



June 28, 2013

Corporate
15 Commerce Blvd.
Suite 302
Succasunna, NJ 07876
973.927.1111

One Emery Avenue
Unit 2
Randolph, NJ 07869
973.989.8010

1101 Andover Park West
Suite 101
Seattle, WA 98188
206.518.6120

8383 Craig Street
Suite 110
Indianapolis, IN 46250
317.595.4400

Concord Office Center
2352 Main Street
Suite 106
Concord, MA 01742
978.298.5850

Fellowship Business Center
520 Fellowship Road
Suite E-506
Mt. Laurel, NJ 08054
856.642.0333

Northampton Business Park
1555 Route 37 West
Suite 12
Toms River, NJ 08755
732.240.7550

Mr. Dale Myers
Voluntary Cleanup Program
Washington Department of Ecology
Northwest Regional Office
3190 160th Ave SE
Bellevue, WA 98008-5452

VIA CERTIFIED MAIL

Re: 2012-2013 Annual Report
Former Cherry Street Cleaners
2510 East Cherry Street, Seattle, WA
Facility/Site No. 4765174
Cleanup ID: 4175
VCP No. NW2009
ECC File: I-G1437R

Dear Mr. Myers:

On behalf of Cherry Street Cleaners, ECC Horizon has prepared the enclosed 2012-2013 *Annual Report* for the above referenced site, as required by the Washington Department of Ecology's Voluntary Cleanup Program. This report describes soil, groundwater and air activities conducted over the past year in an attempt to characterize the site. In addition, this report contains quarterly groundwater sampling that was conducted to monitor the influence of emulsified oil substrate (EOS) that was injected into the groundwater underlying the site's source area in July of 2010.

The site is not delineated to the Model Toxics Control Act (MTCA) A Cleanup Levels in the downgradient direction of groundwater flow to the east and southeast. As such, additional delineation is necessary before preparing the *Remedial Investigation (RI)* report.

Mr. Dale Myers
June 28, 2013
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Should you have any questions or need for additional information, please contact our office at your convenience.

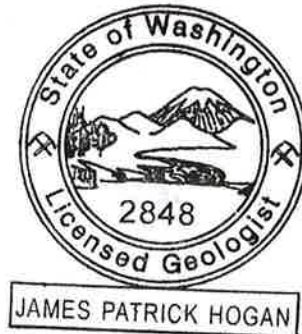
Sincerely,

A handwritten signature in black ink, appearing to read "JP Hogan".

James P. Hogan, RG No. 2848
Director

Encl: 2012-2013 Annual Report

cc: Ms. Vera Benton, Cherry Street Cleaners





Environmental Claims Experts

2012-2013 Annual Report
For

Former Cherry Cleaners

2510 E Cherry Street
Seattle, Washington 98122

Facility ID No.: 4765174

Cleanup ID: 4175

Voluntary Cleanup Program ID No.: NW2009

ECC Horizon File W-S2510EC-I

June 2013

Prepared for:

Ms. Vera Benton
PO Box 145
Grand Coulee, WA 99133

Prepared By:

ECC Horizon
1101 Andover Park West, Suite 101
Seattle, Washington 98188
206-518-6120

Corporate

15 Commerce Blvd.

Suite 302

Succasunna, NJ 07876

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Suite 12

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732.240.7550

ecchorizon.com

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Executive Summary

This *2012-2013 Annual Report* summarizes remedial activities and the corresponding analytical results from the former Cherry Cleaners site from late June 2012 through June 2013. The release of chlorinated volatile organic compounds (cVOCs) to the subsurface was discovered during a Phase II Environment Site Assessment conducted in June 2007. The site entered into the Voluntary Cleanup Program on 10/31/08 and Voluntary Cleanup ID 4175 was assigned to the site. The Responsible Party (RP) in this matter is Cherry Cleaners.

From late June 2012 through July 2012, ECC Horizon oversaw the installation of 6 soil borings from which soil samples of varying depths were collected and submitted for analysis of volatile organic compounds (VOCs). The six soil borings were then converted into permanent monitoring wells MW-12 through MW-17. Following the well installation activities, ECC Horizon conducted 4 consecutive quarters of groundwater monitoring to evaluate the performance of bioremediation following emulsified oil substrate (EOS) injections in July 2010 as well as assess the stability of the cVOCs in groundwater. Finally, during the Fourth Quarter 2012 (4Q12), vapor intrusion assessments (VIAs) were conducted at the subject property and nine other properties within the vicinity of the site.

This report includes an evaluation of the aforementioned data and indicates that: (1) chemicals of concern (COCs) in unsaturated soil are adequately delineated in all cardinal directions, (2) COCs in groundwater are adequately delineated upgradient and sidegradient of the source area to the north, west and south, but not downgradient to the east and southeast, and (3) COCs in indoor air at the properties in the vicinity of the site all comply with the draft regulatory guidance except the subject property building, which is scheduled for demolition in July 2013.

Looking forward, additional groundwater delineation will be conducted in an attempt to characterize the site. Thereafter, a Remedial Investigation (RI) report will be prepared for Washington Department of Ecology's Review and approval.

1.0 PROPERTY HISTORY

This Annual Report is being furnished to the Washington Department of Ecology (Ecology) in accordance with Ecology's *Voluntary Cleanup Program* annual reporting requirement. The ensuing report details activities undertaken from June 28, 2012, through June 30, 2013, in response to undocumented spills of a dry cleaning agent, tetrachloroethene (PCE).

1.1 Facility Operational History

The former Cherry Cleaners used PCE from 1968 to June 2007 at its facility located at 2510 East Cherry Street in Seattle, Washington. The location of this former business is shown on Figure 1.

The Cherry Cleaners business and property is owned by Ms. Vera Benton. During its operations, Cherry Cleaners used two dry cleaning machines (DCMs) of unknown makes and model numbers. The first DCM was used from 1968 to 1998, and the second DCM was used from 1998 to 2007.

The PCE used during the operations was delivered directly to the DCM tank by a PCE delivery service. The delivery service person would park their PCE tanker truck either on Cherry Street or in the alleyway adjacent to the east side of the building. They would then dispense PCE directly into the DCM's PCE tank through a hose connected to the truck's PCE tank.

Each DCM recycled PCE through a cooker in a closed-loop system. PCE sludge waste that built up in the cooker associated with the second DCM was shoveled into waste containers provided by Safety Kleen, Inc. Safety Kleen would then remove and dispose of the waste containers. It remains unclear at this time how the PCE sludge waste was handled with the first DCM.

1.2 Property Features and Surrounding Land Use

The property contains a single-story 2,440 square-foot unoccupied commercial building on a 4,000 square-foot lot. The northern portion of the lot is unpaved and fenced with a single underground storage tank (UST) of unknown capacity that was once used for heating oil.

The building will be razed in July 2013. Once razed, the lot will only contain a chain-link fence on the northern third of the property.

The utilities have been disconnected from the building. Electricity and telephone services were provided through overhead lines. Natural gas service was provided through an underground pipe from East Cherry Street, which runs under the western portion of the alley to a meter located on the northern side of the building. Sanitary sewer service was provided through an underground pipe located on the northern side of the building that connected to a main located in the alley. Water service was provided through an underground pipe on the southern side of the building that connected to a water main in East Cherry Street.

The property boundary borders a school to the north and west, a city alleyway to the east and Cherry Street to the south. A commercial property is located on the west side of the alley, and residential property is located south of Cherry Street. The property location, utilities and surrounding land use are shown on Figure 2.

1.3 Site Investigation History

PCE was first discovered in soil and groundwater during an initial site characterization conducted by Adapt Engineering, Inc. (Adapt) in June 2007. The release was subsequently reported to Ecology and entered into the Voluntary Cleanup Program (VCP). Since then, several phases of investigation have been conducted to delineate the extent of PCE and its daughter products trichloroethene (TCE), cis-1,2-dichloroethene (c-DCE) and vinyl chloride (VC) in soil, groundwater and air. The locations of the soil, groundwater and air sampling locations are shown on Figure 2.

The resulting data have shown the following:

1. The extent of chlorinated volatile organic compounds (cVOCs) have been delineated below Model Toxics Control Act Method A Cleanup Levels (MTCA A CLs) in the unsaturated soil.
2. The groundwater cVOC plume has been delineated below the MTCA A CLs to the north, west and south of the source area, but the eastern extent has not been delineated.
3. The vapor intrusion assessments conducted at the surrounding buildings within the site suggest that vapor intrusion is not occurring as a result of the release.

1.4 Regional Geology and Hydrogeology

The elevation of the property is approximately 276 feet above mean sea level. Based on a review of *The Geologic Map of Seattle* (United States Geological Survey Open File Report 2005-1252, April 2005), geology in the region of the site consists

of Quaternary pre-Olympian landslide glacial deposits consisting of fine-grained silts and clays with interbedded sands, underlain by very dense fine-grained till deposits. Specific to the site, silt is generally encountered from the ground surface to approximately 5 to 10 feet below ground surface (bgs) followed by noncohesive soil. Investigative borings have not advanced beyond 60 feet bgs.

Groundwater is generally encountered between 20 and 30 feet bgs within the noncohesive soil. Overall groundwater flow has generally been toward the east southeast toward Lake Washington, which is located approximately one mile to the east. A hydrologic water table basin exists beneath the site in the vicinity of the emulsified oil substrate (EOS) injection area described below in Section 1.5.

The historic groundwater elevation data are summarized in Table 1. The water table interpretations for the past 4 quarterly sampling events are shown on Figures 3a, 3b, 3c and 3d, respectively.

1.5 Site Remediation History

Both soil and groundwater remediation strategies have been integrated into the site characterization activities as interim response measures prior to development of the Remedial Investigation (RI) and Feasibility Study (FS) reports. The following briefly summarizes these activities:

1. Soil. Farallon Consulting, LLC (Farallon) and ECC Horizon executed soil vapor extraction (SVE) pilot studies in April 2008 and August 2010, respectively, to evaluate the effectiveness of SVE within the unsaturated soils. The resulting analysis of the SVE studies found that SVE would be ineffective within the cohesive soil horizon because of inefficient airflow through the relatively impermeable soil when compared to the deeper, more permeable noncohesive soil, which allows for more efficient airflow.
2. Groundwater. During July 2010, ECC Horizon directed the injection of 3,675 gallons of emulsified oil substrate (EOS) into the groundwater in 28 permanent injection wells and 4 monitoring wells, each screened approximately 20 to 40 feet bgs, that surround the north, east and south sides of the building. The EOS injection activity was implemented to promote anaerobic biodegradation of the cVOCs within the source area and in the adjacent downgradient direction to the east south-east. The injection wells are shown on Figure 2.

2.0 2012-2013 REMEDIAL ACTIVITIES

2.1 Sampling Rationale

To continue the site characterization effort and monitor the influence of EOS, ECC Horizon conducted the following:

1. Assess the cVOC impacts to soil and groundwater upgradient to the north and northwest and downgradient to the south and southeast;
2. Assess the cVOC vapor intrusion potential within the building structures located within the site at 2510 E. Cherry Street(former Cherry Cleaners property) 2516 E. Cherry Street (Twilight Exit Bar), 2518 E. Cherry Street (Tana Market), 2503 2509, 2511, 2515 and 2517 E. Cherry Street (Arlyn Jordan properties), 720 25th Avenue (Islamic School of Seattle) and 711A 25th Avenue (residence); and
3. Conduct four consecutive quarters of groundwater sampling to evaluate both the stability of the cVOC plume and the performance of the EOS bioremediation effort.

The following sections further describe the aforementioned field efforts.

2.2 Soil Sampling Event

2.2.1 Drilling, Field Logging and Sampling Procedures

Prior to drilling, ECC Horizon contacted the Washington Utility Notification Center to locate buried utilities. In addition, the first five feet of each boring were cleared using air excavation techniques to verify the absence of utilities in each location.

Thereafter, between June 28 and July 20, 2012, a licensed Washington driller advanced 6 soil borings (MW-12 through MW17), under ECC Horizon supervision, in locations upgradient to the north and northwest and downgradient to the south and southeast of the subject property, as shown on Figure 2. All soil borings were completed with a drill rig using a split spoon sampler driven with a 140-pound hammer to depths between 35 and 40 feet below ground surface (bgs). To reduce the potential for cross-contamination, the drilling equipment was steam-cleaned between borings. The decontamination rinsate was placed into an above ground storage tank for subsequent transport and disposal.

The intersecting soils in each boring were field screened for total volatile organic vapors using a MiniRAE 2000 photo-ionization detector (PID) equipped with a 10.6 electron volt (eV) lamp. Prior to drilling, the PID was calibrated to an

isobutylene standard of 100 parts per million (ppm). Field observations were recorded on soil logging forms by an ECC Horizon geologist for each boring at five-foot intervals, including the soil's geologic classification, PID measurements, color, moisture content, odor and staining. The soil boring logs from this investigation are presented in Appendix A.

A total of 19 soil samples were collected for laboratory analysis from both the unsaturated and saturated zones within the 6 borings. The samples were placed in 40 milliliter (mL) pre-weighted glass vials and sealed with a Teflon®-lined lid in accordance with EPA Method 5035. ECC personnel donned new, disposable nitrile gloves prior to collecting each sample. After collection, each soil sample was immediately placed on ice in a cooler containing a trip blank sample, pending shipment under chain-of-custody to Pace Analytical Services, Inc. (Pace) of Seattle, Washington, for analysis of VOCs via EPA Method 8260B.

2.2.2 Monitoring Well Construction & Surveying Procedures

A permanent monitoring well was installed in each of the 6 soil borings (MW-12 through MW-17) using 8-inch diameter hollow-stem auger equipment. Each monitoring well was constructed using 15 to 16 feet of 2-inch-diameter 0.010-inch slotted polyvinyl chloride (PVC) well screen positioned across the groundwater table and finished with 2-inch diameter solid PVC casing to grade. Each boring's annular space was filled with #2/12 Monterey sand from the base of the boring to approximately two feet above the well screen and completed to within two feet of grade with bentonite chips. Each well was then completed at the ground surface with a locking cap and flush-mount protective steel monument set in concrete. Well construction diagrams for the monitoring wells are presented in Appendix A, and well screen data are summarized in Table 1. The soil cuttings generated during the drilling activities were contained in drums, labeled and staged on the property for subsequent transport and disposal.

Each well was subsequently developed using a surge block and submersible pump to remove sediment and improve water flow. The well development water was placed into the above ground storage tank along with the decontamination rinsate for subsequent transport and disposal.

On July 31, 2012, a licensed professional surveyor conducted a field survey that included locating and measuring each existing and newly installed well location to determine their respective top-of-casing (TOC) elevations. The locations of previously identified subsurface utilities were also surveyed at that time. The survey was conducted with a global positioning system unit, and the data were reported in state plane coordinates. A summary of TOC elevation information for

the well network is included in Table 1 and the well and utility locations are shown on Figure 2.

2.3 Groundwater Sampling Events

The current groundwater monitoring well network is comprised of 18 monitoring wells (17 shallow and 1 deep) located in and around the subject property as shown on Figure 2. All 18 wells were gauged, purged and sampled in August 2012 (3Q12), November 2012 (4Q12), February 2013 (1Q13) and June 2013 (2Q13).

During each sampling event, the bolted lid and well plugs were removed from all of the wells prior to gauging, to allow water levels to equilibrate to atmospheric conditions. Each well was then gauged using a Solinst® oil/water level interface probe and measured to 0.01 of a foot. Samples from each well were collected in accordance with ECY's *Standard Operating Procedure for Purging and Sampling Monitoring Wells*, dated 10/4/11. A bladder pump with dedicated polyethylene tubing was lowered to the midpoint of the screen, and the wells were purged utilizing low-flow techniques. To ensure that the drawdown of each well did not exceed 0.3 feet, water levels were measured every 5 minutes.

The conductivity, pH, oxidation-reduction potential, temperature, dissolved oxygen and turbidity of the groundwater within each well were measured using a YSI flow-cell equipped with a handheld monitoring device and monitored for stabilization. Groundwater stabilization forms for all sampling events are presented in Appendix B.

After these parameters stabilized to prescribed ranges, groundwater samples were subsequently collected from each well and placed into 3 labeled 40-milliliter vials. A single field duplicate sample was also collected during both the 4Q12 and 2Q13 sampling events. Property personnel donned new, disposable nitrile gloves prior to collecting each individual sample. After collection, each groundwater sample was immediately placed on ice in a cooler containing a trip blank sample, pending shipment under chain-of-custody to Pace for subsequent VOC analyses by EPA Method 8260B.

During the 2Q13 groundwater sampling event, 10 geochemical parameters were collected from each well in order to evaluate EOS' influence in the breakdown of cVOCs in groundwater. Information regarding the collection and analysis of these samples will be presented in a forthcoming *Remedial Investigation* (RI) report.

2.4 Groundwater Elevation Calculation

Groundwater elevations were determined by subtracting the measured depth to groundwater from the TOC elevations at each monitoring well location. Historical groundwater elevation data are presented in Table 1. During the 2Q13 sampling

event, measureable thicknesses of EOS were observed floating on top of the water table in monitoring wells MW-1, MW-2, MW-3 and MW-7. Corrected groundwater elevations for these wells were calculated using the formula presented in Table 1. A groundwater elevation map was constructed from the groundwater elevations for each sampling event. The interpretation shows groundwater flowing in an east-southeasterly direction, as shown on Figures 3a, 3b, 3c and 3d.

2.5 Vapor Intrusion

ECC Horizon conducted 10 vapor intrusion assessments (VIAs) to assess whether the subsurface PCE contamination at the subject property is impacting air quality within nearby buildings. The addresses and dates of each VIA are summarized as follows:

Property Location	Date Sampled	No. of Indoor Air Samples	No. of Subslab Samples
2510 E. Cherry (Former Cherry Cleaners)	10/12/12	1	1
2503 E. Cherry (Jordan Property)	11/13/12	3	6
2509 E. Cherry (Jordan Property)	11/14/12	0	2
2511 E. Cherry (Jordan Property)	11/14/12	1	2
2515 E. Cherry (Jordan Property)	11/14/12	0	1
2516 E. Cherry (Twilight Bar)	10/23/12	2	3
2517 E. Cherry (Jordan Property)	11/14/12	0	1
2518 E. Cherry (Tana Market)	10/21/12	0	3
720 25 th Street (Islamic School)	11/30/12	5	6
711A 26 th Avenue (Residence)	12/6/12	2	0

Temporary subslab air sampling ports were installed at 9 of the 10 properties to test vapors within the subsurface beneath each building's concrete slab by drilling a hole through the floor with a rotary hammer drill. After sampling was complete, each hole was sealed with floor patch. The owner of 711A 26th Avenue address would not allow ECC Horizon to install subslab ports. As a result, subslab air was not sampled at this location.

To sample air, ECC Horizon ordered re-usable 6-Liter Summa canisters from Air Toxic Ltd. (Air Toxics). Before shipping the canisters to ECC Horizon, Air Toxics certified each individual canister as clean and pre-set each canister's vacuum to -30 pounds per square inch (psi). Air Toxics also provided valves calibrated to collect air over a time-weighted average (TWA) sampling period of 24 hours for residential properties and 8 hours for non-residential properties.

Prior to mobilizing to the field, ECC Horizon personnel verified each canister's clean certification report. In addition, ECC Horizon personnel assigned dedicated valves to each canister and assembled each for a 2 hour period to (1) verify a negative pressure within the canister; and (2) observe the integrity of the valve assembly by monitoring its ability to maintain negative pressure with the valve closed. Each canister passed these tests.

Prior to sampling, ECC Horizon documented potential sources within each building that may affect the air samples. Each Summa canister/valve assembly was setup as per pre-testing assemblies. Sampling was conducted at the sub-slab port and within the indoor breathing space at approximately 3 to 5 feet above the floor. The sub-slab samples were collected by connecting the subslab tubing to the top of the Summa canister utilizing a laboratory-provided ferrule and swagelock fitting.

Each Summa canister pressure reading was recorded before and after the collection of each sample. In addition, canister pressure readings were recorded once per hour for 2 hours following the initiation of sample collection and for 2 hours before terminating sample collection to monitor the TWA progress for each sample. Each canister valve was closed after the appropriate time period (24 or 8 hours) of sample collection.

During the course of the VIAs on 10/24/12, 11/14/12 and 11/30/12, outdoor air samples were collected upwind of the sampling area, which was determined by field observations.

Once the sampling event was complete, the valves were disassembled from the Summa canisters and all equipment was shipped in laboratory-supplied packaging under chain-of-custody to Air Toxics in Folsom, California. The samples were analyzed for volatile organic compounds (VOCs) using *USEPA Method TO-15*.

3.0 ANALYTICAL RESULTS

3.1 Soil Analytical Results

Between 7/2/12 and 7/20/12 ECC Horizon conducted soil sampling activities. Nineteen soil samples were tested from 6 borings. The resulting analyses were less than the laboratory's method detection limits (MDLs), and the MDLs are less than their respective MTCA A CLs.

The laboratory analytical results for soil samples collected during these investigations are summarized in Table 2 and are shown on Figure 4. The laboratory analytical reports, including chain-of-custody documentation, are presented in Appendix C.

ECC Horizon calculated the relative percent difference (RPD) for the field duplicate to determine if the resulting RPDs varied within an acceptable range of 40%. A review of the quality assurance and quality control (QA/QC) data indicates that the recoveries of all analytes were within the acceptable limits. In addition, a trip blank sample was submitted to the laboratory for VOC analysis. Concentrations of all analytes were below laboratory method detection limits (MDLs), indicating it is unlikely that cross-contamination of soil samples has occurred.

3.2 Groundwater Analytical Results

The current and historic groundwater analytical data are summarized in Table 3. The analytical results for the 3Q12, 4Q12, 1Q13, and 2Q13 groundwater monitoring events are shown on Figures 5a, 5b, 5c and 5d, respectively. The laboratory analytical reports, including chain-of-custody documentation, are presented in Appendix D.

