

August 9, 2016

Mr. Ed Jones, Project Manager  
Washington State Department of Ecology  
3190 160<sup>th</sup> Avenue Southeast  
Bellevue, Washington 98008-5452

**BY E-MAIL ONLY**

**RE: PROGRESS REPORT, APRIL THROUGH JUNE 2016  
REMEDIAL INVESTIGATION MONITORING AND FEASIBILITY STUDY  
CAPITAL INDUSTRIES, INC., SEATTLE, WASHINGTON  
AGREED ORDER NO. DE 10402  
FARALLON PN: 457-008**

Dear Mr. Jones:

Farallon Consulting, L.L.C. (Farallon) has prepared this progress report on behalf of Capital Industries, Inc. (Capital) to summarize the activities conducted during the second quarter of 2016, April through June, as part of the ongoing Remedial Investigation (RI) monitoring and Feasibility Study (FS) being conducted at the Capital Site at 5801 3<sup>rd</sup> Avenue South in Seattle, Washington. This progress report has been prepared in accordance with Agreed Order No. DE 10402 entered into by potential liable persons that include Capital; Art Brass Plating, Inc.; Blaser Die Casting Co.; PSC Environmental Services, LLC (Burlington Environmental, LLC is a wholly owned subsidiary of PSC Environmental Services, LLC, which is a wholly owned subsidiary of Stericycle Environmental Solutions, Inc.); and also with the Washington State Department of Ecology (Ecology) dated April 23, 2014 (Agreed Order). Capital and the other potentially liable persons listed above are referred to collectively as the West of 4<sup>th</sup> Group. The West of 4<sup>th</sup> Group site under the Agreed Order consists of Site Unit 1 (SU1) and Site Unit 2 (SU2) as depicted on Figure 1. The Capital Site is located within SU2.

**ACTIVITIES DURING REPORTING PERIOD**

Activities completed during this progress reporting period included:

- Continuing operation of vapor intrusion mitigation subslab depressurization systems (SSDSs) at the Pacific Foods Systems North Building at 5815 4<sup>th</sup> Avenue South and at the Olympic Medical Facility at 5900 First Avenue South in Seattle, Washington. The Olympic Medical Facility SSDS piping infrastructure on the roof of the building was repaired and the system restarted in April 2016.
- Conducting performance air sampling at the Pacific Foods Systems North Building at 5815 4<sup>th</sup> Avenue South on April 26, 2016, to evaluate whether adjustments to the SSDS operations further reduced concentrations of tetrachloroethene (PCE) and trichloroethene (TCE) in indoor air.



- Completing a Tier 3 Vapor Intrusion Assessment Report for the Capital Plant 2 sampling performed in June and November 2015. An Annual Vapor Intrusion Mitigation Status Report is being prepared for the Olympic Medical Facility. These reports will be issued to Ecology as draft deliverables for review and comment in the third quarter of 2016.
- Addressing comments provided by Ecology regarding the Draft Remedial Investigation Data Gap Resolution Summary Report dated February 12, 2016. This report will be revised and submitted for Ecology's records by August 11, 2016.
- Processing data from the semiannual groundwater monitoring and sampling event the week of March 21, 2016, which included the third quarterly sampling of monitoring well CI-20-80. A fourth quarterly sampling event for monitoring well CI-20-80 was conducted on June 28, 2016.
- Revising the Draft Feasibility Study Report for SU2 dated February 12, 2016. The revised version will be submitted to Ecology by August 11, 2016.

These activities are summarized in the sections that follow.

## **VAPOR INTRUSION MITIGATION AND REPORTS**

The SSDS applied vacuum was maximized at the Pacific Food Systems North Building to assess whether PCE and TCE concentrations in indoor air can be further reduced. Performance air sampling was conducted on April 26, 2016, to evaluate whether maximizing the applied vacuum in February 2016 resulted in a corresponding reduction in PCE and TCE. Outdoor air TCE concentrations were elevated and Farallon identified the height of the exhaust stack as a potential issue. Farallon increased the stack height to 6 feet above the roof and directed the exhaust to the north/northeast. A building survey also was performed to look for vents or other large holes that would allow the SSDS exhaust to recirculate into the building. The survey conducted during the stack modification did not identify obvious points of entry for exhaust to enter the building. Resampling indoor and outdoor air will occur in August 2016 to evaluate the effects of the increased stack height and maximized applied vacuum.

SSDS piping on the roof at the Olympic Medical Facility reportedly was damaged by a windstorm, resulting in the need to replace piping and support struts. The repairs were completed in April 2016 and the SSDS was restarted. Prior to the damage, the SSDS had been operating in accordance with expected parameters. Sampling conducted in June 2015 indicated that PCE and TCE concentrations were not detected in indoor air. Farallon is preparing an Annual Vapor Intrusion Mitigation Status Report documenting the June 2015 air sampling event, SSDS operation, and the repairs made to the SSDS in 2016. This report will be presented as a draft deliverable for Ecology review and comment in the third quarter of 2016.

