb 6020	Asbestos-PLM	GRO Suite	DRO Suite	WO Suite	NOTES	Total Number of Containers	Laboratory Note Number
1. BM-1	10-11	0945	Soil	Acrylic	X		X									X							1	
2. -1	15-16	1005			X		X									X								
3. BM-2	11-12	1055			X		X									X								
4. -2	23-24	1200			X		X									X								
5. BM-3	11-12	1225			X		X									X								
6. -3	25-26	1245			X		X									X								
7. BM-4	11-12	1345			X		X									X								
8. -4	15-16	1355			X		X									X								
9. BM-8	7-8	1505			X		X		X			X				X								
10. -8	11-12	1515			X		X		X			X				X						Please create a duplicate from BM-#4 15-16'			
11. BM-9	9-10	1530					X		X		X													
12.																						call MH Slatten if questions 951-970-6955		
13.																								
14.																								
15.																								
16.																								
17.																								
18.																								

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
MH Slatten	MH Slatten 7-20-09 1600		7-20-09 1660
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ ESN DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES:

Turn Around Time: 24 HR 48 HR (5 DAY)

ESN NORTHWEST CHEMISTRY LABORATORY

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Analysis of Diesel Range Organics & Lube Oil Range Organics in Soil by Method NWTPH-Dx

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Diesel Range Organics (mg/kg)	Lube Oil Range Organics (mg/kg)
Method Blank	7/21/2009	7/22/2009	104	nd	nd
BM-8 7-8	7/21/2009	7/22/2009	92	nd	nd
BM-8 11-12	7/21/2009	7/22/2009	94	nd	nd
BM-8 11-12 Dup.	7/21/2009	7/22/2009	105	nd	nd
BM-9 9-10	7/21/2009	7/22/2009	105	nd	nd
Reporting Limits				100	200

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%

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Analysis of Volatile Organic Compounds in Soil by Method 8260/5035

	Reporting	MTH BLK	LCS	BM-1 10-11	BM-1 15-16	BM-2 11-12	BM-2 23-24	BM-3 11-12
Date extracted	Limits	07/21/09	07/21/09	07/21/09	07/21/09	07/21/09	07/21/09	07/21/09
Date analyzed	(ug/Kg)	07/24/09	07/24/09	07/24/09	07/24/09	07/24/09	07/24/09	07/24/09
Dichlorodifluoromethane	50	nd		nd	nd	nd	nd	nd
Chloromethane	50	nd		nd	nd	nd	nd	nd
Vinyl chloride	50	nd		nd	nd	nd	nd	nd
Bromomethane	50	nd		nd	nd	nd	nd	nd
Chloroethane	50	nd		nd	nd	nd	nd	nd
Trichlorofluoromethane	50	nd		nd	nd	nd	nd	nd
Acetone	250	nd		nd	nd	nd	nd	nd
1,1-Dichloroethene	50	nd	94%	nd	nd	nd	nd	nd
Methylene chloride	20	nd		nd	nd	nd	nd	nd
Methyl-t-butyl ether (MTBE)	50	nd		nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	50	nd		nd	nd	nd	nd	nd
1,1-Dichloroethane	50	nd		nd	nd	nd	nd	nd
2-Butanone (MEK)	250	nd		nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	50	nd		nd	nd	nd	nd	nd
2,2-Dichloropropane	50	nd		nd	nd	nd	nd	nd
Chloroform	50	nd		nd	nd	nd	nd	nd
Bromochloromethane	50	nd		nd	nd	nd	nd	nd
1,1,1-Trichloroethane	50	nd		nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	50	nd		nd	nd	nd	nd	nd
1,1-Dichloropropene	50	nd		nd	nd	nd	nd	nd
Carbon tetrachloride	50	nd		nd	nd	nd	nd	nd
Benzene	20	nd	94%	nd	nd	nd	nd	nd
Trichloroethene (TCE)	20	nd	89%	nd	nd	nd	nd	nd
1,2-Dichloropropane	50	nd		nd	nd	nd	nd	nd
Dibromomethane	50	nd		nd	nd	nd	nd	nd
Bromodichloromethane	50	nd		nd	nd	nd	nd	nd
4-Methyl-2-pentanone (MIBK)	250	nd		nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	50	nd		nd	nd	nd	nd	nd
Toluene	50	nd	91%	nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	50	nd		nd	nd	nd	nd	nd
1,1,2-Trichloroethane	50	nd		nd	nd	nd	nd	nd
2-Hexanone	250	nd		nd	nd	nd	nd	nd
1,3-Dichloropropane	50	nd		nd	nd	nd	nd	nd
Dibromochloromethane	50	nd		nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	20	nd		nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB)	50	nd		nd	nd	nd	nd	nd
Chlorobenzene	50	nd	90%	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	50	nd		nd	nd	nd	nd	nd
Ethylbenzene	50	nd		nd	nd	nd	nd	nd
Xylenes	150	nd		nd	nd	nd	nd	nd
Styrene	50	nd		nd	nd	nd	nd	nd
Bromoform	50	nd		nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	50	nd		nd	nd	nd	nd	nd
Isopropylbenzene	50	nd		nd	nd	nd	nd	nd
1,2,3-Trichloropropane	50	nd		nd	nd	nd	nd	nd
Bromobenzene	50	nd		nd	nd	nd	nd	nd

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Analyses of Gasoline Range Organics in Soil by Method NWTPH-Gx