ECC Horizon compared the resulting data to the MTCA A CLs to identify the following noncompliant monitoring points:

1. PCE. PCE exceeded its respective MTCA A CL of 5.0 micrograms per liter ($\mu\text{g/L}$) in samples collected from monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-11, MW-13, MW-15 and MW-16 for each of the 3Q12, 4Q12, 1Q13 and 2Q13 groundwater sampling events. Monitoring well MW-1D evidenced a PCE exceedance during the 3Q12 and 4Q12 sampling events, but not during the 1Q13 and 2Q13 sampling events. Monitoring well MW-9 evidenced a PCE exceedance during the 1Q13 and 2Q13 sampling, but not during the 3Q12 or 4Q12 sampling events. Samples from the remaining 5 monitoring wells complied with the MTCA A CL during all 4 sampling events.

2. TCE. TCE exceeded its respective MTCA A CL of 5.0 µg/L in samples collected from monitoring wells MW-1, MW-7, MW-11 and MW-15 for each of the 3Q12, 4Q12, 1Q13 and 2Q13 groundwater sampling events. Samples from the remaining 14 monitoring wells complied with the MTCA A CL during all 4 sampling events.
3. VC. VC in a single sample collected from monitoring well MW-7 exceeded its respective MTCA A CL of 0.20 µg/L during the 2Q13 groundwater sampling event, but not during the other three sampling events. Samples from the remaining 17 monitoring wells complied with the MTCA A CL during all 4 sampling events.
4. Carbon Tetrachloride (CT). CT in a single sample collected from monitoring well MW-13 exceeded its respective MTCA A CL of 0.34 µg/L for each of the 3Q12, 4Q12, 1Q13 and 2Q13 groundwater sampling events. Samples from the remaining 17 monitoring wells complied with the MTCA A CL during all 4 sampling events.

The RPD was calculated for the duplicate sample collected during the 4Q12 sampling event from MW-15. The resulting RPDs varied within an acceptable range of 30%. In addition, a trip blank sample was submitted to the laboratory for VOC analysis. Concentrations of all analytes were below laboratory MDLs, indicating it is unlikely that cross-contamination of groundwater samples has occurred.

3.3 Vapor Intrusion Results

The VIAs were performed at the subject site and nine surrounding properties. VIA analytical results are summarized in Table 4. The most recent analytical results for each tested property are shown on Figure 6. The laboratory analytical reports, including chain-of-custody documentation, are presented in Appendix E.

2510 E Cherry Street – Former Cherry Cleaners

The indoor air results contained in this building represent the only noncompliant data of the 10 properties sampled; however, as mentioned in Section 1.2, this building is scheduled to be razed in July 2013, thereby eliminating the potential for indoor air exposure. The resulting data indicate the following:

- PCE and TCE were detected in the subslab sample at concentrations of 280,000 micrograms per cubic meter (µg/m³) and 8,700 µg/m³, respectively, which exceed their corresponding MTCA Method B Soil Gas Screening Levels (SGSLs) of 96 µg/m³ and 3.7 µg/m³, respectively.

- PCE and TCE were detected in indoor sample IA-1 at concentrations of 200 µg/m³ and 2.1 µg/m³, respectively, which exceed their corresponding MTCA Method B Carcinogen Indoor Air Screening Levels (CIASLs) of 96 µg/m³ and 3.7 µg/m³, respectively.
- With the exception of benzene in indoor air sample IA-1, no other VOCs were detected at concentrations above their corresponding SGSLs or CIASLs in the subslab or indoor air samples. Benzene, however, is not a COC in this matter.
- Notwithstanding the PCE and TCE detections, a complete vapor intrusion exposure pathway does not exist for COCs at this property since the building is currently vacant and scheduled for demolition in the Summer of 2013.

2503 E Cherry Street – Jordan Property

The resulting data indicate the following:

- PCE was detected in the subslab samples SV-8, SV-11 and SV-13 at concentrations of 450 µg/m³, 630 µg/m³ and 1,500 µg/m³, respectively, all of which exceed their corresponding SGSL of 96 µg/m³. The 3 remaining subslab samples (SV-9, SV-10 and SV-12) comply with the corresponding SGSLs. No other VOCs were detected above the corresponding SGSLs in the sub-slab samples.
- PCE was detected in indoor air samples IA-7 and IA-8 at concentrations of 0.23 µg/m³ and 0.55 µg/m³, respectively, which comply with their corresponding CIASL of 9.6 µg/m³. PCE was not detected at indoor air sample IA-9.
- With the exception of benzene in indoor air samples IA-7, IA-8 and IA-9 and 1,2-Dichloroethane (1,2-DCA) in indoor air samples IA-8 and IA-9, no other VOCs were detected at concentrations above their corresponding CIASLs in the indoor air samples. Benzene and 1,2-DCA, however, are not COCs in this matter.
- Based on the data collected, a complete vapor intrusion exposure pathway does not exist for COCs at this property.

2509 E Cherry Street – Jordan Property

The resulting data indicate the following:

- PCE and TCE were detected in subslab sample SV-19 at concentrations of 7.2 µg/m³ and 0.52 µg/m³, respectively, which comply with their corresponding SGSLs of 96 µg/m³ and 3.7 µg/m³, respectively. PCE and TCE were not detected in subslab sample SV-18.
- With the exception of benzene and xylene in subslab sample SV-18, no other VOCs were detected at concentrations above their corresponding SGSLs the subslab samples. Benzene and xylene, however, are not COCs in this matter.
- Due to the compliant subslab samples, it was unnecessary to analyze indoor air samples at this location.
- Based on the data collected, a complete vapor intrusion exposure pathway for COCs does not exist at this property.

2511 E. Cherry Street – Jordan Property

The resulting findings indicate the following:

- PCE was detected in subslab samples SV-16 and SV-17 at concentrations of 0.69 µg/m³ and 1.5 µg/m³, respectively, which comply with its CIASL of 96 µg/m³.
- PCE was not detected at indoor air sample IA-11.
- With the exception of benzene in subslab sample SV-17 and indoor air sample IA-11, all other VOCs comply with their corresponding SGSLs or CIASLs in the subslab and indoor air samples. Benzene, however, is not a COC in this matter.
- Based on the data collected, a complete vapor intrusion exposure pathway for COCs does not exist at this property.

2515 E Cherry Street – Jordan Property

The resulting data indicate the following:

- PCE was detected in subslab sample SV-15 at a concentration of 0.30 µg/m³, which complies with its corresponding SGSL of 96 µg/m³.
- No other VOCs were detected above their corresponding SGSLs in the subslab samples.
- Due to the compliant subslab samples, it was unnecessary to analyze indoor air samples at this location.

- Based on the data collected, a complete vapor intrusion exposure pathway for COCs does not exist at this property.

2516 E. Cherry Street – Twilight Exit Bar

The resulting findings indicate the following:

- PCE was detected in subslab samples SV-2, SV-3 and SV-4 at concentrations of 36,000 $\mu\text{g}/\text{m}^3$, 28,000 $\mu\text{g}/\text{m}^3$ and 110,000 $\mu\text{g}/\text{m}^3$ respectively, all of which exceed its corresponding SGSL of 96 $\mu\text{g}/\text{m}^3$.
- PCE was detected in indoor air samples IA-2 and IA-3, respectively, at concentrations of 6.9 $\mu\text{g}/\text{m}^3$ and 6.8 $\mu\text{g}/\text{m}^3$, which comply with its corresponding CIASL of 9.6 $\mu\text{g}/\text{m}^3$.
- With the exception of benzene in indoor air samples IA-2 and IA-3, all other VOCs comply with their corresponding SGSLs or CIASLs in the subslab and indoor air samples. Benzene, however, is not a COC in this matter.
- Based on the data collected, a complete vapor intrusion exposure pathway for COCs does not exist at this property.

2517 E Cherry Street – Jordan Property

The resulting data indicate the following:

- PCE was not detected and no other VOCs were detected above their corresponding SGSLs in subslab sample SV-14.
- Due to the compliant subslab samples, it was unnecessary to analyze indoor air samples at this location.
- Based on the data collected, a complete vapor intrusion exposure pathway for COCs does not exist at this property.

2518 E. Cherry Street – Tana Market

The resulting findings indicate the following:

- PCE was detected in subslab samples SV-5, SV-6 and SV-7 at concentrations of 20.0 $\mu\text{g}/\text{m}^3$, 0.9 $\mu\text{g}/\text{m}^3$ and 1.8 $\mu\text{g}/\text{m}^3$, all of which comply with its corresponding CIASL of 96 $\mu\text{g}/\text{m}^3$.
- All other VOCs comply with their corresponding SGSLs in the subslab air samples.

- Due to the compliant subslab samples, it was unnecessary to analyze indoor air samples at this location.
- Based on the data collected, a complete vapor intrusion exposure pathway does not exist for COCs at this property.

720 25th Avenue - Islamic School of Seattle

The resulting findings indicate the following:

- PCE was detected in subslab samples SV-21 through SV-24 at concentrations of 210 µg/m³, 240 µg/m³, 230 µg/m³ and 300 µg/m³, respectively, all of which exceed its corresponding SGSL of 96 µg/m³. The 2 remaining subslab samples (SV-20 and SV-25) comply with its corresponding SGSLs.
- PCE was detected in indoor air samples IA-13, IA-15 and IA-17, respectively at concentrations of 0.81 µg/m³, 0.41 µg/m³ and 0.57 µg/m³, all of which comply with its corresponding CIASL of 9.6 µg/m³.
- With the exception of benzene in subslab samples SV-21 and SV-25 and indoor air samples IA-13 through IA-17, all other VOCs comply with their corresponding SGSLs or CIASLs in the sub-slab and indoor air samples. Benzene, however, is not a COC in this matter.
- Based on the data collected, a complete vapor intrusion exposure pathway for COCs does not exist at this property.

711A 26th Avenue - Private Residence

The resulting findings indicate the following:

- The property owner did not allow ECC Horizon to drill through his floor to collect subslab air samples.
- PCE was detected in indoor air samples IA-18 and IA-19 at concentrations of 2.8 µg/m³ and 0.57 µg/m³, respectively, which comply with its corresponding CIASL of 9.6 µg/m³.
- With the exception of benzene and 1,2-DCA, all other VOCs comply with their corresponding CIASLs in the indoor air samples. Benzene and 1,2-DCA, however, are not COCs in this matter.
- Based on the data collected, a complete vapor intrusion exposure pathway for COCs does not exist at this property.

4.0 SUMMARY

The investigation results detailed in Section 3.0 are summarized as follows:

1. Assessment of Subsurface Soil and Groundwater. COCs in unsaturated soils have been delineated below MTCA A CLs in all cardinal directions. COCs in groundwater have been delineated below MTCA A CLs to the north, west and south.

2. Assessment of Vapor Intrusion Potential at Nearby Properties. From October through December 2012, ECC Horizon conducted VIAs at the subject property and at nine surrounding properties. Of these properties, the following 4 exhibited subslab air samples with PCE and/or TCE concentrations exceeding their corresponding SGSLS:

- 2510 E. Cherry Street (subject property);
- 2503 E. Cherry Street (Jordan Properties);
- 2516 E. Cherry Street (Twilight Exit Bar); and
- 720 25th Avenue (Islamic School of Seattle)

However, only the building at 2510 E. Cherry Street, which is scheduled for demolition, evidenced PCE and TCE concentrations in the indoor air samples exceeding their corresponding CIASLS.

A total of 4 subslab and all 14 indoor air samples evidenced benzene concentrations exceeding its corresponding SGSLS and CIASLS. Since all 3 ambient samples evidenced benzene concentrations above its corresponding CIASL, the elevated benzene concentrations found in subslab and indoors air samples is likely due to an outside source and not subsurface contamination related to the historical operations of the former Cherry Cleaners property.

In addition, a total of 4 indoor air samples evidenced 1,2-DCA concentrations exceeding its corresponding CIASL. Since 1,2-DCA concentrations were not found in excess of its corresponding SGSL in any of the subslab sample locations, the elevated 1,2-DCA concentrations in the indoor air samples is likely due to internal sources and not subsurface contamination related to the historical operations of the former Cherry Cleaners property.

3. Groundwater Monitoring. The groundwater elevation maps from each sampling event consistently show groundwater flowing in an east-southeasterly direction. A distribution of COC groundwater exceedances is presented in the table on the following page.

Sampling Event	3Q12	4Q12	1Q13	2Q13
COC	# of wells >MTCA A	# of wells >MTCA A	# of wells >MTCA A	# of wells >MTCA A
	CLs	CLs	CLs	CLs
PCE	12	12	12	12
TCE	3	3	3	3
VC	0	0	0	1
CT	1	1	1	1

Based on the information contained herein, ECC Horizon concludes:

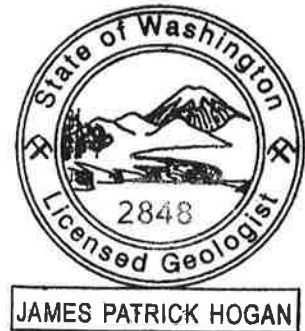
1. Soil. COCs in soil are adequately delineated in all cardinal directions.
2. Groundwater. COCs in groundwater are adequately delineated in all cardinal directions, except downgradient to the east and southeast.
3. Vapor Intrusion. The vapor intrusion pathway is incomplete at all sampled locations except the subject property. Exposure at this location will be eliminated when this building is razed in July 2013.

A detailed narrative of the above property characterization activities beyond those contained within this report together with interim response measures will be summarized in a forthcoming RI. The RI will be submitted following the next round of investigation, which is intended to delineate the vertical and horizontal extent of cVOCs in groundwater.

SIGNATURE PAGE

Casey McFall 6-28-13 (signature and date)
Casey McFall

James P. Hogan 6/28/13 (signature and date)
James P. Hogan, Registered Geologist No. 2848



TABLES

Table 1
Historic Groundwater Elevation Data

Former Cherry Cleaners
2510 E. Cherry St., Seattle Washington

Monitoring Well ID	Date	Screened Interval	Top of Casing Elevation	Depth to Product	Depth to Water	Ground Water Elevation
	Collected	feet bgs	feet mean sea level	feet	feet	feet mean sea level
MW-1	01/25/08	22-42	280.71	NM ³	29.83	250.88
	05/01/08	22-42	280.71	NM	29.11	251.60
	09/26/08	22-42	280.71	NM	29.97	250.74
	10/17/08	22-42	280.71	NM	30.12	250.59
	09/30/09	22-42	280.71	NM	30.59	250.12
	11/11/09	22-42	280.71	NM	30.90	249.81
	01/21/10	22-42	280.71	NM	29.98	250.73
	06/21/10	22-42	280.60 ¹	NM	28.31	252.29
	11/21/11	22-42	280.60 ¹	NM	30.31	250.29
	07/30/12	22-42	280.87 ²	NM	30.03	250.84
	11/02/12	22-42	280.87 ²	NM	31.25	249.62
	02/04/13	22-42	280.87 ²	NM	29.90	250.97
	06/03/13	22-42	280.87 ²	25.90	29.10	254.81
MW-1D	05/01/08	50-55	280.30	NM	28.72	251.58
	09/26/08	50-55	280.30	NM	29.59	250.71
	10/17/08	50-55	280.30	NM	29.70	250.60
	09/30/09	50-55	280.30	NM	30.69	249.61
	11/11/09	50-55	280.30	NM	30.59	249.71
	01/21/10	50-55	280.30	NM	29.68	250.62
	06/21/10	50-55	280.34 ¹	NM	28.07	252.27
	11/21/11	50-55	280.34 ¹	NM	27.82	252.52
	07/30/12	50-55	280.33 ²	NM	26.85	253.48
	11/02/12	50-55	280.33 ²	NM	NM	--
	02/04/13	50-55	280.33 ²	NM	27.10	253.23
	06/03/13	50-55	280.33 ²	NMFP ⁴	25.66	254.67
MW-2	01/25/08	20-40	278.97	NM	27.97	251.00
	05/01/08	20-40	278.97	NM	27.22	251.75
	10/17/08	20-40	278.97	NM	29.70	249.27
	09/30/09	20-40	278.97	NM	28.74	250.23
	11/11/09	20-40	278.97	NM	29.09	249.88
	01/21/10	20-40	278.97	NM	28.17	250.80
	06/21/10	20-40	278.97	NM	26.75	252.22
	11/29/11	20-40	278.97	NM	NM	--
	07/30/12	20-40	278.97 ²	NM	28.95	250.02
	11/02/12	20-40	278.97 ²	NM	30.80	248.17
	02/04/13	20-40	278.97 ²	NM	27.90	251.07
	06/03/13	20-40	278.97 ²	23.84	28.60	254.89
MW-3	01/25/08	20-40	279.63	NM	28.66	250.97
	05/01/08	20-40	279.63	NM	27.90	251.73
	09/26/08	20-40	279.63	NM	28.78	250.85
	10/17/08	20-40	279.63	NM	28.92	250.71
	09/30/09	20-40	279.63	NM	29.34	250.29
	11/11/09	20-40	279.63	NM	29.70	249.93
	01/21/10	20-40	279.63	NM	28.84	250.79
	06/21/10	20-40	279.63	NM	27.20	252.43
	11/29/11	20-40	279.63	NM	NM	--
	07/30/12	20-40	279.63 ²	NM	29.56	250.07
	11/02/12	20-40	279.63 ²	NM	30.70	248.93
	02/04/13	20-40	279.63 ²	NM	28.10	251.53
	06/03/13	20-40	279.63 ²	24.55	27.30	254.94

Table 1
Historic Groundwater Elevation Data

Former Cherry Cleaners
2510 E. Cherry St., Seattle Washington

Monitoring Well ID	Date	Screened Interval	Top of Casing Elevation	Depth to Product	Depth to Water	Ground Water Elevation
	Collected	feet bgs	feet mean sea level	feet	feet	feet mean sea level
MW-4	05/01/08	25-35	273.94	NM	22.16	251.78
	09/26/08	25-35	273.94	NM	23.11	250.83
	10/17/08	25-35	273.94	NM	23.31	250.63
	09/30/09	25-35	273.94	NM	23.73	250.21
	11/11/09	25-35	273.94	NM	24.01	249.93
	01/21/10	25-35	273.94	NM	22.95	250.99
	06/21/10	25-35	273.94	NM	22.47	251.47
	11/21/11	25-35	273.94	NM	21.46	252.48
	07/30/12	25-35	273.93 ²	NM	20.36	253.57
	11/02/12	25-35	273.93 ²	NM	21.75	252.18
	02/04/13	25-35	273.93 ²	NM	21.10	252.83
	06/03/13	25-35	273.93 ²	NMFP	19.20	254.73
MW-5	05/01/08	31.5-41.5	280.01	NM	28.21	251.80
	09/26/08	31.5-41.5	280.01	NM	29.08	250.93
	10/17/08	31.5-41.5	280.01	NM	29.22	250.79
	09/30/09	31.5-41.5	280.01	NM	29.83	250.18
	11/11/09	31.5-41.5	280.01	NM	30.00	250.01
	01/21/10	31.5-41.5	280.01	NM	29.10	250.91
	06/21/10	31.5-41.5	280.01	NM	27.49	252.52
	11/21/11	31.5-41.5	280.01	NM	27.40	252.61
	07/30/12	31.5-41.5	280.00 ²	NM	26.50	253.50
	11/02/12	31.5-41.5	280.00 ²	NM	27.40	252.60
	02/04/13	31.5-41.5	280.00 ²	NM	26.25	253.75
	06/03/13	31.5-41.5	280.00 ²	NMFP	25.11	254.89
MW-6	05/01/08	31.5-41.5	281.42	NM	29.96	251.46
	09/26/08	31.5-41.5	281.42	NM	NM	--
	10/17/08	31.5-41.5	281.42	NM	30.91	250.51
	09/30/09	31.5-41.5	281.42	NM	31.42	250.00
	11/11/09	31.5-41.5	281.42	NM	31.69	249.73
	01/21/10	31.5-41.5	281.42	NM	30.75	250.67
	06/21/10	31.5-41.5	281.42	NM	29.23	252.19
	11/21/11	31.5-41.5	281.42	NM	28.91	252.51
	07/30/12	31.5-41.5	281.41 ²	NM	27.91	253.50
	11/02/12	31.5-41.5	281.41 ²	NM	29.25	252.16
	02/04/13	31.5-41.5	281.41 ²	NM	27.78	253.63
	02/04/13	31.5-41.5	281.41 ²	NM	26.74	254.67
	06/03/13	31.5-41.5	281.41 ²	NMFP	26.74	254.67
MW-7	09/26/08	20-40	280.13	NM	29.37	250.76
	10/17/08	20-40	280.13	NM	29.51	250.62
	09/30/09	20-40	280.13	NM	29.96	250.17
	11/11/09	20-40	280.13	NM	30.30	249.83
	01/21/10	20-40	280.13	NM	29.43	250.70
	06/21/10	20-40	280.13	NM	27.82	252.31
	11/21/11	20-40	280.13	NM	28.38	251.75
	07/30/12	20-40	280.12 ²	NM	28.15	251.97
	11/02/12	20-40	280.12 ²	NM	30.25	249.87
	02/04/13	20-40	280.12 ²	NM	29.90	250.22
	06/03/13	20-40	280.12 ²	25.19	27.40	254.82