Farallon also is preparing a Tier 3 Vapor Intrusion Assessment Report for the Capital Plant 2 sampling performed in June and November 2015. This report will be presented as a draft deliverable for Ecology review and comment in the third quarter of 2016. Sampling results have consistently indicated that the vapor intrusion pathway is not complete at Capital Plant 2.



## **REMEDIAL INVESTIGATION DATA GAP REPORT**

The Draft Remedial Investigation Data Gap Resolution Summary Report dated February 12, 2016, completed by Farallon summarizes the results of the work completed in 2015 to address remaining RI data gaps. The work included:

- Identifying utilities and utility corridors with the potential to convey soil gas and/or groundwater contamination throughout SU2;
- Evaluating locations of potential sources of PCE and/or TCE at Capital Plant 2 and Plant 4 buildings, and assessing the lateral and vertical distribution of soil contamination where present; and
- Evaluating the vertical distribution of vinyl chloride in the commingled plume area proximate to 1<sup>st</sup> Avenue South and East Marginal Way by installing monitoring well CI-20-80.

This report currently was reviewed by Ecology, and comments are being addressed. The final report will be issued for Ecology's records by August 11, 2016.

## **GROUNDWATER MONITORING AND SAMPLING**

Monitoring well CI-20-80 was installed on September 15, 2015, in accordance with the Revised Groundwater Monitoring Well Installation Plan submitted to Ecology on May 21, 2015, and was conditionally approved by Ecology on June 2, 2015. Monitoring well CI-20-80 is located on the Chevron Station property at 5940 East Marginal Way in Seattle, Washington. The monitoring well is constructed with a well screen set at a depth of approximately 75 to 80 feet below ground surface. Ecology has required that monitoring well CI-20-80 be sampled on a quarterly basis for a minimum of 1 year before revising the sampling frequency. Monitoring well CI-20-80 was sampled as part of the groundwater monitoring and sampling event conducted in September and December 2015, and March and June 2016. The results from the four quarterly groundwater monitoring events indicate that the constituents of concern have not been detected at concentrations exceeding the laboratory reporting limits. Ecology will be requested to revise the sampling frequency to an annual basis.

Groundwater monitoring and sampling was performed in March 2016 in accordance with the memorandum regarding Revised West of 4<sup>th</sup> Groundwater Monitoring Program Plan dated December 23, 2014, prepared by Pacific Groundwater Group. Groundwater analytical results have been summarized and are included on summary figures attached to this report.

## **FEASIBILITY STUDY REPORT**

The West of 4<sup>th</sup> Group completed the Draft Feasibility Study Reports for SU1 and SU2. The report for SU2 was submitted to Ecology for review and comment on February 12, 2016, and Ecology's comments were received and are being addressed. A revised version of the SU1 and SU2 Feasibility Study Reports comprising the West of 4<sup>th</sup> Group Feasibility Study will be submitted to Ecology for its records by August 11, 2016. Copies of historical deliverables and comments



received from Ecology are available on the West of 4<sup>th</sup> website (<http://aspectconsulting.com/clients/W4/>).

#### **INTERIM MEASURES**

No interim measures were implemented during this reporting period.

#### **PUBLIC COMMUNICATIONS**

No public communication activities were completed by Capital during this period.

### **ANTICIPATED WORK IN THE NEXT QUARTER**

Work anticipated to be performed during the second quarter of 2016, April through June, is summarized below.

#### **VAPOR INTRUSION**

Indoor and outdoor ambient air samples will be collected at the Pacific Food Systems North Building in the next quarter for laboratory analysis to continue monitoring the performance of the SSDS and effects of increasing the height of the exhaust stack. If analytical results confirm that the SSDS is meeting the objective of reducing PCE and TCE to less than the action levels set forth in the Revised Vapor Intrusion Assessment Monitoring and Mitigation Memorandum submitted to Ecology on December 15, 2014, a report documenting the air sampling activities since installation of the SSDS will be prepared.

Farallon will submit an Annual Vapor Intrusion Mitigation Status Report for the Olympic Medical Facility in the third quarter of 2016. Farallon will also submit a Tier 3 Vapor Intrusion Assessment Report for the Capital Plant 2 in the third quarter of 2016.

#### **MONITORING AND SAMPLING ACTIVITIES**

A groundwater monitoring and sampling event is scheduled for September 2016. The data will be used to continue to evaluate plume stability and support the selection of potential cleanup alternatives presented in the Feasibility Study Report.

#### **FEASIBILITY STUDY WORK**

Revised versions of the SU1 and SU2 Feasibility Study Reports comprising the West of 4<sup>th</sup> Group Feasibility Study will be submitted for Ecology's records by August 11, 2016. Following approval of a remedial alternative, a Draft Cleanup Action Plan will be prepared for SU1 and SU2.

#### **INTERIM MEASURES**

No interim measures are anticipated during the next reporting period.