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Gasoline Range Organics (mg/kg)
Method Blank	7/21/2009	7/24/2009	107	nd
BM-1 10-11	7/21/2009	7/24/2009	105	**12**
BM-1 15-16	7/21/2009	7/24/2009	106	nd
BM-2 11-12	7/21/2009	7/24/2009	110	nd
BM-2 23-24	7/21/2009	7/24/2009	108	nd
BM-3-11-12	7/21/2009	7/24/2009	106	nd
BM-3 25-26	7/21/2009	7/24/2009	108	nd
BM-4 11-12	7/21/2009	7/27/2009	108	**1600**
BM-4 15-16	7/21/2009	7/27/2009	106	**1800**
BM-4 15-16 DUP	7/21/2009	7/27/2009	107	**1600**
BM-8 7-8	7/21/2009	7/24/2009	120	**190**
BM-8 11-12	7/21/2009	7/24/2009	106	**12**
Reporting Limits				10

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE: 50% TO 150%

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Analysis of Volatile Organic Compounds in Soil by Method 8260/5035

	Reporting	MTH BLK	LCS	BM-1 10-11	BM-1 15-16	BM-2 11-12	BM-2 23-24	BM-3 11-12
Date extracted	Limits	07/21/09	07/21/09	07/21/09	07/21/09	07/21/09	07/21/09	07/21/09
Date analyzed	(ug/Kg)	07/24/09	07/24/09	07/24/09	07/24/09	07/24/09	07/24/09	07/24/09
n-Propylbenzene	50	nd		nd	nd	nd	nd	nd
2-Chlorotoluene	50	nd		nd	nd	nd	nd	nd
4-Chlorotoluene	50	nd		nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	50	nd		nd	nd	nd	nd	nd
tert-Butylbenzene	50	nd		nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	50	nd		nd	nd	nd	nd	nd
sec-Butylbenzene	50	nd		nd	nd	nd	nd	nd
1,3-Dichlorobenzene	50	nd		nd	nd	nd	nd	nd
1,4-Dichlorobenzene	50	nd		nd	nd	nd	nd	nd
Isopropyltoluene	50	nd		nd	nd	nd	nd	nd
1,2-Dichlorobenzene	50	nd		nd	nd	nd	nd	nd
n-Butylbenzene	50	nd		nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	50	nd		nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	50	nd		nd	nd	nd	nd	nd
Naphthalene	50	nd		nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene	50	nd		nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	50	nd		nd	nd	nd	nd	nd
Surrogate recoveries								
Dibromofluoromethane		101%	103%	92%	101%	98%	97%	96%
Toluene-d8		96%	99%	107%	102%	103%	103%	104%
4-Bromofluorobenzene		107%	103%	105%	106%	110%	108%	106%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

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Analysis of Volatile Organic Compounds in Soil by Method 8260/5035

	Reporting	BM-3 25-26	BM-4 11-12	BM-4 15-16	BM-4 15-16 DUP	BM-8 7-8	BM-8 11-12	BM-9 9-10
Date extracted	Limits	07/21/09	07/21/09	07/21/09	07/21/09	07/21/09	07/21/09	07/21/09
Date analyzed	(ug/Kg)	07/24/09	07/27/09	07/27/09	07/27/09	07/24/09	07/24/09	07/24/09
Dichlorodifluoromethane	50	nd	nd	nd	nd	nd	nd	nd
Chloromethane	50	nd	nd	nd	nd	nd	nd	nd
Vinyl chloride	50	nd	nd	nd	nd	nd	nd	nd
Bromomethane	50	nd	nd	nd	nd	nd	nd	nd
Chloroethane	50	nd	nd	nd	nd	nd	nd	nd
Trichlorofluoromethane	50	nd	nd	nd	nd	nd	nd	nd
Acetone	250	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	50	nd	nd	nd	nd	nd	nd	nd
Methylene chloride	20	nd	nd	nd	nd	nd	nd	nd
Methyl-t-butyl ether (MTBE)	50	nd	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	50	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	50	nd	nd	nd	nd	nd	nd	nd
2-Butanone (MEK)	250	nd	nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	50	nd	nd	nd	nd	nd	nd	nd
2,2-Dichloropropane	50	nd	nd	nd	nd	nd	nd	nd
Chloroform	50	nd	nd	nd	nd	nd	nd	nd
Bromochloromethane	50	nd	nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	50	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	50	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloropropene	50	nd	nd	nd	nd	nd	nd	nd
Carbon tetrachloride	50	nd	nd	nd	nd	nd	nd	nd
Benzene	20	nd	**1,800**	**1,800**	**1,000**	**230**	nd	nd
Trichloroethene (TCE)	20	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloropropane	50	nd	nd	nd	nd	nd	nd	nd
Dibromomethane	50	nd	nd	nd	nd	nd	nd	nd
Bromodichloromethane	50	nd	nd	nd	nd	nd	nd	nd
4-Methyl-2-pentanone (MIBK)	250	nd	nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	50	nd	nd	nd	nd	nd	nd	nd
Toluene	50	nd	**39,000**	**83,000**	**48,000**	**300**	nd	nd
trans-1,3-Dichloropropene	50	nd	nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	50	nd	nd	nd	nd	nd	nd	nd
2-Hexanone	250	nd	nd	nd	nd	nd	nd	nd
1,3-Dichloropropane	50	nd	nd	nd	nd	nd	nd	nd
Dibromochloromethane	50	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	20	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB)	50	nd	nd	nd	nd	nd	nd	nd
Chlorobenzene	50	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	50	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	50	nd	**14,000**	**39,000**	**23,000**	**370**	nd	nd
Xylenes	150	nd	**110,000**	**310,000**	**190,000**	**2,600**	nd	nd
Styrene	50	nd	nd	nd	nd	nd	nd	nd
Bromoform	50	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	50	nd	nd	nd	nd	nd	nd	nd
Isopropylbenzene	50	nd	nd	**4,300**	**2,600**	nd	nd	nd
1,2,3-Trichloropropane	50	nd	nd	nd	nd	nd	nd	nd
Bromobenzene	50	nd	nd	nd	nd	nd	nd	nd

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Analysis of Volatile Organic Compounds in Soil by Method 8260/5035

