REMEDIAL INVESTIGATION FIELD PROGRAM FIRST PHASE REPORT

CAPITAL INDUSTRIES, INC. 5801 THIRD AVENUE SOUTH SEATTLE, WASHINGTON

AGREED ORDER NO. DE 5348

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ACRONYMS, ABBREVIATIONS, AND DEFINITIONS

ABP Art Brass Plating

Agreed Order No. DE 5348 between the Washington State

Department of Ecology and Capital Industries, Inc.

ARARs applicable or relevant and appropriate requirements

BDC Blaser Die Casting

bgs below ground surface

Capital Capital Industries, Inc.

Capital Area of Investigation Area south of Mead Street South, north of South Front Street,

east of 1st Avenue South, and west of 4th Avenue South; and the

property north of South Mead Street

Capital Property Property located at 5801 3rd Avenue South in Seattle,

Washington

Capital Site Area where constituents of concern exceed regulatory cleanup

levels

cis-1,2-DCE cis-1,2-dichloroethene

COCs constituents of concern

COPCs constituents of potential concern

Ecology Washington State Department of Ecology

EPA U.S. Environmental Protection Agency

Farallon Farallon Consulting, L.L.C.

HVOCs halogenated volatile organic compounds

Intermediate Zone water-bearing zone from 40 to 70 feet below ground surface

MTCA Washington State Model Toxics Control Act Cleanup Regulation

PCE tetrachloroethene

PGG Pacific Groundwater Group

PID photoionization detector

PQLs practical quantitation limits

PSC Philip Services Corporation

RI Remedial Investigation

RI Work Plan Remedial Investigation Work Plan

Shallow Zone water-bearing zone from 20 to 40 feet below ground surface

TCE trichloroethene

trans-1,2-DCE trans-1,2-dichloroethene

VOCs volatile organic compounds

WAC Washington Administrative Code

Water Table Zone Water-bearing zone from surface to 20 feet below ground surface

1.0 INTRODUCTION

Farallon Consulting, L.L.C. (Farallon) has prepared this Remedial Investigation Field Program First Phase Report (First Phase Report) on behalf of Capital Industries, Inc. (Capital) to present the results of the investigation conducted as the First Phase of the Remedial Investigation (RI) at the Capital Area of Investigation (Figure 1). The Capital Area of Investigation is defined as the area south of South Mead Street, north of South Front Street, east of 1st Avenue South, and west of 4th Avenue South, and the property north of Mead Street and west of 4th Avenue South (Figures 1, 2, and 3). In accordance with Exhibit A of Agreed Order No. DE 5348 entered into by Capital and the Washington State Department Ecology (Ecology) on January 24, 2008 (Agreed Order) and with Section 200 of Chapter 173-340 of the Washington Administrative Code (WAC 173-340-200), the Capital Site will be defined as the area where concentrations of constituents of concern (COCs) released from the Capital Property, located at 5801 3rd Avenue South in Seattle, Washington, exceed regulatory cleanup levels. The results of the RI will be used to define the boundaries of the Capital Site.

The First Phase Report has been prepared in accordance with the Washington State Model Toxics Control Act Cleanup Regulation (MTCA), as established in WAC 173-340 and in accordance with the Agreed Order. The scope for work for the First Phase of the RI Field Program included Tier 1 and Tier 2 soil and reconnaissance groundwater sampling and analysis in accordance with the Remedial Investigation Work Plan (RI Work Plan) dated September 16, 2008 prepared by Farallon (Farallon 2008). The RI Work Plan was submitted to, and approved by, Ecology prior to commencement of the RI Field Program.

1.1 PURPOSE

The purpose of the RI is to collect sufficient information to enable development and evaluation of technically feasible cleanup alternatives in accordance with WAC 173-340-360 through 173-340-390. The RI will provide sufficient data to refine the conceptual site model for use in evaluating technically feasible cleanup alternatives for selection of a final cleanup action applicable to the Capital Site. The purpose of the First Phase of the RI Field Program is to

identify potential sources of halogenated volatile organic compounds (HVOCs), to evaluate the lateral and vertical extent of HVOCs in soil proximate to Capital Plant 4, and to collect reconnaissance groundwater and soil samples for laboratory analysis to characterize the lateral and vertical extent of HVOCs up-, down-, and cross-gradient to the Capital Property. The results of the First Phase of the RI Field Program have been used to select monitoring well depths and locations and to define the scope of work to complete the RI Field Program.

1.2 REPORT ORGANIZATION

The format of this Phase I Report and supporting documents meets the requirements of WAC 173-340-350(7) and 173-340-350(8) and the Agreed Order. The report has been organized into the following sections:

- **Section 1—Introduction.** This section presents a brief overview and introduction to the First Phase of the RI Field Program.
- Section 2—Property Description and Background. This section describes the Capital Area of Investigation location, the Capital Property definition, and up-gradient source areas.
- Section 3—Historical Research and Regulatory Review. This section describes the objectives, scope of work and results of the historical research and regulatory review portion of the First Phase of the RI Field Program.
- **Section 4—Reconnaissance Sampling.** This section describes the objectives, scope of work, and results of the Tier 1 and Tier 2 Reconnaissance Sampling portions of the First Phase of the RI Field Program.
- Section 5—Conceptual Site Model. This section summarizes the conceptual site model
 incorporating the results of the First Phase of the RI Field Program conducted at the
 Capital Area of Investigation. Included is a discussion of the nature and extent of COPCs
 and data gaps.
- **Section 6—Bibliography.** This section lists the source materials used in preparing the Phase I Report.

2.0 PROPERTY DESCRIPTION AND BACKGROUND

A detailed review of the background of the Capital Area of Investigation, adjacent properties, land use, environmental setting, hydrogeology, and previous investigations is presented in Section 2 of the RI Work Plan (Farallon 2008). The historical and background data for the Capital Property, the Philip Services Corporation (PSC) facility, the Art Brass Plating (ABP) facility, and the Blaser Die Casting (BDC) facility are discussed in detail in both the Data Summary Report (Farallon et al. 2008) and the RI Work Plan (Farallon 2008).

2.1 CAPITAL PROPERTY DESCRIPTION

The Capital Property is defined as the property owned by Capital at 5801 3rd Avenue South in Seattle, Washington (Figure 2). The Capital Property is located south of South Mead Street, north of South Fidalgo Street, west of the properties occupied by commercial buildings adjacent to Capital Plant 4, and east of 1st Avenue South, and includes the property at the northwestern corner of 4th Avenue South and South Mead Street in Section 39, Township 24 South, Range 4 East in Seattle, King County, Washington (Figures 1, 2, and 3). The Capital Property consists of King County Assessor Parcel Nos. 1722802255 (5801 3rd Avenue South); 1722801620 (5801 3rd Avenue South); 1722802245 (5820 1st Avenue South); and 1722801530 (5801 3rd Avenue South) that total 182,468 square feet. Parcel Nos. 1722802255, 1722801620, and 1722802245 are developed with five adjoining tilt-up, slab-on-grade buildings designated as Plant 1 through Plant 5 (Figure 2). Parcel No. 1722801530 is north of Plant 4 (Figure 2) and is used by Capital for storage of finished products, including containers and dumpsters. Subsurface utilities that enter the Capital Property from the north and south include natural gas, sanitary sewer, and water services.

The Capital Area of Investigation is located within the area defined in the Data Summary Report as the West of 4th Groundwater Investigation Area (Farallon et al. 2008). Four known sources of constituents of potential concern (COPCs) to soil and/or groundwater are located within the West of 4th Groundwater Investigation Area, including the Capital Property, the PSC facility, the ABP facility, and the BDC facility (Figures 1 and 2).

Screening levels have been established for the region by PSC (2006) that are applicable to the Capital Area of Investigation (Farallon 2008). The screening levels define the concentrations of COPCs in soil and groundwater that represent a potential risk to human health and the environment. Some of the screening levels established by PSC (2006) have recently been modified based on surface water protection for consumption of fish (Farallon 2008). Screening levels have been established for COPCs in groundwater for three water-bearing zones defined for the Capital Area of Investigation:

- <u>Water Table Zone</u>, defined as the water-bearing zone from first-encountered groundwater to approximately 20 feet below ground surface (bgs);
- Shallow Zone, defined as the water-bearing zone from 20 to 40 feet bgs; and
- <u>Intermediate Zone</u>, defined as the water-bearing zone from 40 to 70 feet bgs (Farallon 2008).

Screening levels for COPCs in groundwater are presented in Tables 1 through 3 of the RI Work Plan. Screening levels for COPCs in soil are presented in Table 4 of the RI Work Plan (Farallon 2008). The screening levels for soil and groundwater are summarized in the attached Tables 1 and 2 of this First Phase Report.

2.2 PREVIOUS INVESTIGATIONS

Previous investigations have conducted at and in the vicinity of the Capital Property prior to the RI Field Program. A detailed summary of previous investigations at the Capital Property, ABP, BDC, and PSC facilities is provided in the RI Work Plan (Farallon 2008) and Data Summary Report (Farallon et al. 2008).

The applicable results from the investigations conducted at the Capital Property and from remedial investigations currently being conducted at the ABP and BDC facilities have been incorporated in this First Phase Report. Table 1 and Figures 5 through 9 include data collected from the Capital Property at groundwater monitoring wells MW-1 through MW-8 and reconnaissance boring locations B1 through B8 (Figure 4). PSC is currently conducting

groundwater monitoring at locations in the vicinity of the Capital Area of Investigation, and applicable data from this monitoring have been included on Figures 5 through 7.

2.3 UP-GRADIENT SOURCE AREAS

Known or potential sources of COPCs located up-gradient of the Capital Property include the BDC facility, the ABP facility, and the PSC facility (Figure 2). Releases of HVOCs to groundwater at these up-gradient sources are likely impacting groundwater within the Capital Area of Investigation. A detailed discussion of each of these potential source areas is provided in the Data Summary Report (Farallon et al. 2008) and the RI Work Plan (Farallon 2008).

The BDC facility has confirmed concentrations of HVOCs above the screening levels in soil under the BDC facility and concentrations of HVOCs above the screening levels in groundwater at and down-gradient of the BDC facility (PGG 2006; 2008; 2009).

Concentrations of HVOCs have been detected above the screening levels in groundwater samples collected from reconnaissance borings and monitoring wells located at and downgradient of the ABP facility in the Water Table Zone and Shallow Zone (Aspect 2007). Based on recent data collected during the ABP facility RI, there is a suspected source area located in the area north of Capital Plant 5.

Operations associated with the treatment and storage of materials at the PSC facility have resulted in releases of COPCs to soil and groundwater (PSC 2003). Concentrations of COPCs have been detected above the screening levels in groundwater down-gradient of the PSC facility to the west-southwest in the Water Table Zone, Shallow Zone, and Intermediate Zone.

3.0 HISTORICAL RESEARCH AND REGULATORY REVIEW

The First Phase of the RI Field Program included research and a detailed review of past and current operations at properties located within the Capital Area of Investigation. The historical research and regulatory review were conducted to identify past or current operations having the potential for release of COPCs to the environment. The results of the research and prior investigations were used to determine sampling locations for the First Phase of the RI Field Program.

3.1 SCOPE OF WORK

The scope of work for the historical research and regulatory database review included reviewing the following sources to obtain historical information regarding the uses of facilities located within and/or adjacent to the Capital Area of Investigation.

- Aerial photographs of the Seattle, Washington area dated 1956, 1965, 1977, 1985, 1990, and 2006 obtained from EDR (report available upon request);
- USGS Topographic Maps of Seattle South, Washington dated 1949, 1968, 1973, and 1983, obtained from EDR;
- Polk City Directories of Seattle, Washington dated 1920, 1925, 1930, 1935, 1940, 1944, 1951, 1955, 1960, 1966, 1969, 1970, 1971, 1975, 1977, 1980, 1981, 1985, 1986, 1990, 1991, 1996, and 2005, obtained from EDR; and
- Sanborn Fire Insurance maps of Seattle, Washington dated 1949 and 1969.

3.2 RESULTS

The following sections present the results of the Historical Research and Regulatory Database Review. Copies of the documents reviewed are retained in Farallon files.

3.2.1 Historical Research Summary

The properties located within the Capital Area of Investigation south of, and adjacent to, the Capital Property include the southern portion of the Duwamish Basin Federal Housing Project that was developed with several dwellings dating back to at least the 1940s, a community

building, a paint shop, and a public school. By the 1950s, the housing project had been demolished and the properties had been redeveloped with commercial buildings occupied by Sears Roebuck Co., Edison Technical School, a wire products manufacturer, and a motor freight station. By the 1960s, the properties were fully developed with several commercial buildings that have been occupied by offices, retail gasoline stations, automobile repair facilities, manufacturing facilities, warehouses, and motor freight stations.

The properties located adjacent to and north of the Capital Area of Investigation were developed with several residential dwellings dating back to at least the 1940s. The properties were redeveloped with commercial buildings in the 1950s and 1960s. The properties have been historically occupied by a die casting facility, automobile repair facilities, dry cleaners, and a furniture spa [sic].

The properties located west and southwest of the Capital Area of Investigation were developed with several commercial and warehouse buildings dating back to at least the 1920s and 1930s, including a soap manufacturer, fertilizer manufacturer, and automobile repair facilities. These properties are bounded to the west and southwest by the Duwamish Waterway. Since the 1940s, the properties have been occupied by construction companies, building material manufacturers, automobile repair facilities, retail gasoline stations, and container and equipment storage yards.

The properties located east and southeast of the Capital Area of Investigation were developed with several commercial and warehouse buildings dating back to at least the 1920s. The properties have been occupied by equipment storage yards, a brass plating facility, automobile repair facilities, and dry cleaners.

3.2.2 Regulatory Database Review

Farallon retained Environmental Data Resources (EDR) to provide a Radius Map Report with Geocheck (EDR 2008) for the Capital Area of Investigation with federal and state environmental regulatory agency database listings for review. The purpose of the database review was to identify reported environmental issues related to historical and current uses of facilities located within and adjacent to the Capital Area of Investigation.

Facilities Adjacent to the Capital Property

The following properties located adjacent to the Capital Property were identified on regulatory databases. The location of each of these facilities is shown on Figures 3 and 4.

• Olympic Medical Building, 5900 1st Avenue South, south-adjacent property

Olympic Medical Building was identified on the Manifest, Resource Conservation and Recovery Act (RCRA) – Conditionally Exempt Small Quantity Generator (CESQG) databases. This facility received notices of violation in April 1992 for reporting and record-keeping requirements related to the storage and handling of hazardous materials. The facility achieved compliance in June 1992. This facility currently does not store or handle hazardous materials; therefore, it is conditionally exempt from reporting requirements. Farallon has requested access to and will review Ecology archives to determine the chemicals that were used at the facility, if possible.

• Mobile Crane Company, 5917 4th Avenue South and 5900 2nd Avenue South, south-adjacent property

Mobile Crane Company was identified on the Underground Storage Tank (UST), Confirmed and Contaminated Sites List (CSCSL), No Further Action (NFA), Voluntary Cleanup Program (VCP), Manifest, Independent Cleanup Report (ICR), and RCRA-CESQG databases. Several USTs were removed from the facility between 1999 and 2001. Soil and groundwater were reported to be impacted by petroleum products. The facility entered the VCP and, following an independent cleanup, Ecology issued a No Further Action (NFA) determination for the facility in May 2002.

• AM International, 5901 4th Avenue South, south-adjacent property

AM International was identified on the RCRA-Nongenerator (NonGen) database. No violations have been reported at this facility.

Pacific Marine Testing Company and South End Carburetor and Electric, 5807 4th
 Avenue South, east-adjacent properties

Pacific Marine Testing Company was identified on the RCRA-NonGen database. No violations have been reported at this facility.

South End Carburetor and Electric was identified on the Historical Auto Stations database. This automobile repair facility operated in 1955 and potentially used HVOCs as part of the operations.

• Art Brass Plating, 5815 4th Avenue South, east-adjacent property

The former *Art Brass Plating* was identified on the RCRA-NonGen database. No violations have been reported at this facility.

Facilities Within the Capital Area of Investigation

Farallon identified regulated facilities located within the Capital Area of Investigation (Figure 3).

• Buckwith Kuffle, Inc., 5930 1st Avenue South, less than 0.125 mile south of the Capital Property

Buckwith Kuffle Inc. was identified on the UST and RCRA-NonGen databases. Two USTs were removed from the facility in 1996. The contents of the tanks are unknown; however, there were no reported releases to soil and/or groundwater. No violations have been reported at this facility.

 Aleutians Constructors, 5939 4th Avenue South, less than 0.125 mile southeast of the Capital Property

Aleutians Constructors was identified on the RCRA-NonGen database. No violations have been reported at this facility.

 Union Oil Service, 5960 1st Avenue South, south of the Capital Property, exact location unknown

Union Oil Service was identified on the Historical Auto Stations database. This retail gasoline station operated in 1960. The exact location of this facility is unknown; however, it is suspected to be in the area of the Olympic Medical Building.

Facilities Adjacent to the Capital Area of Investigation

Farallon identified regulated facilities adjacent to the Capital Area of Investigation (Figure 3).

• Ott Real Estate Property, 5903 1st Avenue South, west of the Capital Area of Investigation

Ott Real Estate Property was identified on the CSCSL NFA database. The facility received an NFA following an Independent Remedial Action in May 1996. The details of the NFA and the former release at the property were not provided by EDR. There is insufficient information to determine whether HVOCs were used at this facility.

• Harris Bros. and Air Tec Co Parcel C, 5701 1st Avenue South, northwest of the Capital Area of Investigation

Harris Bros was identified on the Historical Auto Stations database. A retail gasoline service station operated on this property in 1930 and 1940 and potentially used HVOCs in the operations.

Air Tec Co Parcel C was identified on the UST, SHWS, Leaking Underground Storage Tank (LUST), and ICR databases. Several USTs were removed from the property in the mid-1990s. Soil and groundwater were confirmed to be impacted by petroleum products. Cleanup of the property has begun; however, the current status is unknown.

 Sahlberg Equipment and St Vincent De Paul, 5950 4th Avenue South, southeast of the Capital Area of Investigation

Sahlberg Equipment was identified on the SHWS, ICR, and RCRA-CESQG databases. Surface water at this facility is suspected to be impacted by petroleum products and HVOCs. Soil and groundwater are confirmed to be impacted by petroleum products and HVOCs. As of 2007, this facility is awaiting a site hazard assessment. No further information was provided by EDR.

St Vincent De Paul was identified on the Solid Waste Facility/Landfill (SWF/LF) database. This facility is an active materials recycling facility.

Glacier Northwest, 5975 East Marginal Way South, southwest of the Capital Area of Investigation

Glacier Northwest was identified on the Leaking Underground Storage Tank (LUST), UST, NPDES, and RCRA-NonGen databases. Two USTs were removed from the facility in 1996 and 1997, and two USTs currently are operational at the facility. The contents of the USTS are unknown. A release of an unknown substance to soil and surface water was reported in 1989. Cleanup of the release was started as of 1995; however, the current status of the release was not reported by EDR. No further information was made available.

• Continental Industries, 222 Orcas Street, north of the Capital Area of Investigation Continental Industries was identified on the RCRA-NonGen databases. No violations have been reported at this facility.

• Dons Radiator, 5626 1st Avenue South, north of the Capital Area of Investigation

Dons Radiator was identified on the RCRA-NonGen database. This facility received a notice of violation in August 1998 for general generator requirements. The facility achieved compliance in September 1998. There is insufficient information to determine whether HVOCs were used at this facility. However, HVOCs are commonly used at these types of operations.

Big Johns Truck Repair Inc, 5622 1st Avenue South, north of the Capital Area of Investigation

Big Johns Truck Repair Inc was identified on the RCRA-NonGen database. No violations have been report at this facility. There is insufficient information to determine whether HVOCs were used at this facility. However, HVOCs are commonly used at these types of operations.

Historical Facilities

EDR (2008) identified several historical dry cleaners and historical automobile stations, which include former retail gasoline stations and/or automobile repair facilities, located less than 0.125 mile north to northeast of the Capital Area of Investigation. The exact locations of these facilities could not be defined; however, the former operations at these facilities could have resulted in releases of HVOCs to the environment.

Results

The results of the database research identified a number of properties located within or adjacent to the Capital Area of Investigation that were occupied by facilities that used HVOCs. The database research indentified past or current operations, including dry cleaners, metal plating, auto repair, and RCRA generators that could be sources of HVOCs to soil and/or groundwater within the Capital Area of Investigation.

In addition to the up-gradient sources identified in Section 2.3, the results of historical research and regulatory review have identified the Sahlberg Equipment facility, located adjacent to the southeast boundary of the Capital Area of Investigation, as a known source of HVOCs. Facilities identified from past or current operations as suspected sources of HVOCs located within the Capital Area of Investigation include: Olympic Medical, the former Art Brass Plating Facility located east of Plant 4, Buckwith Kuffle Inc, and Union Service Station (Figure 3). Facilities identified from past or current operations as suspected sources of HVOCs located adjacent to the Capital Area of Investigation include: Southend Carburetor and Electric, Ott Real Estate Property, Harris Brothers, Dons Radiator, and Big Johns Truck Repair (Figure 3).

4.0 TIER 1 AND TIER 2 RECONNAISSANCE SAMPLING

As described in the RI Work Plan, the First Phase of the RI Field Program was conducted in two tiers (Farallon 2008). This section presents a summary of the Tier 1 and Tier 2 reconnaissance sampling conducted as the First Phase of the RI Field Program. The Tier 1 reconnaissance sampling was conducted to evaluate the nature and extent of HVOCs in soil and/or groundwater within the Capital Area of Investigation. The Tier 2 reconnaissance sampling was conducted to address data gaps identified from the analytical results of the Tier 1 reconnaissance sampling. The objectives and results of the First Phase of the RI Field Program are presented in the following sections.

4.1 OBJECTIVES

The objectives of the First Phase of the RI Field Program were defined in the RI Work Plan (Farallon 2008) and included:

- Evaluating the lateral and vertical extent of concentrations of HVOCs above screening levels in groundwater in the Water Table Zone, the Shallow Zone, and the Intermediate Zone down-gradient of the Capital Property;
- Identifying potential or suspected source areas in the Capital Area of Investigation;
- Establishing the lateral and vertical nature and extent of concentrations of HVOCs above screening levels in groundwater migrating to the Capital Property from up-gradient sources;
- Evaluating the lateral and vertical extent of HVOCs in soil proximate to Plant 4; and
- Providing sufficient data to select locations and depths for monitoring wells.

Reconnaissance sampling locations are provided on Figure 4. The interpreted nature and extent of HVOCs in each water-bearing zone, based on the reconnaissance sampling data, is provided in plan view on Figures 5 through 7 and in cross-section view on Figure 8.

4.2 SCOPE OF WORK

4.2.1 Tier 1 Reconnaissance Sampling

The scope of work for the Tier 1 Reconnaissance Sampling included:

- Advancing soil borings located down-gradient of Capital Plant 2 and up-, cross-, and down-gradient of Capital Plant 4 to collect reconnaissance groundwater samples at variable depths in the water column for analysis of HVOCs (Figure 4);
- Collecting shallow soil samples from each boring located proximate to Capital Plant 4 for analysis of HVOCs (Figure 4 and 9); and
- Collecting soil samples from selected borings at specified depths for analysis of total organic carbon (TOC) (Figure 4).

Borings B6 through B12 were located south and down-gradient of Capital Plant 2, and borings B13 through B18 were located up-, cross-, and down-gradient of Capital Plant 4 (Figure 4). Drilling was conducted between November 10 and December 16, 2008 by Cascade Drilling, Inc. of Woodinville, Washington (Cascade) using direct-push drilling methods. Soil samples were collected continuously from the ground surface to the final depth of each boring and described in accordance with the Unified Soil Classification System (USCS) to identify subsurface stratigraphy (Appendix A). Borings were completed to depths ranging from 68 to 70 feet bgs, with the exception of boring B18, which was completed at 12 feet bgs.

Soil samples were collected from borings B14, B15, and B18 at depths of 2, 5, and 7 feet bgs and submitted to OnSite Environmental, Inc. of Redmond, Washington (OnSite) for analysis of HVOCs by EPA Method 5035/8260B. Soil samples were collected from borings B6, B9, B13, and B17 between 15 and 15.5 feet bgs, 30 and 30.5 feet bgs, and 60 and 60.5 feet bgs at each location for laboratory analysis of TOC. Soil samples collected for TOC were submitted to OnSite for analysis by EPA Method 415.1.

Reconnaissance groundwater samples were collected from first-encountered groundwater to the final depth of each boring at 4-foot intervals in all of the borings, with the exception of boring B18, where only one reconnaissance sample was collected between 8 and 12 feet bgs

(Appendix A). Reconnaissance groundwater samples were submitted to OnSite for analysis of HVOCs by Environmental Protection Agency (EPA) Method 8260B. The analytical laboratory reports are included in Appendix B.

4.2.2 Tier 2 Reconnaissance Sampling

The scope of work for the Tier 2 Reconnaissance Sampling was developed after review and evaluation of the analytical results from Tier 1 and included:

- Advancing ten soil borings located south and down-gradient of Capital Plant 4, and crossand down-gradient of Capital Plant 2 to collect reconnaissance groundwater samples for analysis of HVOCs (Figure 4); and
- Collecting shallow soil samples from borings located proximate to Plant 4 for analysis of HVOCs (Figure 4).

Borings B19 and B21 were located down-gradient of Capital Plant 4, and borings B20, B22 through B24, B27, and B28 were located cross- and down-gradient to Capital Plant 2 (Figure 4). Drilling was conducted between June 29 and July 9, 2009 by Cascade using direct-push drilling methods. Soil samples were collected continuously from the ground surface to the final depth of each boring and described in accordance with the USCS to identify the subsurface stratigraphy (Appendix A). Borings were completed to depths ranging from 68 to 78 feet bgs.

Soil samples were collected from borings B25 and B26 at depths of 2, 5, and 7 feet bgs and submitted to OnSite for analysis of HVOCs by EPA Method 5035/8260B.

Reconnaissance groundwater samples were collected from each of the water bearing zones from each boring. The sampling intervals were developed and approved by Ecology to target the water-bearing zones that may contain concentrations of HVOCs above the screening levels based on the vertical distribution of concentrations of HVOCs detected in the Tier 1 Reconnaissance Sampling. Reconnaissance groundwater samples were submitted to OnSite for analysis of HVOCs by EPA Method 8260B.

4.2.3 Management of Investigation-Derived Waste

Soil cuttings, decontamination water, purge water, and other wastewater generated by the First Phase of the RI Field Program are temporarily stored on Capital Property in labeled 55-gallon steel drums. The analytical results for the soil and groundwater samples are being used to develop a waste profile for disposal at an approved transport, storage, and disposal facility. A licensed hazardous waste transporter managed off-property transportation and disposal of investigation-derived waste.

4.3 RESULTS

This section presents a summary of the results of the Tier 1 and Tier 2 Reconnaissance Sampling. The laboratory analytical results for the reconnaissance groundwater samples are summarized in Table 1. The laboratory analytical results for soil samples are summarized in Tables 2 and 3. The laboratory analytical results for reconnaissance groundwater samples are depicted on Figures 5 through 8. Boring logs are provided in Appendix A and laboratory analytical reports are provided in Appendix B.

4.3.1 Soil

The observed soil conditions and analytical results for soil samples collected during the First Phase of the RI Field Program are presented below.

4.3.1.1 Physical Condition

The soil encountered in borings completed within the Capital Area of Investigation consisted of poorly graded sand with lesser amounts of silty sand and silt. The upper 10 feet across the majority of the area consists of silt and sand, with minor amounts of poorly graded gravel. Poorly graded fine black sand was encountered in all borings from approximately 10 feet bgs to the total depth explored of 78 feet bgs. Thin, discontinuous layers of silt and sandy silt ranging from approximately 0.3 to 9 feet in thickness were encountered at varied depths within the sand and were observed to increase in thickness and frequency between depths of approximately 25 and 45 feet bgs. Increasing amounts of silt were noted in the sand at depths greater than 45 feet bgs, with frequent observations of silty sand and sandy silt.

Organic material consisting of woody debris was observed in soil samples collected from borings B8, B9, B14, B21, B24, and B26 at depths ranging from the ground surface to 56 feet bgs. There were no notations of odor or sheen in the soil samples collected from any of the borings, with the exception of borings B17 and B25. A slight "sweet" odor was noted in soil collected from boring B17 at depths of 24 to 57 feet bgs within the Shallow and Intermediate Zones. Concentrations of volatile organic vapors measured in the field were elevated in soil samples collected from boring B17 at depths of 7.5 to 57 feet bgs. An odor was noted in soil collected from boring B25 at depths of 3-inches to 4.5 feet bgs. Concentrations of volatile organic vapors measured in the field were elevated in a soil sample collected from boring B25 at a depth of 2 feet bgs. Elevated volatile organic vapors were not measured in the field in soil samples collected from any other borings completed during the First Phase of the RI Field Program.

4.3.1.2 Analytical Results

The laboratory analytical results of soil samples collected during the First Phase of the RI Field Program detected concentrations of PCE and/or TCE above applicable screening levels at borings B14, B15, B18, and B25 (Figure 9; Table 2). Concentrations of PCE were detected above the screening level of 0.0031 milligrams per kilogram (mg/kg), ranging from 0.0039 to 0.091 mg/kg in soil samples collected at depths ranging from 2 to 7 feet bgs at borings B14, B15, B18, and B25 (Figure 9; Table 2). Concentrations of TCE were detected above the screening level of 0.0028 mg/kg, ranging from 0.0035 to 0.024 mg/kg in soil samples collected at depths ranging from 2 to 7 feet bgs at borings B14, B18, and B25 (Figure 9; Table 2). Concentrations of 1,1-dichloroethene (1,1-DCE); cis-1,2-dichloroethene (cis1,2-DCE); trans-1,2-dichloroethene (trans-1,2-DCE); and vinyl chloride were not detected above the applicable screening levels in any of the soil samples analyzed.

Soil samples were collected for TOC analysis within the Water Table, Shallow, and Intermediate Zones at boring locations B6, B9, B13, and B17. Laboratory analytical results yielded concentrations of TOC ranging from 80 to 1,220 mg/kg in the Water

Table Zone, 380 to 2,100 mg/kg in the Shallow Zone, and 680 to 5,120 mg/kg in the Intermediate Zone (Table 3).

4.3.2 Groundwater

The observed groundwater conditions and analytical results for reconnaissance groundwater samples collected during the First Phase of the RI Field Program are presented below.

4.3.2.1 Physical Condition

Groundwater was first encountered in the borings during drilling at depths ranging from 6 to 16 feet bgs and saturated sediments were observed to extend from first groundwater throughout the total depth of each boring. Groundwater gradient and flow direction was not determined from the information collected; however, based on previous investigations conducted at the Capital Property and investigations currently being conducted at the BDC, ABP, PSC facilities, groundwater flow direction is assumed to be to the southwest.

4.3.2.2 Analytical Results

The laboratory analytical results of reconnaissance groundwater samples collected during the First Phase of the RI Field Program are summarized below for the three water-bearing zones. The laboratory analytical results are summarized in Table 1 and shown on Figures 5 through 8. The laboratory analytical reports are included in Appendix B.

Water Table Zone

The laboratory analytical results of reconnaissance groundwater samples collected from the Water Table Zone indicate the following.

• The laboratory analytical results of reconnaissance groundwater samples collected from boring B17, located north and up-gradient of the Capital Property, detected concentrations of vinyl chloride in the Water Table Zone exceeding the screening level. Vinyl chloride was also detected at concentrations exceeding the screening level in the downgradient reconnaissance groundwater samples collected from the Water Table Zone in borings B6, B7, B21, and B22 (Figure 5).

