

**Ecology Review Draft
Phase II Environmental Site Assessment
North Marina Area
Port of Everett
Everett, Washington**

April 13, 2004

Prepared for

Everett Maritime LLC

and

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1.0 INTRODUCTION

This report presents the results of the Phase II environmental site assessment (ESA) for the Port of Everett (Port) North Marina Area. Figure 1 presents the location of the North Marina Area in Everett, Washington with respect to the surrounding vicinity. Figure 2 is a site plan showing the specific properties in the North Marina Area evaluated during the Phase II ESA. The Phase II ESA was completed in support of the North Marina Redevelopment Project (project). The Phase II ESA was performed by Landau Associates for the Everett Maritime LLC (Everett Maritime) and the Port.

The Phase II ESA report is divided into six sections, which contain the following information:

- Section 1.0 describes the objectives of the Phase II ESA and the investigative approach
- Section 2.0 describes the current and historical use of the North Marina Area and the geology and hydrogeology of this area
- Section 3.0 describes the field work associated with the Phase II ESA
- Section 4.0 presents an evaluation of the data collected during the Phase II ESA
- Section 5.0 summarizes the conclusions, and
- Section 6.0 identifies reference materials used in the preparation of this report.

It should be noted that a Phase II ESA was previously conducted for the Everett Shipyard parcel, investigation area “a” on Figure 2, by the Port. As a result, area “a” was not investigated as part of this Phase II ESA. The Everett Shipyard Phase II ESA report should be reviewed for an understanding of investigation area “a” environmental conditions (Landau Associates 2003a).

1.1 OBJECTIVES

The primary objectives of the Phase II ESA are to evaluate the need for environmental cleanup action, and to collect sufficient information to develop a preliminary cost estimate for an appropriate site environmental cleanup. The estimated cost for site cleanup will be presented in a separate document to be submitted to Everett Maritime.

1.2 INVESTIGATIVE APPROACH

Due to the large area and diverse property uses included in the North Marina Area, the Phase II ESA was not intended to identify an exhaustive list of environmental conditions that may warrant limited remedial actions or special consideration during redevelopment activities. Instead, this investigation was

intended to identify potentially significant and widespread environmental impacts, based on the current understanding of present and historical sources and potential sources of contamination.

The Phase II ESA was conducted as a phased investigation involving two rounds of sampling. The first round was conducted to determine whether wide-spread soil or groundwater contamination had occurred as a result of potential sources or activities identified as “high risk issues” in the Phase I ESA (Landau Associates 2001). Some “moderate risk issues” and “low risk issues” identified in the Phase I ESA were also evaluated in the course of determining whether wide-spread soil or groundwater contamination is present in the North Marina Area. The second round of sampling was developed to better characterize contamination identified during the first round and to identify additional potential areas of environmental impacts of specific interest to the Port.

The first round of sampling was conducted on December 22, 23, 29 and 30, 2003 in accordance with the North Marina Area Phase II ESA Work Plan (Landau Associates 2003b). The second round was conducted February 11-13, 2004, with some additional follow-up groundwater sampling later in February and March, in accordance with the Phase II Environmental Site Assessment Work Plan Addendum, North Marina Redevelopment Site (Landau Associates 2004).

2.0 NORTH MARINA AREA DESCRIPTION

This section describes the current and historical property uses of properties in the North Marina Area and presents information regarding the geology and hydrogeology of the area. The North Marina Area is divided into 11 investigation areas for purposes of organization of the Phase II ESA. These investigation areas are shown on the site plan (Figure 2).

2.1 CURRENT AND HISTORICAL PROPERTY USE

This section describes the known current and historical property use of the investigation areas within the North Marina Area.

2.1.1 INVESTIGATION AREA “A”

Investigation area “a” includes the Everett Shipyard (Fisherman’s Boat Shop), some Everett Engineering buildings, and a portion of the Quality Seafoods facility. As previously discussed, this area was investigated during a separate Phase II ESA for the Port and is not included in the current scope of work.

2.1.2 INVESTIGATION AREA “B”

The Everett Bayside Marina property and the Port of Everett Property at 1100 13th Street, where records indicate historical use of five underground storage tanks (USTs) (one of which is known to have leaked), are located in investigation area “b”. Boat maintenance has been, and continues to be, conducted in the eastern yard.

2.1.3 INVESTIGATION AREA “C”

Three properties between 13th and 14th Streets, from the Everett Fire Station #3 location westward to include the Port of Everett Boatyard and the Harbor Marine Maintenance Boat Servicing Center properties, are located in investigation area “c”.

At the Everett Fire Station #3, a UST was reported to have been removed and an active above ground storage tank (AST) exists where the removed UST was located. Harbor Marine Maintenance had reported historical use of multiple chemical products. The Port of Everett Boatyard has been used for general boat maintenance. There is an active UST on the northeast corner of the boatyard with two existing monitoring wells in close proximity.

2.1.4 INVESTIGATION AREA “D”

Investigation area “d” consists solely of the American Construction Company leasehold, which is involved in pile driving, dredging and marine construction activities, and has operated at this location for approximately 50 years. Historical and current maritime construction activities on the American Construction Company leasehold include, among other things, sandblasting, painting, and storage of creosote-treated timbers. A number of potential sources of spills and/or releases of hazardous chemicals were noted during the Phase I ESA.

2.1.5 INVESTIGATION AREA “E”

Investigation area “e” is the former location of Puget Sound Truck Lines and Ethyl Corporation, and is currently used by the Port for boat storage. Non-specific documentation suggested that some level of cleanup had occurred upon termination of Ethyl Corporation’s lease, and that USTs used for fuel products during Puget Sound Truck Lines’ use of the property had been excavated and removed from the property. Puget Sound Truck Lines also operated an AST at the site and removed a heating oil UST prior to vacating the property.

2.1.6 INVESTIGATION AREA “F”

Investigation area “f” includes several properties along the north side of 13th Street (Everett Engineering Building M11, Port overflow parking, Nugget Boat Works, JL Brooks Welding, and the former American Boiler Works). These properties have been used for general industrial and marine industrial purposes.

ASTs and USTs were historically present at properties within investigation area “f”, and the potential presence of a UST at JL Brooks Welding, and an unidentified subsurface structure at Everett Engineering Building M11 remained unconfirmed. Sandblast grit residue and surface soil staining by petroleum product were also noted in some portions of investigation area “f”. Everett Engineering Building M11 and its associated outdoor storage area are characterized by poor housekeeping of general industrial machinery.

2.1.7 INVESTIGATION AREA “G”

Investigation area “g” is comprised solely of the Ameron International leasehold. A UST was reportedly removed from this area and multiple chemical products are used and stored on this property. The Ameron International leasehold is also the site of a historical fire that destroyed the wood products

mill formerly located at the property. Fires on industrial properties generally have a moderate to high potential to release various hazardous substances.

2.1.8 INVESTIGATION AREA “H”

Investigation area “h” includes a former US Coast Guard station, the existing Milltown Sailing building, and roadways and parking areas overlying fuel lines and former fuel USTs associated with the marina. The removal of the former USTs and fuel lines and relocation of the new USTs for the marina are considered potential contaminant sources associated with historical activities in investigation area “h”.

2.1.9 INVESTIGATION AREA “I”

Investigation area “i” is comprised of the property between the 12th Street Waterway and the Ameron International leasehold. This portion of the North Marina Area is currently unused. Anecdotal information indicates that soil land farming for remediation of petroleum hydrocarbon-impacted soil has been performed in this area. Based on the presence of elevated areas within investigation area “i”, it appears that the area has been used for the stockpiling of soil and/or debris.

2.1.10 INVESTIGATION AREA “J”

Investigation area “j” includes the Marine Spill Response Corporation (MSRC) leasehold. An independent cleanup action was reportedly completed in 1993 to remove material impacted by petroleum hydrocarbons, and potentially other hazardous substances, adjacent to the MSRC facility. Although soil samples indicated that the cleanup action did not leave contaminated material in place, no groundwater samples were collected as part of the cleanup action. Also, an approximately 10,000-gal UST used for fueling Port vehicles, and later for waste oil storage, was reportedly removed in the late 1980s from this area. Although no specific documentation about the decommissioning process was available, this location was identified by Port personnel between the first and second rounds of the Phase II ESA investigations.

2.1.11 INVESTIGATION AREA “K”

Investigation area “k” includes the Everett Fire Museum where the city maintenance shop was formerly located. Historical activities may have involved the use of fuel products and solvents.

2.1.12 JORDAN PARK

Jordan Park is a small recreational park located between investigation areas “c” and “h”. The park surface is covered by grass and concrete, and several embankments are constructed from fill material of unknown origin.

2.2 GEOLOGIC AND HYDROGEOLOGIC DESCRIPTION

The upper-most soil unit at the North Marina Area consists primarily of fill derived from marine alluvium hydraulically placed over the last 50 to 60 years. Based on information reviewed in the Phase I ESA, wood waste and concrete debris may also be present in the North Marina Area. Sawdust deposits resulting from historical lumber mill operation in the North Marina Area have been identified in nearshore sediments.

According to the United States Department of Agriculture Soil Conservation Service (SCS 1983), the North Marina Area lies within a soil mapping unit area designated as Urban Land. Urban Land is described as nearly level to gently sloping areas covered by streets, buildings, parking lots, and other structures that obscure or alter the soil so that identification is not feasible. The source of much of the Urban Land at the Port appears to be material dredged from the waterway and wood industry byproducts (e.g., sawdust and wood chips) from historic industrial activities.

According to the U.S. Geological Survey (USGS) Geologic Map of the Everett Quadrangle, non-fill native soil along West Marine View Drive consists of Vashon Drift advance outwash (USGS 1985). This soil is described as clean, mostly gray, well stratified, unconsolidated sand with pebbles and some cobbles. Shallow groundwater in the area is believed to have a relatively flat gradient and is estimated to flow generally to the west, with some local flow variations to the north and south near the shorelines. Geologic and hydrogeologic conditions based on the results of the Phase II ESA are presented in Section 4.1.

Tidal influences in the North Marina Area, combined with the flow of the Snohomish River into Port Gardner Bay, have historically contributed to siltation of the waterways and the need for periodic dredging along the Everett waterfront. According to U.S. Army Corps of Engineers (USACE) tidal datum, 1953, the estimated highest and lowest tides are +14.5 ft and -4.5 ft MLLW, respectively (Pentec 1992).

3.0 FIELDWORK DESCRIPTION

This section describes the investigation and sampling procedures employed during the Phase II ESA to evaluate environmental conditions at the site. The primary focus of the phased investigation was to determine soil and groundwater quality characteristics. Additional activities included performing a geophysical survey to determine whether an unconfirmed UST remained onsite and collection of methane gas and groundwater level measurements in anticipation of redevelopment activities. Groundwater level data and access to piezometers were provided to Cornerstone Geotechnical, Everett Maritime's consultant for geotechnical services, for further evaluation. Soil and groundwater sampling locations are shown on Figure 3. Table 1 presents the rationale, sample collection methods, analytical test methods, and other details related to the samples collected during the Phase II ESA.

3.1 GEOPHYSICAL SURVEY

A geophysical survey was used to attempt to locate a UST that was suspected to be present on the JL Brooks Welding property (area "f", Figure 2). A vent pipe, a typical component of USTs, was observed attached to the side of Building M14 at the JL Brooks Welding property. Although the property lessee had no knowledge of any USTs on the property, and no physical signs of USTs in the area were discovered, the presence of a vent pipe and a lack of any information about UST construction or removal at this location warranted further investigation to determine whether a UST remained onsite.

Remote sensing instruments were used to non-intrusively check for the presence of the USTs. Ground penetrating radar, utility locator equipment and a hand-held magnetometer were used to attempt to locate the potentially present UST and any associated fuel lines. The area of interest was evaluated using a grid system on an approximate 4-ft grid interval. Evidence of the presence of a UST or associated piping was not encountered during the geophysical investigation. The results of the geophysical survey are presented in Appendix A.

3.2 SOIL SAMPLING

Soil samples were collected from surficial soils by hand, and were collected from subsurface soil from boring samples using direct push drilling techniques.

Surface soil samples were collected at locations where potential environmental impacts were likely to occur at ground surface, based on the historic activities for that location (e.g., boat maintenance), or at locations where visual evidence of environmental impact was present (e.g., surface staining). The surface soil samples were generally collected from the top six inches of soil using a clean stainless steel spoon. Surface soil sample NMP2-C-5-SS was collected from an area covered by asphalt; therefore, the

sample was collected from the upper six inches below the asphalt and gravel base course layer using a Geoprobe direct push drill rig during the construction of piezometer P4. Fourteen surface soil samples were collected for laboratory analysis during the Phase II ESA. These 14 samples included 3 composite samples collected from 4 soil stockpiles present in investigation area “i”.

Subsurface soil samples were collected to bound the vertical extent of shallow soil contamination and to identify the presence of contamination that would likely be present in the vicinity of the groundwater table (e.g., petroleum hydrocarbon contamination). A total of 64 borings were advanced during the Phase II ESA, including the 12 borings advanced for the installation of piezometers.

Boreholes were constructed to depths of four to thirteen feet below ground surface (BGS). Continuous soil samples were collected to the total depth of each boring for geologic logging purposes and field screening for possible contamination. Field screening was accomplished by using a photoionization detector (PID) and visual inspection for discoloration and obvious presence of sheen or non-aqueous phase liquid (NAPL) presence. Fourteen of the subsurface soil samples collected from the borings were tested for chemical constituents during the Phase II ESA. Additional subsurface soil samples submitted to the laboratory were archived for potential future analysis.

Soil from the borings was described using the Uniform Soil Classification (USCS) and field screened for possible contamination. The presence and extent of wood debris were also noted during drilling. The boring logs for borings and piezometers are presented in Appendix B. A clean stainless steel bowl was used to gently homogenize the sample material prior to placement in the proper laboratory supplied sample containers, except for sample portions that were submitted for analysis of volatile organic compounds (VOCs), which were handled with a minimal amount of disturbance to avoid contaminant volatilization out of the samples.

No evidence of gasoline- or diesel-range free phase petroleum hydrocarbon contamination was observed during the Phase II ESA, although a slight petroleum odor was observed in shallow soil in a number of borings. However, evidence of heavy oil or creosote range hydrocarbon contamination was encountered on the American Construction Company parcel (investigation area “d”) at locations D-3, D-4 and piezometer P9. The material was encountered within a relatively limited zone at a depth of 4 to 7 ft BGS.

Nineteen of the borings, identified as NMP2-SS-1 through NMP2-SS-19, were completed in investigation area “i” to characterize the soil stockpile areas present. A discolored and odorous layer of material was encountered at NMP2-SS-2, and 15 additional borings were completed within this stockpile area to delineate the lateral and vertical extent of this affected soil layer. The lateral extent of the affected soil layer is shown on Figure 4 and the vertical extent and thickness of the discolored material is presented in Table 2. The discolored material was encountered at 1.2 to 2.1 ft BGS in the borings, and is

between 0.2 and 1.8 ft thick. Material similar in appearance was observed in material stockpiled in investigation area “g”, along the fence line that separates investigation areas “g” and “i” in the northwest portion of that property.

A composite sample of the material, NMP2-I-X, was collected to characterize the concentration of chemical constituents in the discolored soil layer. Composite soil sample NMP2-I-Y was collected from the soil layer directly below the discolored material to determine if the discolored material had affected underlying soil. Both composite soil samples were collected from boreholes NMP2-SS-5, NMP2-SS-12 and NMP2-SS-14.

3.3 GROUNDWATER SAMPLING

Groundwater samples were collected either directly from the borehole installed by Geoprobe direct push drilling technology, from an installed piezometer (described below), or from pre-existing monitoring wells. This section describes the methodology used in the collection of groundwater samples.

3.3.1 GROUNDWATER SAMPLES FROM BORINGS

Groundwater samples were collected from 33 boreholes using a peristaltic pump with disposable tubing. A decontaminated temporary well screen was installed in the borehole at the time of sampling to reduce turbidity in the sample volume. Groundwater was over-purged from the borehole prior to sample collection to further reduce turbidity. Field parameters (pH, temperature and conductivity) were measured using a portable meter during purging. Upon completion of purging, the groundwater samples were collected directly into the laboratory-supplied containers.

3.3.2 PIEZOMETER INSTALLATION AND SAMPLE COLLECTION

Twelve piezometers were installed throughout the North Marina Area during the Phase II ESA to provide depth to groundwater data for future construction of an underground parking facility, evaluate methane gas presence in the subsurface (described below) and collect groundwater samples to evaluate water quality. Each piezometer was installed using Geoprobe direct push drilling technology. The piezometers were constructed using pre-packed well casings, which include 10/20 Colorado sand filter pack and ¾-inch diameter PVC screen with a 0.020-inch slot size. The piezometers were installed to a depth of 8 to 13 ft BGS, and were typically screened from 3 ft BGS to the bottom of the boring. This piezometer configuration maximized the potential for extending the screen section across the water table to allow the detection of petroleum hydrocarbon free product (if present) and the measurement of

methane in the unsaturated zone from the completed piezometer. Piezometer construction details are presented in Appendix B.

The piezometers were developed prior to groundwater sampling by purging five to ten casing volumes of groundwater from the piezometer using a peristaltic pump and disposable tubing. All piezometers were allowed to stabilize for at least 3 days following development before groundwater samples were collected for chemical analysis. In addition to the piezometers installed for the Phase II ESA, two shallow observation wells, NMW-E and NMW-W, associated with the existing gasoline UST in investigation area “c” were also sampled.

Piezometers were sampled using a peristaltic pump and disposable tubing. All piezometers were purged of at least 3 casing volumes prior to sampling. Samples collected for metals analysis were field filtered using a 45-micron in-line filter.

All piezometers produced sufficient flow to allow sample collection for all analytical parameters, except for P9. Because of slow recharge, P9 could only be sampled for cPAH during the February sampling. As a result, the piezometer was re-sampled in March to collect a sample for dissolved metals analysis.

3.4 METHANE GAS MONITORING

Based on subsurface exploration information provided by the Port and subsurface information collected during this Phase II ESA, significant deposits of wood debris are present at the site. Landau Associates conducted methane gas monitoring during Geoprobe activities and post construction piezometer monitoring to determine whether methane generated from wood debris is likely to be a significant issue for design of pile-supported structures. Monitoring was conducted during boring advancement by periodically monitoring the boring casing with a combustible gas meter. Piezometers were screened across the water table and up into the vadose zone, where feasible, to allow methane gas monitoring in the piezometers following installation.

4.0 DATA EVALUATION

This section presents an evaluation of the physical and chemical data collected in the Phase II ESA. Chemical data are evaluated with respect to the Washington State Model Toxics Control Act (MTCA) regulations.

4.1 GEOLOGIC AND HYDROGEOLOGIC CONDITIONS

Geologic and hydrogeologic conditions were evaluated based on the 52 borings and 12 piezometers installed during the Phase II ESA. In general, encountered site soil conditions consist of 6 to greater than 13 ft of hydraulic fill overlying native silt. Hydraulic fill is typically a loose to medium dense, poorly graded fine to coarse sand or silty sand. Wood debris was present in the hydraulic fill layer in many of the borings. Wood debris presence ranged from small wood fragments intermixed with fill to distinct layers of wood debris.

The locations and depth intervals at which wood debris were encountered are presented in Table 3, and the aerial distribution of wood debris is presented on Figure 5. Based on the distribution illustrated on Figure 5, wood debris is present throughout much of the North Marina Area, although it is most consistently present over the northern half of the site.

Native soil, consisting of medium stiff, gray sandy silt with clay, was encountered in 4 borings (C-7, and H-1, -2, and -3). Depth to native soil at these locations ranged from 6 to 10 ft. At other boring locations, which ranged in depth from 4 to 13 ft BGS, native soil was not encountered.

Groundwater was encountered at the time of drilling at depths ranging from 2.2 to 6.5 ft BGS, as indicated in Table 3. The depth to water was also measured in completed piezometers P1 through P7, with depths ranging from 2.3 to 4.7 ft BGS, as presented in Table 4. The depth to water generally appears to be shallower towards the center of the site and deeper in the vicinity of the shoreline, which is consistent with groundwater flow toward marine surface water. Reference elevations were not established for monitoring wells, so groundwater elevations could not be determined, and groundwater flow characteristics could not be more extensively characterized as part of the Phase II ESA.

4.2 METHANE MONITORING

Methane concentrations were monitored during construction in soil borings completed during the two rounds of sampling, as presented in Table 3 and as shown on Figure 6. Post-construction methane levels were monitored twice in piezometers NMP2-P1 through NMP2-P7 after the subsurface conditions were allowed to equilibrate for at least one week, and the data are presented in Table 5. Maximum detected concentrations of methane in each boring and piezometer are shown on Figure 4.

As shown in Table 3, methane was detected in most of the borings where wood debris was encountered. Methane was detected in 20 of the 45 borings, including piezometers, constructed during the Phase II ESA. At two locations, piezometer P12 and boring B-4, methane concentrations during drilling were detected at concentrations exceeding the lower explosive limit (LEL), which is 5 percent methane, by volume. The LEL is the lowest concentration at which methane would have the potential to explode. However, 20 percent of the LEL (i.e., 1 percent methane, by volume) is typically used as a rule of thumb to identify the potential for an explosive condition to exist.

As shown in Table 5, methane concentrations were detected in three of the seven piezometers, NMP2-P3, NMP2-P6, and NMP2-P7, at levels above the LEL for measurements made after piezometer construction was completed. Methane concentrations observed in these same piezometers during boring completion were less than the LEL, which suggests that the methane levels observed during construction in other non-piezometer borings (Table 3) underestimate the actual methane concentrations when the subsurface is at equilibrium.

In addition to an explosion, the accumulation of methane can deplete the oxygen concentration to an unsafe level, which is a significant issue for confined space entry. These results suggest that subsurface methane accumulations could be a significant issue for design of any subsurface structures that are not properly sealed or ventilated, including utility vaults, parking garages, or pile-supported structures where voids can form beneath the floor slab.

It is likely that methane buildup will be greater under post-construction site conditions because the increase in impermeable surface area resulting from increased paving and building density will tend to allow greater accumulation of methane in subsurface soil gas, subsurface utility vaults, and in any voids that develop beneath pile supported structures.

4.3 CHEMICAL DATA

This section presents the chemical data collected as part of the Phase II ESA and describes the cleanup levels to which these data are compared. Tables 6 and 7 identify the analytical parameters for Phase II ESA soil and groundwater samples, respectively. The analytical results for detected constituents are presented in Tables 8 and 9 for soil and groundwater samples, respectively. Summary tables for all analytical testing parameters for soil and groundwater samples are presented in Appendix C. Original laboratory reports are maintained in the project files.

4.3.1 CLEANUP LEVELS

Based on the redevelopment plans for the North Marina Area, it is expected that the site will be subject to a combination of residential, commercial, and industrial use. MTCA Method B soil cleanup levels for unrestricted land use were determined to be appropriate for protection of these likely future land use scenarios. For constituents that do not have Method B cleanup levels (i.e., TPH and total cPAH), Method A cleanup levels for unrestricted site use were used. Background concentrations of metals are also taken into consideration when comparing detected concentrations to cleanup levels (Ecology 1994). It is expected that human receptors could be exposed to contaminants in surface or subsurface soil by direct contact (incidental ingestion and dermal contact) or exposure to surface water via groundwater impacted by contaminant migration from soil.

Site groundwater is not used as drinking water and, based on the close proximity to the marine waterway and likely hydraulic connection between the groundwater and marine surface water in the North Marina Area, future use of the groundwater as drinking water is not expected. Therefore, ingestion of groundwater is not considered a complete exposure pathway for current or future receptors. Based on this information, groundwater Method B cleanup levels are based on discharge to marine surface water. MTCA Method B surface water cleanup levels are also inclusive of the most conservative levels from state and federal surface water quality standards.

Where available, metals concentrations were also compared to state background concentrations for metals in groundwater (PTI 1989). However, the state background concentration for copper of 8 µg/L was not used because analytical results indicated that site groundwater concentrations for copper were generally not detected at the method reporting limit of 2 µg/L.

4.3.2 GROUNDWATER

Groundwater samples collected during the Phase II ESA were analyzed for TPH, BTEX, cPAHs, SVOCs, dissolved metals, and/or VOCs, as shown in Table 7. VOCs were not detected in any groundwater samples at concentrations exceeding MTCA Method B groundwater cleanup levels protective of marine surface water.

Only one of the nineteen groundwater samples analyzed for TPH contained a concentration exceeding the Method A groundwater cleanup levels. Motor oil-range petroleum hydrocarbons were detected at a concentration of 0.92 mg/L in sample NMP2-B-4-GW, collected near the location of a former UST.

Five of the nine groundwater samples analyzed for cPAHs during the first round of Phase II ESA field activities contained cPAHs at concentrations exceeding cleanup levels. Three of these samples

(NMP2-D-1-GW, NMP2-D-2-GW, and NMP2-D-4-GW) were located in investigation area “d”, one sample (NMP2-F-1-GW) was located in investigation area “f”, and one sample (NMP2-G-2-GW) was located in investigation area “g”. No visible pattern to the locations of groundwater cleanup level exceedances was identified, except for the multiple exceedances in investigation area “d”. Because, cPAHs are not typically found in a dissolved phase in groundwater, it was suspected that the cPAHs detections in groundwater resulted from particulates entrained in the samples during collection rather than being present as dissolved constituents in groundwater.

Based on the cPAH results, groundwater samples collected during the second round of field activities were centrifuged by the lab to remove particulates prior to cPAH analysis. Of the 14 groundwater samples tested for cPAHs during the second round of sampling, only the sample from Piezometer P9 exhibited detectable concentrations of cPAHs, which did not exceed the cleanup level. As presented in Table 9, and as shown on Figure 9, the concentration of total cPAHs detected in the groundwater sample from Piezometer P9 was 0.015 µg/L, compared to the MTCA method A cleanup level of 0.1 µg/L for total cPAHs and the individual Method B cPAH cleanup level of 0.031 µg/L.

The concentrations of cPAHs observed during the second round of investigation suggest that the elevated cPAH levels detected in groundwater samples collected during the first round of sampling were the result of particulate matter influences rather than reflective of actual groundwater quality. It is, therefore, assumed that the detected concentrations of cPAHs in soil are protective of groundwater conditions, with the possible exception of the deeper cPAHs contamination observed in investigation area “d”.

It should be noted that piezometer P9 is located within the area where long chain hydrocarbons (possibly creosote) were observed in investigation area “d”, as described in Section 3.2. These results suggest that the soil contamination at this location is affecting site groundwater in this area, but it does not appear to be causing exceedances of groundwater cleanup levels.

Four of the eighteen groundwater samples analyzed for dissolved metals contained arsenic concentrations exceeding the groundwater cleanup level. The groundwater sample with the highest dissolved arsenic concentration (146 µg/L), was collected from piezometer P9. Piezometer P9 is located in the north yard of the American Construction Company leasehold, where arsenic concentrations of up to 60 mg/kg were detected in subsurface soil at depths of up to 6 ft BGS (as discussed in the following section). Two of the other locations where the groundwater samples exceeded the arsenic groundwater cleanup level (boring F-8 and piezometer P3) were in investigation area “f”, and the fourth location (boring J-2) was located in investigation area “j”. Although arsenic concentrations in subsurface soil at investigation area “f” did not exceed cleanup levels, sandblast grit was identified at ground surface in

some portions of the investigation area. Soil quality samples were not collected from investigation area “j”. Detected concentrations of dissolved arsenic in groundwater are shown on Figure 10.

One of the 18 groundwater samples (NMP2-J-1-GW) analyzed for dissolved metals contained copper at a concentration (4 µg/L) that slightly exceeded the groundwater cleanup level of 2.4 µg/L.

4.3.3 SOIL

Soil samples collected during the Phase II ESA were analyzed for TPH, metals, PCBs, cPAHs, SVOC, and/or BTEX, as shown on Table 6. In general, samples were collected at the ground surface, and at depths of 3 and 6 ft BGS. Typically, samples collected from the 3 ft depth interval were only tested if surface soil samples exceeded a soil cleanup level, and samples collected from the 6 ft depth interval were only tested if the sample collected from the 3 ft depth interval exceeded a soil cleanup level.

TPH, SVOCs, and BTEX were not detected in any Phase II ESA soil sample at concentrations exceeding MTCA Method B cleanup levels protective of direct contact or groundwater.

4.3.3.1 Surface Soil

Surface soil samples collected during the Phase II ESA were analyzed for TPH, metals, PCBs, cPAHs, BTEX, and/or SVOCs. TPH, BTEX, PCBs, and SVOCs were not detected in any surface soil sample at concentrations exceeding MTCA Method A or Method B cleanup levels protective of direct contact or groundwater.

Ten of the twelve surface soil samples analyzed for metals contained at least one metal at concentrations exceeding MTCA Method B cleanup levels protective of direct contact and/or groundwater (including investigation area “i” stockpiled soil). Metals exceeding cleanup levels protective of surface water include arsenic, cadmium, copper, lead, mercury, and zinc. However, only arsenic and copper were detected at concentrations exceeding the cleanup levels protective of direct contact in investigation areas “c”, “d”, and “f”. Detected concentrations of arsenic in surface soil are shown on Figure 7.

As noted in Section 4.3.2, dissolved metals concentrations observed in the North Marina Area do not exceed groundwater cleanup levels, except for arsenic in investigation areas “d” and “f”, and a single exceedance of the copper groundwater cleanup level in investigation area “j”. Therefore, existing metals concentrations in soil are considered adequately protective of groundwater, except for arsenic, and possibly to a limited extent, copper. In other words, historical leaching of metals from contaminated soils into groundwater has not resulted in concentrations that exceed the groundwater cleanup levels protective of surface water, except for arsenic and possibly copper.

As a result of groundwater dissolved metals results, soil cleanup levels for metals other than arsenic were based on direct contact, while the cleanup level for arsenic considers both direct contact and protection of groundwater. Arsenic equaled or exceeded the soil cleanup level in 7 of the 12 surface soil samples tested for metals, as shown on Figure 7. Other than arsenic, copper was the only metal that exceeded its soil cleanup level for surface soil, and the copper exceedance was at a location (C-4) where arsenic also exceeded the soil cleanup level.

Elevated arsenic concentrations in investigation area “i” appear to be limited to soil stockpiled in that area, although samples were not collected from soil that underlies the stockpiles. Arsenic contamination in one investigation area “i” soil stockpile was encountered in a discrete layer of discolored, odorous material at a depth of 1.3 to 3 ft BGS (sample NMP2-I-X-SS), and a composite sample collected from the soil layer beneath this material (NMP2-I-Y-SS) contained arsenic at a concentration of 5.3 mg/kg. This layer of contaminated material was identified in the borings shown on Figure 4. Arsenic concentrations of 240 mg/kg encountered in the soil and debris in a second stockpile in the northeast corner of investigation area “i” appeared to be more broadly distributed within the stockpile material.

Five of the fourteen surface soil samples analyzed for cPAHs contained cPAH concentrations exceeding cleanup levels protective of direct contact and migration to surface water for either the Method A cleanup level for total cPAH or the Method B criteria for individual cPAHs. Samples with cPAH concentrations exceeding cleanup levels were collected from investigation areas “d” and “f”. Detected concentrations of total cPAHs in surface soil are shown on Figure 8. It should be noted that while the total cPAH concentration for the surface soil sample collected from location F-5 did not exceed the criteria, the individual criteria for one cPAH (chrysene) was exceeded.

Similar to metals, the groundwater analytical results indicate that the concentration of cPAHs in soil are adequately protective of groundwater, with the possible exception of contamination observed in subsurface soil in investigation area “d” (as previously discussed). As a result, the cPAHs soil cleanup level is based on direct contact. Four of the 12 surface soil samples tested for cPAHs exceeded the Method A total cPAHs cleanup level of 0.1 mg/kg for unrestricted site use, as shown on Figure 8. Three of these four exceedances occurred in investigation area “d”, and the fourth exceedance occurred in investigation area “f”.

4.3.3.2 Subsurface Soil

Subsurface soil samples collected during the Phase II ESA were analyzed for TPH, metals, PCBs, cPAHs, BTEX, and/or SVOCs. BTEX and SVOCs were not detected in any subsurface soil samples at

concentrations exceeding MTCA Method A or Method B cleanup levels protective of direct contact or groundwater.

The concentrations of cPAHs detected in subsurface soil samples collected during the Phase II ESA suggest that the elevated cPAH levels detected in surface soil samples do not extend to significant depth (3 ft BGS, or deeper) at concentrations above the cleanup levels, except for the area where long chain petroleum hydrocarbon contamination was detected in subsurface soil in investigation area “d” (as previously discussed). Detected concentrations of cPAHs in subsurface soil are shown on Figure 11. These detected concentrations are for samples collected from 3 ft BGS, except for samples collected from locations D-3 and D-4, where samples of visibly contaminated soil were collected from about 4 ft BGS.

It should be noted that the cPAH concentration presented on Figure 11 for the piezometer P9 location was collected from 3 ft BGS, and is below the MTCA unrestricted site use Method A cleanup level for total cPAH of 0.1 mg/kg. However, visual evidence of contamination was observed at a depth of 7 ft BGS at this location that would likely exceed the soil cleanup level for cPAHs and possibly TPH; although a sample from this depth was not listed, the results for a sample of similar appearing material from adjacent boring D-4 exceeded the soil cleanup level for cPAH. Thus, the shallow subsurface testing indicates that surface cPAH contamination does not extend to significant depth, but this should not be interpreted to mean that cPAH soil contamination is not present in the areas of observed contamination in investigation area “d” subsurface soil.

Except for investigation area “d”, data from subsurface soil samples suggest that metals contamination does not extend to significant depths beneath surface soil. Elevated arsenic concentrations (those exceeding MTCA Method B cleanup levels protective of direct contact and groundwater) in soil sampled in investigation area “d”, on the American Construction leasehold, extend to a depth of at least 6 ft BGS, and have significantly impacted groundwater in this area. Detected concentrations of arsenic in surface and subsurface soil collected from the 3-ft depth interval are shown on Figure 12.

Copper concentrations detected in subsurface soil samples from investigation area “c” suggest that the single copper concentration detected in excess of cleanup levels protective of direct contact is a relatively localized occurrence and that it does not extend into subsurface soil.

PCBs were detected at a concentration exceeding the cleanup level protective of surface water in one of the two subsurface soil samples for which PCBs were analyzed. The detection (110 µg/kg Aroclor 1254) occurred at a depth of 3 ft BGS in soil sample NMP2-G-3-CS-3. Although there are no known sources of PCBs at the Ameron site, it is possible that PCBs could have been released to the environment during the historical fire on this property or as a result of other historical site activities. As this was the only detection of PCBs observed during the Phase II ESA, it is expected that PCBs are not a constituent of concern for large portions of the North Marina Area.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The primary objectives of the Phase II ESA was to identify potential environmental conditions that would likely require remedial action in conjunction with redevelopment activities, and whether methane generation resulting from wood debris present in subsurface soil could represent a significant risk of explosion or oxygen depletion in subsurface structures or voids where methane gas could accumulate. To evaluate these conditions, a total of 28 soil samples and 54 groundwater samples were collected and tested for various environmental constituents. Additionally, methane gas was monitored during the advancement of exploration borings and from completed piezometers. Based on the data resulting from these monitoring activities, and observations made during field investigation activities, the following conclusions can be made:

- Wood debris is present in subsurface soil throughout a large portion of the site, and significant methane gas is generated as a result of its presence.
- Concentrations of methane gas exceeded the LEL at a number of monitoring locations, and methane has the potential to accumulate in subsurface structures, voids and vaults at concentrations that pose a risk for explosion or oxygen depletion.
- Although the site has a history of extensive gasoline and diesel use, including numerous USTs, no significant contamination from petroleum hydrocarbons in these product ranges was encountered in soil or groundwater during the Phase II ESA.
- Concentrations of metals and cPAHs exceed cleanup levels protective of human health based on direct contact in surface soil at several portions of the North Marina Area, with arsenic being the only metal detected above its soil cleanup level at multiple locations.
- Soil contamination at the site generally appears to be limited to near-surface soil (within the upper 3 ft), except for deeper arsenic and cPAHs/TPH contamination observed in the north yard of the American Construction Company leasehold (investigation area “d”).
- Arsenic contamination is also present in two soil stockpiles present in investigation area “i”.
- Arsenic exceeded the groundwater cleanup level at four locations; the presence of sandblast grit and/or surface and subsurface soil contamination appear to be contributing influences to the elevated concentrations of arsenic in groundwater.
- A single exceedance of the groundwater cleanup level for copper in investigation area “j” was the only exceedance of the groundwater cleanup levels for metals other than arsenic.
- Single, isolated detections of PCBs and TPH in soil and TPH in groundwater were detected.
- cPAHs exceeded groundwater cleanup levels in a number of groundwater samples collected during the initial round of sampling, but subsequent testing of centrifuged groundwater samples indicates that these exceedances were the result of particulates entrained during the sampling process, rather than dissolved constituents in groundwater.

Based on these conclusions, we recommend the following:

- The potential for methane to accumulate in subsurface structures, and voids that could form beneath pile supported floor slabs and other structures, should be addressed during design.
- Although only one groundwater and one soil exceedance of TPH cleanup criteria were observed during the Phase II ESA, the extensive history of UST presence on the site suggests that localized petroleum hydrocarbon contamination may be encountered during redevelopment activities. Contingency plans should be incorporated into the construction documents to address petroleum hydrocarbons or undocumented USTs, if encountered during construction.
- Arsenic and cPAHs contamination present in shallow soil should be remediated prior to or during site redevelopment. Remediation could consist of excavation and offsite disposal or onsite containment beneath planned pavement or building locations.
- Deeper arsenic contamination in investigation area “d” should be remediated to address arsenic contamination in groundwater at this location. Because of the presence of arsenic contamination in soil below the groundwater table, excavation and replacement with clean fill may be appropriate.
- The presence of long chain petroleum hydrocarbon contamination observed in subsurface soil at multiple locations in investigation area “d” appears to be affecting groundwater quality in piezometer P9, although concentrations of cPAHs did not exceed the groundwater cleanup level at this location. This area may warrant remedial action if additional investigation indicates more elevated groundwater concentrations at other locations.

Excavation and offsite disposal of soil may be needed during construction activities that are planned for the North Marina Redevelopment. Waste materials and contaminated soil must be disposed of at solid waste or hazardous waste landfills, as appropriate. Additionally, the recently promulgated Solid Waste Handling Standards (Chapter 173-350 and the draft Ecology Guidance “Definition of Clean Soils and Dredged Material”, dated January 20, 2004) include an anti-degradation philosophy that appears to restrict how and where excavated soil with levels of contaminants below the cleanup levels may be re-used. A broad coalition of business and government interests are attempting to have these regulations modified because of the significant financial, liability and regulatory issues associated with their present form. But, if enforced as currently written, these regulations may significantly restrict the offsite placement of site soil that is affected by hazardous substances at concentrations below MTCA cleanup levels. The impact of these regulations on the financial, liability and design/construction elements of the project should be considered when planning site grades and the disposition of any excess soil that is intended for offsite re-use.

6.0 USE OF THIS REPORT

This Phase II ESA report has been prepared for the exclusive use of Everett Maritime LLC and the Port of Everett for specific application to the North Marina Area redevelopment project. No other party is entitled to rely on the information, conclusions, and recommendations included in this document without the express written consent of Landau Associates. Further, the reuse of information, conclusions, and recommendations provided herein for extensions of the project or for any other project, without review and authorization by Landau Associates, shall be at the user's sole risk. Landau Associates warrants that within the limitations of scope, schedule, and budget, our services have been provided in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions as this project. We make no other warranty, either expressed or implied.

We appreciate the opportunity to provide these services to Everett Maritime and the Port. Please contact us if you have any questions or wish to discuss the project further. This document was prepared under the supervision and direction of the following key staff.

LANDAU ASSOCIATES, INC.



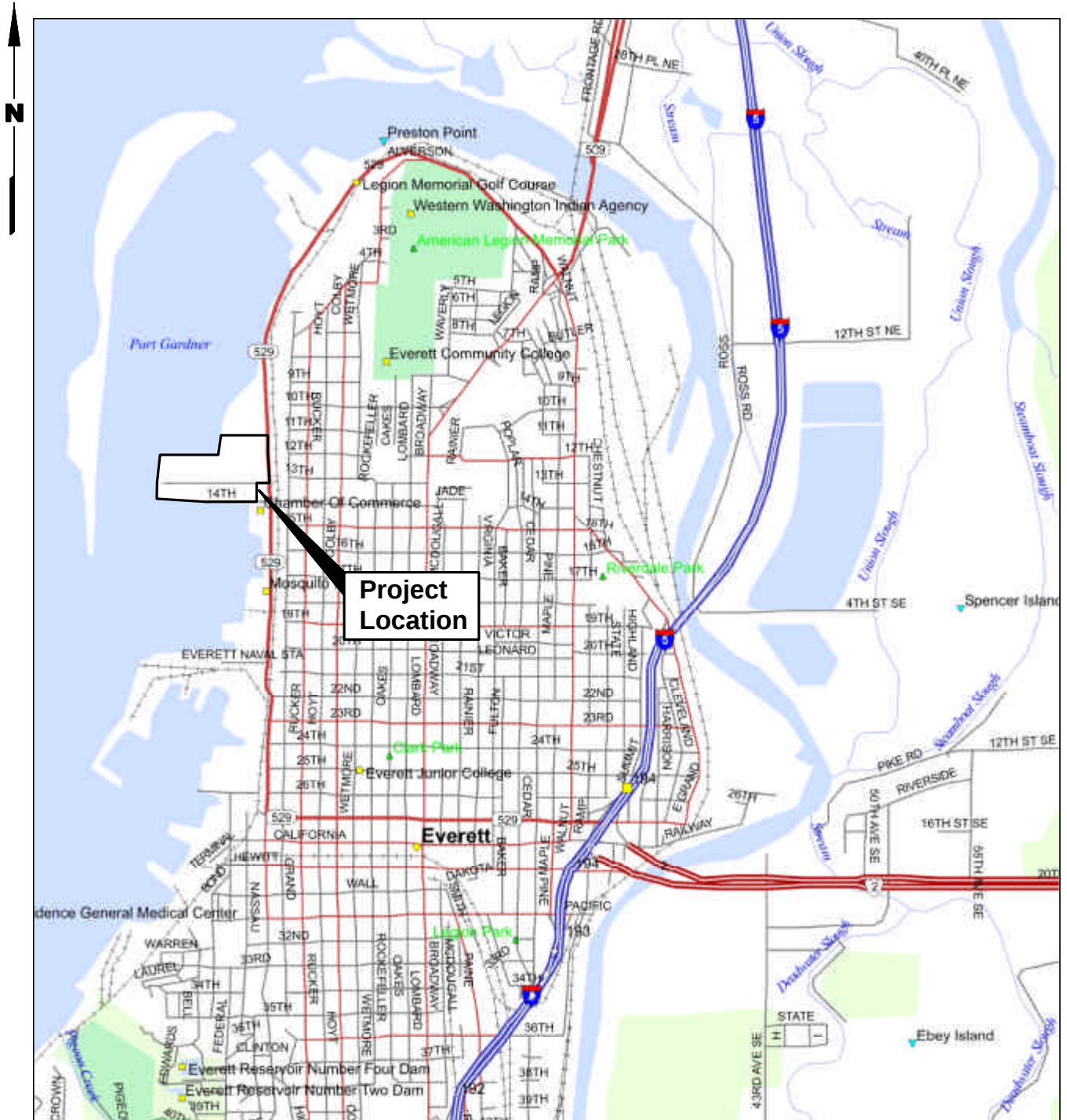
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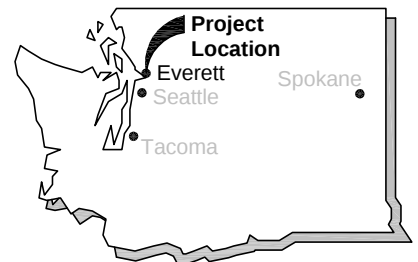
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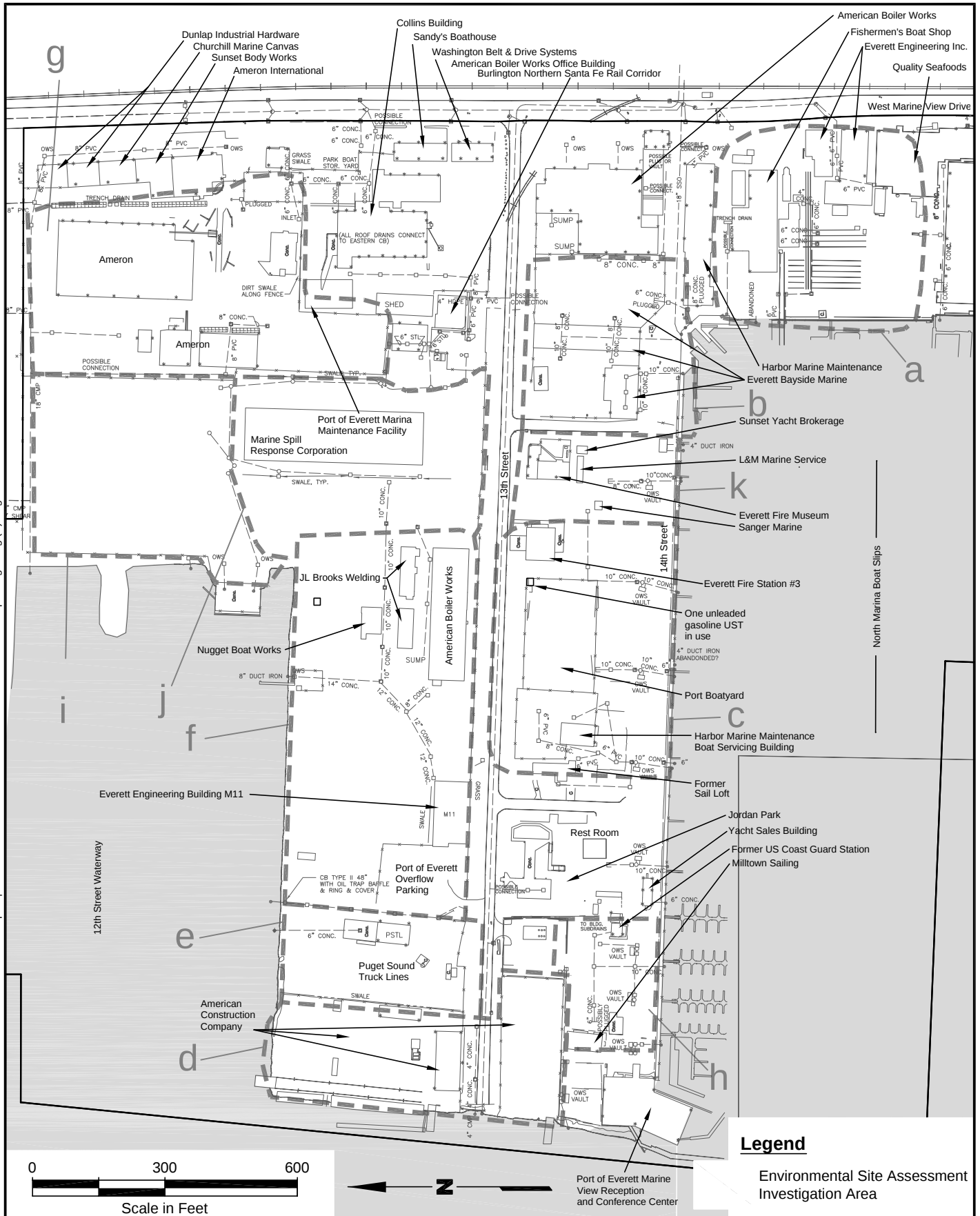
7.0 REFERENCES