	Reporting	BM-3 25-26	BM-4 11-12	BM-4 15-16	BM-4 15-16 DUP	BM-8 7-8	BM-8 11-12	BM-9 9-10
Date extracted	Limits	07/21/09	07/21/09	07/21/09	07/21/09	07/21/09	07/21/09	07/21/09
Date analyzed	(ug/Kg)	07/24/09	07/27/09	07/27/09	07/27/09	07/24/09	07/24/09	07/24/09
n-Propylbenzene	50	nd	**6,900**	**21,000**	**13,000**	nd	nd	nd
2-Chlorotoluene	50	nd	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	50	nd	nd	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	50	nd	**12,000**	**32,000**	**20,000**	**200**	nd	nd
tert-Butylbenzene	50	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	50	nd	**39,000**	**100,000**	**66,000**	**230**	nd	nd
sec-Butylbenzene	50	nd	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	50	nd	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	50	nd	nd	nd	nd	nd	nd	nd
Isopropyltoluene	50	nd	**1,700**	**3,600**	**2,500**	nd	nd	nd
1,2-Dichlorobenzene	50	nd	nd	nd	nd	nd	nd	nd
n-Butylbenzene	50	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	50	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	50	nd	nd	nd	nd	nd	nd	nd
Naphthalene	50	nd	**5,900**	**13,000**	**9,300**	**65**	nd	nd
Hexachloro-1,3-butadiene	50	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	50	nd	nd	nd	nd	nd	nd	nd
Surrogate recoveries								
Dibromofluoromethane		98%	101%	101%	102%	99%	101%	96%
Toluene-d8		104%	105%	102%	104%	104%	106%	104%
4-Bromofluorobenzene		109%	108%	106%	107%	120%	106%	103%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

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Analysis of Volatile Organic Compounds in Soil by Method 8260/5035

	Reporting	MS	MSD	RPD
Date extracted	Limits	07/21/09	07/21/09	
Date analyzed	(ug/Kg)	07/24/09	07/24/09	
Dichlorodifluoromethane	50			
Chloromethane	50			
Vinyl chloride	50			
Bromomethane	50			
Chloroethane	50			
Trichlorofluoromethane	50			
Acetone	250			
1,1-Dichloroethene	50	83%	117%	34%
Methylene chloride	20			
Methyl-t-butyl ether (MTBE)	50			
trans-1,2-Dichloroethene	50			
1,1-Dichloroethane	50			
2-Butanone (MEK)	250			
cis-1,2-Dichloroethene	50			
2,2-Dichloropropane	50			
Chloroform	50			
Bromochloromethane	50			
1,1,1-Trichloroethane	50			
1,2-Dichloroethane (EDC)	50			
1,1-Dichloropropene	50			
Carbon tetrachloride	50			
Benzene	20	93%	123%	28%
Trichloroethene (TCE)	20	86%	103%	18%
1,2-Dichloropropane	50			
Dibromomethane	50			
Bromodichloromethane	50			
4-Methyl-2-pentanone (MIBK)	250			
cis-1,3-Dichloropropene	50			
Toluene	50	102%	107%	5%
trans-1,3-Dichloropropene	50			
1,1,2-Trichloroethane	50			
2-Hexanone	250			
1,3-Dichloropropane	50			
Dibromochloromethane	50			
Tetrachloroethene (PCE)	20			
1,2-Dibromoethane (EDB)	50			
Chlorobenzene	50	76%	103%	30%
1,1,1,2-Tetrachloroethane	50			
Ethylbenzene	50			
Xylenes	150			
Styrene	50			
Bromoform	50			
1,1,2,2-Tetrachloroethane	50			
Isopropylbenzene	50			
1,2,3-Trichloropropane	50			
Bromobenzene	50			

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Analysis of Volatile Organic Compounds in Soil by Method 8260/5035

	Reporting	MS	MSD	RPD
Date extracted	Limits	07/21/09	07/21/09	
Date analyzed	(ug/Kg)	07/24/09	07/24/09	
n-Propylbenzene	50			
2-Chlorotoluene	50			
4-Chlorotoluene	50			
1,3,5-Trimethylbenzene	50			
tert-Butylbenzene	50			
1,2,4-Trimethylbenzene	50			
sec-Butylbenzene	50			
1,3-Dichlorobenzene	50			
1,4-Dichlorobenzene	50			
Isopropyltoluene	50			
1,2-Dichlorobenzene	50			
n-Butylbenzene	50			
1,2-Dibromo-3-Chloropropane	50			
1,2,4-Trichlorobenzene	50			
Naphthalene	50			
Hexachloro-1,3-butadiene	50			
1,2,3-Trichlorobenzene	50			
Surrogate recoveries				
Dibromofluoromethane		104%	105%	0%
Toluene-d8		88%	91%	0%
4-Bromofluorobenzene		96%	99%	0%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

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Analysis of Polychlorinated Biphenyls in Soil by Method 8082

Sample Description		Method Blank	BM-8 7-8	BM-8 11-12
Date Prepared		7/23/2009	7/23/2009	7/23/2009
Date Analyzed	RL (ug/kg)	7/23/2009 (ug/kg)	7/23/2009 (ug/kg)	7/23/2009 (ug/kg)
PCB-1016	200	nd	nd	nd
PCB-1221	200	nd	nd	nd
PCB-1232	200	nd	nd	nd
PCB-1242	200	nd	nd	nd
PCB-1248	200	nd	nd	nd
PCB-1254	200	nd	nd	nd
PCB-1260	200	nd	nd	nd
Total		0.0	0.0	0.0
TCMX			77	78
DCBP			85	96

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (TCMX) AND (DCBP): 65% - 135%

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QA/QC Data - Analysis of Polychlorinated Biphenyls in Soil by Method 8082