Table 1
Historic Groundwater Elevation Data

Former Cherry Cleaners
2510 E. Cherry St., Seattle Washington

Monitoring Well ID	Date	Screened Interval	Top of Casing Elevation	Depth to Product	Depth to Water	Ground Water Elevation
	Collected	feet bgs	feet mean sea level	feet	feet	feet mean sea level
MW-8	09/26/08	20-40	279.90	NM	28.85	251.05
	10/17/08	20-40	279.90	NM	29.00	250.90
	09/30/09	20-40	279.90	NM	29.48	250.42
	11/11/09	20-40	279.90	NM	29.80	250.10
	01/21/10	20-40	279.90	NM	28.96	250.94
	06/21/10	20-40	279.90	NM	27.25	252.65
	11/21/11	20-40	279.90	NM	27.02	252.88
	07/30/12	20-40	279.90 ²	NM	25.95	253.95
	11/02/12	20-40	279.90 ²	NM	27.34	252.56
	02/04/13	20-40	279.90 ²	NM	25.91	253.99
	06/03/13	20-40	279.90 ²	NMFP	24.74	255.16
MW-9	09/26/08	20-40	279.01	NM	20.60	258.41
	10/17/08	20-40	279.01	NM	28.70	250.31
	09/30/09	20-40	279.01	NM	29.25	249.76
	11/11/09	20-40	279.01	NM	29.49	249.52
	01/21/10	20-40	279.01	NM	28.50	250.51
	06/21/10	20-40	279.01	NM	27.02	251.99
	11/21/11	20-40	279.01	NM	26.88	252.13
	07/30/12	20-40	279.00 ²	NM	25.83	253.17
	11/02/12	20-40	279.00 ²	NM	27.18	251.82
	02/04/13	20-40	279.00 ²	NM	25.65	253.35
	06/03/13	20-40	279.00 ²	NMFP	24.50	254.50
MW-10	09/26/08	10-30	283.28	NM	7.76	275.52
	10/17/08	10-30	283.28	NM	7.71	275.57
	09/30/09	10-30	283.28	NM	7.95	275.33
	11/11/09	10-30	283.28	NM	6.81	276.47
	1/21/10	10-30	283.28	NM	5.85	277.43
	6/21/10	10-30	283.28	NM	6.27	277.01
	11/21/11	10-30	283.28	NM	6.86	276.42
	07/30/12	10-30	283.26 ²	NM	6.63	276.63
	11/02/12	10-30	283.26 ²	NM	6.81	276.45
	02/04/13	10-30	283.26 ²	NM	5.52	277.74
	06/03/13	10-30	283.26 ²	NMFP	6.18	277.08
MW-11	06/21/10	20-40	281.44	NM	29.25	252.19
	06/23/10	20-40	281.47	NM	NM	--
	11/21/11	20-40	281.47	NM	29.00	252.47
	07/30/12	20-40	281.45 ²	NM	28.00	253.45
	11/02/12	20-40	281.45 ²	NM	29.40	252.05
	02/04/13	20-40	281.45 ²	NM	28.90	252.55
	06/03/13	20-40	281.45 ²	NMFP	26.80	254.65
MW-12	07/30/12	18-33	278.03 ²	NM	24.09	253.94
	11/02/12	18-33	278.03 ²	NM	25.56	252.47
	02/04/13	18-33	278.03 ²	NM	23.80	254.23
	06/03/13	18-33	278.03 ²	NMFP	22.90	255.13
MW-13	07/30/12	20-35	276.51 ²	NM	22.81	253.70
	11/02/12	20-35	276.51 ²	NM	24.23	252.28
	02/04/13	20-35	276.51 ²	NM	22.74	253.77
	06/03/13	20-35	276.51 ²	NMFP	21.65	254.86

Table 1
Historic Groundwater Elevation Data

Former Cherry Cleaners
2510 E. Cherry St., Seattle Washington

Monitoring Well ID	Date	Screened Interval	Top of Casing Elevation	Depth to Product	Depth to Water	Ground Water Elevation
	Collected	feet bgs	feet mean sea level	feet	feet	feet mean sea level
MW-14	07/30/12	25-40	284.91 ²	NM	31.19	253.72
	11/02/12	25-40	284.91 ²	NM	32.52	252.39
	02/04/13	25-40	284.91 ²	NM	31.16	253.75
	06/03/13	25-40	284.91 ²	NMFP	29.97	254.94
MW-15	07/30/12	22-38	281.92 ²	NM	28.85	253.07
	11/02/12	22-38	281.92 ²	NM	30.18	251.74
	02/04/13	22-38	281.92 ²	NM	28.60	253.32
	06/03/13	22-38	281.92 ²	NMFP	27.69	254.23
MW-16	07/30/12	25-40	284.00 ²	NM	30.80	253.20
	11/02/12	25-40	284.00 ²	NM	32.19	251.81
	02/04/13	25-40	284.00 ²	NM	30.62	253.38
	06/03/13	25-40	284.00 ²	NMFP	29.64	254.36
MW-17	07/30/12	25-40	284.73 ²	NM	31.27	253.46
	11/02/12	25-40	284.73 ²	NM	32.68	252.05
	02/04/13	25-40	284.73 ²	NM	31.28	253.45
	06/03/13	25-40	284.73 ²	NMFP	30.11	254.62

Notes:

1. Denotes top of casing modified and resurveyed on 2/22/10 by ECC Horizon. Modified again on 7/9/10, not re-surveyed.

2. Denotes top of casing resurveyed by Otak on 7/30/12

3. NM = Not measured

4. NMFP = No measured free product

For wells that contain free product, groundwater elevation is determined by the following calculation:

(Measured groundwater elevation) + (free product thickness x 0.95); 0.95 is the specific gravity of EOS

bgs = below ground surface

Data prior to 9/30/09 provided by Farallon Consulting

Table 2
Historical Soil Analytical Results
Volatile Organic Compounds (VOCs) Compared to Model Toxics Control Act (MTCA) Cleanup Levels

Former Cherry Cleaners
2510 E. Cherry St., Seattle, Washington

Sample Location	Sample Name	Date Collected	Depth	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Vinyl chloride	Acetone	Benzene	Carbon Tetrachloride	Chloroform	1,2-Dichloroethene (Total)	Ethylbenzene	Methylene Chloride	Naphthalene	Toluene	Xylene (Total)
			feet bgs	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
MTCA Cleanup Levels				0.05 ¹	0.03 ¹	160 ²	# ³	72000 ²	0.03 ¹	14 ²	80 ²	720 ²	6 ¹	130 ²	5 ²	7 ²	91
FB-1 ⁴	FB1-5	1/4/2008	5	1.2	0.027	0.0040	<0.00083	--	--	--	--	--	--	--	--	--	--
	FB1-7	1/4/2008	7	0.091	0.0017	<0.0052	<0.00052	--	--	--	--	--	--	--	--	--	--
FB-2	FB2-4	1/4/2008	4	0.091	<0.00054	<0.00054	<0.00054	--	--	--	--	--	--	--	--	--	--
	FB2-7	1/4/2008	7	0.11	<0.00072	<0.00072	<0.00072	--	--	--	--	--	--	--	--	--	--
FB-3	FB3-1	1/4/2008	1	3.4	0.11	0.060	<0.058	--	--	--	--	--	--	--	--	--	--
	FB3-7	1/4/2008	7	7.6	0.035	0.031	<0.00050	--	--	--	--	--	--	--	--	--	--
FB-4	FB4-4	1/4/2008	4	440	4.5	<1.1	<1.1	--	--	--	--	--	--	--	--	--	--
	FB4-7	1/4/2008	7	0.52	0.017	0.66	<0.00076	--	--	--	--	--	--	--	--	--	--
FB-5	FB5-1	1/4/2008	1	13	0.13	0.014	<0.00067	--	--	--	--	--	--	--	--	--	--
	FB5-8	1/4/2008	8	1.4	0.0042	0.0082	<0.00060	--	--	--	--	--	--	--	--	--	--
FB-6	FB6-1	1/4/2008	1	0.99	<0.00053	<0.00053	<0.00053	--	--	--	--	--	--	--	--	--	--
	FB6-7	1/4/2008	7	0.31	<0.00060	<0.00060	<0.00060	--	--	--	--	--	--	--	--	--	--
FB-7	FB7-5	3/31/2008	5	0.035	<0.00075	0.00082	<0.00075	--	--	--	--	--	--	--	--	--	--
	FB7-10	3/31/2008	10	0.10	<0.00077	0.0038	<0.00077	--	--	--	--	--	--	--	--	--	--
	FB7-20	3/31/2008	20	0.13	<0.0011	0.0026	<0.0011	--	--	--	--	--	--	--	--	--	--
FB-8	FB8-20	4/28/2008	20	0.43	<0.060	<0.060	<0.30	--	--	--	--	--	--	--	--	--	--
	FB8-25	4/28/2008	25	0.21	<0.049	<0.049	<0.24	--	--	--	--	--	--	--	--	--	--
FB-9	FB9-20	4/28/2008	20	0.21	<0.050	<0.050	<0.25	--	--	--	--	--	--	--	--	--	--
	FB9-25	4/28/2008	25	0.20	<0.055	<0.055	<0.27	--	--	--	--	--	--	--	--	--	--
IW-1	B1-20	6/8/10	20	0.030	<0.0011	<0.0011	<0.0011	--	--	<0.0011	<0.0011	--	--	<0.0023	--	--	--
	B1-30	6/8/10	30	0.031	0.0012	<0.0010	<0.0010	--	--	<0.0010	<0.0010	--	--	<0.0019	--	--	--
IW-3	B3-30	6/7/10	30	0.560	<0.055	<0.055	<0.055	--	--	<0.055	<0.055	--	--	0.120	--	--	--
IW-4	B4-20	6/7/10	20	0.740	<0.049	<0.049	<0.049	--	--	<0.049	<0.049	--	--	0.100	--	--	--
	B4-40	6/7/10	40	<0.0008	<0.0008	<0.0008	<0.0008	--	--	<0.0008	<0.0008	--	--	<0.0016	--	--	--
IW-5	B5-10	6/4/10	10	0.054	<0.0009	<0.0009	<0.0009	--	--	<0.0009	<0.0009	--	--	0.0022	--	--	--
	B5-30	6/4/10	30	0.760	<0.054	<0.054	<0.054	--	--	<0.054	<0.054	--	--	0.130	--	--	--
IW-6	B6-15	6/4/10	15	0.800	<0.047	<0.047	<0.047	--	--	<0.047	<0.047	--	--	0.180	--	--	--
	B6-40 ⁵	6/4/10	40	0.340	<0.051	<0.051	<0.051	--	--	<0.051	<0.051	--	--	0.170	--	--	--
IW-7	B7-30 ⁵	6/4/10	30	2.100	<0.059	<0.059	<0.059	--	--	<0.059	<0.059	--	--	<0.120	--	--	--
IW-8	B8-40	6/3/10	40	0.110	0.0055	<0.0008	<0.0008	--	--	<0.0008	<0.0008	--	--	0.0017	--	--	--
IW-10	B10-40	6/3/10	40	0.072	0.0039	<0.0008	<0.0008	--	--	<0.0008	<0.0008	--	--	0.0030	--	--	--

Table 2
Historical Soil Analytical Results
Volatile Organic Compounds (VOCs) Compared to Model Toxics Control Act (MTCA) Cleanup Levels

Former Cherry Cleaners
2510 E. Cherry St., Seattle, Washington

Sample Location	Sample Name	Date Collected	Depth	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Vinyl chloride	Acetone	Benzene	Carbon Tetrachloride	Chloroform	1,2-Dichloroethene (Total)	Ethylbenzene	Methylene Chloride	Naphthalene	Toluene	Xylene (Total)
			feet bgs	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
MTCA Cleanup Levels				0.05 ¹	0.03 ¹	160 ²	# ³	72000 ²	0.03 ¹	14 ²	80 ²	720 ²	6 ¹	130 ²	5 ²	7 ²	91
IW-11	B11-30 ⁵	6/3/10	30	2.000	<0.970	<0.970	<0.970	--	--	<0.970	<0.970	--	--	<1.900	--	--	--
IW-12	B12-30	6/10/10	30	2.100	<0.053	<0.053	<0.053	--	--	<0.053	<0.053	--	--	<0.110	--	--	--
IW-13	B13-15	6/10/10	15	2.000	<0.075	<0.075	<0.075	--	--	<0.075	<0.075	--	--	<0.150	--	--	--
	B13-25	6/10/10	25	3.600	<0.071	<0.071	<0.071	--	--	<0.071	<0.071	--	--	<0.140	--	--	--
IW-14	B14-30	6/10/10	30	1.200	<0.056	<0.056	<0.056	--	--	<0.056	<0.056	--	--	<0.110	--	--	--
IW-15	B15-15	6/10/10	15	0.790	<0.052	0.070	<0.052	--	--	<0.052	<0.052	--	--	<0.100	--	--	--
	B15-40	6/10/10	40	0.100	0.0017	0.0045	<0.0008	--	--	<0.0008	<0.0008	--	--	0.0023	--	--	--
IW-16	B16-10	6/11/10	10	0.640	<0.057	0.073	<0.057	--	--	<0.057	<0.057	--	--	<0.110	--	--	--
	B16-30	6/11/10	30	2.900	0.063	0.120	<0.047	--	--	<0.047	<0.047	--	--	<0.094	--	--	--
IW-17	B17-10	6/11/10	10	0.920	<0.061	<0.061	<0.061	--	--	<0.061	<0.061	--	--	<0.120	--	--	--
	B17-20	6/11/10	20	1.200	<0.044	<0.044	<0.044	--	--	<0.044	<0.044	--	--	<0.088	--	--	--
	B17-30	6/11/10	30	2.000	<0.048	0.053	<0.048	--	--	<0.048	<0.048	--	--	<0.096	--	--	--
IW-18	B18-15	6/11/10	15	0.630	<0.043	<0.043	<0.043	--	--	<0.043	<0.043	--	--	<0.086	--	--	--
	B18-25	6/11/10	25	0.880	<0.045	<0.045	<0.045	--	--	<0.045	<0.045	--	--	<0.090	--	--	--
IW-19	B19-20	6/14/10	20	0.330	<0.071	<0.071	<0.071	--	--	<0.071	<0.071	--	--	<0.140	--	--	--
IW-20	B20-10	6/14/10	10	0.340	<0.055	<0.055	<0.055	--	--	<0.055	<0.055	--	--	<0.110	--	--	--
	B20-25	6/14/10	25	0.320	<0.038	<0.038	<0.038	--	--	<0.038	<0.038	--	--	<0.076	--	--	--
IW-21	B21-20	6/14/10	20	0.260	<0.056	<0.056	<0.056	--	--	<0.056	<0.056	--	--	<0.110	--	--	--
IW-22	B22-15	6/15/10	15	0.100	0.0020	<0.0016	<0.0016	--	--	<0.0016	<0.0016	--	--	0.0038	--	--	--
IW-23	B23-20	6/15/10	20	0.045	0.0014	<0.0008	<0.0008	--	--	<0.0008	<0.0008	--	--	<0.0016	--	--	--
IW-24	B24-18	6/15/10	18	0.039	<0.0011	<0.0011	<0.0011	--	--	<0.0011	<0.0011	--	--	0.0030	--	--	--
IW-25	B25-10	6/16/10	10	0.021	<0.0009	<0.0009	<0.0009	--	--	<0.0009	<0.0009	--	--	<0.0019	--	--	--
IW-26	B26-10	6/16/10	10	0.0049	<0.0007	<0.0007	<0.0007	--	--	<0.0007	<0.0007	--	--	<0.0015	--	--	--
IW-27	B27-15	6/1/10	15	1.000	<0.048	<0.048	<0.048	--	--	<0.048	<0.048	--	--	<0.095	--	--	--
	B27-22.5 ⁵	6/1/10	22.5	0.900	<0.049	<0.049	<0.049	--	--	<0.049	<0.049	--	--	<0.098	--	--	--
IW-28	B28-16 ⁵	6/2/10	16	0.470	<0.072	<0.072	<0.072	--	--	<0.072	<0.072	--	--	<0.140	--	--	--
	B28-25 ⁵	6/2/10	25	1.400	<0.077	<0.077	<0.077	--	--	<0.077	<0.077	--	--	<0.150	--	--	--
	B28-40	6/2/10	40	0.0008	<0.0008	<0.0008	<0.0008	--	--	<0.0008	<0.0008	--	--	0.0018	--	--	--
MW-1	MW-1-5.5	1/21/2008	5.5	0.039	<0.00099	<0.00099	<0.00099	--	--	--	--	--	--	--	--	--	--
	MW-1-20	1/21/2008	20	0.047	<0.0076	<0.0076	<0.0076	--	--	--	--	--	--	--	--	--	--
MW-1D	MW-1D2-25	1/21/2008	25	0.15	0.0028	0.0054	<0.0040	--	--	--	--	--	--	--	--	--	--

Table 2
Historical Soil Analytical Results
Volatile Organic Compounds (VOCs) Compared to Model Toxics Control Act (MTCA) Cleanup Levels

Former Cherry Cleaners
2510 E. Cherry St., Seattle, Washington

Sample Location	Sample Name	Date Collected	Depth	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Vinyl chloride	Acetone	Benzene	Carbon Tetrachloride	Chloroform	1,2-Dichloroethene (Total)	Ethylbenzene	Methylene Chloride	Naphthalene	Toluene	Xylene (Total)
			feet bgs	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
MTCA Cleanup Levels				0.05 ¹	0.03 ¹	160 ²	# ³	72000 ²	0.03 ¹	14 ²	80 ²	720 ²	6 ¹	130 ²	5 ²	7 ²	91
MW-2	MW-2-7.5	1/21/2008	7.5	0.026	<0.00092	<0.00092	<0.00092	--	--	--	--	--	--	--	--	--	--
	MW-2-15	1/21/2008	15	0.0029	<0.0013	<0.0013	<0.0013	--	--	--	--	--	--	--	--	--	--
MW-3	MW-3-7.5	1/23/2008	7.5	0.020	<0.00063	<0.00063	<0.00063	--	--	--	--	--	--	--	--	--	--
	MW-3-10	1/23/2008	10	0.0062	<0.0011	<0.0011	<0.0011	--	--	--	--	--	--	--	--	--	--
	MW-3-20	1/23/2008	20	0.0030	<0.0011	<0.0011	<0.0011	--	--	--	--	--	--	--	--	--	--
MW-4	MW-4-15	4/1/2008	15	0.0014	<0.0011	<0.0011	<0.0011	--	--	--	--	--	--	--	--	--	--
MW-5	MW-5-15	4/29/2008	15	0.020	<0.00081	<0.00081	<0.0040	--	--	--	--	--	--	--	--	--	--
MW-6	MW-6-10	4/29/2008	10	<0.00088	<0.00088	<0.00088	<0.00044	--	--	--	--	--	--	--	--	--	--
	MW-6-20	4/29/2008	20	0.0088	<0.00086	<0.00086	<0.00043	--	--	--	--	--	--	--	--	--	--
MW-7	MW-7-15	9/17/2008	15-16	0.21	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW-7-25	9/17/2008	25-26	0.15	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	MW-9-20	9/17/2008	20-21	<0.0027	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	MW-10-20	9/17/2008	20-21.5	<0.00098	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-11	MW11-18 ⁵	6/2/10	18	0.570	<0.110	<0.110	<0.110	--	--	<0.110	<0.110	--	--	<0.220	--	--	--
	MW11-30 ⁵	6/2/10	30	1.600	<0.470	<0.470	<0.470	--	--	<0.470	<0.470	--	--	<0.940	--	--	--
	MW11-40	6/2/10	40	0.068	0.0018	<0.0008	<0.0008	--	--	<0.0008	<0.0008	--	--	0.0022	--	--	--
MW-12	MW12-6	7/2/12	6	<0.0033	<0.0033	<0.0033	<0.0033	<0.0109	<0.0033	<0.0033	<0.0033	<0.0065	<0.0033	<0.0109	<0.0033	<0.0033	<0.0098
	MW12-20	7/9/12	20	<0.0035	<0.0035	<0.0035	<0.0035	<0.0115	<0.0035	<0.0035	<0.0035	<0.0069	<0.0035	<0.0115	<0.0035	<0.0035	<0.0104
	MW12-35	7/2/12	35	<0.0032	<0.0032	<0.0032	<0.0032	<0.0107	<0.0032	<0.0032	<0.0032	<0.0064	<0.0032	<0.0107	<0.0032	<0.0032	<0.0096
MW-13	MW13-5	7/3/12	5	<0.0026	<0.0026	<0.0026	<0.0026	0.0225	<0.0026	<0.0026	<0.0026	<0.0052	<0.0026	<0.0087	<0.0026	<0.0026	<0.0079
	MW13-15	7/3/12	15	<0.0034	<0.0034	<0.0034	<0.0034	0.0272	<0.0034	<0.0034	<0.0034	<0.0067	<0.0034	<0.0112	<0.0034	<0.0034	<0.0101
	MW-13-35	7/3/12	35	<0.0031	<0.0031	<0.0031	<0.0031	<0.0103	<0.0031	<0.0031	<0.0031	<0.0062	<0.0031	<0.0103	<0.0031	<0.0031	<0.0093
MW-14	MW14-5	7/3/12	5	<0.0028	<0.0028	<0.0028	<0.0028	0.0325	<0.0028	<0.0028	<0.0028	<0.0057	<0.0028	<0.0095	<0.0028	<0.0028	<0.0085
	MW14-15	7/3/12	15	<0.0039	<0.0039	<0.0039	<0.0039	<0.0130	<0.0039	<0.0039	<0.0039	<0.0078	<0.0039	<0.0130	0.0041	<0.0039	<0.0117
	MW14-20	7/3/12	20	<0.0031	<0.0031	<0.0031	<0.0031	<0.0104	<0.0031	<0.0031	<0.0031	<0.0063	<0.0031	<0.0104	<0.0031	<0.0031	<0.0094
	MW-14-40	7/3/12	40	<0.0032	<0.0032	<0.0032	<0.0032	<0.0108	<0.0032	<0.0032	<0.0032	<0.0065	<0.0032	<0.0108	<0.0032	<0.0032	<0.0097
MW-15	MW-15-5	7/5/12	5	<0.0029	<0.0029	<0.0029	<0.0029	<0.0098	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	<0.0098	<0.0029	<0.0029	<0.0088
	MW-15-15	7/5/12	15	0.0285	<0.0034	<0.0034	<0.0034	<0.0114	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0114	<0.0034	<0.0034	<0.0102
	MW-15-40	7/5/12	40	<0.0027	<0.0027	<0.0027	<0.0027	<0.0091	<0.0027	<0.0027	<0.0027	<0.0027	<0.0027	<0.0091	<0.0027	<0.0027	<0.0082
MW-16	MW-16-5	7/20/12	5	<0.0034	<0.0034	<0.0034	<0.0034	0.0227	<0.0034	<0.0034	<0.0034	<0.0068	<0.0034	<0.0114	<0.0034	<0.0034	<0.0102
	MW-16-15	7/20/12	15	<0.0031	<0.0031	<0.0031	<0.0031	0.0154	<0.0031	<0.0031	<0.0031	<0.0062	<0.0031	<0.0104	<0.0031	<0.0031	<0.0093
	MW-16-40	7/20/12	40	<0.0032	<0.0032	<0.0032	<0.0032	0.0154	<0.0032	<0.0032	<0.0032	<0.0063	<0.0032	<0.0106	<0.0032	<0.0032	<0.0095
MW-17	MW-17-5	7/20/12	5	<0.0029	<0.0029	<0.0029	<0.0029	0.0245	<0.0029	<0.0029	<0.0029	<0.0058	<0.0029	<0.0097	<0.0029	<0.0029	<0.0087
	MW-17-15	7/20/12	15	<0.0036	<0.0036	<0.0036	<0.0036	<0.0121	<0.0036	<0.0036	<0.0036	<0.0073	<0.0036	<0.0121	<0.0036	<0.0036	<0.0109
	MW-17-40	7/20/12	40	<0.0034	<0.0034	<0.0034	<0.0034	0.0231	<0.0034	<0.0034	<0.0034	<0.0068	<0.0034	<0.0113	<0.0034	<0.0034	<0.0102