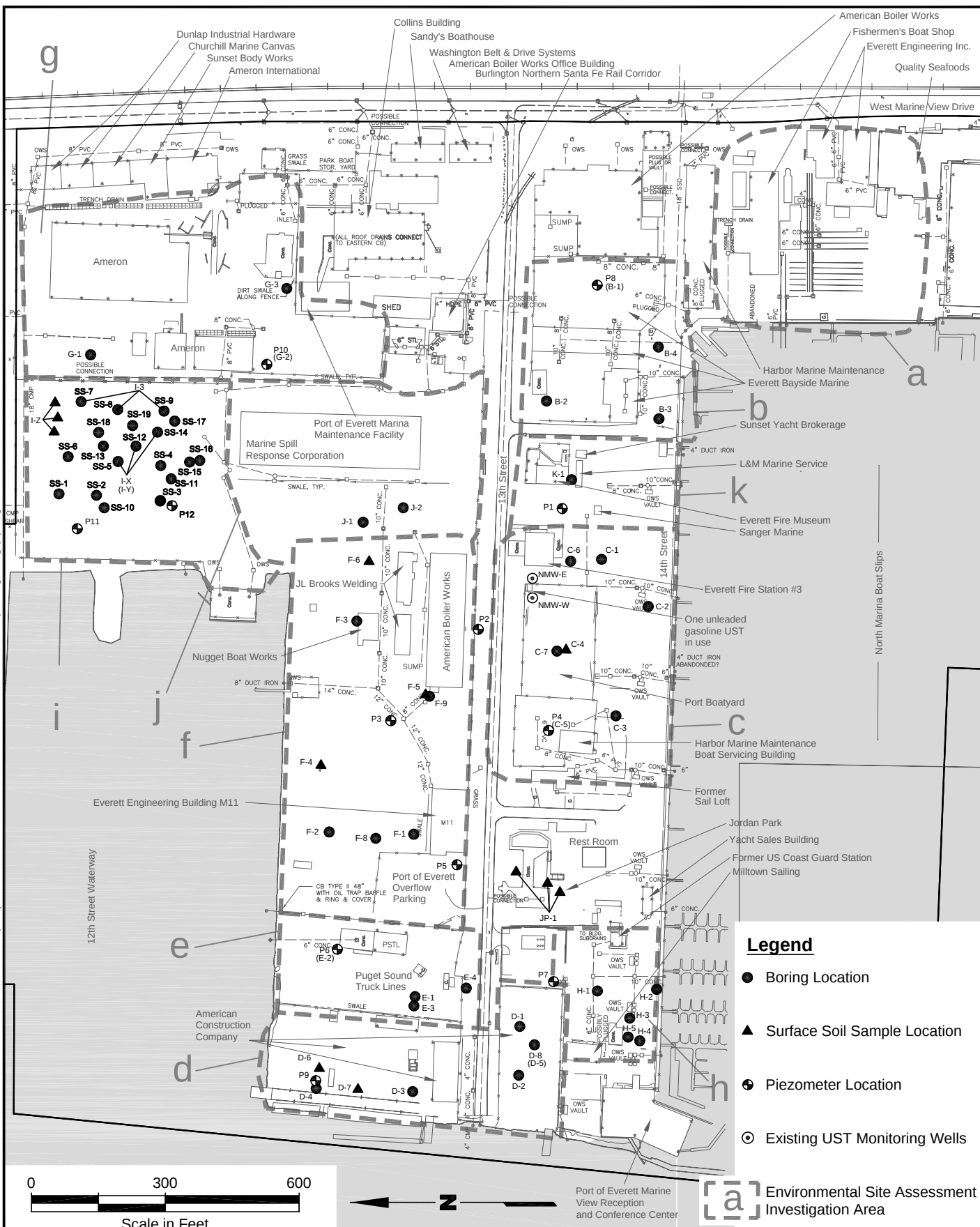
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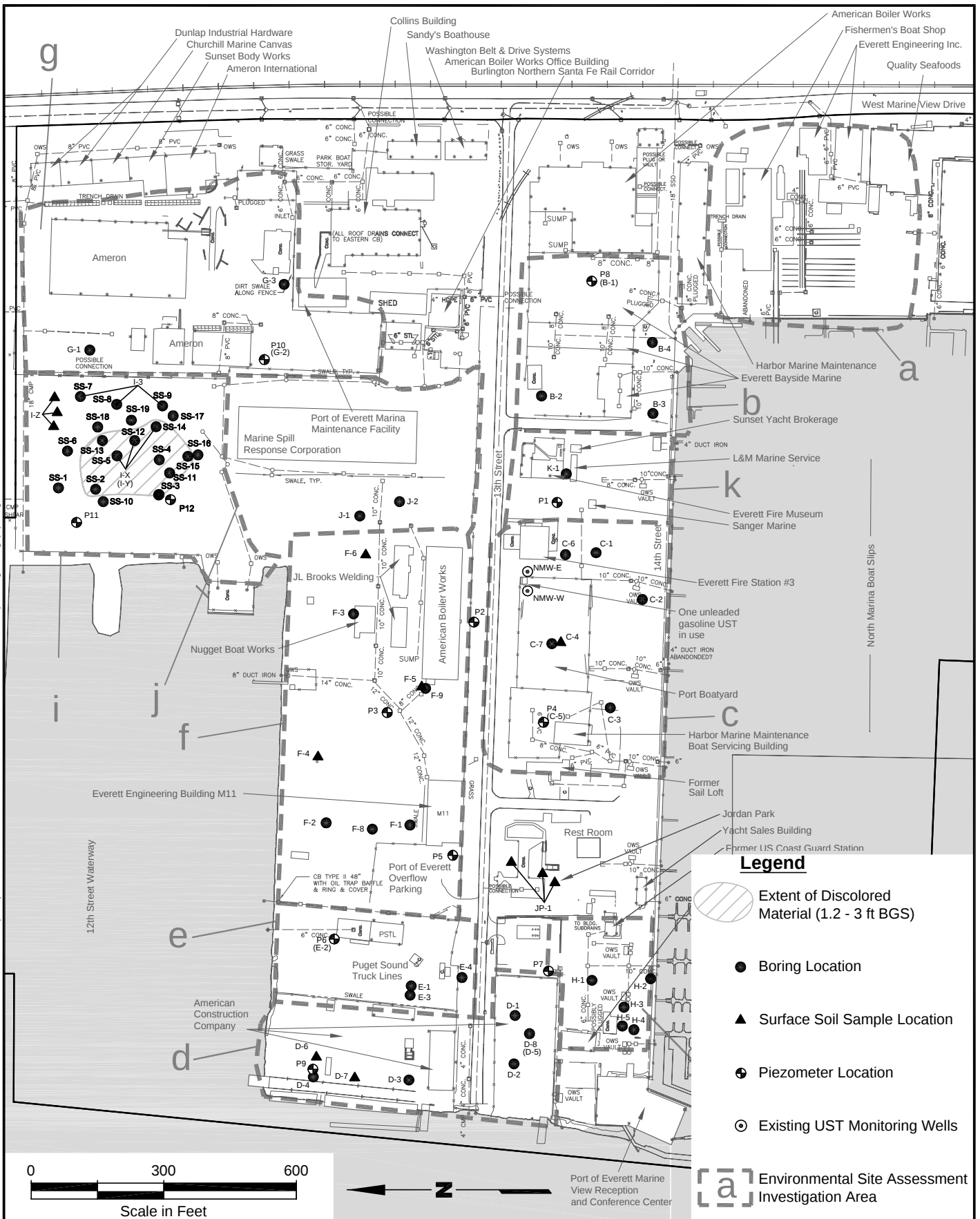


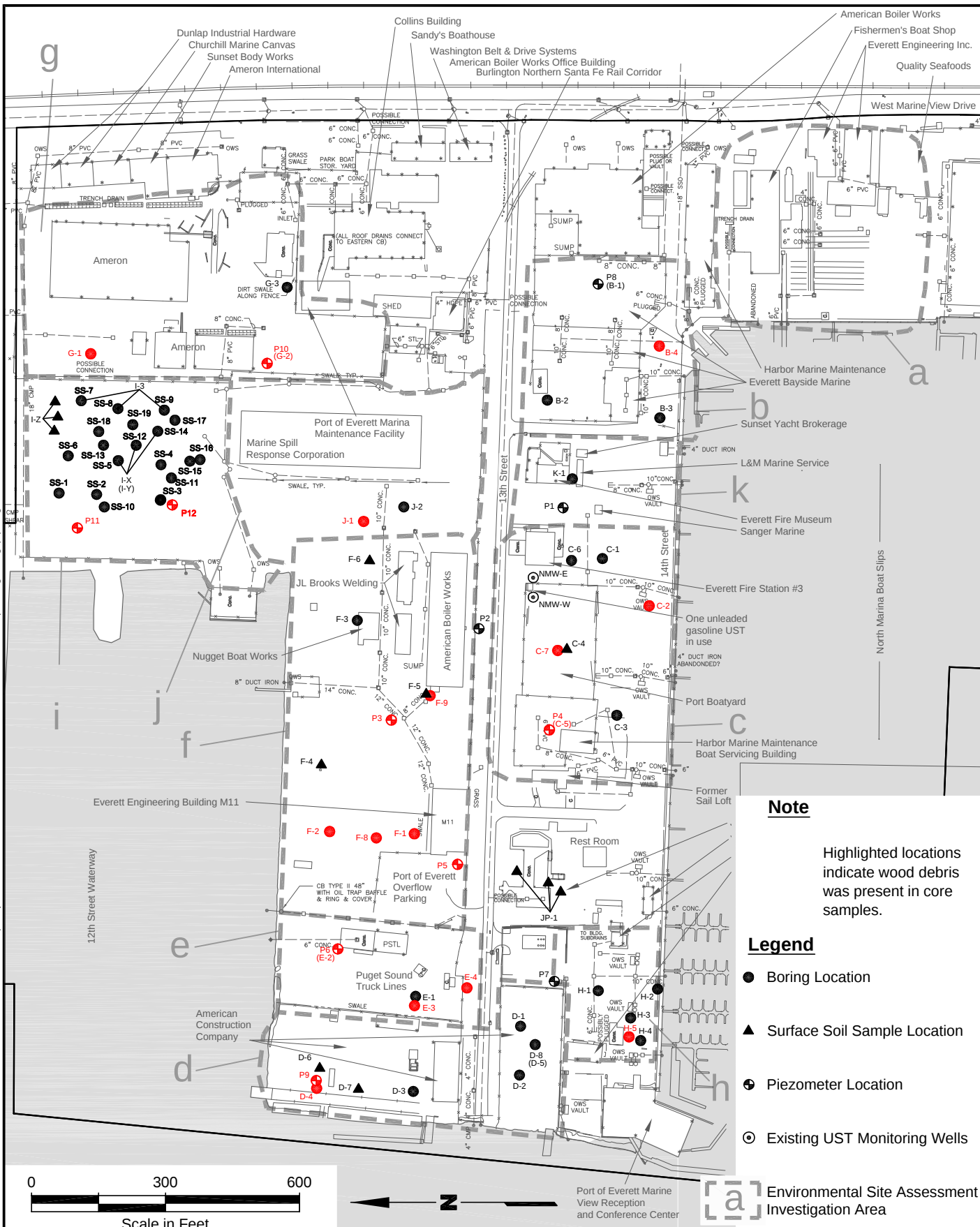
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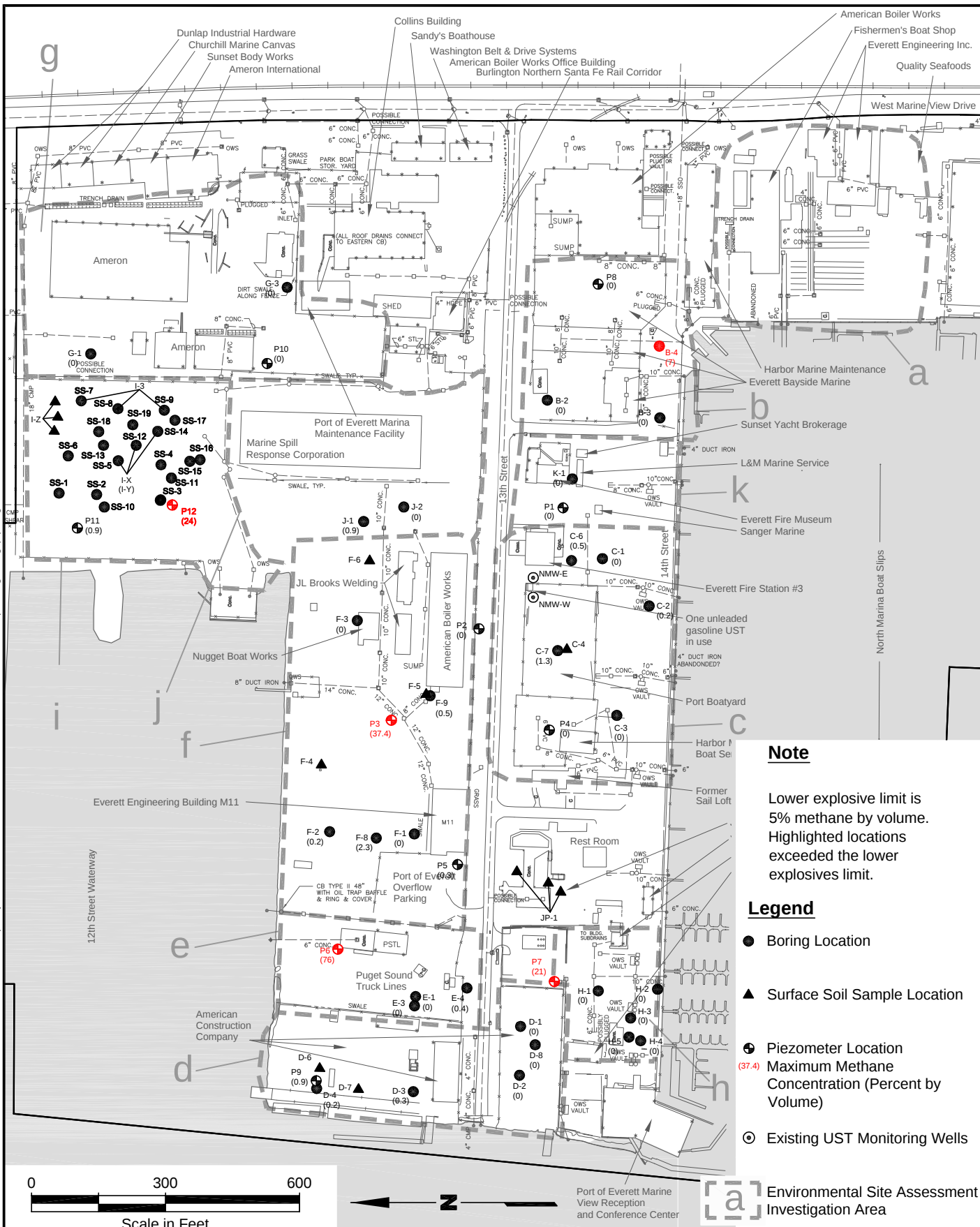




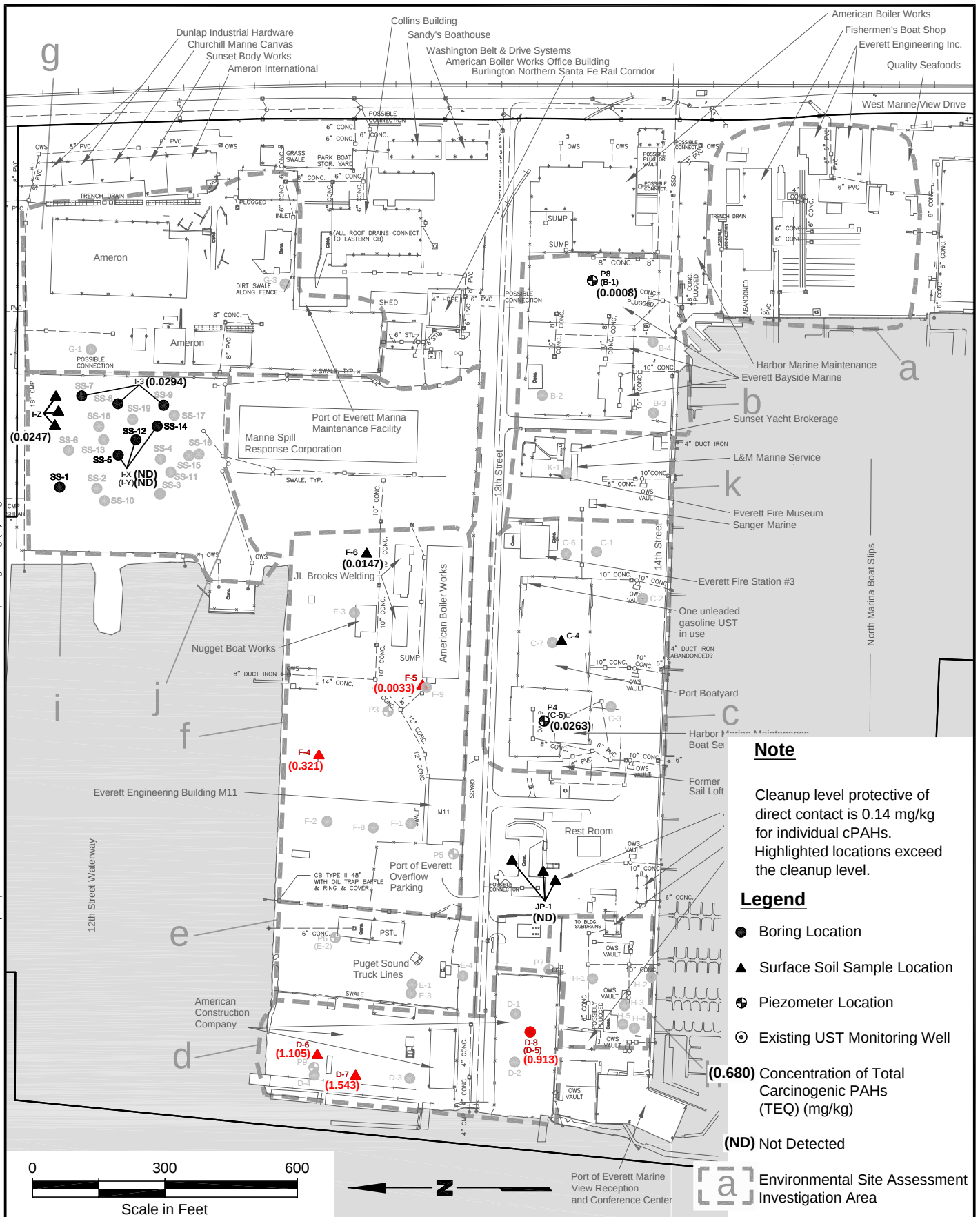


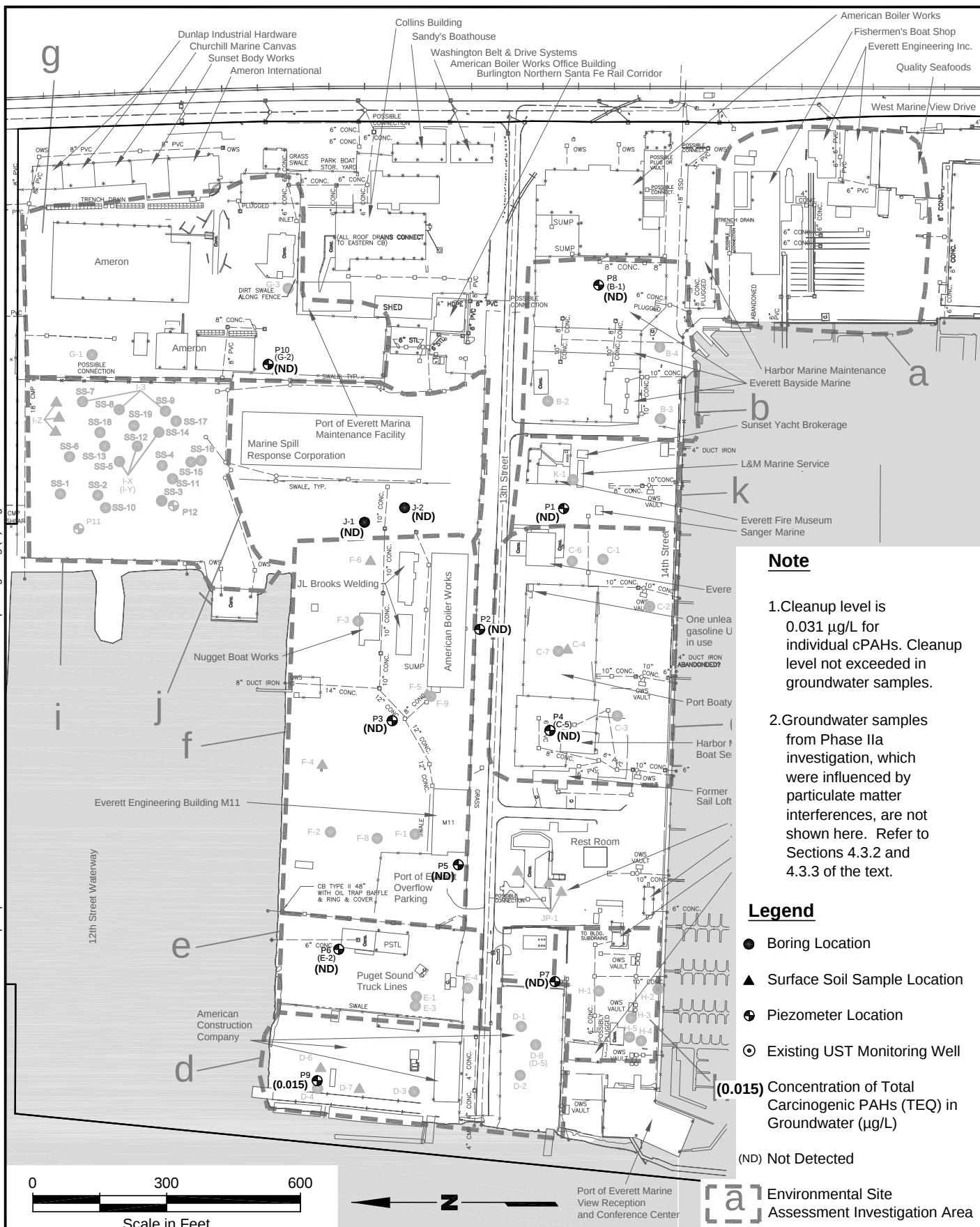


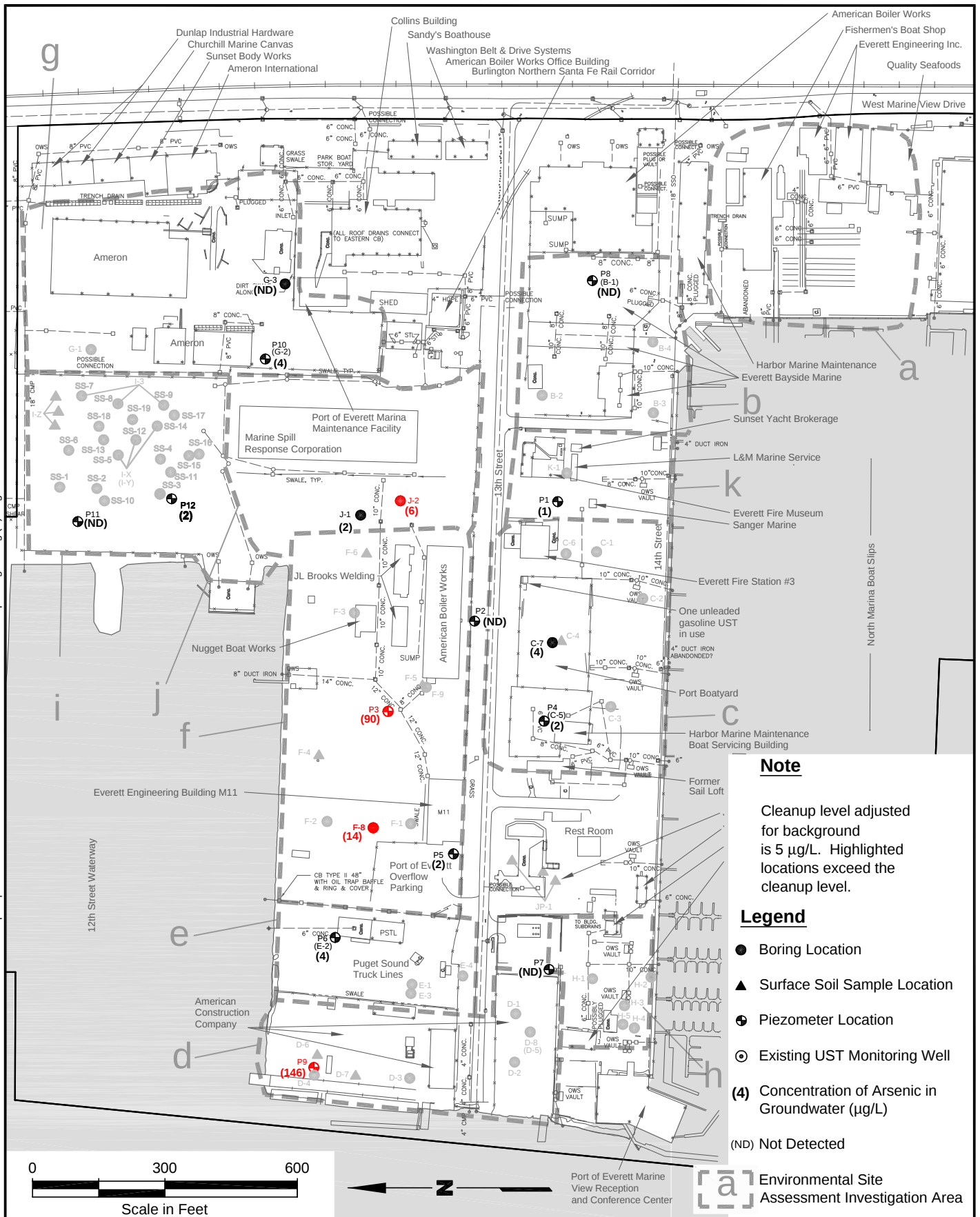












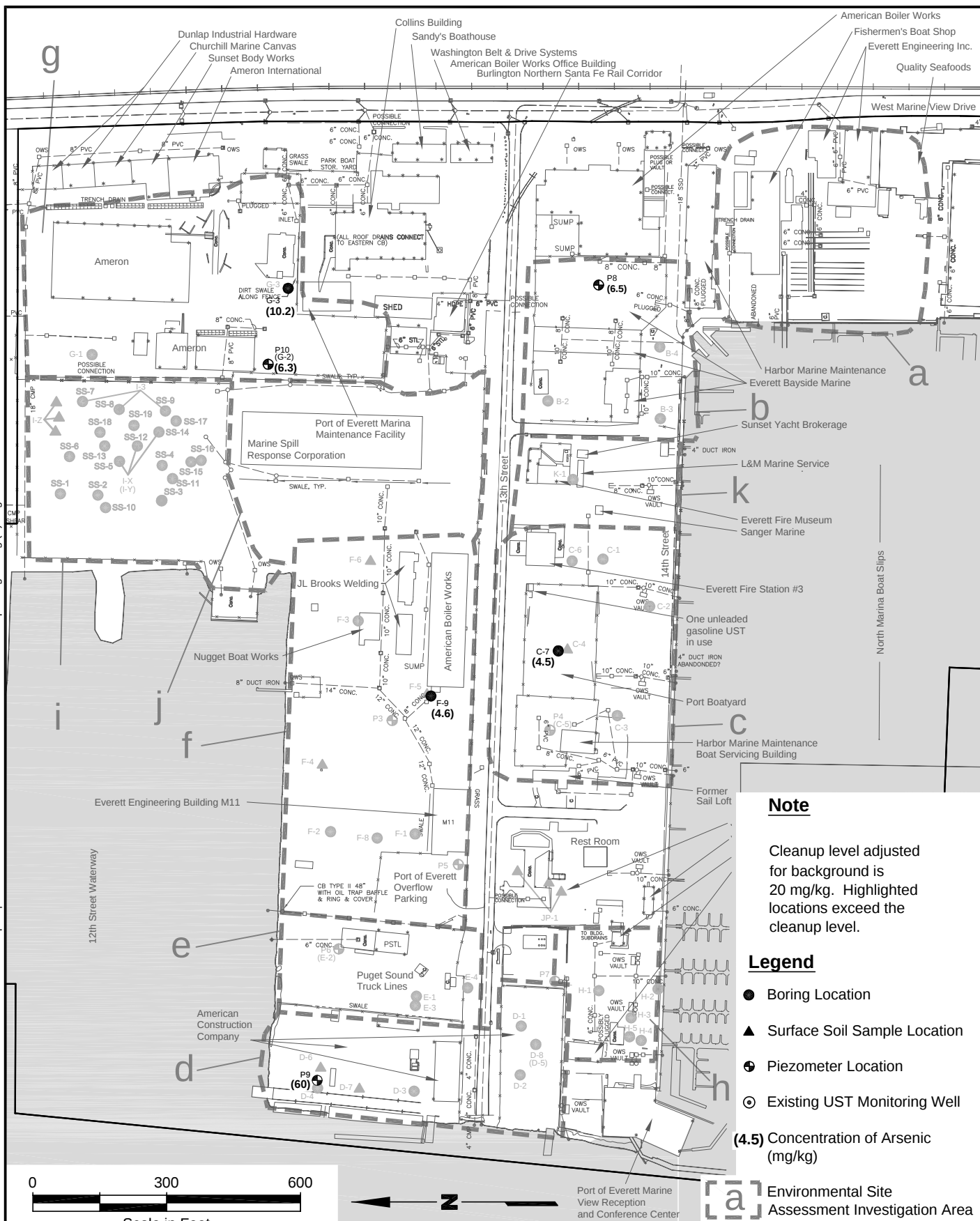


TABLE 1
SUMMARY OF SOIL AND GROUNDWATER SAMPLE LOCATIONS
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

Location ID	Location	Rationale for Sample Collection	Surface Conditions	Sample Types	Surface Soil Analyses	Subsurface Soil Analyses	Groundwater Analyses
NMP2-P1	Area k	Near railroad spur; Potential sitewide contamination	--	Groundwater	--	--	cPAHs, TPH-Dx, TPH-G, Metals (a), VOCs
NMP2-P2	Drainage Swale on southern margin of Area f	Near railroad spur; Potential sitewide contamination	--	Groundwater	--	--	cPAHs, TPH-Dx, TPH-G, Metals (a), VOCs
NMP2-P3	Center of Area f	Potential sitewide contamination	--	Groundwater	--	--	Metals (a), cPAHs, TPH-G
NMP2-P4	Western end of Area c	Near railroad spur; Potential sitewide contamination	--	Groundwater	--	--	cPAHs, TPH-Dx, TPH-G, Metals (a), VOCs
NMP2-P5	Area f	Near railroad spur; Potential sitewide contamination	--	Groundwater	--	--	cPAHs, TPH-Dx, TPH-G, Metals (a), VOCs
NMP2-P6	Area e	Potential sitewide contamination	--	Groundwater	--	--	Metals (a), cPAHs, TPH-G
NMP2-P7	Area h	Near railroad spur; Potential sitewide contamination	--	Groundwater	--	--	cPAHs, TPH-Dx, TPH-G, Metals (a), VOCs
NMP2-P8	Everett Bayside Marina; boat yard center; previously NMP2-B-1	General marine industrial property use	Gravel	Surface Soil, Subsurface Soil (3ft, 6ft archive), Groundwater	Metals (a), cPAHs	Metals (a), cPAHs	Metals (a), cPAHs, TPH-G
NMP2-P9	American Construction Property; South storage yard; near previous sample location NMP2-D-6	Potential general industrial sources of spills/releases of hazardous chemicals	Gravel	Subsurface Soil (3ft, 6ft archive), Groundwater	--	Metals (a), cPAHs	Metals (a), cPAHs

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Location ID	Location	Rationale for Sample Collection	Surface Conditions	Sample Types	Surface Soil Analyses	Subsurface Soil Analyses	Groundwater Analyses
NMP2-P10	Ameron (former Mill Site) south storage yard near previous sample location NMP2-G-2	UST removed (location unknown), multiple chemicals stored and used. West of patched asphalt	Asphalt	Subsurface Soil (3ft, 6ft archive), Groundwater	--	Metals (a), cPAHs, TPH-Dx, TPH-G, BTEX, PCB	Metals (a), cPAHs, TPH-G
NMP2-P11	Head of 12th Street waterway	Area used currently and historically for soil stockpiling downgradient from former saw mill	Gravel	Groundwater	--	--	SVOCs, TPH-Dx, TPH-G, Metals (a), VOCs
NMP2-P12	Head of 12th Street waterway	Area used currently and historically for soil stockpiling downgradient from former saw mill	Gravel	Groundwater	--	--	SVOCs, TPH-Dx, TPH-G, Metals (a), VOCs
NMP2-B-1	Everett Bayside Marina; middle of boat yard	Historical use of USTs, including 1 known LUST; Specific locations of USTs unknown	Asphalt	Groundwater	--	--	TPH-Dx, TPH-G
NMP2-B-2	Everett Bayside Marina; north of Bayside Marina	Historical use of USTs, including 1 known LUST; Specific locations of USTs unknown	Asphalt	Groundwater	--	--	TPH-Dx, TPH-G
NMP2-B-3	Everett Bayside Marina; south parking lot	Historical use of USTs, including 1 known LUST; Specific locations of USTs unknown	Asphalt	Groundwater	--	--	TPH-Dx, TPH-G
NMP2-B-4	Everett Bayside Marina; north of Bayside Marina	Downgradient of identified former UST	Asphalt	Subsurface Soil, Groundwater	--	Metals (b)	TPH-Dx, TPH-G, BTEX, Metals (b)
NMP2-C-1	Everett Fire Station #3; storage area south of fire station fence	Downgradient of former UST and current AST location	Asphalt	Groundwater	--	--	TPH-Dx, TPH-G

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NMP2-C-2	Port Boatyard; south parking lot	Downgradient of former UST location	Asphalt	Groundwater	--	--	TPH-Dx, TPH-G
NMP2-C-3	Harbor Marine Maintenance; storage area south of maintenance shed	Historical use of multiple chemical products; Downgradient of patched asphalt area	Asphalt	Groundwater	--	--	TPH-Dx, TPH-G, VOCs
NMP2-C-4	Port Boatyard; middle of boatyard, west of temporary maintenance shed	General marine industrial property use	Gravel	Surface Soil	Metals (a)	--	--
NMP2-C-5	Harbor Marine Maintenance; storage area north of maintenance shed	Historic use of multiple chemical products	Asphalt	Surface Soil	TPH-HCID, TPH-G, cPAHs	--	--
NMP2-C-6	Everett Fire Station #3	Downgradient of former UST and current AST	Asphalt	Groundwater	--	--	TPH-Dx, TPH-G, BTEX, Metals (b)
NMP2-C-7	Port Boatyard; middle of boatyard, west of temporary maintenance shed	General marine industrial property use	Asphalt	Core samples at 3ft and 6ft (hold the 6)	--	Metals (a), cPAHs	Metals (a)
NMP2-C-MW-E	Port Boatyard; Active UST western most observation well; South side of UST	Active UST	Protective surface vault	Groundwater	--	--	TPH-Dx, TPH-G, BTEX
NMP2-C-MW-W	Port Boatyard; Active UST western most observation well; South side of UST	Active UST	Protective surface vault	Groundwater	--	--	TPH-Dx, TPH-G, BTEX
NMP2-D-1	American Construction Company, east end of south storage yard	Potential sources of spills/releases of hazardous chemicals	Gravel	Groundwater	--	--	TPH-Dx, TPH-G, VOCs, cPAHs
NMP2-D-2	American Construction Company, west end of south storage yard	Potential sources of spills/releases of hazardous chemicals	Gravel	Groundwater	--	--	TPH-Dx, TPH-G, VOCs, cPAHs
NMP2-D-3	American Construction Company; north storage yard, west of ASTs	Downgradient of two current ASTs with staining	Gravel	Subsurface soil, Groundwater	--	cPAH, TPH-Dx	TPH-Dx, TPH-G, VOCs, cPAHs

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Location ID	Location	Rationale for Sample Collection	Surface Conditions	Sample Types	Surface Soil Analyses	Subsurface Soil Analyses	Groundwater Analyses
NMP2-D-4	American Construction Company north storage yard; north of creosote timbers	Potential sources of spills/releases of hazardous chemicals	Gravel	Subsurface soil, Groundwater	--	cPAH	TPH-Dx, TPH-G, VOCs, cPAHs
NMP2-D-5	American Construction Company; south storage yard	Potential sources of spills/releases of hazardous chemicals	Gravel	Surface Soil	TPH-HCID, cPAHs, Metals (a), PCBs	--	--
NMP2-D-6	American Construction Company north storage yard; sand blasting area	Potential sources of spills/releases of hazardous chemicals	Gravel	Surface Soil	TPH-HCID, cPAHs, Metals (a), PCBs	--	--
NMP2-D-7	American Construction Company north storage yard; east of creosote timbers	Potential sources of spills/releases of hazardous chemicals	Gravel	Surface Soil	TPH-HCID, cPAHs, Metals (a), PCBs	--	--
NMP2-D-8	American Construction Property; South storage yard; previous MP2-D-6 location	Potential sources of spills/releases of hazardous chemicals	Gravel	Core samples at 3 and 6 feet (hold the 6)	--	cPAHs	--
NMP2-E-1	Puget Sound Truck Lines; southwest end of parking lot	Former USTs were removed (poor documentation)	Asphalt	Groundwater	--	--	TPH-Dx, TPH-G
NMP2-E-2	Puget Sound Truck Lines; northwest corner of building	Staining on ground near former AST location	Asphalt	Groundwater (from finished piezometer NMP2-P6)	--	--	TPH-Dx, TPH-G
NMP2-E-3	Puget Sound Truck Lines; Southwest end of parking lot	Former USTs were more accurately located	Gravel	Groundwater	--	--	TPH-Dx, TPH-G, BTEX, Metals (b)
NMP2-E-4	Puget Sound Truck Lines (former Ethyl Corp.); South end of parking lot	Potential sources of spills/releases of hazardous chemicals from former tenant	Gravel	Groundwater	--	--	VOCs
NMP2F-1	Everett Engineering Building M11; north of building	Northwest of unidentified subsurface structure in Building M11	Gravel	Groundwater	--	--	TPH-G, TPH-Dx, VOCs, cPAHs
NMP2-F-2	Everett Engineering Building M11; north storage yard	AST soil staining, suspected USTs, and poor housekeeping	Gravel	Groundwater	--	--	TPH-G, TPH-Dx, VOCs, cPAHs

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Location ID	Location	Rationale for Sample Collection	Surface Conditions	Sample Types	Surface Soil Analyses	Subsurface Soil Analyses	Groundwater Analyses
NMP2-F-3	Nugget Boat Works; boat maintenance area	Downgradient of suspected UST at JL Brooks Welding Building M14	Gravel	Groundwater	--	--	TPH-G, TPH-Dx, VOCs, cPAHs
NMP2-F-4	Northeast of Everett Engineering Building M11; near water	General marine industrial property use	Gravel	Surface Soil	TPH-HCID, cPAHs, Metals (a)	--	--
NMP2-F-5	American Boiler Works Building; northwest corner of building	Soil staining	Gravel	Surface Soil	TPH-HCID, cPAHs, Metals (a), BTEX	--	--
NMP2-F-6	North of JL Brooks Welding; boat maintenance area	General marine industrial property use	Gravel	Surface Soil	TPH-HCID, cPAHs, Metals (a)	--	--
NMP2-F-7	Everett Engineering Building M11; subsurface structure	Unidentified structure considered to be a potential UST	Surface cover welded shut; concrete floor	Water	--	--	TPH-G; TPH-Dx; VOCs; cPAHs
NMP2-F-8	Everett Engineering Building M11; north storage yard	Observed sandblast grit	Gravel	Groundwater	--	--	Metals (a)
NMP2-F-9	American Boiler Works Building; northwest corner of building	Previous sample NMP2-F-5-ss showed high metals and cPAHs	Gravel	Groundwater	--	Metals (a), cPAHs	--
NMP2-G-1	Ameron; west of large industrial warehouse	UST removed (location unknown), multiple chemicals stored and used	Gravel	Groundwater	--	--	TPH-G, TPH-Dx, VOCs, cPAHs
NMP2-G-2	Ameron; south storage yard	UST removed (location unknown), multiple chemicals stored and used; West of patched asphalt	Asphalt	Groundwater	--	--	TPH-G, TPH-Dx, VOCs, cPAHs
NMP2-G-3	Ameron (former Mill Site) east corner of south storage yard	Previous Mill activities and Fire	Asphalt	Core samples at 3 and 6 feet (hold the 6)	--	Metals (a), cPAHs, TPH-Dx, TPH-G, BTEX, PCB	SVOCs, Metals (a), VOCs

TABLE 1
SUMMARY OF SOIL AND GROUNDWATER SAMPLE LOCATIONS
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

Location ID	Location	Rationale for Sample Collection	Surface Conditions	Sample Types	Surface Soil Analyses	Subsurface Soil Analyses	Groundwater Analyses
NMP2-H-1	Milltown Sailing; parking area	Petroleum hydrocarbon observed during replacement of marina fuel lines	Asphalt	Subsurface Soil, Groundwater	--	TPH-Dx, TPH-G	TPH-Dx, TPH-G
NMP2-H-2	Milltown Sailing; parking area	Petroleum hydrocarbon observed during replacement of marina fuel lines	Asphalt	Subsurface Soil; Groundwater	--	TPH-Dx, TPH-G	TPH-Dx, TPH-G
NMP2-H-3	Milltown Sailing; parking area	Petroleum hydrocarbon observed during replacement of marina fuel lines	Asphalt	Subsurface Soil, Groundwater	--	TPH-Dx, TPH-G	TPH-Dx, TPH-G
NMP2-H-4	Milltown Sailing; parking area	Petroleum hydrocarbon observed during removal of marina fuel UST and replacement of marina fuel lines	Asphalt	Subsurface Soil, Groundwater	--	TPH-Dx, TPH-G, Metals (b), BTEX	TPH-Dx, TPH-G, Metals (b), BTEX
NMP2-H-5	Milltown Sailing; parking area	Petroleum hydrocarbon observed during removal of marina fuel UST and replacement of marina fuel lines	Asphalt	Subsurface Soil, Groundwater	--	TPH-Dx, TPH-G, BTEX, Metals (b)	TPH-Dx, TPH-G, BTEX, Metals (b)
NMP2-I-X	Head of 12th Street waterway	Area of observed discolored soil	Gravel	Composite Surface Soil (2-3 ft BGS)	TPH-Dx, Metals (a), SVOCs, PCBs	--	--
NMP2-I-Y	Head of 12th Street waterway	Soil beneath area of observed discolored soil in sample NMP2-I-X	Gravel	Composite Surface Soil (4 ft BGS)	TPH-Dx, Metals (a), SVOCs, PCBs	--	--
NMP2-I-Z	Head of 12th Street waterway	Area used currently and historically for soil stockpiling	Gravel	Composite Stockpile Soil	TPH-Dx, Metals (a), cPAHs	--	--

TABLE 1
SUMMARY OF SOIL AND GROUNDWATER SAMPLE LOCATIONS
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

Location ID	Location	Rationale for Sample Collection	Surface Conditions	Sample Types	Surface Soil Analyses	Subsurface Soil Analyses	Groundwater Analyses
NMP2-I-3	Head of 12th Street waterway	Area used currently and historically for soil stockpiling	Gravel	Composite Stockpile Soil	TPH-Dx, Metals (a), cPAHs	--	--
NMP2-J-1	West of MSRC building, downgradient of 1993 bunker excavation	Voluntary cleanup excavation of waste disposal bunker, no groundwater samples collected	Gravel	Groundwater	--	--	SVOCs, TPH-Dx, TPH-G, Metals (a), VOCs
NMP2-J-2	West of MSRC building, downgradient of late 1980s UST removal	UST was originally used for fuel storage, and later used for waste oil disposal tank; potential for LUST; Unknown decommissioning	Gravel	Groundwater	--	--	SVOCs, TPH-Dx, TPH-G, Metals (a), VOCs
NMP2-JP-1	Jordan Park	Unidentified source of fill material for berm construction	Grass	Composite Surface Soil	TPH-HCID, cPAHs, Metals (a)	--	--
NMP2-K-1	South of Everett Fire Museum (former City Maintenance Shop)	Removed UST; possible LUST	Asphalt	Groundwater	--	--	SVOCs, TPH-Dx, TPH-G, Metals (b), VOCs

(a) Metals = arsenic, cadmium, chromium, copper, lead, mercury, silver, and zinc.

(b) Dissolved lead analysis only.

TABLE 2
EXTENT OF DISCOLORED MATERIAL
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

Location ID	Depth Interval ^a (ft BGS)	Thickness ^b (ft)
SS-2	1.3 - 2.2	0.9
SS-3	1.6 - 2.1	0.5
SS-4	1.3 - 2.6	1.3
SS-5	1.2 - 3.0	1.8
SS-11	1.7 - 2.3	0.6
SS-12	1.4 - 2.8	1.4
SS-13	2.1 - 2.9	0.8
SS-14	1.6 - 2.4	0.8
SS-15	1.9 - 2.1	0.2

Notes:

ft BGS = feet below ground surface

a. Depth interval at which discolored material was encountered in soil boring

b. Thickness of discolored material at respective location

TABLE 3
CONSTRUCTION GROUNDWATER LEVEL AND METHANE CONCENTRATION MONITORING
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

Date	Boring Location	Depth to Groundwater (ft BGS)	Methane (%CH ₄)	Depth to wood debris (a) interval(s) (ft BGS)
12/23/2003	NMP2-P1	4.08 (b)	0.0	NA
12/29/2003	NMP2-P2	2.25 (b)	0.0	NA
12/29/2003	NMP2-P3	4.21 (b)	3.0	2.5 - 4.0
12/29/2003	NMP2-P4	3.00 (b)	0.0	8.0 - 8.1, 8.5 - 8.6
12/29/2003	NMP2-P5	2.20 (b)	0.0	5.5 - 5.6
12/29/2003	NMP2-P6	4.20 (b)	0.0	NA
12/29/2003	NMP2-P7	3.99 (b)	0.0	NA
2/11/2004	NMP2-P8	3.95 (b)	0.0	NA
2/11/2004	NMP2-P9	4.25 (b)	0.9	8.0 (g)
2/11/2003	NMP2-P10	4.25 (b)	0.0	6.5 - 8.0
2/11/2004	NMP2-P11	5.65 (b)	0.9	3.0 - 13.0 (a)
2/11/2004	NMP2-P12	6.10	24.0	2.0 - 13.0 (a)
12/23/2003	NMP2-B-1	3.98	0.0	NA
12/23/2003	NMP2-B-2	3.85	0.0	NA
12/23/2003	NMP2-B-3	4.62	0.0	NA
2/11/2004	NMP2-B-4	5.05	7.0	3.0 - 4.0
12/23/2003	NMP2-C-1	4.05	0.0	NA
12/23/2003	NMP2-C-2	4.55	0.2	3.5 - 4.0
12/23/2003	NMP2-C-3	3.91	0.0	NA
2/12/2004	NMP2-C-6	3.61	0.5	NA
2/12/2004	NMP2-C-7	3.85	1.3	1.5 - 5.5 (d)
12/29/2003	NMP2-D-1	4.49	0.0	NA
12/29/2003	NMP2-D-2	4.76	0.0	NA
12/29/2003	NMP2-D-3	4.85	0.3	NA
12/29/2003	NMP2-D-4	5.15	0.2	5.0 - 8.0 (d)
2/11/2004	NMP2-D-8	5.02	0.0	NA
12/22/2003	NMP2-E-1	3.57	0.0	NA
2/12/2004	NMP2-E-3	3.78	0.0	3.0 - 8.0 (e)
2/12/2004	NMP2-E-4	4.15	0.4	6.25 - 6.5, 7.0 - 7.25, 7.5 - 7.75
12/22/2003	NMP2-F-1	3.76	0.0	1-3.5 (f)
12/22/2003	NMP2-F-2	6.53	0.2	3.0-6.0
12/22/2003	NMP2-F-3	3.28	0.0	NA
2/12/2004	NMP2-F-8	5.20	2.3	3.7 - 4.0
2/12/2004	NMP2-F-9	3.25	0.5	1.5 - 2.0, 6.0 - 7.0 (d)
12/22/2003	NMP2-G-1	4.03	0.0	7.0 - 7.2
12/22/2003	NMP2-G-2	3.95	0.0	7.5 - 8.0 (g)
2/11/2004	NMP2-G-3	5.50	0.0	NA
12/23/2003	NMP2-H-1	4.67	0.0	NA
12/23/2003	NMP2-H-2	4.99	0.0	NA
12/22/2003	NMP2-H-3	5.37	0.0	NA
2/11/2004	NMP2-H-4	6.50	0.0	NA
2/11/2004	NMP2-H-5	4.25	0.0	0.0 - 1.5 (d)
2/11/2004	NMP2-J-1	3.89	0.9	1.5 -1.8
2/12/2004	NMP2-J-2	3.75	0.0	NA
2/12/2004	NMP2-K-1	4.51	0.0	NA

ft BGS = Feet below ground surface.

NA = Wood debris not encountered during boring installation.

- a. Wood debris characterized by 1 to 2-inch diameter wood fragments unless otherwise noted.
- b. Depth to water was measured from top of piezometer casings, which are less than 4 inches below ground surface.
- c. Hit refusal at 8.0 feet. Wood chip in cutting shoe.
- d. Small fragments of wood intermixed with soil.
- e. Intermittent wood debris.
- f. No recovery from 5.0-8.0' BGS. However cutting shoe contained wood debris blockage. Also, little resistance to drilling was observed in the 5.0-8.0' BGS interval, suggesting that this interval may consist primarily of decomposed wood debris.
- g. Black wood debris (no odor).

Note: The lower explosive limit is equivalent to 5 percent methane, by volume.