Sample Description:BM-11-19-20

	Matrix Spike			Matrix Spike Duplicate			RPD
	Spiked Conc. (ug/kg)	Measured Conc. (ug/kg)	Spike Recovery (%)	Spiked Conc. (ug/kg)	Measured Conc. (ug/kg)	Spike Recovery (%)	(%)
PCB-1016	1000	830	91	1000	850	85	6.8
PCB-1260	1000	830	84	1000	710	71	17
TCMX		91			72		
DCBP		84			87		

	Laboratory Control Sample		
	Spiked Conc. (ug/kg)	Measured Conc. (ug/kg)	Spike Recovery (%)
PCB-1016	1000	910	91
PCB-1260	1000	840	84
TCMX		95	
DCBP		75	

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 50%-150%
ACCEPTABLE RPD IS 50%

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Analysis of Total Lead in Soil by Method 6020

Sample Number	Date Prepared	Date Analyzed	Lead (Pb) (mg/kg)
Method Blank	7/21/2009	7/21/2009	nd
BM-1 10-11	7/21/2009	7/21/2009	nd
BM-1 15-16	7/21/2009	7/21/2009	nd
BM-2 11-12	7/21/2009	7/21/2009	nd
BM-2 23-24	7/21/2009	7/21/2009	nd
BM-3-11-12	7/21/2009	7/21/2009	nd
BM-3 25-26	7/21/2009	7/21/2009	nd
BM-4 11-12	7/21/2009	7/21/2009	**6.0**
BM-4 15-16	7/21/2009	7/21/2009	nd
BM-4 15-16 DUP	7/21/2009	7/21/2009	nd
BM-8 7-8	7/21/2009	7/21/2009	**120**
BM-8 11-12	7/21/2009	7/21/2009	nd
Reporting Limit			5.0

"nd" Indicates not detected at listed detection limits.

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QA/QC Data - Analysis of Total Metals in Soil by Method 6020

Sample Number: BM-4 15-16

	Matrix Spike			Matrix Spike Duplicate			RPD
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	(%)
Lead (Pb)	100	91	91	100	84	84	8.00

	Laboratory Control Sample		
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)
Lead (Pb)	100	85	85

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%
ACCEPTABLE RPD IS 35%

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Analytical Results

PAH(8270), mg/kg		MTH BLK	LCS	BM-9 9-10	MS	MSD	RPD
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	
Date extracted	Reporting	07/24/09	07/24/09	07/24/09	07/24/09	07/24/09	
Date analyzed	Limits	07/24/09	07/24/09	07/24/09	07/24/09	07/24/09	
Moisture, %				24%			
Acenaphthene	0.02	nd	140%	nd	104%	86%	19%
Acenaphthylene	0.02	nd	139%	nd			
Anthracene	0.02	nd	131%	nd			
Benzo(a)anthracene*	0.02	nd	125%	nd			
Benzo(a)pyrene*	0.02	nd	146%	nd			
Benzo(b)fluoranthene*	0.02	nd	160%	nd			
Benzo(ghi)perylene	0.02	nd	121%	nd			
Benzo(k)fluoranthene*	0.02	nd	160%	nd			
Chrysene*	0.02	nd	146%	nd			
Dibenzo(a,h)anthracene*	0.02	nd	163%	nd			
Fluorene	0.02	nd	138%	nd			
Fluoranthene	0.02	nd	129%	nd			
Indeno(1,2,3-cd)pyrene*	0.02	nd	165%	nd			
Naphthalene	0.02	nd	125%	nd			
1-Methylnaphthalene	0.02	nd	ns	nd			
2-Methylnaphthalene	0.02	nd	ns	nd			
Phenanthrene	0.02	nd	124%	nd			
Pyrene	0.02	nd	126%	nd	108%	90%	18%
Total Carcinogens				nd			
Surrogate recoveries:							
2-Fluorobiphenyl		86%	91%	80%	96%	86%	
p-Terphenyl-d14		123%	106%	116%	118%	104%	

Data Qualifiers and Analytical Comments

* - Carcinogenic Analyte
nd - not detected at listed reporting limits
na - not analyzed
C - coelution with sample peaks
M - matrix interference
J - estimated value
Results reported on dry-weight basis
Acceptable Recovery limits: 50% TO 150%
Acceptable RPD limit: 35%

ESN NORTHWEST | Environmental Services Network

CHAIN-OF-CUSTODY RECORD

CLIENT: Pinnacle

ADDRESS:

PHONE: 530-872-2958 FAX:

CLIENT PROJECT #: PROJECT MANAGER: David Copp

DATE: 7-21-09 PAGE 1 OF 1

PROJECT NAME: Bremerton

LOCATION: 2021 6th St Bremerton WA

COLLECTOR: MH Slatten DATE OF COLLECTION 7-21-09

Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B	VOA 8021B BTEX Only	VOA 8260	SEMI VOL 8270	TPH - HCID	TPH 8015 (gasoline)	TPH 8015 (diesel) ext	TPH 8015 (G & D)	PAH 8100	PAH 8270	PCBs 8082	Pesticides 8081	EPH	VPH	Methamphetamine	Pb Leo 20	Hex Chrome	NOTES	Total Number of Containers	Laboratory Note Number
1. BM-5	11-12	0934	50mL	ACRYLIC			X		X										X			Please create a		
2. -5	19-20	0947					X		X										X			duplicate from		
3. BM-6	11-12	1012					X		X										X			BM-5 11-12'		
*4. -6	19-20	1022					X		X										X					
5. BM-7	11-12	1039					X		X										X			Thanx M.		
*6. -7	19-20	1047					X		X										X			↑		
7. BM-10	15-16	1116					X		X										X					
8. -10	23-24	1124					X		X										X			951-970-6955		
9. BM-11	11-12	1149					X		X	X			X	X					X					
10. -11	~~19-20~~	1154					X		X	X			X	X					X					
11. BM-12	11-12	1306					X		X										X					
12. -12	23-24	1335					X		X										X					
13. BM-13	15-16	1355					X		X										X					
14. -13	27-28	1424	↓	↓			X		X										X					
15.																								
16.																								
17.																								
18.																								