Table 2
Historical Soil Analytical Results
Volatile Organic Compounds (VOCs) Compared to Model Toxics Control Act (MTCA) Cleanup Levels

Former Cherry Cleaners
2510 E. Cherry St., Seattle, Washington

Sample Location	Sample Name	Date Collected	Depth	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Vinyl chloride	Acetone	Benzene	Carbon Tetrachloride	Chloroform	1,2-Dichloroethene (Total)	Ethylbenzene	Methylene Chloride	Naphthalene	Toluene	Xylene (Total)
			feet bgs	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
MTCA Cleanup Levels				0.05 ¹	0.03 ¹	160 ²	# ³	72000 ²	0.03 ¹	14 ²	80 ²	720 ²	6 ¹	130 ²	5 ²	7 ²	91
SB-1	SB-1-5	2/10/12	5	0.0029	<0.0012	<0.0012	<0.0012	0.0136	<0.0012	<0.0012	<0.0012	<0.0025	<0.0012	<0.0041	<0.0012	0.0033	0.0051
	SB-1-10	2/10/12	10	0.0302	<0.0039	<0.0039	<0.0039	<0.0132	0.0102	<0.0039	<0.0039	<0.0039	0.0108	<0.0132	<0.0039	0.0657	0.0543
	SB-1-20	2/10/12	20	0.0264	<0.0037	<0.0037	<0.0037	<0.0124	<0.0037	<0.0037	<0.0037	<0.0037	<0.0037	<0.0124	<0.0037	0.0049	<0.0111
	SB-1-25	2/10/12	25	0.0186	0.0069	<0.0012	<0.0012	0.0912	0.0015	<0.0012	<0.0012	<0.0024	0.0014	<0.0040	<0.0012	0.0066	0.0062
	SB-1-50	2/10/12	50	0.0035	<0.0012	<0.0012	<0.0012	<0.0041	<0.0012	<0.0012	<0.0012	<0.0025	<0.0012	<0.0041	<0.0012	0.0028	0.0039
	SB-1-55	2/10/12	55	<0.0032	<0.0032	<0.0032	<0.0032	<0.0106	<0.0032	<0.0032	<0.0032	<0.0063	<0.0032	<0.0106	<0.0032	0.0038	<0.0095
	SB-1-60	2/10/12	60	<0.00094	<0.00094	<0.00094	<0.00094	<0.0031	0.0049	<0.00094	<0.00094	<0.0019	0.0024	<0.0031	<0.00094	0.0177	0.0101
SB-2	SB-2-10	2/20/2012	10	<0.0030	<0.0030	<0.0030	<0.0030	<0.0101	<0.0030	<0.0030	<0.0030	<0.0060	<0.0030	<0.0101	<0.0030	<0.0030	<0.0091
	SB-2-25	2/20/2012	25	<0.0035	<0.0035	<0.0035	<0.0035	<0.0117	<0.0035	<0.0035	<0.0035	<0.0070	<0.0035	<0.0117	<0.0035	<0.0035	<0.0105
	SB-2-45	2/20/2012	45	0.0802	<0.0037	<0.0037	<0.0037	<0.0124	<0.0037	<0.0037	<0.0037	<0.0074	<0.0037	<0.0124	<0.0037	<0.0037	<0.0111
	SB-2-60	2/20/2012	60	0.0512	<0.0030	<0.0030	<0.0030	<0.010	<0.0030	<0.0030	<0.0030	<0.0060	<0.0030	<0.010	<0.0030	<0.0030	<0.0090
SB-3	SB-3-10	2/14/2012	10	0.179	<0.0044	<0.0044	<0.0044	<0.0145	<0.0044	<0.0044	<0.0044	<0.0087	<0.0044	<0.0145	<0.0044	<0.0044	<0.0131
	SB-3-35	2/14/2012	35	0.163	<0.0034	<0.0034	<0.0034	<0.0114	<0.0034	<0.0034	<0.0034	<0.0068	<0.0034	<0.0114	<0.0034	<0.0034	<0.0103
	SB-3-50	2/14/2012	50	0.0058	<0.0033	<0.0033	<0.0033	<0.0110	<0.0033	<0.0033	<0.0033	<0.0066	<0.0033	<0.0110	<0.0033	<0.0033	<0.0099
	SB-3-60	2/14/2012	60	0.0755	<0.0036	<0.0036	<0.0036	<0.0119	<0.0036	<0.0036	<0.0036	<0.0071	<0.0036	<0.0119	<0.0036	<0.0036	<0.0107
SB-4	SB-4-5	2/9/12	5	0.124	0.0024	<0.0017	<0.0017	0.0154	<0.0017	<0.0017	<0.0017	<0.0033	0.0030	<0.0056	<0.0017	0.0108	0.0136
	SB-4-30	2/9/12	30	0.454	0.0060	0.0019	<0.0013	0.0043	<0.0013	<0.0013	<0.0013	<0.0026	0.0018	<0.0043	<0.0013	0.0059	0.0079
	SB-4-45	2/9/12	45	<0.0016	<0.0016	<0.0016	<0.0016	<0.0055	<0.0016	<0.0016	<0.0016	<0.0033	<0.0016	<0.0055	<0.0016	<0.0016	<0.0049
	SB-4-55	2/10/12	55	<0.0032	<0.0032	<0.0032	<0.0032	<0.0105	<0.0032	<0.0032	<0.0032	<0.0063	<0.0032	<0.0105	<0.0032	0.0039	<0.0091
	SB-4-60	2/9/12	60	<0.00099	<0.00099	<0.00099	<0.00099	<0.0033	<0.00099	<0.00099	<0.00099	<0.0020	0.0012	<0.0033	<0.00099	0.0047	0.0057
SB-5	SB-5-15	2/21/2012	15	0.151	<0.0039	<0.0039	<0.0039	<0.0129	<0.0039	<0.0039	<0.0039	<0.0077	<0.0039	<0.0129	<0.0039	<0.0039	<0.0116
	SB-5-40	2/21/2012	40	<0.0035	<0.0035	<0.0035	<0.0035	<0.0115	<0.0035	<0.0035	<0.0035	<0.0069	<0.0035	<0.0115	<0.0035	<0.0035	<0.0104
	SB-5-50	2/21/2012	50	0.0182	<0.0036	<0.0036	<0.0036	<0.0119	<0.0036	<0.0036	<0.0036	<0.0072	<0.0036	<0.0119	<0.0036	<0.0036	<0.0108
	SB-5-60	2/21/2012	60	0.0135	<0.0035	<0.0035	<0.0035	<0.0118	<0.0035	<0.0035	<0.0035	<0.0071	<0.0035	<0.0118	<0.0035	<0.0035	<0.0106
SB-6	SB-6-30	2/13/2012	30	0.110	<0.0042	<0.0042	<0.0042	<0.0140	<0.0042	<0.0042	<0.0042	<0.0084	<0.0042	<0.0140	<0.0042	0.0044	<0.0126
	SB-6-40	2/13/2012	40	0.0225	<0.0040	<0.0040	<0.0040	<0.0133	<0.0040	<0.0040	<0.0040	<0.0080	<0.0040	<0.0133	<0.0040	<0.0040	<0.0120
	SB-6-50	2/13/2012	50	<0.0034	<0.0034	<0.0034	<0.0034	<0.0115	<0.0034	<0.0034	<0.0034	<0.0069	<0.0034	<0.0115	<0.0034	<0.0034	<0.0103
	SB-6-60	2/13/2012	60	0.0092	<0.0038	<0.0038	<0.0038	<0.0128	<0.0038	<0.0038	<0.0038	<0.0077	<0.0038	<0.0128	<0.0038	<0.0038	<0.0115
SB-7	SB-7-30	2/13/2012	30	0.168	0.0058	<0.0033	<0.0033	<0.0110	<0.0033	<0.0033	<0.0033	<0.0066	<0.0033	<0.0110	<0.0033	<0.0033	<0.0099
	SB-7-40	2/13/2012	40	0.0296	<0.0035	<0.0035	<0.0035	<0.0118	<0.0035	<0.0035	<0.0035	<0.0071	<0.0035	<0.0118	<0.0035	<0.0035	<0.0106
	SB-7-50	2/13/2012	50	0.0122	<0.0037	<0.0037	<0.0037	<0.0125	<0.0037	<0.0037	<0.0037	<0.0075	<0.0037	<0.0125	<0.0037	<0.0037	<0.0112
	SB-7-60	2/13/2012	60	0.0132	0.0269	<0.0038	<0.0038	<0.0127	<0.0038	<0.0038	<0.0038	<0.0076	0.0049	<0.0127	<0.0038	0.0269	0.0229
SB-8	SB-8-10	2/8/12	10	0.0411	<0.0024	<0.0024	<0.0024	<0.0079	<0.0024	<0.0024	<0.0024	<0.0047	0.0036	<0.0079	<0.0024	0.0135	0.0169
	SB-8-25	2/8/12	25	0.0546	<0.0048	<0.0048	<0.0048	<0.0159	<0.0048	<0.0048	<0.0048	<0.0095	<0.0048	<0.0159	<0.0048	0.0054	<0.0143
	SB-8-35	2/8/12	35	0.371	0.0541	<0.0015	<0.0015	<0.0049	<0.0015	<0.0015	<0.0015	<0.0029	0.0051	<0.0049	<0.0015	0.0253	0.0191
	SB-8-45	2/8/12	45	0.0368	0.0083	<0.0011	<0.0011	<0.0036	<0.0011	<0.0011	<0.0011	<0.0022	0.0017	<0.0036	<0.0011	0.0062	0.0075
	SB-8-60	2/8/12	60	0.0219	0.0035	<0.0012	<0.0012	<0.0040	<0.0012	<0.0012	0.0013	<0.0024	0.0013	<0.0040	<0.0012	0.0048	0.0060
SB-9	SB-9-10	2/15/2012	10	0.0088	<0.0044	<0.0044	<0.0044	<0.0145	<0.0044	<0.0044	<0.0044	<0.0087	<0.0044	<0.0145	<0.0044	0.0179	0.0192
	SB-9-30	2/15/2012	30	0.0318	<0.0040	<0.0040	<0.0040	<0.0134	<0.0040	<0.0040	<0.0040	<0.0081	0.0047	<0.0134	<0.0040	0.0206	0.0209
	SB-9-50	2/15/2012	50	<0.0033	<0.0033	<0.0033	<0.0033	<0.0110	<0.0033	<0.0033	<0.0033	<0.0066	0.0043	<0.0110	<0.0033	0.0167	0.0189
	SB-9-60	2/15/2012	60	<0.0032	<0.0032	<0.0032	<0.0032	<0.0107	<0.0032	<0.0032	<0.0032	<0.0064	<0.0032	<0.0107	<0.0032	0.0097	0.010

Table 2
Historical Soil Analytical Results
Volatile Organic Compounds (VOCs) Compared to Model Toxics Control Act (MTCA) Cleanup Levels

Former Cherry Cleaners
2510 E. Cherry St., Seattle, Washington

Sample Location	Sample Name	Date Collected	Depth	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Vinyl chloride	Acetone	Benzene	Carbon Tetrachloride	Chloroform	1,2-Dichloroethene (Total)	Ethylbenzene	Methylene Chloride	Naphthalene	Toluene	Xylene (Total)
			feet bgs	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
MTCA Cleanup Levels				0.05 ¹	0.03 ¹	160 ²	# ³	72000 ²	0.03 ¹	14 ²	80 ²	720 ²	6 ¹	130 ²	5 ²	7 ²	91
SB-10	SB-10-20	2/16/2012	20	<0.0068	<0.0068	<0.0068	<0.0068	0.715	<0.0068	<0.0068	<0.0068	<0.0137	0.0116	<0.0228	<0.0068	0.0605	0.0507
	SB-10-30	2/16/2012	30	0.125	<0.0035	<0.0035	<0.0035	<0.0117	<0.0035	<0.0035	<0.0035	<0.0070	0.0043	<0.0117	<0.0035	0.0197	0.0191
	SB-10-45	2/16/2012	45	0.0265	<0.0040	<0.0040	<0.0040	<0.0134	<0.0040	<0.0040	<0.0040	<0.008	<0.0040	<0.0134	<0.0040	0.0170	0.0164
	SB-10-55	2/16/2012	55	0.0395	<0.0035	<0.0035	<0.0035	<0.0116	<0.0035	<0.0035	<0.0035	<0.007	<0.0035	<0.0116	<0.0035	0.0155	0.0163
SB-11	SB-11-15	2/21/2012	15	0.0195	<0.0038	<0.0038	<0.0038	<0.0127	<0.0038	<0.0038	<0.0038	<0.0076	<0.0038	<0.0127	<0.0038	<0.0038	<0.0114
	SB-11-30	2/21/2012	30	0.0129	<0.0033	<0.0033	<0.0033	<0.0111	<0.0033	<0.0033	<0.0033	<0.0066	<0.0033	<0.0111	<0.0033	<0.0033	<0.0100
	SB-11-45	2/21/2012	45	0.0059	<0.0037	<0.0037	<0.0037	<0.0122	<0.0037	<0.0037	<0.0037	<0.0073	<0.0037	<0.0122	<0.0037	<0.0037	<0.0110
	SB-11-60	2/21/2012	60	<0.0036	<0.0036	<0.0036	<0.0036	<0.0120	<0.0036	<0.0036	<0.0036	<0.0072	<0.0036	<0.0120	<0.0036	<0.0036	<0.0108
SVE-1	SVE-1-10	4/1/2008	10	0.33	<0.00082	<0.00082	<0.00082	--	--	--	--	--	--	--	--	--	--
	SVE-1-20	4/1/2008	20	0.080	<0.0010	<0.0010	<0.0010	--	--	--	--	--	--	--	--	--	--
SVE-2	SVE2-6	7/16/10	6	0.295	<0.0750	<0.0750	<0.0750	--	--	<0.0750	<0.0750	<0.150	--	<0.450	--	--	--
VP-1	VP1-8	7/16/10	8	2.520	<0.0713	<0.0713	<0.0713	--	--	<0.073	<0.073	<0.143	--	<0.428	--	--	--
VP-2	VP2-2.5	7/16/10	2.5	7.290	<0.105	<0.105	<0.105	--	--	<0.105	<0.150	<0.210	--	<0.630	--	--	--
VP-3	VP3-6	7/16/10	6	0.463	<0.0737	<0.0737	<0.0737	--	--	<0.0737	<0.0737	<0.147	--	<0.442	--	--	--

Notes:

1. Washington State Department of Ecology Model Toxics Control Act (MTCA) Method A Cleanup Level
 2. Washington State Department of Ecology Model Toxics Control Act (MTCA) Method B Cleanup Level; Method A Cleanup Level not established
 3. # denotes no value exists in the CLARC database for this compound.
 4. Denotes analytical data obtained from tables within previously submitted Farallon reports; actual lab report not available.
 5. Denotes sample reanalyzed for correction for soil moisture content per Section 11.10.5 of EPA Method 8000C
 6. **Bold** denotes concentrations exceeding the MTCA Cleanup Levels
 7. -- Denotes not analyzed or reported
- bgs = below ground surface
mg/kg = milligrams per kilogram

Table 3
Historical Groundwater Analytical Results
Volatile Organic Compounds Compared to Model Toxics Control Act (MTCA) Cleanup Levels
Former Cherry Cleaners
2510 E. Cherry St., Seattle Washington

Monitoring Well	Date Collected	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Acetone	2-Butanone (MEK)	Carbon tetrachloride	Chlorobenzene	Chloroform	Dibromochloromethane	1,2-Dichloroethene (Total)	Naphthalene
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MTCA Cleanup Level		5 ¹	5 ¹	80 ²	0.2 ¹	7200 ²	# ²	0.34 ²	160 ²	7.2 ²	0.52 ²	72 ²	160 ²
MW-1	1/25/08	2,300	42	32	<10	--	--	--	--	--	--	--	--
	10/1/09	6,200	120	240	<61	--	--	<61	<61	<61	<61	<61	--
	11/29/11	40.3	2.5	6.2	<1.0	9.3	20.3	<1.0	<1.0	1.1	<1.0	6.4	<5.0
	8/2/12	91.2	5.1	15.2	<1.0	24.2	159	<1.0	<1.0	<1.0	<1.0	15.5	<1.0
	11/7/12	83.7	4.2	15.4	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	2/7/13	136	6.8	19.8	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	6/10/13	132	6.7	23.7	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
MW-1D	5/1/08	61	1.1	3.1	<0.40	--	--	--	--	--	--	--	--
	10/1/09	9.4	0.2	<0.2	<0.2	--	--	<0.2	<0.2	<0.2	<0.2	<0.2	--
	11/11/09	4.6	<0.2	<0.2	<0.2	--	--	<0.2	<0.2	<0.2	<0.2	<0.2	--
	11/29/11	5.4	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<5.0
	8/2/12	13.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
	11/7/12	6.6	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	2/7/13	3.2	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	6/5/13	2.0	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
MW-2	1/25/08	1,100	30	<10	<10	--	--	--	--	--	--	--	--
	10/1/09	1,200	33	9.6	<4.0	--	--	9.0	<4.0	<4.0	<4.0	<4.0	--
	11/29/11	20.1	<1.0	<1.0	<1.0	68.3	39.3	<1.0	<1.0	1.5	<1.0	<2.0	<5.0
	8/1/12	16.8	1.1	<1.0	<1.0	120	223	<1.0	<1.0	1.6	<1.0	<2.0	<1.0
	11/6/12	13.0	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	2/6/13	23.1	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	6/10/13	18.4	0.75	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
MW-3	1/25/08	1,100	24	<10	<10	--	--	--	--	--	--	--	--
	10/1/09	460	8.4	<3.0	<3.0	--	--	6.8	<3.0	<3.0	<3.0	<3.0	--
	11/29/11	21.6	1.0	<1.0	<1.0	106	34.6	<1.0	<1.0	1.2	<1.0	<2.0	<5.0
	8/1/12	16.6	<1.0	<1.0	<1.0	76.2	20.7	<1.0	<1.0	1.1	<1.0	<2.0	<1.0
	11/6/12	21.8	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	2/7/13	22.3	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	6/10/13	17.4	0.65	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
MW-4	5/1/08	3.9	<0.20	<0.20	<0.20	--	--	--	--	--	--	--	--
	9/30/09	3.1	<0.2	<0.2	<0.2	--	--	0.3	<0.2	<0.2	<0.2	<0.2	--
	11/22/11	5.1	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<5.0
	8/1/12	6.1	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
	11/5/12	6.1	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	2/5/13	5.1	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	6/5/13	6.1	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
MW-5	5/1/08	53	0.79	<0.20	<0.20	--	--	--	--	--	--	--	--
	9/30/09	17	0.4	<0.2	<0.2	--	--	0.2	<0.2	<0.2	17	<0.2	--
	11/22/11	128	2.2	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<5.0
	8/1/12	55.6	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
	11/5/12	73.2	1.1	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	2/4/13	27.5	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	6/6/13	21.7	<0.40	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
MW-6	5/1/08	140	1.2	<1.0	<1.0	--	--	--	--	--	--	--	--
	10/1/09	65	0.6	<0.4	<0.4	--	--	<0.4	<0.4	<0.4	<0.4	<0.4	--
	11/29/11	48.5	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<5.0
	8/1/12	37.9	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
	11/6/12	30.7	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	2/6/13	47.5	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	6/7/13	37.1	<0.40	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
MW-7	9/26/08	1,500	33	76	<10	--	--	<10	<10	<10	<10	<10	--
	10/1/09	2,000	35	100	<20	--	--	<20	<10	<20	<20	<10	--
	11/29/11	136	8.6	48.6	<1.0	131	52.0	<1.0	<1.0	1.1	<1.0	49.2	<5.0
	8/2/12	190	8.0	36.6	<1.0	195	68.2	<1.0	<1.0	1.1	<1.0	37.0	<1.0
	11/7/12	115	5.7	28.5	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	2/7/13	133	6.5	37.5	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	6/10/13	61.2	3.2	32.6	0.46	--	--	<1.0	--	--	<1.0	<1.0	--
MW-8	9/26/08	0.31	<0.2	<0.2	<0.2	--	--	<0.2	<0.2	1.4	<0.2	<0.2	--
	9/30/09	<0.2	<0.2	<0.2	<0.2	--	--	<0.2	<0.2	<0.2	<0.2	<0.2	--
	11/21/11	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
	7/30/12	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
	11/2/12	<1.0	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	2/4/13	<1.0	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	6/5/13	<1.0	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--