TABLE 4
POST-CONSTRUCTION GROUNDWATER LEVEL MEASUREMENTS
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

Date	NMP2-P1	NMP2-P2	NMP2-P3	NMP2-P4	NMP2-P5	NMP2-P6	NMP2-P7
1/5/2004	4.59	2.34	4.71	3.22	2.95	4.25	4.32

Note: Depth to groundwater reported as feet below top of piezometer casing. Top of casing positioned less than 4 inches below ground surface.

TABLE 5
POST-CONSTRUCTION METHANE CONCENTRATION MONITORING
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

Date	NMP2-P1	NMP2-P2	NMP2-P3	NMP2-P4	NMP2-P5	NMP2-P6	NMP2-P7
1/5/2004	0	0	37.4	0	0.2	76	16
1/27/2004	0	0	5.2	0	0.3	66	21

Note: Methane measurements reported as percent by volume methane. The lower explosive limit (LEL = 100%) is equivalent to 5 percent by volume methane.

TABLE 6
SUMMARY OF SOIL SAMPLE ANALYSES
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

Sample Number	Round	Metals (a)	cPAHs (b)	SVOCs (c)	TPH (d)	BTEX (e)	PCBs (f)
NMP2-B-4-CS	2	Lead					
NMP2-C-4-SS	1	X					
NMP2-C-5-SS	1		X		X		
NMP2-C-7-CS-3	2	X	X				
NMP2-D-3-CS	1		X		X		
NMP2-D-4-CS	1		X				
NMP2-D-5-SS	1	X	X		X		X
NMP2-D-6-SS	1	X	X		X		X
NMP2-D-7-SS	1	X	X		X		X
NMP2-D-8-CS-3	2		X				
NMP2-F-4-SS	1	X	X		X		
NMP2-F-5-SS	1	X	X		X	X	
NMP2-F-6-SS	1	X	X		X		
NMP2-F-9-CS-3	2	X	X				
NMP2-G-3-CS-3	2	X	X		X	X	X
NMP2-H-1-CS	1				X		
NMP2-H-2-CS	1				X		
NMP2-H-3-CS	1				X		
NMP2-H-4-CS	2	Lead			X	X	
NMP2-H-5-CS	2	Lead			X	X	
NMP2-I-3-SS	2	X	X		X		
NMP2-I-X-SS	2	X		X	X		X
NMP2-I-Y-SS	2	X		X	X		X
NMP2-I-Z-SS	2	X	X		X		
NMP2-JP-1-SS	1	X	X		X		
NMP2-PZ-8-CS-3	2	X	X				
NMP2-PZ-8-SS	2	X	X				
NMP2-PZ-9-CS-3	2	X	X				
NMP2-PZ-9-CS-6	2	X					
NMP2-PZ-10-CS-3	2	X	X		X	X	X

- (a) Metals include As, Cd, Cr, Cu, Pb, Hg, Ag, Zn analyzed by EPA Method series 6000/7000, unless otherwise noted
(b) cPAHs analyzed using EPA Method 8270-SIM after being centrifuged by the lab
(c) SVOCs analyzed using EPA Method 8270.
(d) TPH analyzed using methods NWTPH-Dx (with acid/silica gel cleanup) and NWTPH-G.
(e) BTEX analyzed using EPA Method 8260.
(f) PCBs analyzed using EPA Method 8082.

TABLE 7
SUMMARY OF GROUNDWATER SAMPLE ANALYSES
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

Sample Number	Round	Dissolved Metals (a)	cPAHs (b)	SVOCs (c)	TPH (d)	BTEX (e)	VOCs (f)	Notes
NMP2-B-1-GW	1				X			
NMP2-B-2-GW	1				X			
NMP2-B-3-GW	1				X			
NMP2-B-4-GW	2	Lead			X	X		
NMP2-C-1-GW	1				X			
NMP2-C-2-GW	1				X			
NMP2-C-3-GW	1				X		X	
NMP2-C-8-GW	1				X			Duplicate of NMP2-C-3-GW
NMP2-C-6-GW	2	Lead			X	X		
NMP2-C-7-GW	2	X						
NMP2-D-1-GW	1		X		X		X	
NMP2-D-2-GW	1		X		X		X	
NMP2-D-3-GW	1		X		X		X	
NMP2-D-4-GW	1		X		X		X	
NMP2-E-1-GW	1				X			
NMP2-E-2-GW	1				X			Collected from NMP2-P6
NMP2-E-3-GW	2	Lead			X	X		
NMP2-E-4-GW	2						X	
NMP2-F-1-GW	1		X		X		X	
NMP2-F-2-GW	1		X		X		X	
NMP2-F-3-GW	1		X		X		X	
NMP2-F-8-GW	2	X						
NMP2-G-1-GW	1		X		X		X	
NMP2-G-2-GW	1		X		X		X	
NMP2-G-3-GW	2	X		X			X	
NMP2-H-1-GW	1				X			
NMP2-H-2-GW	1				X			
NMP2-H-3-GW	1				X			
NMP2-H-4-GW	2	Lead			X	X		
NMP2-H-5-GW	2	Lead			X	X		
NMP2-J-1-GW	2	X		X	X		X	
NMP2-J-2-GW	2	X		X	X		X	
NMP2-K-1-GW	2	Lead		X	X		X	
NMP2-P2-1-GW	1				X			Collected from NMP2-P1
NMP2-P1	2	X	X		X		X	
NMP2-P2	2	X	X		X		X	
NMP2-P3	2	X	X		Gasoline			
NMP2-P4	2	X	X		X		X	
NMP2-P5	2	X	X		X		X	
NMP2-P50	2	X	X		X		X	Duplicate of NMP2-P5
NMP2-P6	2	X	X		Gasoline			
NMP2-P7	2	X	X		X		X	
NMP2-P8	2	X	X		Gasoline			
NMP2-P9	2	X	X					
NMP2-P10	2	X	X		Gasoline			
NMP2-P11	2	X		X	X		X	
NMP2-P12	2	X		X	X		X	
NMW-E	2				X	X		Sample near boatyard UST
NMW-W	2				X	X		Sample near boatyard UST

(a) Dissolved metals include As, Cd, Cr, Cu, Pb, Hg, Ag, Zn analyzed by EPA Method series 6000/7000 unless otherwise indicated. Sample portions for metals analysis were field filtered.

(b) Samples collected during Phase 2 were centrifuged by the lab to minimize particulate matter interferences. cPAHs analyzed by EPA Method 8270-SIM

(c) SVOCs analyzed by EPA Method 8270.

(d) TPH were analyzed using methods NWTPH-Dx (with acid/silica gel cleanup) and NWTPH-G unless otherwise indicated.

(e) BTEX analyzed by EPA Method 8260.

(f) VOCs analyzed by EPA Method 8260.

TABLE 8
SOIL ANALYTICAL RESULTS - DETECTED ANALYTES SUMMARY
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

	MTCA Method B		Background Soil Concentration (a)	NMP2-B-4-CS GI08D 2/11/2004	NMP2-C-4-SS GE76J 12/30/2003	NMP2-C-5-SS GE76A 12/29/2003	NMP2-C-7-CS-3 GI08E 2/12/2004	NMP2-D-3-CS GM39A 12/29/2003	NMP2-D-4-CS GM39B 12/29/2003	NMP2-D-5-SS GE76G 12/30/2003
	Protection of GW Cleanup Level	Direct Contact Cleanup Level								
HYDROCARBONS (mg/kg)										
NWTPHD-HCID										
Gas Range	100 (b)			NA	NA	27 U	NA	NA	NA	27 U
Diesel Range	2000 (b)			NA	NA	50 U	NA	NA	NA	50 U
Oil Range	2000 (b)			NA	NA	100 U	NA	NA	NA	100 U
Si/Acid Cleaned NWTPHD										
Diesel	2000 (b)			NA	NA	NA	NA	990 J	69 J	NA
Motor Oil	2000 (b)			NA	NA	NA	NA	9500 J	48 J	NA
NWTPH-g										
Gasoline	100 (b)			NA	NA	5.3 U	NA	NA	NA	NA
TOTAL METALS (mg/kg)										
SW6000-7000 series										
Arsenic	0.082	0.670	20 (d)	NA	21	NA	4.5	NA	NA	4.9
Barium				NA	NA	NA	NA	NA	NA	NA
Cadmium	5.6	80	1	NA	2 U	NA	0.2 U	NA	NA	0.5 U
Chromium (c)	8,800,000,000	120,000	48	NA	54	NA	27.2	NA	NA	51
Copper	1.4	3000	36	NA	11900	NA	17.0	NA	NA	43.7
Lead	1600		24	9	3080	NA	4	NA	NA	14
Mercury	0.026	24	0.07	NA	1.20	NA	0.04 U	NA	NA	0.08
Selenium	7.4	400		NA	NA	NA	NA	NA	NA	NA
Silver	0.32	400		NA	3 U	NA	0.3 U	NA	NA	0.8 U
Zinc	100	24000	85	NA	827	NA	40.1	NA	NA	74
PCBs (µg/kg)										
SW8082										
Aroclor 1016	0.0007	5600		NA	NA	NA	NA	NA	NA	36 U
Aroclor 1242				NA	NA	NA	NA	NA	NA	36 U
Aroclor 1248				NA	NA	NA	NA	NA	NA	36 U
Aroclor 1254	0.33	1600		NA	NA	NA	NA	NA	NA	36 U
Aroclor 1260	0.0007			NA	NA	NA	NA	NA	NA	36 U
Aroclor 1221				NA	NA	NA	NA	NA	NA	73 U
Aroclor 1232				NA	NA	NA	NA	NA	NA	36 U
Total PCBs		0.1 (b)		NA	NA	NA	NA	NA	NA	ND

TABLE 8
SOIL ANALYTICAL RESULTS - DETECTED ANALYTES SUMMARY
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

	MTCA Method B		Background Soil Concentration (a)	NMP2-B-4-CS	NMP2-C-4-SS	NMP2-C-5-SS	NMP2-C-7-CS-3	NMP2-D-3-CS	NMP2-D-4-CS	NMP2-D-5-SS
	Protection of GW	Direct Contact		GI08D	GE76J	GE76A	GI08E	GM39A	GM39B	GE76G
	Cleanup Level	Cleanup Level		2/11/2004	12/30/2003	12/29/2003	2/12/2004	12/29/2003	12/29/2003	12/30/2003
cPAHs (µg/kg)										
SW8270C-SIM										
Benzo(a)anthracene	220	140		NA	NA	7.2 U	29	200 J	3900 J	680
Chrysene	250	140		NA	NA	31	48	370 J	3200 J	1300
Benzo(b)fluoranthene	760	140		NA	NA	15	26	340 J	1700 J	1100
Benzo(k)fluoranthene	760	140		NA	NA	15	27	340 J	1200 J	750
Benzo(a)pyrene	600	140		NA	NA	23	28	220 J	1300 J	590
Indeno(1,2,3-cd)pyrene	2,200	140		NA	NA	7.2 U	18	120 J	260 J	230
Dibenz(a,h)anthracene	1,100	140		NA	NA	7.2 U	7.6 U	87 UJ	210 J	84
cPAH TEQ		0.1 (b)		NA	NA	26.3	38.5	324 J	2122 J	913
SEMIVOLATILES (µg/kg)										
SW8270C										
Naphthalene	140000	1600000		NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene				NA	NA	NA	NA	NA	NA	NA
Phenanthrene				NA	NA	NA	NA	NA	NA	NA
Pyrene	3500000	2400000		NA	NA	NA	NA	NA	NA	NA

TABLE 8
SOIL ANALYTICAL RESULTS - DETECTED ANALYTES SUMMARY
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

	MTCA Method B		Background Soil Concentration (a)	NMP2-D-6-SS GE76H 12/30/2003	NMP2-D-7-SS GE76I 12/30/2003	NMP2-D-8-CS-3 GI08G 2/11/2004	NMP2-F-4-SS GE76E 12/30/2003	NMP2-F-5-SS GE76D 12/30/2003	NMP2-F-6-SS GE76F 12/30/2003	NMP2-F-9-CS-3 GI08K 2/12/2004	NMP2-G-3-CS-3 GI08M 2/11/2004
	Protection of GW Cleanup Level	Direct Contact Cleanup Level									
HYDROCARBONS (mg/kg)											
NWTPHD-HCID											
Gas Range	100 (b)			26 U	27 U	NA	30 U	61	26 U	NA	NA
Diesel Range	2000 (b)			76	78	NA	50 U	280	50 U	NA	NA
Oil Range	2000 (b)			110	100 U	NA	100 U	630	100 U	NA	NA
Si/Acid Cleaned NWTPHD											
Diesel	2000 (b)			NA	NA	NA	NA	NA	NA	NA	13
Motor Oil	2000 (b)			NA	NA	NA	NA	NA	NA	NA	62
NWTPH-g											
Gasoline	100 (b)			NA	NA	NA	NA	NA	NA	NA	6.7 UJ
TOTAL METALS (mg/kg)											
SW6000-7000 series											
Arsenic	0.082	0.670	20 (d)	20	42	NA	57	53	14.5	4.6	10.2
Barium				NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5.6	80	1	0.5 U	0.5 U	NA	0.9	2.1	0.7	0.2 U	25.2
Chromium (c)	8,800,000,000	120,000	48	61	26	NA	54.6	71	29.5	24.0	63.6
Copper	1.4	3000	36	42.2	45.5	NA	190	1190 J	1120	13.6	60.0
Lead	1600		24	8	13	NA	115	241	43	3	49
Mercury	0.026	24	0.07	0.05 U	0.04 U	NA	0.11	1.03	0.73	0.05 U	0.37
Selenium	7.4	400		NA	NA	NA	NA	NA	NA	NA	NA
Silver	0.32	400		0.8 U	0.7 U	NA	0.4 U	1 U	0.3 U	0.3 U	0.4 U
Zinc	100	24000	85	81	89	NA	810	1790	376	38.0	130
PCBs (µg/kg)											
SW8082											
Aroclor 1016	0.0007	5600		35 U	36 U	NA	NA	NA	NA	NA	47 U
Aroclor 1242				35 U	36 U	NA	NA	NA	NA	NA	47 U
Aroclor 1248				35 U	36 U	NA	NA	NA	NA	NA	47 U
Aroclor 1254	0.33	1600		35 U	36 U	NA	NA	NA	NA	NA	110
Aroclor 1260	0.0007			35 U	36 U	NA	NA	NA	NA	NA	94 U
Aroclor 1221				70 U	71 U	NA	NA	NA	NA	NA	47 U
Aroclor 1232				35 U	36 U	NA	NA	NA	NA	NA	47 U
Total PCBs		0.1 (b)		ND	ND	NA	NA	NA	NA	NA	110

TABLE 8
SOIL ANALYTICAL RESULTS - DETECTED ANALYTES SUMMARY
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

	MTCA Method B		Background Soil Concentration (a)	NMP2-D-6-SS	NMP2-D-7-SS	NMP2-D-8-CS-3	NMP2-F-4-SS	NMP2-F-5-SS	NMP2-F-6-SS	NMP2-F-9-CS-3	NMP2-G-3-CS-3
	Protection of GW	Direct Contact		GE76H	GE76I	GI08G	GE76E	GE76D	GE76F	GI08K	GI08M
	Cleanup Level	Cleanup Level		12/30/2003	12/30/2003	2/11/2004	12/30/2003	12/30/2003	12/30/2003	2/12/2004	2/11/2004
cPAHs (µg/kg)											
SW8270C-SIM											
Benzo(a)anthracene	220	140		810	1600	7.2 U	210	82 J	12	7.7 U	51
Chrysene	250	140		1100	3400	7.2 U	260	140 J	25	7.7 U	71
Benzo(b)fluoranthene	760	140		980	1900	7.2 U	270	120 J	24	7.7 U	63
Benzo(k)fluoranthene	760	140		770	1200	7.2 U	210	77 J	17	7.7 U	52
Benzo(a)pyrene	600	140		760	950	7.2 U	220	87 J	9.1	7.7 U	47
Indeno(1,2,3-cd)pyrene	2,200	140		300	370	7.2 U	110	51 UJ	7.0 U	7.7 U	32
Dibenz(a,h)anthracene	1,100	140		120	130	7.2 U	45	51 UJ	7.0 U	7.7 U	9.5 U
cPAH TEQ		0.1 (b)		1105	1543	ND	321	1.4 J	14.7	ND	67.5
SEMIVOLATILES (µg/kg)											
SW8270C											
Naphthalene	140000	1600000		NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene				NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene				NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	3500000	2400000		NA	NA	NA	NA	NA	NA	NA	NA

TABLE 8
SOIL ANALYTICAL RESULTS - DETECTED ANALYTES SUMMARY
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

	MTCA Method B		Background Soil Concentration (a)	NMP2-H-1-CS	NMP2-H-2-CS	NMP2-H-3-CS	NMP2-H-4-CS	NMP2-H-5-CS	NMP2-I-3-SS	NMP2-I-X-SS
	Protection of GW	Direct Contact		GE49B	GE49C	GE49A	GI08Q	GI08R	GI08S	GI08T
	Cleanup Level	Cleanup Level		12/23/2003	12/23/2003	12/22/2003	2/11/2004	2/11/2004	2/12/2004	2/12/2004
HYDROCARBONS (mg/kg)										
NWTPHD-HCID										
Gas Range	100 (b)			NA	NA	NA	NA	NA	NA	NA
Diesel Range	2000 (b)			NA	NA	NA	NA	NA	NA	NA
Oil Range	2000 (b)			NA	NA	NA	NA	NA	NA	NA
Si/Acid Cleaned NWTPHD										
Diesel	2000 (b)			5.0 U	5.0 U	5.0 U	17	5.0 U	19	940
Motor Oil	2000 (b)			10 U	12	10 U	140	10 U	34	150
NWTPH-g										
Gasoline	100 (b)			7.2 UJ	5.9 U	6.6 UJ	5.9 UJ	6.6 UJ	NA	NA
TOTAL METALS (mg/kg)										
SW6000-7000 series										
Arsenic	0.082	0.670	20 (d)	NA	NA	NA	NA	NA	6.2	60
Barium				NA	NA	NA	NA	NA	NA	76.1
Cadmium	5.6	80	1	NA	NA	NA	NA	NA	0.2 U	0.4
Chromium (c)	8,800,000,000	120,000	48	NA	NA	NA	NA	NA	32.7	41.4
Copper	1.4	3000	36	NA	NA	NA	NA	NA	21.1	NA
Lead	1600		24	NA	NA	NA	6	5	6	41
Mercury	0.026	24	0.07	NA	NA	NA	NA	NA	0.06	0.07 U
Selenium	7.4	400		NA	NA	NA	NA	NA	NA	9 U
Silver	0.32	400		NA	NA	NA	NA	NA	0.4 U	0.5 U
Zinc	100	24000	85	NA	NA	NA	NA	NA	44.3	NA
PCBs (µg/kg)										
SW8082										
Aroclor 1016	0.0007	5600		NA	NA	NA	NA	NA	NA	67 U
Aroclor 1242				NA	NA	NA	NA	NA	NA	67 U
Aroclor 1248				NA	NA	NA	NA	NA	NA	67 U
Aroclor 1254	0.33	1600		NA	NA	NA	NA	NA	NA	67 U
Aroclor 1260	0.0007			NA	NA	NA	NA	NA	NA	67 U
Aroclor 1221				NA	NA	NA	NA	NA	NA	67 U
Aroclor 1232				NA	NA	NA	NA	NA	NA	67 U
Total PCBs		0.1 (b)		NA	NA	NA	NA	NA	NA	ND

TABLE 8
SOIL ANALYTICAL RESULTS - DETECTED ANALYTES SUMMARY
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

	MTCA Method B		Background Soil Concentration (a)	NMP2-H-1-CS	NMP2-H-2-CS	NMP2-H-3-CS	NMP2-H-4-CS	NMP2-H-5-CS	NMP2-I-3-SS	NMP2-I-X-SS
	Protection of GW	Direct Contact		GE49B	GE49C	GE49A	GI08Q	GI08R	GI08S	GI08T
	Cleanup Level	Cleanup Level		12/23/2003	12/23/2003	12/22/2003	2/11/2004	2/11/2004	2/12/2004	2/12/2004
cPAHs (µg/kg)										
SW8270C-SIM										
Benzo(a)anthracene	220	140		NA	NA	NA	NA	NA	19	NA
Chrysene	250	140		NA	NA	NA	NA	NA	40	NA
Benzo(b)fluoranthene	760	140		NA	NA	NA	NA	NA	40	NA
Benzo(k)fluoranthene	760	140		NA	NA	NA	NA	NA	28	NA
Benzo(a)pyrene	600	140		NA	NA	NA	NA	NA	19	NA
Indeno(1,2,3-cd)pyrene	2,200	140		NA	NA	NA	NA	NA	13	NA
Dibenz(a,h)anthracene	1,100	140		NA	NA	NA	NA	NA	8.4 U	NA
cPAH TEQ		0.1 (b)		NA	NA	NA	NA	NA	29.4	NA
SEMIVOLATILES (µg/kg)										
SW8270C										
Naphthalene	140000	1600000		NA	NA	NA	NA	NA	NA	240
2-Methylnaphthalene				NA	NA	NA	NA	NA	NA	2400
Phenanthrene				NA	NA	NA	NA	NA	NA	1200
Pyrene	3500000	2400000		NA	NA	NA	NA	NA	NA	160

TABLE 8
SOIL ANALYTICAL RESULTS - DETECTED ANALYTES SUMMARY
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

	MTCA Method B		Background Soil Concentration (a)	NMP2-I-Y-SS	NMP2-I-Z-SS	NMP2-JP-1-SS	NMP2-PZ-8-CS-3	NMP2-PZ-8-SS	NMP2-PZ-9-CS-3	NMP2-PZ-9-CS-6	NMP2-PZ-10-CS-3
	Protection of GW Cleanup Level	Direct Contact Cleanup Level		GI08U 2/12/2004	GI08V 2/12/2004	GE49E 12/23/2003	GI08B 2/11/2004	GI08A 2/11/2004	GI08I 2/11/2004	GK06A 2/11/2004	GI08O 2/11/2004
HYDROCARBONS (mg/kg)											
NWTPHD-HCID											
Gas Range	100 (b)			NA	NA	27 U	NA	NA	NA	NA	NA
Diesel Range	2000 (b)			NA	NA	50 U	NA	NA	NA	NA	NA
Oil Range	2000 (b)			NA	NA	100 U	NA	NA	NA	NA	NA
Si/Acid Cleaned NWTPHD											
Diesel	2000 (b)			7.0	5.0 U	NA	NA	NA	NA	NA	5.0 U
Motor Oil	2000 (b)			10 U	14	NA	NA	NA	NA	NA	10 U
NWTPH-g											
Gasoline	100 (b)			NA	NA	NA	NA	NA	NA	NA	6.6 UJ
TOTAL METALS (mg/kg)											
SW6000-7000 series											
Arsenic	0.082	0.670	20 (d)	5.3	240	3.3	4	6.5	60	57	6.3
Barium				71.6	NA	NA	NA	NA	NA	NA	NA
Cadmium	5.6	80	1	0.2 U	0.7	0.2 U	0.2 U	0.2 U	0.3	0.3	0.2 U
Chromium (c)	8,800,000,000	120,000	48	33.2	56	43.8	23.0	30.0	39.4	38.9	31.3
Copper	1.4	3000	36	NA	868	19.9	11.7	53.4	87.9	91.3	22.1
Lead	1600		24	6	280	8	4	26	54	56	8
Mercury	0.026	24	0.07	0.05	0.83	0.05 U	0.05 U	0.07	0.09	0.06	0.07
Selenium	7.4	400		6 U	NA	NA	NA	NA	NA	NA	NA
Silver	0.32	400		0.3 U	0.8 U	0.3 U	0.3 U	0.3 U	0.3 U	0.4 U	0.3 U
Zinc	100	24000	85	NA	863	44.7	29.8	79.6 J	188	201	52.1
PCBs (µg/kg)											
SW8082											
Aroclor 1016	0.0007	5600		40 U	NA	NA	NA	NA	NA	NA	36 UJ
Aroclor 1242				40 U	NA	NA	NA	NA	NA	NA	36 U
Aroclor 1248				40 U	NA	NA	NA	NA	NA	NA	36 U
Aroclor 1254	0.33	1600		40 U	NA	NA	NA	NA	NA	NA	36 U
Aroclor 1260	0.0007			40 U	NA	NA	NA	NA	NA	NA	36 U
Aroclor 1221				40 U	NA	NA	NA	NA	NA	NA	36 U
Aroclor 1232				40 U	NA	NA	NA	NA	NA	NA	36 U
Total PCBs		0.1 (b)		ND	NA	NA	NA	NA	NA	NA	ND

TABLE 8
SOIL ANALYTICAL RESULTS - DETECTED ANALYTES SUMMARY
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

	MTCA Method B		Background Soil Concentration (a)	NMP2-I-Y-SS	NMP2-I-Z-SS	NMP2-JP-1-SS	NMP2-PZ-8-CS-3	NMP2-PZ-8-SS	NMP2-PZ-9-CS-3	NMP2-PZ-9-CS-6	NMP2-PZ-10-CS-3
	Protection of GW	Direct Contact		GI08U	GI08V	GE49E	GI08B	GI08A	GI08I	GK06A	GI08O
	Cleanup Level	Cleanup Level		2/12/2004	2/12/2004	12/23/2003	2/11/2004	2/11/2004	2/11/2004	2/11/2004	2/11/2004
cPAHs (µg/kg)											
SW8270C-SIM											
Benzo(a)anthracene	220	140		NA	21	7.1 U	7.2 U	7.2 J	81	NA	11
Chrysene	250	140		NA	31	7.1 U	7.2 U	9.9	120	NA	19
Benzo(b)fluoranthene	760	140		NA	28	7.1 U	7.2 U	7.6 U	100	NA	9.8
Benzo(k)fluoranthene	760	140		NA	15	7.1 U	7.2 U	7.6 U	72	NA	9.8
Benzo(a)pyrene	600	140		NA	17	7.1 U	7.2 U	7.6 U	53	NA	9.3
Indeno(1,2,3-cd)pyrene	2,200	140		NA	10	7.1 U	7.2 U	7.6 U	33	NA	7.2 U
Dibenz(a,h)anthracene	1,100	140		NA	8.7 U	7.1 U	7.2 U	7.6 U	8.0 U	NA	7.2 U
cPAH TEQ		0.1 (b)		NA	24.7	ND	ND	0.8	82.8	NA	12.6
SEMIVOLATILES (µg/kg)											
SW8270C											
Naphthalene	140000	1600000		81 U	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene				81 U	NA	NA	NA	NA	NA	NA	NA
Phenanthrene				81 U	NA	NA	NA	NA	NA	NA	NA
Pyrene	3500000	2400000		81 U	NA	NA	NA	NA	NA	NA	NA

NA = Not analyzed.

U = Indicates compound was analyzed for, but was not detected at the reported sample detection limit.

J = Result is an estimated value.

(a) Background soil concentrations from Natural Background Soil Metals Concentrations in Washington State (Ecology 1994), unless otherwise noted.

(b) MTCA Method A cleanup levels.

(c) Since there were no detects of hexavalent chromium, chromium III cleanup levels were used as cleanup levels for total chromium.

(d) Background value from WAC 173-340-900, Table 740-1, footnote b.

Notes:

Phase IIa samples are shown in italics. Phase IIb samples are not italicized.

Framed cell indicates exceedance of protection of groundwater cleanup level.

Shaded cell indicates exceedance of direct contact cleanup level.

Detected metals concentrations less than background levels are not considered exceedances of cleanup levels.

TABLE 9
GROUNDWATER ANALYTICAL RESULTS - DETECTED ANALYTES SUMMARY
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-B-1-GW GE48K 12/23/2003	NMP2-B-2-GW GE48M 12/23/2003	NMP2-B-3-GW GE48L 12/23/2003	NMP2-B-4-GW GI07A 2/11/2004	NMP2-C-1-GW GE48O 12/23/2003	NMP2-C-2-GW GE48N 12/23/2003
HYDROCARBONS (mg/L)								
Si/Acid Cleaned NWTPHD								
Diesel	0.500 (c)		0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Motor Oil	0.500 (c)		0.50 U	0.50 U	0.50 U	0.92	0.50 U	0.50 U
NWTPH-g								
Gasoline	1.0 (c)		0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
DISSOLVED METALS (mg/L)								
SW6000-7000 series								
Arsenic	0.00014	0.005 (e)	NA	NA	NA	NA	NA	NA
Cadmium	0.0093	0.002	NA	NA	NA	NA	NA	NA
Chromium (d)	240	0.01	NA	NA	NA	NA	NA	NA
Copper	0.0024	0.02 (f)	NA	NA	NA	NA	NA	NA
Lead	0.0081	0.01	NA	NA	NA	0.001 U	NA	NA
Mercury	0.000025	--	NA	NA	NA	NA	NA	NA
Silver	0.0019	--	NA	NA	NA	NA	NA	NA
Zinc	0.081	0.16	NA	NA	NA	NA	NA	NA
cPAHs (µg/L)								
SW8270C-SIM								
Benzo(a)anthracene	0.031		NA	NA	NA	NA	NA	NA
Chrysene	0.031		NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.031		NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.031		NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.031		NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.031		NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.031		NA	NA	NA	NA	NA	NA
cPAH TEQ	0.1 (c)		NA	NA	NA	NA	NA	NA
BTEX (µg/L)								
SW8021BMod								
Benzene	71		NA	NA	NA	1.0 U	NA	NA
Toluene	48000		NA	NA	NA	1.2 U	NA	NA
Ethylbenzene	6900		NA	NA	NA	1.0 U	NA	NA
m,p-Xylene			NA	NA	NA	1.0 U	NA	NA
o-Xylene			NA	NA	NA	1.0 U	NA	NA
VOLATILES (µg/L)								
SW8260B								
Vinyl Chloride	37		NA	NA	NA	NA	NA	NA
Acetone			NA	NA	NA	NA	NA	NA
Carbon Disulfide			NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	33000		NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene			NA	NA	NA	NA	NA	NA
1,2-Dichloroethane			NA	NA	NA	NA	NA	NA
Trichloroethene	81		NA	NA	NA	NA	NA	NA

TABLE 9
GROUNDWATER ANALYTICAL RESULTS - DETECTED ANALYTES SUMMARY
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-B-1-GW GE48K 12/23/2003	NMP2-B-2-GW GE48M 12/23/2003	NMP2-B-3-GW GE48L 12/23/2003	NMP2-B-4-GW GI07A 2/11/2004	NMP2-C-1-GW GE48O 12/23/2003	NMP2-C-2-GW GE48N 12/23/2003
Toluene	48000		NA	NA	NA	NA	NA	NA
Ethylbenzene	6900		NA	NA	NA	NA	NA	NA
o-Xylene			NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene			NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene			NA	NA	NA	NA	NA	NA
Naphthalene	4900		NA	NA	NA	NA	NA	NA

TABLE 9
GROUNDWATER ANALYTICAL RESULTS - DETECTED ANALYTES SUMMARY
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-C-3-GW GE48P 12/23/2003	Dup of NMP2-C-3-GW NMP2-C-8-GW GE48Q 12/23/2003	NMP2-C-6-GW GI07B 2/12/2004	NMP2-C-7-GW GI07D 2/12/2004	NMP2-D-1-GW GE75A 12/29/2003	NMP2-D-2-GW GE75B 12/29/2003
HYDROCARBONS (mg/L)								
Si/Acid Cleaned NWTPHD								
Diesel	0.500 (c)		0.25 U	0.25 U	0.25 U	NA	0.25 U	0.25 U
Motor Oil	0.500 (c)		0.50 U	0.50 U	0.50 U	NA	0.50 U	0.50 U
NWTPH-g								
Gasoline	1.0 (c)		0.25 U	0.25 U	0.25 U	NA	0.25 U	0.25 U
DISSOLVED METALS (mg/L)								
SW6000-7000 series								
Arsenic	0.00014	0.005 (e)	NA	NA	NA	0.004	NA	NA
Cadmium	0.0093	0.002	NA	NA	NA	0.002 U	NA	NA
Chromium (d)	240	0.01	NA	NA	NA	0.005 U	NA	NA
Copper	0.0024	0.02 (f)	NA	NA	NA	0.002	NA	NA
Lead	0.0081	0.01	NA	NA	0.001 U	0.001 U	NA	NA
Mercury	0.000025	--	NA	NA	NA	0.0001 U	NA	NA
Silver	0.0019	--	NA	NA	NA	0.003 U	NA	NA
Zinc	0.081	0.16	NA	NA	NA	0.012	NA	NA
cPAHs (µg/L)								
SW8270C-SIM								
Benzo(a)anthracene	0.031		NA	NA	NA	NA	0.15	0.017
Chrysene	0.031		NA	NA	NA	NA	0.20	0.021
Benzo(b)fluoranthene	0.031		NA	NA	NA	NA	0.13	0.022
Benzo(k)fluoranthene	0.031		NA	NA	NA	NA	0.13	0.21
Benzo(a)pyrene	0.031		NA	NA	NA	NA	0.19	0.021
Indeno(1,2,3-cd)pyrene	0.031		NA	NA	NA	NA	0.10	0.014
Dibenz(a,h)anthracene	0.031		NA	NA	NA	NA	0.042	0.011 U
cPAH TEQ	0.1 (c)		NA	NA	NA	NA	0.26	0.048
BTEX (µg/L)								
SW8021BMod								
Benzene	71		NA	NA	1.0 U	NA	NA	NA
Toluene	48000		NA	NA	1.3	NA	NA	NA
Ethylbenzene	6900		NA	NA	1.0 U	NA	NA	NA
m,p-Xylene			NA	NA	1.0 U	NA	NA	NA
o-Xylene			NA	NA	1.0 U	NA	NA	NA
VOLATILES (µg/L)								
SW8260B								
Vinyl Chloride	37		0.2 U	NA	NA	NA	0.2 U	0.2 U
Acetone			1.0 U	NA	NA	NA	5.7	1.0 U
Carbon Disulfide			0.2 U	NA	NA	NA	0.2	0.2 U
trans-1,2-Dichloroethene	33000		0.2 U	NA	NA	NA	0.2 U	0.2 U
cis-1,2-Dichloroethene			0.2 U	NA	NA	NA	0.2 U	0.2 U
1,2-Dichloroethane			0.2 U	NA	NA	NA	0.2 U	0.2 U
Trichloroethene	81		0.2 U	NA	NA	NA	0.2 U	0.2 U

TABLE 9
GROUNDWATER ANALYTICAL RESULTS - DETECTED ANALYTES SUMMARY
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	<i>Dup of NMP2-C-3-GW</i> NMP2-C-3-GW GE48P 12/23/2003	NMP2-C-8-GW GE48Q 12/23/2003	NMP2-C-6-GW GI07B 2/12/2004	NMP2-C-7-GW GI07D 2/12/2004	NMP2-D-1-GW GE75A 12/29/2003	NMP2-D-2-GW GE75B 12/29/2003
Toluene	48000		0.2 U	NA	NA	NA	0.2 U	0.2 U
Ethylbenzene	6900		0.2 U	NA	NA	NA	0.2 U	0.2 U
o-Xylene			0.2 U	NA	NA	NA	0.2 U	0.2 U
1,3,5-Trimethylbenzene			0.2 U	NA	NA	NA	0.2 U	0.2 U
1,2,4-Trimethylbenzene			0.2 U	NA	NA	NA	0.2 U	0.2 U
Naphthalene	4900		0.5 U	NA	NA	NA	0.5 U	0.5 U

TABLE 9
GROUNDWATER ANALYTICAL RESULTS - DETECTED ANALYTES SUMMARY
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-D-3-GW GE75C 12/29/2003	NMP2-D-4-GW GE75D 12/29/2003	NMP2-E-1-GW GE48C 12/22/2003	NMP2-E-2-GW GE75E 12/29/2003	NMP2-E-3-GW GI07C 2/12/2004	NMP2-E-4-GW GI07E 2/12/2004
HYDROCARBONS (mg/L)								
Si/Acid Cleaned NWTPHD								
Diesel	0.500 (c)		0.25 U	0.26	0.25 U	0.25 U	0.25 U	NA
Motor Oil	0.500 (c)		0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA
NWTPH-g								
Gasoline	1.0 (c)		0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	NA
DISSOLVED METALS (mg/L)								
SW6000-7000 series								
Arsenic	0.00014	0.005 (e)	NA	NA	NA	NA	NA	NA
Cadmium	0.0093	0.002	NA	NA	NA	NA	NA	NA
Chromium (d)	240	0.01	NA	NA	NA	NA	NA	NA
Copper	0.0024	0.02 (f)	NA	NA	NA	NA	NA	NA
Lead	0.0081	0.01	NA	NA	NA	NA	0.001 U	NA
Mercury	0.000025	--	NA	NA	NA	NA	NA	NA
Silver	0.0019	--	NA	NA	NA	NA	NA	NA
Zinc	0.081	0.16	NA	NA	NA	NA	NA	NA
cPAHs (µg/L)								
SW8270C-SIM								
Benzo(a)anthracene	0.031		0.011 U	0.26	NA	NA	NA	NA
Chrysene	0.031		0.012 J	0.24	NA	NA	NA	NA
Benzo(b)fluoranthene	0.031		0.011 U	0.062	NA	NA	NA	NA
Benzo(k)fluoranthene	0.031		0.011 U	0.062	NA	NA	NA	NA
Benzo(a)pyrene	0.031		0.011 U	0.070	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.031		0.011 U	0.022	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.031		0.011 U	0.020 U	NA	NA	NA	NA
cPAH TEQ	0.1 (c)		0.00012	0.113	NA	NA	NA	NA
BTEX (µg/L)								
SW8021BMod								
Benzene	71		NA	NA	NA	NA	1.0 U	NA
Toluene	48000		NA	NA	NA	NA	1.8 U	NA
Ethylbenzene	6900		NA	NA	NA	NA	1.0 U	NA
m,p-Xylene			NA	NA	NA	NA	1.0 U	NA
o-Xylene			NA	NA	NA	NA	1.0 U	NA
VOLATILES (µg/L)								
SW8260B								
Vinyl Chloride	37		0.2 U	0.2 U	NA	NA	NA	0.2 U
Acetone			2.5	1.9	NA	NA	NA	1.0 U
Carbon Disulfide			0.2 U	0.2 U	NA	NA	NA	0.2 U
trans-1,2-Dichloroethene	33000		0.2 U	0.2 U	NA	NA	NA	0.2 U
cis-1,2-Dichloroethene			0.2 U	0.2 U	NA	NA	NA	0.2 U
1,2-Dichloroethane			0.2 U	0.2 U	NA	NA	NA	0.2 U
Trichloroethene	81		0.2 U	0.2 U	NA	NA	NA	0.2 U

TABLE 9
GROUNDWATER ANALYTICAL RESULTS - DETECTED ANALYTES SUMMARY
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-D-3-GW GE75C 12/29/2003	NMP2-D-4-GW GE75D 12/29/2003	NMP2-E-1-GW GE48C 12/22/2003	NMP2-E-2-GW GE75E 12/29/2003	NMP2-E-3-GW GI07C 2/12/2004	NMP2-E-4-GW GI07E 2/12/2004
Toluene	48000		0.2 U	0.2 U	NA	NA	NA	3.8
Ethylbenzene	6900		0.2 U	0.2	NA	NA	NA	0.2 U
o-Xylene			0.2 U	0.2	NA	NA	NA	0.2 U
1,3,5-Trimethylbenzene			0.2 U	0.4	NA	NA	NA	0.2 U
1,2,4-Trimethylbenzene			0.2 U	0.9	NA	NA	NA	0.2 U
Naphthalene	4900		0.5 U	660	NA	NA	NA	0.5 U

TABLE 9
GROUNDWATER ANALYTICAL RESULTS - DETECTED ANALYTES SUMMARY
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-F-1-GW GE48D 12/22/2003	NMP2-F-2-GW GE48E 12/22/2003	NMP2-F-3-GW GE48F 12/22/2003	NMP2-F-8-GW GI07F 2/12/2004	NMP2-G-1-GW GE48G 12/22/2003	NMP2-G-2-GW GE48H 12/22/2003
HYDROCARBONS (mg/L)								
Si/Acid Cleaned NWTPHD								
Diesel	0.500 (c)		0.25 U	0.25 U	0.25 U	NA	0.25 U	0.25 U
Motor Oil	0.500 (c)		0.50 U	0.50 U	0.50 U	NA	0.50 U	0.50 U
NWTPH-g								
Gasoline	1.0 (c)		0.25 U	0.25 U	0.25 U	NA	0.25 U	0.25 U
DISSOLVED METALS (mg/L)								
SW6000-7000 series								
Arsenic	0.00014	0.005 (e)	NA	NA	NA	0.014	NA	NA
Cadmium	0.0093	0.002	NA	NA	NA	0.002 U	NA	NA
Chromium (d)	240	0.01	NA	NA	NA	0.005 U	NA	NA
Copper	0.0024	0.02 (f)	NA	NA	NA	0.002 U	NA	NA
Lead	0.0081	0.01	NA	NA	NA	0.001 U	NA	NA
Mercury	0.000025	--	NA	NA	NA	0.0001 U	NA	NA
Silver	0.0019	--	NA	NA	NA	0.003 U	NA	NA
Zinc	0.081	0.16	NA	NA	NA	0.006 U	NA	NA
cPAHs (µg/L)								
SW8270C-SIM								
Benzo(a)anthracene	0.031		0.080	0.027	0.011 U	NA	0.019	0.042
Chrysene	0.031		0.081	0.028	0.011 U	NA	0.025	0.059
Benzo(b)fluoranthene	0.031		0.029	0.012	0.011 U	NA	0.012	0.034
Benzo(k)fluoranthene	0.031		0.029 J	0.012	0.011 U	NA	0.012	0.034
Benzo(a)pyrene	0.031		0.067	0.025	0.011 U	NA	0.018	0.052
Indeno(1,2,3-cd)pyrene	0.031		0.021	0.010 U	0.011 U	NA	0.011 U	0.031
Dibenz(a,h)anthracene	0.031		0.010 U	0.010 U	0.011 U	NA	0.011 U	0.012
cPAH TEQ	0.1 (c)		0.084	0.030	ND	NA	0.023	0.071
BTEX (µg/L)								
SW8021BMod								
Benzene	71		NA	NA	NA	NA	NA	NA
Toluene	48000		NA	NA	NA	NA	NA	NA
Ethylbenzene	6900		NA	NA	NA	NA	NA	NA
m,p-Xylene			NA	NA	NA	NA	NA	NA
o-Xylene			NA	NA	NA	NA	NA	NA
VOLATILES (µg/L)								
SW8260B								
Vinyl Chloride	37		0.5	17	0.2 U	NA	0.2 U	0.2 U
Acetone			1.6 M	2.4	1.0 U	NA	2.8	1.0 U
Carbon Disulfide			0.2	0.2 U	0.2 U	NA	0.2 U	0.2 U
trans-1,2-Dichloroethene	33000		0.2	0.2 U	0.2 U	NA	0.2 U	0.2 U
cis-1,2-Dichloroethene			0.8	0.4	0.2 U	NA	0.2 U	0.2 U
1,2-Dichloroethane			0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U
Trichloroethene	81		0.2	0.2 U	0.2 U	NA	0.2 U	0.2 U

TABLE 9
GROUNDWATER ANALYTICAL RESULTS - DETECTED ANALYTES SUMMARY
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-F-1-GW GE48D 12/22/2003	NMP2-F-2-GW GE48E 12/22/2003	NMP2-F-3-GW GE48F 12/22/2003	NMP2-F-8-GW GI07F 2/12/2004	NMP2-G-1-GW GE48G 12/22/2003	NMP2-G-2-GW GE48H 12/22/2003
Toluene	48000		0.2 U	0.2 U	0.2 U	NA	0.2 U	0.4
Ethylbenzene	6900		0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U
o-Xylene			0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U
1,3,5-Trimethylbenzene			0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U
1,2,4-Trimethylbenzene			0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U
Naphthalene	4900		0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U

TABLE 9
GROUNDWATER ANALYTICAL RESULTS - DETECTED ANALYTES SUMMARY
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-G-3-GW GI07G 2/11/2004	NMP2-H-1-GW GE48I 12/23/2003	NMP2-H-2-GW GE48J 12/23/2003	NMP2-H-3-GW GE48B 12/22/2003	NMP2-H-4-GW GI07H 2/11/2004	NMP2-H-5-GW GI07I 2/11/2004
HYDROCARBONS (mg/L)								
Si/Acid Cleaned NWT PHD								
Diesel	0.500 (c)		NA	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Motor Oil	0.500 (c)		NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
NWTPH-g								
Gasoline	1.0 (c)		NA	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ
DISSOLVED METALS (mg/L)								
SW6000-7000 series								
Arsenic	0.00014	0.005 (e)	0.001 U	NA	NA	NA	NA	NA
Cadmium	0.0093	0.002	0.002 U	NA	NA	NA	NA	NA
Chromium (d)	240	0.01	0.005 U	NA	NA	NA	NA	NA
Copper	0.0024	0.02 (f)	0.002 U	NA	NA	NA	NA	NA
Lead	0.0081	0.01	0.001 U	NA	NA	NA	0.001 U	0.001 U
Mercury	0.000025	--	0.0001 U	NA	NA	NA	NA	NA
Silver	0.0019	--	0.003 U	NA	NA	NA	NA	NA
Zinc	0.081	0.16	0.006 U	NA	NA	NA	NA	NA
cPAHs (µg/L)								
SW8270C-SIM								
Benzo(a)anthracene	0.031		NA	NA	NA	NA	NA	NA
Chrysene	0.031		NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.031		NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.031		NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.031		NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.031		NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.031		NA	NA	NA	NA	NA	NA
cPAH TEQ	0.1 (c)		NA	NA	NA	NA	NA	NA
BTEX (µg/L)								
SW8021BMod								
Benzene	71		NA	NA	NA	NA	1.0 U	1.0 UJ
Toluene	48000		NA	NA	NA	NA	1.0 U	1.0 UJ
Ethylbenzene	6900		NA	NA	NA	NA	1.0 U	1.0 UJ
m,p-Xylene			NA	NA	NA	NA	1.0 U	1.0 UJ
o-Xylene			NA	NA	NA	NA	1.0 U	1.0 UJ
VOLATILES (µg/L)								
SW8260B								
Vinyl Chloride	37		0.2 U	NA	NA	NA	NA	NA
Acetone			1.0 U	NA	NA	NA	NA	NA
Carbon Disulfide			0.2 U	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	33000		0.2 U	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene			0.2 U	NA	NA	NA	NA	NA
1,2-Dichloroethane			0.2 U	NA	NA	NA	NA	NA
Trichloroethene	81		0.2 U	NA	NA	NA	NA	NA

TABLE 9
GROUNDWATER ANALYTICAL RESULTS - DETECTED ANALYTES SUMMARY
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-G-3-GW GI07G 2/11/2004	NMP2-H-1-GW GE48I 12/23/2003	NMP2-H-2-GW GE48J 12/23/2003	NMP2-H-3-GW GE48B 12/22/2003	NMP2-H-4-GW GI07H 2/11/2004	NMP2-H-5-GW GI07I 2/11/2004
Toluene	48000		0.2 U	NA	NA	NA	NA	NA
Ethylbenzene	6900		0.2 U	NA	NA	NA	NA	NA
o-Xylene			0.2 U	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene			0.2 U	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene			0.2 U	NA	NA	NA	NA	NA
Naphthalene	4900		0.5 U	NA	NA	NA	NA	NA