#### **PUBLIC COMMUNICATIONS**

The project website (<http://www.farallonconsulting.com/client-portal/public/capital-industries-document-and-data-maintenance>) will be updated with an electronic copy of this progress report.



The next progress report will summarize activities completed from June through September 2016 and will be submitted on or before September 30, 2016.

### **CLOSING**

Farallon trusts that this quarterly progress report provides sufficient information for Ecology's needs. If you have questions regarding this project, please contact the undersigned at (425) 295-0800.

Sincerely,

**Farallon Consulting, L.L.C.**

A handwritten signature in blue ink that reads "Jeffrey Kaspar".

Jeffrey Kaspar, L.G., L.H.G.  
Principal Geologist

Attachments: Attachment A, Aspect Consulting Figure 1  
Attachment B, Groundwater Analytical Results

cc: Ron Taylor, Capital Industries, Inc. (by e-mail)  
Donald Verfurth, Gordon and Rees, L.L.P. (by e-mail)

E-mail with link to electronic copy on project website:  
Janet Knox, Pacific Groundwater Group  
Dana Cannon, Aspect Consulting  
Bill Carroll, Arrow Environmental  
Bill Beck, PSC Environmental Services, LLC

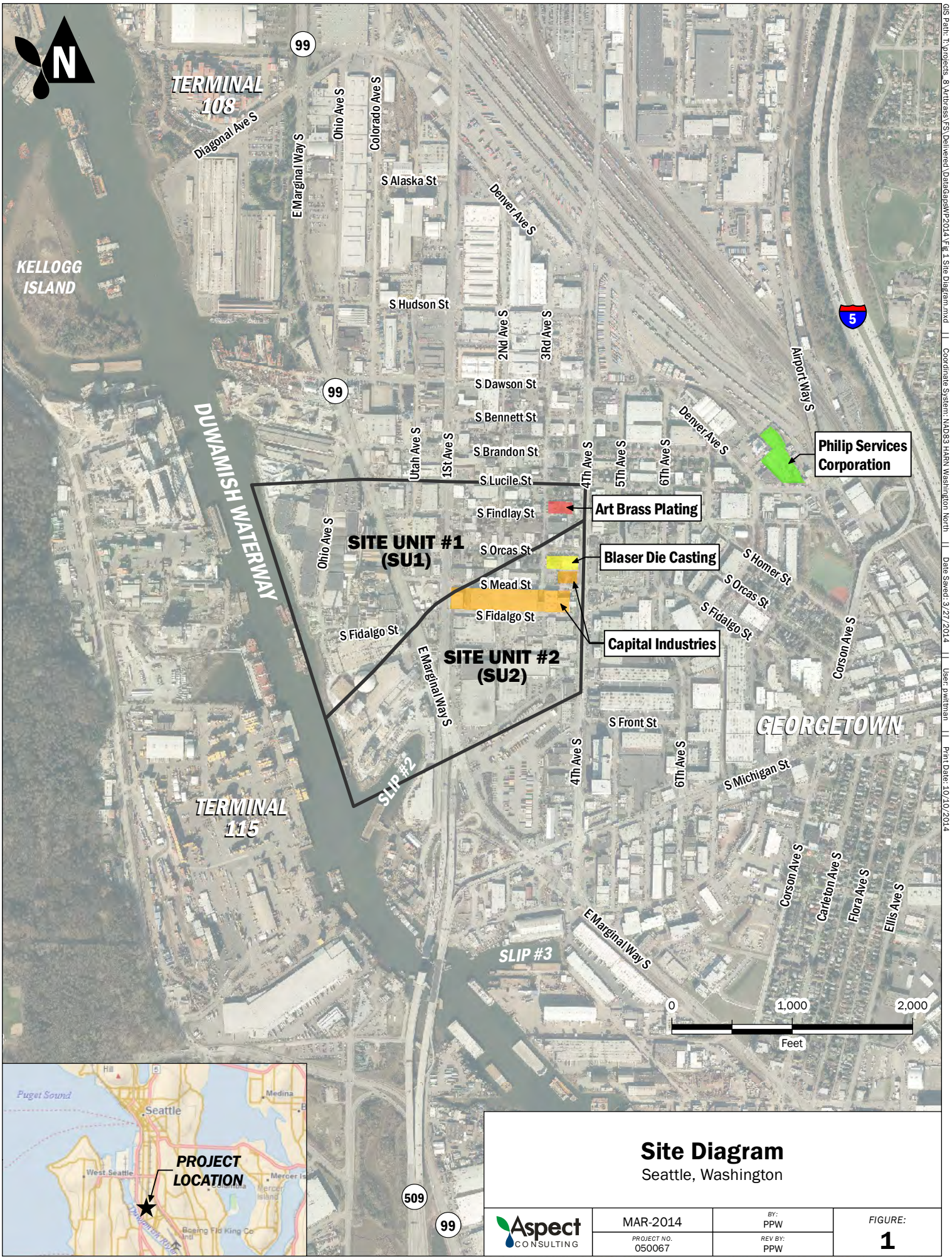
JK/tlc

**ATTACHMENT A  
SITE DIAGRAM**

**PROGRESS REPORT, APRIL THROUGH JUNE 2016**  
Capital Industries, Inc.  
Seattle, Washington

Farallon PN: 457-008





GIS Path: I:\Projects\_8\Airbrass\FS\Delivered\Diagram\SWP-2014\_Fig 1 Site Diagram.mxd | Coordinate System: NAD83 HARN Washington North | Date Saved: 3/27/2014 | User: pmwtrn | Print Date: 10/10/2014