Table 3
Historical Groundwater Analytical Results
Volatile Organic Compounds Compared to Model Toxics Control Act (MTCA) Cleanup Levels

Former Cherry Cleaners
2510 E. Cherry St., Seattle Washington

Monitoring Well	Date Collected	Tetrachloroethene µg/L	Trichloroethene µg/L	cis-1,2-Dichloroethene µg/L	Vinyl Chloride µg/L	Acetone µg/L	2-Butanone (MEK) µg/L	Carbon tetrachloride µg/L	Chlorobenzene µg/L	Chloroform µg/L	Dibromochloromethane µg/L	1,2-Dichloroethene (Total) µg/L	Naphthalene µg/L
MTCA Cleanup Level		5 ¹	5 ¹	80 ²	0.2 ¹	7200 ²	# ²	0.34 ²	160 ²	7.2 ²	0.52 ²	72 ²	160 ²
MW-9	9/26/08	18	0.58	<0.20	<0.20	--	--	0.61	<0.2	0.69	<0.2	<0.2	--
	10/1/09	62	1.7	<1.0	<1.0	--	--	1.3	<1.0	<1.0	<1.0	<1.0	--
	11/22/11	2.1	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
	7/31/12	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
	11/5/12	3.5	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	2/5/13	9.6	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	6/5/13	43.6	1.3	<1.0	<0.40	--	--	<1.0	--	--	<1.0	--	--
MW-10	9/26/08	0.69	<0.2	<0.2	<0.2	--	--	<0.2	<0.2	0.49	<0.2	<0.2	--
	9/30/09	<0.2	<0.2	<0.2	<0.2	--	--	<0.2	<0.2	0.3	<0.2	<0.2	--
	11/22/11	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
	7/31/12	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
	11/5/12	<1.0	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	2/5/13	<1.0	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	6/4/13	<1.0	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
MW-11	6/21/10	2,300	36	2.6	<2.0	--	--	<2.0	<2.0	<2.0	<2.0	<2.0	--
	11/29/11	2,350	31.1	2.6	<1.0	<5.0	<5.0	<1.0	<1.0	1.1	<1.0	2.7	<5.0
	8/1/12	1,700	49.5	3.4	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	3.6	<1.0
	11/6/12	1,520	55.5	<10	<4.0	--	--	<10	--	--	<10	<10	--
	2/6/13	319	13.1	<5.0	<2.0	--	--	<5.0	--	--	<5.0	<5.0	--
	6/7/13	1,800	53.8	<10.0	<10.0	--	--	<10.0	--	--	<10.0	<10.0	--
MW-12	7/30/12	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	2.1	<1.0	<2.0	<1.0
	11/6/12	<1.0	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	2/6/13	<1.0	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	6/4/13	<1.0	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
MW-13	7/30/12	110	1.5	<1.0	<1.0	<5.0	<5.0	1.4	<1.0	<1.0	<1.0	<2.0	<1.0
	11/6/12	90.6	1.0	<1.0	<0.40	--	--	1.2	--	--	<1.0	<1.0	--
	2/6/13	92.4	1.0	<1.0	<0.40	--	--	1.5	--	--	<1.0	<1.0	--
	6/6/13	101	1.3	<1.0	<0.40	--	--	1.2	--	--	<1.0	<1.0	--
MW-14	7/31/12	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	2.5	<1.0	<2.0	<1.0
	11/2/12	<1.0	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	2/5/13	<1.0	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	6/5/13	<1.0	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
MW-15	8/1/12	2,760	36.4	4.5	<1.0	<5.0	<5.0	<1.0	<1.0	1.4	<1.0	4.6	<1.0
	11/7/12	1,820	28.5	<10	<4.0	--	--	<10	--	--	<10	<10	--
	2/6/13	1,500	31.0	2.7	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	6/7/13	1,560	25.9	<10.0	<10.0	--	--	<10.0	--	--	<10.0	<10.0	--
MW-16	7/31/12	9.4	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
	11/5/12	14.0	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	2/5/13	13.3	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	6/6/13	12.2	<0.40	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
MW-17	7/31/12	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	1.3	<1.0	<2.0	<1.0
	11/5/12	<1.0	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	2/5/13	<1.0	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
	6/4/13	<1.0	<1.0	<1.0	<0.40	--	--	<1.0	--	--	<1.0	<1.0	--
SB-2-12	2/20/12	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
SB-2-35	2/20/12	56.0	1.4	<1.0	<1.0	8.4	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	35.7
SB-2-55	2/20/12	66.9	2.6	1.2	<1.0	<5.0	<5.0	<1.0	<1.0	2.0	<1.0	<2.0	8.5
SB-3-30	2/14/12	7,540	73.1	166	<1.0	<5.0	<5.0	<1.0	1.1	2.4	<1.0	168	26.2
SB-3-60	2/14/12	59.3	<1.0	1.3	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	16.0
SB-4-30	2/9/12	992	58.9	48.8	<1.0	<5.0	6.7	2.7	<1.0	1.1	<1.0	49.4	22.3
SB-4-60	2/9/12	6.3	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	18.0
SB-9-32	2/15/12	838*	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	1.8	<1.0	<2.0	15.2
SB-9-60	2/15/12	15.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	15.9
SB-10-8	2/22/12	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	2.6
SB-10-30	2/16/12	1,710	36.2	1.1	<1.0	<5.0	<5.0	<1.0	<1.0	1.4	<1.0	<2.0	18.6
SB-10-58	2/16/12	20.1	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	6.9

Table 3
Historical Groundwater Analytical Results
Volatile Organic Compounds Compared to Model Toxics Control Act (MTCA) Cleanup Levels

Former Cherry Cleaners
2510 E. Cherry St., Seattle Washington

Monitoring Well	Date Collected	Tetrachloroethene µg/L	Trichloroethene µg/L	cis-1,2-Dichloroethene µg/L	Vinyl Chloride µg/L	Acetone µg/L	2-Butanone (MEK) µg/L	Carbon tetrachloride µg/L	Chlorobenzene µg/L	Chloroform µg/L	Dibromochloromethane µg/L	1,2-Dichloroethene (Total) µg/L	Naphthalene µg/L
MTCA Cleanup Level		5 ¹	5 ¹	80 ²	0.2 ¹	7200 ²	# ³	0.34 ²	160 ²	7.2 ²	0.52 ²	72 ²	160 ²
SB-11-25.5	2/21/12	68.8	<1.0	<1.0	<1.0	<5.0	<5.0	1.6	<1.0	2.7	<1.0	<2.0	8.2
SB-11-60	2/22/12	7.2	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	3.4	<1.0	<2.0	2.7

Notes:

1. Washington State Department of Ecology Model Toxics Control Act (MTCA) Method A Cleanup Level

2. Washington State Department of Ecology Model Toxics Control Act (MTCA) Method B Cleanup Level; Method A Cleanup Level not established

3. # denotes no value exists in the CLARC database for this compound.

4. '-' denotes parameter was not analyzed

µg/L - micrograms per liter

Bold denotes concentrations exceeding the MTCA Method A or Method B Cleanup Levels

Data prior to 9/30/09 provided by Farallon Consulting

Table 4
Historical Vapor Intrusion Analytical Results
Volatile Organic Compounds (VOCs) Compared to Model Toxics Control Act (MTCA) Screening Levels

Former Cherry Cleaners
2510 E. Cherry St., Seattle, Washington

Address	Sample Location	Depth / Height of Sample (ft)	Date Collected	Sample Type	Analytical Type	Tetrachloroethene μg/m ³	Trichloroethene μg/m ³	cis-1,2-Dichloroethene μg/m ³	Vinyl Chloride μg/m ³	Benzene μg/m ³	1,2-Dichloroethane μg/m ³	Methylene Chloride μg/m ³
MTCA Method B Carcinogenic Indoor Air Screening Levels (CIASLs) ¹						9.6	0.37	# ²	0.28	0.32	0.096	5.3
MTCA Method B Soil Gas Screening Levels (SGSLs) ¹						96	3.7	#	2.8	3.2	0.96	53
2510 E. Cherry St.	SB-3	-5.0	2/22/12	Soil Gas	TO-15	233,000	<2,820	<4,150	<1,330	<1,660	<2,100	<3,640
	SB-4	-5.0	2/22/12	Soil Gas	TO-15	196,000	<2,820	<4,150	<1,330	<1,660	<2,100	25,600
	IA-1	5	10/12/12	Indoor Air	TO-15	200	2.1	0.17	<0.042	0.78	<0.13	-- ³
	VP-1	-1.0	10/12/12	Subslab	TO-15	280,000	8,700	<1,400	<920	<1,100	<1400	--
	AMB-1	4	10/24/12	Outdoor Air	TO-15	0.68	<0.17	<0.12	<0.040	0.81	<0.12	--
2503 E. Cherry St.	SB-9	-5.0	2/22/12	Soil Gas	TO-15	1,300	<13.8	<20.3	<6.5	<8.2	<10.3	322
	IA-7	5	11/14/12	Indoor Air	TO-15	0.23	<0.18	<0.13	<0.042	0.79	<0.13	--
	IA-9	5	11/14/12	Indoor Air	TO-15	<0.26	<0.21	<0.16	0.092	0.92	0.19	--
	SV-8	-1.0	11/13/12	Subslab	TO-15	450	<0.44	<0.32	<0.10	0.69	<0.33	--
	SV-11	-1.0	11/13/12	Subslab	TO-15	630	<0.72	<0.53	<0.17	1.2	<0.54	--
	IA-8	5	11/14/12	Indoor Air	TO-15	0.55	<0.18	<0.13	<0.042	1.6	0.28	--
	SV-9	-1.0	11/13/12	Subslab	TO-15	1.8	<0.20	<0.14	<0.047	2.6	<0.15	--
	SV-10	-1.0	11/13/12	Subslab	TO-15	49	<0.17	<0.12	<0.040	0.99	<0.12	--
	SV-12	-1.0	11/13/12	Subslab	TO-15	11	<0.18	<0.13	1.4	0.71	<0.13	--
	SV-13	-1.0	11/13/12	Subslab	TO-15	1,500	<1.9	<1.4	<0.46	<2.8	<1.4	--
2509 E. Cherry St.	SV-18	-1.0	11/14/12	Subslab	TO-15	<2.2	<1.8	<1.3	<0.42	12	<1.3	--
	SV-19	-1.0	11/14/12	Subslab	TO-15	7.2	0.52	1.1	<0.044	0.53	<0.14	--
	AMB-2	5	11/14/12	Outdoor Air	TO-15	<0.73	<0.58	<0.42	<0.14	1.2	<0.43	--
2511 E. Cherry St.	IA-11	5	11/14/12	Indoor Air	TO-15	<0.23	<0.18	<0.13	<0.043	0.82	<0.14	--
	SV-16	-1.0	11/14/12	Subslab	TO-15	0.69	<0.18	<0.13	<0.043	0.85	<0.14	--
	SV-17	-1.0	11/14/12	Subslab	TO-15	1.5	<0.78	<0.58	<0.19	3.4	<0.59	--
2515 E. Cherry St.	SV-15	-1.0	11/14/12	Subslab	TO-15	0.30	<0.20	<0.15	<0.048	0.34	<0.15	--
2517 E. Cherry St.	SV-14	-1.0	11/14/12	Subslab	TO-15	0.33	<0.17	<0.12	<0.040	2.3	<0.13	--
2516 E. Cherry St.	IA-2	5	10/24/12	Indoor Air	TO-15	6.9	<0.19	<0.14	<0.046	1.0	<0.14	--
	SV-2	-1.0	10/24/12	Subslab	TO-15	36,000	<94	<69	<45	<56	<71	--
	SV-3	-1.0	10/24/12	Subslab	TO-15	28,000	<78	<58	<37	<46	<59	--
	IA-3	5	10/24/12	Indoor Air	TO-15	6.8	<0.20	<0.15	<0.049	0.97	<0.15	--
	SV-4	-1.0	10/24/12	Subslab	TO-15	110,000	<240	<180	<120	<140	<180	--
2518 E. Cherry St.	SV-5	-1.0	10/24/12	Subslab	TO-15	20	<0.18	<0.13	<0.043	0.33	<0.14	--
	SV-6	-1.0	10/24/12	Subslab	TO-15	0.9	<0.18	<0.13	<0.043	0.41	<0.14	--
	SV-7	-1.0	10/24/12	Subslab	TO-15	1.8	<0.18	<0.13	<0.043	0.5	<0.14	--
720 25th Ave.	SB-11	-5.0	2/22/12	Soil Gas	TO-15	27,600	<553	<814	<261	<327	<412	<713
	IA-13	4	11/30/12	Indoor Air	TO-15	0.81	<0.20	<0.14	<0.047	1.3	<0.15	--
	IA-17	8	11/30/12	Indoor Air	TO-15	0.57	<0.18	<0.13	<0.043	1.2	<0.14	--
	SV-23	-1.0	11/30/12	Subslab	TO-15	230	<0.19	<0.14	<0.046	<0.28	<0.14	--
	SV-24	-1.0	11/30/12	Subslab	TO-15	300	<0.26	<0.19	<0.062	0.51	<0.2	--
	IA-14	8	11/30/12	Indoor Air	TO-15	<0.23	<0.18	<0.14	<0.044	1.2	<0.14	--
	IA-15	6	11/30/12	Indoor Air	TO-15	0.41	<0.21	<0.16	<0.051	1.3	<0.16	--
	IA-16	6	11/30/12	Indoor Air	TO-15	<0.22	<0.18	<0.13	<0.042	1.2	<0.13	--
	SV-20	-1.0	11/30/12	Subslab	TO-15	67	<0.19	<0.14	<0.046	<0.28	<0.14	--
	SV-21	-1.0	11/30/12	Subslab	TO-15	210	1.4	<0.15	<0.048	28	<0.14	--
	SV-22	-1.0	11/30/12	Subslab	TO-15	240	<0.20	<0.14	<0.047	<0.29	<0.15	--
	SV-25	-1.0	11/30/12	Subslab	TO-15	75	1.7	<0.14	<0.046	30	<0.14	--
	AMB-3	5	11/30/12	Outdoor Air	TO-15	<0.22	<0.18	<0.13	<0.042	0.84	<0.13	--
711A 26th Ave.	IA-18	5	12/6/12	Indoor Air	TO-15	2.8	<0.19	<0.14	<0.045	1.3	0.53	--
	IA-19	5	12/6/12	Indoor Air	TO-15	2.5	<0.19	<0.14	<0.045	1.1	0.30	--

Notes:

1. Screening Levels obtained from Cleanup Levels and Risk Calculations (CLARC) Database, developed and maintained by the Washington State Department of Ecology. Referenced June 2013.

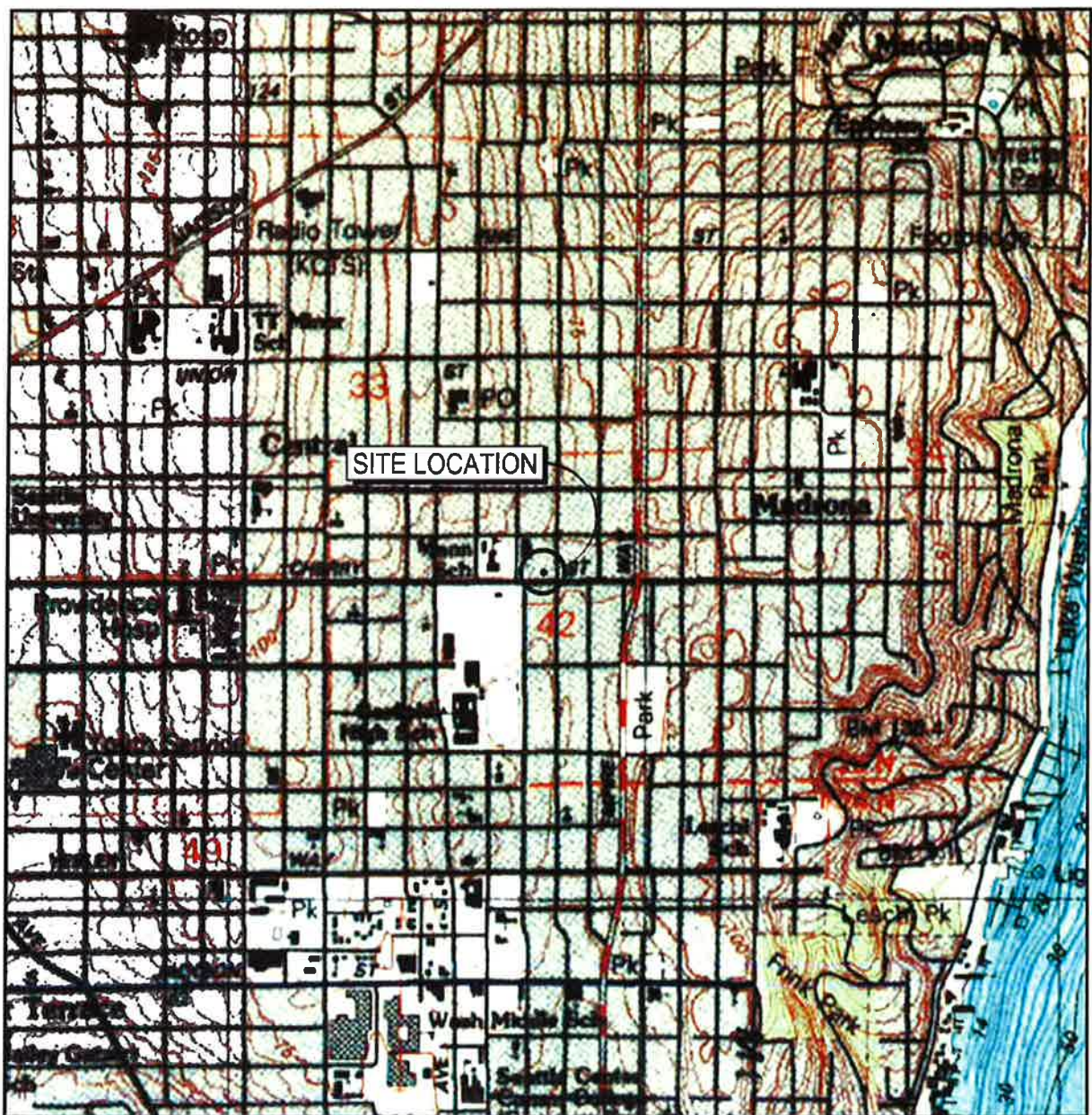
2. # denotes no value exists in the CLARC database for this compound.

3. -- denotes compound not analyzed.

Bold denotes concentration exceeds its respective MTCA Method B Screening Level.