TABLE 9
GROUNDWATER ANALYTICAL RESULTS - DETECTED ANALYTES SUMMARY
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-J-1-GW GI07J 2/12/2004	NMP2-J-2-GW GI07K 2/12/2004	NMP2-K-1-GW GI07L 2/12/2004	NMP2-P2-1-GW GE75F 12/30/2003	NMP2-P1 GI71A 2/18/2004	NMP2-P2 GI71B 2/18/2004
HYDROCARBONS (mg/L)								
Si/Acid Cleaned NWTPHD								
Diesel	0.500 (c)		0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Motor Oil	0.500 (c)		0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
NWTPH-g								
Gasoline	1.0 (c)		0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
DISSOLVED METALS (mg/L)								
SW6000-7000 series								
Arsenic	0.00014	0.005 (e)	0.002	0.006	NA	NA	0.001	0.001 U
Cadmium	0.0093	0.002	0.002 U	0.002 U	NA	NA	0.002 U	0.002 U
Chromium (d)	240	0.01	0.005 U	0.005 U	NA	NA	0.005 U	0.005 U
Copper	0.0024	0.02 (f)	0.004	0.002 U	NA	NA	0.002 U	0.002 U
Lead	0.0081	0.01	0.001 U	0.001 U	0.001 U	NA	0.001 U	0.001 U
Mercury	0.000025	--	0.0001 U	0.0001 U	NA	NA	0.0001 U	0.0001 U
Silver	0.0019	--	0.003 U	0.003 U	NA	NA	0.003 U	0.003 U
Zinc	0.081	0.16	0.006 U	0.006 U	NA	NA	0.006 U	0.006 U
cPAHs (µg/L)								
SW8270C-SIM								
Benzo(a)anthracene	0.031		NA	NA	NA	NA	0.011 UJ	0.010 UJ
Chrysene	0.031		NA	NA	NA	NA	0.011 UJ	0.010 UJ
Benzo(b)fluoranthene	0.031		NA	NA	NA	NA	0.011 UJ	0.010 UJ
Benzo(k)fluoranthene	0.031		NA	NA	NA	NA	0.011 UJ	0.010 UJ
Benzo(a)pyrene	0.031		NA	NA	NA	NA	0.011 UJ	0.010 UJ
Indeno(1,2,3-cd)pyrene	0.031		NA	NA	NA	NA	0.011 UJ	0.010 UJ
Dibenz(a,h)anthracene	0.031		NA	NA	NA	NA	0.011 UJ	0.010 UJ
cPAH TEQ	0.1 (c)		NA	NA	NA	NA	ND	ND
BTEX (µg/L)								
SW8021BMod								
Benzene	71		NA	NA	NA	NA	NA	NA
Toluene	48000		NA	NA	NA	NA	NA	NA
Ethylbenzene	6900		NA	NA	NA	NA	NA	NA
m,p-Xylene			NA	NA	NA	NA	NA	NA
o-Xylene			NA	NA	NA	NA	NA	NA
VOLATILES (µg/L)								
SW8260B								
Vinyl Chloride	37		0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U
Acetone			1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Carbon Disulfide			0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U
trans-1,2-Dichloroethene	33000		0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U
cis-1,2-Dichloroethene			0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U
1,2-Dichloroethane			0.2 U	0.2 U	1.3	NA	0.2 U	0.2 U
Trichloroethene	81		0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U

TABLE 9
GROUNDWATER ANALYTICAL RESULTS - DETECTED ANALYTES SUMMARY
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-J-1-GW GI07J 2/12/2004	NMP2-J-2-GW GI07K 2/12/2004	NMP2-K-1-GW GI07L 2/12/2004	NMP2-P2-1-GW GE75F 12/30/2003	NMP2-P1 GI71A 2/18/2004	NMP2-P2 GI71B 2/18/2004
Toluene	48000		1.6	2.3	1.2	NA	0.2 U	0.2 U
Ethylbenzene	6900		0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U
o-Xylene			0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U
1,3,5-Trimethylbenzene			0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U
1,2,4-Trimethylbenzene			0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U
Naphthalene	4900		0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U

TABLE 9
GROUNDWATER ANALYTICAL RESULTS - DETECTED ANALYTES SUMMARY
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-P3 GI71C 2/19/2004	NMP2-P4 GI71D 2/19/2004	NMP2-P5 GI71E 2/19/2004	Dup of NMP2-P5 NMP2-P50 GI71F 2/19/2004	NMP2-P6 GI71G 2/19/2004	NMP2-P7 GI71H 2/18/2004
HYDROCARBONS (mg/L)								
Si/Acid Cleaned NWT PHD								
Diesel	0.500 (c)		NA	0.25 U	0.25 U	0.25 U	NA	0.25 U
Motor Oil	0.500 (c)		NA	0.50 U	0.50 U	0.50 U	NA	0.50 U
NWTPH-g								
Gasoline	1.0 (c)		0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
DISSOLVED METALS (mg/L)								
SW6000-7000 series								
Arsenic	0.00014	0.005 (e)	0.09	0.002	0.001	0.002	0.004	0.001 U
Cadmium	0.0093	0.002	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Chromium (d)	240	0.01	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Copper	0.0024	0.02 (f)	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Lead	0.0081	0.01	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Mercury	0.000025	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Silver	0.0019	--	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Zinc	0.081	0.16	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U
cPAHs (µg/L)								
SW8270C-SIM								
Benzo(a)anthracene	0.031		0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.011 UJ
Chrysene	0.031		0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.011 UJ
Benzo(b)fluoranthene	0.031		0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.011 UJ
Benzo(k)fluoranthene	0.031		0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.011 UJ
Benzo(a)pyrene	0.031		0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.011 UJ
Indeno(1,2,3-cd)pyrene	0.031		0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.011 UJ
Dibenz(a,h)anthracene	0.031		0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.011 UJ
cPAH TEQ	0.1 (c)		ND	ND	ND	ND	ND	ND
BTEX (µg/L)								
SW8021BMod								
Benzene	71		NA	NA	NA	NA	NA	NA
Toluene	48000		NA	NA	NA	NA	NA	NA
Ethylbenzene	6900		NA	NA	NA	NA	NA	NA
m,p-Xylene			NA	NA	NA	NA	NA	NA
o-Xylene			NA	NA	NA	NA	NA	NA
VOLATILES (µg/L)								
SW8260B								
Vinyl Chloride	37		NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
Acetone			NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
Carbon Disulfide			NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
trans-1,2-Dichloroethene	33000		NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
cis-1,2-Dichloroethene			NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
1,2-Dichloroethane			NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
Trichloroethene	81		NA	0.2 U	0.2 U	0.2 U	NA	0.2 U

TABLE 9
GROUNDWATER ANALYTICAL RESULTS - DETECTED ANALYTES SUMMARY
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-P3 GI71C 2/19/2004	NMP2-P4 GI71D 2/19/2004	NMP2-P5 GI71E 2/19/2004	Dup of NMP2-P5 NMP2-P50 GI71F 2/19/2004	NMP2-P6 GI71G 2/19/2004	NMP2-P7 GI71H 2/18/2004
Toluene	48000		NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
Ethylbenzene	6900		NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
o-Xylene			NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
1,3,5-Trimethylbenzene			NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
1,2,4-Trimethylbenzene			NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
Naphthalene	4900		NA	0.5 U	0.5 U	0.5 U	NA	0.5 U

TABLE 9
GROUNDWATER ANALYTICAL RESULTS - DETECTED ANALYTES SUMMARY
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-P8 GI71I 2/18/2004	NMP2-P9 GI85A 2/23/2004	NMP2-P10 GI71J 2/18/2004	NMP2-P11 GI71K 2/19/2004	NMP2-P12 GI71L 2/19/2004	NMW-E GI71M 2/19/2004
HYDROCARBONS (mg/L)								
Si/Acid Cleaned NWTPHD								
Diesel	0.500 (c)		NA	NA	NA	0.25 U	0.25 U	0.25 U
Motor Oil	0.500 (c)		NA	NA	NA	0.50 U	0.50 U	0.50 U
NWTPH-g								
Gasoline	1.0 (c)		0.25 U	NA	0.25 U	0.25 U	0.25 U	0.25 U
DISSOLVED METALS (mg/L)								
SW6000-7000 series								
Arsenic	0.00014	0.005 (e)	0.001 U	0.146	0.004	0.001 U	0.002	NA
Cadmium	0.0093	0.002	0.002 U	0.004 U	0.002 U	0.002 U	0.002 U	NA
Chromium (d)	240	0.01	0.005 U	0.01 U	0.005 U	0.005 U	0.005 U	NA
Copper	0.0024	0.02 (f)	0.002 U	0.004 U	0.002 U	0.002 U	0.002 U	NA
Lead	0.0081	0.01	0.001 U	0.001	0.001 U	0.001 U	0.001 U	NA
Mercury	0.000025	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	NA
Silver	0.0019	--	0.003 U	0.006 U	0.003 U	0.003 U	0.003 U	NA
Zinc	0.081	0.16	0.006 U	0.01 U	0.006 U	0.006 U	0.006 U	NA
cPAHs (µg/L)								
SW8270C-SIM								
Benzo(a)anthracene	0.031		0.010 UJ	0.015	0.011 UJ	NA	NA	NA
Chrysene	0.031		0.010 UJ	0.030 U	0.011 UJ	NA	NA	NA
Benzo(b)fluoranthene	0.031		0.010 UJ	0.022 U	0.011 UJ	NA	NA	NA
Benzo(k)fluoranthene	0.031		0.010 UJ	0.018	0.011 UJ	NA	NA	NA
Benzo(a)pyrene	0.031		0.010 UJ	0.012	0.011 UJ	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.031		0.010 UJ	0.011 U	0.011 UJ	NA	NA	NA
Dibenz(a,h)anthracene	0.031		0.010 UJ	0.011 U	0.011 UJ	NA	NA	NA
cPAH TEQ	0.1 (c)		ND	0.015	ND	NA	NA	NA
BTEX (µg/L)								
SW8021BMod								
Benzene	71		NA	NA	NA	NA	NA	1.0 U
Toluene	48000		NA	NA	NA	NA	NA	1.0 U
Ethylbenzene	6900		NA	NA	NA	NA	NA	1.0 U
m,p-Xylene			NA	NA	NA	NA	NA	1.0 U
o-Xylene			NA	NA	NA	NA	NA	1.0 U
VOLATILES (µg/L)								
SW8260B								
Vinyl Chloride	37		NA	NA	NA	0.2 U	0.2 U	NA
Acetone			NA	NA	NA	1.0 U	1.0 U	NA
Carbon Disulfide			NA	NA	NA	0.2 U	0.2 U	NA
trans-1,2-Dichloroethene	33000		NA	NA	NA	0.2 U	0.2 U	NA
cis-1,2-Dichloroethene			NA	NA	NA	0.2 U	0.2 U	NA
1,2-Dichloroethane			NA	NA	NA	0.2 U	0.2 U	NA
Trichloroethene	81		NA	NA	NA	0.2 U	0.2 U	NA

TABLE 9
GROUNDWATER ANALYTICAL RESULTS - DETECTED ANALYTES SUMMARY
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-P8 GI71I 2/18/2004	NMP2-P9 GI85A 2/23/2004	NMP2-P10 GI71J 2/18/2004	NMP2-P11 GI71K 2/19/2004	NMP2-P12 GI71L 2/19/2004	NMW-E GI71M 2/19/2004
Toluene	48000		NA	NA	NA	0.2 U	0.2 U	NA
Ethylbenzene	6900		NA	NA	NA	0.2 U	0.2 U	NA
o-Xylene			NA	NA	NA	0.2 U	0.2 U	NA
1,3,5-Trimethylbenzene			NA	NA	NA	0.2 U	0.2 U	NA
1,2,4-Trimethylbenzene			NA	NA	NA	0.2 U	0.2 U	NA
Naphthalene	4900		NA	NA	NA	0.5 U	0.5 U	NA

TABLE 9
GROUNDWATER ANALYTICAL RESULTS - DETECTED ANALYTES SUMMARY
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMW-W GI71N 2/19/2004
HYDROCARBONS (mg/L)			
Si/Acid Cleaned NWTPHD			
Diesel	0.500 (c)		0.25 U
Motor Oil	0.500 (c)		0.50 U
NWTPH-g			
Gasoline	1.0 (c)		0.25 U
DISSOLVED METALS (mg/L)			
SW6000-7000 series			
Arsenic	0.00014	0.005 (e)	NA
Cadmium	0.0093	0.002	NA
Chromium (d)	240	0.01	NA
Copper	0.0024	0.02 (f)	NA
Lead	0.0081	0.01	NA
Mercury	0.000025	--	NA
Silver	0.0019	--	NA
Zinc	0.081	0.16	NA
cPAHs (µg/L)			
SW8270C-SIM			
Benzo(a)anthracene	0.031		NA
Chrysene	0.031		NA
Benzo(b)fluoranthene	0.031		NA
Benzo(k)fluoranthene	0.031		NA
Benzo(a)pyrene	0.031		NA
Indeno(1,2,3-cd)pyrene	0.031		NA
Dibenz(a,h)anthracene	0.031		NA
cPAH TEQ	0.1 (c)		NA
BTEX (µg/L)			
SW8021BMod			
Benzene	71		1.0 U
Toluene	48000		1.0 U
Ethylbenzene	6900		1.0 U
m,p-Xylene			1.0 U
o-Xylene			1.0 U
VOLATILES (µg/L)			
SW8260B			
Vinyl Chloride	37		NA
Acetone			NA
Carbon Disulfide			NA
trans-1,2-Dichloroethene	33000		NA
cis-1,2-Dichloroethene			NA
1,2-Dichloroethane			NA
Trichloroethene	81		NA

TABLE 9
GROUNDWATER ANALYTICAL RESULTS - DETECTED ANALYTES SUMMARY
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMW-W GI71N 2/19/2004
Toluene	48000		NA
Ethylbenzene	6900		NA
o-Xylene			NA
1,3,5-Trimethylbenzene			NA
1,2,4-Trimethylbenzene			NA
Naphthalene	4900		NA

NA = Not analyzed.

U = Indicates compound was analyzed for, but was not detected at the reported sample detection limit.

M = Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match.

J = Result is an estimated value.

(a) GW/MSW = Groundwater/Marine Surface Water.

(b) Groundwater background concentrations of Washington State (PTI 1989).

(c) MTCA Method A cleanup levels.

(d) Screening level is for chromium III.

(e) Background concentration from WAC 173-340, Table 720-1, footnote b.

(f) Background concentration not used for screening purposes because the reporting limit achieved in the Phase II ESA was lower than the limiting reporting limit in PTI (1989).

Notes:

Phase IIa samples are shown in italics. Phase IIb samples are not italicized.

Shaded cell indicates exceedance of cleanup level.

Geophysical Investigation Report

GEOPHYSICAL INVESTIGATION REPORT

**PORT OF EVERETT SITE
EVERETT, WASHINGTON**

FOR

**LANDAU ASSOCIATES, INC.
EDMUNDS, WASHINGTON**

JANUARY 2004

**PHILIP H. DUOOS
GEOPHYSICAL CONSULTANT**

January 4, 2004

Our Ref.: 640-03

Mr. Chip Halbert
Landau Associates, Inc.
130 2nd Avenue S.
Edmonds, WA 98020

REPORT: Geophysical Investigation
Port of Everett Site, Everett, Washington

Dear Mr. Halbert:

This letter report summarizes the results of the geophysical investigation that I performed on December 22nd at the subject site. The primary purpose of the investigation was to determine if an underground storage tank (UST) was associated with a visible vent pipe adjacent to one of the buildings on the site. In another area of the site, scanning of the first boring location (Boring H3GW) was performed so that the boring would avoid hitting the two fuel lines in the area. However, detecting and tracing the fuel lines across the entire site was not straightforward with the geophysics. You decided that it would be more cost-effective to hand-auger the first few feet of the other borings in the area to avoid damaging a fuel line instead of using the geophysics.

A detailed ground penetrating radar (GPR) survey was made over the entire area of interest near the visible vent pipe. Scanning with a utility locator and a hand-held magnetometer was also performed to assist in identifying the possible pipes and utilities, and to confirm that no large amounts of shallow buried metal (such as USTs) were still present. A brief description of the methods is attached.

INTERPRETATION RESULTS

The Survey Results Map (Figure 1) shows the locations of the reference baselines and visible features at the site including the buildings, electrical conduit, vent pipes, etc. The vent pipe (2 inch diameter) had been cut previously a few inches above the pavement, and a rubber hose ran from the vent pipe into the building to the west. The pipe was cut to investigate further. The rubber hose contained wood chips, small dirt and debris, which were all covered in a black oily material.

Possible linear features interpreted from the data are probably utilities, but may also indicate other linear features such as foundations or former trench locations (discussed below). The vent pipe extends to the east (at a depth of about 1 foot) and is interpreted to terminate about 9 feet from the building. A possible linear feature runs north-south near east end of the vent pipe at a depth of about 7 feet. This north-south linear feature may indicate the bottom of the former UST excavation. It is a relatively faint signal, and not typical of a large metal object such as a UST. It also seems too deep to indicate the top of a UST – especially with the shallow groundwater conditions at this site. It may be an abandoned pipe or similar debris in the bottom of the former excavation. The soils near this north-south linear are also interpreted to be disturbed, which is another indication of a possible former UST excavation.

METHODOLOGY

The GPR survey was performed using a Geophysical Survey Systems, Inc. SIR-8 GPR unit with both a 500 MHz antenna and a 200 MHz antenna, with data recorded on a thermal graphic recorder. GPR transects using the 500 MHz antenna were oriented both north-south and east-west and spaced 4 feet apart over the entire site. Additional lines were run near the vent pipe. Additional data were recorded in the area between the two buildings using the 200 MHz antenna. The 200 MHz antenna provides better depth penetration, but has less resolution of subsurface features.

Scanning of the area was also made using a utility locator and a hand-held magnetometer. These instruments provide an audible tone over a buried pipe or large metal object, which are then marked on the pavement.

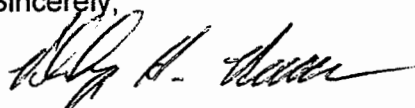
The GPR survey was referenced to numerous reference baselines that were marked at 4-foot intervals using tape measures, a survey wheel, and white spray paint. The grid was established with coordinate 0E, 48N located at the northeast corner of the building to the east. Line 48E runs along the east side of the building. The locations of the possible buried vent pipe, and the north-south linear feature at 7 feet deep (possible former trench) were marked with blue spray.

Two example GPR profiles of the 500 MHz and 200 MHz data (Lines 8E and 10E, respectively) are provided on Figure 2. Horizontal distance is noted along the tops of the profiles, and depths along the side. The depths were estimated based on a two-way radar travel time of 5 ns/foot. This was determined using the signal characteristics of one of the GPR targets, and is typical of travel times in the Puget Sound area. The GPR depth of investigation at this site is about 12 feet.

The use of GPR, utility locating and magnetometer scanning provided a rapid and non-intrusive means of investigating the area of interest for former USTs. However, because of the numerous variables involved in geophysical investigations, there is a possibility that some subsurface features may not have been detected, including possible USTs. Only direct observations using test pits or other means can ultimately characterize the anomalies and other subsurface conditions.

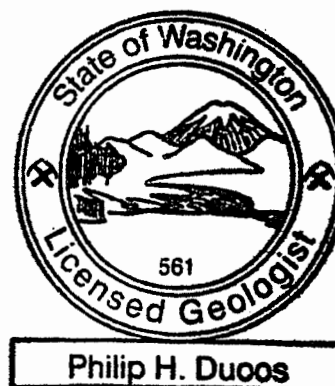
Please contact me if you have any questions or comments regarding this information, or if you require further assistance. I appreciated the opportunity to work with you on this project and look forward to providing you with geophysical services in the future.

Sincerely,



Philip H. Duoos
Geophysical Consultant

Attachment



DESCRIPTION OF METHODS

GROUND PENETRATING RADAR

Some of the uses of GPR include locating buried tanks and drums, delineating boundaries of landfills and trenches, and defining voids and geologic stratigraphy. Although other techniques can also provide this information, GPR is less affected by cultural interferences such as overhead powerlines, buildings, and fences. GPR can also provide higher resolution of the target in many cases. A variety of antennas can be used depending on subsurface conditions and the objective of the survey. Resolution of shallow objects requires higher frequencies, while lower frequencies work better for deeper investigations.

The profile recorder supplies the power and synchronizing signals to the antenna. The antenna outputs a pulse of electromagnetic energy to the ground. The energy pulse is reflected by geologic layers or objects under the surface back to the antenna. The antenna converts the pulse (nanoseconds in duration) to an analog signal (tens of milliseconds in duration) back to the radar unit. The signal is then processed and sent to a graphic recorder which creates a continuous profile of the subsurface reflectors.

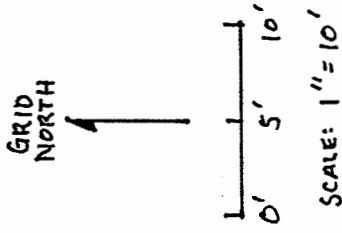
Several factors can affect the effectiveness of the GPR method including reinforced concrete at the surface, the presence of highly conductive materials (such as clays and water), the size, depth, and physical property of the target and; in stratigraphic investigations, the conductivity contrast between stratigraphic units. The presence of numerous buried objects may mask objects and/or stratigraphy below them.

RADIODETECTION UTILITY LOCATING

The Radiodetection RD400 is an electromagnetic instrument that is used to locate utilities (such as metal pipes, electrical conduit, and communication lines). A handheld receiver unit detects the presence of electromagnetic fields in the pipes. These fields may be caused by the 50/60 Hz energy in active powerlines, or can be induced by VLF radio frequency energy passing through the earth. Most metal utilities can be located using the VLF field that is induced by a world-wide system of communication transmitters. In cases where a valve, vent pipe, or other portion of the utility is accessible, a small transmitter can be used to enhance detectability. This portable transmitter can be connected directly onto or located near the pipe.

MAGNETOMETRY

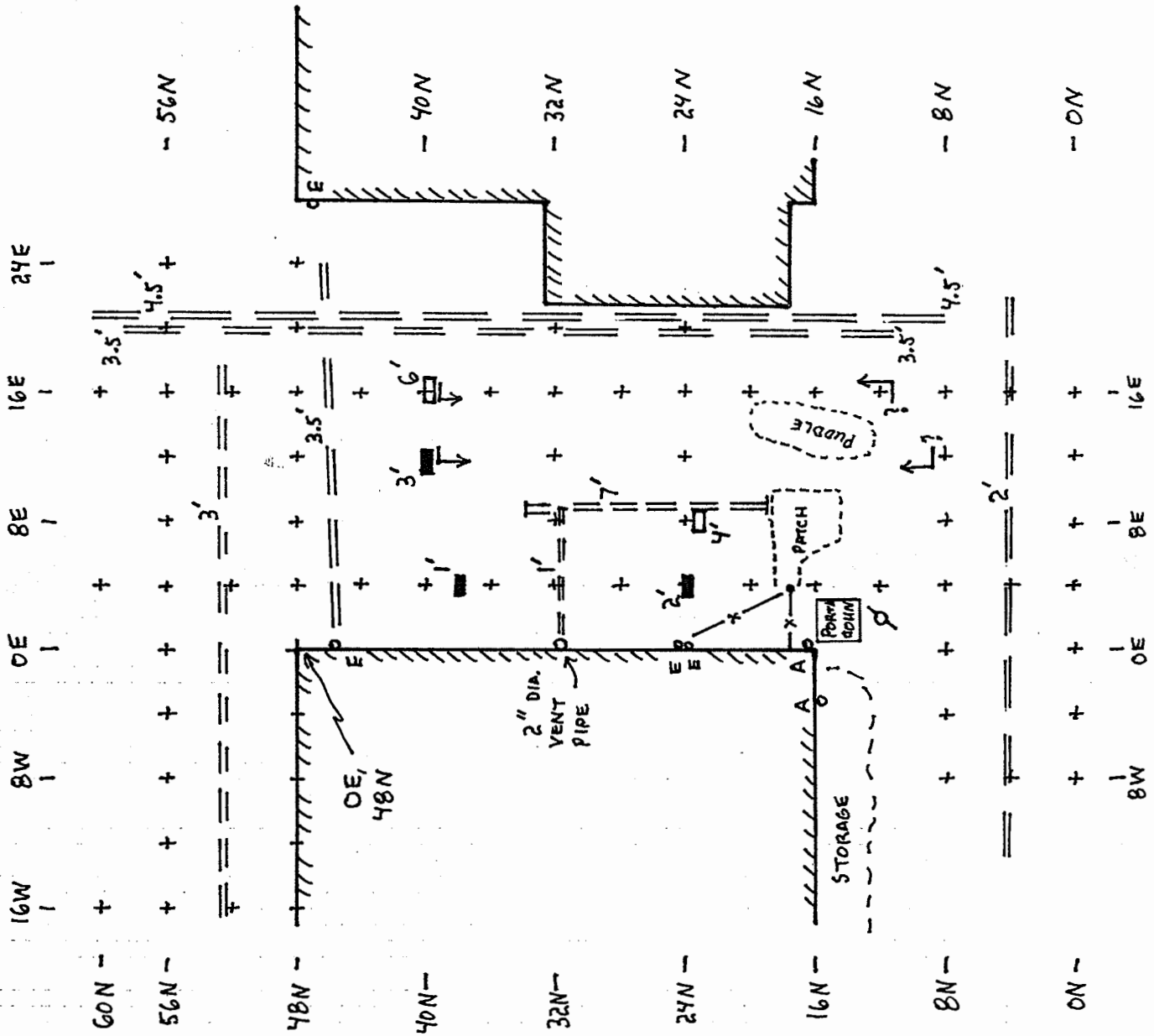
The Schoenstadt magnetometer is a rapid, effective and non-destructive instrument used to locate buried ferrous material (drums, pipes, mineral deposits, archaeological objects, etc.). The instrument is operated and carried by one person, and uses an audible signal to indicate the presence of ferrous metal. Several factors can limit the effectiveness of the magnetometry method including the proximity of cultural interferences (such as buildings, fences and reinforced concrete), and the size, depth and magnetic susceptibility of the target.



EXPLANATION

- + Reference Grid Mark
- E o Electrical Conduit
- A o Possible Compressed Air Pipe
- == Linear Feature
- ▬ Possible Target
- Faint Possible Target
- Possible Disturbed Zone

Depths are estimated to the top of target.



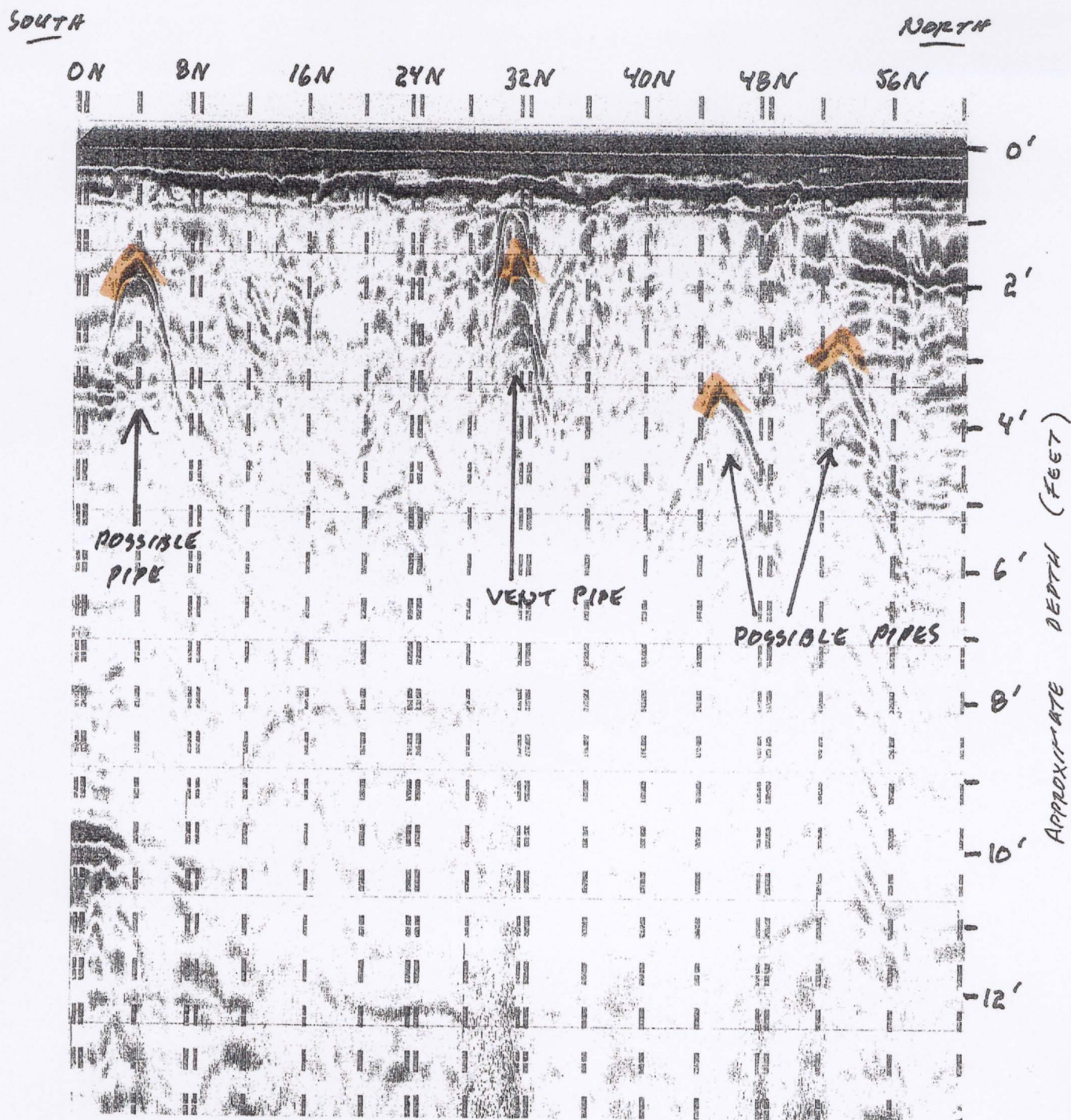
GEOPHYSICAL SURVEY RESULTS

POSSIBLE UST AREA

PORT OF EVERETT, WASHINGTON

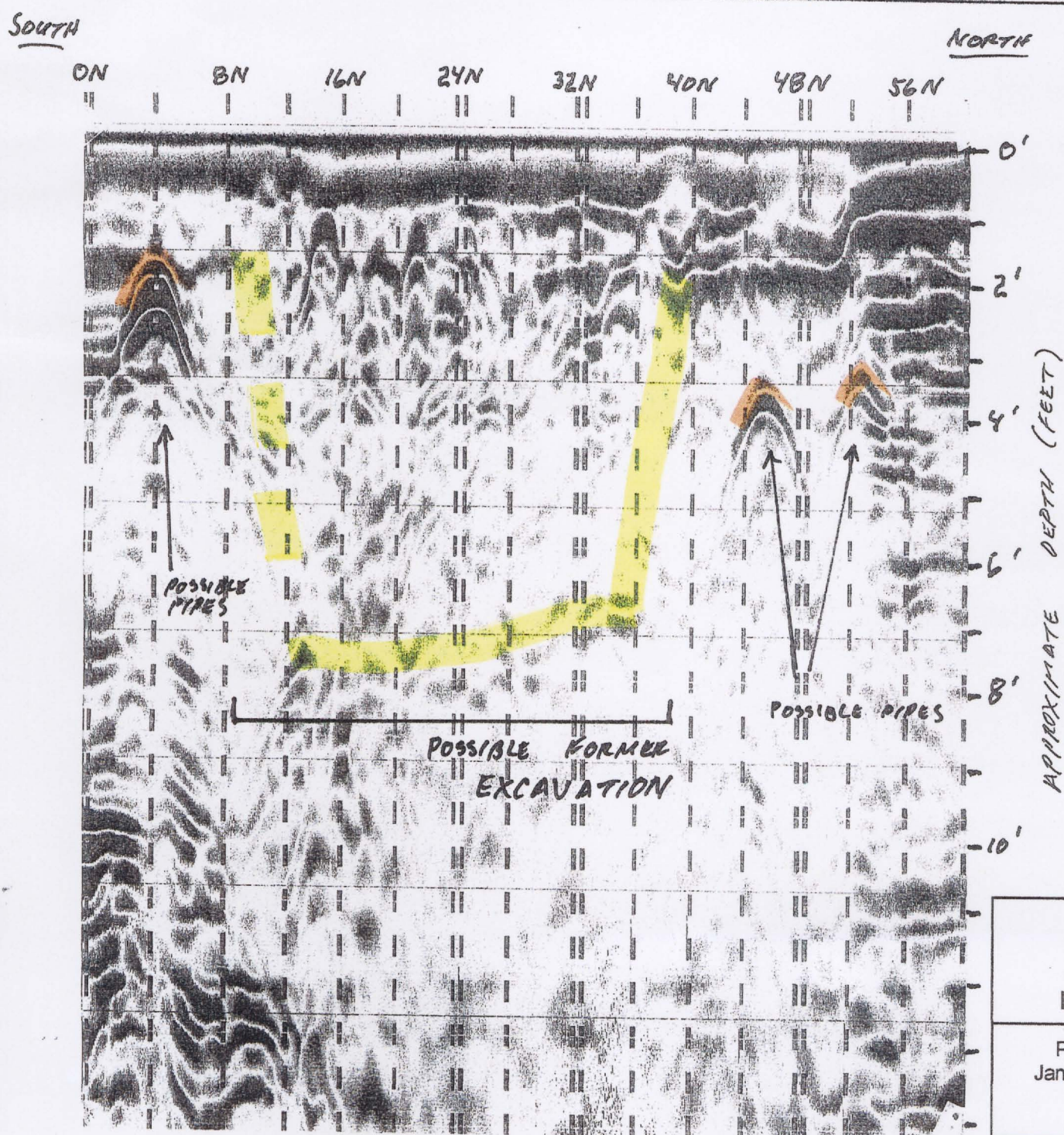
Philip H. Duoos, Geophysical Consultant
January 2, 2004

FIGURE 1



LINE 8E

500 MHz ANTENNA



LINE 10E

200 MHz ANTENNA

EXAMPLE GPR PROFILES
Line 8E (500 MHz Antenna)
Line 10E (200 MHz Antenna)

Philip H. Duoos, Geophysical Consultant
January 2, 2004 Job 640-03

FIGURE 2

Piezometer and Soil Boring Construction Logs

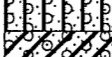
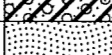
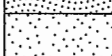
**TABLE B-1
BORING LOG INDEX
NORTH MARINA AREA PHASE II ESA
EVERETT, WASHINGTON**

Boring Location	Figure Number	Boring Depth (feet BGS)	Piezometer (Y/N)	Screened Interval (feet BGS)
NMP2-P1	B-2	13	Y	3 - 13
NMP2-P2	B-3	8	Y	3 - 8
NMP2-P3	B-4	13	Y	3 - 13
NMP2-P4	B-5	13	Y	3 - 13
NMP2-P5	B-6	10	Y	3 - 8
NMP2-P6	B-7	11	Y	3 - 11
NMP2-P7	B-8	11	Y	3 - 11
NMP2-P8	B-9	10	Y	5 - 10
NMP2-P9	B-10	8	Y	3 - 8
NMP2-P10	B-11	8	Y	3 - 8
NMP2-P11	B-12	13	Y	3 - 13
NMP2-P12	B-13	13	Y	3 - 13
NMP2-B-1	B-14	8.0	N	NA
NMP2-B-2	B-15	8.5	N	NA
NMP2-B-3	B-16	9	N	NA
NMP2-B-4	B-17	8	N	NA
NMP2-C-1	B-18	8	N	NA
NMP2-C-2	B-19	8	N	NA
NMP2-C-3	B-20	8	N	NA
NMP2-C-4	None	Surface Soil	N	NA
NMP2-C-5	None	Surface Soil	N	NA
NMP2-C-6	B-21	5	N	NA
NMP2-C-7	B-22	8	N	NA
NMP2-D-1	B-23	8	N	NA
NMP2-D-2	B-24	8	N	NA
NMP2-D-3	B-25	8	N	NA
NMP2-D-4	B-26	8	N	NA
NMP2-D-5	None	Surface Soil	N	NA
NMP2-D-6	None	Surface Soil	N	NA
NMP2-D-7	None	Surface Soil	N	NA
NMP2-D-8	B-27	8	N	NA
NMP2-E-1	B-28	8	N	NA
NMP2-E-2	None: See boring log for piezometer NMP2-P4			
NMP2-E-3	B-33	8	N	NA
NMP2-E-4	B-34	8	N	NA
NMP2-F-1	B-31	8	N	NA
NMP2-F-2	B-32	12	N	NA
NMP2-F-3	B-33	8	N	NA
NMP2-F-4	None	Surface Soil	N	NA
NMP2-F-5	None	Surface Soil	N	NA
NMP2-F-6	None	Surface Soil	N	NA
NMP2-F-7	None	Source Water	N	NA
NMP2-F-8	B-34	8	N	NA
NMP2-F-9	B-35	8	N	NA
NMP2-G-1	B-36	8	N	NA
NMP2-G-2	B-37	8	N	NA
NMP2-G-3	B-38	9	N	NA
NMP2-H-1	B-39	12	N	NA
NMP2-H-2	B-40	12	N	NA
NMP2-H-3	B-41	8	N	NA
NMP2-H-4	B-42	10	N	NA
NMP2-H-5	B-43	10	N	NA
NMP2-I-1	None	No Sample		
NMP2-I-2	None	No Sample		
NMP2-I-3	None	Composite Subsurface Soil Sample	N	NA
NMP2-I-X	None	Composite Subsurface Soil Sample	N	NA
NMP2-I-Y	None	Composite Subsurface Soil Sample	N	NA
NMP2-I-Z	None	Composite Subsurface Soil Sample	N	NA
NMP2-J-1	B-44	8	N	NA
NMP2-J-2	B-45	8	N	NA
NMP2-K-1	B-46	8	N	NA

Notes:

NA

Soil Classification System

MAJOR DIVISIONS		USCS GRAPHIC LETTER SYMBOL SYMBOL ⁽¹⁾		TYPICAL DESCRIPTIONS ⁽²⁾⁽³⁾
COARSE-GRAINED SOIL (More than 50% of material is larger than No. 200 sieve size)	GRAVEL AND GRAVELLY SOIL (More than 50% of coarse fraction retained on No. 4 sieve)	CLEAN GRAVEL (Little or no fines)		GW Well-graded gravel; gravel/sand mixture(s); little or no fines
		GRAVEL WITH FINES (Appreciable amount of fines)		GP Poorly graded gravel; gravel/sand mixture(s); little or no fines
				GM Silty gravel; gravel/sand/silt mixture(s)
				GC Clayey gravel; gravel/sand/clay mixture(s)
	SAND AND SANDY SOIL (More than 50% of coarse fraction passed through No. 4 sieve)	CLEAN SAND (Little or no fines)		SW Well-graded sand; gravelly sand; little or no fines
		SAND WITH FINES (Appreciable amount of fines)		SP Poorly graded sand; gravelly sand; little or no fines
				SM Silty sand; sand/silt mixture(s)
				SC Clayey sand; sand/clay mixture(s)
FINE-GRAINED SOIL (More than 50% of material is smaller than No. 200 sieve size)	SILT AND CLAY (Liquid limit less than 50)		ML Inorganic silt and very fine sand; rock flour; silty or clayey fine sand or clayey silt with slight plasticity	
			CL Inorganic clay of low to medium plasticity; gravelly clay; sandy clay; silty clay; lean clay	
			OL Organic silt; organic, silty clay of low plasticity	
	SILT AND CLAY (Liquid limit greater than 50)		MH Inorganic silt; micaceous or diatomaceous fine sand	
			CH Inorganic clay of high plasticity; fat clay	
			OH Organic clay of medium to high plasticity; organic silt	
	HIGHLY ORGANIC SOIL			PT Peat; humus; swamp soil with high organic content

OTHER MATERIALS	GRAPHIC SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS
PAVEMENT		AC or PC	Asphalt concrete pavement or Portland cement pavement
ROCK		RK	Rock (See Rock Classification)
WOOD		WD	Wood, lumber, wood chips
DEBRIS		DB	Construction debris, garbage

- Notes: 1. USCS letter symbols correspond to the symbols used by the Unified Soil Classification System and ASTM classification methods. Dual letter symbols (e.g., SP-SM) for a sand or gravel indicate a soil with an estimated 5-15% fines. Multiple letter symbols (e.g., MU/CL) indicate borderline or multiple soil classifications.
2. Soil descriptions are based on the general approach presented in the *Standard Practice for Description and Identification of Soils (Visual-Manual Procedure)*, as outlined in ASTM D 2488. Where laboratory index testing has been conducted, soil classifications are based on the *Standard Test Method for Classification of Soils for Engineering Purposes*, as outlined in ASTM D 2487.
3. Soil description terminology is based on visual estimates (in the absence of laboratory test data) of the percentages of each soil type and is defined as follows:
- Primary Constituent: > 50% - "GRAVEL," "SAND," "SILT," "CLAY," etc.
- Secondary Constituents: > 30% and ≤ 50% - "very gravelly," "very sandy," "very silty," etc.
- > 15% and ≤ 30% - "gravelly," "sandy," "silty," etc.
- Additional Constituents: > 5% and ≤ 15% - "with gravel," "with sand," "with silt," etc.
- ≤ 5% - "trace gravel," "trace sand," "trace silt," etc., or not noted.

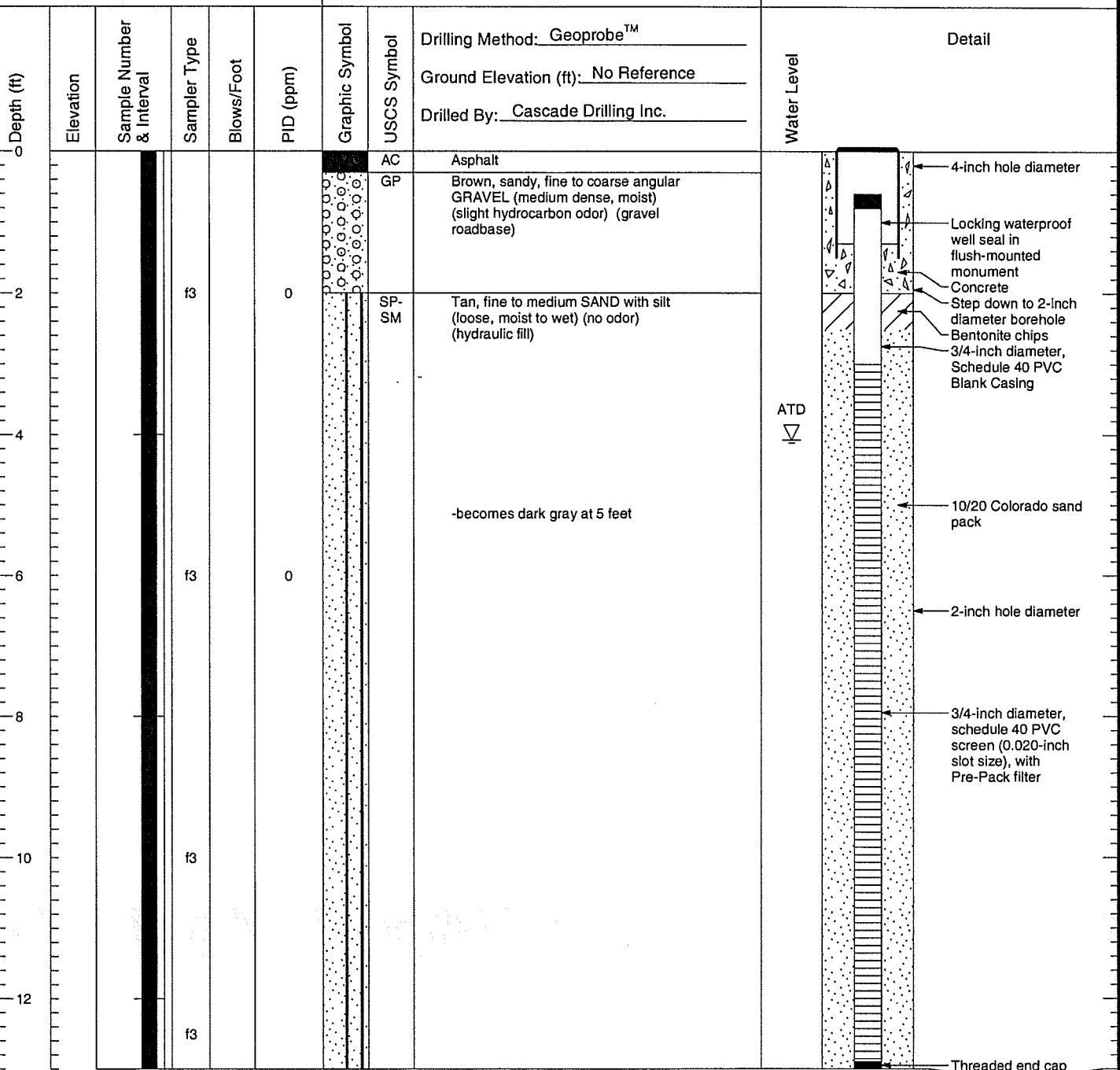
Drilling and Sampling Key		Field and Lab Test Data	
SAMPLE NUMBER & INTERVAL	SAMPLER TYPE	Code	Description
	Code	a	3.25-Inch O.D., 2.42-inch I.D. Split Spoon
	Description	b	2.00-inch O.D., 1.50-inch I.D. Split Spoon
		c	Shelby Tube
		d	Grab Sample
		e	Other - See text if applicable
		1	300-lb Hammer, 30-inch Drop
		2	140-lb Hammer, 30-inch Drop
		3	Pushed
		4	Other - See text if applicable
Groundwater			
			Approximate water elevation at time of drilling (ATD) or on date noted. Groundwater levels can fluctuate due to precipitation, seasonal conditions, and other factors.
		PP = 1.0	Pocket Penetrometer, tsf
		TV = 0.5	Torvane, tsf
		PID = 100	Photoionization Detector VOC screening, ppm
		W = 10	Moisture Content, %
		D = 120	Dry Density, pcf
		-200 = 60	Material smaller than No. 200 sieve, %
		GS	Grain Size - See separate figure for data
		AL	Atterberg Limits - See separate figure for data
		GT	Other Geotechnical Testing
		CA	Chemical Analysis

NMP2-P1

SAMPLE DATA

SOIL PROFILE

GROUNDWATER



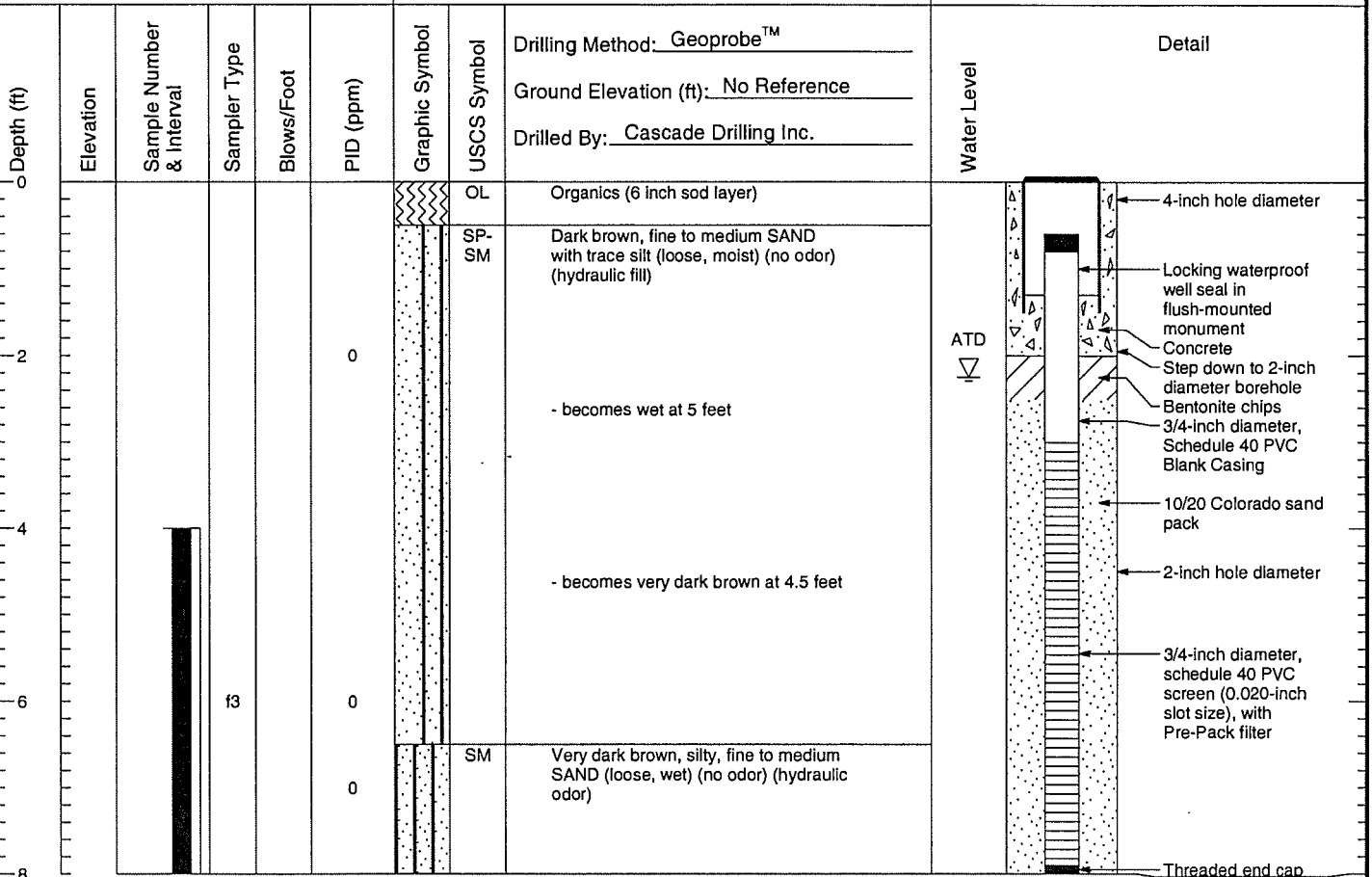
- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