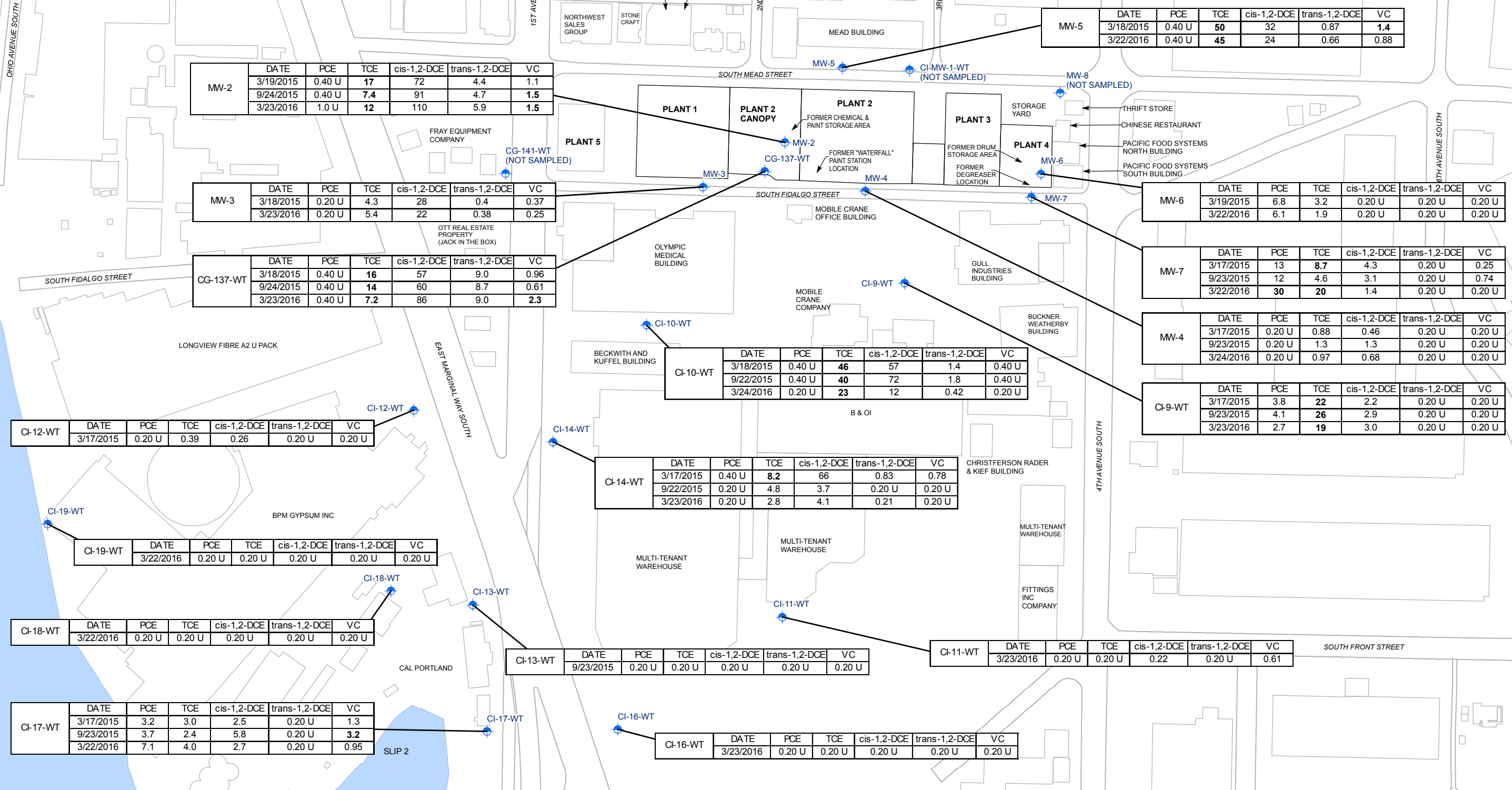


**ATTACHMENT B**  
**GROUNDWATER ANALYTICAL RESULTS**

PROGRESS REPORT, APRIL THROUGH JUNE 2016  
Capital Industries, Inc.  
Seattle, Washington