- Concentrations of PCE exceeding the screening level were detected in the reconnaissance groundwater samples collected from the Water Table Zone downgradient of Plant 4 on the Capital Property in borings B13, B14, and B15 (Figure 5).
- Concentrations of TCE were detected exceeding the screening level in the reconnaissance groundwater samples collected in the Water Table Zone from borings B7, B8, B9, B12, B13, B14, B15, B18, and B23 (Figure 5).
- Concentrations of 1,1-DCE and trans-1,2-DCE detected in reconnaissance groundwater samples collected from the Water Table Zone were below the screening levels.
- Concentrations of cis-1,2-DCE were detected exceeding the screening level in the reconnaissance groundwater samples collected from the Water Table Zone in borings B8, B9, and B23.

Shallow Zone

The laboratory analytical results of reconnaissance groundwater samples collected from the Shallow Zone indicate the following.

- The laboratory analytical results of reconnaissance groundwater samples collected from borings B17 and B28, located up-gradient of the Capital Property, detected concentrations of vinyl chloride in the Shallow Zone exceeding the screening level. Vinyl chloride was also detected at concentrations exceeding the screening level in the downgradient reconnaissance groundwater samples collected from the Shallow Zone in borings B6, B7, B8, B9, B10, B11, B12, B13, B15, B16, B20, B21, B22, and B23 (Figure 6).
- Concentrations of PCE were not detected exceeding the screening level or the laboratory practical quantitation limit (PQL) in the reconnaissance groundwater samples collected from the Shallow Zone.

- Concentrations of TCE were detected exceeding the screening level in the reconnaissance groundwater samples collected in the Shallow Zone from borings B7, B8, B9, B12, B13, B14, B15, and B23 (Figure 6).
- Concentrations of 1,1-DCE and trans-1,2-DCE detected in reconnaissance groundwater samples collected from the Shallow Zone were below the screening levels.
- Concentrations of cis-1,2-DCE were detected exceeding the screening level in the reconnaissance groundwater samples collected from the Shallow Zone in borings B9 and B23.

Intermediate Zone

The laboratory analytical results of reconnaissance groundwater samples collected from the Intermediate Zone indicate the following.

- The laboratory analytical results of reconnaissance groundwater samples collected from borings B17 and B28, located up-gradient of the Capital Property, detected concentrations of vinyl chloride in the Intermediate Zone exceeding the screening level. Vinyl chloride was also detected at concentrations exceeding the screening level in the downgradient reconnaissance groundwater samples collected from the Intermediate Zone in borings B6 through B13, B15, B20, B22, and B23 (Figure 7).
- Concentrations of PCE were not detected exceeding the screening level or the laboratory PQL in the reconnaissance groundwater samples collected from the Intermediate Zone.
- Concentrations of TCE were detected exceeding the screening level in the reconnaissance groundwater samples collected in the Intermediate Zone from borings B7, B8, B9, B12, and B23. Concentrations of TCE were not detected in other borings collected in the Intermediate Zone.

- Concentrations of 1,1-DCE and trans-1,2-DCE detected in reconnaissance groundwater samples collected from the Intermediate Zone were below the screening levels.
- Concentrations of cis-1,2-DCE were detected exceeding the screening level in the reconnaissance groundwater sample collected from the Intermediate Zone in boring B23.

4.3.3 Summary

Soil

The analytical results of soil samples collected during the First Phase of the RI Field Program detected concentrations of HVOCs above the screening levels for soil in the vicinity of Capital Plant 4. Concentrations of PCE detected above the screening level in soil samples collected for the First Phase of the RI Field Program and collected in previous subsurface investigations ranged from 0.0039 to 0.2 mg/kg. Concentrations of TCE detected above the screening level in soil samples collected for the First Phase of the RI Field Program and collected in previous subsurface investigations ranged from 0.0035 to 0.28 mg/kg. Concentrations increase with depth and are likely indicative of a soil vapor plume in the vadose zone.

The northern extent of HVOC concentrations detected above the screening levels in soil is defined by boring ECS41 (Figure 9), conducted during previous subsurface investigations. The southern extent of HVOC concentrations detected above the screening levels in soil is defined by boring B26 (Figure 9). The lateral extent of HVOCs exceeding the screening levels in soil east of the Capital Property has not been defined.

TOC data obtained from soil samples indicate relatively high organic carbon. The TOC data will be used in subsequent modeling of contaminant migration.

Groundwater

Concentrations of PCE were not detected above the laboratory PQLs in the reconnaissance groundwater samples collected from the Water Table Zone in borings B6 through B12, B16, B17, or B19 through B28 (Figure 5). The laboratory analytical results for PCE in groundwater

samples collected from the Water Table Zone indicate that a source of PCE to groundwater was likely present on the Plant 4 portion of the Capital Property. The lateral extent of PCE in groundwater at concentrations exceeding the screening level is defined by the laboratory analytical results of reconnaissance groundwater samples collected from borings B9, B12, B16, B19, B21, B23, and B24 (Figure 5). Concentrations of PCE were not detected exceeding the screening level or the laboratory PQL in the reconnaissance groundwater samples collected from the Shallow Zone or the Intermediate Zone.

Concentrations of TCE exceeding the screening levels were detected in reconnaissance groundwater samples and groundwater samples collected from recently installed monitoring wells located up-gradient of the Capital Property in the Water Table Zone and Shallow Zone, and extend down-gradient of the Capital Property in the Water Table Zone, Shallow Zone, and Intermediate Zone (Figures 5 through 8). Concentrations of cis-1,2-DCE exceeding the screening level were detected in the downgradient portion of the groundwater plume of TCE in all three water-bearing zones, as characterized by the laboratory analytical results of reconnaissance groundwater samples collected from borings B8, B9 and/or B23 (Table 1). The lateral and vertical extent of concentrations of TCE and cis-1,2-DCE exceeding the screening levels in groundwater is defined to the east, west, and south of the Capital Property by the laboratory analytical results of reconnaissance groundwater samples collected from borings B13, B15, B19 through B22, B24, and B27 (Figures 5 through 8).

Concentrations of vinyl chloride exceeding the screening level were detected in reconnaissance groundwater samples collected up-gradient of the Capital Property and extended down-gradient of the Capital Property in each of the water-bearing zones. The lateral extent of vinyl chloride is shown on Figures 5 through 7.

The lateral and vertical extent of concentrations of vinyl chloride in the Water Table Zone exceeding the screening level is defined east and west of the Capital Property by the laboratory analytical results of reconnaissance groundwater samples collected from borings B11, B19, B20, B23, B24, and B27 (Figure 5). Concentrations of vinyl chloride detected in reconnaissance groundwater samples collected from the Water Table Zone indicate that the down-gradient extent of vinyl chloride exceeding the screening level in groundwater has been defined to the south by

borings B20 through B23; however, the southwestern extent of vinyl chloride in groundwater has not been defined down-gradient of boring B22 (Figure 5).

The lateral and vertical extent of concentrations of vinyl chloride in the Shallow Zone exceeding the screening level east and southeast of the Capital Property is defined by the laboratory analytical results of reconnaissance groundwater samples collected from borings B19 and B24 (Figure 6). Concentrations of vinyl chloride detected in reconnaissance groundwater samples collected from the Shallow Zone indicate that the down-gradient extent of vinyl chloride exceeding the screening level in groundwater has not been defined down-gradient of borings B20 through B22 and B27 (Figure 6).

The lateral and vertical extent of concentrations of vinyl chloride in the Intermediate Zone exceeding the screening level is defined to the east and west by the laboratory analytical results of reconnaissance groundwater samples collected from borings B19, B21, B22, B24, and B27 (Figure 7). Concentrations of vinyl chloride detected in a reconnaissance groundwater sample collected from the Intermediate Zone indicate that the down-gradient extent of vinyl chloride exceeding the screening level in groundwater has not been defined down-gradient of boring B20 (Figure 7).

5.0 SUMMARY

This section summarizes the conclusions of the First Phase of the RI Field Program, the data gaps that require further investigation for completion of the RI, and the planned scope of work for the RI Field Program. The RI Field Program will commence following Ecology approval of the proposed scope of work.

5.1 FIRST PHASE CONCLUSIONS

The laboratory analytical results of reconnaissance groundwater samples collected during the First Phase of the RI Field Program indicate that concentrations of HVOCs in groundwater are migrating to the Capital Property from up-gradient sources north of borings B1, B5, B17, and B28. The area located directly up-gradient from Capital Plant 2 was not investigated as part of the First Phase of the RI Field Program; however, data recently collected during the BDC RI supports the conclusion that concentrations of HVOCs in groundwater in the Water Table and Shallow Zones are migrating to the Capital Property from source areas at the BDC facility (PGG 2009) (Figures 5 through 8).

The lateral and vertical extent of concentrations of PCE in groundwater has been defined downgradient of Capital Plant 4 for the Water Table Zone, Shallow Zone, and Intermediate Zone. Concentrations of PCE have been detected in soil samples collected from depths of 2 to 10 feet bgs, above the Water Table Zone, and likely represent a soil vapor plume. Concentrations of PCE have been detected above the screening level in reconnaissance groundwater samples collected from the Water Table Zone in close proximity to Capital Plant 4; however, concentrations of PCE have not been detected above the laboratory PQL in reconnaissance groundwater samples collected from the Water Table Zone south of Capital Plant 4 or from the Shallow Zone or Intermediate Zone. It should be noted that the laboratory PQL was 0.03 µg/l above the screening level in most samples. Groundwater samples collected from monitoring wells will be analyzed to determine whether concentrations of PCE have migrated further south in the Water Table Zone or to the Shallow Zone in groundwater.

The lateral and vertical extent of concentrations of TCE in groundwater has been determined down-gradient of the Capital Property for the Water Table Zone, Shallow Zone, and Intermediate

Zone, with the exception of the vertical extent of TCE in groundwater south of the Olympic Medical Facility at borings B8 and B9. The analytical results of reconnaissance groundwater samples collected from the lower portion of the Intermediate Zone in borings located downgradient of B8 and B9 did not detect concentrations of TCE above the screening level. The lateral and vertical extent of concentrations of cis-1,2-DCE has been defined based on the results of the First Phase of the RI Field Program. Concentrations of 1,1-DCA and trans-1,2-DCE were not detected above screening levels in reconnaissance groundwater samples collected downgradient of the Capital Property.

The lateral extent of concentrations of vinyl chloride exceeding the screening level has been defined, with the exception of the area southwest and down-gradient of boring B22 in the Water Table Zone, borings B20, B22, and B27 in the Shallow Zone, and boring B20 in the Intermediate Zone. The concentrations of vinyl chloride detected in reconnaissance groundwater samples collected from the Shallow Zone and Intermediate Zone on the western portion of the Capital Area of Investigation, proximate to Capital Plant 5, are suspected to be attributable to a source area located north (up-gradient) of Capital Plant 5. The vertical extent of vinyl chloride in the vicinity of borings B8, B13, and B15 has not been defined; however, reconnaissance groundwater samples collected down-gradient of these borings have defined the vertical extent of vinyl chloride in groundwater.

Based on the data collected during the First Phase of the RI Field Program and during the ABP facility RI, two additional potential HVOC source areas have been identified. One suspected source area is located in the area north of Capital Plant 5, based on the analytically results of the ABP facility RI. The analytical results of reconnaissance groundwater samples collected from the Shallow and Intermediate Zones in this area detected concentrations of TCE of 3,600 and 11,000 µg/l, respectively. A second potential source area appears to be located in the vicinity of borings B8 and B9, south of the Olympic Medical Facility. The concentrations of TCE detected in reconnaissance groundwater samples collected from these borings indicate an increase in concentrations relative to up-gradient concentrations detected at borings B7 and B12 in all of the water-bearing zones.

Concentrations of HVOCs have been detected in soil above the screening levels in soil samples collected from borings located in close proximity to Capital Plant 4. Concentrations of PCE detected in soil above the screening level during the First Phase of the RI Field Program and from previous subsurface investigations ranged from 0.0039 to 0.2 mg/kg. Concentrations of TCE detected in soil above the screening level during the First Phase of the RI Field Program and from previous subsurface investigations ranged from 0.0035 to 0.28 mg/kg. Concentrations in soil appear to increase with depth and are likely indicative of a soil vapor plume in the vadose zone, as opposed to a surface release.

5.2 DATA GAPS

Based on the data collected to date, the following data gaps have been identified to complete the RI Field Program:

- The specific COCs that have been released from the Capital Property at concentrations exceeding the screening levels have not been defined;
- The groundwater flow direction and gradient in the Water Table Zone, the Shallow Zone, and the Intermediate Zone down-gradient of Capital Plant 2 have not been determined;
- The lateral extent of concentrations of vinyl chloride above screening levels in the Water Table Zone downgradient of boring B22, in the Shallow Zone down-gradient of borings B20 and B22, and in the Intermediate Zone down-gradient of boring B20 have not been defined; and
- The impact of releases of HVOCs from sources up-gradient of the Capital Property to groundwater beneath and down-gradient of the Capital Property has not been determined.

The scope of work to complete the RI Field Program has been refined to address these data gaps to meet the objectives for an RI defined by MTCA and in the RI Work Plan. The scope of work to complete the RI Field Program is presented in the following section.

6.0 SCOPE OF WORK TO COMPLETE THE RI FIELD PROGRAM

The scope of work for the RI Field Program was presented in the RI Work Plan and included installation, development and sampling of monitoring wells. The scope of work has been refined based on the results of the First Phase of the RI Field Program and will include work to address the data gaps and meet the objectives of MTCA and as described in the RI Work Plan. The objectives and scope of work to complete the RI Field Program are presented below.

6.1.1 Objectives

The objectives of the RI Field Program were defined in the RI Work Plan and have been modified to include the following:

- Provide monitoring wells to collect groundwater samples for laboratory analysis to
 evaluate the nature and extent of concentrations of COPCs in groundwater that exceed
 the screening levels, and to define the groundwater flow direction and gradient in the
 Capital Area of Investigation;
- Evaluate the lateral and vertical extent of concentrations of 1,4-dioxane, manganese, and iron that may exceed the screening levels in groundwater in the Water Table Zone, the Shallow Zone, and the Intermediate Zone in the Capital Property Area of Investigation;
- Establish the lateral and vertical nature and extent of concentrations of COPCs above screening levels in groundwater migrating to the Capital Property from up-gradient sources:
- Confirm suspected sources of COPCs to groundwater in and up-gradient of the Capital Property Area of Investigation; and
- Collect water quality data to provide for evaluation of natural attenuation as a technically feasible remedial alternative.

6.1.2 Scope of Work

The scope of work to complete the RI Field Program will be conducted in accordance with the scope of work presented in the RI Work Plan and as modified herein. The scope of work includes the following:

- Install and Develop Monitoring Well;
- Monitor and Sample Groundwater;
- Characterize Aquifer Conditions;
- Model Fate and Transport; and
- Evaluate Natural Attenuation.

The proposed monitoring well locations are shown on Figure 10. A total of 20 monitoring wells are proposed in addition to the existing monitoring wells. The proposed monitoring wells include five clusters of three monitoring wells at each cluster; one monitoring well screened in each of the Water Table Zone, Shallow Zone, and Intermediate Zone; two clusters of two monitoring wells screened in the Shallow Zone and Intermediate Zone proximate to existing wells screened in the Water Table Zone; and one monitoring well screened in the Intermediate Zone proximate to monitoring wells screened in the Water Table Zone and Shallow Zone. Specific monitoring well screen intervals are presented in Table 4. Monitoring well clusters are proposed at the following locations (Figure 10):

- Monitoring Well Cluster CI-9: Monitoring wells CI-9-WT (Water Table), CI-9-40 (Shallow), and CI-9-70 (Intermediate), located proximate to the location of boring B-19, southeast-adjacent to the Buckner Weatherby Building;
- Monitoring Well Cluster CI-10: Monitoring wells CI-10-WT (Water Table), CI-10-52 (Shallow), and CI-10-70 (Intermediate), located proximate to boring B-8, south of the Olympic Medical Building and north of the Beckwith and Ruffel, Inc. building;
- Monitoring Well Cluster CI-11: Monitoring wells CI-11-WT (Water Table), CI-11-40 (Shallow), CI-11-60 (Intermediate), located northwest of boring B-24 on the southeastern edge of the HVOC plume;

- Monitoring Well Cluster CI-12: Monitoring wells CI-12-WT (Water Table), CI-12-40 (Shallow), and CI-12-60 (Intermediate), located west and on the opposite side of the building from boring B-20, within the Glacier Northwest property on the southwestern edge of the HVOC plume; and
- Monitoring Well Cluster CI-13: Monitoring wells CI-13-WT (Water Table), CI-13-40 (Shallow), and CI-13-60 (Intermediate), located on the Glacier Northwest property on the southern edge of the HVOC plume.

Monitoring well clusters are proposed adjacent to select existing monitoring wells that will be screened in the Shallow Zone and/or the Intermediate Zone, as needed to provide a total of three monitoring wells in each cluster, with one well screened in each of the three groundwater zones:

- Monitoring Well Cluster CI-7: Monitoring wells CI-7-40 (Shallow) and CI-7-60 (Intermediate) will be located proximate to existing monitoring well MW-7, located south of Capital Plant 4 (Figure 10). Monitoring well MW-7 is screened in the Water Table Zone. Monitoring well CI-7-40 will be screened in the Shallow Zone and monitoring well CI-7-60 will be screened in the Intermediate Zone;
- Monitoring Well Cluster CI-137-60: Monitoring wells CI-137-60 (Intermediate) will be located proximate to existing monitoring wells CG-137-WT and CG-137-40, southwest of Capital Plant 2 (Figure 10). Monitoring well CG-137-WT is screened in the Water Table Zone and monitoring well CG-137-40 is screened in the Shallow Zone. The proposed monitoring well CI-137-50 will be screened in the Intermediate Zone; and
- Monitoring Well Cluster CI-8: Monitoring wells CI-8-40 (Shallow) and CI-8-60 (Intermediate) will be located proximate to existing monitoring well MW-8, northeast of Capital Plant 4 (Figure 10). Monitoring well MW-8 is screened in the Water Table Zone. Monitoring well CI-8-40 will be screened in the Shallow Zone and monitoring well CI-8-60 will be screened in the Intermediate Zone.

Two sets of existing monitoring well clusters will be used in the groundwater monitoring and sampling program following the monitoring well installation. These clusters include monitoring

wells CG-141-WT, CG-141-40, and CG-141-50, located west of Plant 5; and monitoring wells MW-1, CI-MW-1-40, and CI-MW-1-60, located northeast of Plant 2 (Figure 10).

The Groundwater Monitoring Plan (Farallon document pending) will describe in detail the monitoring well locations, depths, and screening intervals, and will include a Groundwater Monitoring Sampling and Analysis Plan defining the details of well installation and sampling procedures. The specific details associated with the natural attenuation evaluation and aquifer characterization are provided in the RI Work Plan and in the Groundwater Monitoring Plan (Farallon document pending). Fate and transport modeling will be conducted based on the information collected during the field work conducted during the second phase of the RI as defined in the RI Work Plan.

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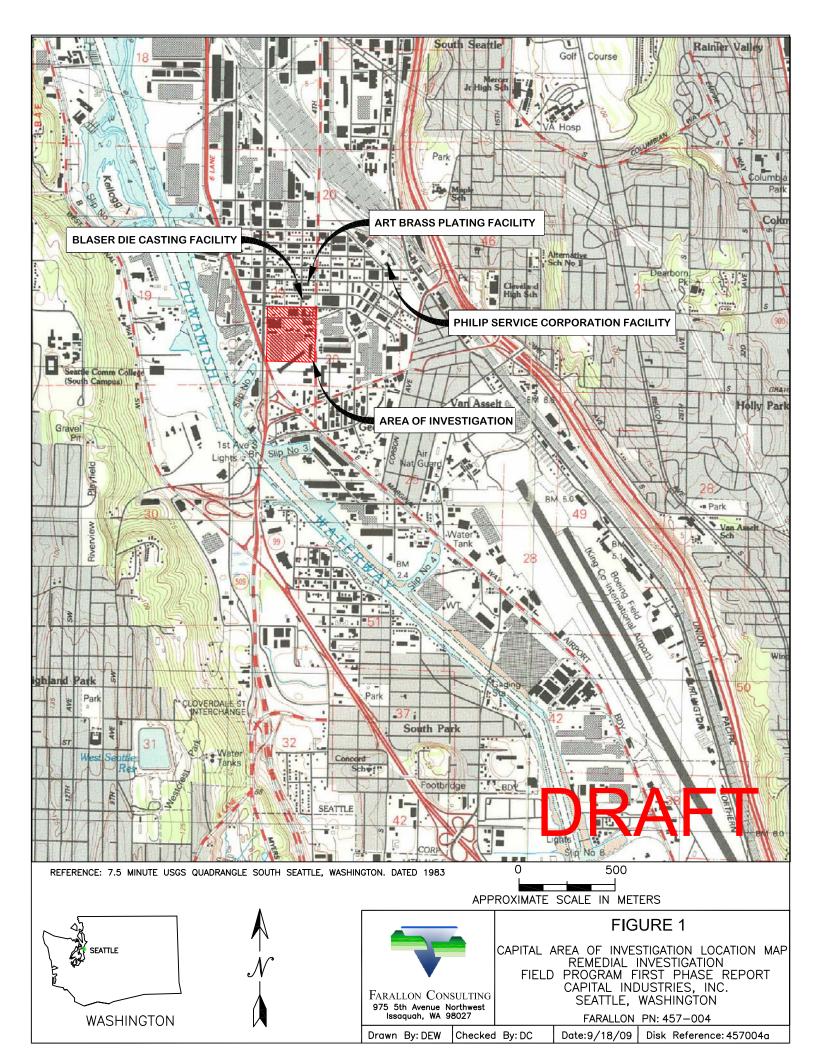
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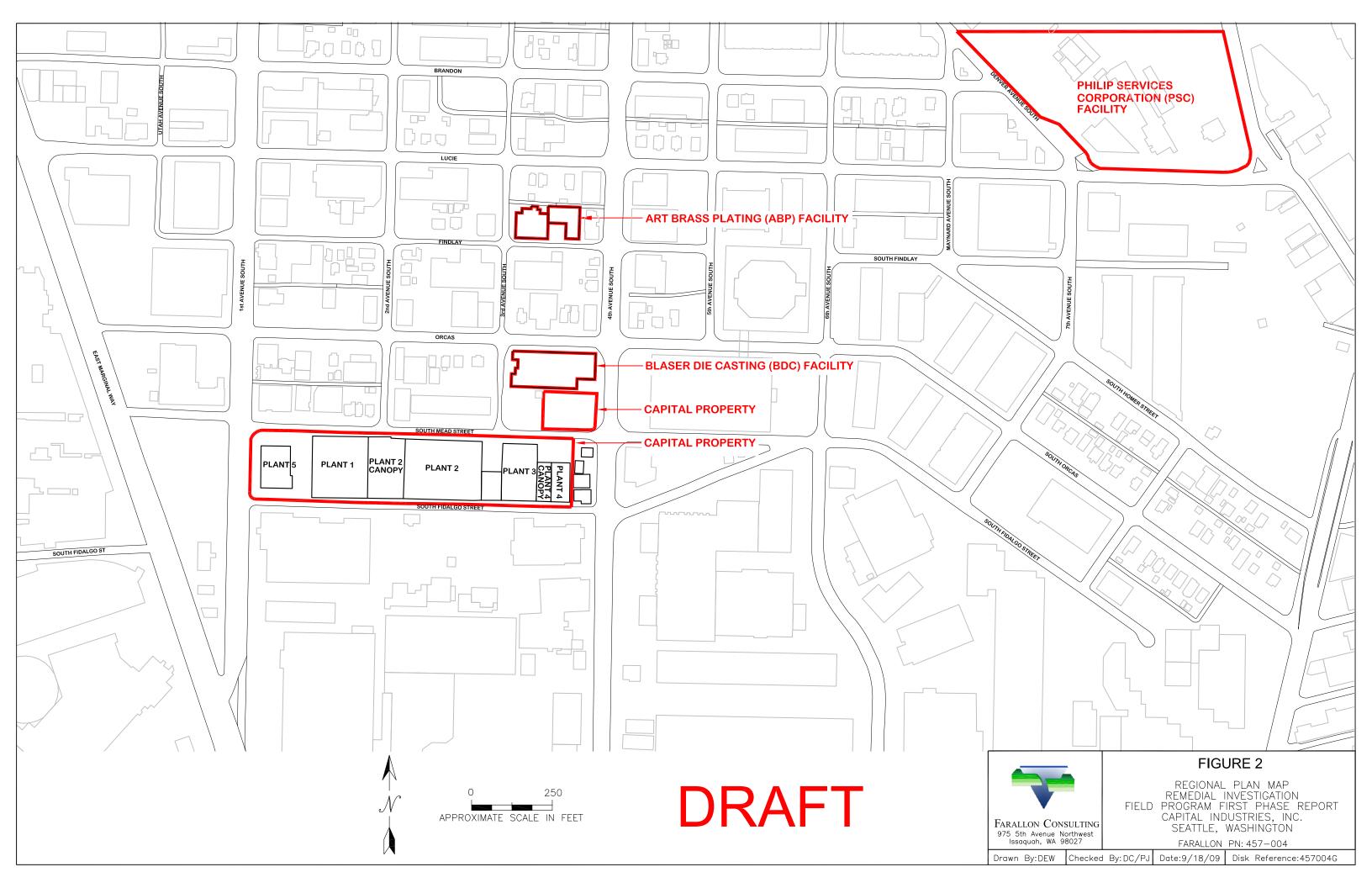
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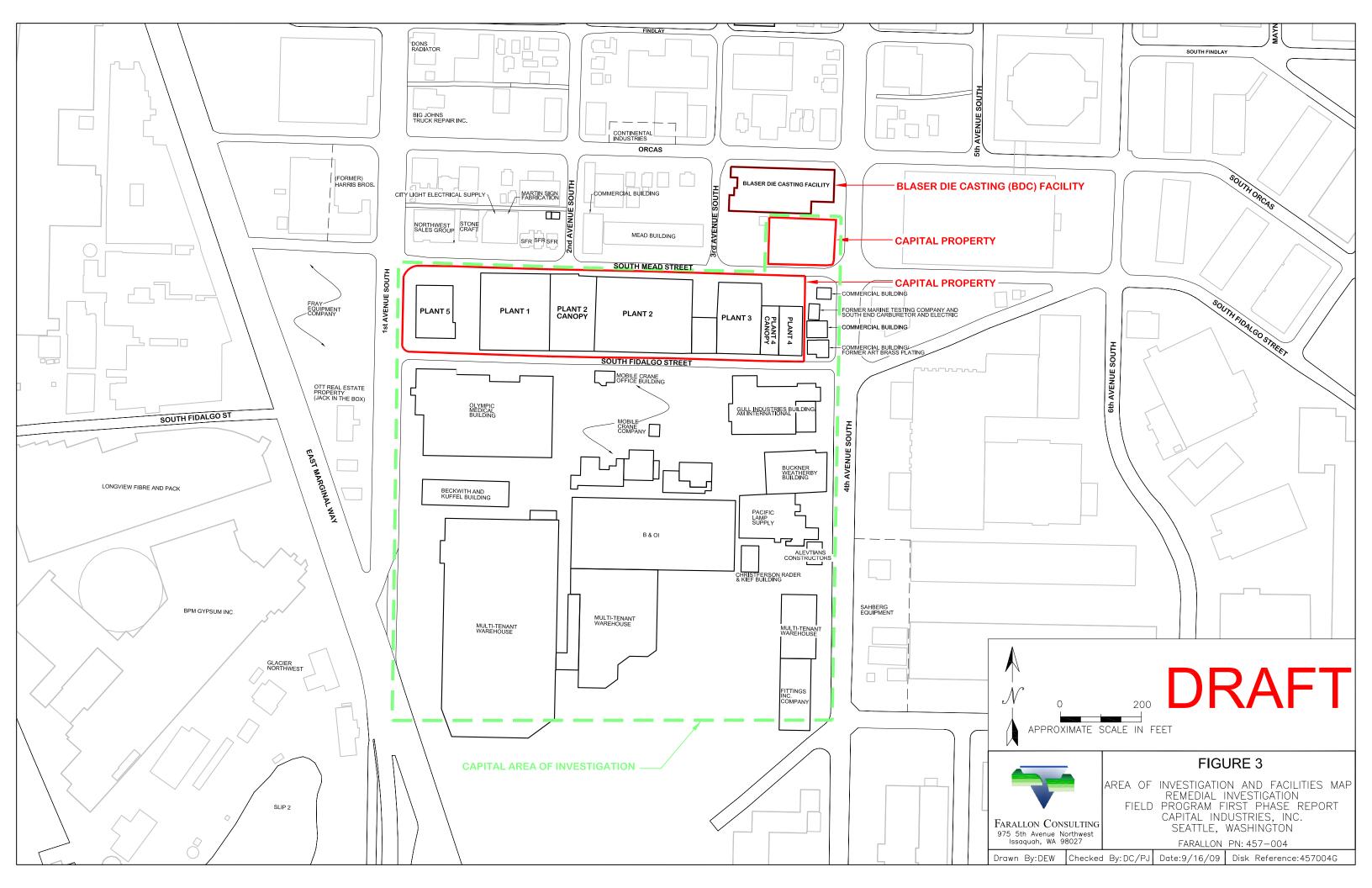
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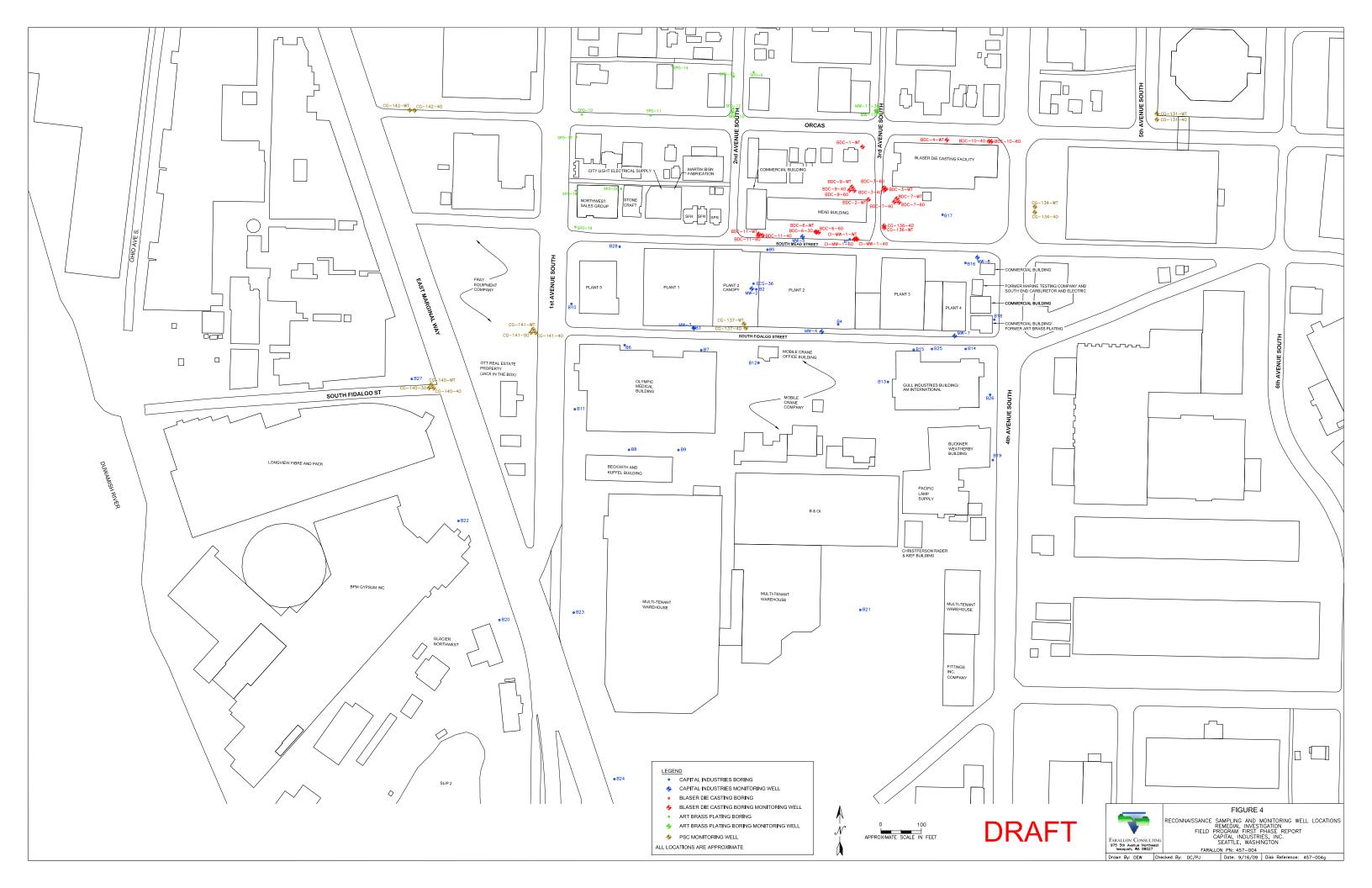
FIGURES