NMP2-P2

SAMPLE DATA

SOIL PROFILE

GROUNDWATER

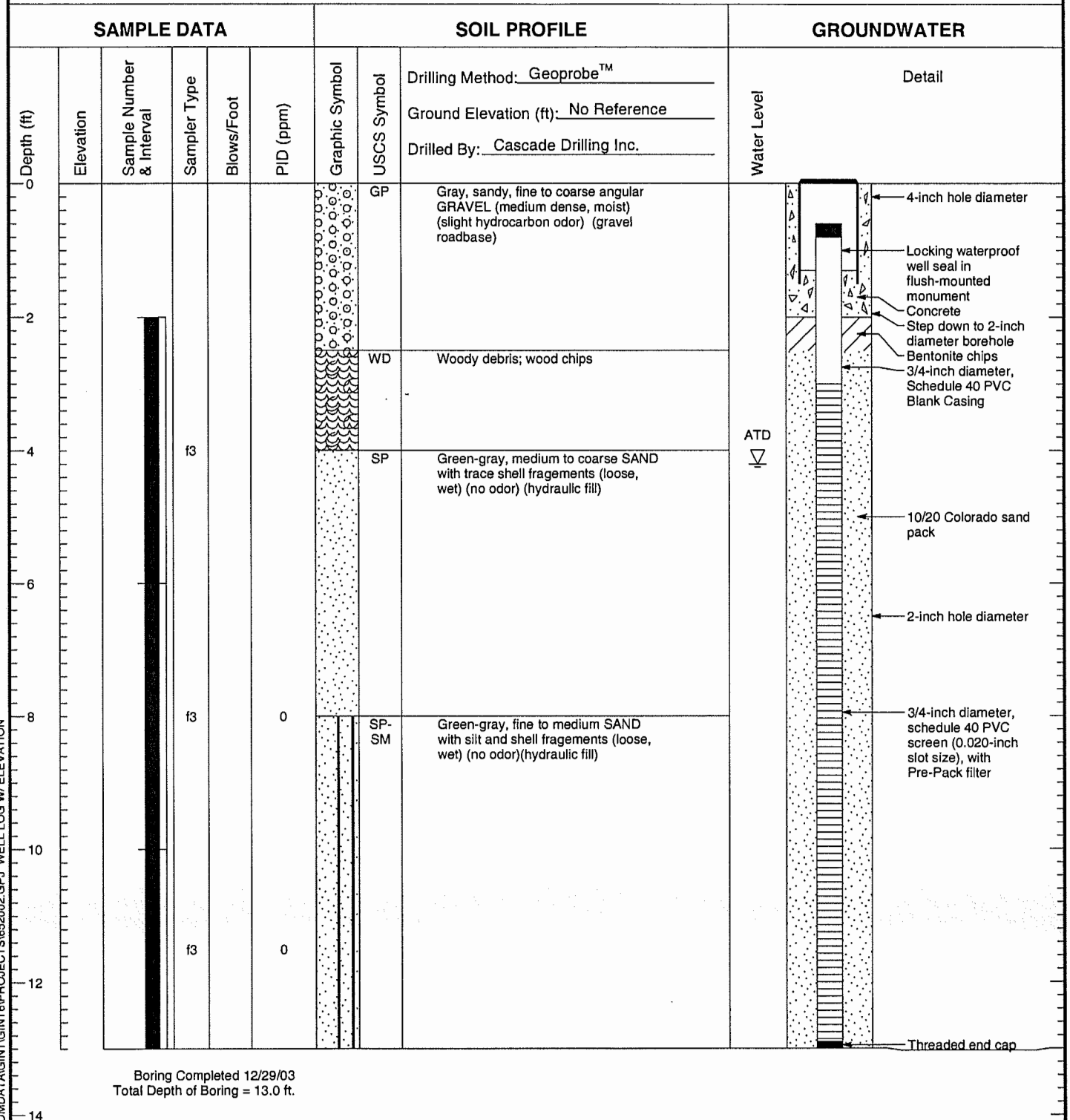


Boring Completed 12/29/03
Total Depth of Boring = 8.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

652002.014 3/26/04 \\EDM\DATA\GINT\GINT6\PROJECTS\652002.GPJ WELL LOG W/ ELEVATION

NMP2-P3



Boring Completed 12/29/03
Total Depth of Boring = 13.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

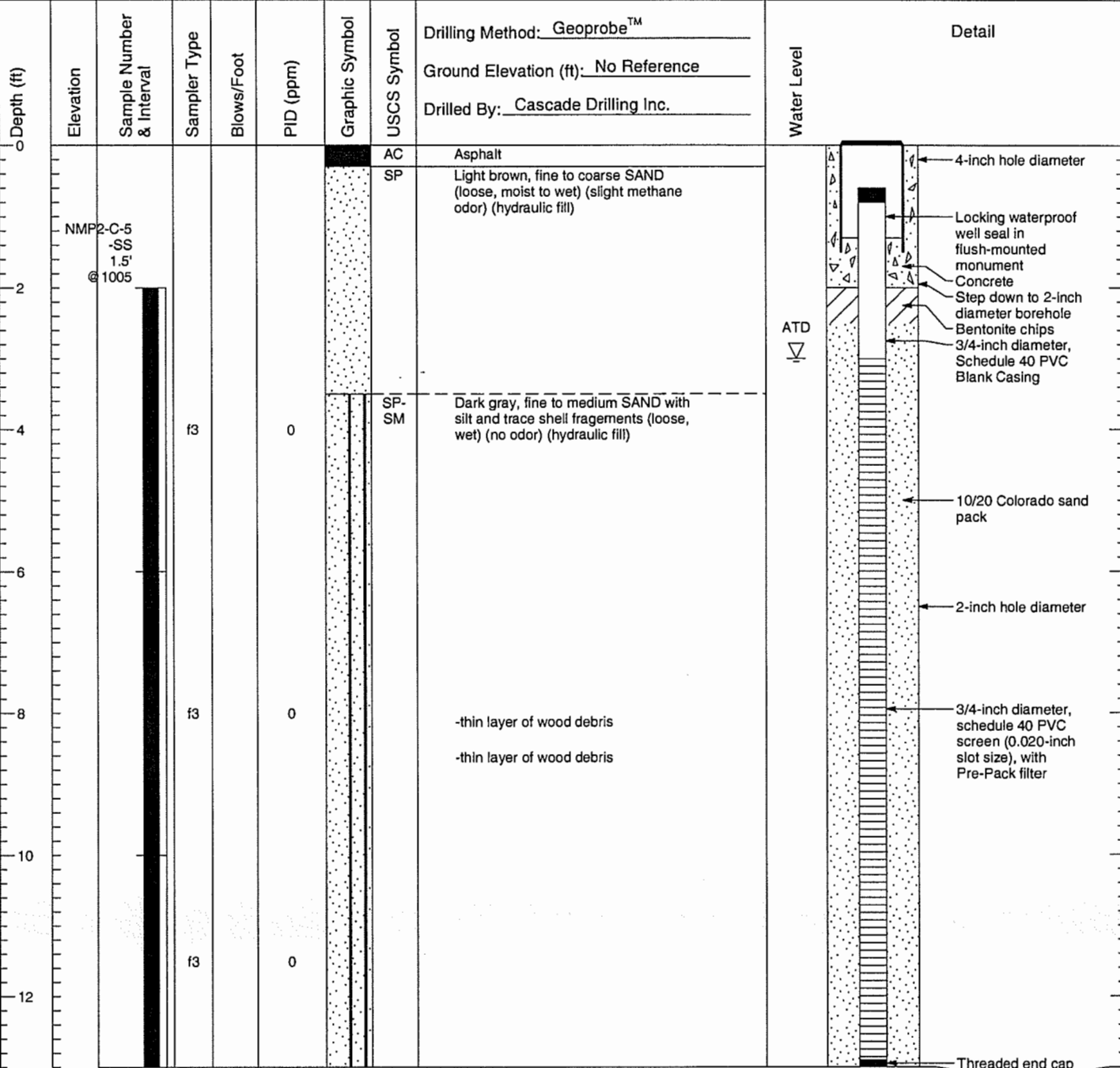
652002.014 3/26/04 \\EDMDATA\GINT\GINT6\PROJECTS\652002.GPJ WELL LOG W/ ELEVATION

NMP2-P4

SAMPLE DATA

SOIL PROFILE

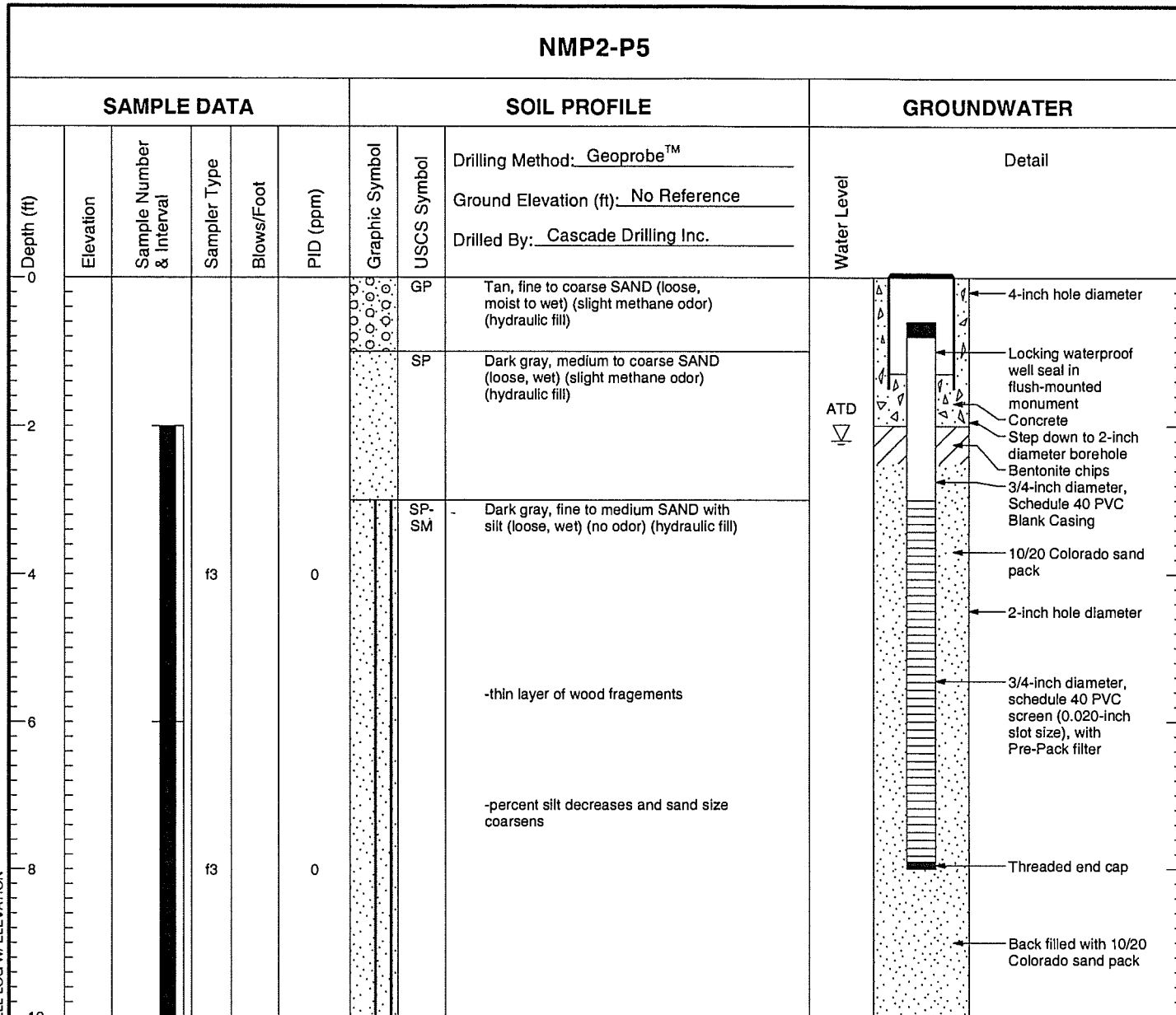
GROUNDWATER



Boring Completed 12/29/03
Total Depth of Boring = 13.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

652002.014 3/26/04 \\EDM\DATA\GINT\GINT\PROJECTS\652002.GPJ WELL LOG W/ ELEVATION



Boring Completed 12/29/03
Total Depth of Boring = 10.0 ft.

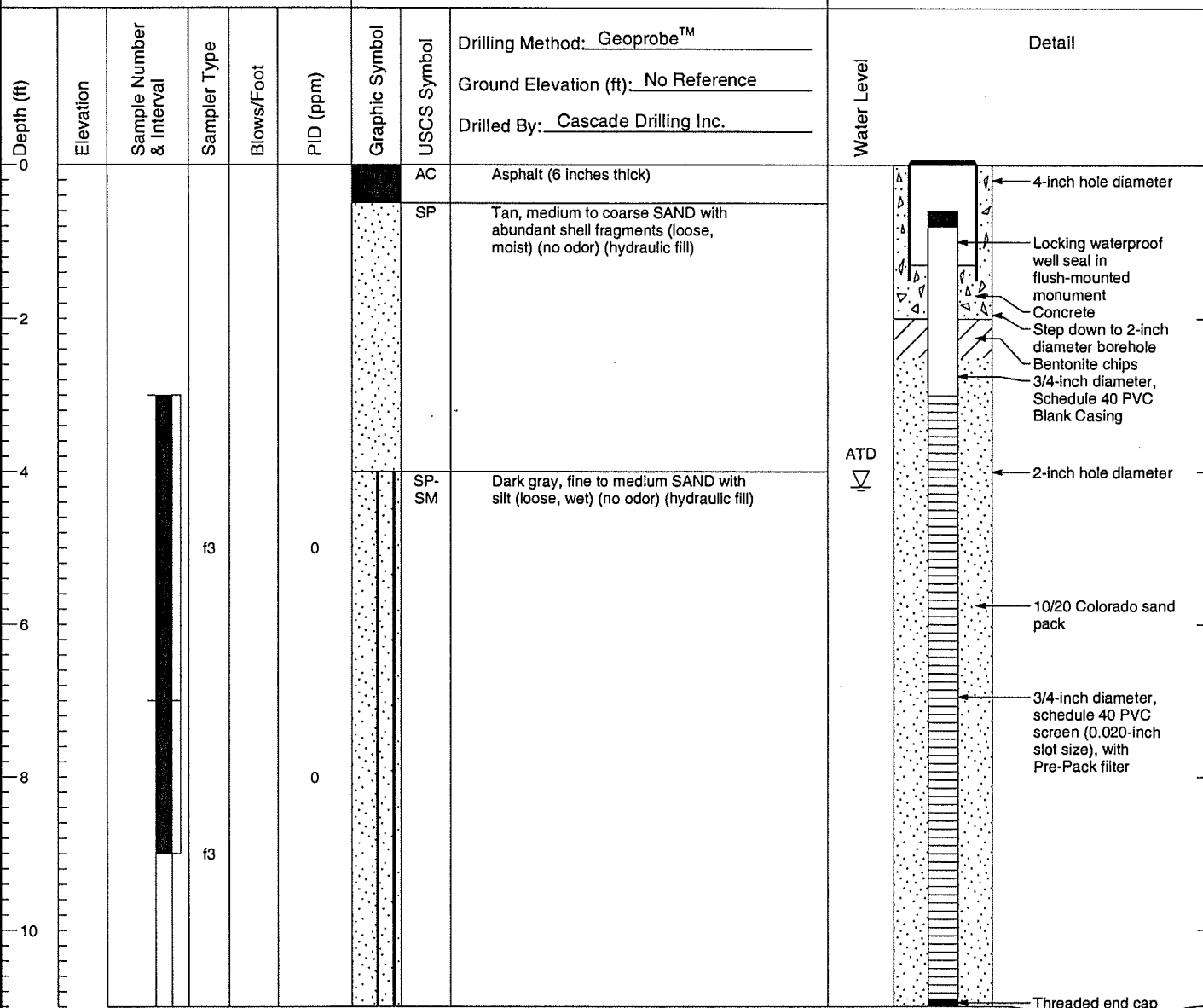
- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

NMP2-P6

SAMPLE DATA

SOIL PROFILE

GROUNDWATER



Boring Completed 12/22/03
Total Depth of Boring = 11.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

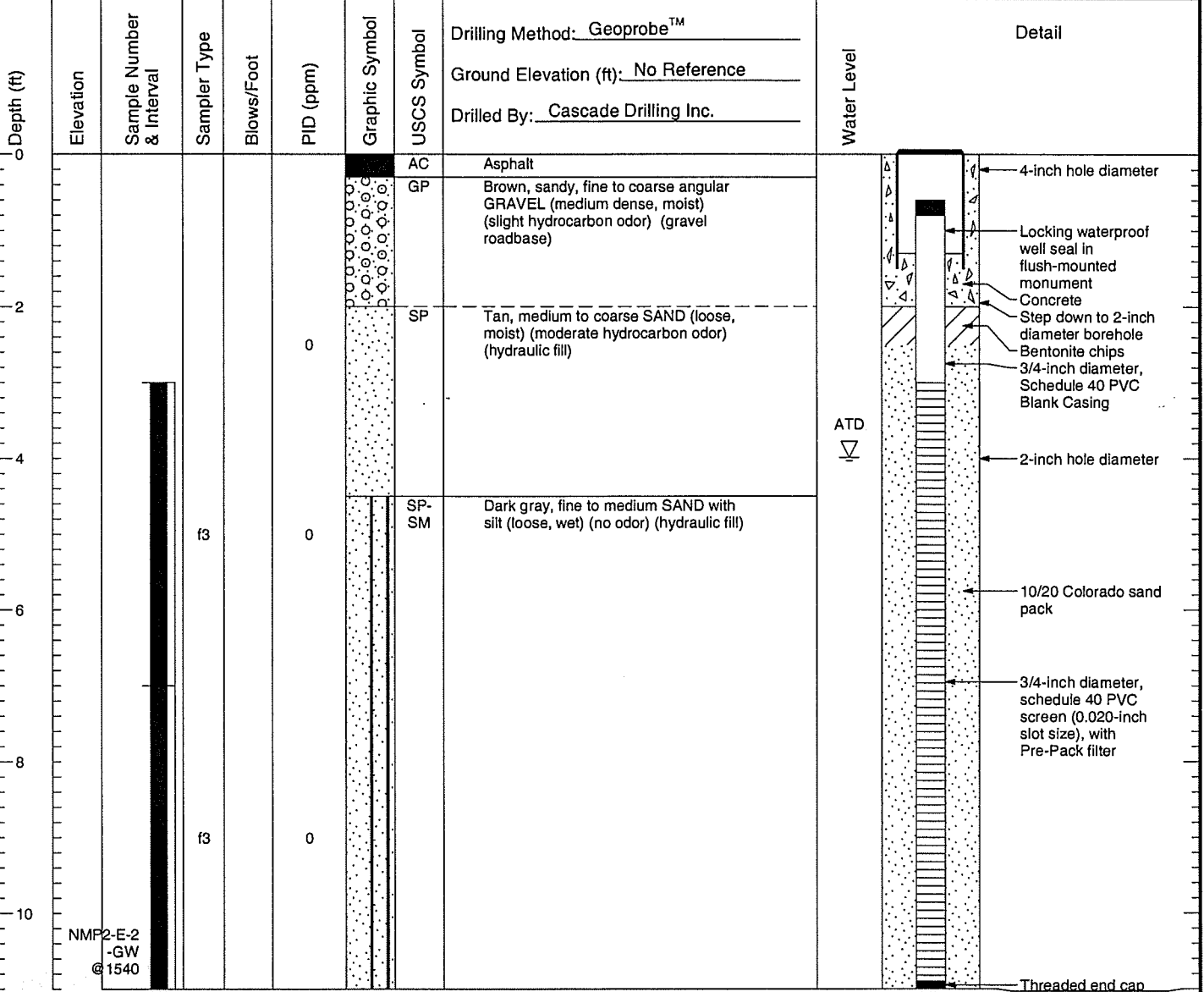
652002.014 3/26/04 \\EDMDATA\GINT\GINT6\PROJECTS\652002.GPJ WELL LOG W/ ELEVATION

NMP2-P7

SAMPLE DATA

SOIL PROFILE

GROUNDWATER



Boring Completed 12/22/03
Total Depth of Boring = 11.0 ft.

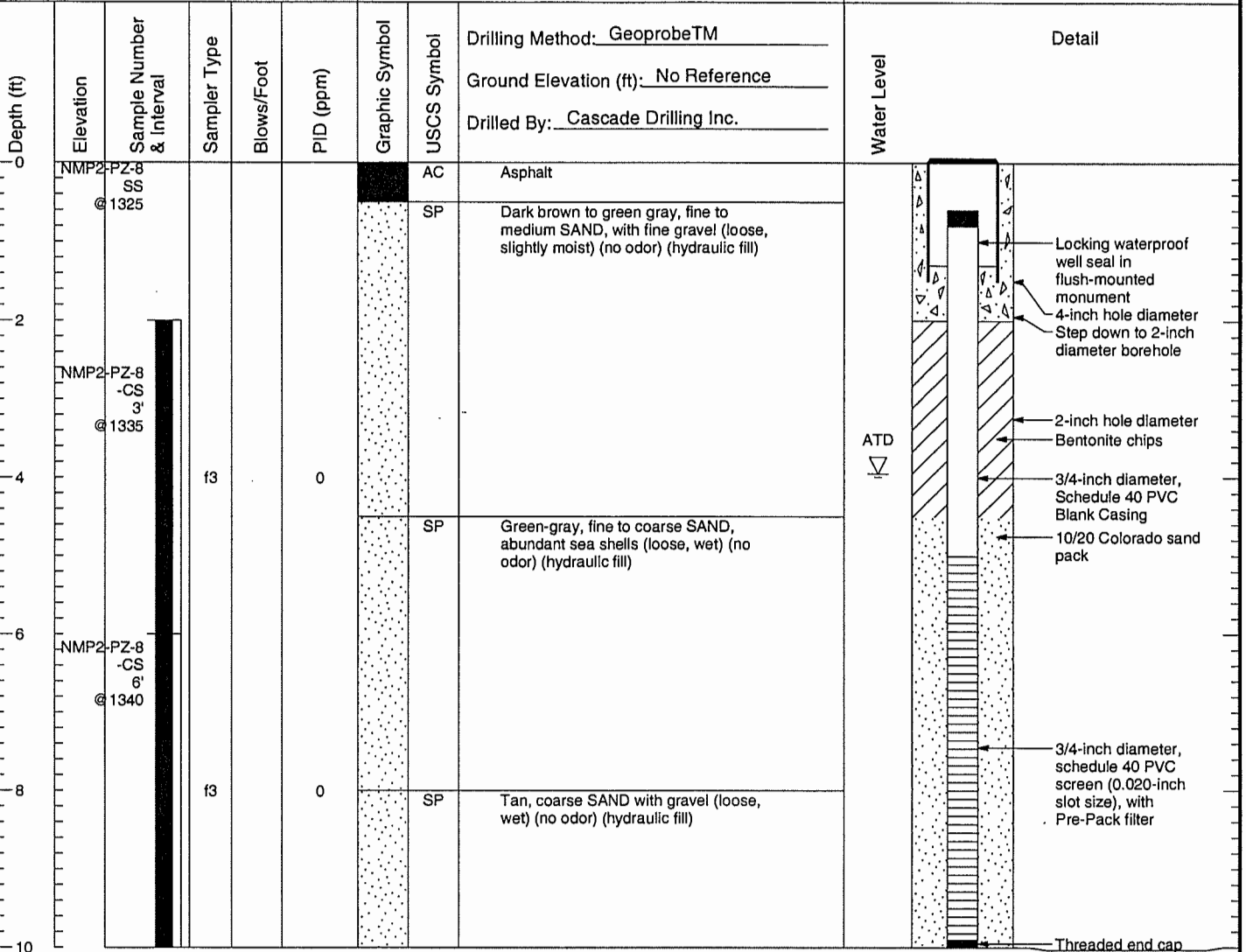
- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

NMP2-P8

SAMPLE DATA

SOIL PROFILE

GROUNDWATER



Boring Completed 02/11/04
Total Depth of Boring = 10.0 ft.

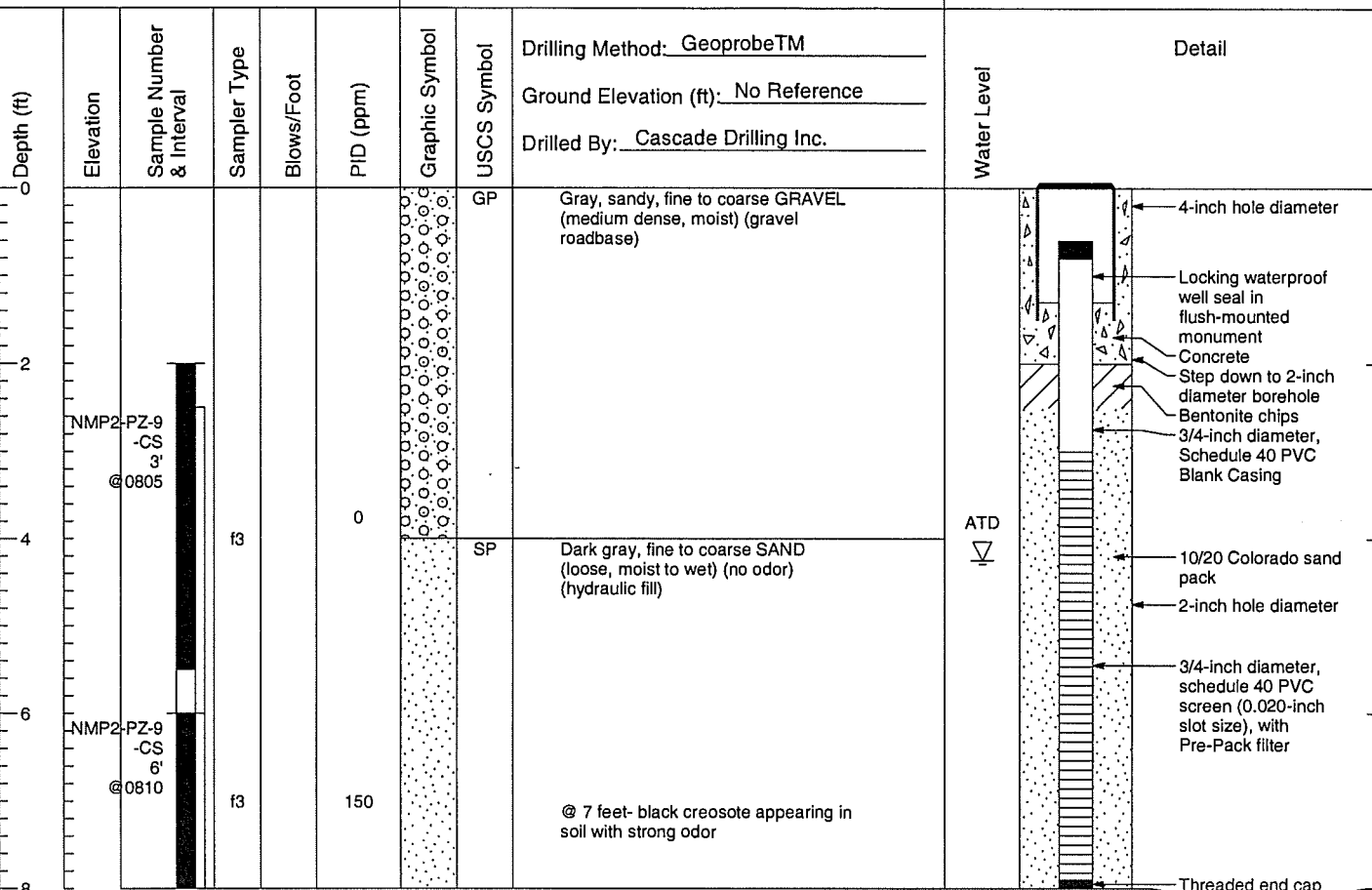
- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

NMP2-P9

SAMPLE DATA

SOIL PROFILE

GROUNDWATER



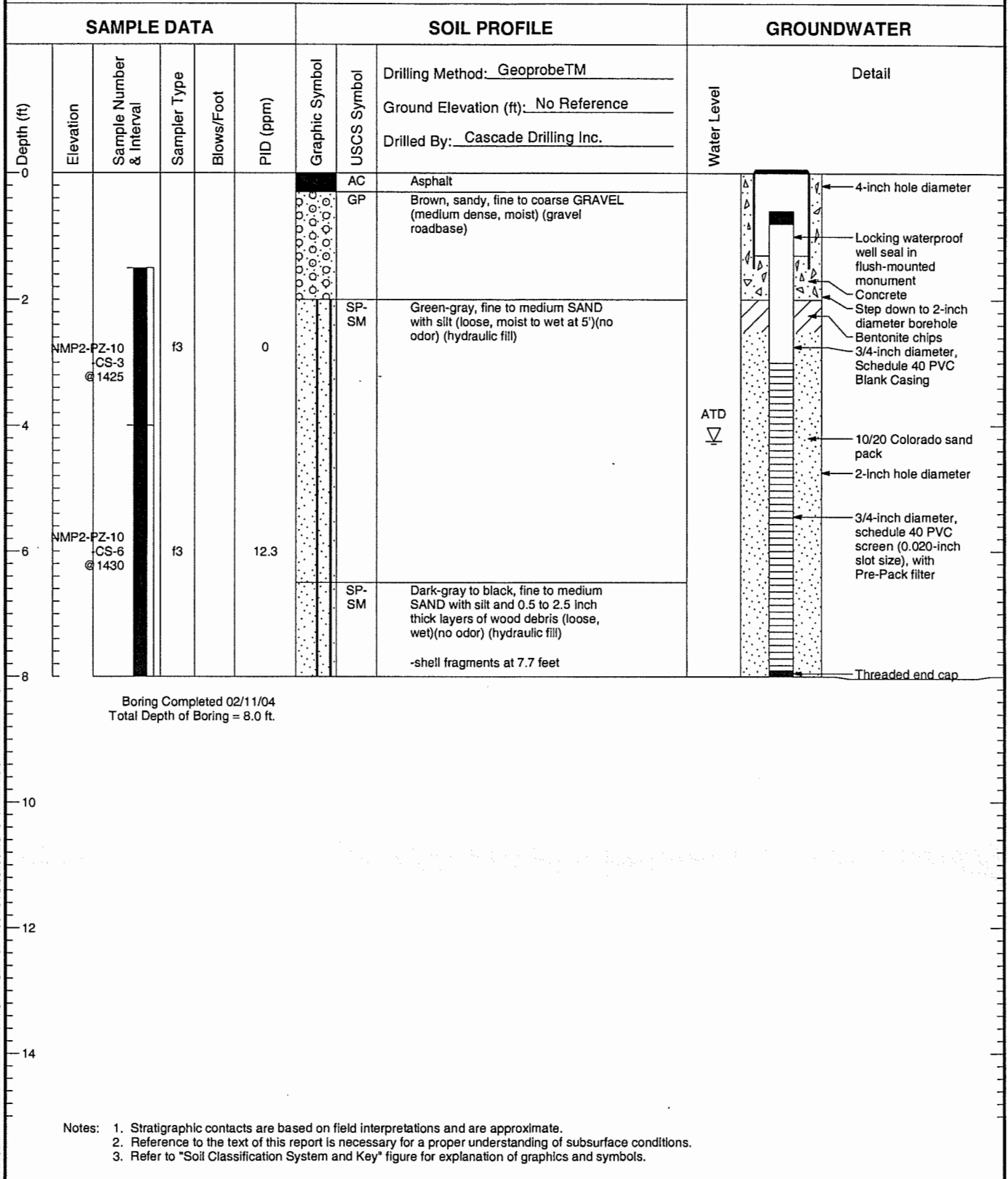
Boring Completed 02/11/04
Total Depth of Boring = 8.0 ft.

Refusal at 8' (wood chip in cutting shoe)

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

652002.014 3/26/04 \EDM\DATA\GINT\GINT6\PROJECTS\652002.GPJ WELL LOG W/ ELEVATION

NMP2-P10

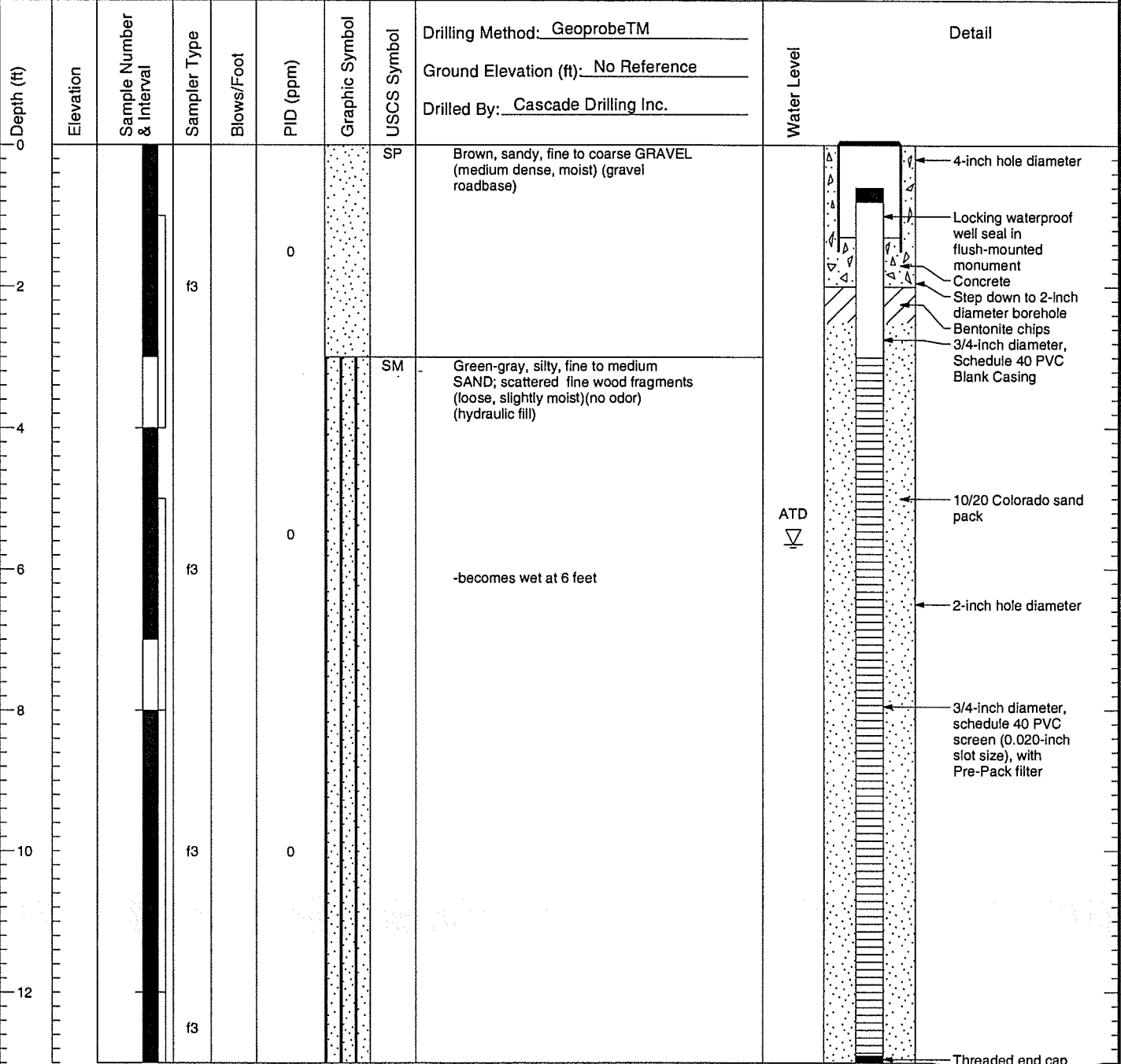


NMP2-P11

SAMPLE DATA

SOIL PROFILE

GROUNDWATER



Boring Completed 02/11/04
Total Depth of Boring = 13.0 ft.

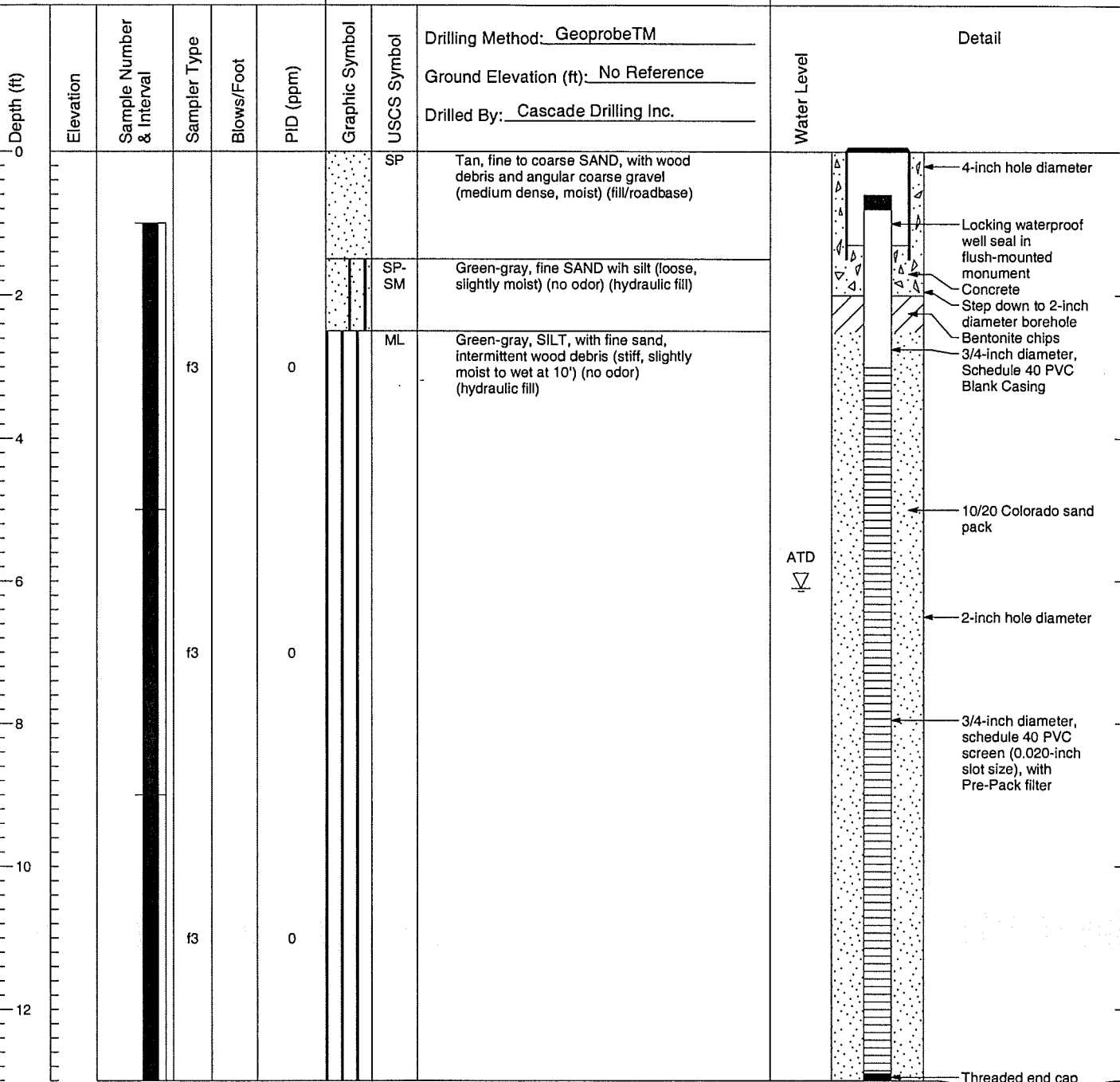
- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

NMP2-P12

SAMPLE DATA

SOIL PROFILE

GROUNDWATER



Boring Completed 02/11/04
Total Depth of Boring = 13.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

NMP2-B-1

SAMPLE DATA

SOIL PROFILE

GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u>	Water Level
							Ground Elevation (ft): <u>No Reference</u>	
0							Drilled By: <u>Cascade Drilling Inc.</u>	
0						GP	Gray, sandy, fine to coarse angular GRAVEL (medium dense, moist) (gravel roadbase)	
2		f3		0		SP-SM	Green-gray, fine to medium SAND with trace silt (loose, moist to wet) (no odor) (hydraulic fill)	
4							-shell fragments	▽ ATD
6		f3		0				
8								

NMP2-B-1
-GW
@ 1105

Boring Completed 12/23/03
Total Depth of Boring = 8.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

NMP2-B-2

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0							
						GP	Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): <u>No Reference</u> Drilled By: <u>Cascade Drilling Inc.</u>
2		f3		0		SP-SM	Gray, sandy, fine to coarse angular GRAVEL (medium dense, moist) (gravel roadbase)
4							
6		f3		0			Tan, fine to medium SAND with trace silt (loose, moist to wet) (no odor) (hydraulic fill)
8							-shell fragments and becomes dark gray at 6.75 feet
8	NMP2-B-2 -GW @ 1250						▽ ATD

Boring Completed 12/23/03
Total Depth of Boring = 8.5 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

NMP2-B-3

SAMPLE DATA

SOIL PROFILE

GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u>	Water Level
							Ground Elevation (ft): <u>No Reference</u>	
0							Drilled By: <u>Cascade Drilling Inc.</u>	
							Asphalt	
							Gray, sandy, fine to coarse angular GRAVEL (medium dense, moist) (gravel roadbase)	
2				0		GP		 ATD
4				0		SP/SM	Dark gray, fine to medium SAND with silt (loose, moist to wet) (slight hydrocarbon odor) (hydraulic fill)	
6				0			-shell fragments	
8		f3		0				

NMP2-B-3
-GW
@ 1150

Boring Completed 12/23/03
Total Depth of Boring = 9.0 ft.

- Notes: 1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

652002.014 3/26/04 \VEDM\DATA\GINT\GINT6\PROJECTS\652002.GPJ SOIL BORING LOG

NMP2-B-4

SAMPLE DATA

SOIL PROFILE

GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): <u>No Reference</u> Drilled By: <u>Cascade Drilling Inc.</u>	Water Level
0						AC	Asphalt	
0						GP	Brown, sandy, fine to coarse gravel, (medium dense, moist) (gravel roadbase)	
2		f3		0		SP	Gray to black, coarse SAND with shells (loose, moist) (no odor) (fill)	
4	NMP2-B-4 -CS @ 1255					WD	Wood debris; wood chips	
4						SP-SM	Dark green-gray, fine to medium SAND with silt and shell fragments (loose, moist to wet) (no odor) (hydraulic fill)	
6		f3		0				▽ ATD
8	NMP2-B-4 -GW @ 1300							

Boring Completed 02/11/04
Total Depth of Boring = 8.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

NMP2-C-1

SAMPLE DATA					SOIL PROFILE			GROUNDWATER		
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): <u>No Reference</u> Drilled By: <u>Cascade Drilling Inc.</u>			Water Level
0						AC	Asphalt			
2		f3		12.5		GP	Gray, sandy, fine to coarse angular GRAVEL (medium dense, moist) (gravel roadbase)			
4						SP-SM	Tan, fine to medium SAND with silt (loose, moist to wet) (slight hydrocarbon odor) (hydraulic fill)			
6		f3		0.5			-becomes dark gray at 6 feet -shell fragments			▽ ATD
NWP2-C-1 -GW @1355										

NWP2-C-1
-GW
@ 1355

Boring Completed 12/23/03
Total Depth of Boring = 8.0 ft.

- Notes: 1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

652002.014 3/26/04 \\EDM\DATA\GINT\GINT6\PROJECTS\652002.GPJ SOIL BORING LOG

NMP2-C-2

SAMPLE DATA

SOIL PROFILE

GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u>	Ground Elevation (ft): <u>No Reference</u>	Drilled By: <u>Cascade Drilling Inc.</u>	Water Level
0						AC	Asphalt			
0.5				75.2		GP	Gray, sandy, fine to coarse angular GRAVEL (medium dense, moist) (slight hydrocarbon odor) (gravel roadbase)			
2		f3				SP-SM	Dark green-gray, fine to medium SAND with silt (loose, moist to wet) (no odor) (hydraulic fill)			
4	NMP2-C-2 -CS @1320						-6 inch layer of wood debris			▽ ATD
6		f3		0.5			-shell fragments			
8	NMP2-C-2 -GW @1245									

Boring Completed 12/23/03
Total Depth of Boring = 8.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

652002.014 3/26/04 \\EDM\DATA\GINT\GINT\6\PROJECTS\652002.GPJ SOIL BORING LOG

NMP2-C-3

SAMPLE DATA

SOIL PROFILE

GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): <u>No Reference</u> Drilled By: <u>Cascade Drilling Inc.</u>	Water Level
0						AC	Asphalt	
2		f3				GP	Gray, sandy, fine to coarse angular GRAVEL (medium dense, moist) (slight hydrocarbon odor) (gravel roadbase)	
4	NMP2-C-3 -CS 3.5-4' @ 1450			4.0		SP-SM	Green-gray, fine to medium SAND with silt (loose, moist to wet) (no odor) (hydraulic odor) -1 inch layer of shell fragments -becomes dark gray at 5 feet	▽ ATD
6	NMP2-C-3 -GW @ 1415	f3						
8	NMP2-C-8 -GW(DUP) @ 1440							

Boring Completed 12/23/03
Total Depth of Boring = 8.0 ft.

- Notes: 1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

NMP2-C-6

SAMPLE DATA

SOIL PROFILE

GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>GeoprobeTM</u>		Water Level
							Ground Elevation (ft): <u>No Reference</u>		
							Drilled By: <u>Cascade Drilling Inc.</u>		
						AC	Asphalt		
						GP	Brown, sandy, fine to coarse GRAVEL (medium dense, moist) (gravel roadbase)		
2		f3		1.2		SP	Dark tan, fine to coarse SAND (loose, moist to wet at 4') (no odor) (hydraulic fill)		
4	NMP2-C-6 -GW @ 1050	f3		2.3					▽ ATD

Refusal at 5' (wood debris in cutting shoe)

Boring Completed 02/12/04
Total Depth of Boring = 5.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

652002.014 3/26/04 \\EDMDATA\GINT\GINT6\PROJECTS\652002.GPJ SOIL BORING LOG

NMP2-C-7

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0						GP	Drilling Method: <u>GeoprobeTM</u> Ground Elevation (ft): <u>No Reference</u> Drilled By: <u>Cascade Drilling Inc.</u>
0						GP	Tan, sandy, fine to coarse GRAVEL (medium dense, moist) (gravel roadbase)
2		f3		0		SP	Gray, medium to coarse SAND, with intermittent minor wood chips (loose, moist) (no odor) (hydraulic fill)
4							- becomes wet at 4.5 feet
6		f3		0		ML	Gray, sandy, SILT (stiff, wet) (no odor) (native)
8							

Boring Completed 02/12/04
Total Depth of Boring = 8.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

652002.014 3/26/04 \\EDMDATA\GINT\GINT\PROJECTS\652002.GPJ SOIL BORING LOG

NMP2-D-1

SAMPLE DATA

SOIL PROFILE

GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Geoprobe™	Water Level
							Ground Elevation (ft): No Reference	
0							Drilled By: Cascade Drilling Inc.	
2		f3		0		GP	Gray, sandy, fine to coarse angular GRAVEL (medium dense, moist) (gravel roadbase)	
4						SP	Light brown, medium to coarse SAND (loose, moist) (no odor) (hydraulic fill)	
6		f3		0				
8							- becomes dark gray at 7.5 feet	

Boring Completed 12/29/03
Total Depth of Boring = 8.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

NMP2-D-2

SAMPLE DATA					SOIL PROFILE			GROUNDWATER	
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): <u>No Reference</u> Drilled By: <u>Cascade Drilling Inc.</u>		
0	[Interval 1]	f3		0	[Symbol 1]	GP	Gray, sandy, fine to coarse angular GRAVEL (medium dense, moist) (gravel roadbase)		
2						SP	Tan, medium to coarse SAND (loose, moist to wet) (hydraulic fill)		
4	[Interval 2]	f3		0	[Symbol 2]		▽ ATD		
6									
8	NMP2-D-2 -GW @1315					SP-SM	Dark gray, fine to medium SAND with silt (loose, wet) (no odor) (hydraulic fill)		

NMP2-D-2
-GW
@ 1315

Boring Completed 12/29/03
Total Depth of Boring = 8.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

NMP2-D-3

SAMPLE DATA					SOIL PROFILE			GROUNDWATER	
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): <u>No Reference</u> Drilled By: <u>Cascade Drilling Inc.</u>		
0							Water Level		
2		f3		0		GP	Gray, sandy, fine to coarse angular GRAVEL (medium dense, moist) (gravel roadbase)		
4						GP	Tan to gray, sandy fine to medium GRAVEL (loose, moist) (fill)		
							- 2 inch thick black layer, tarry material intermixed with sand (creosote odor)		
						SP	Tan, medium to coarse SAND (loose, moist to wet) (slight creosote odor) (hydraulic fill)		
6		f3		0			- becomes dark gray at 6 feet		

Boring Completed 12/29/03
Total Depth of Boring = 8.0 ft.