Farallon PN: 457-008





**LEGEND**

● CAPITAL INDUSTRIES WATER TABLE ZONE MONITORING WELL

ALL ANALYTICAL RESULTS IN MICROGRAMS PER LITER, SAMPLE DATES LISTED

DCE = DICHLOROETHENE

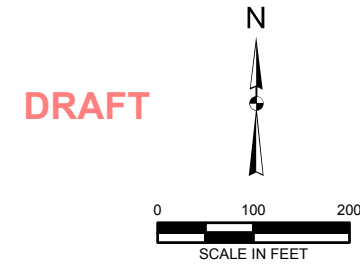
PCE = TETRACHLOROETHENE

TCE = TRICHLOROETHENE

VC = VINYL CHLORIDE

**BOLD** = INDICATES CONCENTRATIONS EXCEED WEST OF FOURTH GROUNDWATER PRELIMINARY CLEANUP LEVELS FOR PROTECTION OF AIR

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



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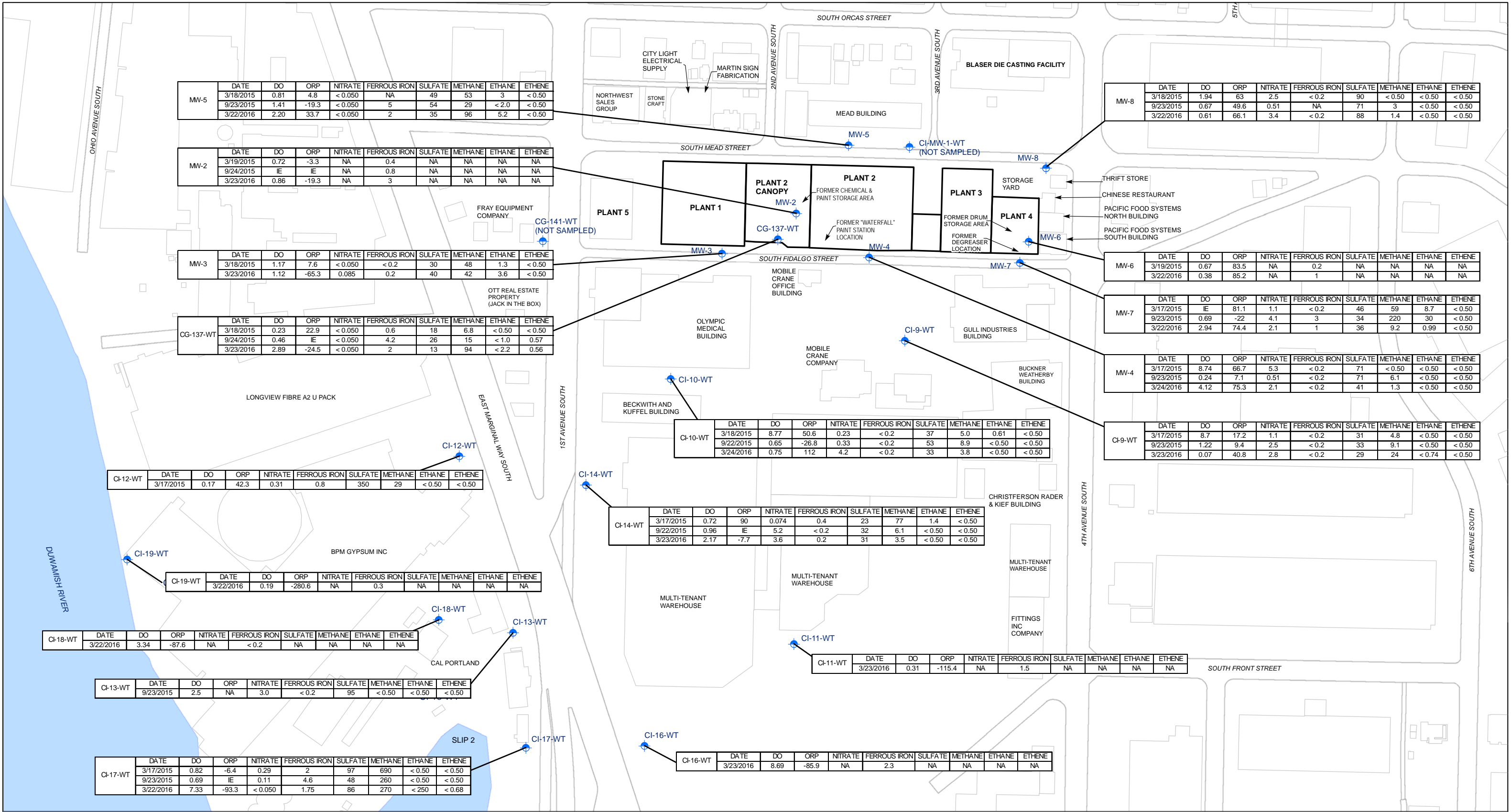
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**FIGURE 1**

**GROUNDWATER ANALYTICAL RESULTS FOR  
WATER TABLE ZONE: 2015 - 2016  
REMEDIAL INVESTIGATION  
CAPITAL INDUSTRIES, INC.  
SEATTLE, WASHINGTON**