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
MH Slatten	~~7-21-09~~ 1500		~~21-JUL-09~~ 1430
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ ESN DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES:

*Sample BM-6 19-20 and BM-7 weren't labeled. Named one #1 and the other #2 as per request from Mark.

Turn Around Time: 24 HR 48 HR (5 DAY)

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Analysis of Diesel Range Organics & Lube Oil Range Organics in Soil by Method NWTPH-Dx

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Diesel Range Organics (mg/kg)	Lube Oil Range Organics (mg/kg)
Method Blank	7/22/2009	7/22/2009	104	nd	nd
BM-11 11-12	7/22/2009	7/22/2009	100	nd	nd
BM-11 19-20	7/22/2009	7/22/2009	93	nd	nd
BM-11 19-20 Dup.	7/22/2009	7/22/2009	98	nd	nd
Reporting Limits				100	200

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%

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Analyses of Gasoline Range Organics in Soil by Method NWTPH-Gx

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Gasoline Range Organics (mg/kg)
Method Blank	7/22/2009	7/27/2009	107	nd
BM-5 11-12	7/22/2009	7/27/2009	108	**4100**
BM-5 11-12 DUP	7/22/2009	7/28/2009	106	**4400**
BM-5 19-20	7/22/2009	7/28/2009	109	**160**
BM-6 11-12	7/22/2009	7/28/2009	109	**2200**
BM-7 11-12	7/22/2009	7/27/2009	107	**39**
BM-10 15-16	7/22/2009	7/27/2009	106	nd
BM-10 23-24	7/22/2009	7/27/2009	107	nd
BM-11 11-12	7/22/2009	7/27/2009	106	nd
BM-11 19-20	7/22/2009	7/27/2009	106	nd
BM-12-11-12	7/22/2009	7/27/2009	102	nd
BM-12 23-24	7/22/2009	7/27/2009	109	nd
BM-13 15-16	7/22/2009	7/27/2009	107	nd
BM-13 27-28	7/22/2009	7/27/2009	103	nd
#1	7/22/2009	7/27/2009	107	nd
#2	7/22/2009	7/28/2009	109	**1100**
Reporting Limits				10

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE: 50% TO 150%

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Analysis of Volatile Organic Compounds in Soil by Method 8260/5035

	Reporting	MTH BLK	LCS	BM-5 11-12	BM-5 11-12 DUP	BM-5 19-20	BM-6 11-12	BM-7 11-12
Date extracted	Limits	07/22/09	07/22/09	07/22/09	07/22/09	07/22/09	07/22/09	07/22/09
Date analyzed	(ug/Kg)	07/27/09	07/02/09	07/28/09	07/28/09	07/28/09	07/27/09	07/27/09
Dichlorodifluoromethane	50	nd		nd	nd	nd	nd	nd
Chloromethane	50	nd		nd	nd	nd	nd	nd
Vinyl chloride	50	nd		nd	nd	nd	nd	nd
Bromomethane	50	nd		nd	nd	nd	nd	nd
Chloroethane	50	nd		nd	nd	nd	nd	nd
Trichlorofluoromethane	50	nd		nd	nd	nd	nd	nd
Acetone	250	nd		nd	nd	nd	nd	nd
1,1-Dichloroethene	50	nd	240%	nd	nd	nd	nd	nd
Methylene chloride	20	nd		nd	nd	nd	nd	nd
Methyl-t-butyl ether (MTBE	50	nd		nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	50	nd		nd	nd	nd	nd	nd
1,1-Dichloroethane	50	nd		nd	nd	nd	nd	nd
2-Butanone (MEK)	250	nd		nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	50	nd		nd	nd	nd	nd	nd
2,2-Dichloropropane	50	nd		nd	nd	nd	nd	nd
Chloroform	50	nd		nd	nd	nd	nd	nd
Bromochloromethane	50	nd		nd	nd	nd	nd	nd
1,1,1-Trichloroethane	50	nd		nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	50	nd		nd	nd	nd	nd	nd
1,1-Dichloropropene	50	nd		nd	nd	nd	nd	nd
Carbon tetrachloride	50	nd		nd	nd	nd	nd	nd
Benzene	20	nd	138%	**9,500**	**10,000**	**99**	**1,900**	**3,100**
Trichloroethene (TCE)	20	nd	131%	nd	nd	nd	nd	nd
1,2-Dichloropropane	50	nd		nd	nd	nd	nd	nd
Dibromomethane	50	nd		nd	nd	nd	nd	nd
Bromodichloromethane	50	nd		nd	nd	nd	nd	nd
4-Methyl-2-pentanone (MIB	250	nd		nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	50	nd		nd	nd	nd	nd	nd
Toluene	50	nd	115%	**198,000**	**200,000**	**950**	**74,000**	**3,700**
trans-1,3-Dichloropropene	50	nd		nd	nd	nd	nd	nd
1,1,2-Trichloroethane	50	nd		nd	nd	nd	nd	nd
2-Hexanone	250	nd		nd	nd	nd	nd	nd
1,3-Dichloropropane	50	nd		nd	nd	nd	nd	nd
Dibromochloromethane	50	nd		nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	20	nd		nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB)	50	nd		nd	nd	nd	nd	nd
Chlorobenzene	50	nd	95%	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	50	nd		nd	nd	nd	nd	nd
Ethylbenzene	50	nd		**105,000**	**110,000**	**650**	**29,000**	**930**
Xylenes	150	nd		**770,000**	**790,000**	**5,100**	**220,000**	**4,800**
Styrene	50	nd		nd	nd	nd	nd	nd
Bromoform	50	nd		nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	50	nd		nd	nd	nd	nd	nd
Isopropylbenzene	50	nd		**9,700**	**11,000**	**110**	**2,700**	nd
1,2,3-Trichloropropane	50	nd		nd	nd	nd	nd	nd
Bromobenzene	50	nd		nd	nd	nd	nd	nd