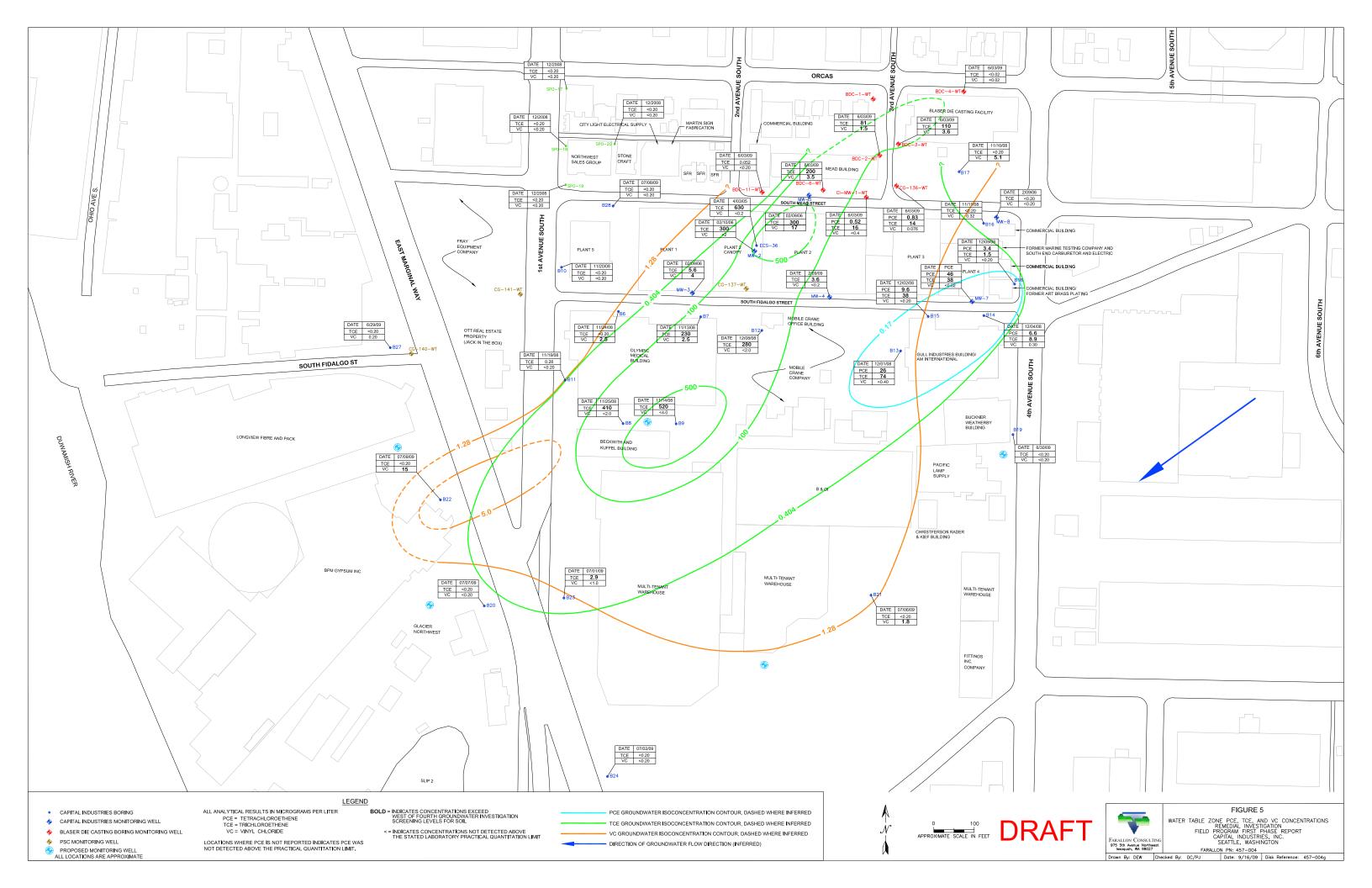
REMEDIAL INVESTIGATION FIELD PROGRAM
FIRST PHASE REPORT
Capital Industries, Inc.
Seattle, Washington

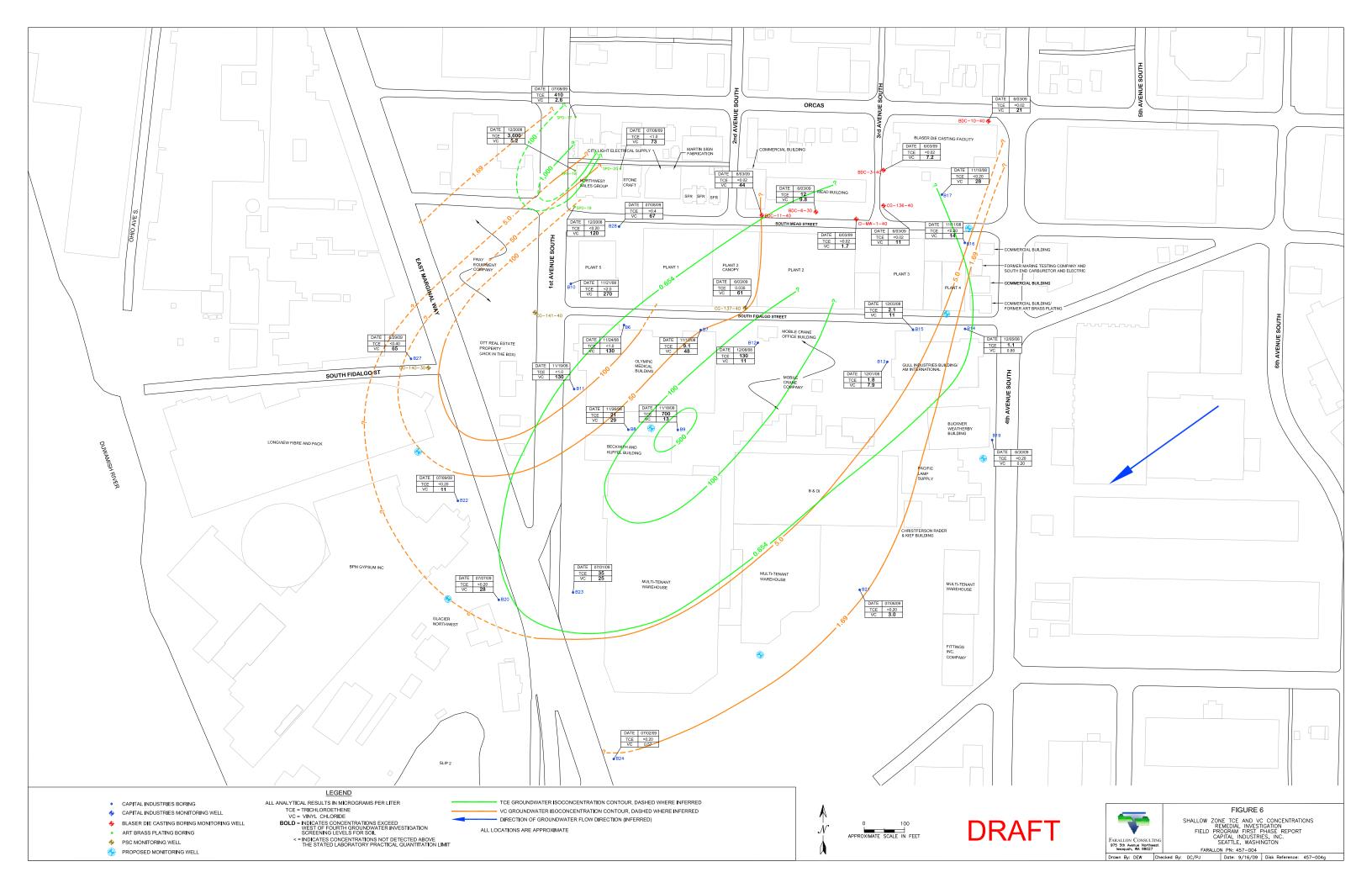


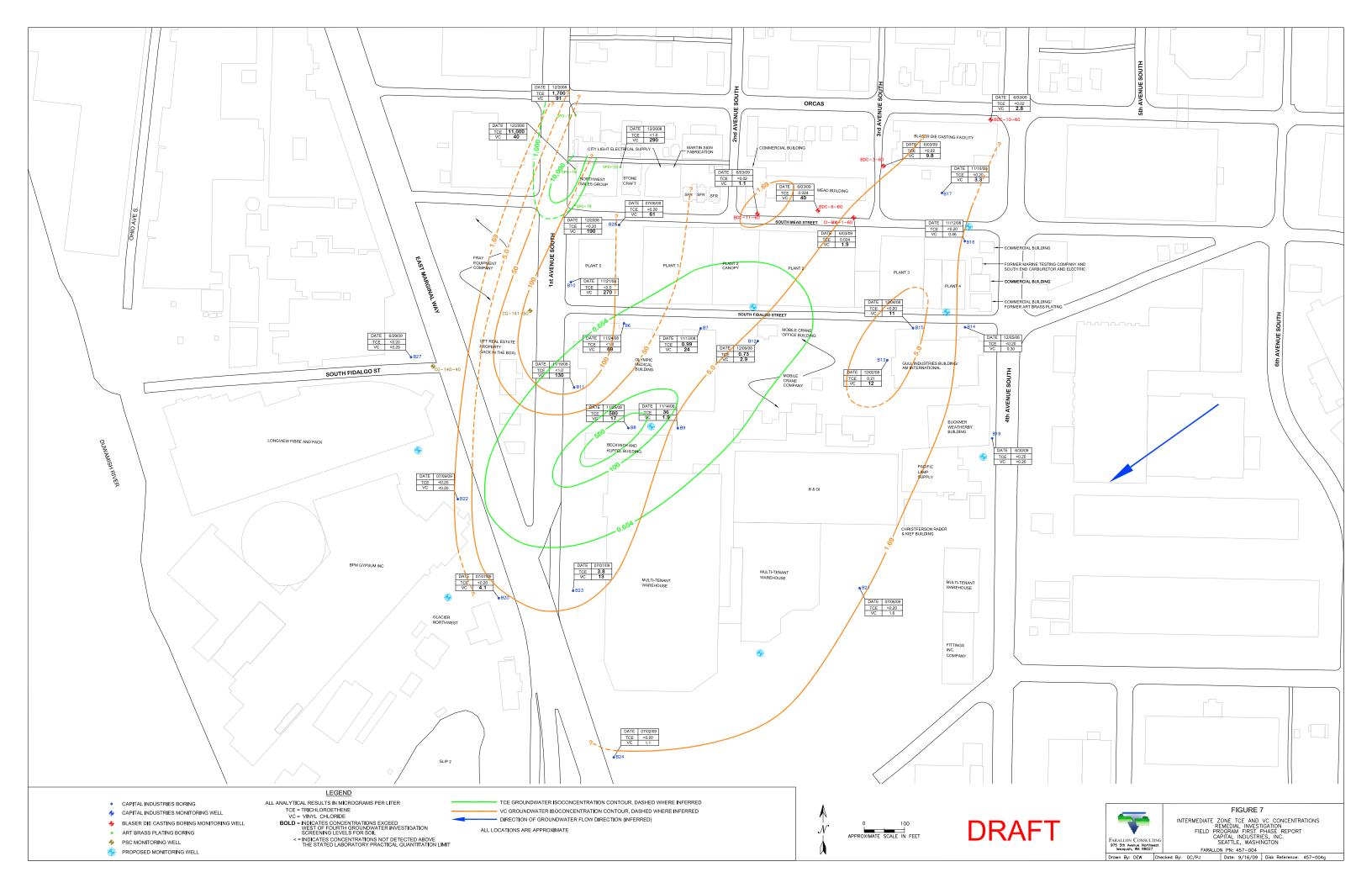


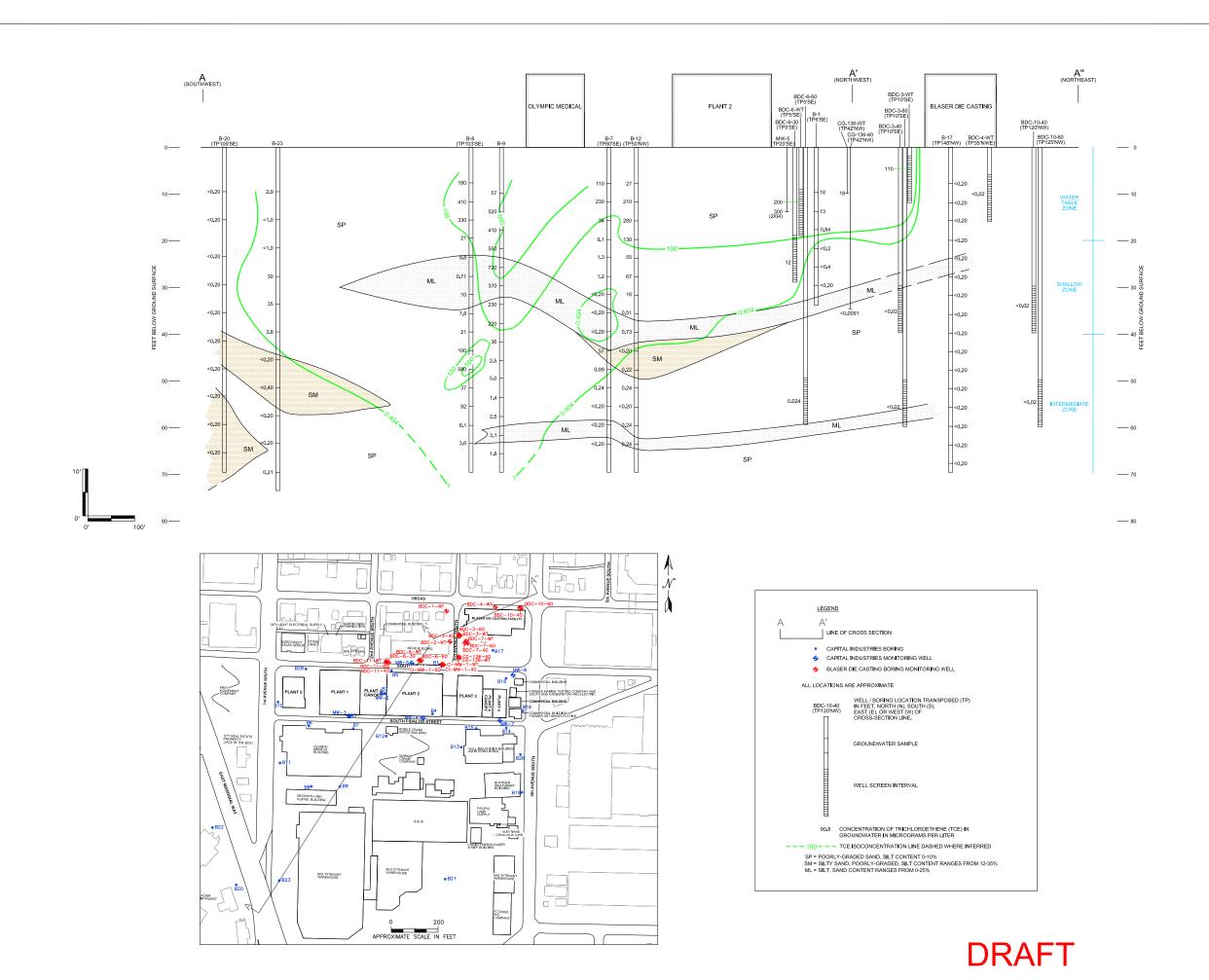






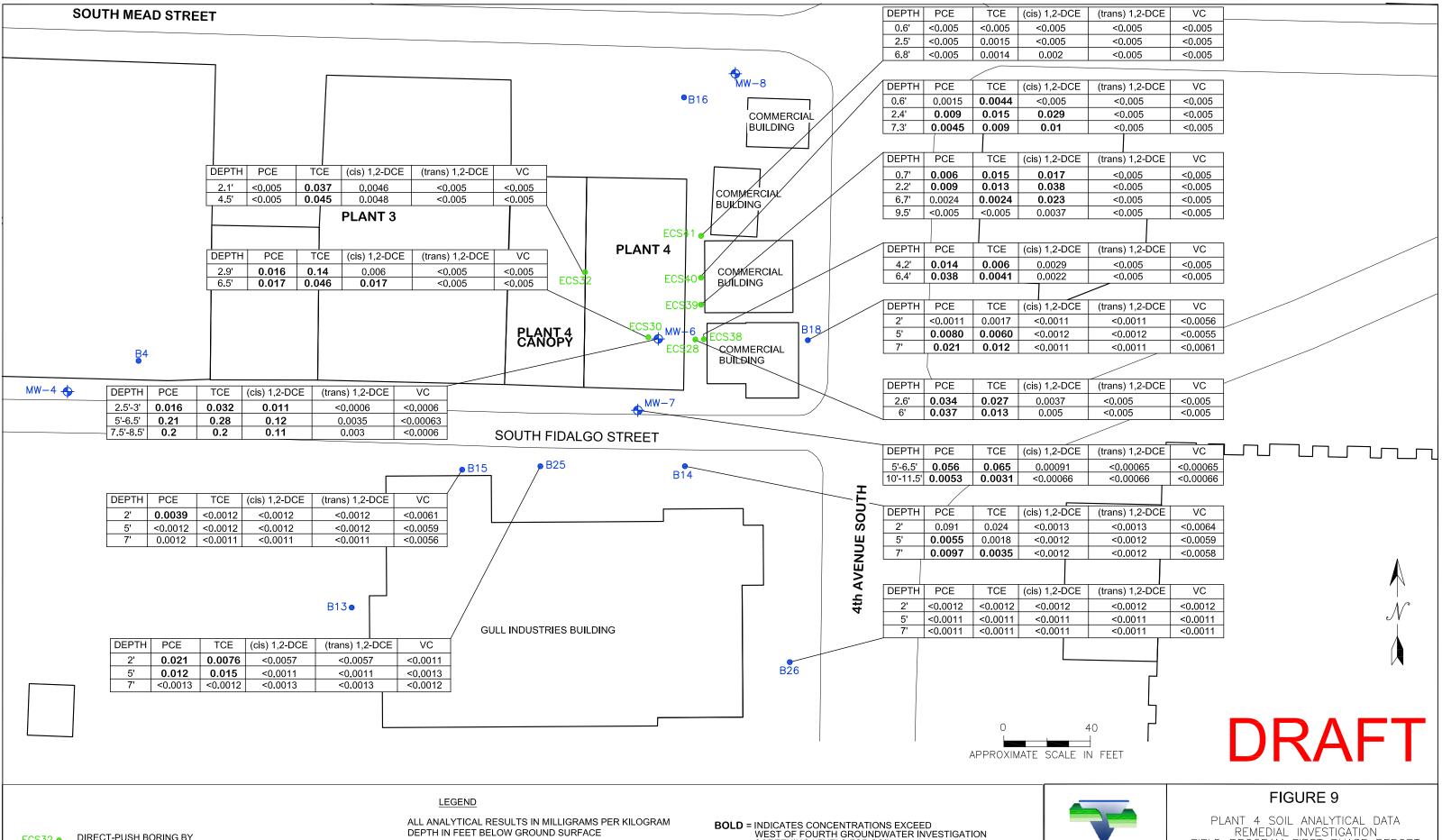








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REMEDIAL INVESTIGATION
FIELD PROGRAM FIRST PHASE REPORT
CAPITAL INDUSTRIES, INC.
SEATTLE, WASHINGTON FARALLON PN: 9/15/09 Drawn By: DEW Checked By: DC/PJ Date: 457004g Disk Reference: 457-004



DIRECT-PUSH BORING BY ENVIRONMENTAL CONSULTING SERVICES (ECS) (2004-2005)

CAPITAL INDUSTRIES BORING

CAPITAL INDUSTRIES MONITORING WELL

DEPTH IN FEET BELOW GROUND SURFACE

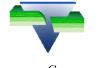
PCE = TETRACHLOROETHENE TCE = TRICHLOROETHENE

(cis) 1,2-DCE = (cis) 1,2-DICHLOROETHENE (trans) 1,2-DCE = (trans) 1,2-DICHLOROETHENE

VC = VINYL CHLORIDE

SCREENING LEVELS FOR SOIL

< = INDICATES CONCENTRATIONS NOT DETECTED ABOVE THE STATED LABORATORY PRACTICAL QUANTITATION LIMIT



975 5th Avenue Northwest Issaquah, WA 98027

Farallon Consulting

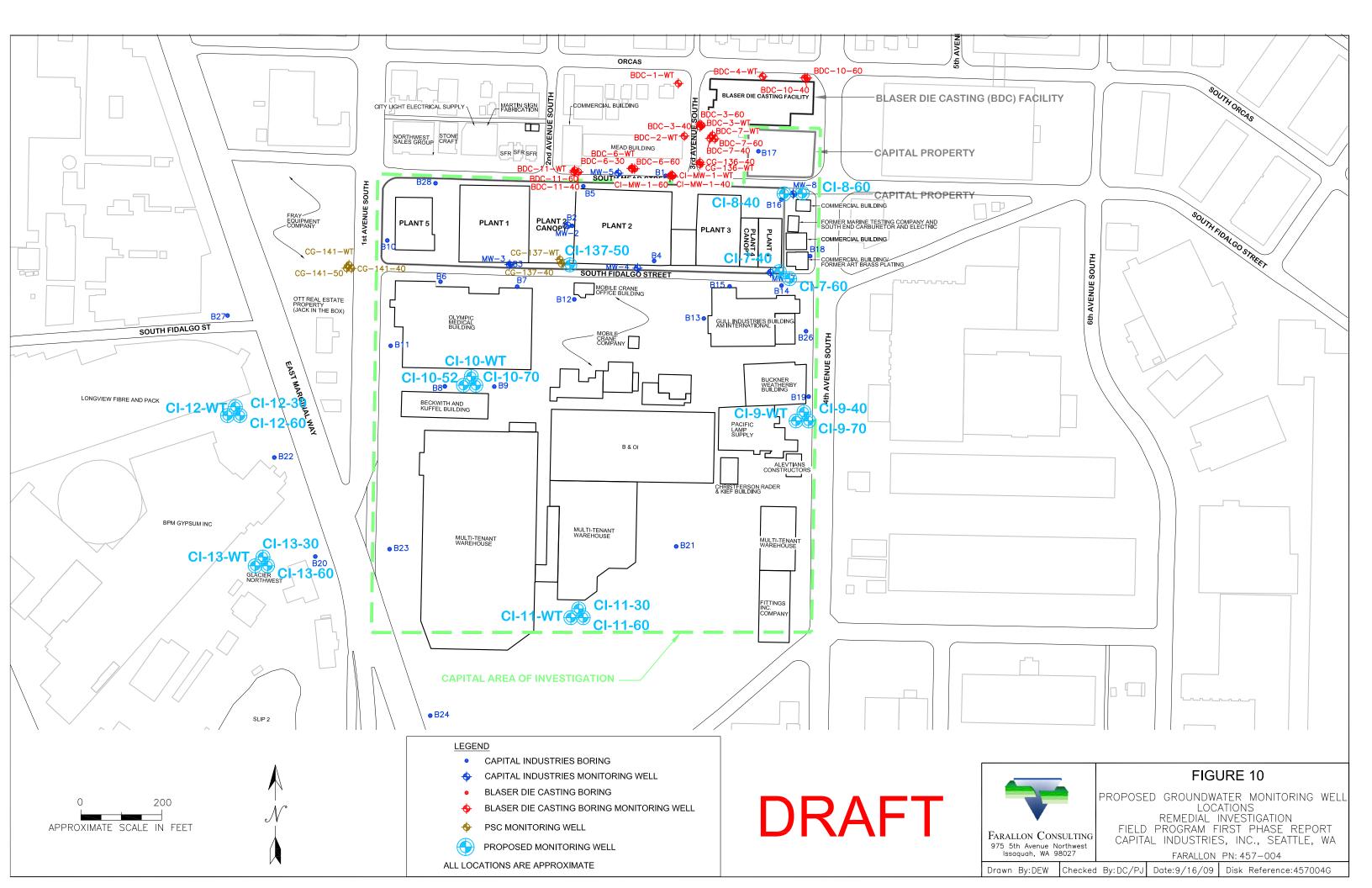
REMEDIAL INVESTIGATION FIELD PROGRAM FIRST PHASE REPORT CAPITAL INDUSTRIES. INC. SEATTLE, WASHINGTON

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TABLES

REMEDIAL INVESTIGATION FIELD PROGRAM
FIRST PHASE REPORT
Capital Industries, Inc.
Seattle, Washington

Sample Location	Water-Bearing	Sample				F	Analytical Results (n	nicrograms per liter)	2	
Sample Location	Zone	Identification	Sample Depth ¹	Sample Date	PCE	TCE	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
					Groundwater Analy	tical Results				
MW-1	Water Table Zone	MW1-011006	12	02/10/06	0.52	16	<0.4	78	1.1	<0.4
MW-2	Water Table Zone	MW2-021006	14	02/10/06	<2	300	<2	28	6.2	<2
MW-3	Water Table Zone	MW3-020906	12	02/09/06	<0.2	5.6	0.83	49	0.23	4
MW-4	Water Table Zone	MW4-020906	12	02/09/06	<0.2	3.6	<0.2	1.1	<0.2	<0.2
MW-5	Water Table Zone	MW5-020906	14	02/09/06	<2	300	10	230	3.2	17
MW-6	Water Table Zone	MW6-021006	13	02/10/06	16	19	<0.2	22	<0.2	<0.2
MW-7	Water Table Zone	MW7-020906	12	02/09/06	46	38	0.36	6.7	<0.2	<0.2
MW-8	Water Table Zone	MW8-020906	12	02/09/06	<0.2	<0.2	<0.2	0.41	<0.2	<0.2
				Reconn	aissance Groundwate	er Analytical Results				
		B1-011606-10	10-14	01/16/06	<0.2	18	<0.2	5.3	0.23	<0.2
Water Table Zone	B1-011606-14	14-18	01/16/06	<0.2	13	<0.2	2.9	<0.2	<0.2	
D.1		B1-011606-18	18-22	01/16/06	<0.2	0.84	<0.2	0.79	<0.2	1.2
B1		B1-011606-22	22-26	01/16/06	<0.2	<0.2	<0.2	5.2	<0.2	5.8
	Shallow Zone	B1-011606-26	26-30	01/16/06	<0.4	<0.4	<0.4	<0.4	<0.4	50
		B1-011606-30	30-34	01/16/06	<0.2	<0.2	<0.2	<0.2	<0.2	0.74
	Water Table Zone	B2-011706-10	10-14	01/17/06	<2	480	7.2	81	21	<2
		B2-011706-14	14-18	01/17/06	<1	110	<1	29	2.7	<1
D0		B2-011706-18	18-22	01/17/06	<0.2	6.4	0.2	8.2	<0.2	0.96
B2		B2-011706-22	22-26	01/17/06	<0.2	2	<0.2	6.5	<0.2	0.47
	Shallow Zone	B2-011706-26	26-30	01/17/06	<0.2	0.36	<0.2	11	<0.2	14
İ		B2-011706-30	30-34	01/17/06	<1	<1	<1	1.7	<1	92
, , , , , , , , , , , , , , , , , , , ,	**************************************	B3-011706-10	10-14	01/17/06	<1	6.8	4.2	140	<1	6.9
	Water Table Zone	B3-011706-14	14-18	01/17/06	< 0.20	5.2	0.63	37	0.39	5.6
D2		B3-011706-18	18-22	01/17/06	< 0.40	3.7	<0.4	19	<0.4	2.2
В3		B3-011706-22	22-26	01/17/06	< 0.20	0.24	< 0.20	11	<0.2	8.8
	Shallow Zone	B3-011706-26	26-30	01/17/06	< 0.40	< 0.40	< 0.40	2.9	< 0.40	45
		B3-011706-30	30-34	01/17/06	<1	<1	<1	<1	<1	120
		B4-011606-10	10-14	01/16/06	<0.2	<0.2	< 0.2	1.9	<0.2	0.24
	Water Table Zone	B4-011606-14	14-18	01/16/06	<0.2	<0.2	0.53	26	<0.2	3.8
В4		B4-011606-18	18-22	01/16/06	< 0.40	< 0.40	1.3	56	< 0.40	17
D4		B4-011606-22	22-26	01/16/06	< 0.40	< 0.40	0.66	31	<0.4	52
	Shallow Zone	B4-011606-26	26-30	01/16/06	<1.0	<1.0	<1.0	<1.0	<1.0	110
		B4-011606-30	30-34	01/16/06	<1.0	<1.0	<1.0	<1.0	<1.0	140
		B5-011606-26	26-30	01/16/06	< 0.20	<0.20	0.27	35	< 0.20	22
B5	Shallow Zone	B5-011606-30	30-34	01/16/06	< 0.20	<0.20	< 0.20	17	<0.20	70
B5-011606-34 34-38 01/16/06				<1.0	<1.0	<1.0	<1.0	<1.0	210	
creening Levels ³	,4				0.17/0.17/0.17	0.404/0.654/0.654	25/25/25	72.7/137/137	65.3/1403/1403	1.28/1.69/1.69