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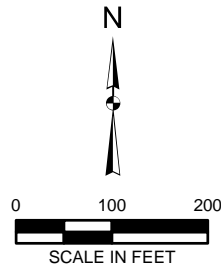
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● CAPITAL INDUSTRIES WATER TABLE ZONE MONITORING WELL

FERROUS IRON, NITRATE AND SULFATE IN MILLIGRAMS PER LITER UNITS  
METHANE, ETHANE, AND ETHENE IN MICROGRAMS PER LITER UNITS

DO = DISSOLVED OXYGEN (MILLIGRAMS PER LITER)  
ORP = OXIDATION REDUCTION POTENTIAL (MILLIVOLTS)  
IE = INSTRUMENT ERROR  
NA = NOT ANALYZED  
< = ANALYTE NOT DETECTED AT OR EXCEEDING THE REPORTING LIMIT LISTED

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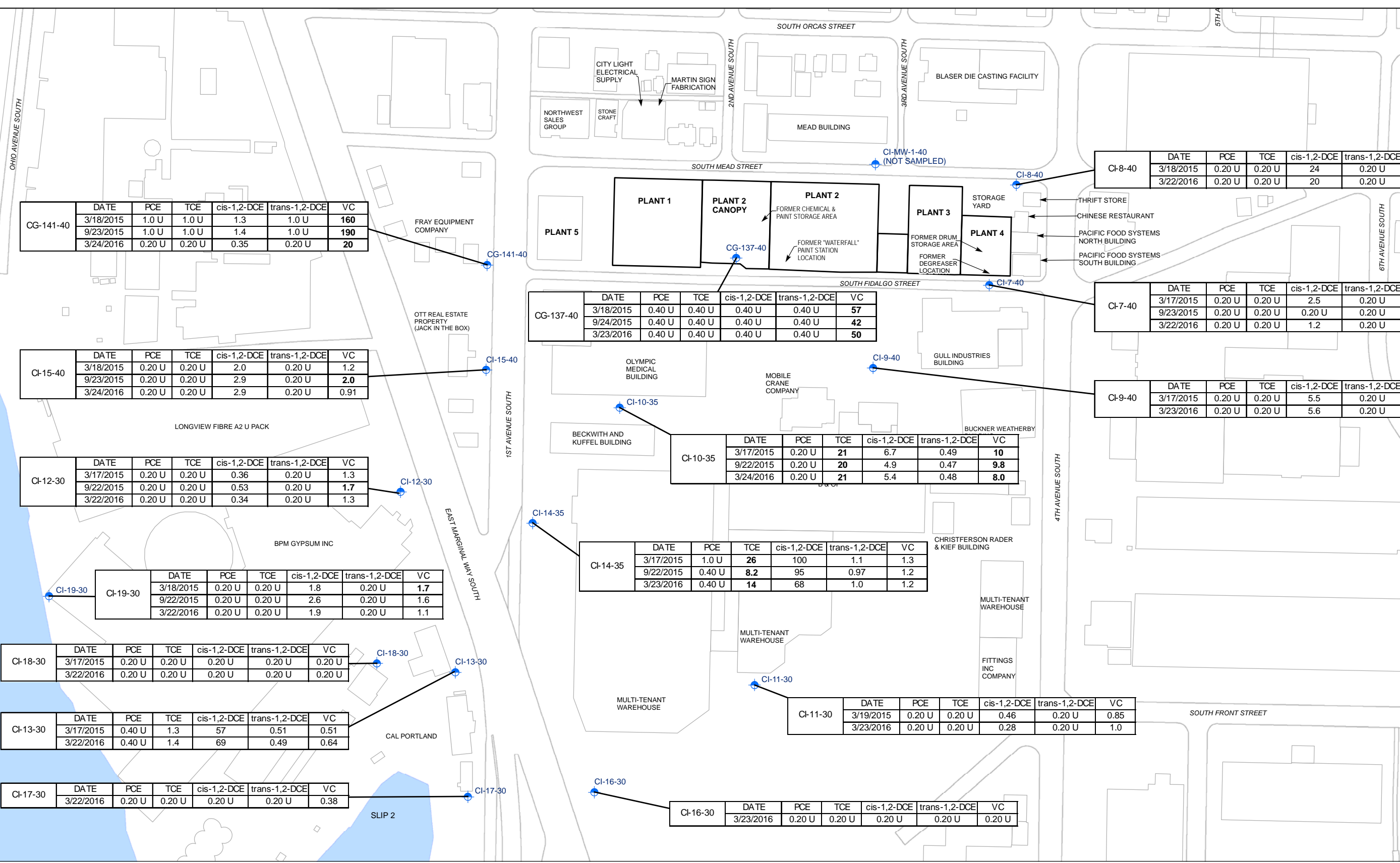
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FIGURE 1A

NATURAL ATTENUATION PARAMETERS RESULTS FOR  
WATER TABLE ZONE: 2015 - 2016  
REMEDIAL INVESTIGATION  
CAPITAL INDUSTRIES, INC.  
SEATTLE, WASHINGTON