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Analysis of Volatile Organic Compounds in Soil by Method 8260/5035

	Reporting	MTH BLK	LCS	BM-5 11-12	BM-5 11-12 DUP	BM-5 19-20	BM-6 11-12	BM-7 11-12
Date extracted	Limits	07/22/09	07/22/09	07/22/09	07/22/09	07/22/09	07/22/09	07/22/09
Date analyzed	(ug/Kg)	07/27/09	07/02/09	07/28/09	07/28/09	07/28/09	07/27/09	07/27/09
n-Propylbenzene	50	nd		**43,000**	**48,000**	**530**	**520,000**	**180**
2-Chlorotoluene	50	nd		nd	nd	nd	nd	nd
4-Chlorotoluene	50	nd		nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	50	nd		**63,000**	**84,000**	**610**	**20,000**	**230**
tert-Butylbenzene	50	nd		nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	50	nd		**204,000**	**220,000**	**2,000**	**64,000**	**810**
sec-Butylbenzene	50	nd		nd	nd	nd	nd	nd
1,3-Dichlorobenzene	50	nd		nd	nd	nd	nd	nd
1,4-Dichlorobenzene	50	nd		nd	nd	nd	nd	nd
Isopropyltoluene	50	nd		**7,100**	**8,500**	nd	**2,400**	nd
1,2-Dichlorobenzene	50	nd		nd	nd	nd	nd	nd
n-Butylbenzene	50	nd		nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropa	50	nd		nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	50	nd		nd	nd	nd	nd	nd
Naphthalene	50	nd		**21,000**	**22,000**	**390**	**7,200**	nd
Hexachloro-1,3-butadiene	50	nd		nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	50	nd		nd	nd	nd	nd	nd
Surrogate recoveries								
Dibromofluoromethane		96%	98%	100%	101%	102%	101%	98%
Toluene-d8		106%	99%	103%	102%	101%	103%	104%
4-Bromofluorobenzene		107%	106%	108%	106%	109%	109%	107%

Data Qualifiers and Analytical Comments
nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

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Analysis of Volatile Organic Compounds in Soil by Method 8260/5035

	Reporting	BM-10 15-16	BM-10-23-24	BM-11 11-12	BM-11 19-20	BM-12 11-12	BM-12 23-24	BM-13 15-16
Date extracted	Limits	07/22/09	07/22/09	07/22/09	07/22/09	07/22/09	07/22/09	07/22/09
Date analyzed	(ug/Kg)	07/27/09	07/27/09	07/27/09	07/27/09	07/27/09	07/27/09	07/27/09
Dichlorodifluoromethane	50	nd	nd	nd	nd	nd	nd	nd
Chloromethane	50	nd	nd	nd	nd	nd	nd	nd
Vinyl chloride	50	nd	nd	nd	nd	nd	nd	nd
Bromomethane	50	nd	nd	nd	nd	nd	nd	nd
Chloroethane	50	nd	nd	nd	nd	nd	nd	nd
Trichlorofluoromethane	50	nd	nd	nd	nd	nd	nd	nd
Acetone	250	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	50	nd	nd	nd	nd	nd	nd	nd
Methylene chloride	20	nd	nd	nd	nd	nd	nd	nd
Methyl-t-butyl ether (MTBE	50	nd	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	50	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	50	nd	nd	nd	nd	nd	nd	nd
2-Butanone (MEK)	250	nd	nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	50	nd	nd	nd	nd	nd	nd	nd
2,2-Dichloropropane	50	nd	nd	nd	nd	nd	nd	nd
Chloroform	50	nd	nd	nd	nd	nd	nd	nd
Bromochloromethane	50	nd	nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	50	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	50	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloropropene	50	nd	nd	nd	nd	nd	nd	nd
Carbon tetrachloride	50	nd	nd	nd	nd	nd	nd	nd
Benzene	20	nd	nd	nd	nd	**110**	nd	nd
Trichloroethene (TCE)	20	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloropropane	50	nd	nd	nd	nd	nd	nd	nd
Dibromomethane	50	nd	nd	nd	nd	nd	nd	nd
Bromodichloromethane	50	nd	nd	nd	nd	nd	nd	nd
4-Methyl-2-pentanone (MIB	250	nd	nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	50	nd	nd	nd	nd	nd	nd	nd
Toluene	50	nd	nd	nd	nd	**120**	nd	nd
trans-1,3-Dichloropropene	50	nd	nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	50	nd	nd	nd	nd	nd	nd	nd
2-Hexanone	250	nd	nd	nd	nd	nd	nd	nd
1,3-Dichloropropane	50	nd	nd	nd	nd	nd	nd	nd
Dibromochloromethane	50	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	20	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB)	50	nd	nd	nd	nd	nd	nd	nd
Chlorobenzene	50	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	50	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	50	nd	nd	nd	nd	**64**	nd	nd
Xylenes	150	nd	nd	nd	nd	**560**	nd	nd
Styrene	50	nd	nd	nd	nd	nd	nd	nd
Bromoform	50	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	50	nd	nd	nd	nd	nd	nd	nd
Isopropylbenzene	50	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	50	nd	nd	nd	nd	nd	nd	nd
Bromobenzene	50	nd	nd	nd	nd	nd	nd	nd

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Analysis of Volatile Organic Compounds in Soil by Method 8260/5035