Sample Location	Water-Bearing	Sample				A	nalytical Results (n	nicrograms per liter)	2	
Sample Location	Zone	Identification	Sample Depth ¹	Sample Date	PCE	TCE	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
		B6-112408-10	10-14	11/24/08	< 0.20	<0.20	<0.20	< 0.20	<0.20	<0.20
	Water Table Zone	B6-112408-14	14-18	11/24/08	< 0.20	<0.20	< 0.20	1.7	<0.20	0.26
		B6-112408-18	18-22	11/24/08	< 0.20	<0.20	< 0.20	22	< 0.20	2.5
		B6-112408-22	22-26	11/24/08	< 0.20	<0.20	0.35	34	0.28	13
		B6-112408-26	26-30	11/24/08	<1.0	<1.0	<1.0	<1.0	<1.0	130
	Shallow Zone	B6-112408-30	30-34	11/24/08	<1.0	<1.0	<1.0	<1.0	<1.0	78
		B6-112408-34	34-38	11/24/08	<1.0	<1.0	<1.0	1.8	<1.0	110
В6		B6-112408-38	38-42	11/24/08	<1.0	<1.0	<1.0	<1.0	<1.0	66
		B6-112408-42	42-46	11/24/08	<1.0	<1.0	<1.0	3.1	<1.0	69
		B6-112408-46	46-50	11/24/08	<1.0	<1.0	<1.0	8.3	<1.0	67
		B6-112408-50	50-54	11/24/08	<1.0	<1.0	<1.0	<1.0	<1.0	64
	Intermediate Zone	B6-112408-54	54-58	11/24/08	< 0.20	<0.20	< 0.20	< 0.20	<0.20	1.9
		B6-112408-58	58-62	11/24/08	< 0.20	<0.20	< 0.20	< 0.20	< 0.20	0.21
		B6-112508-62	62-66	11/25/08	< 0.20	<0.20	< 0.20	<0.20	<0.20	0.76
		B6-112508-66	66-70	11/25/08	< 0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		B7-111308-8	08-12	11/13/08	<1.0	110	3.5	45	9.5	2.0
	Water Table Zone	B7-111308-12	12-16	11/13/08	<2.0	230	<2.0	56	6.5	2.5
		B7-111308-16	16-20	11/13/08	<0.20	34	<0.20	7.3	0.35	0.48
		B7-111308-20	20-24	11/13/08	< 0.20	9.1	<0.20	7.2	<0.20	1.4
		B7-111308-24	24-28	11/13/08	< 0.20	1.3	<0.20	7.6	<0.20	12
B7	Shallow Zone	B7-111308-28	28-32	11/13/08	<0.20	1.2	<0.20	1.4	<0.20	32
		B7-111308-32	32-36	11/13/08	<0.20	<0.20	<0.20	<0.20	<0.20	48
		B7-111308-36	36-40	11/13/08	< 0.20	<0.20	<0.20	<0.20	<0.20	37
		B7-111308-40	40-44	11/13/08	< 0.20	<0.20	<0.20	<0.20	<0.20	11
		B7-111308-44	44-48	11/13/08	< 0.20	0.24	<0.20	<0.20	<0.20	4.9
		B7-111308-48	48-52	11/13/08	< 0.20	0.99	< 0.20	<0.20	<0.20	24
	Intermediate Zone	B7-111308-52	52-56	11/13/08	< 0.20	0.24	< 0.20	<0.20	<0.20	<0.20
		B7-111408-56	56-60	11/14/08	< 0.20	<0.20	<0.20	<0.20	<0.20	< 0.20
		B7-111408-60	60-64	11/14/08	< 0.20	<0.20	< 0.20	<0.20	<0.20	< 0.20
		B7-111408-64	64-68	11/14/08	< 0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		B8-112508-8	08-12	11/25/08	<1.0	180	1.5	29	4.5	<1.0
	Water Table Zone	B8-112508-12	12-16	11/25/08	<2.0	410	4.6	90	7.6	<2.0
		B8-112508-16	16-20	11/25/08	<2.0	330	3.9	110	6.0	<2.0
		B8-112508-20	20-24	11/25/08	< 0.20	21	0.23	21	0.90	0.98
		B8-112508-24	24-28	11/25/08	< 0.20	4.8	<0.20	8.8	0.23	4.1
	Shallow Zone	B8-112508-28	28-32	11/25/08	< 0.20	0.71	< 0.20	1.4	<0.20	24
		B8-112508-32	32-36	11/25/08	<1.0	10	<1.0	2.4	<1.0	29
B8		B8-112508-36	36-40	11/25/08	< 0.20	7.8	<0.20	2.9	0.34	23
		B8-112508-40	40-44	11/25/08	< 0.20	21	<0.20	4.0	0.61	17
		B8-112508-44	44-48	11/25/08	< 0.40	100	< 0.40	12	1.3	11
		B8-112608-48	48-52	11/26/08	<4.0	580	<4.0	29	<4.0	8.1
	Intermediate Zone	B8-112608-52	52-56	11/26/08	< 0.20	37	0.41	16	1.1	8.9
		B8-112608-56	56-60	11/26/08	< 0.40	92	0.95	27	1.9	8.5
		B8-112608-60	60-64	11/26/08	< 0.20	8.1	<0.20	2.4	<0.20	1.5
		B8-112608-64	64-68	11/26/08	< 0.20	3.6	<0.20	2.7	<0.20	2.1
creening Levels ³	3,4		**************************************		0.17/0.17/0.17	0.404/0.654/0.654	25/25/25	72.7/137/137	65.3/1403/1403	1.28/1.69/1.69

ample Location	Water-Bearing	Sample			Analytical Results (micrograms per liter) ²						
ample Location	Zone	Identification	Sample Depth ¹	Sample Date	PCE	TCE	1.1-DCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	
		B9-111408-10	10-14	11/14/08	< 0.40	57	0.44	43	2.0	<0.40	
	Water Table Zone	B9-111408-14	14-18	11/14/08	<4.0	520	<4.0	250	13	<4.0	
		B9-111408-18	18-22	11/14/08	<2.0	410	<2.0	150	4.9	<2.0	
		B9-111408-22	22-26	11/14/08	<4.0	550	<4.0	37	<4.0	<4.0	
		B9-111408-26	26-30	11/14/08	<4.0	730	<4.0	34	6.0	<4.0	
	Shallow Zone	B9-111408-30	30-34	11/14/08	<2.0	370	3.8	84	8.5	6.0	
		B9-111408-34	34-38	11/14/08	<1.0	230	14	190	15	13	
B9		B9-111408-38	38-42	11/14/08	<1.0	220	7.3	240	66	8.4	
		B9-111808-42	42-46	11/18/08	< 0.40	36	1.1	75	21	1.9	
		B9-111808-46	46-50	11/18/08	< 0.20	2.5	< 0.20	0.60	<0.20	< 0.20	
		B9-111808-50	50-54	11/18/08	< 0.20	5.0	<0.20	0.80	<0.20	<0.20	
	Intermediate Zone	B9-111808-54	54-58	11/18/08	< 0.20	1.4	<0.20	0.26	<0.20	<0.20	
		B9-111808-58	58-62	11/18/08	< 0.20	2.5	<0.20	0.46	<0.20	<0.20	
		B9-111808-62	62-66	11/18/08	< 0.20	3.1	<0.20	0.57	<0.20	<0.20	
		B9-111808-66	66-70	11/18/08	<0.20	1.8	<0.20	0.21	<0.20	0.63	
		B10-112008-8	08-12	11/20/08	< 0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
	Water Table Zone	B10-112008-12	12-16	11/20/08	< 0.20	<0.20	<0.20	<0.20	<0.20	< 0.20	
-		B10-112008-16	16-20	11/20/08	< 0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
		B10-112008-20	20-24	11/20/08	< 0.20	<0.20	0.63	1.9	<0.20	5.3	
		B10-112008-24	24-28	11/20/08	< 0.20	<0.20	<0.20	7.3	<0.20	13	
	Shallow Zone	B10-112008-28	28-32	11/20/08	< 0.40	<0.40	<0.40	11	<0.40	44	
		B10-112108-32	32-36	11/21/08	<2.0	<2.0	<2.0	7.3	<2.0	200	
B10		B10-112108-36	36-40	11/21/08	<2.0	<2.0	<2.0	2.5	<2.0	270	
		B10-112108-40	40-44	11/21/08	<2.0	<2.0	<2.0	3.1	<2.0	270	
		B10-112108-44	44-48	11/21/08	<2.0	<2.0	<2.0	<2.0	<2.0	190	
		B10-112108-48	48-52	11/21/08	< 0.20	<0.20	<0.20	<0.20	<0.20	20	
	Intermediate Zone	B10-112108-52	52-56	11/21/08	< 0.40	<0.40	< 0.40	<0.40	<0.40	56	
		B10-112108-56	56-60	11/21/08	< 0.40	<0.40	<0.40	<0.40	<0.40	42	
		B10-112108-60	60-64	11/21/08	< 0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
		B10-112108-64	64-68	11/21/08	< 0.20	<0.20	<0.20	<0.20	<0.20	< 0.20	
		B11-111908-8	08-12	11/19/08	< 0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
	Water Table Zone	B11-111908-12	12-16	11/19/08	< 0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
		B11-111908-16	16-20	11/19/08	< 0.20	0.28	<0.20	<0.20	<0.20	<0.20	
		B11-111908-20	20-24	11/19/08	< 0.20	<0.20	<0.20	11	0.22	5.7	
		B11-111908-24	24-28	11/19/08	< 0.40	<0.40	<0.40	18	<0.40	63	
	Shallow Zone	B11-111908-28	28-32	11/19/08	< 0.20	<0.20	<0.20	<0.20	<0.20	17	
		B11-111908-32	32-36	11/19/08	< 0.40	<0.40	< 0.40	<0.40	<0.40	62	
B11		B11-111908-36	36-40	11/19/08	<1.0	<1.0	<1.0	<1.0	<1.0	130	
		B11-111908-40	40-44	11/19/08	<1.0	<1.0	<1.0	<1.0	<1.0	130	
		B11-111908-44	44-48	11/19/08	<1.0	<1.0	<1.0	<1.0	<1.0	120	
		B11-111908-48	48-52	11/19/08	< 0.20	<0.20	<0.20	<0.20	<0.20	35	
•	Intermediate Zone	B11-112008-52	52-56	11/20/08	< 0.40	<0.40	<0.40	<0.40	<0.40	36	
		B11-112008-56	56-60	11/20/08	<0.20	<0.20	<0.20	<0.20	<0.20	12	
		B11-112008-60	60-64	11/20/08	< 0.20	<0.20	<0.20	<0.20	<0.20	0.55	
		B11-112008-64	64-68	11/20/08	< 0.20	<0.20	<0.20	<0.20	<0.20	0.27	
creening Levels ³	,4		•		0.17/0.17/0.17	0.404/0.654/0.654	25/25/25	72.7/137/137	65.3/1403/1403	1.28/1.69/1.69	

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Sample Location	Water-Bearing	Sample				A	Analytical Results (r	nicrograms per liter)	2	
sample Education	Zone	Identification	Sample Depth ¹	Sample Date	PCE	TCE	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
		B12-120808-8	08-12	12/08/08	< 0.20	27	< 0.20	3.6	0.24	< 0.20
	Water Table Zone	B12-120808-12	12-16	12/08/08	<1.0	210	<1.0	43	1.9	<1.0
		B12-120808-16	16-20	12/08/08	<2.0	280	<2.0	49	2.2	<2.0
		B12-120808-20	20-24	12/08/08	<1.0	130	<1.0	22	<1.0	2.7
		B12-120808-24	24-28	12/08/08	< 0.40	55	0.64	25	0.83	7.2
	Shallow Zone	B12-120808-28	28-32	12/08/08	< 0.40	67	0.57	21	1.6	11
		B12-120808-32	32-36	12/08/08	< 0.20	16	0.65	11	1.2	6.2
B12		B12-120808-36	36-40	12/08/08	< 0.20	0.81	< 0.20	2.0	< 0.20	1.1
		B12-120808-40	40-44	12/08/08	< 0.20	0.73	< 0.20	< 0.20	< 0.20	< 0.20
		B12-120808-44	44-48	12/08/08	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.32
Inter		B12-120808-48	48-52	12/08/08	< 0.20	0.22	< 0.20	< 0.20	< 0.20	< 0.20
	Intermediate Zone	B12-120808-52	52-56	12/08/08	< 0.20	< 0.20	< 0.20	< 0.20	<0.20	1.2
		B12-120908-56	56-60	12/09/08	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	1.4
		B12-120908-60	60-64	12/09/08	< 0.20	0.24	< 0.20	< 0.20	< 0.20	2.9
		B12-120908-64	64-68	12/09/08	< 0.20	0.24	< 0.20	< 0.20	< 0.20	0.56
		B13-120108-10	10-14	12/01/08	26	74	< 0.40	35	< 0.40	< 0.40
	Water Table Zone	B13-120108-14	14-18	12/01/08	9.3	43	< 0.20	4.9	<0.20	< 0.20
		B13-120108-18	18-22	12/01/08	0.32	29	< 0.20	3.4	< 0.20	< 0.20
		B13-120108-22	22-26	12/01/08	< 0.20	1.8	0.31	11	<0.20	1.8
	Shallow Zone	B13-120108-26	26-30	12/01/08	< 0.20	1.2	0.22	11	<0.20	2.0
		B13-120108-30	30-34	12/01/08	< 0.20	0.36	< 0.20	0.40	< 0.20	1.2
		B13-120108-34	34-38	12/01/08	< 0.20	< 0.20	< 0.20	0.44	< 0.20	6.2
B13		B13-120108-38	38-42	12/01/08	< 0.20	< 0.20	< 0.20	0.73	< 0.20	7.9
		B13-120108-42	42-46	12/01/08	< 0.20	< 0.20	< 0.20	0.47	< 0.20	5.2
		B13-120108-46	46-50	12/01/08	< 0.20	0.21	< 0.20	< 0.20	< 0.20	12
		B13-120208-50	50-54	12/02/08	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	11
	Intermediate Zone	B13-120208-54	54-58	12/02/08	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	1.0
		B13-120208-58	58-62	12/02/08	< 0.20	<0.20	< 0.20	< 0.20	< 0.20	2.1
	· ·	B13-120208-62	62-66	12/02/08	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	2.5
		B13-120208-66	66-70	12/02/08	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	2.3
		B14-120408-8	08-12	12/04/08	6.6	5.7	< 0.20	0.41	< 0.20	< 0.20
	Water Table Zone	B14-120408-12	12-16	12/04/08	4.0	8.9	0.52	2.9	0.21	< 0.20
		B14-120408-16	16-20	12/04/08	0.73	3.5	0.55	8.6	<0.20	0.30
		B14-120408-20	20-24	12/04/08	< 0.20	1.1	0.29	8.5	< 0.20	0.65
		B14-120408-24	24-28	12/04/08	< 0.20	0.25	< 0.20	6.0	< 0.20	0.66
	Shallow Zone	B14-120508-28	28-32	12/05/08	< 0.20	<0.20	< 0.20	3.2	< 0.20	0.85
		B14-120508-32	32-36	12/05/08	< 0.20	<0.20	< 0.20	0.56	<0.20	0.56
B14		B14-120508-36	36-40	12/05/08	< 0.20	<0.20	< 0.20	<0.20	<0.20	0.35
		B14-120508-40	40-44	12/05/08	< 0.20	<0.20	< 0.20	<0.20	<0.20	0.25
		B14-120508-44	44-48	12/05/08	< 0.20	<0.20	< 0.20	<0.20	<0.20	0.30
		B14-120508-48	48-52	12/05/08	< 0.20	<0.20	< 0.20	<0.20	< 0.20	< 0.20
	Intermediate Zone	B14-120508-52	52-56	12/05/08	< 0.20	<0.20	<0.20	<0.20	<0.20	< 0.20
		B14-120508-56	56-60	12/05/08	< 0.20	<0.20	< 0.20	< 0.20	< 0.20	< 0.20
O CONTRACTOR OF THE CONTRACTOR		B14-120508-60	60-64	12/05/08	<0.20 J	<0.20 J	<0.20 J	<0.20 J	<0.20 J	<0.20 J
	<u> </u>	B14-120508-64	64-68	12/05/08	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
reening Levels ³	5,4				0.17/0.17/0.17	0.404/0.654/0.654	25/25/25	72.7/137/137	65.3/1403/1403	1.28/1.69/1.69

Table 1
Summary of Reconnaissance Groundwater Analytical Results
Capital Industries
Seattle, Washington

Sample Location	Water-Bearing	Sample					Analytical Results (m	nicrograms per liter) ²		
sample Location	Zone	Identification	Sample Depth ¹	Sample Date	PCE	TCE	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
		B15-120208-8	08-12	12/02/08	9.6	38	< 0.20	3.2	0.23	< 0.20
	Water Table Zone	B15-120208-12	12-16	12/02/08	0.29	15	< 0.20	1.2	< 0.20	<0.20
		B15-120308-16	16-20	12/03/08	< 0.20	2.5	0.24	4.1	< 0.20	< 0.20
		B15-120308-20	20-24	12/03/08	< 0.20	2.1	0.44	8.2	< 0.20	0.69
		B15-120308-24	24-28	12/03/08	< 0.20	< 0.20	< 0.20	- 11	< 0.20	1.5
	Shallow Zone	B15-120308-28	28-32	12/03/08	< 0.20	< 0.20	< 0.20	11	< 0.20	5.0
		B15-120308-32	32-36	12/03/08	< 0.20	0.21	< 0.20	11	< 0.20	1.5
B15		B15-120308-36	36-40	12/03/08	< 0.20	< 0.20	< 0.20	<0.20	< 0.20	11
		B15-120308-40	40-44	12/03/08	< 0.20	<0.20	< 0.20	3.4	< 0.20	9.9
		B15-120308-44	44-48	12/03/08	< 0.20	< 0.20	< 0.20	1.4	<0.20	11
		B15-120408-48	48-52	12/04/08	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	5.6
	Intermediate Zone	B15-120408-52	52-56	12/04/08	< 0.20	< 0.20	< 0.20	<0.20	< 0.20	10
		B15-120408-56	56-60	12/04/08	< 0.20	< 0.20	< 0.20	<0.20	< 0.20	7.5
		B15-120408-60	60-64	12/04/08	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	2.5
		B15-120408-64	64-68	12/04/08	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	3.4
		B16-111108-8	08-12	11/11/08	<0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	Water Table Zone	B16-111108-12	12-16	11/11/08	< 0.20	< 0.20	<0.20	<0.20	<0.20	< 0.20
		B16-111108-16	16-20	11/11/08	< 0.20	< 0.20	0.41	5.8 J	0.29	0.32 J
		B16-111108-20	20-24	11/11/08	< 0.20	< 0.20	0.68	11	< 0.20	0.71
		B16-111108-24	24-28	11/11/08	< 0.20	< 0.20	0.35	17	< 0.20	5.2
	Shallow Zone	B16-111108-28	28-32	11/11/08	< 0.20	< 0.20	< 0.20	11	< 0.20	14
		B16-111208-32	32-36	11/12/08	< 0.20	< 0.20	< 0.20	2.3	< 0.20	5.1
B16		B16-111208-36	36-40	11/12/08	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.22
		B16-111208-40	40-44	11/12/08	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
		B16-111208-44	44-48	11/12/08	< 0.20	< 0.20	< 0.20	<0.20	< 0.20	0.22
		B16-111208-48	48-52	11/12/08	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
į	Intermediate Zone	B16-111208-52	52-56	11/12/08	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
		B16-111208-56	56-60	11/12/08	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
		B16-111208-60	60-64	11/12/08	< 0.20	<0.20	< 0.20	<0.20	< 0.20	0.46
		B16-111208-64	64-68	11/12/08	< 0.20	< 0.20	< 0.20	<0.20	< 0.20	< 0.20
creening Levels ³	eening Levels ^{3,4}				0.17/0.17/0.17	0.404/0.654/0.654	25/25/25	72.7/137/137	65.3/1403/1403	1.28/1.69/1.69

ample Location	Water-Bearing	Sample					Analytical Results (n	nicrograms per liter)	2	
umple Escation	Zone	Identification	Sample Depth ¹	Sample Date	PCE	TCE	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
		B17-111008-8	08-12	11/10/08	< 0.20	<0.20	< 0.20	1.4	< 0.20	< 0.20
	Water Table Zone	B17-111008-12	12-16	11/10/08	< 0.20	< 0.20	0.75	23	<0.20	4.1
		B17-111008-16	16-20	11/10/08	< 0.20	< 0.20	1.0	28	< 0.20	5.1
		B17-111008-20	20-24	11/10/08	< 0.20	< 0.20	1.3	41	0.21	28
		B17-111008-24	24-28	11/10/08	< 0.20	< 0.20	< 0.20	0.26	< 0.20	1.9
	Shallow Zone	B17-111008-28	28-32	11/10/08	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	1.3
		B17-111008-32	32-36	11/10/08	< 0.20	< 0.20	< 0.20	0.55	<0.20	1.4
B17		B17-111008-36	36-40	11/10/08	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	3.3
<i>D</i> 17		B17-111008-40	40-44	11/10/08	< 0.20	< 0.20	< 0.20	< 0.20	<0.20	3.3
		B17-111008-44	44-48	11/10/08	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	1.3
		B17-111008-48	48-52	11/10/08	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.23
	Intermediate Zone	B17-111108-52	52-56	11/11/08	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.25
	Intermediate Zone	B17-111108-56	56-60	11/11/08	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.37
		B17-111108-60	60-64	11/11/08	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.79
		B17-111108-64	64-68	11/11/08	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.35
		B17-111108-68	68-72	11/11/08	< 0.20	< 0.20	< 0.20	< 0.20	<0.20	1.5
B18	Water Table Zone	B18-120908-8	08	12/09/08	3.4	1.5	< 0.20	< 0.20	< 0.20	< 0.20
	Water Table Zone	B19-063009-10	10	06/30/09	< 0.20	< 0.20	< 0.20	0.4	< 0.20	< 0.20
	, aler radio zione	B19-063009-16	16	06/30/09	< 0.20	< 0.20	< 0.20	2.3	< 0.20	< 0.20
	Shallow Zone	B19-063009-26	26	06/30/09	< 0.20	<0.20	< 0.20	0.46	< 0.20	< 0.20
	Shanow Zone	B19-063009-38	38	06/30/09	< 0.20	< 0.20	< 0.20	< 0.20	<0.20	< 0.20
B19		B19-063009-46	46	06/30/09	< 0.20	<0.20	< 0.20	<0.20	<0.20	< 0.20
		B19-063009-52	52	06/30/09	< 0.20	<0.20	< 0.20	<0.20	<0.20	< 0.20
	Intermediate Zone	B19-063009-62	62	06/30/09	< 0.20	< 0.20	< 0.20	<0.20	< 0.20	<0.20
		B19-063009-68	68	06/30/09	< 0.20	< 0.20	< 0.20	< 0.20	<0.20	< 0.20
		B19-063009-74	74	06/30/09	< 0.20	<0.20	< 0.20	<0.20	< 0.20	< 0.20
	Water Table Zone	B20-070709-10	10	07/07/09	< 0.20	< 0.20	<0.20	<0.20	< 0.20	< 0.20
	Water Table Zone	B20-070709-16	16	07/07/09	< 0.20	< 0.20	< 0.20	<0.20	< 0.20	< 0.20
		B20-070709-24	24	07/07/09	< 0.20	<0.20	< 0.20	< 0.20	<0.20	23
	Shallow Zone	B20-070709-30	30	07/07/09	< 0.20	< 0.20	< 0.20	<0.20	<0.20	28
D20		B20-070709-36	36	07/07/09	< 0.20	<0.20	<0.20	0.38	<0.20	9.6
B20		B20-070709-42	42	07/07/09	< 0.20	<0.20	<0.20	<0.20	<0.20	4.1
		B20-070709-48	48	07/07/09	< 0.20	<0.20	<0.20	<0.20	<0.20	<0.20
	Intermediate Zone	B20-070709-54	54	07/07/09	< 0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		B20-070709-60	60	07/07/09	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		B20-070709-66	66	07/07/09	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
reening Levels	3,4				0.17/0.17/0.17	0.404/0.654/0.654	25/25/25	72.7/137/137	65.3/1403/1403	1.28/1.69/1.69

ample Location	Water-Bearing	Sample					Analytical Results (n	nicrograms per liter)	2	
ample Location	Zone	Identification	Sample Depth ¹	Sample Date	PCE	TCE	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
	Water Table Zone	B21-070609-10	10	07/06/09	< 0.20	< 0.20	< 0.20	< 0.20	<0.20	1.4
	Water Table Zone	B21-070609-16	16	07/06/09	< 0.20	< 0.20	< 0.20	0.22	<0.20	1.8
	Shallow Zone	B21-070609-26	26	07/06/09	< 0.20	< 0.20	< 0.20	< 0.20	<0.20	3.0
-	Shanow Zone	B21-070609-38	38	07/06/09	< 0.20	<0.20	< 0.20	0.22	< 0.20	2.3
B21		B21-070609-46	46	07/06/09	< 0.20	<0.20	< 0.20	< 0.20	<0.20	1.6
		B21-070609-52	52	07/06/09	<0.20 J	<0.20 J	<0.20 J	<0.20 J	<0.20 J	1.5 J
	Intermediate Zone	B21-070609-62	62	07/06/09	<0.20 J	<0.20 J	<0.20 J	<0.20 J	<0.20 J	1.4 J
		B21-070609-68	68	07/06/09	< 0.20	< 0.20	< 0.20	< 0.20	<0.20	< 0.20
	-	B21-070609-74	74	07/06/09	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	Water Table Zone	B22-070909-10	10	07/09/09	< 0.20	< 0.20	< 0.20	< 0.20	<0.20	< 0.20
	water rable Zone	B22-070909-18	18	07/09/09	< 0.20	<0.20	< 0.20	< 0.20	<0.20	15
:	Shallow Zone	B22-070909-26	26	07/09/09	< 0.20	<0.20	< 0.20	< 0.20	<0.20	11
B22	Shallow Zolle	B22-070909-34	34	07/09/09	< 0.20	< 0.20	< 0.20	< 0.20	<0.20	5.9
B22		B22-070909-40	40	07/09/09	< 0.20	<0.20	< 0.20	< 0.20	<0.20	< 0.20
	Intermediate Zone	B22-070909-46	46	07/09/09	< 0.20	<0.20	< 0.20	< 0.20	<0.20	< 0.20
	intermediate Zone	B22-070909-54	54	07/09/09	< 0.20	<0.20	< 0.20	< 0.20	< 0.20	< 0.20
		B22-070909-64	64	07/09/09	< 0.20	< 0.20	< 0.20	< 0.20	<0.20	< 0.20
	Water Table Zone	B23-070109-10	10	07/01/09	< 0.20	2.9	< 0.20	14	0.39	< 0.20
	Water radic zone	B23-070109-16	16	07/01/09	<1.0	<1.0	<1.0	93	<1.0	<1.0
		B23-070109-22	22	07/01/09	<1.0	<1.0	<1.0	180	1.9	<1.0
	Shallow Zone	B23-070109-28	28	07/01/09	<2.0	30	<2.0	400	3.2	2.5
		B23-070109-34	34	07/01/09	<2.0	35	12	370	2.1	25
B23		B23-070109-40	40	07/01/09	<2.0	3.8	5.1	310	2.4	13
		B23-070109-46	46	07/01/09	< 0.20	< 0.20	3.3	27	< 0.20	8.7
	Intonocalista 7 ana	B23-070109-52	52	07/01/09	< 0.40	< 0.40	7.3	57	0.45	11
	Intermediate Zone	B23-070109-58	58	07/01/09	< 0.20	<0.20	< 0.20	0.31	< 0.20	< 0.20
		B23-070109-64	64	07/01/09	< 0.20	< 0.20	< 0.20	< 0.20	<0.20	< 0.20
		B23-070109-70	70	07/01/09	< 0.20	0.21	< 0.20	0.41	<0.20	< 0.20
	W-4 T-1-1- 7	B24-070209-10	10	07/02/09	< 0.20	<0.20	<0.20	<0.20	<0.20	< 0.20
	Water Table Zone	B24-070209-16	16	07/02/09	< 0.20	< 0.20	< 0.20	< 0.20	<0.20	< 0.20
		B24-070209-24	24	07/02/09	< 0.20	<0.20	<0.20	<0.20	< 0.20	< 0.20
	Shallow Zone	B24-070209-30	30	07/02/09	< 0.20	<0.20	< 0.20	<0.20	<0.20	0.57
B24		B24-070209-36	36	07/02/09	<0.20	<0.20	<0.20	<0.20	<0.20	0.24
		B24-070209-42	42	07/02/09	<0.20	<0.20	<0.20	<0.20	<0.20	1.1
	Intownedita 7	B24-070209-50	50	07/02/09	< 0.20	<0.20	< 0.20	< 0.20	<0.20	< 0.20
	Intermediate Zone	B24-070209-58	58	07/02/09	< 0.20	<0.20	< 0.20	<0.20	< 0.20	0.22
		B24-070209-66	66	07/02/09	<0.20	<0.20	<0.20	<0.20	<0.20	< 0.20
reening Levels	3,4			· · · · · · · · · · · · · · · · · · ·	0.17/0.17/0.17	0.404/0.654/0.654	25/25/25	72.7/137/137	65.3/1403/1403	1.28/1.69/1.69

Table 1

Summary of Reconnaissance Groundwater Analytical Results

Capital Industries Seattle, Washington

Farallon PN: 457-004

Sample Location	Water-Bearing	Sample					Analytical Results (m	icrograms per liter)	2	
Sample Education	Zone	Identification	Sample Depth ¹	Sample Date	PCE	TCE	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
	Water Table Zone	B27-062909-16	16	06/29/09	< 0.20	< 0.20	0.43	< 0.20	< 0.20	0.20
		B27-062909-24	24	06/29/09	< 0.20	< 0.20	6.5	< 0.20	<0.20	31
	Shallow Zone	B27-062909-32	32	06/29/09	< 0.40	< 0.40	< 0.40	<0.40	<0.40	65
B27	B27	B27-062909-38	38	06/29/09	< 0.20	< 0.20	< 0.20	< 0.20	<0.20	< 0.20
	B27-062909-44	44	06/29/09	< 0.20	< 0.20	< 0.20	< 0.20	<0.20	< 0.20	
	Intermediate Zone	B27-062909-48	48	06/29/09	< 0.20	< 0.20	< 0.20	< 0.20	<0.20	< 0.20
		B27-062909-56	56	06/29/09	< 0.20	< 0.20	< 0.20	<0.20	<0.20	<0.20
		B27-062909-64	64	06/29/09	< 0.20	< 0.20	< 0.20	< 0.20	<0.20	<0.20
	Water Table Zone	B28-070809-10	10	07/08/09	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	Shallow Zone	B28-070809-20	20	07/08/09	< 0.20	< 0.20	1.0	0.85	<0.20	1.3
	Shanow Zone	B28-070809-30	30	07/08/09	< 0.40	< 0.40	< 0.40	31	< 0.40	67
B28		B28-070809-40	40	07/08/09	< 0.40	< 0.40	1.1	97	0.51	61
	Intermediate Zone	B28-070809-48	48	07/08/09	< 0.20	<0.20	0.49	53	0.27	35
	intermediate Zone	B28-070809-56	56	07/08/09	< 0.20	<0.20	< 0.20	9.3	<0.20	28
		B28-070809-64	64	07/08/09	< 0.20	<0.20	< 0.20	<0.20	<0.20	<0.20
Screening Levels ³	reening Levels ^{3,4}				0.17/0.17/0.17	0.404/0.654/0.654	25/25/25	72.7/137/137	65.3/1403/1403	1.28/1.69/1.69

Notes:

Results in **bold** denote concentrations above applicable screening levels.

- denotes sample not analyzed.
- < denotes analyte not detected at or above the reporting limit listed.

Samples collected by Farallon Consulting, L.L.C.

³Screening levels were calculated using Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Modified Method B groundwater cleanup levels, modified based on Asian Pacific Island Exposure scenarios for the consumption of fish for the groundwater-to-surface-water pathway, the Federal Clean Water Act Ambient Water Quality Criteria based on human health consumption of organisms for the groundwater-to-surface-water pathway, and Residential Exposure Scenario for inhalation of indoor air exposure pathway.