FARALLON PN: 457-007



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● CAPITAL INDUSTRIES SHALLOW WATER-BEARING ZONE WELL

ALL ANALYTICAL RESULTS IN MICROGRAMS PER LITER, SAMPLE DATES LISTED

DCE = DICHLOROETHENE

PCE = TETRACHLOROETHENE

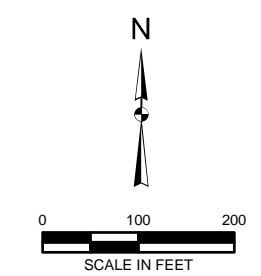
TCE = TRICHLOROETHENE

VC = VINYL CHLORIDE

**BOLD** = INDICATES CONCENTRATIONS EXCEED WEST OF FOURTH GROUNDWATER PRELIMINARY CLEANUP LEVELS FOR PROTECTION OF AIR

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

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**FIGURE 2**

GROUNDWATER ANALYTICAL RESULTS FOR SHALLOW ZONE: 2015 - 2016

REMEDIAL INVESTIGATION

CAPITAL INDUSTRIES, INC.

SEATTLE, WASHINGTON

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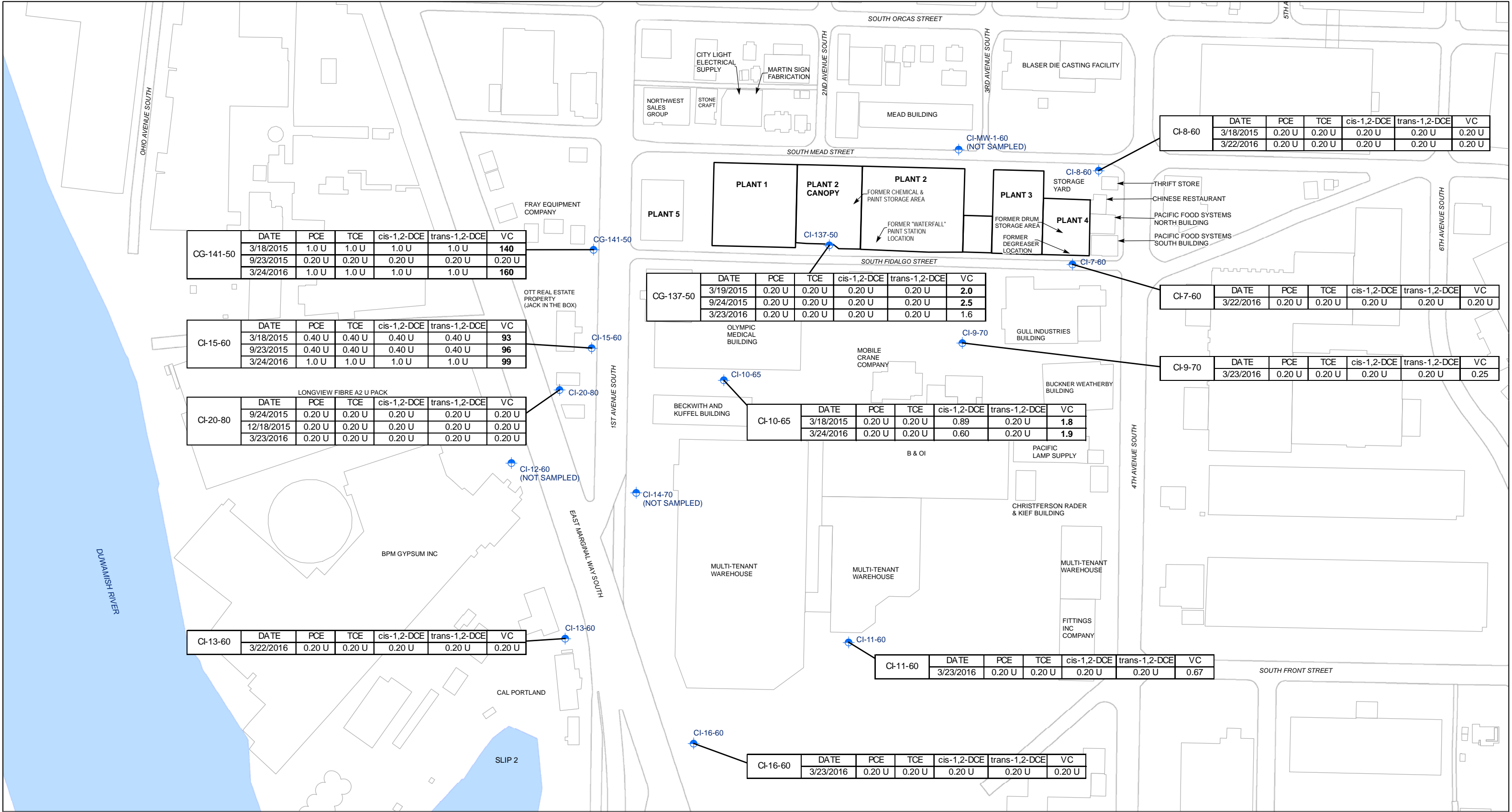