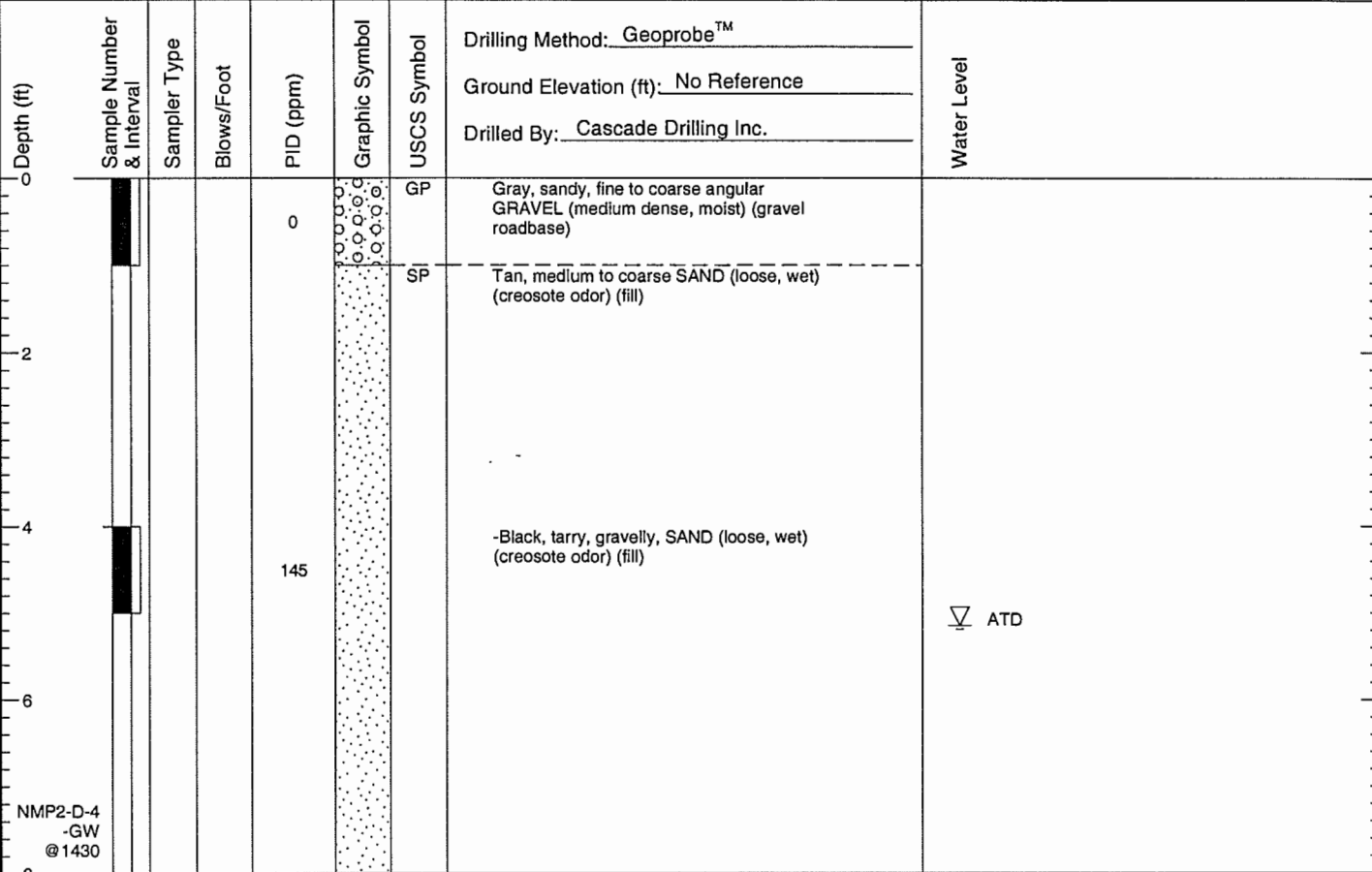
- Notes: 1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

NMP2-D-4

SAMPLE DATA

SOIL PROFILE

GROUNDWATER



Boring Completed 12/29/03
Total Depth of Boring = 8.0 ft.

- Notes: 1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

NMP2-D-8

SAMPLE DATA					SOIL PROFILE			GROUNDWATER	
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>GeoprobeTM</u> Ground Elevation (ft): <u>No Reference</u> Drilled By: <u>Cascade Drilling Inc.</u>	Water Level	
0									

Boring Completed 02/11/04
Total Depth of Boring = 8.0 ft.

- Notes: 1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

652002.014 326/04 \EDMDATAGINT\GINT6\PROJECTS\652002.GPJ SOIL BORING LOG

NMP2-E-1

SAMPLE DATA

SOIL PROFILE

GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): <u>No Reference</u> Drilled By: <u>Cascade Drilling Inc.</u>	Water Level
0						GP	Tan, sandy medium to coarse GRAVEL (loose, moist) (no odor) (fill)	
2		f3		0 2		GP	Gray, sandy, fine to medium GRAVEL (loose, wet) (no odor) (fill)	
4				1.0 1.8		GP	Gray, coarse GRAVEL (loose, wet) (no odor, no sheen) (fill)	▽ ATD
6		f3						
8	NMP2-E-1 -GW @ 1035							

Boring Completed 12/22/03
Total Depth of Boring = 8.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

NMP2-E-3

SAMPLE DATA

SOIL PROFILE

GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Geoprobe™ Ground Elevation (ft): No Reference Drilled By: Cascade Drilling Inc.	Water Level
0						GP	Tan, sandy, fine to coarse GRAVEL (medium dense, moist) (gravel roadbase)	
2		f3		0		SP	Tan, coarse SAND with gravel (loose, moist) (no odor) (hydraulic fill)	
4						SP/SM	Gray, fine to medium SAND with silt (intermittent wood debris) (loose, moist) (slight creosote odor) (hydraulic fill) -becomes wet at 4.5 feet	▽ ATD
6		f3		0				
8	NMP2-E-3 -GW @1310							

Boring Completed 02/12/04
Total Depth of Boring = 8.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

NMP2-E-4

SAMPLE DATA					SOIL PROFILE			GROUNDWATER	
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>GeoprobeTM</u> Ground Elevation (ft): <u>No Reference</u> Drilled By: <u>Cascade Drilling Inc.</u>		
0							Water Level		
2		f3		0			▽ ATD		
4							▽ ATD		
6		f3		0			▽ ATD		
8							▽ ATD		
10							▽ ATD		
12							▽ ATD		
14							▽ ATD		
16							▽ ATD		
18							▽ ATD		
20							▽ ATD		
22							▽ ATD		
24							▽ ATD		
26							▽ ATD		
28							▽ ATD		
30							▽ ATD		
32							▽ ATD		
34							▽ ATD		
36							▽ ATD		
38							▽ ATD		
40							▽ ATD		
42							▽ ATD		
44							▽ ATD		
46							▽ ATD		
48							▽ ATD		
50							▽ ATD		
52							▽ ATD		
54							▽ ATD		
56							▽ ATD		
58							▽ ATD		
60							▽ ATD		
62							▽ ATD		
64							▽ ATD		
66							▽ ATD		
68							▽ ATD		
70							▽ ATD		
72							▽ ATD		
74							▽ ATD		
76							▽ ATD		
78							▽ ATD		
80							▽ ATD		
82							▽ ATD		
84							▽ ATD		
86							▽ ATD		
88							▽ ATD		
90							▽ ATD		
92							▽ ATD		
94							▽ ATD		
96							▽ ATD		
98							▽ ATD		
100							▽ ATD		
102							▽ ATD		
104							▽ ATD		
106							▽ ATD		
108							▽ ATD		
110							▽ ATD		
112							▽ ATD		
114							▽ ATD		
116							▽ ATD		
118							▽ ATD		
120							▽ ATD		
122							▽ ATD		
124							▽ ATD		
126							▽ ATD		
128							▽ ATD		
130							▽ ATD		
132							▽ ATD		
134							▽ ATD		
136							▽ ATD		
					</				

NMP2-E-4
-GW
@ 1225

Boring Completed 02/12/04
Total Depth of Boring = 8.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

NMP2-F-1

SAMPLE DATA

SOIL PROFILE

GROUNDWATER

Depth (ft)

Sample Number
& Interval

Sampler Type

Blows/Foot

PID (ppm)

Graphic Symbol

USCS Symbol

Drilling Method: Geoprobe™

Ground Elevation (ft): No Reference

Drilled By: Cascade Drilling Inc.

Water Level

0

2

4

6

NMP2-F-1
-GW
@ 1130

8

Boring Completed 12/22/03
Total Depth of Boring = 8.0 ft.

10

12

14

- Notes: 1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

▽ ATD

-becomes dark gray at 6.5 feet

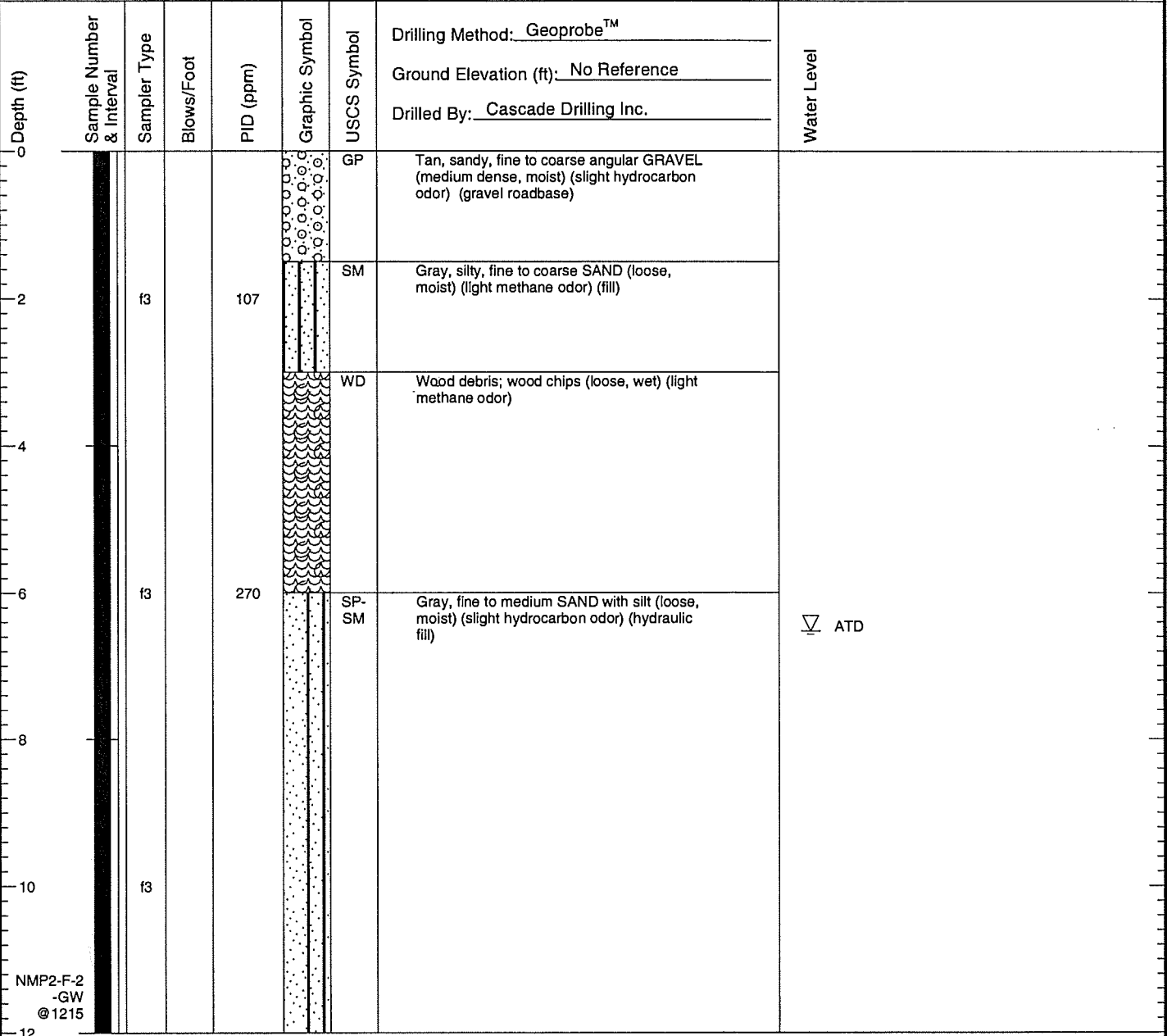
652002.014 326/04 \VEDM\DATA\GINT\GINT6\PROJECTS\652002.GPJ SOIL BORING LOG

NMP2-F-2

SAMPLE DATA

SOIL PROFILE

GROUNDWATER



Boring Completed 12/22/03
Total Depth of Boring = 12.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

652002.014 3/26/04 \\EDMDATAGINT\GINT\PROJECTS\652002.GPJ SOIL BORING LOG

NMP2-F-3

SAMPLE DATA					SOIL PROFILE				GROUNDWATER	
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u>	Ground Elevation (ft): <u>No Reference</u>	Drilled By: <u>Cascade Drilling Inc.</u>	Water Level
0										
2		f3		0		GP/SP	Tan, sandy, fine to coarse angular GRAVEL (medium dense, moist) (slight hydrocarbon odor) (gravel roadbase)			
4						SP-SM	Green-gray, fine to medium SAND with silt (moderate loose, moist to wet) (slight hydrocarbon odor) (hydraulic fill)			▽ ATD
6		f3		0			- becomes wet at 5 feet			
NMP2-F-3 -GW @ 1320										

NMP2-F-3
-GW
@ 1320

Boring Completed 12/22/03
Total Depth of Boring = 8.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

NMP2-F-8

SAMPLE DATA					SOIL PROFILE			GROUNDWATER	
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol		Water Level	
0							Drilling Method: <u>GeoprobeTM</u> Ground Elevation (ft): <u>No Reference</u> Drilled By: <u>Cascade Drilling Inc.</u>		
2		f3		0		GP	Tan, sandy, fine to coarse GRAVEL (medium dense, moist) (gravel roadbase)		
						SP	Dark gray, medium to coarse SAND (loose, moist) (no odor) (fill)		
						ML	Black, sandy, SILT with clay (stiff, slightly moist) (no odor) (fill)		
4						SP	Dark gray, medium to coarse SAND with gravel (loose, moist) (no odor) (fill)		
						WD	Wood debris; wood chips		
						SP	Dark gray, fine to coarse SAND, with scattered shell fragments (loose, very moist to wet) (no odor) (hydraulic fill)		
6		f3		3.7				▽ ATD	
NMP2-F-8 -GW @0910									

Boring Completed 02/12/04
Total Depth of Boring = 8.0 ft.

- Notes: 1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

652002.014 3/26/04 \\EDM\DATA\GINT\GINT6\PROJECTS\652002.GPJ SOIL BORING LOG

NMP2-F-9

SAMPLE DATA					SOIL PROFILE			GROUNDWATER	
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol		Water Level	
0							Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): <u>No Reference</u> Drilled By: <u>Cascade Drilling Inc.</u>		
0									
2		f3		0		GP	Tan, sandy, fine to coarse GRAVEL (medium dense, moist) (gravel roadbase)		
						WD	Wood debris; wood chips		
	NMP2-F-9 -CS 3' @ 0930					SP	Green-gray, fine to medium SAND with silt (loose, slightly moist to wet at 3') (no odor) (hydraulic fill)		
4								▽ ATD	
6		f3		0		WD	Discrete 1" layers of fine wood debris separated by the SAND located above (no odor)		
	NMP2-F-9 -CS 6' @ 0935					SP-SM	Green-gray, fine SAND with silt (medium dense, very moist) (no odor) (hydraulic fill)		

Boring Completed 02/12/04
Total Depth of Boring = 8.0 ft.

- Notes: 1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

652002.014 3/26/04 \NED\MDATA\GINT\GINT6\PROJECTS\652002.GPJ SOIL BORING LOG

NMP2-G-1

SAMPLE DATA					SOIL PROFILE			GROUNDWATER		
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): <u>No Reference</u> Drilled By: <u>Cascade Drilling Inc.</u>			Water Level
0	NMP2-G-1 -GW @1420	f3		0		GP	Black, sandy, fine to coarse angular GRAVEL (medium dense, moist) (slight hydrocarbon odor) (gravel roadbase)			▽ ATD
2						SP	Tan, fine to coarse SAND with trace gravel (loose, moist) (no odor) (fill) -color changes to dark gray - becomes wet at 5 feet -3 inch thick woody debris layer			
4										
6		f3		0						

NMP2-G-1
-GW
@ 1420

Boring Completed 12/22/03
Total Depth of Boring = 8.0 ft.

- Notes: 1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

652002.014 3/26/04 \VEDM\DATA\GINT\GINT6\PROJECTS\652002.GPJ SOIL BORING LOG

NMP2-G-2

SAMPLE DATA					SOIL PROFILE			GROUNDWATER	
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): <u>No Reference</u> Drilled By: <u>Cascade Drilling Inc.</u>	Water Level	
0						AC	Asphalt		
						GP	Gray, sandy, fine to coarse angular GRAVEL (medium dense, moist) (slight hydrocarbon odor) (gravel roadbase)		
2		f3		0		SP-SM	Green-gray, fine to medium SAND with silt (loose, moist) (no odor) (hydraulic fill)		
4								▽ ATD	
6		f3		0					
						WD	Black woody debris (loose, moist to wet) (no odor)		
NMP2-G-2 -GW @ 1500									

Boring Completed 12/22/03
Total Depth of Boring = 8.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

NMP2-G-3

SAMPLE DATA

SOIL PROFILE

GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>GeoprobeTMc</u> Ground Elevation (ft): <u>No Reference</u> Drilled By: <u>Cascade Drilling Inc.</u>	Water Level
0						AC	Asphalt	
0						GP	Brown, sandy, fine to coarse gravel, (medium dense, moist) (gravel roadbase)	
2				0		SP-SM	Green-gray, fine to medium SAND with silt (loose, moist to wet at 5.75') (no odor) (hydraulic fill)	
4	NMP2-G-3 -CS 3' @ 1440	f3						
6				0		SP	Dark gray, fine to medium SAND, with shell fragments (moderately loose, wet) (no odor) (hydraulic fill)	▽ ATD
8	NMP2-G-3 -GW @ 1455	f3						

Boring Completed 02/11/04
Total Depth of Boring = 9.0 ft.

Refusal at 9 feet (rock in cutting shoe)

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

NMP2-H-1

SAMPLE DATA

SOIL PROFILE

GROUNDWATER

Depth (ft)

Sample Number
& Interval

Sampler Type

Blows/Foot

PID (ppm)

Graphic Symbol

USCS Symbol

Drilling Method: Geoprobe™

Ground Elevation (ft): No Reference

Drilled By: Cascade Drilling Inc.

Water Level

0

AC

Asphalt

GP

Brown, sandy, fine to coarse angular
GRAVEL (medium dense, moist) (slight
hydrocarbon odor) (gravel roadbase)

2

0

NMP2-H-1
-CS
4-4.5'
@ 0930

SP-
SM

Tan, fine to medium SAND with silt (loose,
moist to wet) (no odor) (hydraulic fill)

▽ ATD

6

f3

0

-0.5 ft thick layer of shell fragments with
sand
-becomes very dark gray at 6.5 feet

8

f3

0

10

f3

0

ML

Very dark gray, sandy SILT (medium stiff,
wet) (no odor) (native)

NMP2-H-1
-GW
@ 0940

12

Boring Completed 12/23/03
Total Depth of Boring = 12.0 ft.

14

- Notes: 1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

NMP2-H-2

SAMPLE DATA

SOIL PROFILE

GROUNDWATER

Depth (ft)

Sample Number
& Interval

Sampler Type

Blows/Foot

PID (ppm)

Graphic Symbol

USCS Symbol

Drilling Method: Geoprobe™

Ground Elevation (ft): No Reference

Drilled By: Cascade Drilling Inc.

Water Level

0

2

NMP2-H-2
-CS
4-5'
@ 1020

6

8

10

NMP2-H-2
-GW
@ 1015

12

14

Boring Completed 12/23/03
Total Depth of Boring = 12.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

▽ ATD

AC

Asphalt

GP

Brown, sandy, fine to coarse angular
GRAVEL (medium dense, moist) (slight
hydrocarbon odor) (gravel roadbase)

SP

Tan, fine to medium SAND with trace silt
(loose, moist to wet) (no odor) (hydraulic fill)

SP

Tan, gravelly SAND with shell fragments
(loose, wet) (no odor) (hydraulic fill)

ML

Black to dark gray, sandy SILT (medium
stiff, wet) (no odor) (native)

NMP2-H-3

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Geoprobe™
							Ground Elevation (ft): No Reference
0							Drilled By: Cascade Drilling Inc.
						AC	Asphalt
						GP	Brown, sandy, fine to coarse angular GRAVEL (medium dense, moist) (slight hydrocarbon odor) (gravel roadbase)
2		f3		0		SP-SM	Tan, fine to medium SAND with silt (loose, moist) (no odor) (hydraulic fill)
4							
6		f3		0		ML	Gray, sandy SILT with clay (medium stiff, wet) (no odor) (native)
8							

Boring Completed 12/29/03
Total Depth of Boring = 8.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

NMP2-H-4

SAMPLE DATA

SOIL PROFILE

GROUNDWATER

Depth (ft)

Sample Number
& Interval

Sampler Type

Blows/Foot

PID (ppm)

Graphic Symbol

USCS Symbol

Drilling Method: Geoprobe™

Ground Elevation (ft): No Reference

Drilled By: Cascade Drilling Inc.

Water Level

0

SM

Dark brown fine to medium SAND with silt and organics (bark) (loose, moist) (no odor) (top soil)

2

GP

Brown, sandy, fine to coarse gravel, (medium dense, moist) (no odor) (gravel roadbase)

4

SP

Dark gray, fine to medium SAND with silt and shell fragments beginning at 3.5' (loose, moist) (no odor) (hydraulic fill)

6

NMP2-h-4
-CS
6'
@0955

- becomes wet at 6 feet

▽ ATD

@ 7-8': tan, coarse sand lens

8

f3

0

10

NMP2-h-4
-GW
@ 1005

Boring Completed 02/11/04
Total Depth of Boring = 10.0 ft.

- Notes: 1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.



LANDAU
ASSOCIATES

North Marina Area
Everett, Washington

Log of Boring NMP2-H-4

Figure
B-42

652002.014 3/26/04 \NED\DATA\GINT\GINT6\PROJECTS\652002.GPJ SOIL BORING LOG

NMP2-H-5

SAMPLE DATA

SOIL PROFILE

GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>GeoprobeTM</u> Ground Elevation (ft): <u>No Reference</u> Drilled By: <u>Cascade Drilling Inc.</u>	Water Level
0						SM	Dark brown fine to medium SAND with silt and organics (bark) (loose, moist) (no odor)(top soil)	
2						GP	Brown, sandy, fine to coarse gravel, (medium dense, moist) (no odor) (gravel roadbase)	
4						SP	Dark gray, fine to medium SAND with shell fragments beginning at 3.5' (loose, moist) (no odor) (hydraulic fill)	
6								
8								
10								

▽ ATD

-becomes wet at 5.5 feet

Boring Completed 02/11/04
Total Depth of Boring = 10.0 ft.

- Notes: 1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

NMP2-J-1

SAMPLE DATA					SOIL PROFILE			GROUNDWATER	
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol		Water Level	
0							Drilling Method: <u>GeoprobeTM</u> Ground Elevation (ft): <u>No Reference</u> Drilled By: <u>Cascade Drilling Inc.</u>		
						GP	Brown, sandy, fine to coarse GRAVEL (medium dense, moist) (gravel roadbase)		
						WD	Wood debris; wood chips		
2	f3			0		GP	Tan, sandy, fine to coarse GRAVEL (medium dense, moist) (no odor) (gravel roadbase)		
						SP-SM	Green-gray, fine to medium SAND with silt and shell fragments (loose, moist to wet) (no odor)(hydraulic fill)	▽ ATD	
4									
6	f3			0		SP-SM	Gray to dark gray, fine to medium SAND with silt (loose, wet) (no odor) (hydraulic fill)		
	</								

Boring Completed 02/12/04
Total Depth of Boring = 8.0 ft.

- Notes: 1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

NMP2-J-2

SAMPLE DATA

SOIL PROFILE

GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Geoprobe™ Ground Elevation (ft): No Reference Drilled By: Cascade Drilling Inc.	Water Level
0						AC	Asphalt	
						GP	Brown, sandy, fine to coarse GRAVEL (medium dense, moist) (gravel roadbase)	
2		f3		0		SP	Tan, fine to coarse SAND, with shell fragments (loose, moist to wet at 4') (no odor) (hydraulic fill)	
4								▽ ATD
6		f3		0				
8						SP-SM	Gray to dark gray, fine to medium SAND with silt (loose, wet) (no odor) (hydraulic fill)	

NMP2-J-2
-GW
@ 0740

Boring Completed 02/12/04
Total Depth of Boring = 8.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

NMP2-K-1

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): <u>No Reference</u> Drilled By: <u>Cascade Drilling Inc.</u> Water Level
0						GP	Brown, sandy, fine to coarse GRAVEL (medium dense, moist) (gravel roadbase)
2		f3		0		SP	Tan, medium to coarse SAND, with scattered shell fragments (loose, moist) (no odor) (hydraulic fill)
4							- becomes wet at 5 feet
6		f3		0		SP-SM	Gray, fine to medium SAND, with silt and shell fragments (loose, wet) (no odor) (hydraulic fill)
8	NMP2-K-1 -GW @ 1145						▽ ATD

Boring Completed 02/12/04
Total Depth of Boring = 8.0 ft.

- Notes: 1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

Analytical Data Tables

**TABLE C-1
SOIL ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON**

	MTCA Method B		Background Soil Concentration (a)	NMP2-B-4-CS	NMP2-C-4-SS	NMP2-C-5-SS	NMP2-C-7-CS-3	NMP2-D-3-CS	NMP2-D-4-CS	NMP2-D-5-SS	NMP2-D-6-SS
	Protection of GW	Direct Contact		G108D	GE76J	GE76A	G108E	GM39A	GM39B	GE76G	GE76H
	Cleanup Level	Cleanup Level		2/11/2004	12/30/2003	12/29/2003	2/12/2004	12/29/2003	12/29/2003	12/30/2003	12/30/2003
CONVENTIONAL PARAMETERS											
Hexavalent Chrome (mg/kg)	19	240		NA	0.11 U	NA	NA	NA	NA	0.10 U	0.11 U
Total Solids (%)				NA	92.5	NA	NA	NA	NA	94.9	93.7
HYDROCARBONS (mg/kg)											
NWTPHD-HCID											
Gas Range	100 (b)			NA	NA	27 U	NA	NA	NA	27 U	26 U
Diesel Range	2000 (b)			NA	NA	50 U	NA	NA	NA	50 U	76
Oil Range	2000 (b)			NA	NA	100 U	NA	NA	NA	100 U	110
Si/Acid Cleaned NWTPHD											
Diesel	2000 (b)			NA	NA	NA	NA	990 J	69 J	NA	NA
Motor Oil	2000 (b)			NA	NA	NA	NA	9500 J	48 J	NA	NA
NWTPH-g											
Gasoline	100 (b)			NA	NA	5.3 U	NA	NA	NA	NA	NA
TOTAL METALS (mg/kg)											
SW6000-7000 series											
Arsenic	0.082	0.670	20 (d)	NA	21	NA	4.5	NA	NA	4.9	20
Barium				NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5.6	80	1	NA	2 U	NA	0.2 U	NA	NA	0.5 U	0.5 U
Chromium (c)	8,800,000,000	120,000	48	NA	54	NA	27.2	NA	NA	51	61
Copper	1.4	3000	36	NA	11900	NA	17.0	NA	NA	43.7	42.2
Lead	1600		24	9	3080	NA	4	NA	NA	14	8
Mercury	0.026	24	0.07	NA	1.20	NA	0.04 U	NA	NA	0.08	0.05 U
Selenium	7.4	400		NA	NA	NA	NA	NA	NA	NA	NA
Silver	0.32	400		NA	3 U	NA	0.3 U	NA	NA	0.8 U	0.8 U
Zinc	100	24000	85	NA	827	NA	40.1	NA	NA	74	81
PCBs (µg/kg)											
SW8082											
Aroclor 1016	0.0007	5600		NA	NA	NA	NA	NA	NA	36 U	35 U
Aroclor 1242				NA	NA	NA	NA	NA	NA	36 U	35 U
Aroclor 1248				NA	NA	NA	NA	NA	NA	36 U	35 U
Aroclor 1254	0.33	1600		NA	NA	NA	NA	NA	NA	36 U	35 U
Aroclor 1260	0.0007			NA	NA	NA	NA	NA	NA	36 U	35 U
Aroclor 1221				NA	NA	NA	NA	NA	NA	73 U	70 U
Aroclor 1232				NA	NA	NA	NA	NA	NA	36 U	35 U
Total PCBs		0.1 (b)		NA	NA	NA	NA	NA	NA	ND	ND
cPAHs (µg/kg)											
SW8270C-SIM											
Benzo(a)anthracene	220	140		NA	NA	7.2 U	29	200 J	3900 J	680	810
Chrysene	250	140		NA	NA	31	48	370 J	3200 J	1300	1100
Benzo(b)fluoranthene	760	140		NA	NA	15	26	340 J	1700 J	1100	980
Benzo(k)fluoranthene	760	140		NA	NA	15	27	340 J	1200 J	750	770
Benzo(a)pyrene	600	140		NA	NA	23	28	220 J	1300 J	590	760
Indeno(1,2,3-cd)pyrene	2,200	140		NA	NA	7.2 U	18	120 J	260 J	230	300
Dibenz(a,h)anthracene	1,100	140		NA	NA	7.2 U	7.6 U	87 UJ	210 J	84	120
cPAH TEQ		0.1 (b)		NA	NA	26.3	38.5	324 J	2122 J	913	1105

TABLE C-1
SOIL ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B		Background Soil Concentration (a)	NMP2-B-4-CS	NMP2-C-4-SS	NMP2-C-5-SS	NMP2-C-7-CS-3	NMP2-D-3-CS	NMP2-D-4-CS	NMP2-D-5-SS	NMP2-D-6-SS
	Protection of GW	Direct Contact		GI08D	GE76J	GE76A	GI08E	GM39A	GM39B	GE76G	GE76H
	Cleanup Level	Cleanup Level		2/11/2004	12/30/2003	12/29/2003	2/12/2004	12/29/2003	12/29/2003	12/30/2003	12/30/2003
BTEX (µg/kg)											
SW8021BMod											
Benzene	400	18000.0		NA	NA	NA	NA	NA	NA	NA	NA
Toluene	350000	16000000		NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	60000	8000000		NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene		160000000		NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene		160000000		NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (µg/kg)											
SW8270C											
Phenol	5100000	48000000		NA	NA	NA	NA	NA	NA	NA	NA
Bis-(2-Chloroethyl) Ether	7.7	910		NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	1100	400000		NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene				NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	800	42000		NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol		24000000		NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	49000	7200000		NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol		4000000		NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	2000	14000		NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol		400000		NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	3.7	140		NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	360	71000		NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	2900	40000		NA	NA	NA	NA	NA	NA	NA	NA
sophorone	3000	1100000		NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol				NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	4500	1600000		NA	NA	NA	NA	NA	NA	NA	NA
Benzoic Acid		320000000		NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy) Methane				NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	1300	240000		NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	8500	800000		NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	140000	1600000		NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline		320000		NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	54000	13000		NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol				NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene				NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	14000000	480000		NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	76	90909		NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol		8000000		NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	37000	6400000		NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline				NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	330000	80000000		NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene				NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline				NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	66000	4800000		NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	14000	160000		NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol				NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran				NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene		80000		NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	54	160000		NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	160000	64000000		NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether				NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	550000	3200000		NA	NA	NA	NA	NA	NA	NA	NA

TABLE C-1
SOIL ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B		Background Soil Concentration (a)	NMP2-B-4-CS	NMP2-C-4-SS	NMP2-C-5-SS	NMP2-C-7-CS-3	NMP2-D-3-CS	NMP2-D-4-CS	NMP2-D-5-SS	NMP2-D-6-SS
	Protection of GW	Direct Contact		GI08D	GE76J	GE76A	GI08E	GM39A	GM39B	GE76G	GE76H
	Cleanup Level	Cleanup Level		2/11/2004	12/30/2003	12/29/2003	2/12/2004	12/29/2003	12/29/2003	12/30/2003	12/30/2003
4-Nitroaniline				NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol				NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	480	200000		NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether				NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	1.2	630		NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	130	8300		NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene				NA	NA	NA	NA	NA	NA	NA	NA
Carbazole		50000		NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	12000000	24000000		NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	100000	8000000		NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	89000	3200000		NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	3500000	2400000		NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	350000	16000000		NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	1.4	2200		NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	220	140		NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	13000	71000		NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	250	140		NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl phthalate		1600000		NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	760	140		NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	760	140		NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	600	140		NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2200	140		NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	1100	140		NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene				NA	NA	NA	NA	NA	NA	NA	NA
cPAH TEQ		0.1 (b)		NA	NA	NA	NA	NA	NA	NA	NA

TABLE C-1
SOIL ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B		Background Soil Concentration (a)	NMP2-D-7-SS GE76I 12/30/2003	NMP2-D-8-CS-3 GI08G 2/11/2004	NMP2-F-4-SS GE76E 12/30/2003	NMP2-F-5-SS GE76D 12/30/2003	NMP2-F-6-SS GE76F 12/30/2003	NMP2-F-9-CS-3 GI08K 2/12/2004	NMP2-G-3-CS-3 GI08M 2/11/2004	NMP2-H-1-CS GE49B 12/23/2003	
	Protection of GW Cleanup Level	Direct Contact Cleanup Level										
CONVENTIONAL PARAMETERS												
Hexavalent Chrome (mg/kg)	19	240		0.11 U	NA	0.12 U	0.14 U	0.11 U	NA	NA	NA	
Total Solids (%)				93.1	NA	82.0	69.2	91.4	NA	NA	NA	
HYDROCARBONS (mg/kg)												
NWTPHD-HCID												
Gas Range	100 (b)			27 U	NA	30 U	61	26 U	NA	NA	NA	
Diesel Range	2000 (b)			78	NA	50 U	280	50 U	NA	NA	NA	
Oil Range	2000 (b)			100 U	NA	100 U	630	100 U	NA	NA	NA	
Si/Acid Cleaned NWTPHD												
Diesel	2000 (b)			NA	NA	NA	NA	NA	NA	13	5.0 U	
Motor Oil	2000 (b)			NA	NA	NA	NA	NA	NA	62	10 U	
NWTPH-g												
Gasoline	100 (b)			NA	NA	NA	NA	NA	NA	6.7 UJ	7.2 UJ	
TOTAL METALS (mg/kg)												
SW6000-7000 series												
Arsenic	0.082	0.670	20 (d)	42	NA	57	53	14.5	4.6	10.2	NA	
Barium				NA	NA	NA	NA	NA	NA	NA	NA	
Cadmium	5.6	80	1	0.5 U	NA	0.9	2.1	0.7	0.2 U	25.2	NA	
Chromium (c)	8,800,000,000	120,000	48	26	NA	54.6	71	29.5	24.0	63.6	NA	
Copper	1.4	3000	36	45.5	NA	190	1190 J	1120	13.6	60.0	NA	
Lead	1600		24	13	NA	115	241	43	3	49	NA	
Mercury	0.026	24	0.07	0.04 U	NA	0.11	1.03	0.73	0.05 U	0.37	NA	
Selenium	7.4	400		NA	NA	NA	NA	NA	NA	NA	NA	
Silver	0.32	400		0.7 U	NA	0.4 U	1 U	0.3 U	0.3 U	0.4 U	NA	
Zinc	100	24000	85	89	NA	810	1790	376	38.0	130	NA	
PCBs (µg/kg)												
SW8082												
Aroclor 1016	0.0007	5600		36 U	NA	NA	NA	NA	NA	47 U	NA	
Aroclor 1242				36 U	NA	NA	NA	NA	NA	47 U	NA	
Aroclor 1248				36 U	NA	NA	NA	NA	NA	47 U	NA	
Aroclor 1254	0.33	1600		36 U	NA	NA	NA	NA	NA	110	NA	
Aroclor 1260	0.0007			36 U	NA	NA	NA	NA	NA	94 U	NA	
Aroclor 1221				71 U	NA	NA	NA	NA	NA	47 U	NA	
Aroclor 1232				36 U	NA	NA	NA	NA	NA	47 U	NA	
Total PCBs		0.1 (b)		ND	NA	NA	NA	NA	NA	110	NA	
cPAHs (µg/kg)												
SW8270C-SIM												
Benzo(a)anthracene	220	140		1600	7.2 U	210	82 J	12	7.7 U	51	NA	
Chrysene	250	140		3400	7.2 U	260	140 J	25	7.7 U	71	NA	
Benzo(b)fluoranthene	760	140		1900	7.2 U	270	120 J	24	7.7 U	63	NA	
Benzo(k)fluoranthene	760	140		1200	7.2 U	210	77 J	17	7.7 U	52	NA	
Benzo(a)pyrene	600	140		950	7.2 U	220	87 J	9.1	7.7 U	47	NA	
Indeno(1,2,3-cd)pyrene	2,200	140		370	7.2 U	110	51 UJ	7.0 U	7.7 U	32	NA	
Dibenz(a,h)anthracene	1,100	140		130	7.2 U	45	51 UJ	7.0 U	7.7 U	9.5 U	NA	
cPAH TEQ		0.1 (b)		1543	ND	321	1.4 J	14.7	ND	67.5	NA	

TABLE C-1
SOIL ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B		Background Soil Concentration (a)	NMP2-D-7-SS	NMP2-D-8-CS-3	NMP2-F-4-SS	NMP2-F-5-SS	NMP2-F-6-SS	NMP2-F-9-CS-3	NMP2-G-3-CS-3	NMP2-H-1-CS
	Protection of GW	Direct Contact		GE76I	GI08G	GE76E	GE76D	GE76F	GI08K	GI08M	GE49B
	Cleanup Level	Cleanup Level		12/30/2003	2/11/2004	12/30/2003	12/30/2003	12/30/2003	2/12/2004	2/11/2004	12/23/2003
BTEX (µg/kg)											
SW8021BMod											
Benzene	400	18000.0		NA	NA	NA	1.6 UJ	NA	NA	33 UJ	NA
Toluene	350000	16000000		NA	NA	NA	1.6 UJ	NA	NA	33 UJ	NA
Ethylbenzene	60000	8000000		NA	NA	NA	1.6 UJ	NA	NA	33 UJ	NA
m,p-Xylene		160000000		NA	NA	NA	1.6 UJ	NA	NA	67 UJ	NA
o-Xylene		160000000		NA	NA	NA	1.6 UJ	NA	NA	33 UJ	NA
SEMIVOLATILES (µg/kg)											
SW8270C											
Phenol	5100000	48000000		NA	NA	NA	NA	NA	NA	NA	NA
Bis-(2-Chloroethyl) Ether	7.7	910		NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	1100	400000		NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene				NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	800	42000		NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol		24000000		NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	49000	7200000		NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol		4000000		NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	2000	14000		NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol		400000		NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	3.7	140		NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	360	71000		NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	2900	40000		NA	NA	NA	NA	NA	NA	NA	NA
sophorone	3000	1100000		NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol				NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	4500	1600000		NA	NA	NA	NA	NA	NA	NA	NA
Benzoic Acid		320000000		NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy) Methane				NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	1300	240000		NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	8500	800000		NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	140000	1600000		NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline		320000		NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	54000	13000		NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol				NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene				NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	14000000	480000		NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	76	90909		NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol		8000000		NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	37000	6400000		NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline				NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	330000	80000000		NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene				NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline				NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	66000	4800000		NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	14000	160000		NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol				NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran				NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene		80000		NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	54	160000		NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	160000	64000000		NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether				NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	550000	3200000		NA	NA	NA	NA	NA	NA	NA	NA

TABLE C-1
SOIL ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B		Background Soil Concentration (a)	NMP2-D-7-SS	NMP2-D-8-CS-3	NMP2-F-4-SS	NMP2-F-5-SS	NMP2-F-6-SS	NMP2-F-9-CS-3	NMP2-G-3-CS-3	NMP2-H-1-CS
	Protection of GW	Direct Contact		GE76I	GI08G	GE76E	GE76D	GE76F	GI08K	GI08M	GE49B
	Cleanup Level	Cleanup Level		12/30/2003	2/11/2004	12/30/2003	12/30/2003	12/30/2003	2/12/2004	2/11/2004	12/23/2003
4-Nitroaniline	480	200000	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol			NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine			NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether			NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	1.2	630	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	130	8300	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	12000000	24000000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole			NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene			NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate			100000	8000000	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	89000	3200000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	3500000	2400000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	350000	16000000	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	1.4	2200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	220	140	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	13000	71000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	250	140	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl phthalate	760	1600000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene		140	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene		140	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene		140	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2200	140	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	1100	140	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene		0.1 (b)	NA	NA	NA	NA	NA	NA	NA	NA	NA
cPAH TEQ			NA	NA	NA	NA	NA	NA	NA	NA	NA

**TABLE C-1
SOIL ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON**

	MTCA Method B		Background Soil Concentration (a)	NMP2-H-2-CS	NMP2-H-3-CS	NMP2-H-4-CS	NMP2-H-5-CS	NMP2-I-3-SS	NMP2-I-X-SS	NMP2-I-Y-SS	NMP2-I-Z-SS	NMP2-JP-1-SS
	Protection of GW	Direct Contact		GE49C	GE49A	GI08Q	GI08R	GI08S	GI08T	GI08U	GI08V	GE49E
	Cleanup Level	Cleanup Level		12/23/2003	12/22/2003	2/11/2004	2/11/2004	2/12/2004	2/12/2004	2/12/2004	2/12/2004	12/23/2003
CONVENTIONAL PARAMETERS												
Hexavalent Chrome (mg/kg)	19	240		NA	NA	NA	NA	NA	NA	NA	NA	0.11 U
Total Solids (%)				NA	NA	NA	NA	NA	NA	NA	NA	89.2
HYDROCARBONS (mg/kg)												
NWTPHD-HCID												
Gas Range	100 (b)			NA	NA	NA	NA	NA	NA	NA	NA	27 U
Diesel Range	2000 (b)			NA	NA	NA	NA	NA	NA	NA	NA	50 U
Oil Range	2000 (b)			NA	NA	NA	NA	NA	NA	NA	NA	100 U
Si/Acid Cleaned NWTPHD												
Diesel	2000 (b)			5.0 U	5.0 U	17	5.0 U	19	940	7.0	5.0 U	NA
Motor Oil	2000 (b)			12	10 U	140	10 U	34	150	10 U	14	NA
NWTPH-g												
Gasoline	100 (b)			5.9 U	6.6 UJ	5.9 UJ	6.6 UJ	NA	NA	NA	NA	NA
TOTAL METALS (mg/kg)												
SW6000-7000 series												
Arsenic	0.082	0.670	20 (d)	NA	NA	NA	NA	6.2	60	5.3	240	3.3
Barium				NA	NA	NA	NA	NA	76.1	71.6	NA	NA
Cadmium	5.6	80	1	NA	NA	NA	NA	0.2 U	0.4	0.2 U	0.7	0.2 U
Chromium (c)	8,800,000,000	120,000	48	NA	NA	NA	NA	32.7	41.4	33.2	56	43.8
Copper	1.4	3000	36	NA	NA	NA	NA	21.1	NA	NA	868	19.9
Lead	1600		24	NA	NA	6	5	6	41	6	280	8
Mercury	0.026	24	0.07	NA	NA	NA	NA	0.06	0.07 U	0.05	0.83	0.05 U
Selenium	7.4	400		NA	NA	NA	NA	NA	9 U	6 U	NA	NA
Silver	0.32	400		NA	NA	NA	NA	0.4 U	0.5 U	0.3 U	0.8 U	0.3 U
Zinc	100	24000	85	NA	NA	NA	NA	44.3	NA	NA	863	44.7
PCBs (µg/kg)												
SW8082												
Aroclor 1016	0.0007	5600		NA	NA	NA	NA	NA	67 U	40 U	NA	NA
Aroclor 1242				NA	NA	NA	NA	NA	67 U	40 U	NA	NA
Aroclor 1248				NA	NA	NA	NA	NA	67 U	40 U	NA	NA
Aroclor 1254	0.33	1600		NA	NA	NA	NA	NA	67 U	40 U	NA	NA
Aroclor 1260	0.0007			NA	NA	NA	NA	NA	67 U	40 U	NA	NA
Aroclor 1221				NA	NA	NA	NA	NA	67 U	40 U	NA	NA
Aroclor 1232				NA	NA	NA	NA	NA	67 U	40 U	NA	NA
Total PCBs		0.1 (b)		NA	NA	NA	NA	NA	ND	ND	NA	NA
cPAHs (µg/kg)												
SW8270C-SIM												
Benzo(a)anthracene	220	140		NA	NA	NA	NA	19	NA	NA	21	7.1 U
Chrysene	250	140		NA	NA	NA	NA	40	NA	NA	31	7.1 U
Benzo(b)fluoranthene	760	140		NA	NA	NA	NA	40	NA	NA	28	7.1 U
Benzo(k)fluoranthene	760	140		NA	NA	NA	NA	28	NA	NA	15	7.1 U
Benzo(a)pyrene	600	140		NA	NA	NA	NA	19	NA	NA	17	7.1 U
Indeno(1,2,3-cd)pyrene	2,200	140		NA	NA	NA	NA	13	NA	NA	10	7.1 U
Dibenz(a,h)anthracene	1,100	140		NA	NA	NA	NA	8.4 U	NA	NA	8.7 U	7.1 U
cPAH TEQ		0.1 (b)		NA	NA	NA	NA	29.4	NA	NA	24.7	ND

TABLE C-1
SOIL ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B		Background Soil Concentration (a)	NMP2-H-2-CS GE49C 12/23/2003	NMP2-H-3-CS GE49A 12/22/2003	NMP2-H-4-CS GI08Q 2/11/2004	NMP2-H-5-CS GI08R 2/11/2004	NMP2-I-3-SS GI08S 2/12/2004	NMP2-I-X-SS GI08T 2/12/2004	NMP2-I-Y-SS GI08U 2/12/2004	NMP2-I-Z-SS GI08V 2/12/2004	NMP2-JP-1-SS GE49E 12/23/2003
	Protection of GW Cleanup Level	Direct Contact Cleanup Level										
BTEX (µg/kg)												
SW8021BMod												
Benzene	400	18000.0		NA	NA	30 UJ	33 UJ	NA	NA	NA	NA	NA
Toluene	350000	16000000		NA	NA	30 UJ	33 UJ	NA	NA	NA	NA	NA
Ethylbenzene	60000	8000000		NA	NA	30 UJ	33 UJ	NA	NA	NA	NA	NA
m,p-Xylene		160000000		NA	NA	59 UJ	66 UJ	NA	NA	NA	NA	NA
o-Xylene		160000000		NA	NA	30 UJ	33 UJ	NA	NA	NA	NA	NA
SEMIVOLATILES (µg/kg)												
SW8270C												
Phenol	5100000	48000000		NA	NA	NA	NA	NA	270 U	160 U	NA	NA
Bis-(2-Chloroethyl) Ether	7.7	910		NA	NA	NA	NA	NA	270 U	160 U	NA	NA
2-Chlorophenol	1100	400000		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
1,3-Dichlorobenzene				NA	NA	NA	NA	NA	140 U	81 U	NA	NA
1,4-Dichlorobenzene	800	42000		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
Benzyl Alcohol		24000000		NA	NA	NA	NA	NA	680 U	410 U	NA	NA
1,2-Dichlorobenzene	49000	7200000		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
2-Methylphenol		4000000		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
2,2'-Oxybis(1-Chloropropane)	2000	14000		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
4-Methylphenol		400000		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
N-Nitroso-Di-N-Propylamine	3.7	140		NA	NA	NA	NA	NA	270 U	160 U	NA	NA
Hexachloroethane	360	71000		NA	NA	NA	NA	NA	270 U	160 U	NA	NA
Nitrobenzene	2900	40000		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
Isophorone	3000	1100000		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
2-Nitrophenol				NA	NA	NA	NA	NA	680 U	410 U	NA	NA
2,4-Dimethylphenol	4500	1600000		NA	NA	NA	NA	NA	410 U	240 U	NA	NA
Benzoic Acid		320000000		NA	NA	NA	NA	NA	1400 U	810 U	NA	NA
bis(2-Chloroethoxy) Methane				NA	NA	NA	NA	NA	140 U	81 U	NA	NA
2,4-Dichlorophenol	1300	240000		NA	NA	NA	NA	NA	410 U	240 U	NA	NA
1,2,4-Trichlorobenzene	8500	800000		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
Naphthalene	140000	1600000		NA	NA	NA	NA	NA	240	81 U	NA	NA
4-Chloroaniline		320000		NA	NA	NA	NA	NA	410 U	240 U	NA	NA
Hexachlorobutadiene	54000	13000		NA	NA	NA	NA	NA	270 U	160 U	NA	NA
4-Chloro-3-methylphenol				NA	NA	NA	NA	NA	270 U	160 U	NA	NA
2-Methylnaphthalene				NA	NA	NA	NA	NA	2400	81 U	NA	NA
Hexachlorocyclopentadiene	14000000	480000		NA	NA	NA	NA	NA	680 U	410 U	NA	NA
2,4,6-Trichlorophenol	76	90909		NA	NA	NA	NA	NA	680 U	410 U	NA	NA
2,4,5-Trichlorophenol		8000000		NA	NA	NA	NA	NA	680 U	410 U	NA	NA
2-Chloronaphthalene	37000	6400000		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
2-Nitroaniline				NA	NA	NA	NA	NA	680 U	410 U	NA	NA
Dimethylphthalate	330000	80000000		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
Acenaphthylene				NA	NA	NA	NA	NA	140 U	81 U	NA	NA
3-Nitroaniline				NA	NA	NA	NA	NA	820 U	490 U	NA	NA
Acenaphthene	66000	4800000		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
2,4-Dinitrophenol	14000	160000		NA	NA	NA	NA	NA	1400 U	810 U	NA	NA
4-Nitrophenol				NA	NA	NA	NA	NA	680 U	410 U	NA	NA
Dibenzofuran				NA	NA	NA	NA	NA	140 U	81 U	NA	NA
2,6-Dinitrotoluene		80000		NA	NA	NA	NA	NA	680 U	410 U	NA	NA
2,4-Dinitrotoluene	54	160000		NA	NA	NA	NA	NA	680 U	410 U	NA	NA
Diethylphthalate	160000	64000000		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
4-Chlorophenyl-phenylether				NA	NA	NA	NA	NA	140 U	81 U	NA	NA
Fluorene	550000	3200000		NA	NA	NA	NA	NA	140 U	81 U	NA	NA