DCE = dichloroethene

Intermediate Zone = denotes interval from 40 to 70 feet below ground surface (bgs).

J = the analyte was analyzed for and positively identified, but the associated numerical value is an estimated quantity

PCE = tetrachloroethene

Shallow Zone = denotes interval from 20 to 40 feet bgs.

TCE = trichloroethene

Water Table Zone = denotes interval from the top of water table to 20 feet bgs.

¹Depth in feet below ground surface.

²Analyzed using U.S. Environmental Protection Agency Method 8260B.

⁴Water Table Zone Screening Level/Shallow Zone Screening Level/Intermediate Zone Screening Level

Table 2 Summary of Soil Analytical Results Capital Industries Seattle, Washington

Farallon PN: 457-004

Sample	Sample	Sample			Analy	tical Results (mil	ligrams per kilog	(ram) ²	
Location	Identification	Depth ¹	Sample Date	PCE	TCE	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
B14	B14-120408-2	2	12/04/08	0.091	0.024	< 0.0013	<0.0013	<0.0013	<0.0064
B14	B14-120408-5	5	12/04/08	0.0055	0.0018	< 0.0012	< 0.0012	< 0.0012	<0.0059
B14	B14-120408-7	7	12/04/08	0.0097	0.0035	< 0.0012	<0.0012	< 0.0012	<0.0058
B15	B15-120208-2	2	12/02/08	0.0039	< 0.0012	< 0.0012	< 0.0012	< 0.0012	< 0.0061
B15	B15-120208-5	5	12/02/08	< 0.0012	< 0.0012	< 0.0012	< 0.0012	< 0.0012	<0.0059
B15	B15-120208-7	7	12/02/08	0.0012	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0056
B18	B18-120908-2	2	12/09/08	< 0.0011	0.0017	< 0.0011	< 0.0011	< 0.0011	< 0.0055
B18	B18-120908-5	5	12/09/08	0.0080	0.0060	< 0.0012	< 0.0012	< 0.0012	<0.0061
B18	B18-120908-7	7	12/09/08	0.021	0.012	< 0.0011	<0.0011	< 0.0011	<0.0053
B25	B25-073009-2	2	7/30/2009	0.021	0.0076	< 0.0057	< 0.0057	< 0.0057	<0.0057
B25	B25-073009-5	5	7/30/2009	0.012	0.015	< 0.0011	< 0.0011	< 0.0011	< 0.0011
B25	B25-073009-7	7	7/30/2009	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013
B26	B26-073009-2	2	7/30/2009	< 0.0012	< 0.0012	< 0.0012	< 0.0012	< 0.0012	<0.0012
B26	B26-073009-5	5	7/30/2009	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	<0.0011
B26	B26-073009-7	7	7/30/2009	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	<0.0011
Screening L	evels ³			0.0031	0.0028	0.0175	0.00993	0.00969	0.005

Notes:

Results in **bold** denote concentrations above applicable screening levels.

- denotes sample not analyzed.

< denotes analyte not detected at or above the reporting limit listed.

Samples collected by Farallon Consulting, L.L.C.

³Screening levels were calculated using Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Modified Method B groundwater cleanup levels, modified based on Asian Pacific Island Exposure scenarios for the consumption of fish for the groundwater-to-surface-water pathway, the Federal Clean Water Act Ambient Water Quality Criteria based on human health consumption of organisms for the groundwater-to-surface-water pathway, and Residential Exposure Scenario for inhalation of indoor air exposure pathway.

DCE = dichloroethene

PCE = tetrachloroethene

TCE = trichloroethene

¹Depth in feet below ground surface.

²Analyzed using U.S. Environmental Protection Agency Method 8260B.

Table 3 Summary of Total Organic Carbon Analytical Results Capital Industries

Seattle, Washington Farallon PN: 457-004

Sample		Sample		Analytical Results (milligrams per kilogram) 2
Location	Sample Identification	Depth ¹	Sample Date	TOC
	B6-112408-15-15.5	15-15.5	11/24/08	1220
B6	B6-112408-30-30.5	30-30.5	11/24/08	2100
	B6-112408-60-60.5	60-60.5	11/24/08	1280
	B9-111408-15-15.5	15-15.5	11/14/08	80.0
B9	B9-111408-30-30.5	30-30.5	11/14/08	2000
	B9-111808-60-60.5	60-60.5	11/18/08	5120
	B13-120108-15-15.5	15-15.5	12/01/08	270
B13	B13-120108-30-30.5	30-30.5	12/01/08	380
	B13-120208-60-60.5	60-60.5	12/02/08	1100
	B17-111008-15-15.5	15-15.5	11/10/08	220
B17	B17-111008-30-30.5	30-30.6	11/10/08	1070
	B17-111108-60-60.5	60-60.5	11/11/08	680

NOTES:

TOC = total organic carbon

¹Depth in feet below ground surface.

²Analyzed using method Plumb 1981.

Table 4
Summary of Proposed Groundwater Monitoring Wells
Capital Industries
Seattle, Washington

Location Name	Total Depth (feet below ground surface)	Screen Interval (feet below ground surface)	Screen Length (feet)	Aquifer Interval
CI-7-40	40	30 to 40	10	Shallow
CI-7-60	60	50 to 60	10	Intermediate
CI-8-40	40	30 to 40	10	Shallow
CI-8-60	60	50 to 60	10	Intermediate
CI-9-WT	20	10 to 20	10	Water Table
CI-9-40	40	30 to 40	10	Shallow
CI-9-70	70	60 to 70	10	Intermediate
CI-10-WT	20	10 to 20	10	Water Table
CI-10-52	52	42 to 52	10	Intermediate
CI-10-70	70	60 to 70	10	Intermediate
CI-11-WT	20	10 to 20	10	Water Table
CI-11-30	30	20 to 30	10	Shallow
CI-11-60	60	50 to 60	10	Intermediate
CI-12-WT	20	10 to 20	10	Water Table
CI-12-30	30	20 to 30	10	Shallow
CI-12-60	60	50 to 60	10	Intermediate
CI-13-WT	20	10 to 20	10	Water Table
CI-13-30	30	20 to 30	10	Shallow
CI-13-60	60	50 to 60	10	Intermediate
CI-137-50	50	40 to 50	10	Intermediate

APPENDIX A BORING AND WELL CONSTRUCTION LOGS

REMEDIAL INVESTIGATION FIELD PROGRAM
FIRST PHASE REPORT
Capital Industries, Inc.
Seattle, Washington



FARALLON CONSULTING 975 5th Avenue Northwest Issaquah, WA 98027

USCS Classification and Graphic Legend

			7 7							
	Major Divis	ions	USCS Graphic Symbol	USCS Letter Symbol	Lithologic Description					
Coarse-	GRAVEL	CLEAN GRAVEL (Little	2000		I was					
Grained Soil (More	AND GRAVELLY	or no fines)	O'CaC	GW	Well graded GRAVEL, well graded GRAVEL with sand					
than 50% of material	SOIL (More than 50% of	GRAVEL WITH FINES	B. B.	GP	Poorly graded GRAVEL, GRAVEL with sand					
is larger than No.	coarse	(Appreciable amount of fines)		GP-GM	Poorly graded GRAVEL - GRAVEL with sand and silt					
200 sieve size)	retained on No. 4 sieve)	mes,	8 B B	GM	Silty GRAVEL					
	SAND AND	CI FAN CAND # III		GC	Clayey GRAVEL					
	SANDY SOIL (More	CLEAN SAND (Little or no fines)		SW	Well graded SAND					
	than 50% of			SP	Poorly graded SAND					
	fraction passed	SAND WITH FINES (Appreciable amount of		SP-SM	Poorly graded SAND - silty SAND					
	through No. 4 sieve)	fines)		SM	Silty SAND					
	4 sieve,			SC	Clayey SAND					
				SM-ML	SILT - SIIIy SAND					
Fine- Grained	SILT AND CLAY (Liquid		ЩЩЩ	ML	SILT					
Soil (More than 50%	limit less than 50)		777	CL	CLAY					
of material is smaller than No.				OL	Organic SILT					
200 sieve size)	SILT AND CLAY (Liquid			МН	Inorganic SILT					
Sizej	limit greater than 50)		1	СН	Inorganic CLAY					
			\approx	ОН	Organic CLAY					
		Highly Organic Soll	11 11	PT	Peal					
OTHER MATERIALS	PAVEMENT			AC	Asphalt concrete					
				co	Concrete					
	OTHER			RK	Bedrock					
			√ e√e	WD	Wood Debris					
			77 77	DB	Debris (Miscellaneous)					
			Portland cement							
Sample Interval Legend Solid line Indicates sharp contact between units well de										
6	Grab Sample Interval			Cement						
-	Water level at time of drilling				feet bgs = feet below ground surface					
	at time of sampling			NE = Not Encountered NA = Not Applicable						
	g	- 1	Sand Pa	ck PID = Photoionization Detector						
	Screened Ca			Well Car	PN = Project Number *ppm = parts per million total organic vapors in isobutylene equivalents using a 10.6 electron volt lamp USCS = Unified Soil Classification System					
E:\Forms\Bollerplate	s/LogPlot/Lithology/Co	verpage		-						



Log of Boring: B6

Page 1 of 2

Capital Industries Inc. Client:

Project: Capital Industries Inc.

Location: Seattle, WA

Farallon PN: 457-004

Logged By: Ken Scott

0

Date/Time Started: 11/24/2008 7:50 Date/Time Completed: 11/25/2008 9:30

Equipment:

Drilling Company:

Geoprobe 6600

Cascade Drilling

Drilling Foreman: Kasey Goble

Drilling Method: Direct-push Sampler Type: Macrocore 60-inch

Drive Hammer (lbs.):

Depth of Water ATD (ft bgs): 10.5' bgs Total Boring Depth (ft bgs): 70' bgs

Total Well Depth (ft bgs): NA

Depth (feet bgs.) Blow Counts 8/8/8 Sample Interval Sample Analyzed **USGS Graphic** % Recovery Boring/Well **Lithologic Description** (bbm*) Construction uscs Sample ID Details PID (

ו אר							
│	, 0-6": Asphalt, black, dry, odor and sheen.	AC AC					Asphalt cap
]/	6"-1.5': Poorly-graded fine SAND (95% sand, 5% silt), gray, moist, no odor or sheen.	SP	0 N/A	0.0			
5	1.5'-2.1': SILT (100% silt), dark-brown, moist, no odor or sheen.	- ML					Bentonite
$\left\langle \left\langle \right\rangle \right\rangle$	2.1'-6.1': Silty SAND (65% sand, 35% silt), fine sand, light-brown, moist, no odor or sheen. Observed red-oxides b/w 4.0' to 6.0' bgs.	SM	0 N/A	0.0			
10	6.1'-10.0': Poorly-graded fine SAND (95% sand, 5% silt), black, moist, no odor or sheen. Observed red-oxides b/w 6.1' to 10.0' bgs.			0.0	D0 440400 40		
	10.0-10.5': Sandy SILT (60% silt, 40% sand), fine sand, light-brown, moist to wet, no odor or sheen. Observed water at 10.5' bgs, and red-oxides b/w 10.0' to 10.5' bgs.	SP 100	0 N/A	0.0	B6-112408-10	X	Initial water level
15	10.5'-16.8': Poorly-graded fine SAND (95% sand, 5% silt), black, wet, no odor or sheen. Observed red-oxides b/w 6.1'-10.0' bgs.			ı	B6-112408-14 36-112408-15-15	X 5X	
1	16.8'-17.0': SILT with sand (80% silt, 20% sand), fine sand, light- thrown, wet, no odor or sheen.	ML /	N/A	0.0	B6-112408-18 Pup-B6-112408-1	×	
20	17.0'-23.0': Poorly-graded fine SAND (95% sand, 5% silt), black, wet, no odor or sheen.	SP			B6-112408-22	x	
_ {/\	, 23.0'-23.4': SILT (100% silt), gray, wet, no odor or sheen.	/\ ML , 100	N/A	0.0	55 112400 22	$ \hat{\ } $	
25	, 23.4'-24.5': Poorly-graded fine SAND (95% sand, 5% silt), black, wet, no odor or sheen.	SP #			B6-112408-26	x	
1 → 1	24.5'-25.0': SILT with sand (80% silt, 20% sand), fine sand, light-brown, wet, no odor or sheen.	ML 100	N/A	0.0			
30	25.0'-29.0': SILT (90% silt, 10% sand), fine sand, light-brown, wet, no odor or sheen.	SP /		E	B6-112408-30 36-112408-30-30.	×	
3.	29.0'-30.2': Poorly-graded fine SAND (95% sand, 5% silt), brown, wet, no odor or sheen.	SP 1100	N/A	0.0	B6-112408-34		Bentonite
35 -	30.2'-31.8': SILT with sand (80% silt, 20% sand), fine sand, brown, wet, no odor or sheen.	ML /			DU-1124U8-34	X	
1	31.8'-32.5': Poorly-graded fine SAND (95% sand, 5% silt), brown, wet, no odor or sheen.	100	N/A	0.0	B6-112408-38	x	
40 ——	,			l			

Monument Type: NA

Screened Interval (ft bgs):

Casing Diameter (inches): 2-inch Screen Slot Size (inches):

0.004 4' intervals Filter Pack:

Surface Seal: Asphalt

Well Construction Information

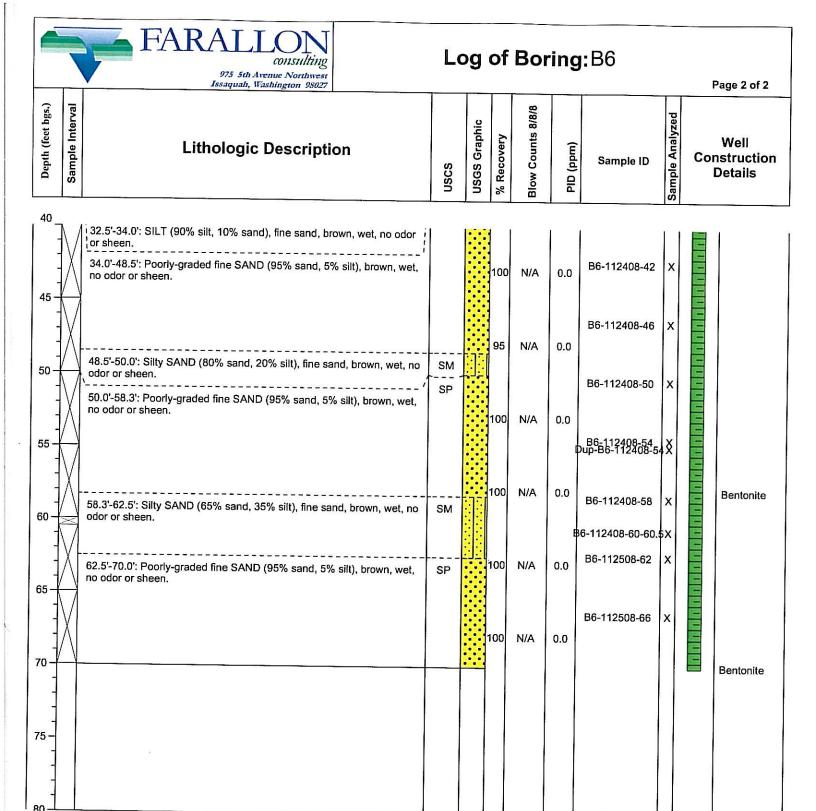
Annular Seal: NA

Ground Surface Elevation (ft):

NA Top of Casing Elevation (ft): NA **Boring Abandonment:**

Bentonite

Surveyed Location: X: 47.330154402 Y: -122.200081190



Monument Type: NA

Screened Interval (ft bgs):

Casing Diameter (inches): 2-inch Screen Slot Size (inches): 0.004

4' intervals

Well Construction Information

Filter Pack: NA

Surface Seal: Asphalt
Annular Seal: NA

Ground Surface Elevation (ft): Top of Casing Elevation (ft):

: NA NA

Boring Abandonment: Bentonite

Surveyed Location: X: 47.330154402 Y: -122.200081190



Lithologic Description

Log of Boring: B7

Page 1 of 2

Details

Client: Capital Industries Inc. Project: Capital Industries Inc.

Location: Seattle, WA

Farallon PN: 457-004

Logged By: Ken Scott

epth (feet bgs.)

Sample Interval

Date/Time Started:

Date/Time Completed:

Equipment:

Drilling Company:

Drilling Foreman:

Drilling Method:

11/13/2008 7:45

11/14/2008 10.10

Geoprobe 6600 Cascade Drilling

Kasey Goble

Direct-push

Sampler Type: Macrocore 60-inch Drive Hammer (lbs.):

Depth of Water ATD (ft bgs): 8.0' bgs Total Boring Depth (ft bgs): 70' bgs

Total Well Depth (ft bgs): NA

w Counts 8/8/8 ple Analyzed GS Graphic Recovery Boring/Well Construction

Sample ID

۵	ιÿ		ns	nsc	% R	Blov	PD		Sam	
, 0_					•				135	
_	\setminus	, 0-5": Asphalt, black, dry, odor and sheen.	, AC	1						Asphalt cap
-	\bigwedge	5"-1.2': Silty SAND (65% sand, 35% silt), fine sand, brown, moist, no odor or sheen.	SM		100	N/A	0.2			
5-	<u> </u>	1.2'-1.6': SILT (100% silt), dark-brown, moist, no odor or sheen.	ML							Bentonite
-	\bigvee	1.6'-1.9': Sandy SILT (65% silt, 35% sand), fine sand, light-brown, moist, no odor or sheen.	\ML /	Ш	100	N/A	0.0			
10	<u>/ \</u>	1.9'-7.0': SILT with sand (80% silt, 20% sand), fine sand, light-brown, moist, no odor or sheen.	SP	7-1	100	IN/A	0.0	B7-111308-8	х	Initial water level
	\bigvee	7.0'-10.0': Poorly-graded fine SAND (95% sand, 5% silt), black, moist to wet, no odor or sheen. Observed water, and red-oxides at 8.0' bgs.	SM / SP		100	N/A	0.0	B7-111308-12	x	
15	$\left\langle \cdot \right\rangle$	10.0'-10.8': Silty SAND (60% sand, 40% silt), fine sand, brown, wet, no odor or sheen.				TWEAT	0.0			
-	\bigvee	10.8'-28.0': Poorly-graded fine SAND (95% sand, 5% silt), black, wet, no odor or sheen.			100	N/A	0.0	B7-111308-16	x	
20	\rightarrow						0.0	B7-111308-20	x	
-	X				70	N/A	0.0	B7-111300-20		
25	\longrightarrow						0.0	B7-111308-24	x	
-	X_{\parallel}		- -		60	N/A	0.2			
30	_	28.0'-28.2': SILT with sand (80% silt, 20% sand), fine sand, brown, wet, no odor or sheen.	ML /	IJΙΙ		IVA	0.2	B7-111308-28 Jup-B7-111308-28	×	
]\	X	28.2'-29.0': Poorly-graded fine SAND (95% sand, 5% silt), brown, wet,	ML ;		00	N// A		B7-111308-32	x	
35	\ 	29.0'-29.5': SILT with sand (80% silt, 20% sand), fine sand, brown, wet, no odor or sheen.	SP		00	N/A	0.0			Bentonite
1		29.5'-34.0': Poorly-graded fine SAND (95% sand, 5% silt), brown, wet, no odor or sheen.	ML					B7-111308-36	x	
40 1	_\[no odor or sheen	ML ,	31 8	30	N/A	0.0			

Monument Type: NA

Screened Interval (ft bgs):

Casing Diameter (inches): 2-inch Screen Slot Size (inches):

0.004

4' intervals

Well Construction Information Filter Pack:

Surface Seal: Asphalt

Annular Seal: NA

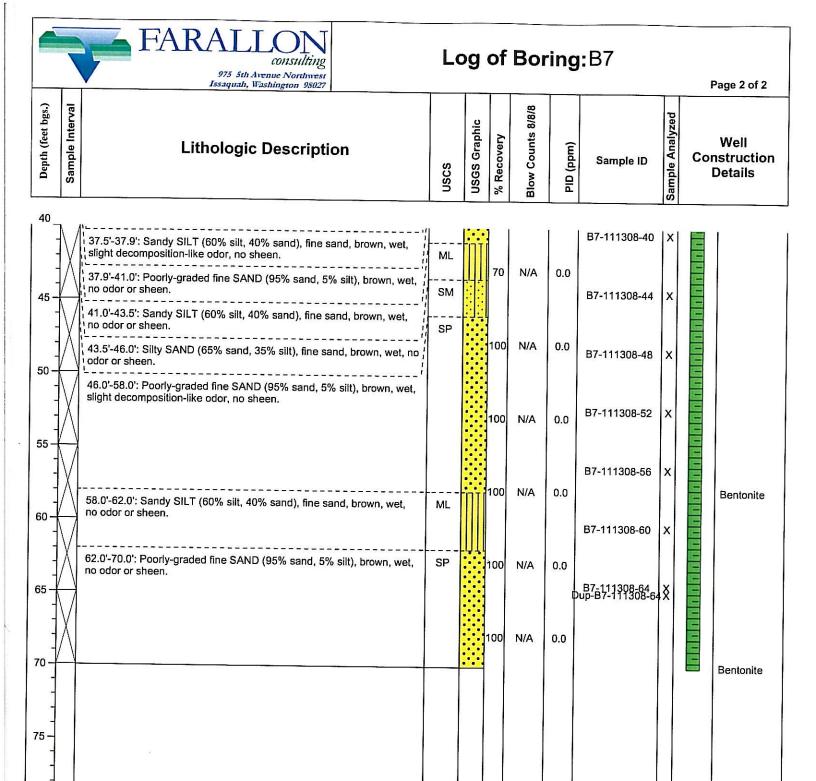
Ground Surface Elevation (ft):

Top of Casing Elevation (ft): NA **Boring Abandonment:**

Bentonite

NA

Surveyed Location: X: 47.330133674 Y: -122.195790324



Monument Type: NA

Casing Diameter (inches): 2-inch Screen Slot Size (inches): 0.004 Screened Interval (ft bgs):

4' intervals

Well Construction Information

Filter Pack: NA

Surface Seal: Asphalt Annular Seal: NA

Ground Surface Elevation (ft): Top of Casing Elevation (ft):

NA NA

Boring Abandonment: Bentonite

Surveyed Location: X: 47.330133674 Y: -122.195790324



Log of Boring: B8

Page 1 of 2

Client: Capital Industries Inc.

Project: Capital Industries Inc.

Location: Seattle, WA

Farallon PN: 457-004

Logged By: Ken Scott & Jen Baptist

Date/Time Started: 11/25/2008 9:45 Date/Time Completed: 11/26/2008 14:15

Equipment:

Geoprobe 6600 Cascade Drilling

Kasey Goble

Drilling Company: Drilling Foreman:

Drilling Method: Direct-push Sampler Type: Macrocore 60-inch

Drive Hammer (lbs.):

NA

Depth of Water ATD (ft bgs): 6.0' bgs Total Boring Depth (ft bgs): 70' bgs

Total Well Depth (ft bgs):

NA

27-30025				,							
Depth (feet bgs.)	Sample Interval	Lithologic Description	nscs	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm*)	Sample ID	Sample Analyzed	Cor	ring/Well estruction Details
0_											
- - - 5-	\bigvee	gravel, 10% silt), fine gravel, gray, moist, no odor or sheen. Observed	SP-SM		80	N/A	0.0				Asphalt cap Bentonite
5-	$\backslash /$	2.0'-4.0': Poorly-graded fine SAND with silt (90% sand, 10% silt), tan,	ML /	- - -							Dentonite

- 1		11/		/ \	<u> </u>	1	1				1000	
	5	\bigwedge	8"-2.0': Poorly-graded fine SAND with silt and gravel (70% sand, 20% gravel, 10% silt), fine gravel, gray, moist, no odor or sheen. Observed rounded gravel	SP-SN		80	N/A	0.0				Bentonite
	37	\bigvee	2.0'-4.0': Poorly-graded fine SAND with silt (90% sand, 10% silt), tan, moist, no odor or sheen.	ML								Initial water
	-	$/\!\!\!/$	4.0'-5.0': SILT (100% silt), gray and tan layers, moist, stiff, no odor or sheen.	SP ML		100	N/A	0.0	B8-112508-8	x		level
	10 - (- - -	\bigvee	5.0'-6.0': Poorly-graded fine SAND (85% sand, 10% gravel, 5% silt), fine gravel, tan to brown, moist to wet, no odor or sheen. Observed water at 6.0' bgs.	SP ML	TII.	400			B8-112508-12	x		
	ا ۔.	$/ \setminus$	6.0'-8.3': SILT (100% silt), gray, wet, soft, no odor or sheen.	SP		100	N/A	0.0				
	15 - { - -	\bigvee	8.3'-10.0': Poorly-graded fine SAND (95% sand, 5% silt), black, wet, no odor or sheen.						B8-112508-16	х		
	 	\setminus	10.0'-11.0': SILT, trace gravel (95% silt, 5% gravel), brown, wet, no odor or sheen.	SP		80	N/A	0.0				
2	 02	\bigvee	11.0'-18.0': Poorly-graded fine SAND (95% sand, 5% silt), black, wet, no odor or sheen.						B8-112508-20	x		
	- - 	\bigvee	18.0'-23.0': Silty SAND (80% sand, 20% silt), black, wet, no odor or sheen. Observed wood-debris in sampler.	ML		80	N/A	0.0	D0 440500 04			
2	5 -		23.0'-25.0': SILT (100% silt), tan, wet, no odor or sheen. Observed wood-debris in sampler.	SP	-1711				B8-112508-24	^x		
	_ {/	\bigwedge	25.0'-27.2': Silty SAND (80% sand, 20% silt), black, wet, no odor or sheen.	ML		85	N/A	0.0	B8-112508-28	x		
3	↑°		27.2'-30.0': SILT (100% silt), tan, wet, no odor or sheen. Observed wood-debris in sampler.	ML	- - -							
	4/	X.	30.0'-34.0': SILT (90% silt, 10% sand), fine sand, gray, wet, no odor or sheen. Observed wood-debris in sampler.	<u>-</u>		95	N/A	0.0	B8-112508-32	x		Bentonite
3	5 +		34.0'-37.4': Poorly-graded fine SAND with silt (90% sand, 10% silt), black, wet, no odor, no sheen. Observed wood-debris throughout sampler.	SP-SM					B8-112508-36	x		
41	,∄		37.4'-37.7': SILT (95% silt, 5% sand), fine sand, gray, wet, no odor or /sheen.	ML / SP	IJΙ	95	N/A	0.0				

Monument Type: NA

Screened Interval (ft bgs):

Casing Diameter (inches): 0.004 Screen Slot Size (inches):

2-inch

4' intervals

Filter Pack:

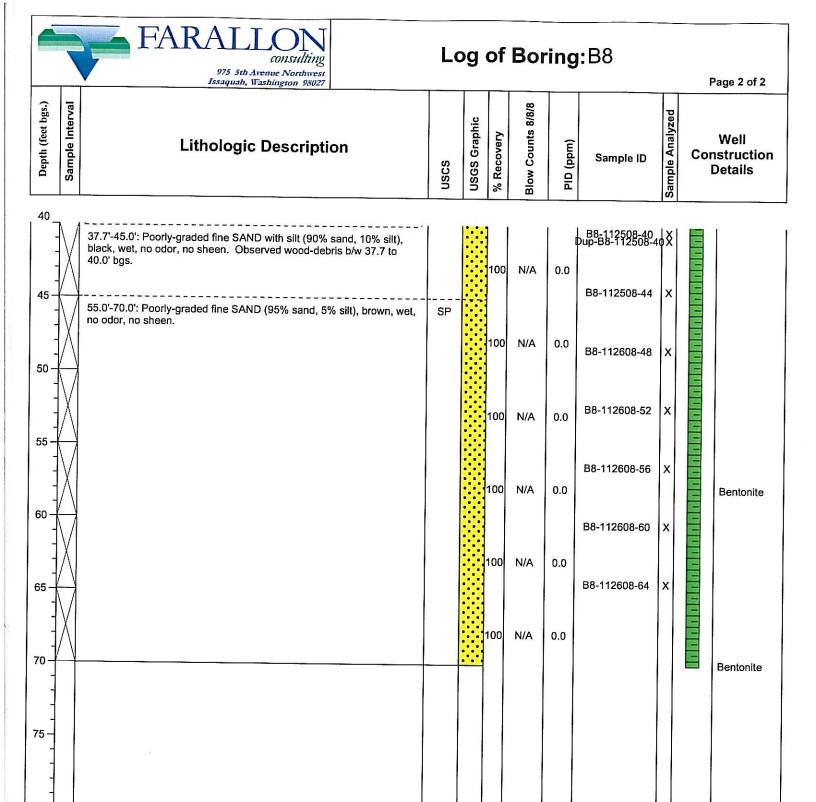
Surface Seal: Asphalt Annular Seal: NA

Well Construction Information

Ground Surface Elevation (ft):

NA Top of Casing Elevation (ft): NA **Boring Abandonment:** Bentonite

Surveyed Location: X: 47.35882410 Y: -122.200041452



Monument Type: NA

Screened Interval (ft bgs):

Casing Diameter (inches): Screen Slot Size (inches):

2-inch

0.004 4' intervals Filter Pack:

Surface Seal: Asphalt Annular Seal: NA

Well Construction Information

Ground Surface Elevation (ft): NA Top of Casing Elevation (ft): NA **Boring Abandonment:**

Bentonite

Surveyed Location: X: 47.35882410 Y: -122.200041452



Log of Boring: B9

Page 1 of 2

Capital Industries Inc.