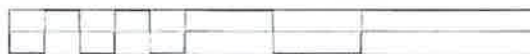
μg/m³ = micrograms per cubic meter

FIGURES

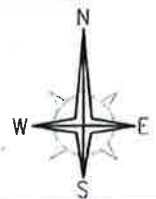


State: Washington
 Topo Map Source: Seattle
 Map Source Year: 1983
 PLSS Township: T25.0N, R4.0E
 PLSS Section: 42

2000 0 2000 4000



GRAPHIC SCALE: 1" = 2000'



SITE LOCATION MAP
 CUSTOM CHERRY CLEANERS
 2510 EAST CHERRY STREET
 SEATTLE, WASHINGTON



ECC
 Horizon

Scale AS SHOWN

Project Number
 W-S2510EC
 Drawing File
 PLOT ESA
 Date
 11/19/09

1

JAMES PATRICK HOGAN



LEGEND

TREE	GAS METER
PINE TREE	WATER METER
Men & Women Restroom	TEL. R. TELEPHONE RISER
CATCH BASINS	TEL. V. TELEPHONE VAULT
PAD MOUNTED TRANSFORMER	TRANSMISSION TOWER
	POWER POLE or TELEPHONE POLE
	FIRE HYDRANT
	MAN HOLE

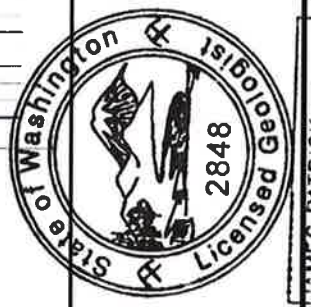
LINE TYPE STANDARDS

BARBED WIRE FENCE	---
CHAIN LINK FENCE	- - - -
WOOD FENCE	
WATER LINE	---
STORM SEWER LINE	---
SANITARY SEWER LINE	---
NATURAL GAS LINE	---
UNDERGROUND ELECTRICAL LINE	---
OVERHEAD ELECTRICAL LINE	---
ABOVE GROUND ELEC. LINE	---
COMMUNICATIONS LINE	---
TELEPHONE LINE	---
UNDERGROUND TELEPHONE	---
FIBER OPTICS LINE	---
FIRE WATER LINE	---
TRAFFIC SIGNAL LINE	---
EASEMENT LINE	---
SWALE LINE	---
EDGE OF WATER LINE	---
BUILDING SETBACK LINE	---
RIGHT-OF-WAY LINE	---
PROPERTY LINE	---

EXISTING

MW-1	MONITORING WELL
MW-1D	DEEP MONITORING WELL
SVE-1	SOIL VAPOR EXTRACTION WELL
B-1	RECONNAISSANCE GROUND WATER SAMPLE (Adapt Engineering 2007)
IW-1	INJECTION WELL
SB-1	SOIL BORING
VP-1	VAPOR MONITORING WELL
IA-1	INDOOR AIR SAMPLE LOCATION
SV-1	SOIL VAPOR SAMPLE LOCATION
AMB-1	AMBIENT SAMPLE LOCATION

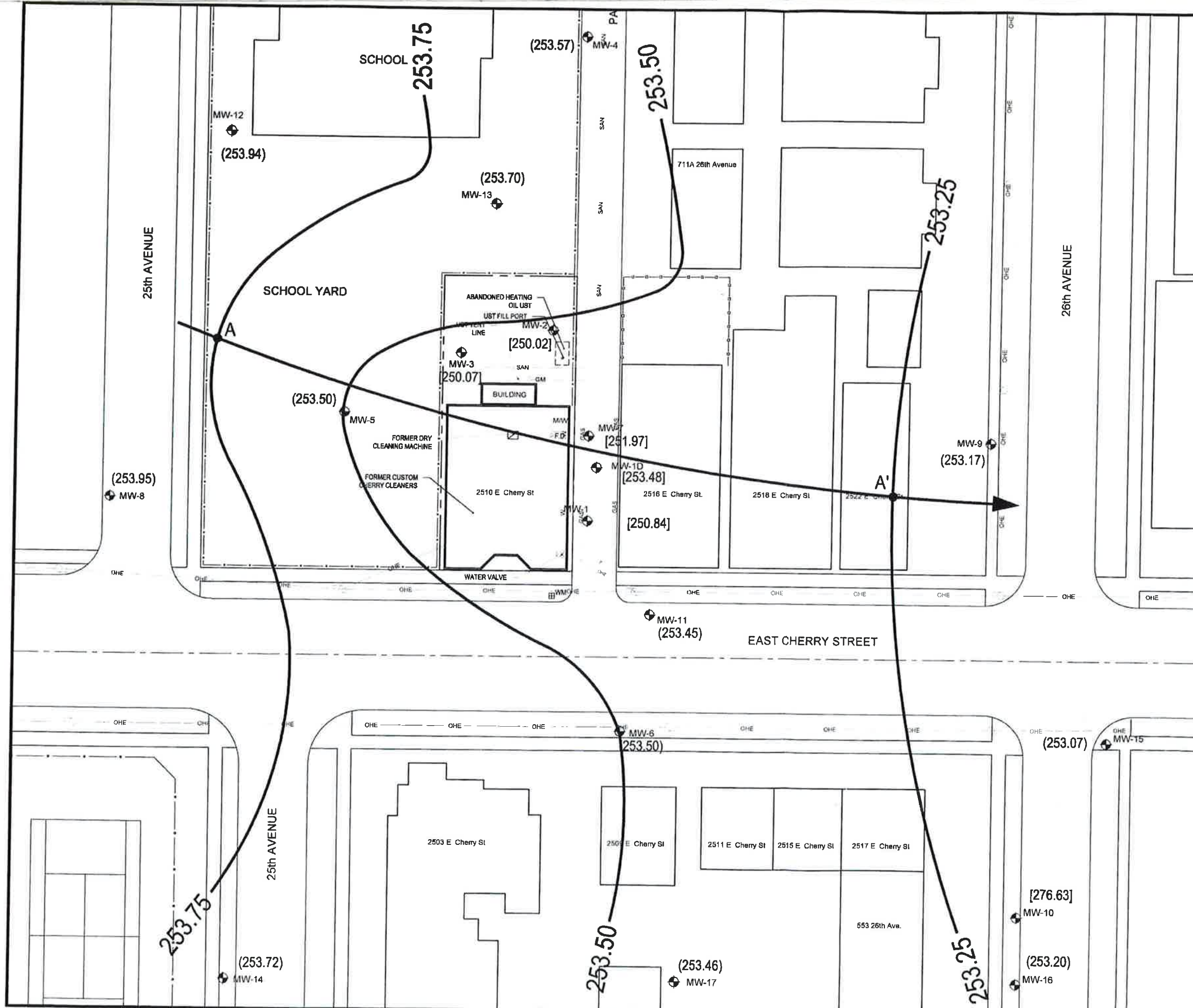
GRAPHIC SCALE: 1" = 40'



SITE PLAN
FORMER CHERRY CLEANERS
2510 EAST CHERRY STREET
SEATTLE, WASHINGTON



Project Number
W-S2510EC
Plot_Site_Map
5/29/13
AS SHOWN



LEGEND	
TREE	GM GAS METER
PINE TREE	WM WATER METER
Men & Women Restroom	TEL R TELEPHONE RISER
CATCH BASINS	TEL V TELEPHONE VAULT
PAD MOUNTED TRANSFORMER	TRANSMISSION TOWER
	POWER POLE or TELEPHONE POLE
	FIRE HYDRANT
	MAN HOLE

LINETYPE STANDARDS	
BARBED WIRE FENCE	---
CHAIN LINK FENCE	- - - - -
WOOD FENCE	=====
WATER LINE	~~~~~
STORM SEWER LINE	~~~~~
SANITARY SEWER LINE	~~~~~
NATURAL GAS LINE	~~~~~
UNDERGROUND ELECTRICAL LINE	~~~~~
OVERHEAD ELECTRICAL LINE	~~~~~
ABOVE GROUND ELEC. LINE	~~~~~
COMMUNICATIONS LINE	~~~~~
TELEPHONE LINE	~~~~~
UNDERGROUND TELEPHONE	~~~~~
FIBER OPTICS LINE	~~~~~
FIRE WATER LINE	~~~~~
TRAFFIC SIGNAL LINE	~~~~~
EASEMENT LINE	~~~~~
SWALE LINE	~~~~~
EDGE OF WATER LINE	~~~~~
BUILDING SETBACK LINE	~~~~~
RIGHT-OF-WAY LINE	~~~~~
PROPERTY LINE	~~~~~

EXISTING

Monitoring Well

Groundwater isopleth

Groundwater flow direction

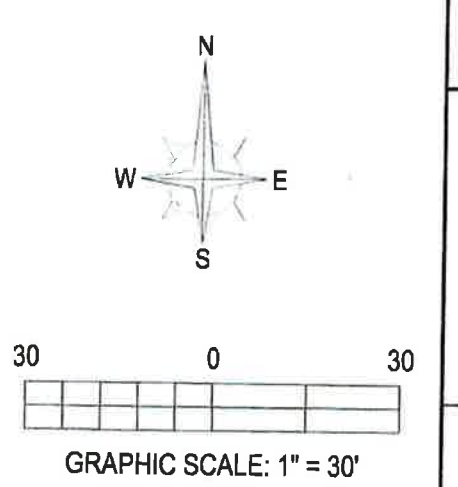
(200.84) = Groundwater elevation
[200.82] = Groundwater elevation not used in interpolation of the groundwater elevation contours

Hydraulic Gradient: $A-A' = \frac{253.75' - 253.25'}{498.0'} = 0.001$

Contour Interval = 0.25'

Notes:

- MW-1, MW-2, MW-3 and MW-7 each contained several feet of EOS product on top of their respective water tables during gauging. These wells are excluded from interpolation.
- MW-10 has an anomalous groundwater elevation and is excluded from interpolation.
- MW-1D is screened at a deeper interval than the rest of the MW network and is excluded from interpolation.



THIRD QUARTER 2012 GROUNDWATER ELEVATION MAP

FORMER CHERRY CLEANERS
2510 EAST CHERRY STREET
SEATTLE, WASHINGTON



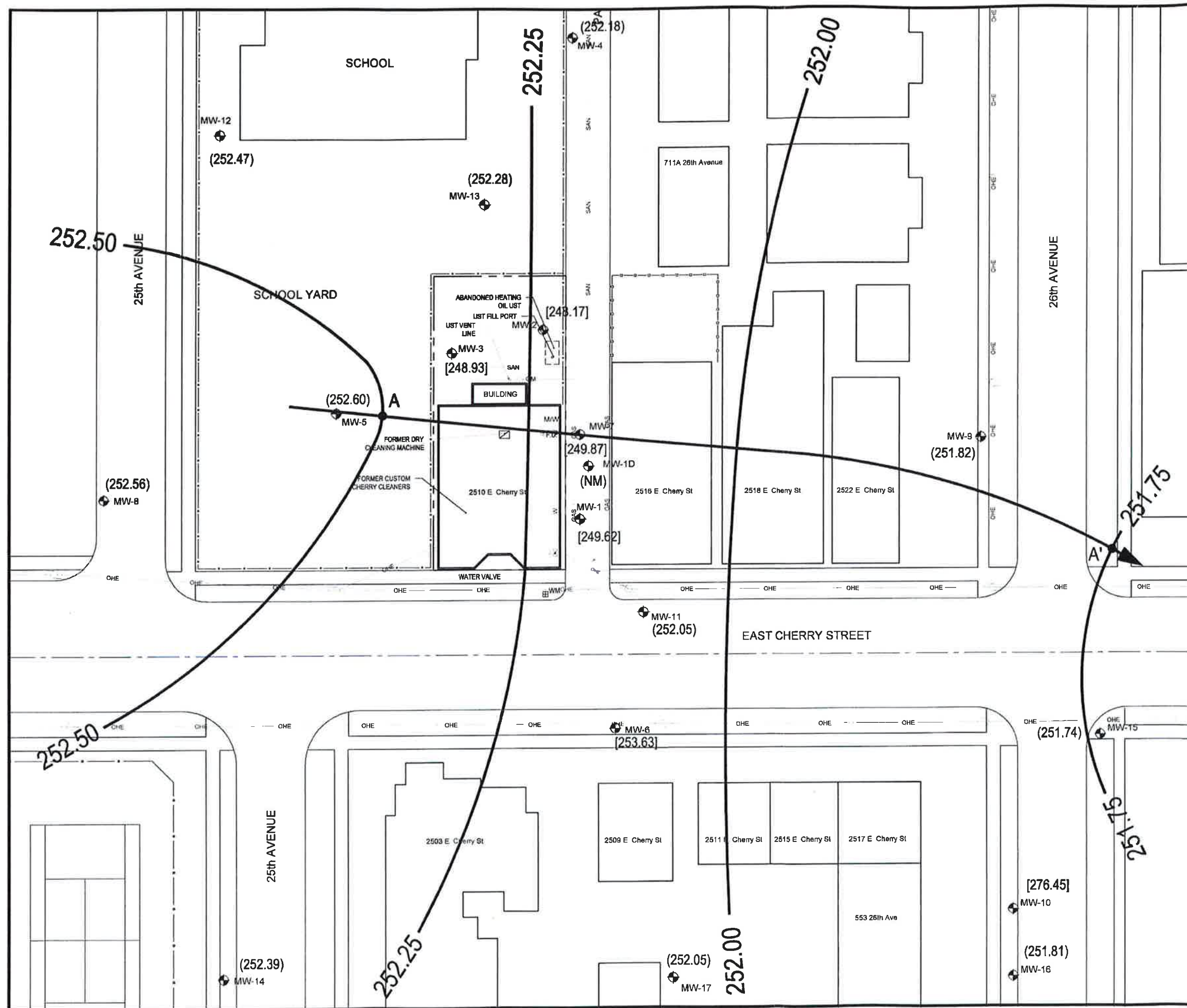
3a

Project Number
W-S2510EC

Plot_Site_Map

5/29/13

AS SHOWN



LEGEND

TREE	GAS METER
PINE TREE	WATER METER
Men & Women Restroom	TEL R TELEPHONE RISER
CATCH BASINS	TEL V TELEPHONE VAULT
PAD MOUNTED TRANSFORMER	TRANSMISSION TOWER
	POWER POLE or TELEPHONE POLE
	FIRE HYDRANT
	MAN HOLE

LINE TYPE STANDARDS

BARBED WIRE FENCE	---
CHAIN LINK FENCE	----
WOOD FENCE	
WATER LINE	---
STORM SEWER LINE	---
SANITARY SEWER LINE	---
NATURAL GAS LINE	---
UNDERGROUND ELECTRICAL LINE	---
OVERHEAD ELECTRICAL LINE	---
ABOVE GROUND ELEC. LINE	---
COMMUNICATIONS LINE	---
TELEPHONE LINE	---
UNDERGROUND TELEPHONE	---
FIBER OPTICS LINE	---
FIRE WATER LINE	---
TRAFFIC SIGNAL LINE	---
EASEMENT LINE	---
SWALE LINE	---
EDGE OF WATER LINE	---
BUILDING SETBACK LINE	---
RIGHT-OF-WAY LINE	---
PROPERTY LINE	---

EXISTING

Monitoring Well

Groundwater isopleth

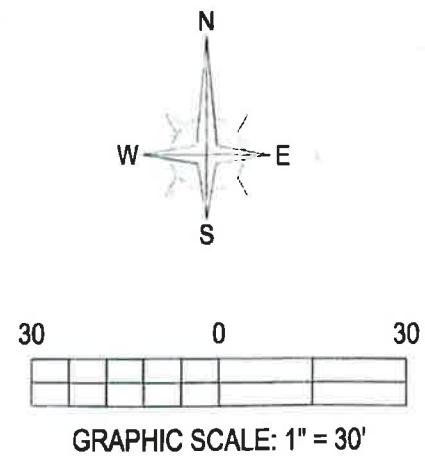
Groundwater flow direction

(200.84) = Groundwater elevation
 (200.82) = Groundwater elevation not used in interpolation of the potentiometric surface

Hydraulic Gradient: $A-A' = \frac{252.50' - 251.75'}{535.0'} = 0.001$

Contour Interval = 0.25'

- Notes:**
1. MW-1, MW-2, MW-3 and MW-7 each contained several feet of EOS product on top of their respective water tables during gauging. These wells are excluded from interpolation.
 2. MW-10 has an anomalous groundwater elevation and is excluded from interpolation.
 3. MW-1D is screened at a deeper interval than the rest of the MW network and is excluded from interpolation.
 4. NM = not measured



Project Number
W-S2510EC

Plot_Site_Map

5/29/13

AS SHOWN

State of Washington

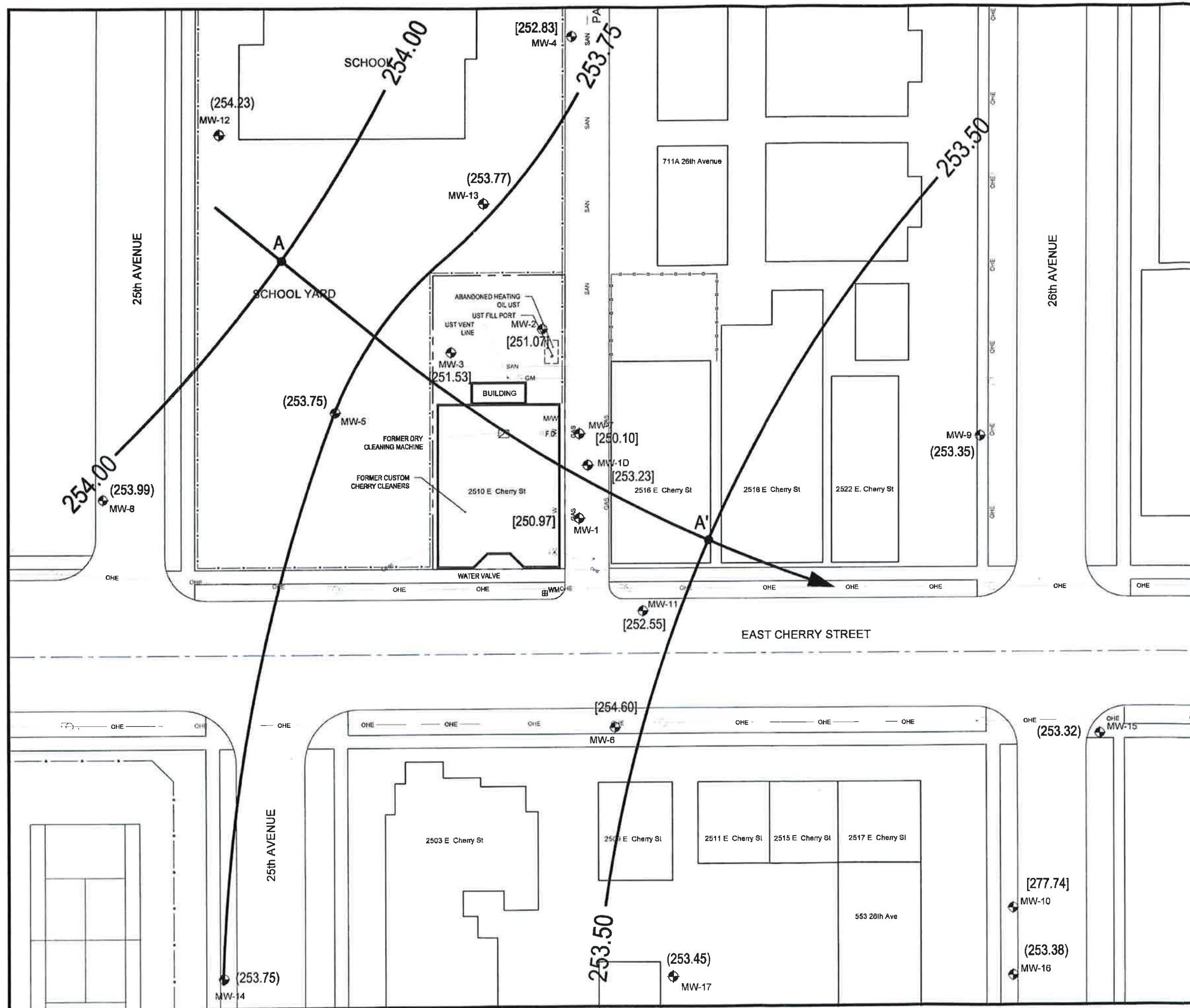
 JAMES PATRICK HOGAN

FOURTH QUARTER 2012 GROUNDWATER ELEVATION

FORMER CHERRY CLEANERS
 2510 EAST CHERRY STREET
 SEATTLE, WASHINGTON

ECC Horizon

3b



LEGEND

TREE	GAS METER
PINE TREE	WATER METER
Men & Women Restroom	TEL R TELEPHONE RISER
CATCH BASINS	TEL V TELEPHONE VAULT
PAD MOUNTED TRANSFORMER	TRANSMISSION TOWER
	POWER POLE or TELEPHONE POLE
	FIRE HYDRANT
	MAN HOLE

LINETYPE STANDARDS

BARBED WIRE FENCE	
CHAIN LINK FENCE	
WOOD FENCE	
WATER LINE	
STORM SEWER LINE	
SANITARY SEWER LINE	
NATURAL GAS LINE	
UNDERGROUND ELECTRICAL LINE	
OVERHEAD ELECTRICAL LINE	
ABOVE GROUND ELEC. LINE	
COMMUNICATIONS LINE	
TELEPHONE LINE	
UNDERGROUND TELEPHONE	
FIBER OPTICS LINE	
FIRE WATER LINE	
TRAFFIC SIGNAL LINE	
EASEMENT LINE	
SWALE LINE	
EDGE OF WATER LINE	
BUILDING SETBACK LINE	
RIGHT-OF-WAY LINE	
PROPERTY LINE	

EXISTING

- Monitoring Well
- Groundwater isopleth
- Groundwater flow direction

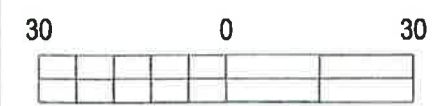
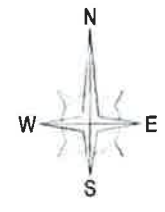
(200.84) = Groundwater elevation
 [200.82] = Groundwater elevation not used in interpolation of the potentiometric surface

Hydraulic Gradient: $A-A' = \frac{254.00' - 253.50'}{367.0'} = 0.001$

Contour Interval = 0.25'

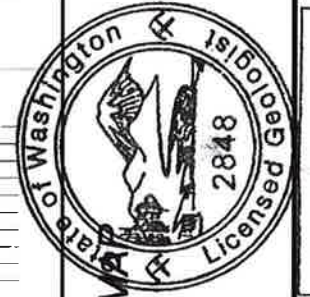
Notes:

- MW-1, MW-2, MW-3 and MW-7 each contained several feet of EOS product on top of their respective water tables during gauging. These wells are excluded from interpolation.
- MW-10 has an anomalous groundwater elevation and is excluded from interpolation.
- MW-1D is screened at a deeper interval than the rest of the MW network and is excluded from interpolation.
- Groundwater elevations from MW-4, MW-6 and MW-11 were excluded from interpolation as their recorded elevations were not consistent with their historic groundwater elevations.