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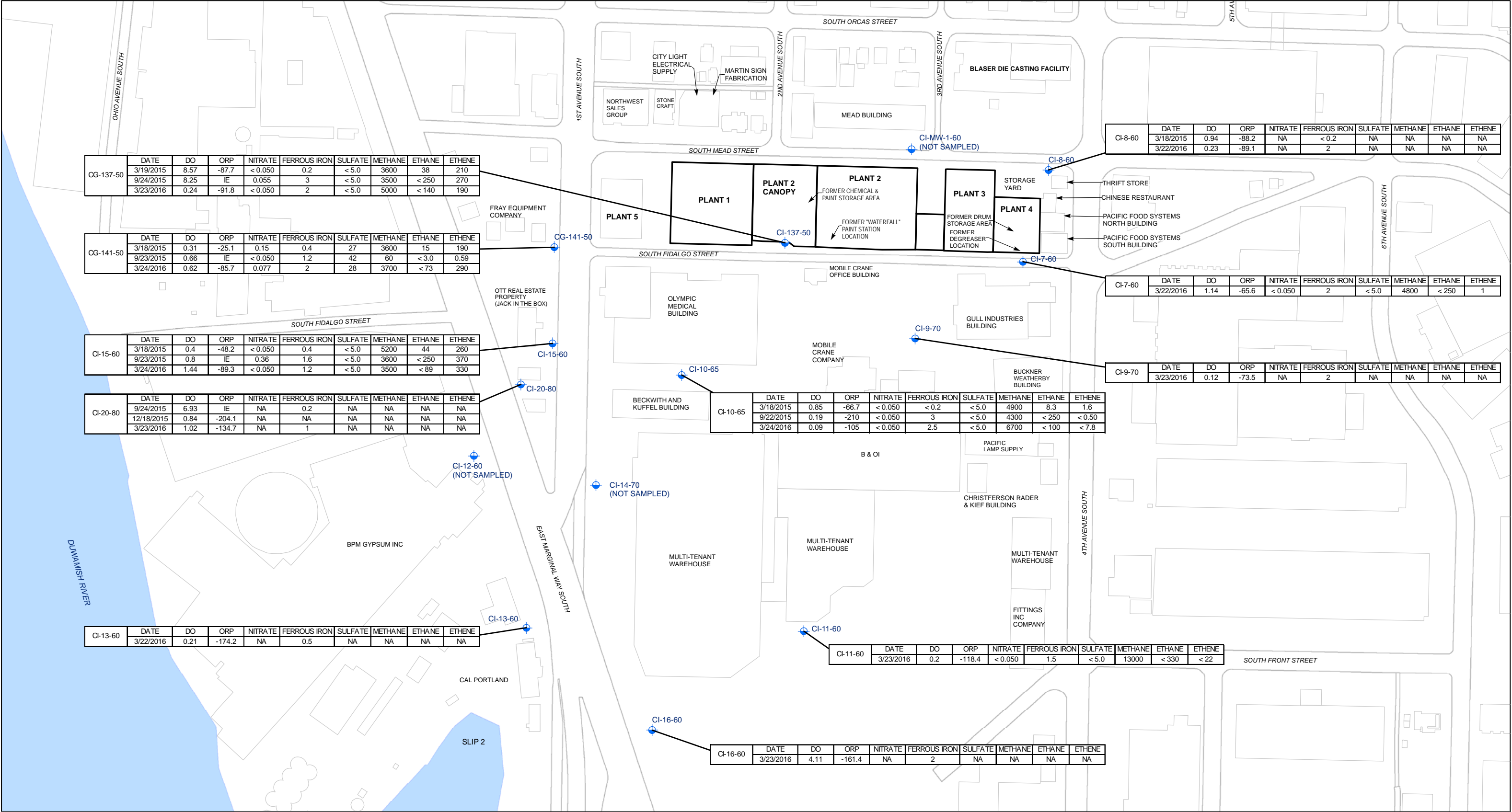
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**LEGEND**

CAPITAL INDUSTRIES INTERMEDIATE WATER-BEARING ZONE WELL

FERROUS IRON, NITRATE AND SULFATE IN MILLIGRAMS PER LITER UNITS  
METHANE, ETHANE, AND ETHENE IN MICROGRAMS PER LITER UNITS

DO = DISSOLVED OXYGEN (MILLIGRAMS PER LITER)  
ORP = OXIDATION REDUCTION POTENTIAL (MILLIVOLTS)  
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**FIGURE 3A**

NATURAL ATTENUATION PARAMETERS RESULTS FOR  
INTERMEDIATE ZONE: 2015 - 2016  
REMEDIAL INVESTIGATION  
CAPITAL INDUSTRIES, INC.  
SEATTLE, WASHINGTON

FARALLON PN: 457-007

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