Project: Capital Industries Inc. Location: Seattle, WA

Farallon PN: 457-004

Logged By: Ken Scott

Date/Time Started: Date/Time Completed:

Equipment:

Drilling Company:

Drilling Foreman:

Drilling Method:

11/14/2008 10:30

11/18/2008 13:45 Geoprobe 6600

Cascade Drilling Kasey Goble

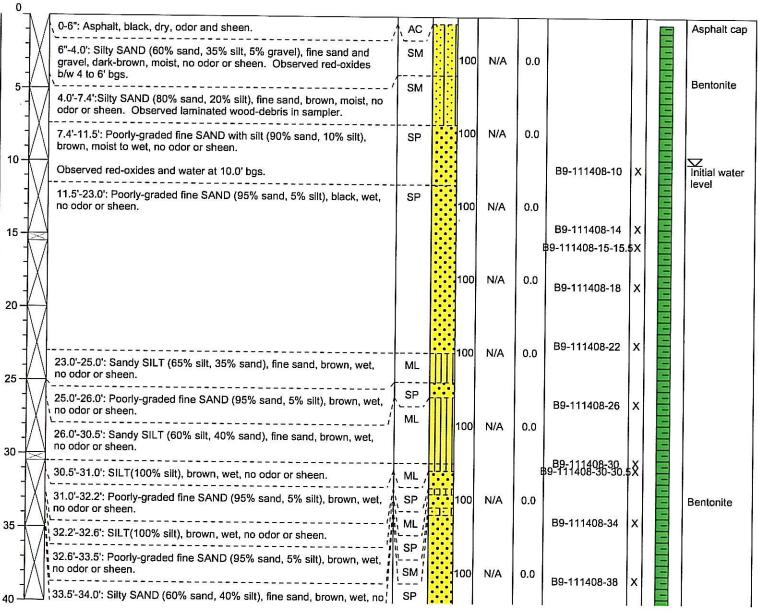
Direct-push

Sampler Type: Macrocore 60-inch

Drive Hammer (lbs.):

Depth of Water ATD (ft bgs): 10.0 Total Boring Depth (ft bgs): 70' bgs

Total Well Depth (ft bgs): NA



Monument Type: NA Casing Diameter (inches):

Screen Slot Size (inches):

Screened Interval (ft bgs):

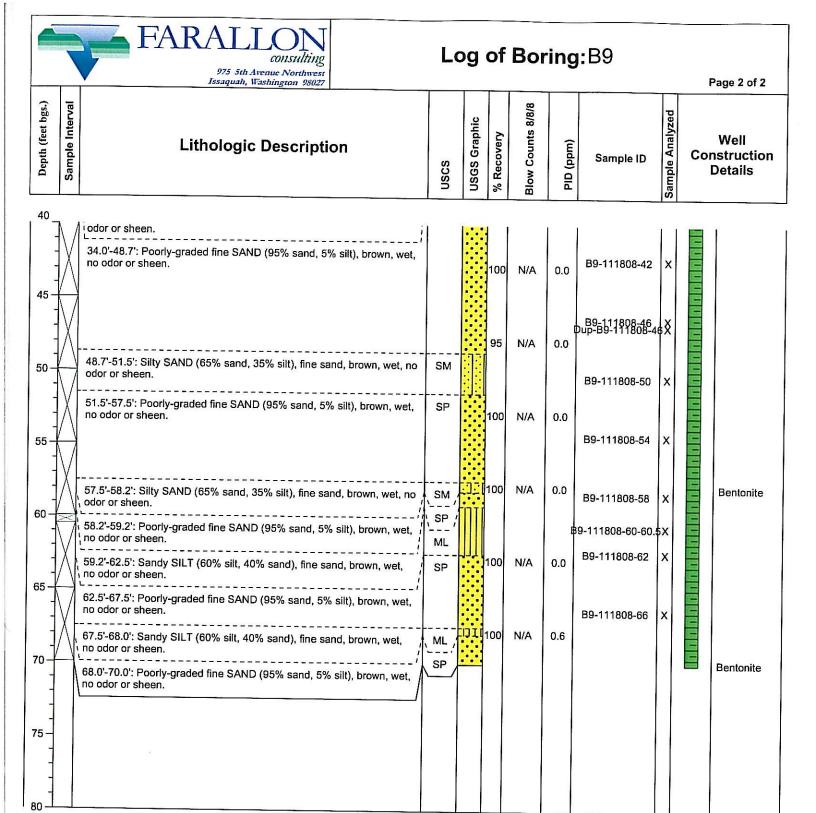
2-inch 0.004 4' intervals Filter Pack:

Well Construction Information

Surface Seal: Asphalt Annular Seal: NA

Ground Surface Elevation (ft): NA Top of Casing Elevation (ft): NA **Boring Abandonment:** Bentonite

Surveyed Location: X: 47.325889364 Y: -122.195861273



Monument Type: NA Casing Diameter (inches):

Casing Diameter (inches): 2-inch
Screen Slot Size (inches): 0.004
Screened Interval (ft bgs): 4' intervals

Well Construction Information

Filter Pack: N

Surface Seal: Asphalt Annular Seal: NA Ground Surface Elevation (ft): NA
Top of Casing Elevation (ft): NA

Boring Abandonment:

NA Bentonite

Surveyed Location: X: 47.325889364 Y: -122.195861273



Log of Boring: B10

Page 1 of 2

Client: Capital Industries Inc. Project: Capital Industries Inc.

Location: Seattle, WA

Farallon PN: 457-004

Logged By: Ken Scott

Date/Time Started:

Date/Time Completed:

Equipment:

Drilling Company:

Drilling Foreman:

Drilling Method:

11/20/2008 11:50

11/21/2008 14:05

Geoprobe 6600 Cascade Drilling

Kasey Goble

Direct-push

Sampler Type: Macrocore 60-inch

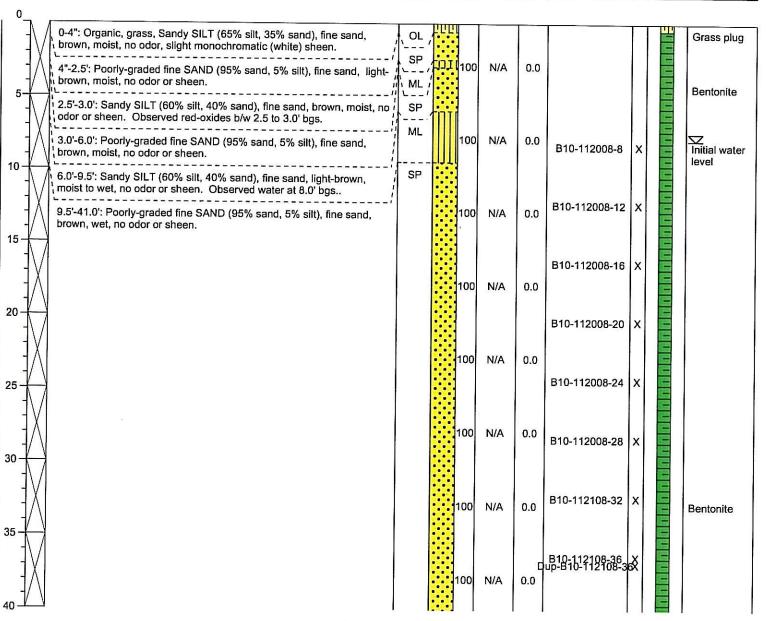
Drive Hammer (lbs.):

Depth of Water ATD (ft bgs): 8.0

Total Boring Depth (ft bgs): 70' bgs Total Well Depth (ft bgs):

NA

Sample Interval Compared to the part of t	nscs	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm*)	Sample ID	Sample Analyzed	Boring/Well Construction Details
--	------	--------------	------------	-------------------	------------	-----------	-----------------	--



Monument Type: NA

Casing Diameter (inches): 2-inch Screen Slot Size (inches): 0.004 Screened Interval (ft bgs): 4' intervals

Filter Pack:

Surface Seal: Asphalt

Well Construction Information

Annular Seal: NA

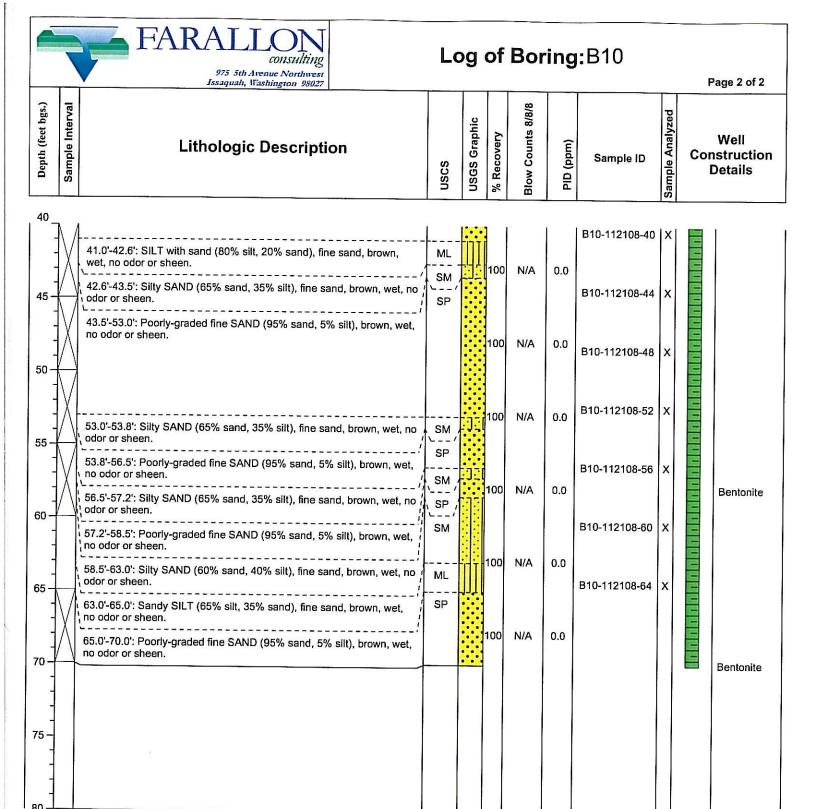
Ground Surface Elevation (ft):

NA NA Bentonite

Boring Abandonment:

Top of Casing Elevation (ft):

Surveyed Location: X: 47.330236411 Y: -122.200257281



Monument Type: NA

Screened Interval (ft bgs):

Casing Diameter (inches): 2-inch Screen Slot Size (inches): 0.004

4' intervals

Well Construction Information Filter Pack:

Surface Seal: Asphalt

Annular Seal: NA

Ground Surface Elevation (ft): Top of Casing Elevation (ft):

NA NA

Boring Abandonment:

Bentonite Surveyed Location: X: 47.330236411 Y: -122.200257281



Page 1 of 2

Capital Industries Inc. Project: Capital Industries Inc.

Location: Seattle, WA

Farallon PN: 457-004

Logged By: Ken Scott

Date/Time Started:

Date/Time Completed:

Equipment:

Drilling Company:

Drilling Foreman:

Drilling Method:

11/19/2008 7:55

11/20/2008 11:10

Geoprobe 6600

Cascade Drilling Kasey Goble

Direct-push

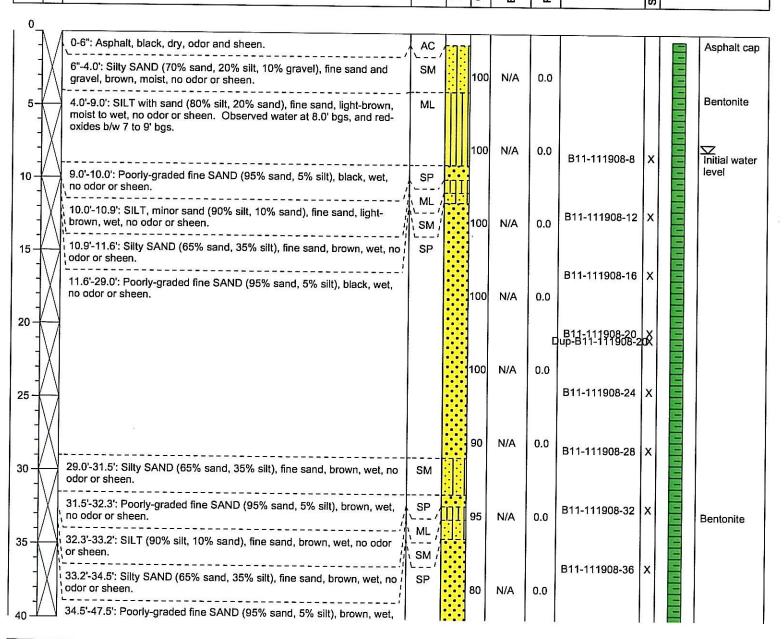
Sampler Type: Macrocore 60-inch

Drive Hammer (lbs.):

Depth of Water ATD (ft bgs): 8.0' bgs Total Boring Depth (ft bgs):

70' bgs Total Well Depth (ft bgs): NA

(feet bg:	Sample Interval	ologic Description	nscs	USGS Graphic	% Recovery	3low Counts 8/8/8	(ppm*)	Odnipie ID	ample Analyzed	Boring/Well Construction Details
-----------	-----------------	--------------------	------	--------------	------------	-------------------	--------	------------	----------------	--



Monument Type: NA

Screened Interval (ft bgs):

Casing Diameter (inches): Screen Slot Size (inches): 0.004

2-inch

4' intervals

Filter Pack:

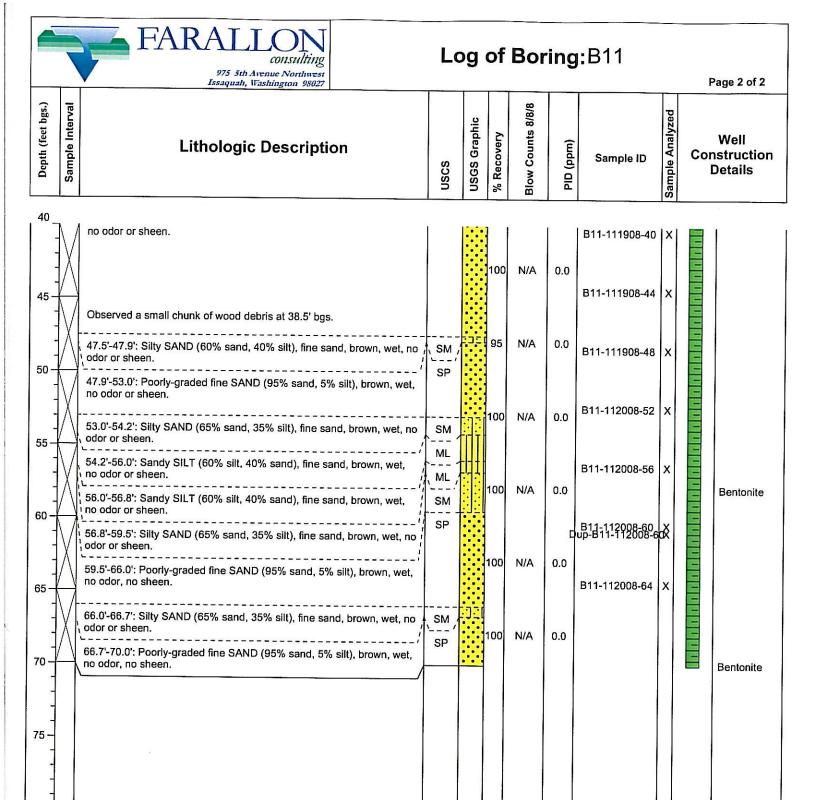
Surface Seal: Asphalt Annular Seal: NA

Well Construction Information

Ground Surface Elevation (ft): Top of Casing Elevation (ft):

NA NA

Boring Abandonment: Bentonite Surveyed Location: X: 47.325981700 Y: -122.200244632



Screened Interval (ft bgs):

Casing Diameter (inches): 2-inch Screen Slot Size (inches): 0.004

4' intervals

Well Construction Information

Filter Pack: NA

Surface Seal: Asphalt
Annular Seal: NA

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):

Boring Abandonment:

NA Bentonite

NA

Surveyed Location: X: 47.325981700 Y: -122.200244632



Page 1 of 2

Capital Industries Inc. Client: Project: Capital Industries Inc.

Location: Seattle, WA

Farallon PN: 457-004

Logged By: Ken Scott

Date/Time Started: 12/08/2008 9:05 12/09/2008 10:15

Date/Time Completed:

Equipment:

Geoprobe 6600 **Drilling Company:**

Drilling Foreman:

Drilling Method:

Cascade Drilling

Kasey Goble Direct-push

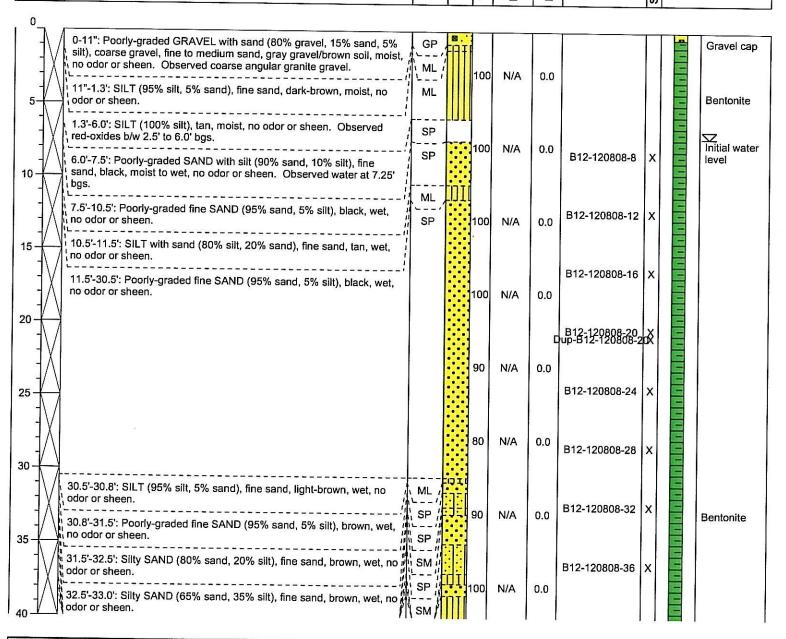
Sampler Type: Macrocore 60-inch

Drive Hammer (lbs.):

Depth of Water ATD (ft bgs): 7.25' bgs Total Boring Depth (ft bgs): 70' bgs

Total Well Depth (ft bgs): NA

ow Counts 8/8/8 Depth (feet bgs.) Sample Interval Sample Analyzed **USGS Graphic** Recovery Boring/Well (bpm*) Lithologic Description Construction Sample ID **Details**



Monument Type: NA

Screened Interval (ft bgs):

Casing Diameter (inches): 2-inch Screen Slot Size (inches): 0.004

4' intervals

Filter Pack:

Surface Seal: N/A Annular Seal: NA

Well Construction Information

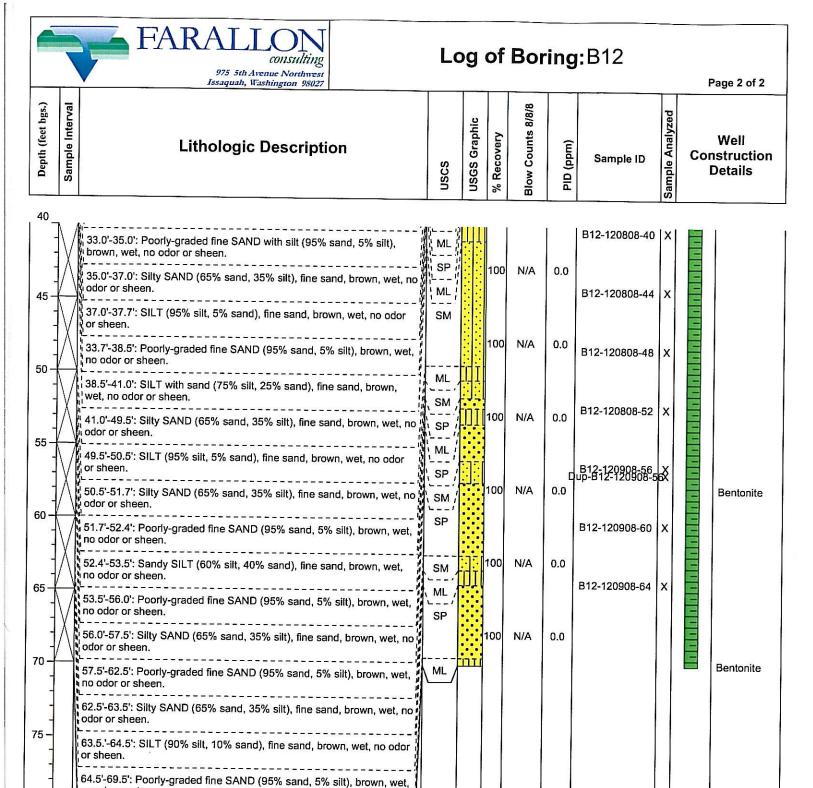
Ground Surface Elevation (ft):

Top of Casing Elevation (ft): NA **Boring Abandonment:**

Bentonite

NA

Surveyed Location: X: 47.330087036 Y: -122.195593404



Screened Interval (ft bgs):

Casing Diameter (inches): Screen Slot Size (inches): 0.004

2-inch

4' intervals

69.5'-70.0': SILT (100% silt), brown, wet, no odor or sheen.

Filter Pack:

Surface Seal: N/A Annular Seal: NA

Well Construction Information

Ground Surface Elevation (ft): Top of Casing Elevation (ft):

NA NA

Boring Abandonment:

Bentonite

Surveyed Location: X: 47.330087036 Y: -122.195593404



Page 1 of 2

Client: Capital Industries Inc. Project: Capital Industries Inc.

Location: Seattle, WA

Farallon PN: 457-004

Depth (feet bgs.) Sample Interval

Logged By: Ken Scott

Date/Time Started:

Date/Time Completed:

Equipment:

Geoprobe 6600 **Drilling Company:**

Drilling Foreman:

Drilling Method:

12/01/2008 8:00

12/02/2008 12:20

Cascade Drilling

Kasey Goble

Direct-push

Sampler Type: Macrocore 60-inch

Drive Hammer (lbs.):

Depth of Water ATD (ft bgs): 11.0' bgs Total Boring Depth (ft bgs): 70' bgs

Total Well Depth (ft bgs): NA

Blow Counts 8/8/8 **USGS Graphic** % Recovery Boring/Well **Lithologic Description** PID (ppm*) Construction Sample ID **Details**

n						1		10,1		
F	0-6": Asphalt, black, dry, odor and sheen.	/ SP						П		Asphalt cap
<u> </u>	6"-2.8': Poorly-graded fine SAND (95% sand, 5% silt), tan, moist, no odor or sheen.	/SP-SN		100	N/A	0.0				
5	2.8'-6.0': Poorly-graded SAND with silt and gravel (60% sand, 30% gravel, 10% silt), fine gravel and sand, dark-brown, moist, no odor or sheen.	SP								Bentonite
1	6.0'-7.0': Poorly-graded fine SAND (95% sand, 5% silt), light-brown, moist, no odor or sheen.	ML		100	N/A	0.0			Ē	
10	7.0'-10.5': SILT (95% silt, 5% sand), fine sand, light brown, moist, no odor or sheen.	, SP					B13-120108-10	x		✓ Initial water
4/\	10.5'-11.5': Poorly-graded fine SAND (95% sand, 5% silt), tan, moist to wet, no odor or sheen. Observed water at 11.0' bgs.	SM		100	N/A	0.0	B. 6			level
15	11.5'-12.8': Silty SAND (80% sand, 20% silt), fine sand, tan, wet, no hodor or sheen. Observed red-oxides b/w 12.6' to 12.8' bgs.	SP SP				E	B13-120108-14 13-120108-15-15			
- X	12.8'-13.2': Silty SAND (80% sand, 20% silt), brown, wet, no odor or	ML		90	N/A	0.0	B13-120108-18	x		
20 -	13.2'-16.0': Poorly-graded fine SAND (95% sand, 5% silt), black, wet, no odor or sheen.	SP								
]/	16.0'-16.5': SILT (100% silt), light-brown, wet, no odor or sheen.	# 1 1 1		95	N/A	0.0 [B13-120108-22 up-B13-120108-2	×		
25 - /	16.5'-25.0': Poorly-graded fine SAND (95% sand, 5% silt), black, wet, no odor or sheen.	, SP					B40 400400 00			
<u> </u>	25.0'-32.5': Poorly-graded fine SAND (95% sand, 5% silt), brown, wet, no odor or sheen.		1	00	N/A	0.0	B13-120108-26	×		
30				ĺ		В	B13-120108-30 13-120108-30-30	¥		
$X_{\mathbb{F}}$	32.5'-33.7': SILT (100% silt), light-brown, wet, no odor or sheen.	ML	1)]]]1	00	N/A	0.0				Bentonite
35 1	33.7'-34.7': Poorly-graded fine SAND (95% sand, 5% silt), brown, wet, in no odor or sheen.	SP	JJII				B13-120108-34	x		
$\frac{1}{2}$	34.7'-35.3': SILT (95% silt, 5% sand), fine sand, light brown, wet, no codor or sheen.	ML ;	1	00	N/A	0.0	D40 400 500 50			
10 <u>1</u>	35.3'-41.5': Poorly-graded fine SAND (95% sand, 5% silt), brown, wet,	: J					B13-120108-38	×		

Monument Type: NA

Screened Interval (ft bgs):

Casing Diameter (inches): 2-inch

Screen Slot Size (inches): 0.004

4' intervals

Filter Pack:

Annular Seal: NA

Surface Seal: Asphalt

Well Construction Information

Ground Surface Elevation (ft):

NA Top of Casing Elevation (ft): NA

Boring Abandonment: Bentonite

Surveyed Location: X: 47.330060754 Y: -122.195112269



Page 2 of 2

Sample Interven	Lithologic Description	nscs	USGS Graphic	% Recovery	Blow Counts 8/8/	PID (ppm)	Sample ID	Sample Analyzed	Cons	Well struction etails
40	no odor or sheen. 41.5'-41.7': SILT (100% silt), light-brown, wet, no odor or sheen. 41.7'-42.5': Sandy SILT (65% silt, 35% sand), fine sand, light-brown, wet, no odor or sheen. 42.5'-47.5': Poorly-graded fine SAND (95% sand, 5% silt), brown, wet, no odor or sheen. 47.5'-48.5': Silty SAND (65% sand, 35% silt), fine sand, brown, wet, no odor or sheen. 48.5'-52.0': Poorly-graded fine SAND (95% sand, 5% silt), brown, wet, no odor or sheen. 52.0'-52.5': Silty SAND (60% sand, 40% silt), fine sand, brown, wet, no odor or sheen. 52.5'-53.5': Poorly-graded fine SAND (95% sand, 5% silt), brown, wet, no odor or sheen. 53.5'-53.9': SILT (100% silt), brown, wet, no odor or sheen. 55.5'-56.8': Sandy SILT (65% silt, 35% sand), fine sand, brown, wet, no odor or sheen. 56.5'-56.8': Sandy SILT (65% silt, 35% sand), fine sand, brown, wet, no odor or sheen. 57.2'-57.7': SILT with sand (80% silt, 20% sand), fine sand, brown, wet, no odor or sheen. 57.7'-66.0': Poorly-graded fine SAND (95% sand, 5% silt), brown, wet, no odor or sheen. 66.4'-70.0': Poorly-graded fine SAND (95% sand, 5% silt), brown, wet, no odor or sheen. 66.4'-70.0': Poorly-graded fine SAND (95% sand, 5% silt), brown, wet, no odor or sheen.	ML SP SM SP SP SM SP		100 100 100	N/A N/A N/A N/A		B13-120108-42 B13-120108-46 B13-120208-50 B13-120208-54 B13-120208-60-60 B13-120208-62 B13-120208-66	× × × × × × × × × ×		Bentonite Bentonite

Monument Type: NA

Casing Diameter (inches): Screen Slot Size (inches):

Screened Interval (ft bgs):

2-inch 0.004

4' intervals

Filter Pack:

NA

Annular Seal: NA

Surface Seal: Asphalt

Well Construction Information

Ground Surface Elevation (ft): Top of Casing Elevation (ft):

NA NA

Boring Abandonment:

Bentonite

Surveyed Location: X: 47.330060754 Y: -122.195112269



Page 1 of 2

Client: Capital Industries Inc. Project: Capital Industries Inc.

Location: Seattle, WA

Farallon PN: 457-004

Logged By: Ken Scott

Depth (feet bgs.

Date/Time Started:

Date/Time Completed:

Equipment:

Drilling Company:

Drilling Foreman:

Drilling Method:

12/04/2008 12:05

12/05/2008 14:30

Geoprobe 6600 Cascade Drilling

Kasey Goble

Direct-push

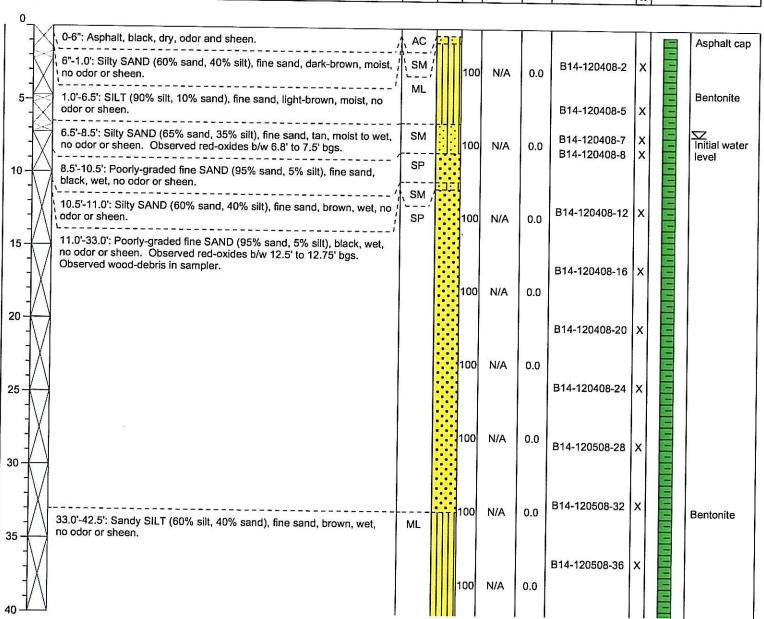
Sampler Type: Macrocore 60-inch

Drive Hammer (lbs.):

Depth of Water ATD (ft bgs): 7.25' bgs Total Boring Depth (ft bgs): 70' bgs

Total Well Depth (ft bgs): NA

low Counts 8/8/8 **USGS Graphic** Recovery Boring/Well Lithologic Description (bpm*) Construction Sample ID **Details** PID



Monument Type: NA

Screened Interval (ft bgs):

Casing Diameter (inches): Screen Slot Size (inches): 0.004

2-inch

4' intervals

Filter Pack:

Well Construction Information

Surface Seal: Asphalt

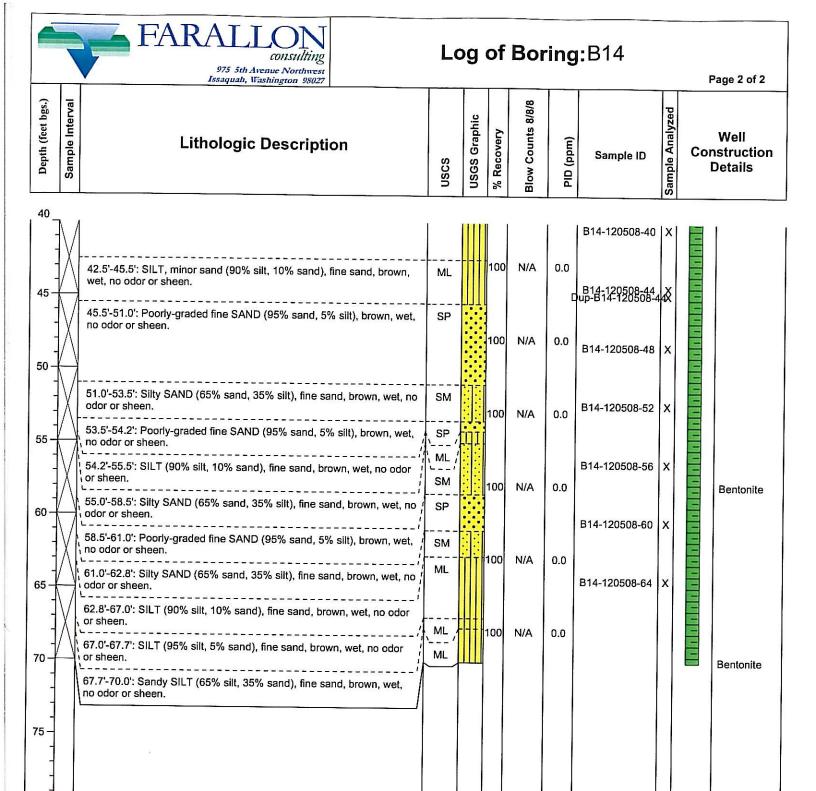
Annular Seal: NA

Ground Surface Elevation (ft):

Top of Casing Elevation (ft): NA

Boring Abandonment:

Bentonite Surveyed Location: X: 47.330146258 Y: -122.194828214



Casing Diameter (inches): 2-inch

Screen Slot Size (inches): 0.004 Screened Interval (ft bgs): 4' intervals Filter Pack:

Surface Seal: Asphalt

Annular Seal: NA

Well Construction Information

Top of Casing Elevation (ft):

Ground Surface Elevation (ft): NA NA

Boring Abandonment:

Bentonite

Surveyed Location: X: 47.330146258 Y: -122.194828214



Kasey Goble

Page 1 of 2

Client: Capital Industries Inc.