TABLE C-1
SOIL ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B		Background Soil Concentration (a)	NMP2-H-2-CS	NMP2-H-3-CS	NMP2-H-4-CS	NMP2-H-5-CS	NMP2-I-3-SS	NMP2-I-X-SS	NMP2-I-Y-SS	NMP2-I-Z-SS	NMP2-JP-1-SS
	Protection of GW	Direct Contact		GE49C	GE49A	GI08Q	GI08R	GI08S	GI08T	GI08U	GI08V	GE49E
	Cleanup Level	Cleanup Level		12/23/2003	12/22/2003	2/11/2004	2/11/2004	2/12/2004	2/12/2004	2/12/2004	2/12/2004	12/23/2003
4-Nitroaniline				NA	NA	NA	NA	NA	680 U	410 U	NA	NA
4,6-Dinitro-2-Methylphenol				NA	NA	NA	NA	NA	1400 U	810 U	NA	NA
N-Nitrosodiphenylamine	480	200000		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
4-Bromophenyl-phenylether				NA	NA	NA	NA	NA	140 U	81 U	NA	NA
Hexachlorobenzene	1.2	630		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
Pentachlorophenol	130	8300		NA	NA	NA	NA	NA	680 U	410 U	NA	NA
Phenanthrene				NA	NA	NA	NA	NA	1200	81 U	NA	NA
Carbazole		50000		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
Anthracene	12000000	24000000		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
Di-n-Butylphthalate	100000	8000000		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
Fluoranthene	89000	3200000		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
Pyrene	3500000	2400000		NA	NA	NA	NA	NA	160	81 U	NA	NA
Butylbenzylphthalate	350000	16000000		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
3,3'-Dichlorobenzidine	1.4	2200		NA	NA	NA	NA	NA	680 U	410 U	NA	NA
Benzo(a)anthracene	220	140		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
bis(2-Ethylhexyl)phthalate	13000	71000		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
Chrysene	250	140		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
Di-n-Octyl phthalate		1600000		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
Benzo(b)fluoranthene	760	140		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
Benzo(k)fluoranthene	760	140		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
Benzo(a)pyrene	600	140		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
Indeno(1,2,3-cd)pyrene	2200	140		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
Dibenz(a,h)anthracene	1100	140		NA	NA	NA	NA	NA	140 U	81 U	NA	NA
Benzo(g,h,i)perylene				NA	NA	NA	NA	NA	140 U	81 U	NA	NA
cPAH TEQ		0.1 (b)		NA	NA	NA	NA	NA	ND	ND	NA	NA

**TABLE C-1
SOIL ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON**

	MTCA Method B		Background Soil Concentration (a)	NMP2-PZ-8-CS-3	NMP2-PZ-8-SS	NMP2-PZ-9-CS-3	NMP2-PZ-9-CS-6	NMP2-PZ-10-CS-3
	Protection of GW Cleanup Level	Direct Contact Cleanup Level		GI08B 2/11/2004	GI08A 2/11/2004	GI08I 2/11/2004	GK06A 2/11/2004	GI08O 2/11/2004
CONVENTIONAL PARAMETERS								
Hexavalent Chrome (mg/kg)	19	240		NA	NA	NA	NA	NA
Total Solids (%)				NA	NA	NA	NA	NA
HYDROCARBONS (mg/kg)								
NWTPHD-HCID								
Gas Range	100 (b)			NA	NA	NA	NA	NA
Diesel Range	2000 (b)			NA	NA	NA	NA	NA
Oil Range	2000 (b)			NA	NA	NA	NA	NA
Si/Acid Cleaned NWTPHD								
Diesel	2000 (b)			NA	NA	NA	NA	5.0 U
Motor Oil	2000 (b)			NA	NA	NA	NA	10 U
NWTPH-g								
Gasoline	100 (b)			NA	NA	NA	NA	6.6 UJ
TOTAL METALS (mg/kg)								
SW6000-7000 series								
Arsenic	0.082	0.670	20 (d)	4	6.5	60	57	6.3
Barium				NA	NA	NA	NA	NA
Cadmium	5.6	80	1	0.2 U	0.2 U	0.3	0.3	0.2 U
Chromium (c)	8,800,000,000	120,000	48	23.0	30.0	39.4	38.9	31.3
Copper	1.4	3000	36	11.7	53.4	87.9	91.3	22.1
Lead	1600		24	4	26	54	56	8
Mercury	0.026	24	0.07	0.05 U	0.07	0.09	0.06	0.07
Selenium	7.4	400		NA	NA	NA	NA	NA
Silver	0.32	400		0.3 U	0.3 U	0.3 U	0.4 U	0.3 U
Zinc	100	24000	85	29.8	79.6 J	188	201	52.1
PCBs (µg/kg)								
SW8082								
Aroclor 1016	0.0007	5600		NA	NA	NA	NA	36 UJ
Aroclor 1242				NA	NA	NA	NA	36 U
Aroclor 1248				NA	NA	NA	NA	36 U
Aroclor 1254	0.33	1600		NA	NA	NA	NA	36 U
Aroclor 1260	0.0007			NA	NA	NA	NA	36 U
Aroclor 1221				NA	NA	NA	NA	36 U
Aroclor 1232				NA	NA	NA	NA	36 U
Total PCBs		0.1 (b)		NA	NA	NA	NA	ND
cPAHs (µg/kg)								
SW8270C-SIM								
Benzo(a)anthracene	220	140		7.2 U	7.2 J	81	NA	11
Chrysene	250	140		7.2 U	9.9	120	NA	19
Benzo(b)fluoranthene	760	140		7.2 U	7.6 U	100	NA	9.8
Benzo(k)fluoranthene	760	140		7.2 U	7.6 U	72	NA	9.8
Benzo(a)pyrene	600	140		7.2 U	7.6 U	53	NA	9.3
Indeno(1,2,3-cd)pyrene	2,200	140		7.2 U	7.6 U	33	NA	7.2 U
Dibenz(a,h)anthracene	1,100	140		7.2 U	7.6 U	8.0 U	NA	7.2 U
cPAH TEQ		0.1 (b)		ND	0.8	82.8	NA	12.6

TABLE C-1
SOIL ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B		Background Soil Concentration (a)	NMP2-PZ-8-CS-3 GI08B 2/11/2004	NMP2-PZ-8-SS GI08A 2/11/2004	NMP2-PZ-9-CS-3 GI08I 2/11/2004	NMP2-PZ-9-CS-6 GK06A 2/11/2004	NMP2-PZ-10-CS-3 GI08O 2/11/2004
	Protection of GW Cleanup Level	Direct Contact Cleanup Level						
BTEX (µg/kg)								
SW8021BMod								
Benzene	400	18000.0		NA	NA	NA	NA	33 UJ
Toluene	350000	16000000		NA	NA	NA	NA	33 UJ
Ethylbenzene	60000	8000000		NA	NA	NA	NA	33 UJ
m,p-Xylene		160000000		NA	NA	NA	NA	66 UJ
o-Xylene		160000000		NA	NA	NA	NA	33 UJ
SEMIVOLATILES (µg/kg)								
SW8270C								
Phenol	5100000	48000000		NA	NA	NA	NA	NA
Bis-(2-Chloroethyl) Ether	7.7	910		NA	NA	NA	NA	NA
2-Chlorophenol	1100	400000		NA	NA	NA	NA	NA
1,3-Dichlorobenzene				NA	NA	NA	NA	NA
1,4-Dichlorobenzene	800	42000		NA	NA	NA	NA	NA
Benzyl Alcohol		24000000		NA	NA	NA	NA	NA
1,2-Dichlorobenzene	49000	7200000		NA	NA	NA	NA	NA
2-Methylphenol		4000000		NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	2000	14000		NA	NA	NA	NA	NA
4-Methylphenol		400000		NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	3.7	140		NA	NA	NA	NA	NA
Hexachloroethane	360	71000		NA	NA	NA	NA	NA
Nitrobenzene	2900	40000		NA	NA	NA	NA	NA
Isophorone	3000	1100000		NA	NA	NA	NA	NA
2-Nitrophenol				NA	NA	NA	NA	NA
2,4-Dimethylphenol	4500	1600000		NA	NA	NA	NA	NA
Benzoic Acid		320000000		NA	NA	NA	NA	NA
bis(2-Chloroethoxy) Methane				NA	NA	NA	NA	NA
2,4-Dichlorophenol	1300	240000		NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	8500	800000		NA	NA	NA	NA	NA
Naphthalene	140000	1600000		NA	NA	NA	NA	NA
4-Chloroaniline		320000		NA	NA	NA	NA	NA
Hexachlorobutadiene	54000	13000		NA	NA	NA	NA	NA
4-Chloro-3-methylphenol				NA	NA	NA	NA	NA
2-Methylnaphthalene				NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	14000000	480000		NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	76	90909		NA	NA	NA	NA	NA
2,4,5-Trichlorophenol		8000000		NA	NA	NA	NA	NA
2-Chloronaphthalene	37000	6400000		NA	NA	NA	NA	NA
2-Nitroaniline				NA	NA	NA	NA	NA
Dimethylphthalate	330000	80000000		NA	NA	NA	NA	NA
Acenaphthylene				NA	NA	NA	NA	NA
3-Nitroaniline				NA	NA	NA	NA	NA
Acenaphthene	66000	4800000		NA	NA	NA	NA	NA
2,4-Dinitrophenol	14000	160000		NA	NA	NA	NA	NA
4-Nitrophenol				NA	NA	NA	NA	NA
Dibenzofuran				NA	NA	NA	NA	NA
2,6-Dinitrotoluene		80000		NA	NA	NA	NA	NA
2,4-Dinitrotoluene	54	160000		NA	NA	NA	NA	NA
Diethylphthalate	160000	64000000		NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether				NA	NA	NA	NA	NA
Fluorene	550000	3200000		NA	NA	NA	NA	NA

TABLE C-1
SOIL ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B		Background Soil Concentration (a)	NMP2-PZ-8-CS-3 GI08B 2/11/2004	NMP2-PZ-8-SS GI08A 2/11/2004	NMP2-PZ-9-CS-3 GI08I 2/11/2004	NMP2-PZ-9-CS-6 GK06A 2/11/2004	NMP2-PZ-10-CS-3 GI08O 2/11/2004
	Protection of GW Cleanup Level	Direct Contact Cleanup Level						
4-Nitroaniline				NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol				NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	480	200000		NA	NA	NA	NA	NA
4-Bromophenyl-phenylether				NA	NA	NA	NA	NA
Hexachlorobenzene	1.2	630		NA	NA	NA	NA	NA
Pentachlorophenol	130	8300		NA	NA	NA	NA	NA
Phenanthrene				NA	NA	NA	NA	NA
Carbazole		50000		NA	NA	NA	NA	NA
Anthracene	12000000	24000000		NA	NA	NA	NA	NA
Di-n-Butylphthalate	100000	8000000		NA	NA	NA	NA	NA
Fluoranthene	89000	3200000		NA	NA	NA	NA	NA
Pyrene	3500000	2400000		NA	NA	NA	NA	NA
Butylbenzylphthalate	350000	16000000		NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	1.4	2200		NA	NA	NA	NA	NA
Benzo(a)anthracene	220	140		NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	13000	71000		NA	NA	NA	NA	NA
Chrysene	250	140		NA	NA	NA	NA	NA
Di-n-Octyl phthalate		1600000		NA	NA	NA	NA	NA
Benzo(b)fluoranthene	760	140		NA	NA	NA	NA	NA
Benzo(k)fluoranthene	760	140		NA	NA	NA	NA	NA
Benzo(a)pyrene	600	140		NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2200	140		NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	1100	140		NA	NA	NA	NA	NA
Benzo(g,h,i)perylene				NA	NA	NA	NA	NA
cPAH TEQ		0.1 (b)		NA	NA	NA	NA	NA

NA = Not analyzed.

U = Indicates compound was analyzed for, but was not detected at the reported sample detection limit.

J = Result is an estimated value.

(a) Background soil concentrations from Natural Background Soil Metals Concentrations in Washington State (Ecology 1994), unless otherwise noted.

(b) MTCA Method A cleanup levels.

(c) Since there were no detects of hexavalent chromium, chromium III cleanup levels were used as cleanup levels for total chromium.

(d) Background value from WAC 173-340-900, Table 740-1, footnote b.

Notes:

Phase IIa samples are shown in italics. Phase IIb samples are not italicized.

Framed cell indicates exceedance of protection of groundwater cleanup level.

Shaded cell indicates exceedance of direct contact cleanup level.

Detected metals concentrations less than background levels are not considered exceedances of cleanup levels.

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-B-1-GW GE48K 12/23/2003	NMP2-B-2-GW GE48M 12/23/2003	NMP2-B-3-GW GE48L 12/23/2003	NMP2-B-4-GW GI07A 2/11/2004	NMP2-C-1-GW GE48O 12/23/2003	NMP2-C-2-GW GE48N 12/23/2003
HYDROCARBONS (mg/L)								
Si/Acid Cleaned NWTPHD								
Diesel	0.500 (c)		0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Motor Oil	0.500 (c)		0.50 U	0.50 U	0.50 U	0.92	0.50 U	0.50 U
NWTPH-g								
Gasoline	1.0 (c)		0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
DISSOLVED METALS (mg/L)								
SW6000-7000 series								
Arsenic	0.00014	0.005 (e)	NA	NA	NA	NA	NA	NA
Cadmium	0.0093	0.002	NA	NA	NA	NA	NA	NA
Chromium (d)	240	0.01	NA	NA	NA	NA	NA	NA
Copper	0.0024	0.02	NA	NA	NA	NA	NA	NA
Lead	0.0081	0.01	NA	NA	NA	0.001 U	NA	NA
Mercury	0.000025	--	NA	NA	NA	NA	NA	NA
Silver	0.0019	--	NA	NA	NA	NA	NA	NA
Zinc	0.081	0.16	NA	NA	NA	NA	NA	NA
cPAHs (µg/L)								
SW8270C-SIM								
Benzo(a)anthracene	0.031		NA	NA	NA	NA	NA	NA
Chrysene	0.031		NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.031		NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.031		NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.031		NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.031		NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.031		NA	NA	NA	NA	NA	NA
cPAH TEQ	0.1 (c)		NA	NA	NA	NA	NA	NA
BTEX (µg/L)								
SW8021BMod								
Benzene	71		NA	NA	NA	1.0 U	NA	NA
Toluene	48000		NA	NA	NA	1.2 U	NA	NA
Ethylbenzene	6900		NA	NA	NA	1.0 U	NA	NA
m,p-Xylene			NA	NA	NA	1.0 U	NA	NA
o-Xylene			NA	NA	NA	1.0 U	NA	NA
VOLATILES (µg/L)								
SW8260B								
Chloromethane	130		NA	NA	NA	NA	NA	NA
Bromomethane	970		NA	NA	NA	NA	NA	NA
Vinyl Chloride	37		NA	NA	NA	NA	NA	NA
Chloroethane			NA	NA	NA	NA	NA	NA

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-B-1-GW GE48K 12/23/2003	NMP2-B-2-GW GE48M 12/23/2003	NMP2-B-3-GW GE48L 12/23/2003	NMP2-B-4-GW GI07A 2/11/2004	NMP2-C-1-GW GE48O 12/23/2003	NMP2-C-2-GW GE48N 12/23/2003
Methylene Chloride	1600		NA	NA	NA	NA	NA	NA
Acetone			NA	NA	NA	NA	NA	NA
Carbon Disulfide			NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	3.2		NA	NA	NA	NA	NA	NA
1,1-Dichloroethane			NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	33000		NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene			NA	NA	NA	NA	NA	NA
Chloroform	470		NA	NA	NA	NA	NA	NA
1,2-Dichloroethane			NA	NA	NA	NA	NA	NA
2-Butanone			NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	420000		NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	4.4		NA	NA	NA	NA	NA	NA
Vinyl Acetate			NA	NA	NA	NA	NA	NA
Bromodichloromethane	22		NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	23.0		NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene			NA	NA	NA	NA	NA	NA
Trichloroethene	81		NA	NA	NA	NA	NA	NA
Dibromochloromethane	34		NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	42		NA	NA	NA	NA	NA	NA
Benzene	71		NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene			NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether			NA	NA	NA	NA	NA	NA
Bromoform	360		NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone (MIBK)			NA	NA	NA	NA	NA	NA
2-Hexanone			NA	NA	NA	NA	NA	NA
Tetrachloroethene	8.9		NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	11		NA	NA	NA	NA	NA	NA
Toluene	48000		NA	NA	NA	NA	NA	NA
Chlorobenzene	5000		NA	NA	NA	NA	NA	NA
Ethylbenzene	6900		NA	NA	NA	NA	NA	NA
Styrene			NA	NA	NA	NA	NA	NA
Trichlorofluoromethane			NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane			NA	NA	NA	NA	NA	NA
m,p-Xylene			NA	NA	NA	NA	NA	NA
o-Xylene			NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	4200		NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	2600		NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	49		NA	NA	NA	NA	NA	NA
Acrolein	780		NA	NA	NA	NA	NA	NA
Methyl Iodide			NA	NA	NA	NA	NA	NA
Bromoethane			NA	NA	NA	NA	NA	NA
Acrylonitrile	0.66		NA	NA	NA	NA	NA	NA
1,1-Dichloropropene			NA	NA	NA	NA	NA	NA
Dibromomethane			NA	NA	NA	NA	NA	NA

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-B-1-GW GE48K 12/23/2003	NMP2-B-2-GW GE48M 12/23/2003	NMP2-B-3-GW GE48L 12/23/2003	NMP2-B-4-GW GI07A 2/11/2004	NMP2-C-1-GW GE48O 12/23/2003	NMP2-C-2-GW GE48N 12/23/2003
1,1,1,2-Tetrachloroethane	50		NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane			NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane			NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene			NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene			NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene			NA	NA	NA	NA	NA	NA
Hexachlorobutadiene			NA	NA	NA	NA	NA	NA
Ethylene Dibromide			NA	NA	NA	NA	NA	NA
Bromochloromethane			NA	NA	NA	NA	NA	NA
2,2-Dichloropropane			NA	NA	NA	NA	NA	NA
1,3-Dichloropropane			NA	NA	NA	NA	NA	NA
Isopropylbenzene			NA	NA	NA	NA	NA	NA
n-Propylbenzene			NA	NA	NA	NA	NA	NA
Bromobenzene			NA	NA	NA	NA	NA	NA
2-Chlorotoluene			NA	NA	NA	NA	NA	NA
4-Chlorotoluene			NA	NA	NA	NA	NA	NA
tert-Butylbenzene			NA	NA	NA	NA	NA	NA
sec-Butylbenzene			NA	NA	NA	NA	NA	NA
4-Isopropyltoluene			NA	NA	NA	NA	NA	NA
n-Butylbenzene			NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	230	4900	NA	NA	NA	NA	NA	
Naphthalene	4900		NA	NA	NA	NA	NA	
1,2,3-Trichlorobenzene			NA	NA	NA	NA	NA	
SEMIVOLATILES (µg/L)								
SW8270C								
Phenol	1100000		NA	NA	NA	NA	NA	NA
Bis-(2-Chloroethyl) Ether	1.4		NA	NA	NA	NA	NA	NA
2-Chlorophenol	97		NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	2600		NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	49		NA	NA	NA	NA	NA	NA
Benzyl Alcohol			NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	4200		NA	NA	NA	NA	NA	NA
2-Methylphenol			NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	380		NA	NA	NA	NA	NA	NA
4-Methylphenol			NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	0.82		NA	NA	NA	NA	NA	NA
Hexachloroethane	8.9		NA	NA	NA	NA	NA	NA
Nitrobenzene	450		NA	NA	NA	NA	NA	NA
Isophorone	600		NA	NA	NA	NA	NA	NA
2-Nitrophenol			NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	550		NA	NA	NA	NA	NA	NA
Benzoic Acid			NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy) Methane			NA	NA	NA	NA	NA	NA

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-B-1-GW GE48K 12/23/2003	NMP2-B-2-GW GE48M 12/23/2003	NMP2-B-3-GW GE48L 12/23/2003	NMP2-B-4-GW GI07A 2/11/2004	NMP2-C-1-GW GE48O 12/23/2003	NMP2-C-2-GW GE48N 12/23/2003
2,4-Dichlorophenol	190		NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	230		NA	NA	NA	NA	NA	NA
Naphthalene	4900		NA	NA	NA	NA	NA	NA
4-Chloroaniline			NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	50		NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol			NA	NA	NA	NA	NA	NA
2-Methylnaphthalene			NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	3600		NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	6.5		NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol			NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	1000		NA	NA	NA	NA	NA	NA
2-Nitroaniline			NA	NA	NA	NA	NA	NA
Dimethylphthalate	72000		NA	NA	NA	NA	NA	NA
Acenaphthylene			NA	NA	NA	NA	NA	NA
3-Nitroaniline			NA	NA	NA	NA	NA	NA
Acenaphthene	640		NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	3500		NA	NA	NA	NA	NA	NA
4-Nitrophenol			NA	NA	NA	NA	NA	NA
Dibenzofuran			NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene			NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	9.1		NA	NA	NA	NA	NA	NA
Diethylphthalate	28000		NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether			NA	NA	NA	NA	NA	NA
Fluorene	3500		NA	NA	NA	NA	NA	NA
4-Nitroaniline			NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol	770		NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	16		NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether			NA	NA	NA	NA	NA	NA
Hexachlorobenzene	0.00077		NA	NA	NA	NA	NA	NA
Pentachlorophenol	7.9		NA	NA	NA	NA	NA	NA
Phenanthrene			NA	NA	NA	NA	NA	NA
Carbazole			NA	NA	NA	NA	NA	NA
Anthracene	26000		NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	2900		NA	NA	NA	NA	NA	NA
Fluoranthene	90		NA	NA	NA	NA	NA	NA
Pyrene	2600		NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	1300		NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	0.077		NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.031		NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5.9		NA	NA	NA	NA	NA	NA
Chrysene	0.031		NA	NA	NA	NA	NA	NA
Di-n-Octyl phthalate			NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.031		NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.031		NA	NA	NA	NA	NA	NA

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-B-1-GW GE48K 12/23/2003	NMP2-B-2-GW GE48M 12/23/2003	NMP2-B-3-GW GE48L 12/23/2003	NMP2-B-4-GW GI07A 2/11/2004	NMP2-C-1-GW GE48O 12/23/2003	NMP2-C-2-GW GE48N 12/23/2003
Benzo(a)pyrene	0.031		NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.031		NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.031		NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene			NA	NA	NA	NA	NA	NA
cPAH TEQ	0.1 (c)		NA	NA	NA	NA	NA	NA

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-C-3-GW GE48P 12/23/2003	Dup of NMP2-C-3-GW NMP2-C-8-GW GE48Q 12/23/2003	NMP2-C-6-GW GI07B 2/12/2004	NMP2-C-7-GW GI07D 2/12/2004	NMP2-D-1-GW GE75A 12/29/2003	NMP2-D-2-GW GE75B 12/29/2003	NMP2-D-3-GW GE75C 12/29/2003
HYDROCARBONS (mg/L)									
Si/Acid Cleaned NWTPHD									
Diesel	0.500 (c)		0.25 U	0.25 U	0.25 U	NA	0.25 U	0.25 U	0.25 U
Motor Oil	0.500 (c)		0.50 U	0.50 U	0.50 U	NA	0.50 U	0.50 U	0.50 U
NWTPH-g									
Gasoline	1.0 (c)		0.25 U	0.25 U	0.25 U	NA	0.25 U	0.25 U	0.25 U
DISSOLVED METALS (mg/L)									
SW6000-7000 series									
Arsenic	0.00014	0.005 (e)	NA	NA	NA	0.004	NA	NA	NA
Cadmium	0.0093	0.002	NA	NA	NA	0.002 U	NA	NA	NA
Chromium (d)	240	0.01	NA	NA	NA	0.005 U	NA	NA	NA
Copper	0.0024	0.02	NA	NA	NA	0.002	NA	NA	NA
Lead	0.0081	0.01	NA	NA	0.001 U	0.001 U	NA	NA	NA
Mercury	0.000025	--	NA	NA	NA	0.0001 U	NA	NA	NA
Silver	0.0019	--	NA	NA	NA	0.003 U	NA	NA	NA
Zinc	0.081	0.16	NA	NA	NA	0.012	NA	NA	NA
cPAHs (µg/L)									
SW8270C-SIM									
Benzo(a)anthracene	0.031		NA	NA	NA	NA	0.15 J	0.017 J	0.011 UJ
Chrysene	0.031		NA	NA	NA	NA	0.20 J	0.021 J	0.012 J
Benzo(b)fluoranthene	0.031		NA	NA	NA	NA	0.13 J	0.022 J	0.011 UJ
Benzo(k)fluoranthene	0.031		NA	NA	NA	NA	0.13 J	0.21 J	0.011 UJ
Benzo(a)pyrene	0.031		NA	NA	NA	NA	0.19 J	0.021 J	0.011 UJ
Indeno(1,2,3-cd)pyrene	0.031		NA	NA	NA	NA	0.10 J	0.014 J	0.011 UJ
Dibenz(a,h)anthracene	0.031		NA	NA	NA	NA	0.042 J	0.011 UJ	0.011 UJ
cPAH TEQ	0.1 (c)		NA	NA	NA	NA	0.26 J	0.048 J	0.00012 J
BTEX (µg/L)									
SW8021BMod									
Benzene	71		NA	NA	1.0 U	NA	NA	NA	NA
Toluene	48000		NA	NA	1.3	NA	NA	NA	NA
Ethylbenzene	6900		NA	NA	1.0 U	NA	NA	NA	NA
m,p-Xylene			NA	NA	1.0 U	NA	NA	NA	NA
o-Xylene			NA	NA	1.0 U	NA	NA	NA	NA
VOLATILES (µg/L)									
SW8260B									
Chloromethane	130		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Bromomethane	970		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Vinyl Chloride	37		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Chloroethane			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	<i>Dup of NMP2-C-3-GW</i> NMP2-C-3-GW GE48P 12/23/2003	NMP2-C-8-GW GE48Q 12/23/2003	NMP2-C-6-GW GI07B 2/12/2004	NMP2-C-7-GW GI07D 2/12/2004	NMP2-D-1-GW GE75A 12/29/2003	NMP2-D-2-GW GE75B 12/29/2003	NMP2-D-3-GW GE75C 12/29/2003
Methylene Chloride	1600		0.3 U	NA	NA	NA	0.3 U	0.3 U	0.3 U
Acetone			1.0 U	NA	NA	NA	5.7	1.0 U	2.5
Carbon Disulfide			0.2 U	NA	NA	NA	0.2	0.2 U	0.2 U
1,1-Dichloroethene	3.2		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
1,1-Dichloroethane			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
trans-1,2-Dichloroethene	33000		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
cis-1,2-Dichloroethene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Chloroform	470		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
1,2-Dichloroethane			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
2-Butanone			1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	420000		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Carbon Tetrachloride	4.4		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Vinyl Acetate			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Bromodichloromethane	22		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	23.0		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
cis-1,3-Dichloropropene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Trichloroethene	81		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Dibromochloromethane	34		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
1,1,2-Trichloroethane	42		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Benzene	71		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
trans-1,3-Dichloropropene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
2-Chloroethylvinylether			0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U
Bromoform	360		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
4-Methyl-2-Pentanone (MIBK)			1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
2-Hexanone			1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
Tetrachloroethene	8.9		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
1,1,2,2-Tetrachloroethane	11		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Toluene	48000		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Chlorobenzene	5000		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Ethylbenzene	6900		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Styrene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Trichlorofluoromethane			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
1,1,2-Trichloro-1,2,2-trifluoroethane			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
m,p-Xylene			0.4 U	NA	NA	NA	0.4 U	0.4 U	0.4 U
o-Xylene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
1,2-Dichlorobenzene	4200		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
1,3-Dichlorobenzene	2600		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
1,4-Dichlorobenzene	49		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Acrolein	780		5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Methyl Iodide			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Bromoethane			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Acrylonitrile	0.66		1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Dibromomethane			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	<i>Dup of NMP2-C-3-GW</i> NMP2-C-3-GW GE48P 12/23/2003	NMP2-C-8-GW GE48Q 12/23/2003	NMP2-C-6-GW GI07B 2/12/2004	NMP2-C-7-GW GI07D 2/12/2004	NMP2-D-1-GW GE75A 12/29/2003	NMP2-D-2-GW GE75B 12/29/2003	NMP2-D-3-GW GE75C 12/29/2003
1,1,1,2-Tetrachloroethane	50		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
1,2-Dibromo-3-chloropropane			2.0 U	NA	NA	NA	2.0 U	2.0 U	2.0 U
1,2,3-Trichloropropane			0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U
trans-1,4-Dichloro-2-butene			1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
1,2,4-Trimethylbenzene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Hexachlorobutadiene			0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U
Ethylene Dibromide			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Bromochloromethane			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
2,2-Dichloropropane			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
1,3-Dichloropropane			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Isopropylbenzene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
n-Propylbenzene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Bromobenzene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
2-Chlorotoluene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
4-Chlorotoluene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
tert-Butylbenzene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
sec-Butylbenzene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
4-Isopropyltoluene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
n-Butylbenzene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	230		0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U
Naphthalene	4900		0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene			0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U
SEMIVOLATILES (µg/L)									
SW8270C									
Phenol	1100000		NA	NA	NA	NA	NA	NA	NA
Bis-(2-Chloroethyl) Ether	1.4		NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	97		NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	2600		NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	49		NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol			NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	4200		NA	NA	NA	NA	NA	NA	NA
2-Methylphenol			NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	380		NA	NA	NA	NA	NA	NA	NA
4-Methylphenol			NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	0.82		NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	8.9		NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	450		NA	NA	NA	NA	NA	NA	NA
Isophorone	600		NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol			NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	550		NA	NA	NA	NA	NA	NA	NA
Benzoic Acid			NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy) Methane			NA	NA	NA	NA	NA	NA	NA

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	<i>Dup of NMP2-C-3-GW</i> NMP2-C-3-GW GE48P 12/23/2003	<i>Dup of NMP2-C-3-GW</i> NMP2-C-8-GW GE48Q 12/23/2003	NMP2-C-6-GW GI07B 2/12/2004	NMP2-C-7-GW GI07D 2/12/2004	NMP2-D-1-GW GE75A 12/29/2003	NMP2-D-2-GW GE75B 12/29/2003	NMP2-D-3-GW GE75C 12/29/2003
2,4-Dichlorophenol	190		NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	230		NA	NA	NA	NA	NA	NA	NA
Naphthalene	4900		NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline			NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	50		NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol			NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene			NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	3600		NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	6.5		NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol			NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	1000		NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline			NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	72000		NA	NA	NA	NA	NA	NA	NA
Acenaphthylene			NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline			NA	NA	NA	NA	NA	NA	NA
Acenaphthene	640		NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	3500		NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol			NA	NA	NA	NA	NA	NA	NA
Dibenzofuran			NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene			NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	9.1		NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	28000		NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether			NA	NA	NA	NA	NA	NA	NA
Fluorene	3500		NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline			NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol	770		NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	16		NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether			NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	0.00077		NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	7.9		NA	NA	NA	NA	NA	NA	NA
Phenanthrene			NA	NA	NA	NA	NA	NA	NA
Carbazole			NA	NA	NA	NA	NA	NA	NA
Anthracene	26000		NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	2900		NA	NA	NA	NA	NA	NA	NA
Fluoranthene	90		NA	NA	NA	NA	NA	NA	NA
Pyrene	2600		NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	1300		NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	0.077		NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.031		NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5.9		NA	NA	NA	NA	NA	NA	NA
Chrysene	0.031		NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl phthalate			NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.031		NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.031		NA	NA	NA	NA	NA	NA	NA

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	<i>Dup of NMP2-C-3-GW</i> NMP2-C-3-GW GE48P 12/23/2003	NMP2-C-8-GW GE48Q 12/23/2003	NMP2-C-6-GW GI07B 2/12/2004	NMP2-C-7-GW GI07D 2/12/2004	NMP2-D-1-GW GE75A 12/29/2003	NMP2-D-2-GW GE75B 12/29/2003	NMP2-D-3-GW GE75C 12/29/2003
Benzo(a)pyrene	0.031		NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.031		NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.031		NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene			NA	NA	NA	NA	NA	NA	NA
cPAH TEQ	0.1 (c)		NA	NA	NA	NA	NA	NA	NA

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-D-4-GW GE75D 12/29/2003	NMP2-E-1-GW GE48C 12/22/2003	NMP2-E-2-GW GE75E 12/29/2003	NMP2-E-3-GW GI07C 2/12/2004	NMP2-E-4-GW GI07E 2/12/2004	NMP2-F-1-GW GE48D 12/22/2003	NMP2-F-2-GW GE48E 12/22/2003
HYDROCARBONS (mg/L)									
Si/Acid Cleaned NWT PHD									
Diesel	0.500 (c)		0.26	0.25 U	0.25 U	0.25 U	NA	0.25 U	0.25 U
Motor Oil	0.500 (c)		0.50 U	0.50 U	0.50 U	0.50 U	NA	0.50 U	0.50 U
NWTPH-g									
Gasoline	1.0 (c)		0.25 U	0.25 U	0.25 U	0.25 U	NA	0.25 U	0.25 U
DISSOLVED METALS (mg/L)									
SW6000-7000 series									
Arsenic	0.00014	0.005 (e)	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.0093	0.002	NA	NA	NA	NA	NA	NA	NA
Chromium (d)	240	0.01	NA	NA	NA	NA	NA	NA	NA
Copper	0.0024	0.02	NA	NA	NA	NA	NA	NA	NA
Lead	0.0081	0.01	NA	NA	NA	0.001 U	NA	NA	NA
Mercury	0.000025	--	NA	NA	NA	NA	NA	NA	NA
Silver	0.0019	--	NA	NA	NA	NA	NA	NA	NA
Zinc	0.081	0.16	NA	NA	NA	NA	NA	NA	NA
cPAHs (µg/L)									
SW8270C-SIM									
Benzo(a)anthracene	0.031		0.26 J	NA	NA	NA	NA	0.080 J	0.027 J
Chrysene	0.031		0.24 J	NA	NA	NA	NA	0.081 J	0.028 J
Benzo(b)fluoranthene	0.031		0.062 J	NA	NA	NA	NA	0.029 J	0.012 J
Benzo(k)fluoranthene	0.031		0.062 J	NA	NA	NA	NA	0.029 J	0.012 J
Benzo(a)pyrene	0.031		0.070 J	NA	NA	NA	NA	0.067 J	0.025 J
Indeno(1,2,3-cd)pyrene	0.031		0.022 J	NA	NA	NA	NA	0.021 J	0.010 UJ
Dibenz(a,h)anthracene	0.031		0.020 UJ	NA	NA	NA	NA	0.010 UJ	0.010 UJ
cPAH TEQ	0.1 (c)		0.113 J	NA	NA	NA	NA	0.084 J	0.030 J
BTEX (µg/L)									
SW8021BMod									
Benzene	71		NA	NA	NA	1.0 U	NA	NA	NA
Toluene	48000		NA	NA	NA	1.8 U	NA	NA	NA
Ethylbenzene	6900		NA	NA	NA	1.0 U	NA	NA	NA
m,p-Xylene			NA	NA	NA	1.0 U	NA	NA	NA
o-Xylene			NA	NA	NA	1.0 U	NA	NA	NA
VOLATILES (µg/L)									
SW8260B									
Chloromethane	130		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Bromomethane	970		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Vinyl Chloride	37		0.2 U	NA	NA	NA	0.2 U	0.5	17
Chloroethane			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-D-4-GW GE75D 12/29/2003	NMP2-E-1-GW GE48C 12/22/2003	NMP2-E-2-GW GE75E 12/29/2003	NMP2-E-3-GW GI07C 2/12/2004	NMP2-E-4-GW GI07E 2/12/2004	NMP2-F-1-GW GE48D 12/22/2003	NMP2-F-2-GW GE48E 12/22/2003
Methylene Chloride	1600		0.3 U	NA	NA	NA	0.3 U	0.3 U	0.3 U
Acetone			1.9	NA	NA	NA	1.0 U	1.6 M	2.4
Carbon Disulfide			0.2 U	NA	NA	NA	0.2 U	0.2	0.2 U
1,1-Dichloroethene	3.2		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
1,1-Dichloroethane			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
trans-1,2-Dichloroethene	33000		0.2 U	NA	NA	NA	0.2 U	0.2	0.2 U
cis-1,2-Dichloroethene			0.2 U	NA	NA	NA	0.2 U	0.8	0.4
Chloroform	470		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
1,2-Dichloroethane			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
2-Butanone			1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	420000		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Carbon Tetrachloride	4.4		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Vinyl Acetate			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Bromodichloromethane	22		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	23.0		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
cis-1,3-Dichloropropene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Trichloroethene	81		0.2 U	NA	NA	NA	0.2 U	0.2	0.2 U
Dibromochloromethane	34		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
1,1,2-Trichloroethane	42		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Benzene	71		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
trans-1,3-Dichloropropene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
2-Chloroethylvinylether			0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U
Bromoform	360		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
4-Methyl-2-Pentanone (MIBK)			1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
2-Hexanone			1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
Tetrachloroethene	8.9		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
1,1,2,2-Tetrachloroethane	11		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Toluene	48000		0.2 U	NA	NA	NA	3.8	0.2 U	0.2 U
Chlorobenzene	5000		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Ethylbenzene	6900		0.2	NA	NA	NA	0.2 U	0.2 U	0.2 U
Styrene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Trichlorofluoromethane			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
1,1,2-Trichloro-1,2,2-trifluoroethane			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
m,p-Xylene			0.4 U	NA	NA	NA	0.4 U	0.4 U	0.4 U
o-Xylene			0.2	NA	NA	NA	0.2 U	0.2 U	0.2 U
1,2-Dichlorobenzene	4200		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
1,3-Dichlorobenzene	2600		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
1,4-Dichlorobenzene	49		0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Acrolein	780		5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Methyl Iodide			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Bromoethane			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Acrylonitrile	0.66		1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Dibromomethane			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-D-4-GW GE75D 12/29/2003	NMP2-E-1-GW GE48C 12/22/2003	NMP2-E-2-GW GE75E 12/29/2003	NMP2-E-3-GW GI07C 2/12/2004	NMP2-E-4-GW GI07E 2/12/2004	NMP2-F-1-GW GE48D 12/22/2003	NMP2-F-2-GW GE48E 12/22/2003
1,1,1,2-Tetrachloroethane			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
1,2-Dibromo-3-chloropropane			2.0 U	NA	NA	NA	2.0 U	2.0 U	2.0 U
1,2,3-Trichloropropane			0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U
trans-1,4-Dichloro-2-butene			1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene			0.4	NA	NA	NA	0.2 U	0.2 U	0.2 U
1,2,4-Trimethylbenzene			0.9	NA	NA	NA	0.2 U	0.2 U	0.2 U
Hexachlorobutadiene	50		0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U
Ethylene Dibromide			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Bromochloromethane			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
2,2-Dichloropropane			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
1,3-Dichloropropane			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Isopropylbenzene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
n-Propylbenzene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
Bromobenzene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
2-Chlorotoluene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
4-Chlorotoluene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
tert-Butylbenzene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
sec-Butylbenzene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
4-Isopropyltoluene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
n-Butylbenzene			0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	230		0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U
Naphthalene	4900		660	NA	NA	NA	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene			0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U
SEMIVOLATILES (µg/L)									
SW8270C									
Phenol	1100000		NA	NA	NA	NA	NA	NA	NA
Bis-(2-Chloroethyl) Ether	1.4		NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	97		NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	2600		NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	49		NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol			NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	4200		NA	NA	NA	NA	NA	NA	NA
2-Methylphenol			NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	380		NA	NA	NA	NA	NA	NA	NA
4-Methylphenol			NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	0.82		NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	8.9		NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	450		NA	NA	NA	NA	NA	NA	NA
Isophorone	600		NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol			NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	550		NA	NA	NA	NA	NA	NA	NA
Benzoic Acid			NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy) Methane			NA	NA	NA	NA	NA	NA	NA

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-D-4-GW GE75D 12/29/2003	NMP2-E-1-GW GE48C 12/22/2003	NMP2-E-2-GW GE75E 12/29/2003	NMP2-E-3-GW GI07C 2/12/2004	NMP2-E-4-GW GI07E 2/12/2004	NMP2-F-1-GW GE48D 12/22/2003	NMP2-F-2-GW GE48E 12/22/2003
2,4-Dichlorophenol	190		NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	230		NA	NA	NA	NA	NA	NA	NA
Naphthalene	4900		NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline			NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	50		NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol			NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene			NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	3600		NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	6.5		NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol			NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	1000		NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline			NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	72000		NA	NA	NA	NA	NA	NA	NA
Acenaphthylene			NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline			NA	NA	NA	NA	NA	NA	NA
Acenaphthene	640		NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	3500		NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol			NA	NA	NA	NA	NA	NA	NA
Dibenzofuran			NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene			NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	9.1		NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	28000		NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether			NA	NA	NA	NA	NA	NA	NA
Fluorene	3500		NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline			NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol	770		NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	16		NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether			NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	0.00077		NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	7.9		NA	NA	NA	NA	NA	NA	NA
Phenanthrene			NA	NA	NA	NA	NA	NA	NA
Carbazole			NA	NA	NA	NA	NA	NA	NA
Anthracene	26000		NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	2900		NA	NA	NA	NA	NA	NA	NA
Fluoranthene	90		NA	NA	NA	NA	NA	NA	NA
Pyrene	2600		NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	1300		NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	0.077		NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.031		NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5.9		NA	NA	NA	NA	NA	NA	NA
Chrysene	0.031		NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl phthalate			NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.031		NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.031		NA	NA	NA	NA	NA	NA	NA

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-D-4-GW GE75D 12/29/2003	NMP2-E-1-GW GE48C 12/22/2003	NMP2-E-2-GW GE75E 12/29/2003	NMP2-E-3-GW GI07C 2/12/2004	NMP2-E-4-GW GI07E 2/12/2004	NMP2-F-1-GW GE48D 12/22/2003	NMP2-F-2-GW GE48E 12/22/2003
Benzo(a)pyrene	0.031		NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.031		NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.031		NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene			NA	NA	NA	NA	NA	NA	NA
cPAH TEQ	0.1 (c)		NA	NA	NA	NA	NA	NA	NA