GRAPHIC SCALE: 1" = 30'

Project Number
 W-S2510EC
 Drawing File
 Plot_Site_Map
 5/29/13
 AS SHOWN



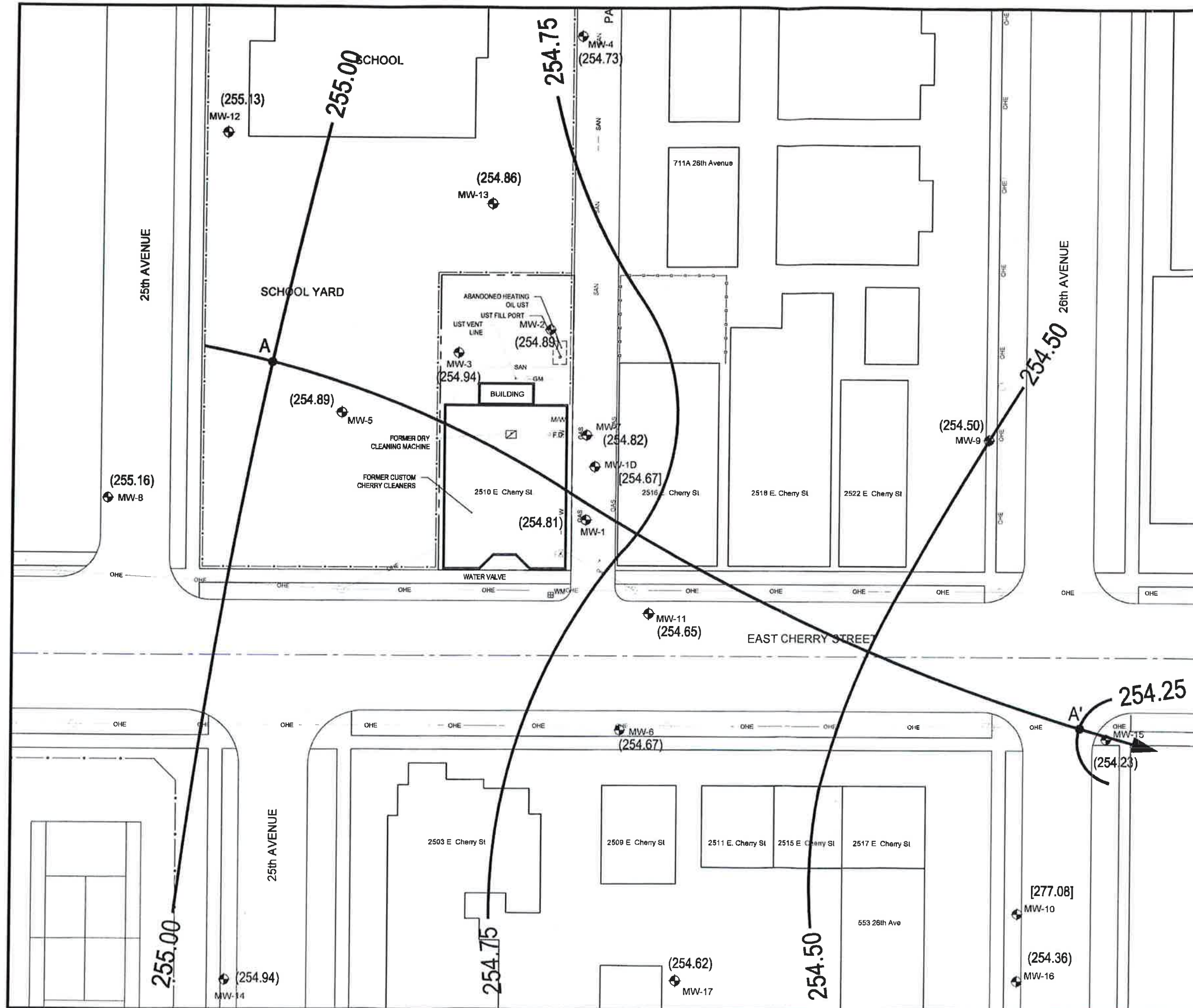
FIRST QUARTER 2013 GROUNDWATER ELEVATION MAP

FORMER CHERRY CLEANERS
 2510 EAST CHERRY STREET
 SEATTLE, WASHINGTON



3C

JAMES PATRICK HOGAN



LEGEND

- TREE
- PINE TREE
- Men & Women Restroom
- CATCH BASINS
- PAD MOUNTED TRANSFORMER
- GAS METER
- WATER METER
- TEL R TELEPHONE RISER
- TEL V TELEPHONE VAULT
- TRANSMISSION TOWER
- POWER POLE or TELEPHONE POLE
- FIRE HYDRANT
- MAN HOLE

LINETYPE STANDARDS

- BARBED WIRE FENCE
- CHAIN LINK FENCE
- WOOD FENCE
- WATER LINE
- STORM SEWER LINE
- SANITARY SEWER LINE
- NATURAL GAS LINE
- UNDERGROUND ELECTRICAL LINE
- OVERHEAD ELECTRICAL LINE
- ABOVE GROUND ELEC. LINE
- COMMUNICATIONS LINE
- TELEPHONE LINE
- UNDERGROUND TELEPHONE
- FIBER OPTICS LINE
- FIRE WATER LINE
- TRAFFIC SIGNAL LINE
- EASEMENT LINE
- SWALE LINE
- EDGE OF WATER LINE
- BUILDING SETBACK LINE
- RIGHT-OF-WAY LINE
- PROPERTY LINE

EXISTING

- Monitoring Well
- Groundwater isopleth
- Groundwater flow direction

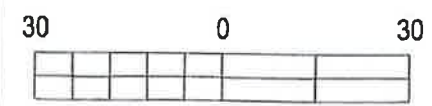
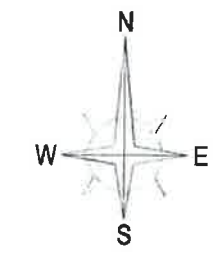
(200.84) = Groundwater elevation
 [200.82] = Groundwater elevation not used in interpolation of the potentiometric surface

Hydraulic Gradient: $A-A' = \frac{255.00' - 254.25'}{634.0'} = 0.001$

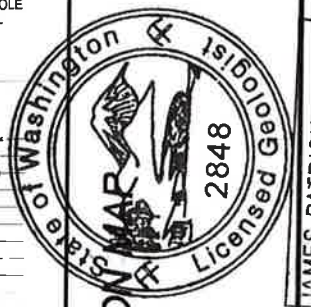
Contour Interval = 0.25'

Notes:

- MW-10 has an anomalous groundwater elevation and is excluded from interpolation.
- MW-1D is screened at a deeper interval than the rest of the MW network and is excluded from interpolation.



GRAPHIC SCALE: 1" = 30'



SECOND QUARTER 2013 GROUNDWATER ELEVATION

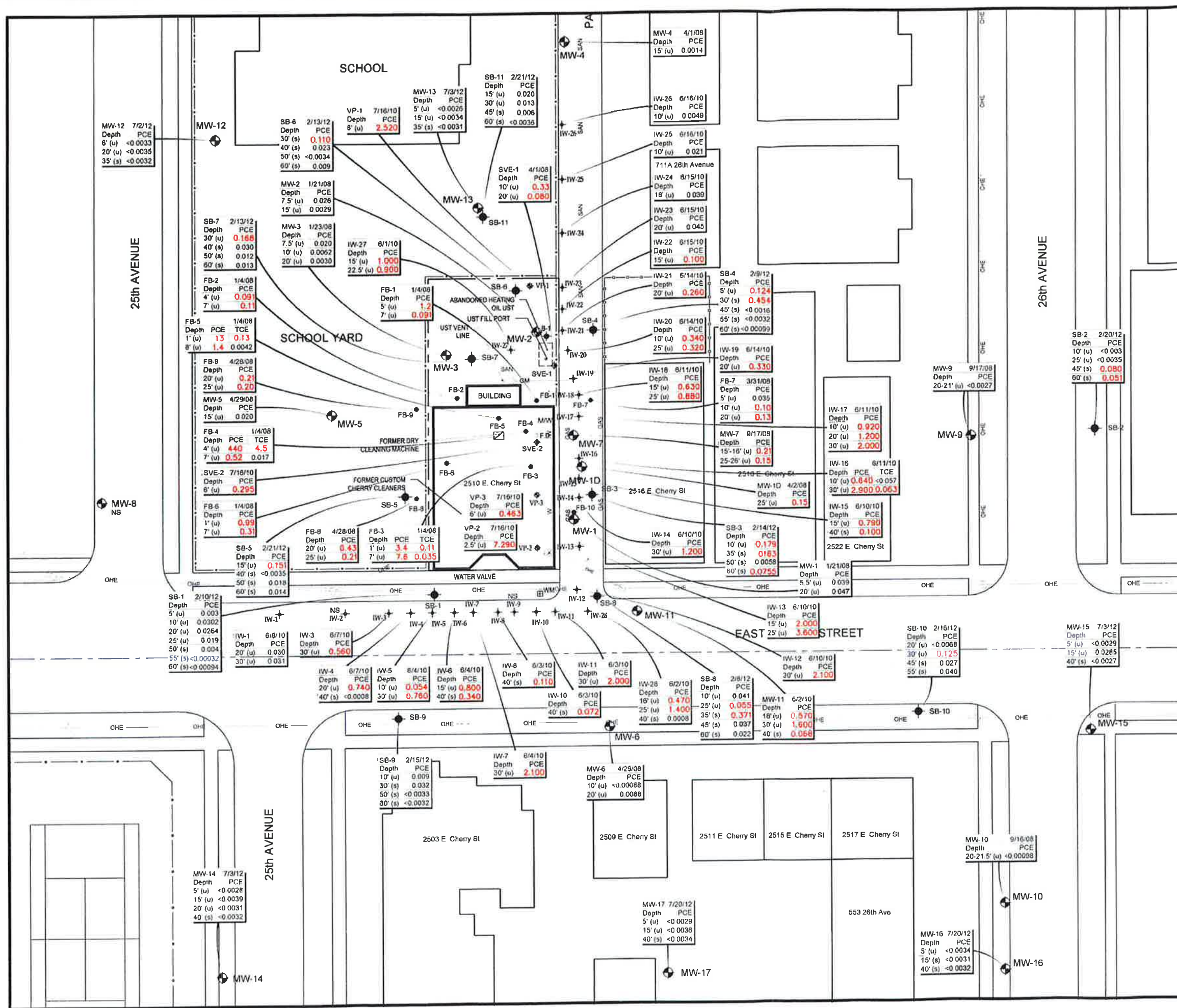
FORMER CHERRY CLEANERS
 2510 EAST CHERRY STREET
 SEATTLE, WASHINGTON



3d

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Project Number
 W-S2510EC
 Plot_Site_Map
 5/29/13
 AS SHOWN



LEGEND

TREE

PINE TREE

Man & Women Restroom

CATCH BASINS

PAD MOUNTED TRANSFORMER

GAS METER

WATER METER

TELEPHONE RISER

TELEPHONE VAULT

TRANSMISSION TOWER

POWER POLE or TELEPHONE POLE

FIRE HYDRANT

MAN HOLE

LINETYPE STANDARDS

BARBED WIRE FENCE	---
CHAIN LINK FENCE	---
WOOD FENCE	---
WATER LINE	---
STORM SEWER LINE	---
SANITARY SEWER LINE	---
NATURAL GAS LINE	---
UNDERGROUND ELECTRICAL LINE	---
OVERHEAD ELECTRICAL LINE	---
ABOVE GROUND ELEC. LINE	---
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FIRE WATER LINE	---
TRAFFIC SIGNAL LINE	---
EASEMENT LINE	---
SWALE LINE	---
EDGE OF WATER LINE	---
BUILDING SETBACK LINE	---
RIGHT-OF-WAY LINE	---
PROPERTY LINE	---

EXISTING

- MW-1 MONITORING WELL
- SVE-1 SOIL VAPOR EXTRACTION WELL
- IW-1 INJECTION WELL
- SB-1 SOIL BORING
- VP-1 VAPOR MONITORING WELL

SB-2	2/20/12	MTCA Method A
Depth	PCE TCE	PCE = Tetrachloroethene 0.05 TCE = Trichloroethene 0.03
10' (u)	<0.003 <0.020	
25' (u)	<0.035 <0.005	
45' (s)	0.080 0.170	
60' (s)	0.051 0.072	

Results reported in milligrams per kilogram (mg/kg)
MTCA Method A = Washington State Department of Ecology
Model Toxics Control Act Method A Cleanup Level
0.0810 = Denotes concentration above MTCA Method A
<0.003 = Denotes concentration below laboratory minimum reporting limit
(u) = Denotes unsaturated soil sampling interval
(s) = Denotes saturated soil sampling interval
All Tetrachloroethene concentrations are shown as well as parameters with concentrations exceeding MTCA Cleanup Levels

N

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S

30 0 30

GRAPHIC SCALE: 1" = 30'

Project Number: W-S2510EC

Plot Site Map

5/29/13

AS SHOWN

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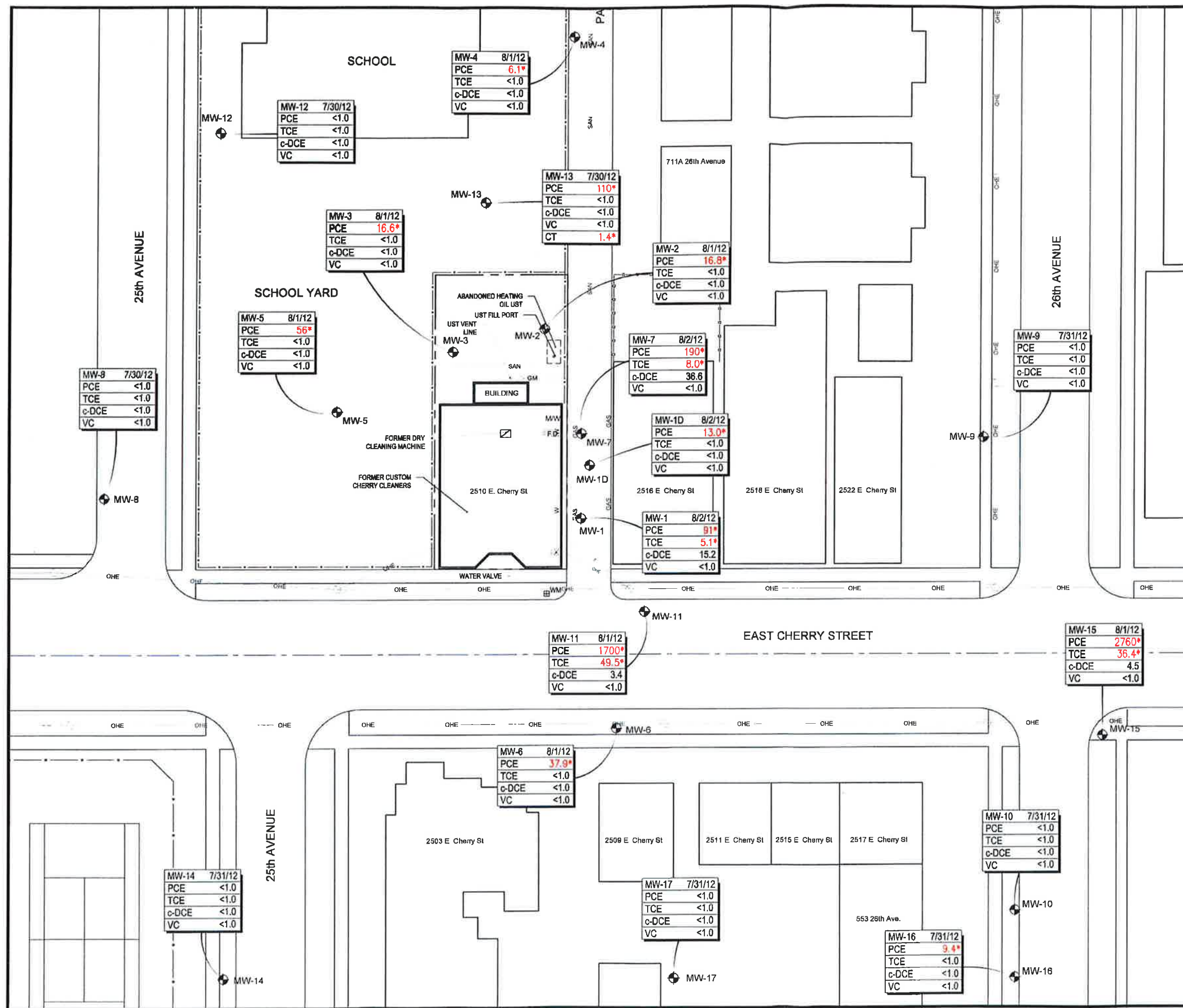
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SOIL ANALYTICAL RESULTS

FORMER CHERRY CLEANERS
2510 EAST CHERRY STREET
SEATTLE, WASHINGTON

ECC
Horizon

4



LEGEND

- TREE
- PINE TREE
- Men & Women Restroom
- CATCH BASINS
- PAD MOUNTED TRANSFORMER
- GAS METER
- WATER METER
- TELEPHONE RISER
- TELEPHONE VAULT
- TRANSMISSION TOWER
- POWER POLE or TELEPHONE POLE
- FIRE HYDRANT
- MAN HOLE

LINE TYPE STANDARDS

- BARBED WIRE FENCE
- CHAIN LINK FENCE
- WOOD FENCE
- WATER LINE
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- SANITARY SEWER LINE
- NATURAL GAS LINE
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- OVERHEAD ELECTRICAL LINE
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- FIBER OPTICS LINE
- FIRE WATER LINE
- TRAFFIC SIGNAL LINE
- EASEMENT LINE
- SWALE LINE
- EDGE OF WATER LINE
- BUILDING SETBACK LINE
- RIGHT-OF-WAY LINE
- PROPERTY LINE

EXISTING

MW-1 MONITORING WELL

	7/31/12	MTCA Method A
PCE	19*	5
TCE	<1.0	5
c-DCE	<1.0	80
VC	<0.40	0.2
CT	1.5*	0.34

Results reported in micrograms per liter (ug/L)
MTCA Method A = Washington State Department of Ecology
Model Toxics Control Act Method A Cleanup Level
0.0810* = Denotes concentration above MTCA Method A

THIRD QUARTER 2012 GROUNDWATER ANALYTICAL RESULTS

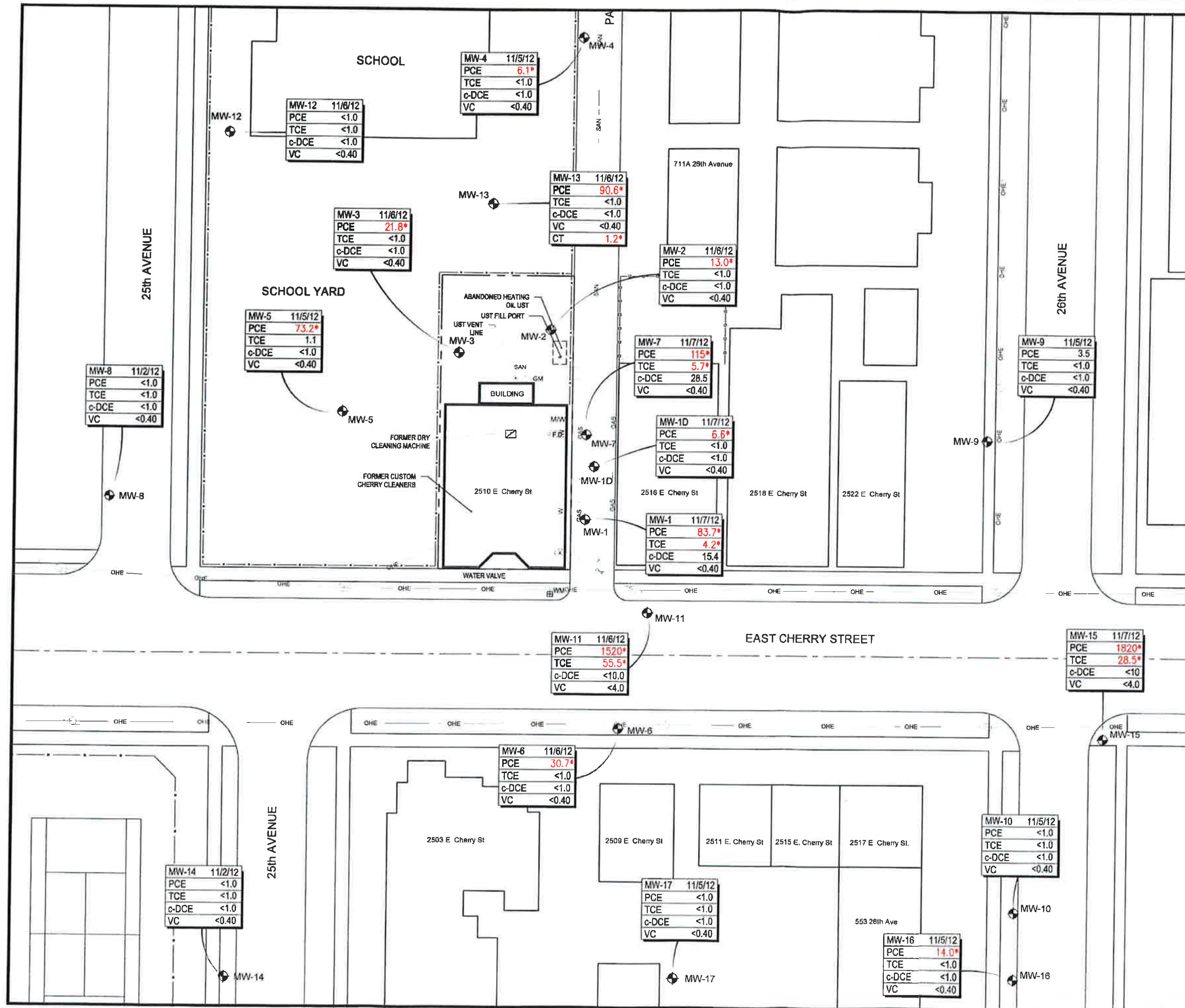
FORMER CHERRY CLEANERS
2510 EAST CHERRY STREET
SEATTLE, WASHINGTON

ECC Horizon

5a

Project Number: W-S2510EC
Plot_Site_Map
5/29/13
AS SHOWN

James Patrick Hogan



LEGEND

TREE	GM GAS METER
PINE TREE	WM WATER METER
Mon & Women Restroom	TEL R TELEPHONE RISER
CATCH BASINS	TEL V TELEPHONE VAULT
PAD MOUNTED TRANSFORMER	TRANSMISSION TOWER
	POWER POLE or TELEPHONE POLE
	FIRE HYDRANT
	MAN HOLE