	Reporting	BM-10 15-16	BM-10-23-24	BM-11 11-12	BM-11 19-20	BM-12 11-12	BM-12 23-24	BM-13 15-16
Date extracted	Limits	07/22/09	07/22/09	07/22/09	07/22/09	07/22/09	07/22/09	07/22/09
Date analyzed	(ug/Kg)	07/27/09	07/27/09	07/27/09	07/27/09	07/27/09	07/27/09	07/27/09
n-Propylbenzene	50	nd	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	50	nd	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	50	nd	nd	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	50	nd	nd	nd	nd	nd	nd	nd
tert-Butylbenzene	50	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	50	nd	nd	nd	nd	110	nd	nd
sec-Butylbenzene	50	nd	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	50	nd	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	50	nd	nd	nd	nd	nd	nd	nd
Isopropyltoluene	50	nd	nd	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	50	nd	nd	nd	nd	nd	nd	nd
n-Butylbenzene	50	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropa	50	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	50	nd	nd	nd	nd	nd	nd	nd
Naphthalene	50	nd	nd	nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene	50	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	50	nd	nd	nd	nd	nd	nd	nd
Surrogate recoveries								
Dibromofluoromethane		97%	99%	101%	108%	101%	95%	99%
Toluene-d8		105%	105%	106%	105%	105%	106%	105%
4-Bromofluorobenzene		106%	107%	106%	106%	102%	109%	107%

Data Qualifiers and Analytical Comments
nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

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Analysis of Volatile Organic Compounds in Soil by Method 8260/5035

	Reporting	BM-13 27-28	#1	#2	MS	MSD	RPD
Date extracted	Limits	07/22/09	07/22/09	07/22/09	07/22/09	07/22/09	
Date analyzed	(ug/Kg)	07/27/09	07/27/09	07/27/09	07/28/09	07/28/09	
Dichlorodifluoromethane	50	nd	nd	nd			
Chloromethane	50	nd	nd	nd			
Vinyl chloride	50	nd	nd	nd			
Bromomethane	50	nd	nd	nd			
Chloroethane	50	nd	nd	nd			
Trichlorofluoromethane	50	nd	nd	nd			
Acetone	250	nd	nd	nd			
1,1-Dichloroethene	50	nd	nd	nd	172%	148%	15%
Methylene chloride	20	nd	nd	nd			
Methyl-t-butyl ether (MTBE	50	nd	nd	nd			
trans-1,2-Dichloroethene	50	nd	nd	nd			
1,1-Dichloroethane	50	nd	nd	nd			
2-Butanone (MEK)	250	nd	nd	nd			
cis-1,2-Dichloroethene	50	nd	nd	nd			
2,2-Dichloropropane	50	nd	nd	nd			
Chloroform	50	nd	nd	nd			
Bromochloromethane	50	nd	nd	nd			
1,1,1-Trichloroethane	50	nd	nd	nd			
1,2-Dichloroethane (EDC)	50	nd	nd	nd			
1,1-Dichloropropene	50	nd	nd	nd			
Carbon tetrachloride	50	nd	nd	nd			
Benzene	20	nd	20	110	109%	110%	1%
Trichloroethene (TCE)	20	nd	nd	nd	103%	103%	0%
1,2-Dichloropropane	50	nd	nd	nd			
Dibromomethane	50	nd	nd	nd			
Bromodichloromethane	50	nd	nd	nd			
4-Methyl-2-pentanone (MIB	250	nd	nd	nd			
cis-1,3-Dichloropropene	50	nd	nd	nd			
Toluene	50	nd	nd	6,200	105%	94%	11%
trans-1,3-Dichloropropene	50	nd	nd	nd			
1,1,2-Trichloroethane	50	nd	nd	nd			
2-Hexanone	250	nd	nd	nd			
1,3-Dichloropropane	50	nd	nd	nd			
Dibromochloromethane	50	nd	nd	nd			
Tetrachloroethene (PCE)	20	nd	nd	nd			
1,2-Dibromoethane (EDB)	50	nd	nd	nd			
Chlorobenzene	50	nd	nd	nd	77%	85%	10%
1,1,1,2-Tetrachloroethane	50	nd	nd	nd			
Ethylbenzene	50	nd	nd	4,300			
Xylenes	150	nd	nd	58,000			
Styrene	50	nd	nd	nd			
Bromoform	50	nd	nd	nd			
1,1,2,2-Tetrachloroethane	50	nd	nd	nd			
Isopropylbenzene	50	nd	nd	800			
1,2,3-Trichloropropane	50	nd	nd	nd			
Bromobenzene	50	nd	nd	nd			

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Analysis of Volatile Organic Compounds in Soil by Method 8260/5035

	Reporting	BM-13 27-28	#1	#2	MS	MSD	RPD
Date extracted	Limits	07/22/09	07/22/09	07/22/09	07/22/09	07/22/09	
Date analyzed	(ug/Kg)	07/27/09	07/27/09	07/27/09	07/28/09	07/28/09	
n-Propylbenzene	50	nd	nd	**4,100**			
2-Chlorotoluene	50	nd	nd	nd			
4-Chlorotoluene	50	nd	nd	nd			
1,3,5-Trimethylbenzene	50	nd	nd	**7,600**			
tert-Butylbenzene	50	nd	nd	nd			
1,2,4-Trimethylbenzene	50	nd	nd	**24,000**			
sec-Butylbenzene	50	nd	nd	nd			
1,3-Dichlorobenzene	50	nd	nd	nd			
1,4-Dichlorobenzene	50	nd	nd	nd			
Isopropyltoluene	50	nd	nd	**1,100**			
1,2-Dichlorobenzene	50	nd	nd	nd			
n-Butylbenzene	50	nd	nd	nd			
1,2-Dibromo-3-Chloropropa	50	nd	nd	nd			
1,2,4-Trichlorobenzene	50	nd	nd	nd			
Naphthalene	50	nd	nd	**2,900**			
Hexachloro-1,3-butadiene	50	nd	nd	nd			
1,2,3-Trichlorobenzene	50	nd	nd	nd			
Surrogate recoveries							
Dibromofluoromethane		97%	99%	104%	99%	100%	0%
Toluene-d8		105%	104%	102%	98%	96%	0%
4-Bromofluorobenzene		103%	107%	109%	102%	102%	0%