Project: Capital Industries Inc.

Location: Seattle, WA

Farallon PN: 457-004

Logged By: Ken Scott

Date/Time Started: 12/02/2008 13:30

Date/Time Completed: 12/04/2008 11:40

Equipment:

Geoprobe 6600 **Drilling Company:** Cascade Drilling

Drilling Foreman:

Drilling Method: Direct-push Sampler Type: Macrocore 60-inch

Drive Hammer (lbs.):

Depth of Water ATD (ft bgs): 7.5' bgs

Total Boring Depth (ft bgs): 70' bgs Total Well Depth (ft bgs): NA

0_	4						
	, 0-6": Asphalt, black, dry, odor and sheen.	AC AC					Asphalt cap
	6"-1.2': Poorly-graded fine SAND (95% sand, 5% silt), fine sand, tan, moist, no odor, slight monochromatic (white) sheen.	11/ 11	00 N/A	0.0	B15-120208-2	x	
5-	1.2'-1.8': Sandy SILT (65% silt, 35% sand), fine sand, dark-brown, imoist, no odor or sheen.	ML :			B15-120208-5	х	Bentonite
- 	յլ 1.1.8'-4.0': Silty SAND (80% sand, 20% silt), light-brown, moist, no odor ու or sheen.	1	00 N/A	0.0	B15-120208-7 B15-120208-8	X	Initial water
10	4.0'-5.5': SILT (90% silt, 10% sand), fine sand, light-brown, moist, no	- 1 SM					level
}\	ii 5.5'-6.5': Silty SAND (60% sand, 40% silt), fine sand, brown, moist, no	" SP 10	00 N/A	0.0	B15-120208-12	x	
15	6.5'-7.5': SILT with sand (75% silt, 25% sand), fine sand, light-brown, moist to slightly wet, no odor, slight monochromatic (white) sheen. Observed water at 7.5' bgs, and red-oxides b/w 6.5' to 7.5' bgs.				B15-120308-16	x	
_ {\	7.5'-17.5': Poorly-graded fine SAND (95% sand, 5% silt), black, wet, no odor or sheen. Observed red-oxides b/w 7.5 to 8.5' bgs.	, SM , 53 9	0 N/A	0.0			
20	, 17.5'-17.9': Silty SAND (65% sand, 35% silt), fine sand, brown, wet, no odor or sheen.	SP ML			B15-120308-20	x	
1	17.9'-19.2': Poorly-graded fine SAND (95% sand, 5% silt), black, wet, no odor or sheen.	SP 10	00 N/A	0.0			
25	19.2'-19.4': SILT (100% silt), light-brown, wet, no odor or sheen.				B15-120308-24	×	
]/	19.4'-26.5': Poorly-graded fine SAND (95% sand, 5% silt), black, wet, in oodor or sheen.	ML / 10	00 N/A	0.0	B15-120308-28	x	
30	26.5'-27.0': SILT (100% silt), light-brown, wet, no odor or sheen.	; SP			COLUMN STATE S		
<u> </u>	27.0'-31.8': Poorly-graded fine SAND (95% sand, 5% silt), black, wet, no odor or sheen.	/\ ML /			B15-120308-32	×	
35	31.8'-32.0': SILT with sand (80% silt, 20% sand), fine sand, light- brown, wet, no odor or sheen.	, SP	00 N/A	0.0	up-B15-120308-32 up-B15-120308-3	28	Bentonite
-	32.0'-37.0': Poorly-graded fine SAND (95% sand, 5% silt), black, wet, no odor or sheen.				B15-120308-36	x	
40	37.0'-37.4': SILT (95% silt, 5% sand), fine sand, light-brown, wet, no codor or sheen.	ML 10	0 N/A	0.0			

Well Construction Information

Monument Type: NA

Screened Interval (ft bgs):

Casing Diameter (inches): 2-inch Screen Slot Size (inches):

0.004

4' intervals

Filter Pack:

Surface Seal: Asphalt Annular Seal: NA

Ground Surface Elevation (ft):

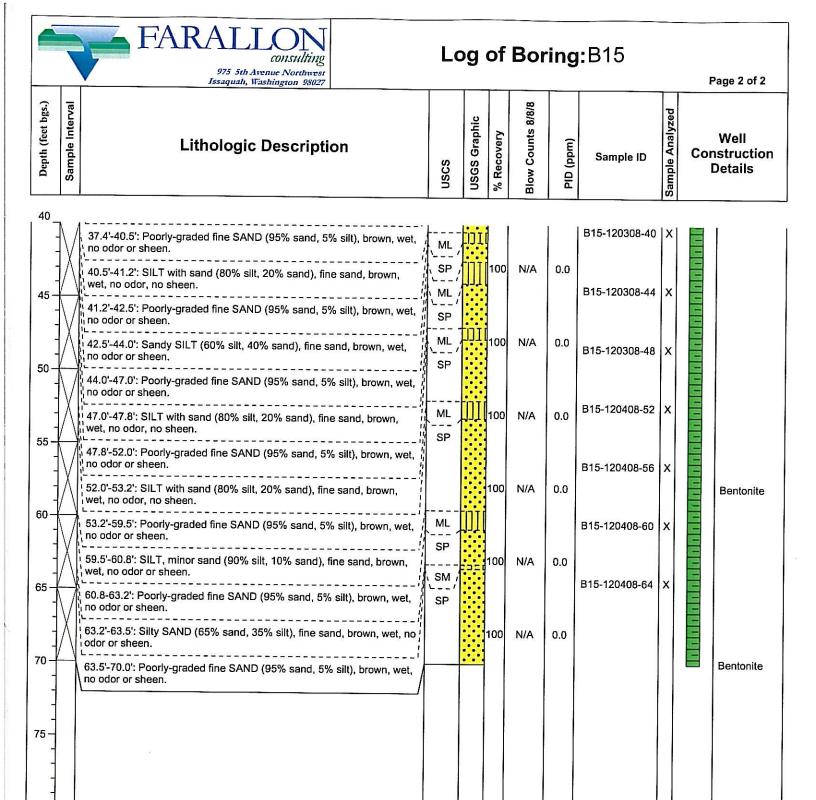
Boring Abandonment:

Top of Casing Elevation (ft): NA

NA

Bentonite

Surveyed Location: X: 47.330150272 Y: -122.195017256



Casing Diameter (inches):

Screened Interval (ft bgs):

2-inch

4' intervals

Screen Slot Size (inches): 0.004 Filter Pack:

Surface Seal: Asphalt Annular Seal: NA

Well Construction Information

Ground Surface Elevation (ft):

NA Top of Casing Elevation (ft): NA **Boring Abandonment:**

Bentonite

Surveyed Location: X: 47.330150272 Y: -122.195017256



Page 1 of 2

Capital Industries Inc. Client: Project: Capital Industries Inc.

Location: Seattle, WA

Farallon PN: 457-004

Logged By: Ken Scott

Date/Time Started:

Date/Time Completed:

Equipment:

Drilling Company:

Drilling Foreman:

Drilling Method:

11/11/2008 12:00

11/12/2008 13:30

Geoprobe 6600 Cascade Drilling

Kasey Goble

Direct-push

Sampler Type: Macrocore 60-inch

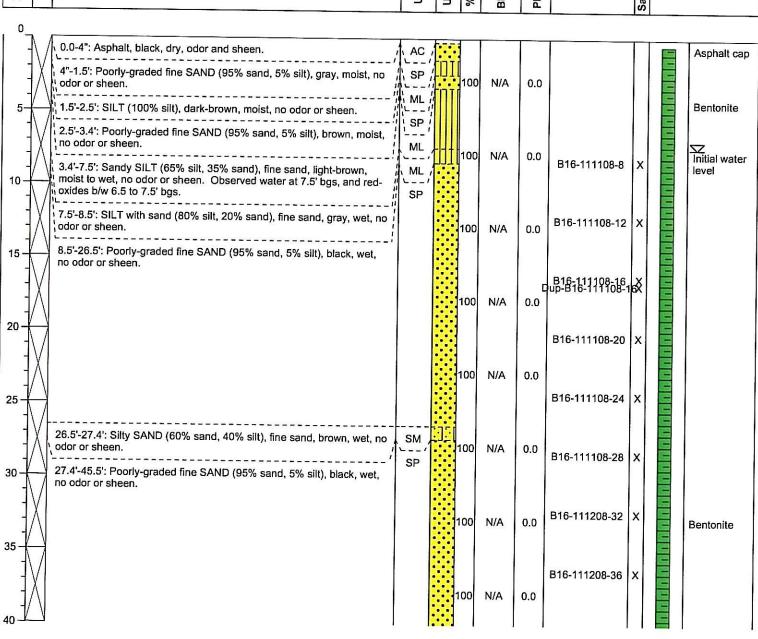
Drive Hammer (lbs.):

Depth of Water ATD (ft bgs): 7.5' bgs

Total Boring Depth (ft bgs): 70' bgs

Total Well Depth (ft bgs): NA

Sample Interval Cample	nscs	USGS Graphic % Recovery	Blow Counts 8/8/8	PID (ppm*)	Sample ID	Sample Analyzed	Boring/Well Construction Details
--	------	-------------------------	-------------------	------------	-----------	-----------------	--



Monument Type: NA

Screened Interval (ft bgs):

Casing Diameter (inches): 2-inch Screen Slot Size (inches): 0.004

4' intervals

Filter Pack:

NA

Annular Seal: NA

Surface Seal: Asphalt

Well Construction Information

Ground Surface Elevation (ft):

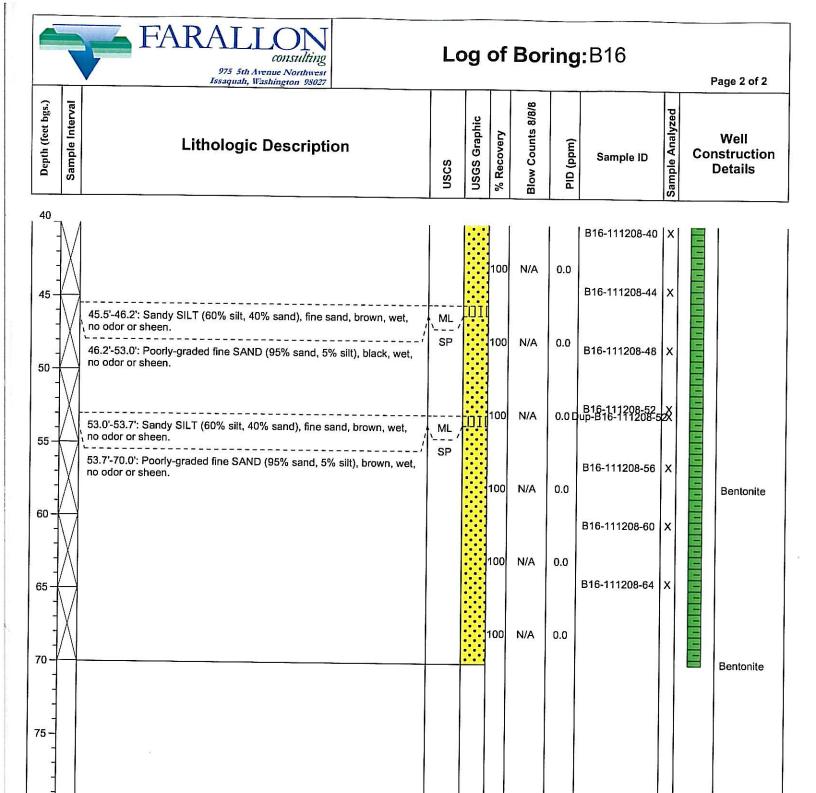
NA NA

Boring Abandonment:

Bentonite

Surveyed Location: X: 47.330353867 Y: -122.194840773

Top of Casing Elevation (ft):



Casing Diameter (inches): Screen Slot Size (inches):

Screened Interval (ft bgs):

2-inch 0.004

4' intervals

Filter Pack:

Well Construction Information

Surface Seal: Asphalt

Annular Seal: NA

Ground Surface Elevation (ft):

Top of Casing Elevation (ft):

NA NA

Boring Abandonment:

Bentonite Surveyed Location: X: 47.330353867 Y: -122.194840773



Page 1 of 2

Client: Capital Industries Inc. Project: Capital Industries Inc.

Location: Seattle, WA

Farallon PN: 457-004

Logged Bv: Ken Scott

Date/Time Started:

Date/Time Completed:

Equipment:

Drilling Company: Drilling Foreman:

Drilling Method:

11/10/2008 8:20

11/11/2008 11:30

Geoprobe 6600

Cascade Drilling Kasey Goble

Direct-push

Sampler Type: Macrocore 60-inch

Drive Hammer (lbs.):

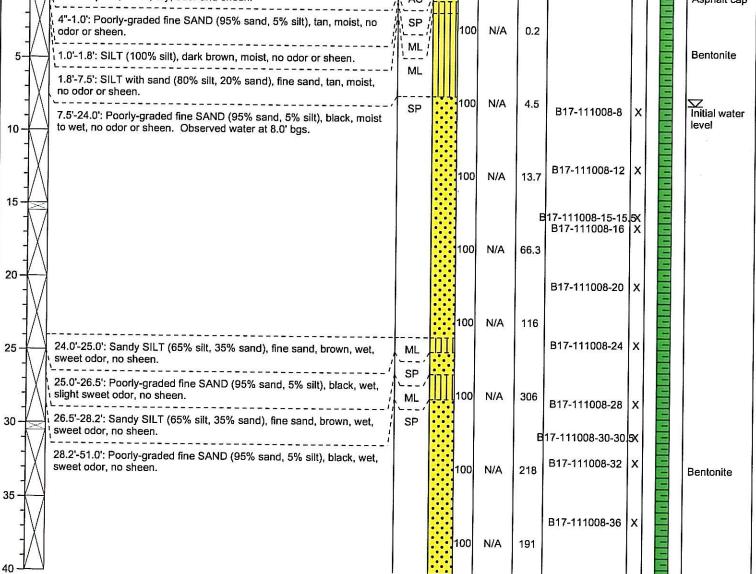
Depth of Water ATD (ft bgs): 8.0' bgs

Total Boring Depth (ft bgs): 70' bgs

Total Well Depth (ft bgs):

NA

	ອອ	54 By: *****									
Depth (feet bgs.)	Sample Interval	Lithologic Description	nscs	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm*)	Sample ID	Sample Analyzed	Con	ring/Well struction Details
0_											
-	$\setminus /$	0-4": Asphalt, black, dry, odor and sheen.	, AC	infi							Asphalt cap
-	X	4"-1.0': Poorly-graded fine SAND (95% sand, 5% silt), tan, moist, no	SP		100	N/A	0.2				
5-	$\langle \cdot \rangle$	1.0'-1.8': SILT (100% silt), dark brown, moist, no odor or sheen.	ML								Bentonite



Monument Type: NA

Screened Interval (ft bgs):

Casing Diameter (inches): Screen Slot Size (inches):

2-inch 0.004

4' intervals

Filter Pack:

NΑ Surface Seal: Asphalt Annular Seal: NA

Well Construction Information

Ground Surface Elevation (ft): Top of Casing Elevation (ft):

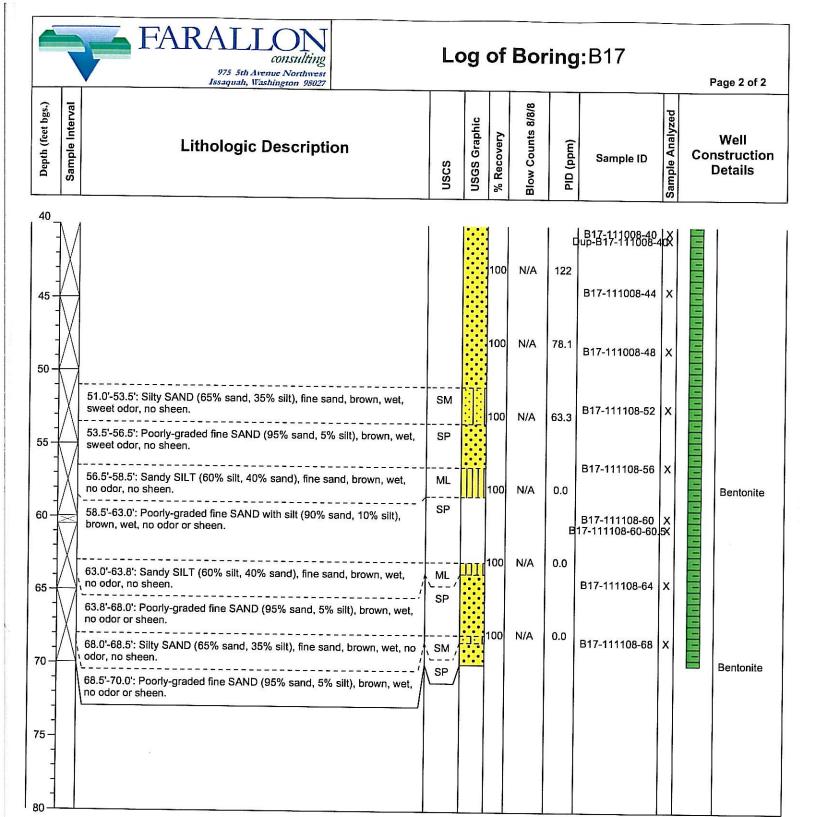
Boring Abandonment:

Bentonite

NA

NA

Surveyed Location: X: 47.330430687 Y: -122.194902296



Casing Diameter (inches): Screen Slot Size (inches):

Screened Interval (ft bgs):

2-inch 0.004

4' intervals

Filter Pack:

Annular Seal: NA

Surface Seal: Asphalt

Well Construction Information

Ground Surface Elevation (ft):

NA NA

Boring Abandonment:

Bentonite

Surveyed Location: X: 47.330430687 Y: -122.194902296

Top of Casing Elevation (ft):



Page 1 of 1

Client: Capital Industries Inc. Project: Capital Industries Inc.

Location: Seattle, WA

Farallon PN: 457-004

Logged By: Ken Scott

Date/Time Started:

Date/Time Completed:

Equipment:

Drilling Company:

Drilling Foreman:

Drilling Method:

12/09/2008 10:45

12/09/2008 12:30

Geoprobe 6600 Cascade Drilling

Kasey Goble

Direct-push

Sampler Type: Macrocore 60-inch

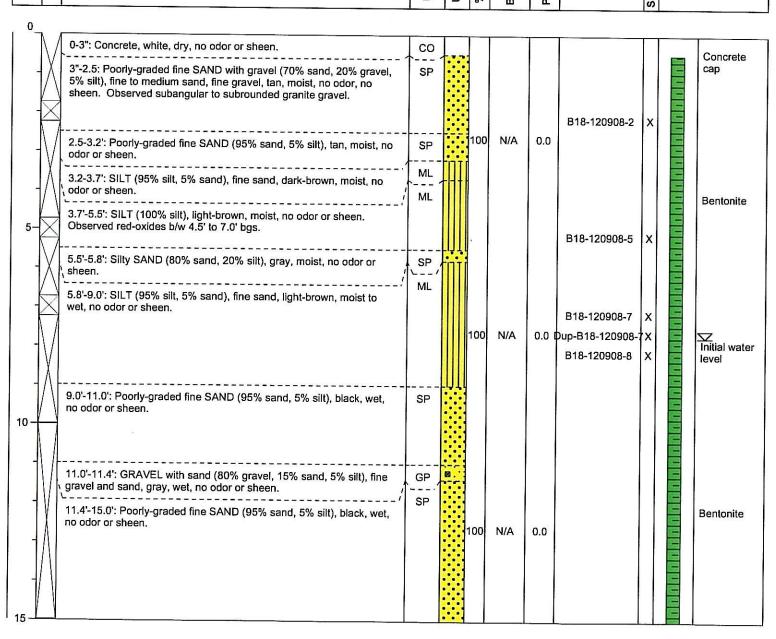
Drive Hammer (lbs.):

Depth of Water ATD (ft bgs): 7.75' bgs

Total Boring Depth (ft bgs): 15' bgs

Total Well Depth (ft bgs): NA

ow Counts 8/8/8 Depth (feet bgs.) Sample Interval Sample Analyzed **USGS Graphic** Recovery Boring/Well (bbm*) Lithologic Description Construction Sample ID **Details**



Monument Type: NA

Screened Interval (ft bgs):

Casing Diameter (inches): 2-inch Screen Slot Size (inches): 0.004

4' intervals

Filter Pack:

Surface Seal: Concrete Annular Seal: NA

Well Construction Information

Ground Surface Elevation (ft): Top of Casing Elevation (ft):

NA NA

Boring Abandonment:

Bentonite

Surveyed Location: X: 47.330234151 Y: -122.194731409



Page 1 of 2

Client: Capital Industries Inc.

Project: Capital Industries Inc.

Location: Seattle, WA

Farallon PN: 457-004

Logged By: Ken Scott

Date/Time Started:
Date/Time Completed:

Equipment:

Drilling Company:

Geoprobe 6600 Cascade Drilling

6/30/09 0845

6/30/09 1415

Drilling Foreman: Kasey Goble

Drilling Method: Direct-push

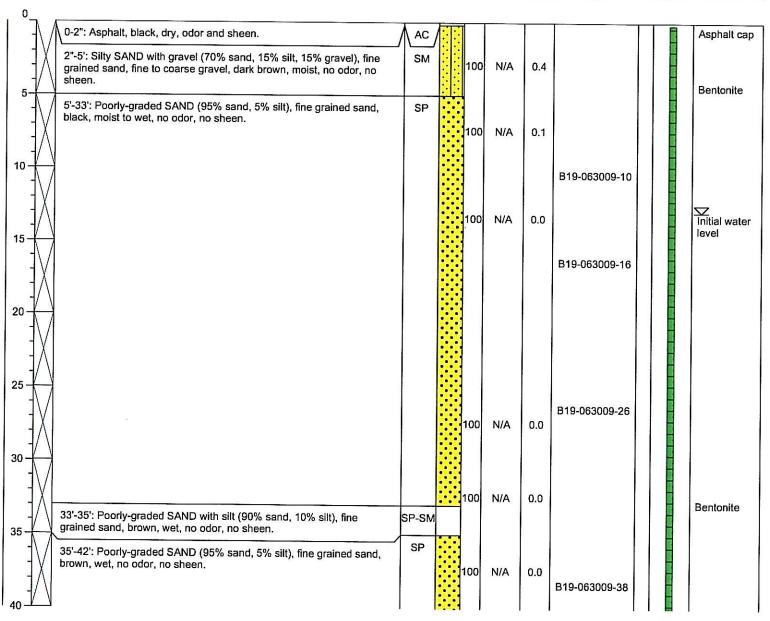
Sampler Type: Macrocore 60-inch

Drive Hammer (lbs.): NA

Depth of Water ATD (ft bgs): 13' bgs
Total Boring Depth (ft bgs): 78' bgs

Total Well Depth (ft bgs): NA

Sample Interval
USGS Graphic
WRecovery
Blow Counts 8/8/8
Box Counts 8/8/8
Sample Analyzed
Sample Analyzed
Sample Analyzed
Sample Analyzed



Monument Type: NA

Screened Interval (ft bgs):

Casing Diameter (inches): 2-inch Screen Slot Size (inches): 0.004

0.004 4' intervals Filter Pack: NA

Surface Seal: Asphalt Annular Seal: NA

Well Construction Information

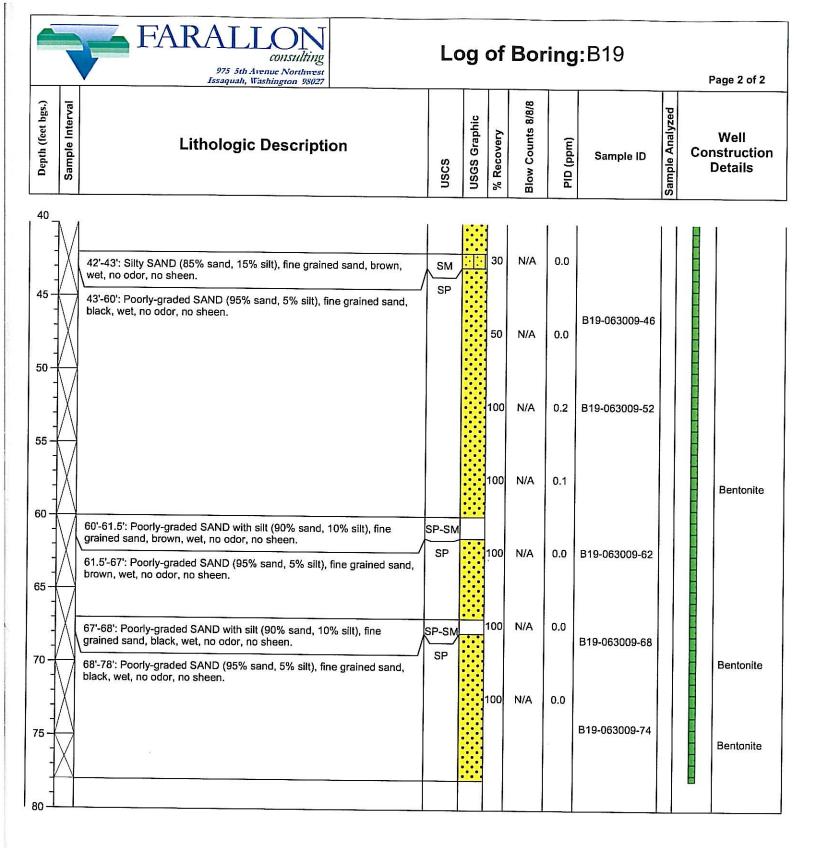
Ground Surface Elevation (ft): NA
Top of Casing Elevation (ft): NA

Boring Abandonment:

Surveyed Location: X: NA

Y: NA

Bentonite



Casing Diameter (inches): Screen Slot Size (inches):

Screened Interval (ft bgs):

2-inch

0.004 4' intervals Filter Pack:

NA

Well Construction Information

Surface Seal: Asphalt

Annular Seal: NA

Ground Surface Elevation (ft):

Top of Casing Elevation (ft):

NA NA

Boring Abandonment:

Bentonite

Surveyed Location: X: NA



Page 1 of 2

Client: Capital Industries Inc.

Project: Capital Industries Inc.

Location: Seattle, WA

Farallon PN: 457-004

Depth (feet bgs.) Sample Interval

Logged By: Ken Scott

Date/Time Started: Date/Time Completed: 7/7/09 0845

7/7/09 1350

Equipment: **Drilling Company:** Geoprobe 6600 Cascade Drilling

Drilling Foreman:

Kasey Goble

Drilling Method: Direct-push

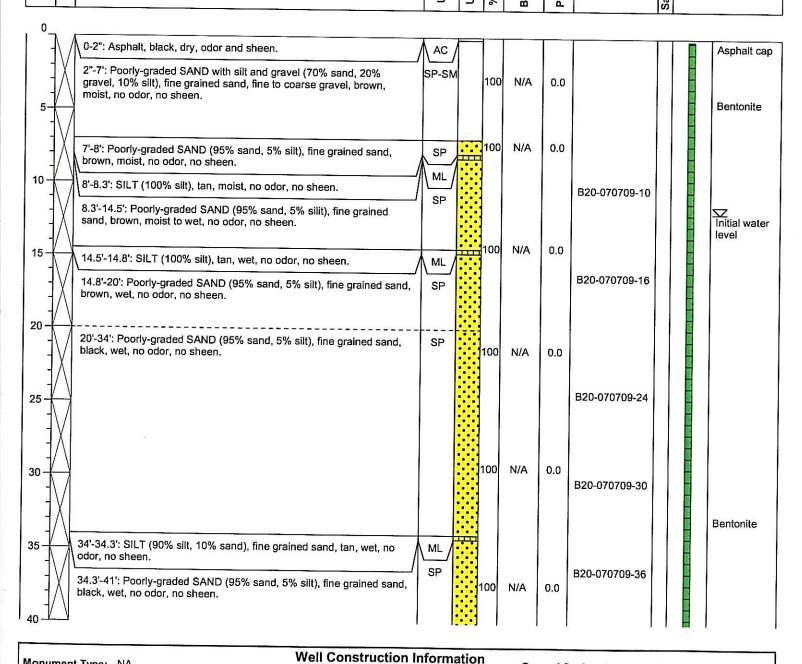
Sampler Type: Macrocore 60-inch

Drive Hammer (lbs.):

Depth of Water ATD (ft bgs): 12' bgs

Total Boring Depth (ft bgs): 70' bgs Total Well Depth (ft bgs): NA

Blow Counts 8/8/8 Sample Analyzed JSGS Graphic Recovery Boring/Well Lithologic Description PID (ppm*) Construction Sample ID **Details**



Monument Type: NA

Screened Interval (ft bgs):

Casing Diameter (inches): 2-inch

Screen Slot Size (inches): 0.004

4' intervals

Filter Pack:

NA

Surface Seal: Asphalt

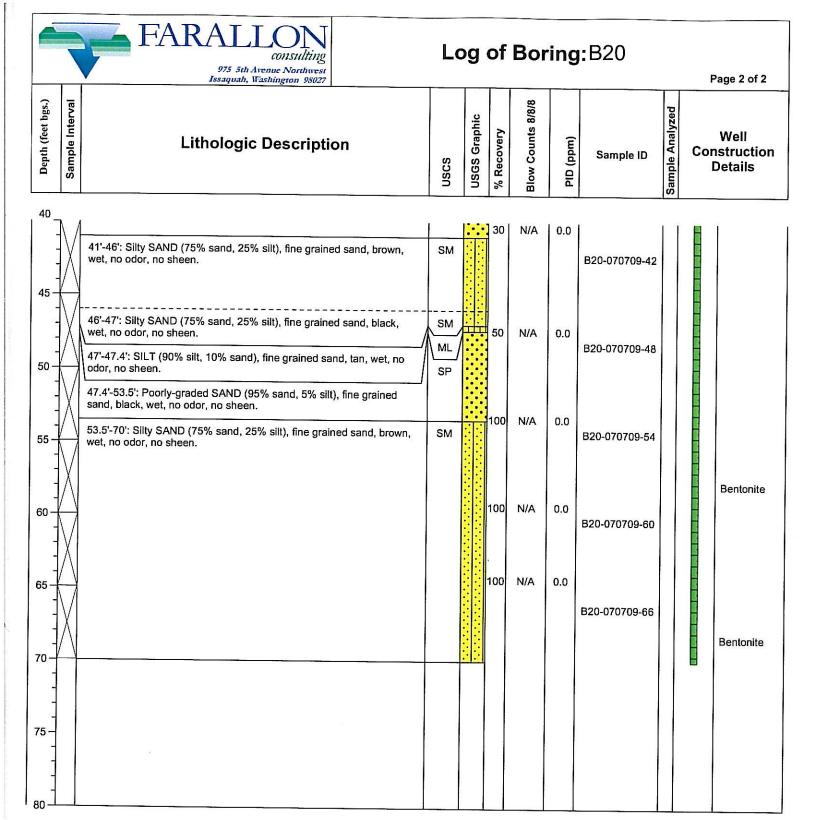
Annular Seal: NA

Ground Surface Elevation (ft):

Top of Casing Elevation (ft):

NA Bentonite

Boring Abandonment: Surveyed Location: X: NA



Casing Diameter (inches): Screen Slot Size (inches):

Screened Interval (ft bgs):

2-inch 0.004

4' intervals

Filter Pack:

Annular Seal: NA

Well Construction Information

Surface Seal: Asphalt

Ground Surface Elevation (ft):

Top of Casing Elevation (ft): **Boring Abandonment:**

NA Bentonite

NA

Surveyed Location: X: NA



Page 1 of 2

Details

Client: Capital Industries Inc.