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-F-3-GW GE48F 12/22/2003	NMP2-F-8-GW GI07F 2/12/2004	NMP2-G-1-GW GE48G 12/22/2003	NMP2-G-2-GW GE48H 12/22/2003	NMP2-G-3-GW GI07G 2/11/2004	NMP2-H-1-GW GE48I 12/23/2003	NMP2-H-2-GW GE48J 12/23/2003
HYDROCARBONS (mg/L)									
Si/Acid Cleaned NWTPHD									
Diesel	0.500 (c)		0.25 U	NA	0.25 U	0.25 U	NA	0.25 U	0.25 U
Motor Oil	0.500 (c)		0.50 U	NA	0.50 U	0.50 U	NA	0.50 U	0.50 U
NWTPH-g									
Gasoline	1.0 (c)		0.25 U	NA	0.25 U	0.25 U	NA	0.25 U	0.25 U
DISSOLVED METALS (mg/L)									
SW6000-7000 series									
Arsenic	0.00014	0.005 (e)	NA	0.014	NA	NA	0.001 U	NA	NA
Cadmium	0.0093	0.002	NA	0.002 U	NA	NA	0.002 U	NA	NA
Chromium (d)	240	0.01	NA	0.005 U	NA	NA	0.005 U	NA	NA
Copper	0.0024	0.02	NA	0.002 U	NA	NA	0.002 U	NA	NA
Lead	0.0081	0.01	NA	0.001 U	NA	NA	0.001 U	NA	NA
Mercury	0.000025	--	NA	0.0001 U	NA	NA	0.0001 U	NA	NA
Silver	0.0019	--	NA	0.003 U	NA	NA	0.003 U	NA	NA
Zinc	0.081	0.16	NA	0.006 U	NA	NA	0.006 U	NA	NA
cPAHs (µg/L)									
SW8270C-SIM									
Benzo(a)anthracene	0.031		0.011 UJ	NA	0.019 J	0.042 J	NA	NA	NA
Chrysene	0.031		0.011 UJ	NA	0.025 J	0.059 J	NA	NA	NA
Benzo(b)fluoranthene	0.031		0.011 UJ	NA	0.012 J	0.034 J	NA	NA	NA
Benzo(k)fluoranthene	0.031		0.011 UJ	NA	0.012 J	0.034 J	NA	NA	NA
Benzo(a)pyrene	0.031		0.011 UJ	NA	0.018 J	0.052 J	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.031		0.011 UJ	NA	0.011 UJ	0.031 J	NA	NA	NA
Dibenz(a,h)anthracene	0.031		0.011 UJ	NA	0.011 UJ	0.012 J	NA	NA	NA
cPAH TEQ	0.1 (c)		ND	NA	0.023 J	0.071 J	NA	NA	NA
BTEX (µg/L)									
SW8021BMod									
Benzene	71		NA	NA	NA	NA	NA	NA	NA
Toluene	48000		NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	6900		NA	NA	NA	NA	NA	NA	NA
m,p-Xylene			NA	NA	NA	NA	NA	NA	NA
o-Xylene			NA	NA	NA	NA	NA	NA	NA
VOLATILES (µg/L)									
SW8260B									
Chloromethane	130		0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
Bromomethane	970		0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
Vinyl Chloride	37		0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
Chloroethane			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-F-3-GW GE48F 12/22/2003	NMP2-F-8-GW GI07F 2/12/2004	NMP2-G-1-GW GE48G 12/22/2003	NMP2-G-2-GW GE48H 12/22/2003	NMP2-G-3-GW GI07G 2/11/2004	NMP2-H-1-GW GE48I 12/23/2003	NMP2-H-2-GW GE48J 12/23/2003
Methylene Chloride	1600		0.3 U	NA	0.3 U	0.3 U	0.3 U	NA	NA
Acetone			1.0 U	NA	2.8	1.0 U	1.0 U	NA	NA
Carbon Disulfide			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
1,1-Dichloroethene	3.2		0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
1,1-Dichloroethane			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
trans-1,2-Dichloroethene	33000		0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
cis-1,2-Dichloroethene			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
Chloroform	470		0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
1,2-Dichloroethane			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
2-Butanone			1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA
1,1,1-Trichloroethane	420000		0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
Carbon Tetrachloride	4.4		0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
Vinyl Acetate			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
Bromodichloromethane	22		0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
1,2-Dichloropropane	23.0		0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
cis-1,3-Dichloropropene			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
Trichloroethene	81		0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
Dibromochloromethane	34		0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
1,1,2-Trichloroethane	42		0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
Benzene	71		0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
trans-1,3-Dichloropropene			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
2-Chloroethylvinylether			0.5 U	NA	0.5 U	0.5 U	0.5 U	NA	NA
Bromoform	360		0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
4-Methyl-2-Pentanone (MIBK)			1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA
2-Hexanone			1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA
Tetrachloroethene	8.9		0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
1,1,2,2-Tetrachloroethane	11		0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
Toluene	48000		0.2 U	NA	0.2 U	0.4	0.2 U	NA	NA
Chlorobenzene	5000		0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
Ethylbenzene	6900		0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
Styrene			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
Trichlorofluoromethane			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
m,p-Xylene			0.4 U	NA	0.4 U	0.4 U	0.4 U	NA	NA
o-Xylene			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
1,2-Dichlorobenzene	4200		0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
1,3-Dichlorobenzene	2600		0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
1,4-Dichlorobenzene	49		0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
Acrolein	780		5.0 U	NA	5.0 U	5.0 U	5.0 U	NA	NA
Methyl Iodide			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
Bromoethane			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
Acrylonitrile	0.66		1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA
1,1-Dichloropropene			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
Dibromomethane			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-F-3-GW GE48F 12/22/2003	NMP2-F-8-GW GI07F 2/12/2004	NMP2-G-1-GW GE48G 12/22/2003	NMP2-G-2-GW GE48H 12/22/2003	NMP2-G-3-GW GI07G 2/11/2004	NMP2-H-1-GW GE48I 12/23/2003	NMP2-H-2-GW GE48J 12/23/2003
1,1,1,2-Tetrachloroethane			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
1,2-Dibromo-3-chloropropane			2.0 U	NA	2.0 U	2.0 U	2.0 U	NA	NA
1,2,3-Trichloropropane			0.5 U	NA	0.5 U	0.5 U	0.5 U	NA	NA
trans-1,4-Dichloro-2-butene			1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA
1,3,5-Trimethylbenzene			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
1,2,4-Trimethylbenzene			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
Hexachlorobutadiene	50		0.5 U	NA	0.5 U	0.5 U	0.5 U	NA	NA
Ethylene Dibromide			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
Bromochloromethane			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
2,2-Dichloropropane			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
1,3-Dichloropropane			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
Isopropylbenzene			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
n-Propylbenzene			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
Bromobenzene			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
2-Chlorotoluene			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
4-Chlorotoluene			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
tert-Butylbenzene			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
sec-Butylbenzene			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
4-Isopropyltoluene			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
n-Butylbenzene			0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA
1,2,4-Trichlorobenzene	230		0.5 U	NA	0.5 U	0.5 U	0.5 U	NA	NA
Naphthalene	4900		0.5 U	NA	0.5 U	0.5 U	0.5 U	NA	NA
1,2,3-Trichlorobenzene			0.5 U	NA	0.5 U	0.5 U	0.5 U	NA	NA
SEMIVOLATILES (µg/L)									
SW8270C									
Phenol	1100000		NA	NA	NA	NA	2.2 U	NA	NA
Bis-(2-Chloroethyl) Ether	1.4		NA	NA	NA	NA	2.2 U	NA	NA
2-Chlorophenol	97		NA	NA	NA	NA	1.1 U	NA	NA
1,3-Dichlorobenzene	2600		NA	NA	NA	NA	1.1 U	NA	NA
1,4-Dichlorobenzene	49		NA	NA	NA	NA	1.1 U	NA	NA
Benzyl Alcohol			NA	NA	NA	NA	5.6 U	NA	NA
1,2-Dichlorobenzene	4200		NA	NA	NA	NA	1.1 U	NA	NA
2-Methylphenol			NA	NA	NA	NA	1.1 U	NA	NA
2,2'-Oxybis(1-Chloropropane)	380		NA	NA	NA	NA	1.1 U	NA	NA
4-Methylphenol			NA	NA	NA	NA	1.1 U	NA	NA
N-Nitroso-Di-N-Propylamine	0.82		NA	NA	NA	NA	2.2 U	NA	NA
Hexachloroethane	8.9		NA	NA	NA	NA	2.2 U	NA	NA
Nitrobenzene	450		NA	NA	NA	NA	1.1 U	NA	NA
Isophorone	600		NA	NA	NA	NA	1.1 U	NA	NA
2-Nitrophenol			NA	NA	NA	NA	5.6 U	NA	NA
2,4-Dimethylphenol	550		NA	NA	NA	NA	3.4 U	NA	NA
Benzoic Acid			NA	NA	NA	NA	11 U	NA	NA
bis(2-Chloroethoxy) Methane			NA	NA	NA	NA	1.1 U	NA	NA

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-F-3-GW GE48F 12/22/2003	NMP2-F-8-GW GI07F 2/12/2004	NMP2-G-1-GW GE48G 12/22/2003	NMP2-G-2-GW GE48H 12/22/2003	NMP2-G-3-GW GI07G 2/11/2004	NMP2-H-1-GW GE48I 12/23/2003	NMP2-H-2-GW GE48J 12/23/2003
2,4-Dichlorophenol	190		NA	NA	NA	NA	3.4 U	NA	NA
1,2,4-Trichlorobenzene	230		NA	NA	NA	NA	1.1 U	NA	NA
Naphthalene	4900		NA	NA	NA	NA	1.1 U	NA	NA
4-Chloroaniline			NA	NA	NA	NA	3.4 U	NA	NA
Hexachlorobutadiene	50		NA	NA	NA	NA	2.2 U	NA	NA
4-Chloro-3-methylphenol			NA	NA	NA	NA	2.2 U	NA	NA
2-Methylnaphthalene			NA	NA	NA	NA	1.1 U	NA	NA
Hexachlorocyclopentadiene	3600		NA	NA	NA	NA	5.6 U	NA	NA
2,4,6-Trichlorophenol	6.5		NA	NA	NA	NA	5.6 U	NA	NA
2,4,5-Trichlorophenol			NA	NA	NA	NA	5.6 U	NA	NA
2-Chloronaphthalene	1000		NA	NA	NA	NA	1.1 U	NA	NA
2-Nitroaniline			NA	NA	NA	NA	5.6 U	NA	NA
Dimethylphthalate	72000		NA	NA	NA	NA	1.1 U	NA	NA
Acenaphthylene			NA	NA	NA	NA	1.1 U	NA	NA
3-Nitroaniline			NA	NA	NA	NA	6.7 U	NA	NA
Acenaphthene	640		NA	NA	NA	NA	1.1 U	NA	NA
2,4-Dinitrophenol	3500		NA	NA	NA	NA	28 U	NA	NA
4-Nitrophenol			NA	NA	NA	NA	5.6 U	NA	NA
Dibenzofuran			NA	NA	NA	NA	1.1 U	NA	NA
2,6-Dinitrotoluene			NA	NA	NA	NA	5.6 U	NA	NA
2,4-Dinitrotoluene	9.1		NA	NA	NA	NA	5.6 U	NA	NA
Diethylphthalate	28000		NA	NA	NA	NA	1.1 U	NA	NA
4-Chlorophenyl-phenylether			NA	NA	NA	NA	1.1 U	NA	NA
Fluorene	3500		NA	NA	NA	NA	1.1 U	NA	NA
4-Nitroaniline			NA	NA	NA	NA	5.6 U	NA	NA
4,6-Dinitro-2-Methylphenol	770		NA	NA	NA	NA	17 U	NA	NA
N-Nitrosodiphenylamine	16		NA	NA	NA	NA	1.1 U	NA	NA
4-Bromophenyl-phenylether			NA	NA	NA	NA	1.1 U	NA	NA
Hexachlorobenzene	0.00077		NA	NA	NA	NA	1.1 U	NA	NA
Pentachlorophenol	7.9		NA	NA	NA	NA	5.6 U	NA	NA
Phenanthrene			NA	NA	NA	NA	1.1 U	NA	NA
Carbazole			NA	NA	NA	NA	1.1 U	NA	NA
Anthracene	26000		NA	NA	NA	NA	1.1 U	NA	NA
Di-n-Butylphthalate	2900		NA	NA	NA	NA	1.1 U	NA	NA
Fluoranthene	90		NA	NA	NA	NA	1.1 U	NA	NA
Pyrene	2600		NA	NA	NA	NA	1.1 U	NA	NA
Butylbenzylphthalate	1300		NA	NA	NA	NA	1.1 U	NA	NA
3,3'-Dichlorobenzidine	0.077		NA	NA	NA	NA	5.6 U	NA	NA
Benzo(a)anthracene	0.031		NA	NA	NA	NA	1.1 U	NA	NA
bis(2-Ethylhexyl)phthalate	5.9		NA	NA	NA	NA	1.1 U	NA	NA
Chrysene	0.031		NA	NA	NA	NA	1.1 U	NA	NA
Di-n-Octyl phthalate			NA	NA	NA	NA	1.1 U	NA	NA
Benzo(b)fluoranthene	0.031		NA	NA	NA	NA	1.1 U	NA	NA
Benzo(k)fluoranthene	0.031		NA	NA	NA	NA	1.1 U	NA	NA

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-F-3-GW GE48F 12/22/2003	NMP2-F-8-GW GI07F 2/12/2004	NMP2-G-1-GW GE48G 12/22/2003	NMP2-G-2-GW GE48H 12/22/2003	NMP2-G-3-GW GI07G 2/11/2004	NMP2-H-1-GW GE48I 12/23/2003	NMP2-H-2-GW GE48J 12/23/2003
Benzo(a)pyrene	0.031		NA	NA	NA	NA	1.1 U	NA	NA
Indeno(1,2,3-cd)pyrene	0.031		NA	NA	NA	NA	1.1 U	NA	NA
Dibenz(a,h)anthracene	0.031		NA	NA	NA	NA	1.1 U	NA	NA
Benzo(g,h,i)perylene			NA	NA	NA	NA	1.1 U	NA	NA
cPAH TEQ	0.1 (c)		NA	NA	NA	NA	ND	NA	NA

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-H-3-GW GE48B 12/22/2003	NMP2-H-4-GW GI07H 2/11/2004	NMP2-H-5-GW GI07I 2/11/2004	NMP2-J-1-GW GI07J 2/12/2004	NMP2-J-2-GW GI07K 2/12/2004	NMP2-K-1-GW GI07L 2/12/2004	NMP2-P2-1-GW GE75F 12/30/2003
HYDROCARBONS (mg/L)									
Si/Acid Cleaned NWTPHD									
Diesel	0.500 (c)		0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Motor Oil	0.500 (c)		0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
NWTPH-g									
Gasoline	1.0 (c)		0.25 U	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U
DISSOLVED METALS (mg/L)									
SW6000-7000 series									
Arsenic	0.00014	0.005 (e)	NA	NA	NA	0.002	0.006	NA	NA
Cadmium	0.0093	0.002	NA	NA	NA	0.002 U	0.002 U	NA	NA
Chromium (d)	240	0.01	NA	NA	NA	0.005 U	0.005 U	NA	NA
Copper	0.0024	0.02	NA	NA	NA	0.004	0.002 U	NA	NA
Lead	0.0081	0.01	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	NA
Mercury	0.000025	--	NA	NA	NA	0.0001 U	0.0001 U	NA	NA
Silver	0.0019	--	NA	NA	NA	0.003 U	0.003 U	NA	NA
Zinc	0.081	0.16	NA	NA	NA	0.006 U	0.006 U	NA	NA
cPAHs (µg/L)									
SW8270C-SIM									
Benzo(a)anthracene	0.031		NA	NA	NA	NA	NA	NA	NA
Chrysene	0.031		NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.031		NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.031		NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.031		NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.031		NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.031		NA	NA	NA	NA	NA	NA	NA
cPAH TEQ	0.1 (c)		NA	NA	NA	NA	NA	NA	NA
BTEX (µg/L)									
SW8021BMod									
Benzene	71		NA	1.0 U	1.0 UJ	NA	NA	NA	NA
Toluene	48000		NA	1.0 U	1.0 UJ	NA	NA	NA	NA
Ethylbenzene	6900		NA	1.0 U	1.0 UJ	NA	NA	NA	NA
m,p-Xylene			NA	1.0 U	1.0 UJ	NA	NA	NA	NA
o-Xylene			NA	1.0 U	1.0 UJ	NA	NA	NA	NA
VOLATILES (µg/L)									
SW8260B									
Chloromethane	130		NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
Bromomethane	970		NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
Vinyl Chloride	37		NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
Chloroethane			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-H-3-GW GE48B 12/22/2003	NMP2-H-4-GW GI07H 2/11/2004	NMP2-H-5-GW GI07I 2/11/2004	NMP2-J-1-GW GI07J 2/12/2004	NMP2-J-2-GW GI07K 2/12/2004	NMP2-K-1-GW GI07L 2/12/2004	NMP2-P2-1-GW GE75F 12/30/2003
Methylene Chloride	1600		NA	NA	NA	0.3 U	0.3 U	0.3 U	NA
Acetone			NA	NA	NA	1.0 U	1.0 U	1.0 U	NA
Carbon Disulfide			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
1,1-Dichloroethene	3.2		NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
1,1-Dichloroethane			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
trans-1,2-Dichloroethene	33000		NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
cis-1,2-Dichloroethene			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
Chloroform	470		NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
1,2-Dichloroethane			NA	NA	NA	0.2 U	0.2 U	1.3	NA
2-Butanone			NA	NA	NA	1.0 U	1.0 U	1.0 U	NA
1,1,1-Trichloroethane	420000		NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
Carbon Tetrachloride	4.4		NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
Vinyl Acetate			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
Bromodichloromethane	22		NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
1,2-Dichloropropane	23.0		NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
cis-1,3-Dichloropropene			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
Trichloroethene	81		NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
Dibromochloromethane	34		NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
1,1,2-Trichloroethane	42		NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
Benzene	71		NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
trans-1,3-Dichloropropene			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
2-Chloroethylvinylether			NA	NA	NA	0.5 U	0.5 U	0.5 U	NA
Bromoform	360		NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
4-Methyl-2-Pentanone (MIBK)			NA	NA	NA	1.0 U	1.0 U	1.0 U	NA
2-Hexanone			NA	NA	NA	1.0 U	1.0 U	1.0 U	NA
Tetrachloroethene	8.9		NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
1,1,2,2-Tetrachloroethane	11		NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
Toluene	48000		NA	NA	NA	1.6	2.3	1.2	NA
Chlorobenzene	5000		NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
Ethylbenzene	6900		NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
Styrene			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
Trichlorofluoromethane			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
1,1,2-Trichloro-1,2,2-trifluoroethane			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
m,p-Xylene			NA	NA	NA	0.4 U	0.4 U	0.4 U	NA
o-Xylene			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
1,2-Dichlorobenzene	4200		NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
1,3-Dichlorobenzene	2600		NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
1,4-Dichlorobenzene	49		NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
Acrolein	780		NA	NA	NA	5.0 U	5.0 U	5.0 U	NA
Methyl Iodide			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
Bromoethane			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
Acrylonitrile	0.66		NA	NA	NA	1.0 U	1.0 U	1.0 U	NA
1,1-Dichloropropene			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
Dibromomethane			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-H-3-GW GE48B 12/22/2003	NMP2-H-4-GW GI07H 2/11/2004	NMP2-H-5-GW GI07I 2/11/2004	NMP2-J-1-GW GI07J 2/12/2004	NMP2-J-2-GW GI07K 2/12/2004	NMP2-K-1-GW GI07L 2/12/2004	NMP2-P2-1-GW GE75F 12/30/2003
1,1,1,2-Tetrachloroethane			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
1,2-Dibromo-3-chloropropane			NA	NA	NA	2.0 U	2.0 U	2.0 U	NA
1,2,3-Trichloropropane			NA	NA	NA	0.5 U	0.5 U	0.5 U	NA
trans-1,4-Dichloro-2-butene			NA	NA	NA	1.0 U	1.0 U	1.0 U	NA
1,3,5-Trimethylbenzene			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
1,2,4-Trimethylbenzene			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
Hexachlorobutadiene	50		NA	NA	NA	0.5 U	0.5 U	0.5 U	NA
Ethylene Dibromide			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
Bromochloromethane			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
2,2-Dichloropropane			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
1,3-Dichloropropane			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
Isopropylbenzene			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
n-Propylbenzene			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
Bromobenzene			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
2-Chlorotoluene			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
4-Chlorotoluene			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
tert-Butylbenzene			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
sec-Butylbenzene			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
4-Isopropyltoluene			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
n-Butylbenzene			NA	NA	NA	0.2 U	0.2 U	0.2 U	NA
1,2,4-Trichlorobenzene	230		NA	NA	NA	0.5 U	0.5 U	0.5 U	NA
Naphthalene	4900		NA	NA	NA	0.5 U	0.5 U	0.5 U	NA
1,2,3-Trichlorobenzene			NA	NA	NA	0.5 U	0.5 U	0.5 U	NA
SEMIVOLATILES (µg/L)									
SW8270C									
Phenol	1100000		NA	NA	NA	2.2 U	2.2 U	2.3 U	NA
Bis-(2-Chloroethyl) Ether	1.4		NA	NA	NA	2.2 U	2.2 U	2.3 U	NA
2-Chlorophenol	97		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
1,3-Dichlorobenzene	2600		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
1,4-Dichlorobenzene	49		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
Benzyl Alcohol			NA	NA	NA	5.6 U	5.5 U	5.7 U	NA
1,2-Dichlorobenzene	4200		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
2-Methylphenol			NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
2,2'-Oxybis(1-Chloropropane)	380		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
4-Methylphenol			NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
N-Nitroso-Di-N-Propylamine	0.82		NA	NA	NA	2.2 U	2.2 U	2.3 U	NA
Hexachloroethane	8.9		NA	NA	NA	2.2 U	2.2 U	2.3 U	NA
Nitrobenzene	450		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
Isophorone	600		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
2-Nitrophenol			NA	NA	NA	5.6 U	5.5 U	5.7 U	NA
2,4-Dimethylphenol	550		NA	NA	NA	3.3 U	3.3 U	3.4 U	NA
Benzoic Acid			NA	NA	NA	11 U	11 U	11 U	NA
bis(2-Chloroethoxy) Methane			NA	NA	NA	1.1 U	1.1 U	1.1 U	NA

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-H-3-GW GE48B 12/22/2003	NMP2-H-4-GW GI07H 2/11/2004	NMP2-H-5-GW GI07I 2/11/2004	NMP2-J-1-GW GI07J 2/12/2004	NMP2-J-2-GW GI07K 2/12/2004	NMP2-K-1-GW GI07L 2/12/2004	NMP2-P2-1-GW GE75F 12/30/2003
2,4-Dichlorophenol	190		NA	NA	NA	3.3 U	3.3 U	3.4 U	NA
1,2,4-Trichlorobenzene	230		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
Naphthalene	4900		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
4-Chloroaniline			NA	NA	NA	3.3 U	3.3 U	3.4 U	NA
Hexachlorobutadiene	50		NA	NA	NA	2.2 U	2.2 U	2.3 U	NA
4-Chloro-3-methylphenol			NA	NA	NA	2.2 U	2.2 U	2.3 U	NA
2-Methylnaphthalene			NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
Hexachlorocyclopentadiene	3600		NA	NA	NA	5.6 U	5.5 U	5.7 U	NA
2,4,6-Trichlorophenol	6.5		NA	NA	NA	5.6 U	5.5 U	5.7 U	NA
2,4,5-Trichlorophenol			NA	NA	NA	5.6 U	5.5 U	5.7 U	NA
2-Chloronaphthalene	1000		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
2-Nitroaniline			NA	NA	NA	5.6 U	5.5 U	5.7 U	NA
Dimethylphthalate	72000		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
Acenaphthylene			NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
3-Nitroaniline			NA	NA	NA	6.7 U	6.6 U	6.8 U	NA
Acenaphthene	640		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
2,4-Dinitrophenol	3500		NA	NA	NA	28 U	27 U	28 U	NA
4-Nitrophenol			NA	NA	NA	5.6 U	5.5 U	5.7 U	NA
Dibenzofuran			NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
2,6-Dinitrotoluene			NA	NA	NA	5.6 U	5.5 U	5.7 U	NA
2,4-Dinitrotoluene	9.1		NA	NA	NA	5.6 U	5.5 U	5.7 U	NA
Diethylphthalate	28000		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
4-Chlorophenyl-phenylether			NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
Fluorene	3500		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
4-Nitroaniline			NA	NA	NA	5.6 U	5.5 U	5.7 U	NA
4,6-Dinitro-2-Methylphenol	770		NA	NA	NA	17 U	16 U	17 U	NA
N-Nitrosodiphenylamine	16		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
4-Bromophenyl-phenylether			NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
Hexachlorobenzene	0.00077		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
Pentachlorophenol	7.9		NA	NA	NA	5.6 U	5.5 U	5.7 U	NA
Phenanthrene			NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
Carbazole			NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
Anthracene	26000		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
Di-n-Butylphthalate	2900		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
Fluoranthene	90		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
Pyrene	2600		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
Butylbenzylphthalate	1300		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
3,3'-Dichlorobenzidine	0.077		NA	NA	NA	5.6 U	5.5 U	5.7 U	NA
Benzo(a)anthracene	0.031		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
bis(2-Ethylhexyl)phthalate	5.9		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
Chrysene	0.031		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
Di-n-Octyl phthalate			NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
Benzo(b)fluoranthene	0.031		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
Benzo(k)fluoranthene	0.031		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-H-3-GW GE48B 12/22/2003	NMP2-H-4-GW GI07H 2/11/2004	NMP2-H-5-GW GI07I 2/11/2004	NMP2-J-1-GW GI07J 2/12/2004	NMP2-J-2-GW GI07K 2/12/2004	NMP2-K-1-GW GI07L 2/12/2004	NMP2-P2-1-GW GE75F 12/30/2003
Benzo(a)pyrene	0.031		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
Indeno(1,2,3-cd)pyrene	0.031		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
Dibenz(a,h)anthracene	0.031		NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
Benzo(g,h,i)perylene			NA	NA	NA	1.1 U	1.1 U	1.1 U	NA
cPAH TEQ	0.1 (c)		NA	NA	NA	ND	ND	ND	NA

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-P1 GI71A 2/18/2004	NMP2-P2 GI71B 2/18/2004	NMP2-P3 GI71C 2/19/2004	NMP2-P4 GI71D 2/19/2004	NMP2-P5 GI71E 2/19/2004	Dup of NMP2-P5 NMP2-P50 GI71F 2/19/2004	NMP2-P6 GI71G 2/19/2004	NMP2-P7 GI71H 2/18/2004
HYDROCARBONS (mg/L)										
Si/Acid Cleaned NWTPHD										
Diesel	0.500 (c)		0.25 U	0.25 U	NA	0.25 U	0.25 U	0.25 U	NA	0.25 U
Motor Oil	0.500 (c)		0.50 U	0.50 U	NA	0.50 U	0.50 U	0.50 U	NA	0.50 U
NWTPH-g										
Gasoline	1.0 (c)		0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
DISSOLVED METALS (mg/L)										
SW6000-7000 series										
Arsenic	0.00014	0.005 (e)	0.001	0.001 U	0.09	0.002	0.001	0.002	0.004	0.001 U
Cadmium	0.0093	0.002	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Chromium (d)	240	0.01	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Copper	0.0024	0.02	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Lead	0.0081	0.01	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Mercury	0.000025	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Silver	0.0019	--	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Zinc	0.081	0.16	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U
cPAHs (µg/L)										
SW8270C-SIM										
Benzo(a)anthracene	0.031		0.011 UJ	0.010 UJ	0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.011 UJ
Chrysene	0.031		0.011 UJ	0.010 UJ	0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.011 UJ
Benzo(b)fluoranthene	0.031		0.011 UJ	0.010 UJ	0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.011 UJ
Benzo(k)fluoranthene	0.031		0.011 UJ	0.010 UJ	0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.011 UJ
Benzo(a)pyrene	0.031		0.011 UJ	0.010 UJ	0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.011 UJ
Indeno(1,2,3-cd)pyrene	0.031		0.011 UJ	0.010 UJ	0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.011 UJ
Dibenz(a,h)anthracene	0.031		0.011 UJ	0.010 UJ	0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.011 UJ
cPAH TEQ	0.1 (c)		ND	ND	ND	ND	ND	ND	ND	ND
BTEX (µg/L)										
SW8021BMod										
Benzene	71		NA	NA	NA	NA	NA	NA	NA	NA
Toluene	48000		NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	6900		NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene			NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene			NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (µg/L)										
SW8260B										
Chloromethane	130		0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
Bromomethane	970		0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
Vinyl Chloride	37		0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
Chloroethane			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-P1 GI71A 2/18/2004	NMP2-P2 GI71B 2/18/2004	NMP2-P3 GI71C 2/19/2004	NMP2-P4 GI71D 2/19/2004	NMP2-P5 GI71E 2/19/2004	Dup of NMP2-P5 NMP2-P50 GI71F 2/19/2004	NMP2-P6 GI71G 2/19/2004	NMP2-P7 GI71H 2/18/2004
Methylene Chloride	1600		0.3 U	0.3 U	NA	0.3 U	0.3 U	0.3 U	NA	0.3 U
Acetone			1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
Carbon Disulfide			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
1,1-Dichloroethene	3.2		0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
1,1-Dichloroethane			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
trans-1,2-Dichloroethene	33000		0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
cis-1,2-Dichloroethene			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
Chloroform	470		0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
1,2-Dichloroethane			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
2-Butanone			1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,1,1-Trichloroethane	420000		0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
Carbon Tetrachloride	4.4		0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
Vinyl Acetate			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
Bromodichloromethane	22		0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
1,2-Dichloropropane	23.0		0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
cis-1,3-Dichloropropene			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
Trichloroethene	81		0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
Dibromochloromethane	34		0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
1,1,2-Trichloroethane	42		0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
Benzene	71		0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
trans-1,3-Dichloropropene			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
2-Chloroethylvinylether			0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U
Bromoform	360		0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
4-Methyl-2-Pentanone (MIBK)			1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
2-Hexanone			1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
Tetrachloroethene	8.9		0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
1,1,2,2-Tetrachloroethane	11		0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
Toluene	48000		0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
Chlorobenzene	5000		0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
Ethylbenzene	6900		0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
Styrene			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
Trichlorofluoromethane			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
1,1,2-Trichloro-1,2,2-trifluoroethane			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
m,p-Xylene			0.4 U	0.4 U	NA	0.4 U	0.4 U	0.4 U	NA	0.4 U
o-Xylene			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
1,2-Dichlorobenzene	4200		0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
1,3-Dichlorobenzene	2600		0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
1,4-Dichlorobenzene	49		0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
Acrolein	780		5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	NA	5.0 U
Methyl Iodide			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
Bromoethane			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
Acrylonitrile	0.66		1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,1-Dichloropropene			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
Dibromomethane			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-P1 GI71A 2/18/2004	NMP2-P2 GI71B 2/18/2004	NMP2-P3 GI71C 2/19/2004	NMP2-P4 GI71D 2/19/2004	NMP2-P5 GI71E 2/19/2004	Dup of NMP2-P5 NMP2-P50 GI71F 2/19/2004	NMP2-P6 GI71G 2/19/2004	NMP2-P7 GI71H 2/18/2004
1,1,1,2-Tetrachloroethane			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
1,2-Dibromo-3-chloropropane			2.0 U	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U
1,2,3-Trichloropropane			0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U
trans-1,4-Dichloro-2-butene			1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,3,5-Trimethylbenzene			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
1,2,4-Trimethylbenzene			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
Hexachlorobutadiene	50		0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U
Ethylene Dibromide			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
Bromochloromethane			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
2,2-Dichloropropane			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
1,3-Dichloropropane			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
Isopropylbenzene			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
n-Propylbenzene			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
Bromobenzene			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
2-Chlorotoluene			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
4-Chlorotoluene			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
tert-Butylbenzene			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
sec-Butylbenzene			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
4-Isopropyltoluene			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
n-Butylbenzene			0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U
1,2,4-Trichlorobenzene	230		0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U
Naphthalene	4900		0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U
1,2,3-Trichlorobenzene			0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U
SEMIVOLATILES (µg/L)										
SW8270C										
Phenol	1100000		NA	NA	NA	NA	NA	NA	NA	NA
Bis-(2-Chloroethyl) Ether	1.4		NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	97		NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	2600		NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	49		NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol			NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	4200		NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol			NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	380		NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol			NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	0.82		NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	8.9		NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	450		NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	600		NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol			NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	550		NA	NA	NA	NA	NA	NA	NA	NA
Benzoic Acid			NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy) Methane			NA	NA	NA	NA	NA	NA	NA	NA

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-P1 GI71A 2/18/2004	NMP2-P2 GI71B 2/18/2004	NMP2-P3 GI71C 2/19/2004	NMP2-P4 GI71D 2/19/2004	NMP2-P5 GI71E 2/19/2004	Dup of NMP2-P5 NMP2-P50 GI71F 2/19/2004	NMP2-P6 GI71G 2/19/2004	NMP2-P7 GI71H 2/18/2004
2,4-Dichlorophenol	190		NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	230		NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	4900		NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline			NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	50		NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol			NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene			NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	3600		NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	6.5		NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol			NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	1000		NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline			NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	72000		NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene			NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline			NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	640		NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	3500		NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol			NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran			NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene			NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	9.1		NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	28000		NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether			NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	3500		NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline			NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol	770		NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	16		NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether			NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	0.00077		NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	7.9		NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene			NA	NA	NA	NA	NA	NA	NA	NA
Carbazole			NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	26000		NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	2900		NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	90		NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2600		NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	1300		NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	0.077		NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.031		NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5.9		NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.031		NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl phthalate			NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.031		NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.031		NA	NA	NA	NA	NA	NA	NA	NA

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-P1 GI71A 2/18/2004	NMP2-P2 GI71B 2/18/2004	NMP2-P3 GI71C 2/19/2004	NMP2-P4 GI71D 2/19/2004	NMP2-P5 GI71E 2/19/2004	Dup of NMP2-P5 NMP2-P50 GI71F 2/19/2004	NMP2-P6 GI71G 2/19/2004	NMP2-P7 GI71H 2/18/2004
Benzo(a)pyrene	0.031		NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.031		NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.031		NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene			NA	NA	NA	NA	NA	NA	NA	NA
cPAH TEQ	0.1 (c)		NA	NA	NA	NA	NA	NA	NA	NA

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-P8 GI71J 2/18/2004	NMP2-P9 GI85A 2/23/2004	NMP2-P10 GI71J 2/18/2004	NMP2-P11 GI71K 2/19/2004	NMP2-P12 GI71L 2/19/2004	NMW-E GI71M 2/19/2004	NMW-W GI71N 2/19/2004
HYDROCARBONS (mg/L)									
Si/Acid Cleaned NWTPHD									
Diesel	0.500 (c)		NA	NA	NA	0.25 U	0.25 U	0.25 U	0.25 U
Motor Oil	0.500 (c)		NA	NA	NA	0.50 U	0.50 U	0.50 U	0.50 U
NWTPH-g									
Gasoline	1.0 (c)		0.25 U	NA	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
DISSOLVED METALS (mg/L)									
SW6000-7000 series									
Arsenic	0.00014	0.005 (e)	0.001 U	0.146	0.004	0.001 U	0.002	NA	NA
Cadmium	0.0093	0.002	0.002 U	0.004 U	0.002 U	0.002 U	0.002 U	NA	NA
Chromium (d)	240	0.01	0.005 U	0.01 U	0.005 U	0.005 U	0.005 U	NA	NA
Copper	0.0024	0.02	0.002 U	0.004 U	0.002 U	0.002 U	0.002 U	NA	NA
Lead	0.0081	0.01	0.001 U	0.001	0.001 U	0.001 U	0.001 U	NA	NA
Mercury	0.000025	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	NA	NA
Silver	0.0019	--	0.003 U	0.006 U	0.003 U	0.003 U	0.003 U	NA	NA
Zinc	0.081	0.16	0.006 U	0.01 U	0.006 U	0.006 U	0.006 U	NA	NA
cPAHs (µg/L)									
SW8270C-SIM									
Benzo(a)anthracene	0.031		0.010 UJ	0.015 J	0.011 UJ	NA	NA	NA	NA
Chrysene	0.031		0.010 UJ	0.030 UJ	0.011 UJ	NA	NA	NA	NA
Benzo(b)fluoranthene	0.031		0.010 UJ	0.022 UJ	0.011 UJ	NA	NA	NA	NA
Benzo(k)fluoranthene	0.031		0.010 UJ	0.018 J	0.011 UJ	NA	NA	NA	NA
Benzo(a)pyrene	0.031		0.010 UJ	0.012 J	0.011 UJ	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.031		0.010 UJ	0.011 UJ	0.011 UJ	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.031		0.010 UJ	0.011 UJ	0.011 UJ	NA	NA	NA	NA
cPAH TEQ	0.1 (c)		ND	0.015 J	ND	NA	NA	NA	NA
BTEX (µg/L)									
SW8021BMod									
Benzene	71		NA	NA	NA	NA	NA	1.0 U	1.0 U
Toluene	48000		NA	NA	NA	NA	NA	1.0 U	10
Ethylbenzene	6900		NA	NA	NA	NA	NA	1.0 U	1.0 U
m,p-Xylene			NA	NA	NA	NA	NA	1.0 U	1.0 U
o-Xylene			NA	NA	NA	NA	NA	1.0 U	1.0 U
VOLATILES (µg/L)									
SW8260B									
Chloromethane	130		NA	NA	NA	0.2 U	0.2 U	NA	NA
Bromomethane	970		NA	NA	NA	0.2 U	0.2 U	NA	NA
Vinyl Chloride	37		NA	NA	NA	0.2 U	0.2 U	NA	NA
Chloroethane			NA	NA	NA	0.2 U	0.2 U	NA	NA

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-P8 GI71J 2/18/2004	NMP2-P9 GI85A 2/23/2004	NMP2-P10 GI71J 2/18/2004	NMP2-P11 GI71K 2/19/2004	NMP2-P12 GI71L 2/19/2004	NMW-E GI71M 2/19/2004	NMW-W GI71N 2/19/2004
Methylene Chloride	1600		NA	NA	NA	0.3 U	0.3 U	NA	NA
Acetone			NA	NA	NA	1.0 U	1.0 U	NA	NA
Carbon Disulfide			NA	NA	NA	0.2 U	0.2 U	NA	NA
1,1-Dichloroethene	3.2		NA	NA	NA	0.2 U	0.2 U	NA	NA
1,1-Dichloroethane			NA	NA	NA	0.2 U	0.2 U	NA	NA
trans-1,2-Dichloroethene	33000		NA	NA	NA	0.2 U	0.2 U	NA	NA
cis-1,2-Dichloroethene			NA	NA	NA	0.2 U	0.2 U	NA	NA
Chloroform	470		NA	NA	NA	0.2 U	0.2 U	NA	NA
1,2-Dichloroethane			NA	NA	NA	0.2 U	0.2 U	NA	NA
2-Butanone			NA	NA	NA	1.0 U	1.0 U	NA	NA
1,1,1-Trichloroethane	420000		NA	NA	NA	0.2 U	0.2 U	NA	NA
Carbon Tetrachloride	4.4		NA	NA	NA	0.2 U	0.2 U	NA	NA
Vinyl Acetate			NA	NA	NA	0.2 U	0.2 U	NA	NA
Bromodichloromethane	22		NA	NA	NA	0.2 U	0.2 U	NA	NA
1,2-Dichloropropane	23.0		NA	NA	NA	0.2 U	0.2 U	NA	NA
cis-1,3-Dichloropropene			NA	NA	NA	0.2 U	0.2 U	NA	NA
Trichloroethene	81		NA	NA	NA	0.2 U	0.2 U	NA	NA
Dibromochloromethane	34		NA	NA	NA	0.2 U	0.2 U	NA	NA
1,1,2-Trichloroethane	42		NA	NA	NA	0.2 U	0.2 U	NA	NA
Benzene	71		NA	NA	NA	0.2 U	0.2 U	NA	NA
trans-1,3-Dichloropropene			NA	NA	NA	0.2 U	0.2 U	NA	NA
2-Chloroethylvinylether			NA	NA	NA	0.5 U	0.5 U	NA	NA
Bromoform	360		NA	NA	NA	0.2 U	0.2 U	NA	NA
4-Methyl-2-Pentanone (MIBK)			NA	NA	NA	1.0 U	1.0 U	NA	NA
2-Hexanone			NA	NA	NA	1.0 U	1.0 U	NA	NA
Tetrachloroethene	8.9		NA	NA	NA	0.2 U	0.2 U	NA	NA
1,1,2,2-Tetrachloroethane	11		NA	NA	NA	0.2 U	0.2 U	NA	NA
Toluene	48000		NA	NA	NA	0.2 U	0.2 U	NA	NA
Chlorobenzene	5000		NA	NA	NA	0.2 U	0.2 U	NA	NA
Ethylbenzene	6900		NA	NA	NA	0.2 U	0.2 U	NA	NA
Styrene			NA	NA	NA	0.2 U	0.2 U	NA	NA
Trichlorofluoromethane			NA	NA	NA	0.2 U	0.2 U	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane			NA	NA	NA	0.2 U	0.2 U	NA	NA
m,p-Xylene			NA	NA	NA	0.4 U	0.4 U	NA	NA
o-Xylene			NA	NA	NA	0.2 U	0.2 U	NA	NA
1,2-Dichlorobenzene	4200		NA	NA	NA	0.2 U	0.2 U	NA	NA
1,3-Dichlorobenzene	2600		NA	NA	NA	0.2 U	0.2 U	NA	NA
1,4-Dichlorobenzene	49		NA	NA	NA	0.2 U	0.2 U	NA	NA
Acrolein	780		NA	NA	NA	5.0 U	5.0 U	NA	NA
Methyl Iodide			NA	NA	NA	0.2 U	0.2 U	NA	NA
Bromoethane			NA	NA	NA	0.2 U	0.2 U	NA	NA
Acrylonitrile	0.66		NA	NA	NA	1.0 U	1.0 U	NA	NA
1,1-Dichloropropene			NA	NA	NA	0.2 U	0.2 U	NA	NA
Dibromomethane			NA	NA	NA	0.2 U	0.2 U	NA	NA

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-P8 GI71I 2/18/2004	NMP2-P9 GI85A 2/23/2004	NMP2-P10 GI71J 2/18/2004	NMP2-P11 GI71K 2/19/2004	NMP2-P12 GI71L 2/19/2004	NMW-E GI71M 2/19/2004	NMW-W GI71N 2/19/2004
1,1,1,2-Tetrachloroethane	50		NA	NA	NA	0.2 U	0.2 U	NA	NA
1,2-Dibromo-3-chloropropane			NA	NA	NA	2.0 U	2.0 U	NA	NA
1,2,3-Trichloropropane			NA	NA	NA	0.5 U	0.5 U	NA	NA
trans-1,4-Dichloro-2-butene			NA	NA	NA	1.0 U	1.0 U	NA	NA
1,3,5-Trimethylbenzene			NA	NA	NA	0.2 U	0.2 U	NA	NA
1,2,4-Trimethylbenzene			NA	NA	NA	0.2 U	0.2 U	NA	NA
Hexachlorobutadiene			NA	NA	NA	0.5 U	0.5 U	NA	NA
Ethylene Dibromide			NA	NA	NA	0.2 U	0.2 U	NA	NA
Bromochloromethane			NA	NA	NA	0.2 U	0.2 U	NA	NA
2,2-Dichloropropane			NA	NA	NA	0.2 U	0.2 U	NA	NA
1,3-Dichloropropane			NA	NA	NA	0.2 U	0.2 U	NA	NA
Isopropylbenzene			NA	NA	NA	0.2 U	0.2 U	NA	NA
n-Propylbenzene			NA	NA	NA	0.2 U	0.2 U	NA	NA
Bromobenzene			NA	NA	NA	0.2 U	0.2 U	NA	NA
2-Chlorotoluene			NA	NA	NA	0.2 U	0.2 U	NA	NA
4-Chlorotoluene			NA	NA	NA	0.2 U	0.2 U	NA	NA
tert-Butylbenzene			NA	NA	NA	0.2 U	0.2 U	NA	NA
sec-Butylbenzene			NA	NA	NA	0.2 U	0.2 U	NA	NA
4-Isopropyltoluene			NA	NA	NA	0.2 U	0.2 U	NA	NA
n-Butylbenzene			NA	NA	NA	0.2 U	0.2 U	NA	NA
1,2,4-Trichlorobenzene	230	4900	NA	NA	NA	0.5 U	0.5 U	NA	NA
Naphthalene	4900		NA	NA	NA	0.5 U	0.5 U	NA	NA
1,2,3-Trichlorobenzene			NA	NA	NA	0.5 U	0.5 U	NA	NA
SEMIVOLATILES (µg/L)									
SW8270C									
Phenol	1100000		NA	NA	NA	2.1 U	2.1 U	NA	NA
Bis-(2-Chloroethyl) Ether	1.4		NA	NA	NA	2.1 U	2.1 U	NA	NA
2-Chlorophenol	97		NA	NA	NA	1.0 U	1.1 U	NA	NA
1,3-Dichlorobenzene	2600		NA	NA	NA	1.0 U	1.1 U	NA	NA
1,4-Dichlorobenzene	49		NA	NA	NA	1.0 U	1.1 U	NA	NA
Benzyl Alcohol			NA	NA	NA	5.2 U	5.3 U	NA	NA
1,2-Dichlorobenzene	4200		NA	NA	NA	1.0 U	1.1 U	NA	NA
2-Methylphenol			NA	NA	NA	1.0 U	1.1 U	NA	NA
2,2'-Oxybis(1-Chloropropane)	380		NA	NA	NA	1.0 U	1.1 U	NA	NA
4-Methylphenol			NA	NA	NA	1.0 U	1.1 U	NA	NA
N-Nitroso-Di-N-Propylamine	0.82		NA	NA	NA	2.1 U	2.1 U	NA	NA
Hexachloroethane	8.9		NA	NA	NA	2.1 U	2.1 U	NA	NA
Nitrobenzene	450		NA	NA	NA	1.0 U	1.1 U	NA	NA
Isophorone	600		NA	NA	NA	1.0 U	1.1 U	NA	NA
2-Nitrophenol			NA	NA	NA	5.2 U	5.3 U	NA	NA
2,4-Dimethylphenol	550		NA	NA	NA	3.1 U	3.2 U	NA	NA
Benzoic Acid			NA	NA	NA	10 U	11 U	NA	NA
bis(2-Chloroethoxy) Methane			NA	NA	NA	1.0 U	1.1 U	NA	NA

TABLE C-2
GROUNDWATER ANALYTICAL RESULTS
NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-P8 GI71J 2/18/2004	NMP2-P9 GI85A 2/23/2004	NMP2-P10 GI71J 2/18/2004	NMP2-P11 GI71K 2/19/2004	NMP2-P12 GI71L 2/19/2004	NMW-E GI71M 2/19/2004	NMW-W GI71N 2/19/2004
2,4-Dichlorophenol	190		NA	NA	NA	3.1 U	3.2 U	NA	NA
1,2,4-Trichlorobenzene	230		NA	NA	NA	1.0 U	1.1 U	NA	NA
Naphthalene	4900		NA	NA	NA	1.0 U	1.1 U	NA	NA
4-Chloroaniline			NA	NA	NA	3.1 U	3.2 U	NA	NA
Hexachlorobutadiene	50		NA	NA	NA	2.1 U	2.1 U	NA	NA
4-Chloro-3-methylphenol			NA	NA	NA	2.1 U	2.1 U	NA	NA
2-Methylnaphthalene			NA	NA	NA	1.0 U	1.1 U	NA	NA
Hexachlorocyclopentadiene	3600		NA	NA	NA	5.2 U	5.3 U	NA	NA
2,4,6-Trichlorophenol	6.5		NA	NA	NA	5.2 U	5.3 U	NA	NA
2,4,5-Trichlorophenol			NA	NA	NA	5.2 U	5.3 U	NA	NA
2-Chloronaphthalene	1000		NA	NA	NA	1.0 U	1.1 U	NA	NA
2-Nitroaniline			NA	NA	NA	5.2 U	5.3 U	NA	NA
Dimethylphthalate	72000		NA	NA	NA	1.0 U	1.1 U	NA	NA
Acenaphthylene			NA	NA	NA	1.0 U	1.1 U	NA	NA
3-Nitroaniline			NA	NA	NA	6.2 U	6.3 U	NA	NA
Acenaphthene	640		NA	NA	NA	1.0 U	1.1 U	NA	NA
2,4-Dinitrophenol	3500		NA	NA	NA	26 U	26 U	NA	NA
4-Nitrophenol			NA	NA	NA	5.2 U	5.3 U	NA	NA
Dibenzofuran			NA	NA	NA	1.0 U	1.1 U	NA	NA
2,6-Dinitrotoluene			NA	NA	NA	5.2 U	5.3 U	NA	NA
2,4-Dinitrotoluene	9.1		NA	NA	NA	5.2 U	5.3 U	NA	NA
Diethylphthalate	28000		NA	NA	NA	1.0 U	1.1 U	NA	NA
4-Chlorophenyl-phenylether			NA	NA	NA	1.0 U	1.1 U	NA	NA
Fluorene	3500		NA	NA	NA	1.0 U	1.1 U	NA	NA
4-Nitroaniline			NA	NA	NA	5.2 U	5.3 U	NA	NA
4,6-Dinitro-2-Methylphenol	770		NA	NA	NA	16 U	16 U	NA	NA
N-Nitrosodiphenylamine	16		NA	NA	NA	1.0 U	1.1 U	NA	NA
4-Bromophenyl-phenylether			NA	NA	NA	1.0 U	1.1 U	NA	NA
Hexachlorobenzene	0.00077		NA	NA	NA	1.0 U	1.1 U	NA	NA
Pentachlorophenol	7.9		NA	NA	NA	5.2 U	5.3 U	NA	NA
Phenanthrene			NA	NA	NA	1.0 U	1.1 U	NA	NA
Carbazole			NA	NA	NA	1.0 U	1.1 U	NA	NA
Anthracene	26000		NA	NA	NA	1.0 U	1.1 U	NA	NA
Di-n-Butylphthalate	2900		NA	NA	NA	1.0 U	1.1 U	NA	NA
Fluoranthene	90		NA	NA	NA	1.0 U	1.1 U	NA	NA
Pyrene	2600		NA	NA	NA	1.0 U	1.1 U	NA	NA
Butylbenzylphthalate	1300		NA	NA	NA	1.0 U	1.1 U	NA	NA
3,3'-Dichlorobenzidine	0.077		NA	NA	NA	5.2 U	5.3 U	NA	NA
Benzo(a)anthracene	0.031		NA	NA	NA	1.0 U	1.1 U	NA	NA
bis(2-Ethylhexyl)phthalate	5.9		NA	NA	NA	1.0 U	1.1 U	NA	NA
Chrysene	0.031		NA	NA	NA	1.0 U	1.1 U	NA	NA
Di-n-Octyl phthalate			NA	NA	NA	1.0 U	1.1 U	NA	NA
Benzo(b)fluoranthene	0.031		NA	NA	NA	1.0 U	1.1 U	NA	NA
Benzo(k)fluoranthene	0.031		NA	NA	NA	1.0 U	1.1 U	NA	NA

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NORTH MARINA AREA
EVERETT, WASHINGTON

	MTCA Method B Preliminary GW/MSW (b) Cleanup Level	Background Groundwater Concentration (a)	NMP2-P8 GI71J 2/18/2004	NMP2-P9 GI85A 2/23/2004	NMP2-P10 GI71J 2/18/2004	NMP2-P11 GI71K 2/19/2004	NMP2-P12 GI71L 2/19/2004	NMW-E GI71M 2/19/2004	NMW-W GI71N 2/19/2004
Benzo(a)pyrene	0.031		NA	NA	NA	1.0 U	1.1 U	NA	NA
Indeno(1,2,3-cd)pyrene	0.031		NA	NA	NA	1.0 U	1.1 U	NA	NA
Dibenz(a,h)anthracene	0.031		NA	NA	NA	1.0 U	1.1 U	NA	NA
Benzo(g,h,i)perylene			NA	NA	NA	1.0 U	1.1 U	NA	NA
cPAH TEQ	0.1 (c)		NA	NA	NA	ND	ND	NA	NA

NA = Not analyzed.

U = Indicates compound was analyzed for, but was not detected at the reported sample detection limit.

M = Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match.

J = Result is an estimated value.

(a) GW/MSW = Groundwater/Marine Surface Water.

(b) Groundwater background concentrations of Washington State (PTI 1989).

(c) MTCA Method A cleanup levels.

(d) Screening level is for chromium III.

(e) Background concentration from WAC 173-340, Table 720-1, footnote b.

Notes:

Phase IIa samples are shown in italics. Phase IIb samples are not italicized.

Shaded cell indicates exceedance of cleanup level.