Data Qualifiers and Analytical Comments
nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

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Analysis of Polychlorinated Biphenyls in Soil by Method 8082

Sample Description		Method Blank	BM-11 11-12	BM-11 19-20
Date Prepared		7/23/2009	7/23/2009	7/23/2009
Date Analyzed	RL (ug/kg)	7/23/2009 (ug/kg)	7/23/2009 (ug/kg)	7/23/2009 (ug/kg)
PCB-1016	200	nd	nd	nd
PCB-1221	200	nd	nd	nd
PCB-1232	200	nd	nd	nd
PCB-1242	200	nd	nd	nd
PCB-1248	200	nd	nd	nd
PCB-1254	200	nd	nd	nd
PCB-1260	200	nd	nd	nd
Total		0.0	0.0	0.0
TCMX			81	81
DCBP			93	84

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (TCMX) AND (DCBP): 65% - 135%

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QA/QC Data - Analysis of Polychlorinated Biphenyls in Soil by Method 8082

Sample Description:BM-11-19-20

	Matrix Spike			Matrix Spike Duplicate			RPD
	Spiked Conc. (ug/kg)	Measured Conc. (ug/kg)	Spike Recovery (%)	Spiked Conc. (ug/kg)	Measured Conc. (ug/kg)	Spike Recovery (%)	(%)
PCB-1016	1000	830	91	1000	850	85	6.8
PCB-1260	1000	830	84	1000	710	71	17
TCMX		91			72		
DCBP		84			87		

	Laboratory Control Sample		
	Spiked Conc. (ug/kg)	Measured Conc. (ug/kg)	Spike Recovery (%)
PCB-1016	1000	910	91
PCB-1260	1000	840	84
TCMX		95	
DCBP		75	

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 50%-150%
ACCEPTABLE RPD IS 50%

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Analysis of Total Lead in Soil by Method 6020

Sample Number	Date Prepared	Date Analyzed	Lead (Pb) (mg/kg)
Method Blank	7/23/2009	7/23/2009	nd
BM-5 11-12	7/23/2009	7/23/2009	nd
BM-5 11-12 Dup.	7/23/2009	7/23/2009	nd
BM-5 19-20	7/23/2009	7/23/2009	nd
BM-6 11-12	7/23/2009	7/23/2009	nd
BM-7 11-12	7/23/2009	7/23/2009	**15**
BM-10 15-16	7/23/2009	7/23/2009	nd
BM-10 23-24	7/23/2009	7/23/2009	nd
BM-11 11-12	7/23/2009	7/23/2009	nd
BM-11 19-20	7/23/2009	7/23/2009	nd
BM-12-11-12	7/23/2009	7/23/2009	nd
BM-12 23-24	7/23/2009	7/23/2009	nd
BM-12 23-24 Dup.	7/23/2009	7/23/2009	nd
BM-13 15-16	7/23/2009	7/23/2009	nd
BM-13 27-28	7/23/2009	7/23/2009	nd
#1	7/23/2009	7/23/2009	nd
#2	7/23/2009	7/23/2009	nd
Reporting Limit			5.0

"nd" Indicates not detected at listed detection limits.

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QA/QC Data - Analysis of Total Metals in Soil by Method 6020

Sample Number: QC Batch

	Matrix Spike			Matrix Spike Duplicate			RPD
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	(%)
Lead (Pb)	100	97	97	100	95	95	2.08

	Laboratory Control Sample		
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)
Lead (Pb)	100	100	100

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%
ACCEPTABLE RPD IS 35%

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Analytical Results

PAH(8270), mg/kg		MTH BLK	LCS	BM-11-11-12	BM-11-19-20	MS	MSD	RPD
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	
Date extracted	Reporting	07/24/09	07/24/09	07/24/09	07/24/09	07/24/09	07/24/09	
Date analyzed	Limits	07/24/09	07/24/09	07/24/09	07/24/09	07/24/09	07/24/09	
Moisture, %				28%	11%			
Acenaphthene	0.02	nd	140%	nd	nd	104%	85%	20%
Acenaphthylene	0.02	nd	139%	nd	nd			
Anthracene	0.02	nd	131%	nd	nd			
Benzo(a)anthracene*	0.02	nd	125%	nd	nd			
Benzo(a)pyrene*	0.02	nd	146%	nd	nd			
Benzo(b)fluoranthene*	0.02	nd	160%	nd	nd			
Benzo(ghi)perylene	0.02	nd	121%	nd	nd			
Benzo(k)fluoranthene*	0.02	nd	148%	nd	nd			
Chrysene*	0.02	nd	146%	nd	nd			
Dibenzo(a,h)anthracene*	0.02	nd	163%	nd	nd			
Fluorene	0.02	nd	138%	nd	nd			
Fluoranthene	0.02	nd	129%	nd	nd			
Indeno(1,2,3-cd)pyrene*	0.02	nd	165%	nd	nd			
Naphthalene	0.02	nd	125%	nd	nd			
1-Methylnaphthalene	0.02	nd	ns	nd	nd			
2-Methylnaphthalene	0.02	nd	ns	nd	nd			
Phenanthrene	0.02	nd	124%	nd	nd			
Pyrene	0.02	nd	126%	nd	nd	108%	90%	18%
Total Carcinogens				nd	nd			
Surrogate recoveries:								
2-Fluorobiphenyl		86%	91%	82%	80%	96%	86%	
p-Terphenyl-d14		123%	106%	116%	115%	118%	104%	

Data Qualifiers and Analytical Comments

* - Carcinogenic Analyte
nd - not detected at listed reporting limits
na - not analyzed
C - coelution with sample peaks
M - matrix interference
J - estimated value
Results reported on dry-weight basis
Acceptable Recovery limits: 50% TO 150%
Acceptable RPD limit: 35%