Project: Capital Industries Inc.

Location: Seattle, WA

Farallon PN: 457-004

epth (feet bgs.)

Logged By: Ken Scott

Date/Time Started:

7/6/09 0900

Date/Time Completed: 7/6/09 1400

Equipment: **Drilling Company:** Geoprobe 6600

Cascade Drilling

Drilling Foreman: Drilling Method:

Elijah Floyd Direct-push

Sampler Type: Macrocore 60-inch

Drive Hammer (lbs.): NA

Depth of Water ATD (ft bgs): 13' bgs Total Boring Depth (ft bgs):

78' bgs Total Well Depth (ft bgs): NA

Sample ID

ow Counts 8/8/8 mple Analyzed SGS Graphic Boring/Well **Lithologic Description** Construction

Ω	Ø		5	15	%	BIC	=	San		
, 0_	-									
	$\Lambda /$	0-5": Asphalt, black, dry, odor and sheen.	AC	W						Asphalt cap
5-		5"-1': Poorly-graded GRAVEL with sand (70% gravel, 25% sand, 5% silt), fine grained sand, fine to coarse gravel, brown, moist, no odor, no sheen.	GP CO		100	N/A	0.0			Bentonite
-	$\Lambda /$	1'-1.5': Concrete, white, dry, no odor, no sheen.	SP		100	N1/0	0.0		8	Bornomic
		1.5'-6': Poorly-graded SAND (95% sand, 5% silt), fine grained sand, brown, moist, no odor, no sheen.	SP-SN		100	N/A	0.0			
10 -	$\langle \cdot \rangle$	6'-6.5': Poorly-graded SAND with silt (90% sand, 10% silt), fine grained sand, brown, moist, no odor, no sheen.	SP		100	N/A	0.0	B21-070609-10		
- - 15 –		6.5'-15.5': Poorly-graded SAND (95% sand, 5% silt), fine grained sand, brown, moist to wet, no odor, no sheen.			,	N/A	0.0		M	Initial water level
-		15.5'-20': Silty SAND (75% sand, 25% silt), fine grained sand, brown, wet, no odor, no sheen.	SM		100	N/A	0.0	B21-070609-16		
20 -		20'-36': Poorly-graded SAND (95% sand, 5% silt), fine grained sand, black, wet, no odor, no sheen.	SP							
25 —	$\langle \rangle$,			100	N/A	0.0	B21-070609-26		
30	$\left\langle \cdot \right\rangle$									
35	\bigvee				100	N/A	0.0		1 00 00 00 00 00 00 00 00 00 00 00 00 00	Bentonite
-	\bigvee	36'-36.2': Wood Debris (100% wood debris), brown, wet, no odor, no sheen.	DB/						10 12 12 12 12 12 12 12 12 12 12 12 12 12	
40		36.2'-43.3': Silty SAND (75% sand, 25% silt), fine grained sand,	SM		100	N/A	0.0	B21-070609-38		

Monument Type: NA

Screened Interval (ft bgs):

Casing Diameter (inches): 2-inch

Screen Slot Size (inches):

0.004

4' intervals

Filter Pack:

NA

Well Construction Information

Surface Seal: Asphalt

Annular Seal: NA

Ground Surface Elevation (ft): NA

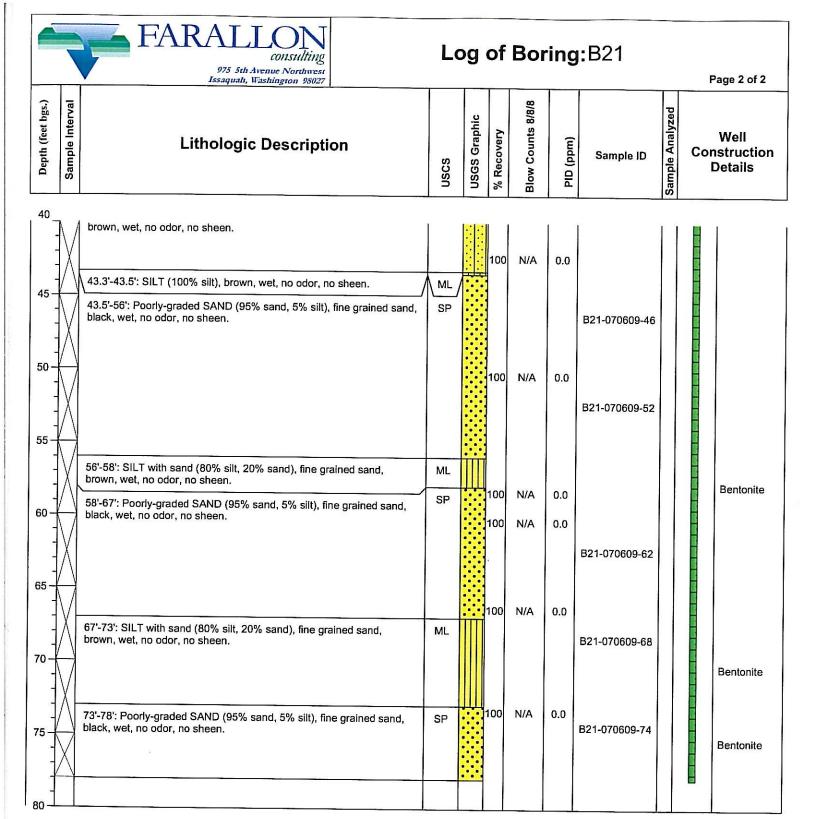
Top of Casing Elevation (ft):

Boring Abandonment:

Bentonite

NA

Surveyed Location: X: NA



Casing Diameter (inches):

Screened Interval (ft bgs):

2-inch

4' intervals

Screen Slot Size (inches): 0.004

Filter Pack:

k: NA

Surface Seal: Asphalt

Annular Seal: NA

Well Construction Information

Ground Surface Elevation (ft):

Top of Casing Elevation (ft):
Boring Abandonment:

NA Bentonite

NA

Surveyed Location: X: NA



Page 1 of 2

Client: Capital Industries Inc. Project: Capital Industries Inc.

Location: Seattle, WA

Farallon PN: 457-004

Logged By: Ken Scott

Date/Time Started:

Date/Time Completed:

Equipment:

Drilling Company:

Drilling Foreman:

Drilling Method:

7/9/09 0840

7/9/09 1320 Geoprobe 6600

Cascade Drilling Kasey Goble

Direct-push

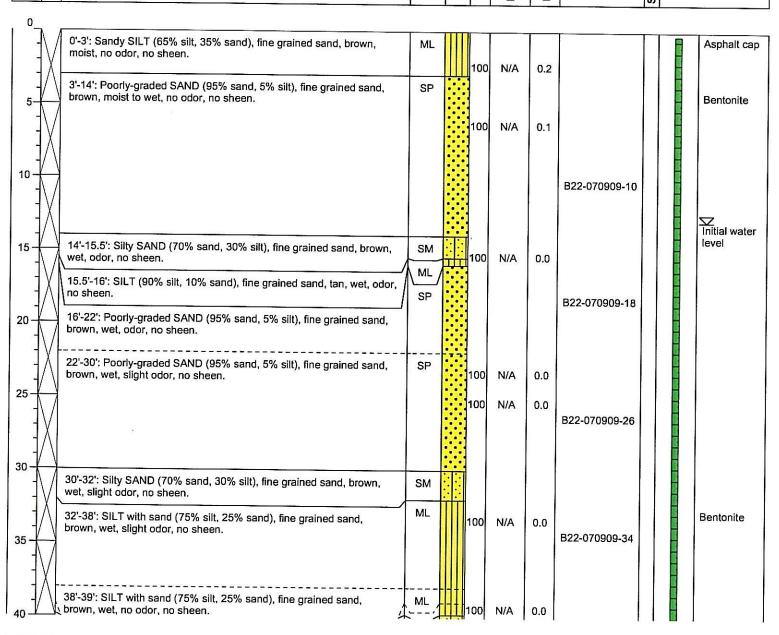
Sampler Type: Macrocore 60-inch

Drive Hammer (lbs.):

Depth of Water ATD (ft bgs): 13' bgs Total Boring Depth (ft bgs): 68' bgs

Total Well Depth (ft bgs):

NA



Monument Type: NA

Screen Slot Size (inches):

Screened Interval (ft bgs):

Casing Diameter (inches): 2-inch

0.004

4' intervals

Filter Pack: Surface Seal: Asphalt

Annular Seal: NA

NA

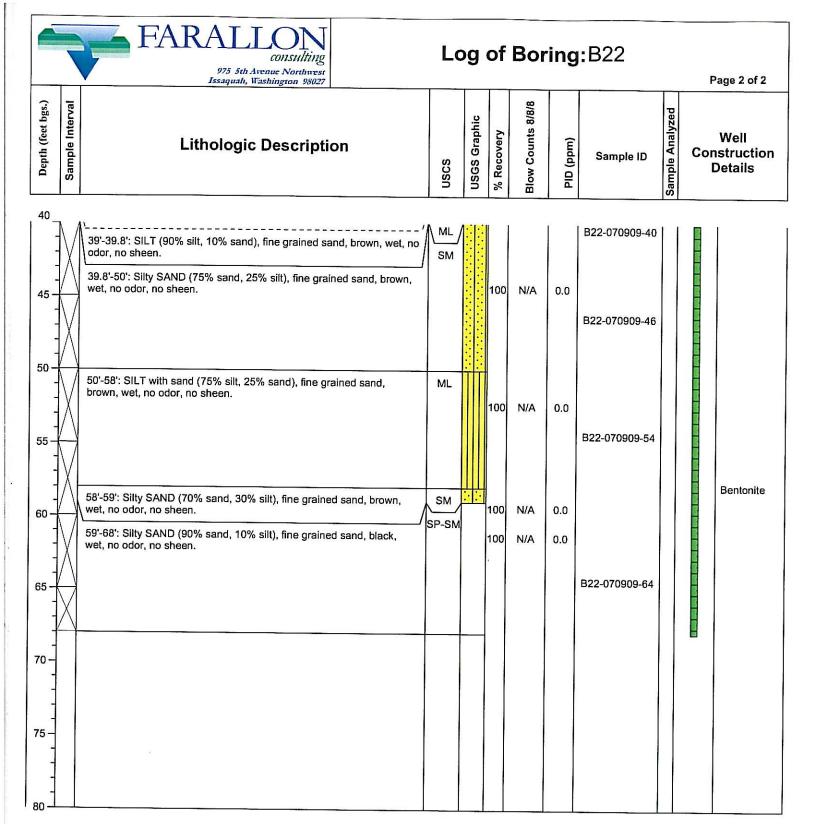
Well Construction Information

Boring Abandonment:

Ground Surface Elevation (ft): NA Top of Casing Elevation (ft):

Bentonite

Surveyed Location: X: NA



Casing Diameter (inches):

Screened Interval (ft bgs):

Screen Slot Size (inches): 0.004

2-inch

4' intervals

Well Construction Information

Filter Pack:

Annular Seal: NA

NA

Surface Seal: Asphalt

Ground Surface Elevation (ft):

NA Top of Casing Elevation (ft):

NA Bentonite

Boring Abandonment:

Surveyed Location: X: NA



Page 1 of 2

Client: Capital Industries Inc. Project: Capital Industries Inc.

Location: Seattle, WA

Farallon PN: 457-004

Logged By: Ken Scott

Date/Time Started:

Date/Time Completed:

Equipment: Drilling Company:

Drilling Foreman:

Drilling Method:

7/1/09 0825

7/1/09 1445

Geoprobe 6600 Cascade Drilling

Kasey Goble

Direct-push

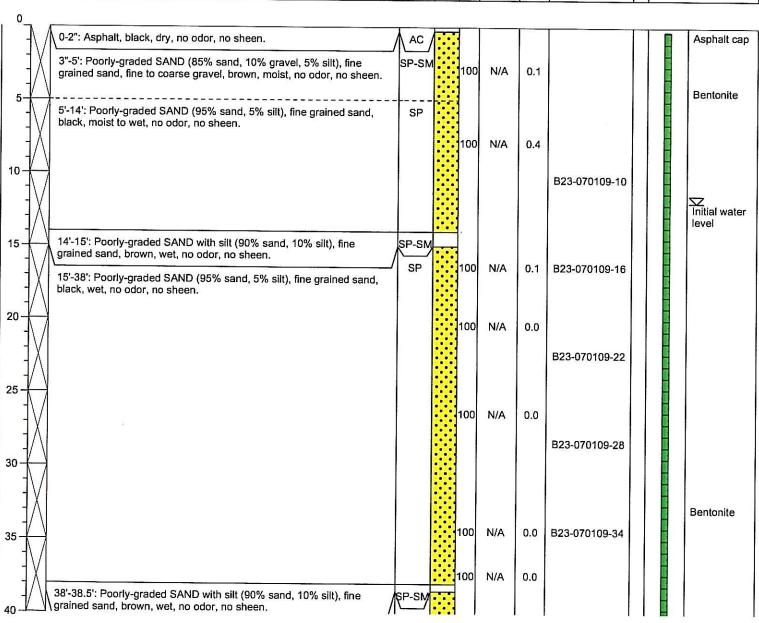
Sampler Type: Macrocore 60-inch

Drive Hammer (lbs.):

NA Depth of Water ATD (ft bgs): 12' bgs

Total Boring Depth (ft bgs): 74' bgs

Total Well Depth (ft bgs): NA



Monument Type: NA

Screen Slot Size (inches):

Screened Interval (ft bgs):

Casing Diameter (inches): 2-inch

0.004

4' intervals

Filter Pack:

Annular Seal: NA

Well Construction Information NA

Surface Seal: Asphalt

Ground Surface Elevation (ft): NA Top of Casing Elevation (ft): NA

Boring Abandonment: Surveyed Location: X: NA

Bentonite Y: NA

	1	FARALLON consulting 975 5th Avenue Northwest	Lo	og (of	Bor	ing	:B23		D 0.460
Depth (feet bgs.)	Sample Interval	Lithologic Description	nscs	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Well Construction Details
40_	\bigvee	38.5'-44.5': Poorly-graded SAND (95% sand, 5% silt), fine grained sand, black, wet, no odor, no sheen.	SP					B23-070109-40		
45 — 		44.5'-45': SILT (100% silt), brown, wet, no odor, no sheen. 45'-50.5': Silty SAND (75% sand, 25% silt), fine grained sand, brown, wet, no odor, no sheen.	ML /	/ ::: / :::::::::::::::::::::::::::::::	100	N/A	0.0	B23-070109-46		
50 —		50.5'-51': SILT (100% silt), brown, wet, no odor, no sheen. 51'-56.5': Silty SAND (75% sand, 25% silt), fine grained sand, brown, wet, no odor, no sheen.	ML / SM	(**************************************	100	24955272633	0.2	B23-070109-52		
60 —		56.5'-63.5': Poorly-graded SAND (95% sand, 5% silt), fine grained sand, black, wet, no odor, no sheen.	SP		100	N/A	0.1	B23-070109-58		Bentonite
65 -	XI V	63.5'-68.4': Poorly-graded SAND with silt (90% sand, 10% silt), fine grained sand, brown, wet, no odor, no sheen.	SP-SM		100	N/A	0.0	B23-070109-64		Bentonite
70	\bigvee	68.4'-74': Poorly-graded SAND (95% sand, 5% silt), fine grained sand, black, wet, no odor, no sheen.	SP		100	N/A	0.0	B23-070109-70		Bentonite
75 -		¥								

Screened Interval (ft bgs):

Casing Diameter (inches): 2-inch Screen Slot Size (inches): 0.004

4' intervals

Well Construction Information
Filter Pack: NA

Ground Surface Elevation (ft): NA
Top of Casing Elevation (ft): NA

NA Bentonite

Surface Seal: Asphalt
Annular Seal: NA

Boring Abandonment:
Surveyed Location: X: NA



Page 1 of 2

Client: Capital Industries Inc. Project: Capital Industries Inc.

Location: Seattle, WA

Farallon PN: 457-004

Depth (feet bgs.) Sample Interval

Logged By: Ken Scott

Date/Time Started: Date/Time Completed: 7/2/09 0830

Sampler Type: Macrocore 60-inch

7/2/09 1330

Drive Hammer (lbs.):

Equipment:

Geoprobe 6600 Cascade Drilling

Depth of Water ATD (ft bgs): Total Boring Depth (ft bgs): 70' bgs

11' bgs

Drilling Company: Drilling Foreman:

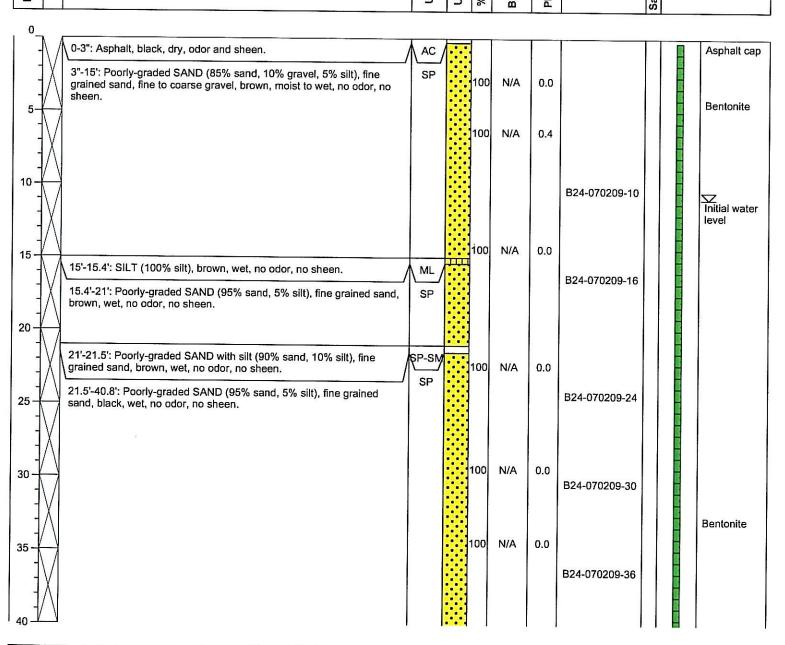
Kasey Goble, Frank Sotal Well-Pentfiffybgs):

NA

Drilling Method:

Direct-push

Lithologic Description	nscs	JSGS Graphic	% Recovery	llow Counts 8/8/	ID (ppm*)	Sample ID	ample Analyzed	Boring/Well Construction Details
------------------------	------	--------------	------------	------------------	-----------	-----------	----------------	--



Monument Type: NA

Screened Interval (ft bgs):

Casing Diameter (inches): 2-inch Screen Slot Size (inches):

0.004

4' intervals

Filter Pack:

Annular Seal: NA

Surface Seal: Asphalt

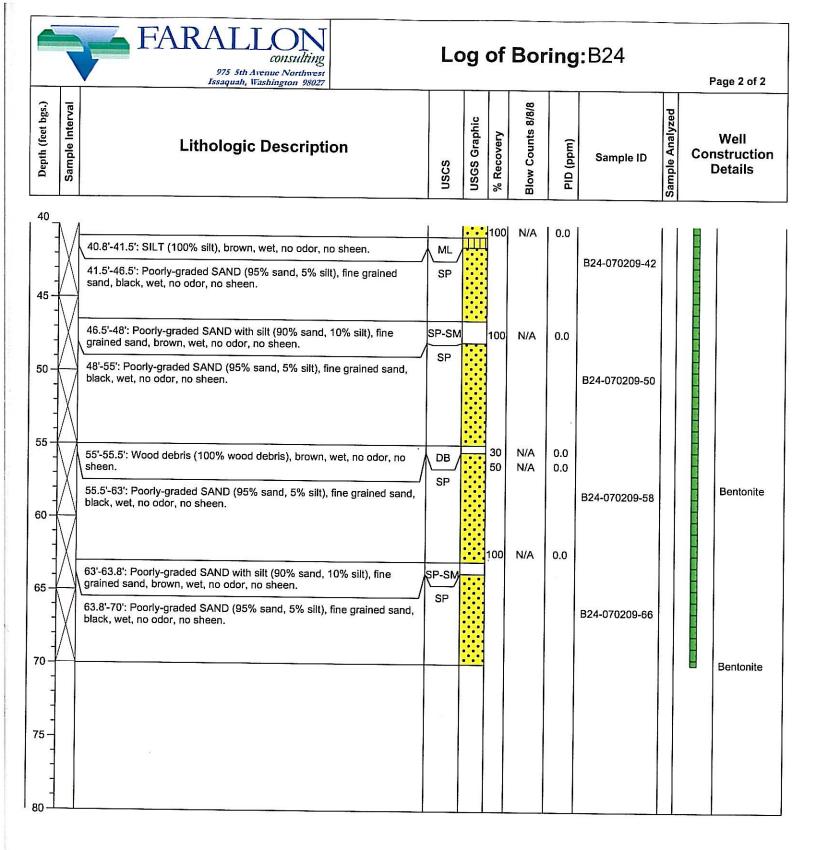
Well Construction Information

Ground Surface Elevation (ft): Top of Casing Elevation (ft):

NA Bentonite

NA

Boring Abandonment: Surveyed Location: X: NA



Casing Diameter (inches): Screen Slot Size (inches):

Screened Interval (ft bgs):

2-inch

0.004

4' intervals

Filter Pack:

Annular Seal: NA

Surface Seal: Asphalt

Well Construction Information

Ground Surface Elevation (ft):

NA Top of Casing Elevation (ft): NA Bentonite

Boring Abandonment: Surveyed Location: X: NA



Page 1 of 1

Client: Capital Industries Inc. Project: Capital Industries Inc.

Location: Seattle, WA

Farallon PN: 457-004

Depth (feet bgs.) Sample Interval

Logged By: Ken Scott

Date/Time Started:

Date/Time Completed: Equipment:

Drilling Company:

Drilling Foreman:

Drilling Method:

7/30/09 0825 7/30/09 0920

Geoprobe 6600 Cascade Drilling

Kasey Goble

Direct-push

Sampler Type: Macrocore 60-inch

Drive Hammer (lbs.):

Depth of Water ATD (ft bgs): 10' bgs Total Boring Depth (ft bgs):

10' bgs Total Well Depth (ft bgs): NA

Blow Counts 8/8/8 Sample Analyzed **USGS** Graphic % Recovery Boring/Well **Lithologic Description** PID (ppm*) Construction nscs Sample ID **Details**

0'-3": Asphalt	AC								Asphalt ca
3"-4.5": Poorly-graded SAND (95% sand, 5% silt), fine grained sand, brown, moist, slight odor, no sheen.	SP		100	N/A	121	B25-073009-2	x		Bentonite
4.5'-5.5': Silty SAND (65% sand, 35% silt), fine grained sand, brown, moist, no odor, no sheen.	- sм		100	N/A	0.0	B25-073009-5	×		
5.5'-7.0': Poorly-graded SAND (95% sand, 5% silt), fine grained sand, black, moist, no odor, no sheen.	SP							# 12 14 15 16 16 16 16 16 16 16 16 16 16 16 16 16	
7.0'-10.0': Silty SAND (70% sand, 30% silt), fine grained sand, brown, moist to wet, no odor, no sheen.	SM		80	N/A	0.0	B25-073009-7	x	1	
			80	N/A	0.0	B25-073009-9			Initial wate
	3"-4.5': Poorly-graded SAND (95% sand, 5% silt), fine grained sand, brown, moist, slight odor, no sheen. 4.5'-5.5': Silty SAND (65% sand, 35% silt), fine grained sand, brown, moist, no odor, no sheen. 5.5'-7.0': Poorly-graded SAND (95% sand, 5% silt), fine grained sand, black, moist, no odor, no sheen.	3"-4.5': Poorly-graded SAND (95% sand, 5% silt), fine grained sand, brown, moist, slight odor, no sheen. 4.5'-5.5': Silty SAND (65% sand, 35% silt), fine grained sand, brown, moist, no odor, no sheen. SM 5.5'-7.0': Poorly-graded SAND (95% sand, 5% silt), fine grained sand, brown, lack, moist, no odor, no sheen. 7.0'-10.0': Silty SAND (70% sand, 30% silt), fine grained sand, brown.	3"-4.5': Poorly-graded SAND (95% sand, 5% silt), fine grained sand, brown, moist, slight odor, no sheen. 4.5'-5.5': Silty SAND (65% sand, 35% silt), fine grained sand, brown, moist, no odor, no sheen. 5.5'-7.0': Poorly-graded SAND (95% sand, 5% silt), fine grained sand, black, moist, no odor, no sheen. SP 7.0'-10.0': Silty SAND (70% sand, 30% silt), fine grained sand, brown, moist to wet, no odor, no sheen.	3"-4.5": Poorly-graded SAND (95% sand, 5% silt), fine grained sand, brown, moist, slight odor, no sheen. 100 4.5'-5.5': Silty SAND (65% sand, 35% silt), fine grained sand, brown, moist, no odor, no sheen. 5.5'-7.0': Poorly-graded SAND (95% sand, 5% silt), fine grained sand, brown, black, moist, no odor, no sheen. 7.0'-10.0': Silty SAND (70% sand, 30% silt), fine grained sand, brown, black, moist, no odor, no sheen.	3"-4.5': Poorly-graded SAND (95% sand, 5% silt), fine grained sand, brown, moist, slight odor, no sheen. 100 N/A 4.5'-5.5': Silty SAND (65% sand, 35% silt), fine grained sand, brown, moist, no odor, no sheen. SM 100 N/A 5.5'-7.0': Poorly-graded SAND (95% sand, 5% silt), fine grained sand, brown, moist, no odor, no sheen. 7.0'-10.0': Silty SAND (70% sand, 30% silt), fine grained sand, brown, moist to wet, no odor, no sheen.	3"-4.5': Poorly-graded SAND (95% sand, 5% silt), fine grained sand, brown, moist, slight odor, no sheen. 100 N/A 121 4.5'-5.5': Silty SAND (65% sand, 35% silt), fine grained sand, brown, moist, no odor, no sheen. N/A 0.0 5.5'-7.0': Poorly-graded SAND (95% sand, 5% silt), fine grained sand, brown, moist, no odor, no sheen. 7.0'-10.0': Silty SAND (70% sand, 30% silt), fine grained sand, brown, moist to wet, no odor, no sheen.	3"-4.5": Poorly-graded SAND (95% sand, 5% silt), fine grained sand, brown, moist, slight odor, no sheen. 100 N/A 121 B25-073009-2 4.5"-5.5": Silty SAND (65% sand, 35% silt), fine grained sand, brown, moist, no odor, no sheen. N/A 0.0 B25-073009-5 5.5"-7.0": Poorly-graded SAND (95% sand, 5% silt), fine grained sand, black, moist, no odor, no sheen. SP 80 N/A 0.0 B25-073009-7 moist to wet, no odor, no sheen.	3"-4.5": Poorly-graded SAND (95% sand, 5% silt), fine grained sand, brown, moist, slight odor, no sheen. 100 N/A 121 B25-073009-2 X 4.5'-5.5": Silty SAND (65% sand, 35% silt), fine grained sand, brown, moist, no odor, no sheen. 100 N/A 0.0 B25-073009-5 X 5.5'-7.0": Poorly-graded SAND (95% sand, 5% silt), fine grained sand, brown, moist, no odor, no sheen. 7.0'-10.0": Silty SAND (70% sand, 30% silt), fine grained sand, brown, moist to wet, no odor, no sheen.	3"-4.5": Poorly-graded SAND (95% sand, 5% slit), fine grained sand, brown, moist, slight odor, no sheen. 100 N/A 121 B25-073009-2 X 4.5"-5.5": Slitly SAND (65% sand, 35% slit), fine grained sand, brown, moist, no odor, no sheen. 5M 100 N/A 0.0 B25-073009-5 X 5.5"-7.0": Poorly-graded SAND (95% sand, 5% slit), fine grained sand, brown, moist, no odor, no sheen. 7.0"-10.0": Slitly SAND (70% sand, 30% slit), fine grained sand, brown, moist to wet, no odor, no sheen.

Monument Type: NA

Casing Diameter (inches): NA Screen Slot Size (inches):

NA Screened Interval (ft bgs): NA Filter Pack:

Surface Seal: NA

Annular Seal: NA

Well Construction Information

Ground Surface Elevation (ft): Top of Casing Elevation (ft):

NA NA Bentonite

Boring Abandonment: Surveyed Location: X: NA



Page 1 of 1

Client: Capital Industries Inc. Project: Capital Industries Inc.

Location: Seattle, WA

Farallon PN: 457-004

Logged By: Ken Scott

Date/Time Started:

Date/Time Completed: Equipment:

Drilling Company:

Drilling Foreman:

Drilling Method:

7/30/09 0935

7/30/09 1030 Geoprobe 6600

Cascade Drilling Kasey Goble

Direct-push

Sampler Type: Macrocore 60-inch

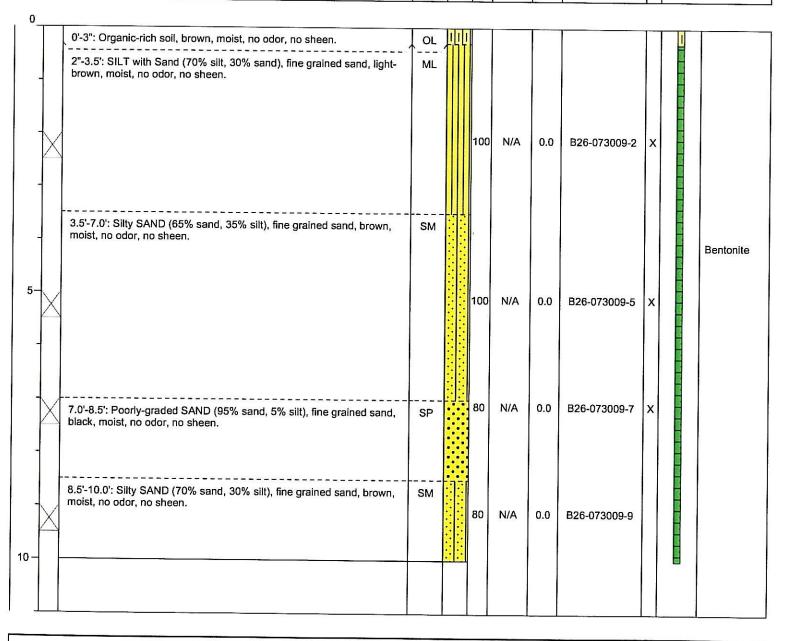
Drive Hammer (lbs.):

NA Depth of Water ATD (ft bgs): NE

Total Boring Depth (ft bgs): 10' bgs Total Well Depth (ft bgs):

NA

epth (feet bgs.)	Sample Interval	Lithologic Description	SCS	SGS Graphic	Recovery	ow Counts 8/8/8	((ppm*)	Sample ID	mple Analyzed	Boring/Well Construction Details
Dep	Sa		OSO	USG	%R	Blow	PID (•	Sam	Johns



Monument Type: NA

Casing Diameter (inches): NA

Screen Slot Size (inches): NA Screened Interval (ft bgs): NA Filter Pack:

Surface Seal: NA Annular Seal: NA

Well Construction Information

Ground Surface Elevation (ft): Top of Casing Elevation (ft):

Boring Abandonment: Surveyed Location: X: NA

Bentonite Y: NA

NA

NA

APPENDIX B LABORATORY ANALYTICAL REPORTS (PROVIDED ON COMPACT DISC)

REMEDIAL INVESTIGATION FIELD PROGRAM
FIRST PHASE REPORT
Capital Industries, Inc.
Seattle, Washington

Farallon PN: 457-004