LINETYPE STANDARDS

BARBED WIRE FENCE	---
CHAIN LINK FENCE	---
WOOD FENCE	---
WATER LINE	---
STORM SEWER LINE	---
SANITARY SEWER LINE	---
NATURAL GAS LINE	---
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TRAFFIC SIGNAL LINE	---
EASEMENT LINE	---
SWALE LINE	---
EDGE OF WATER LINE	---
BUILDING SETBACK LINE	---
RIGHT-OF-WAY LINE	---
PROPERTY LINE	---

EXISTING

MW-1 MONITORING WELL

Well ID	Date	PCE	TCE	c-DCE	VC	MTCA Method A
MW-2	11/5/12	19*	<1.0	<1.0	<0.40	5
						5
						80
						0.2
						0.34

Results reported in micrograms per liter (ug/L)
MTCA Method A = Washington State Department of Ecology
Model Toxics Control Act Method A Cleanup Level
0.0810* = Denotes concentration above MTCA Method A

Project Number
W-S2510EC

Plot_Site_Map

5/29/13

Scale
AS SHOWN

State of Washington
2848
Licensed Geologist

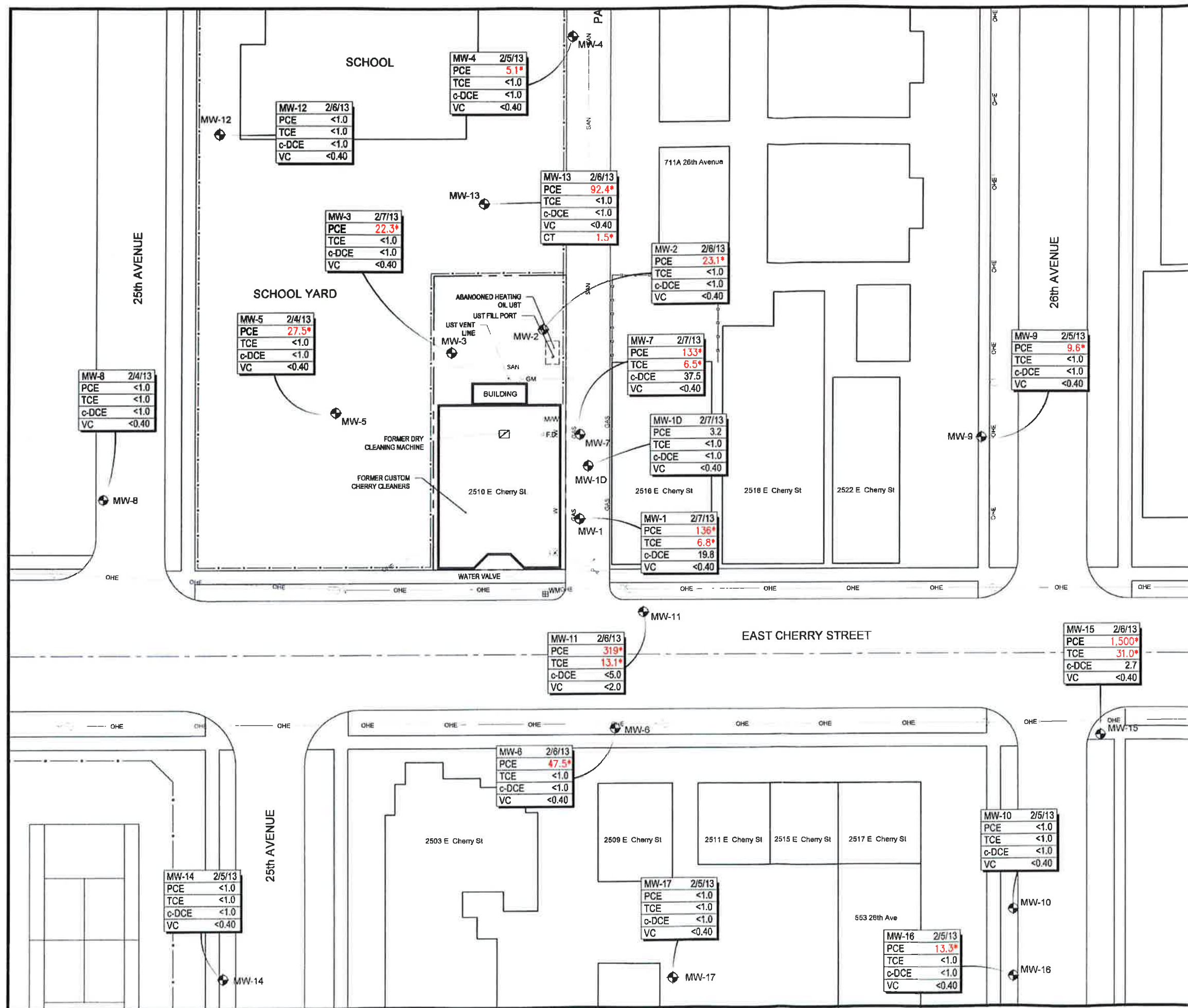
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FOURTH QUARTER 2012 GROUNDWATER ANALYTICAL RESULTS

FORMER CHERRY CLEANERS
2510 EAST CHERRY STREET
SEATTLE, WASHINGTON

ECC Horizon

5b



LEGEND

- TREE
- PINE TREE
- Men & Women Restroom
- CATCH BASINS
- PAD MOUNTED TRANSFORMER
- GAS METER
- WATER METER
- TELEPHONE RISER
- TELEPHONE VAULT
- TRANSMISSION TOWER
- POWER POLE or TELEPHONE POLE
- FIRE HYDRANT
- MAN HOLE

LINETYPE STANDARDS

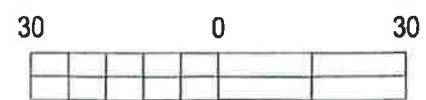
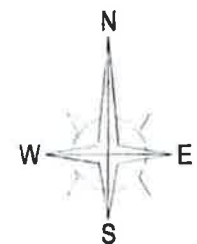
- BARBED WIRE FENCE
- CHAIN LINK FENCE
- WOOD FENCE
- WATER LINE
- STORM SEWER LINE
- SANITARY SEWER LINE
- NATURAL GAS LINE
- UNDERGROUND ELECTRICAL LINE
- OVERHEAD ELECTRICAL LINE
- ABOVE GROUND ELEC. LINE
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- FIBER OPTICS LINE
- FIRE WATER LINE
- TRAFFIC SIGNAL LINE
- EASEMENT LINE
- SWALE LINE
- EDGE OF WATER LINE
- BUILDING SETBACK LINE
- RIGHT-OF-WAY LINE
- PROPERTY LINE

EXISTING

MONITORING WELL

			MTCA Method A
MW-2	2/5/13		
PCE	19*	Tetrachloroethene	5
TCE	<1.0	Trichloroethene	5
c-DCE	<1.0	cis-1,2-Dichloroethene	80
VC	<0.40	Vinyl Chloride	0.2
CT	1.5*	Carbon Tetrachloride	0.34

Results reported in micrograms per liter (ug/L)
MTCA Method A = Washington State Department of Ecology
Model Toxics Control Act Method A Cleanup Level
0.0810* = Denotes concentration above MTCA Method A



GRAPHIC SCALE: 1" = 30'

Project Number
W-S2510EC
Drawing
Plot_Site_Map
5/29/13
AS SHOWN

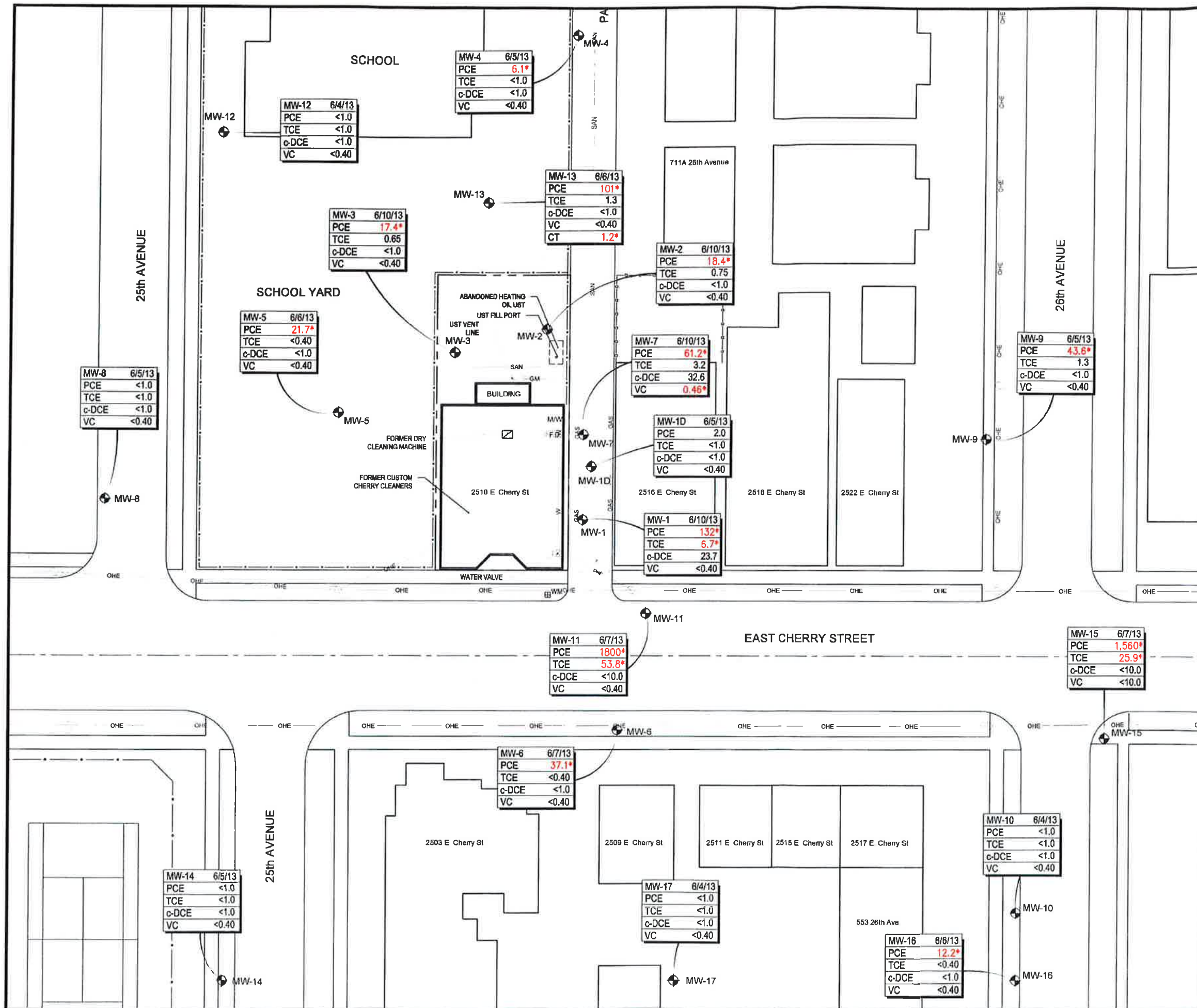


FIRST QUARTER 2013 GROUNDWATER ANALYTICAL

FORMER CHERRY CLEANERS
2510 EAST CHERRY STREET
SEATTLE, WASHINGTON



5c



Project Number
W-S2510EC

Drawing File
Plot_Site_Map

5/29/13

AS SHOWN

SECOND QUARTER 2013 GROUNDWATER ANALYTICAL RESULTS

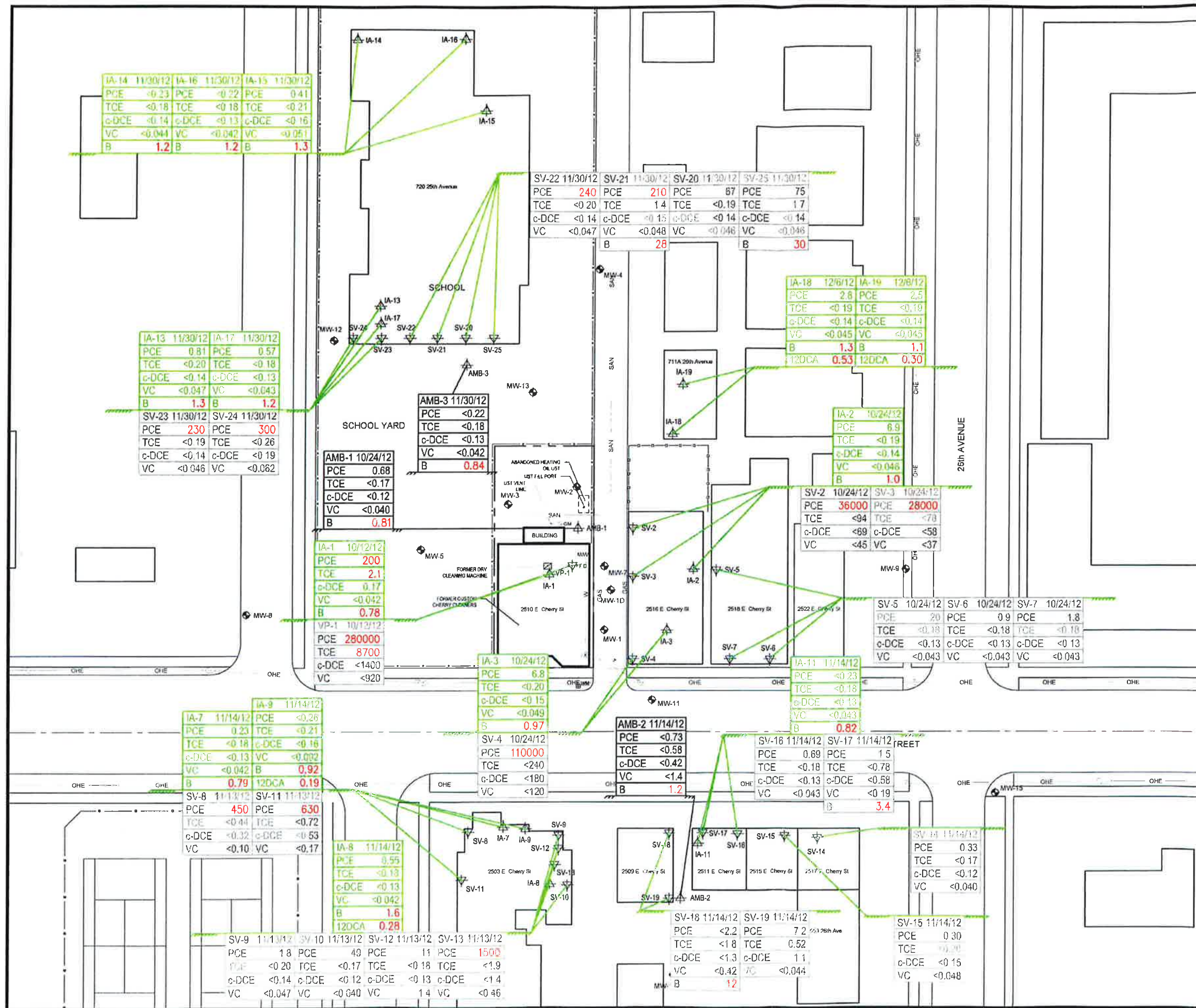
FORMER CHERRY CLEANERS
2510 EAST CHERRY STREET
SEATTLE, WASHINGTON

ECC Horizon

5d

JAMES PATRICK HOGAN
Licensed Geologist
2848

GRAPHIC SCALE: 1" = 30'



LEGEND

TREE

PINE TREE

Men & Women Restroom

CATCH BASINS

PAD MOUNTED TRANSFORMER

GAS METER

WATER METER

TELEPHONE RISER

TELEPHONE VAULT

TRANSMISSION TOWER

POWER POLE or TELEPHONE POLE

FIRE HYDRANT

MAN HOLE

LINETYPE STANDARDS

BARBED WIRE FENCE	---
CHAIN LINK FENCE	---
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EASEMENT LINE	---
SWALE LINE	---
EDGE OF WATER LINE	---
BUILDING SETBACK LINE	---
RIGHT-OF-WAY LINE	---
PROPERTY LINE	---

EXISTING

▲ Air Sample Location

Indoor Air Sampling Location	Date		
PCE	Tetrachloroethene	96	9.6
TCE	Trichloroethene	3.7	0.37
cDCE	cis-1,2-Dichloroethene	#	#
VC	Vinyl Chloride	2.8	0.28
B	Benzene	3.2	0.32
12DCA	1,2-Dichloroethane	0.96	0.096

NOTES:

1. Results reported in micrograms per cubic meter (ug/m3)
2. This figure includes PCE, TCE, cDCE and VC analytical results and those other chemicals with detected laboratory concentrations greater than the reported action levels
3. Screening levels obtained from Cleanup Levels and Risk Calculation (CLARC) Database, last reviewed June 2013
4. MTCA = Method Toxics Control Act
5. # Denotes no value exists in CLARC database for this compound
6. 5.9 Denotes analytical result exceeds applicable action level
7. Green text box indicates indoor air analytical results
8. Gray text box indicates Subslab analytical results

North Arrow

Graphic Scale: 1" = 40'

Project Number
W-S2510EC

Plot Site Map

5/29/13

AS SHOWN

State of Washington
RESURVEYING
2848
Licensed Geologist
JAMES PATRICK HOOGY

FOURTH QUARTER 2012 VAPOR INTRUSION ANALYTICAL RESULTS

FORMER CHERRY CLEANERS
2510 EAST CHERRY STREET
SEATTLE, WASHINGTON

ECC Horizon

6

Appendix A
Boring Logs and Monitoring Well
Construction Diagrams



BORING LOG

BORING NUMBER: **MW-12**

PROJECT NUMBER: W-S2510EC-I
PROJECT NAME: Former Cherry Cleaners
ADDRESS: 2510 E Cherry St. Seattle, WA
CLIENT: Encompass/AllState
CONTRACTOR: Cascade Drilling

LOCATION:
COORDINATES N: E:
SURFACE ELEVATION:
DATUM:

DRILLER: Cascade Drilling
INSPECTOR: E Silver (A/K)

START DATE: 6/28/2012 (A/K)
RESUME DATE: 7/2/2012 (HSA)

DRILLING METHOD: A/K, Drilling TOTAL DEPTH: 35' SAMPLER TYPE:
RIG TYPE: TOP OF ROCK: HAMMER WT.: FALL:

WELL ID DIAMETER (INCH) MATERIAL TYPE

SCREEN INTERVAL SLOT RISER

SAND PACK INT. SAND TYPE FINISH CASING TYPE

GROUND WATER DATA

SKETCH

DATE	TIME	DTW (ft.)	DTP (ft.)	PT (ft.)
7/2/2012		27.55		

DEPTH (ft.)	Time	PID (ppm)	Blow Counts	USCS SYMBOL
25		0	50/6	SW
30		0	50/5	
35		0	50/6	ML

FIELD CLASSIFICATION AND REMARKS

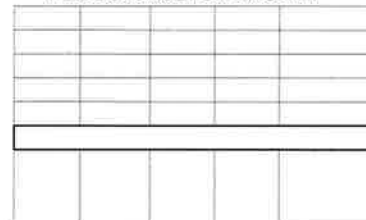
25'- Medium light brown silt, iron nodules staining in top 3",
Brown coarse gravelly wet sand, <1" gravel, 1 cobble

Driller observed wet soil conditions at 28'

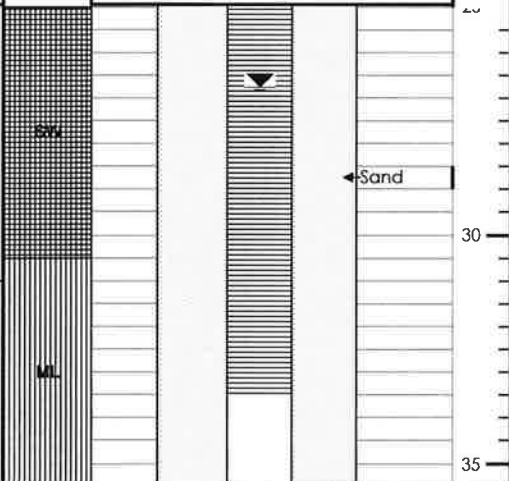
30'- Brown, wet fine sand, uniform, no rocks

End of boring @ 35 ft bgs. Monitoring well MW-12 installed.
Screened 18-33 ft bgs. Flushmount completion.

WELL CONSTRUCTION DIAGRAM



Flush Mount



Water Table

Soil logged and continuously screened for visual and olfactory evidence. Discrete samples collected every foot for PID readings and potential lab analysis.

SW
SM
SP
MH
GW



BORING LOG

BORING NUMBER: **MW-13**

PROJECT NUMBER: W-S2510EC-1
PROJECT NAME: Former Cherry Cleaners
ADDRESS: 2510 E Cherry St. Seattle, WA
CLIENT: Encompass/AllState
CONTRACTOR: Cascade Drilling

LOCATION:
COORDINATES N: E:
SURFACE ELEVATION:
DATUM:

DRILLER: Cascade Drilling
INSPECTOR: E Silver (A/K),

START DATE: 6/28/2012 (A/K)
RESUME DATE: 7/3/2012 (HSA)

DRILLING METHOD: A/K, Drilling TOTAL DEPTH: 35' SAMPLER TYPE:
RIG TYPE: TOP OF ROCK: HAMMER WT.: FALL:

WELL ID: DIAMETER (INCH): MATERIAL TYPE:

SCREEN INTERVAL: SLOT: RISER:

SAND PACK INT: SAND TYPE: FINISH CASING TYPE:

GROUND WATER DATA

SKETCH

DATE	TIME	DTW (ft.)	DTP (ft.)	PT (ft.)
7/3/2012		24.0		

DEPTH (ft.)	Time	PID (ppm)	Blow Counts	USCS SYMBOL

FIELD CLASSIFICATION AND REMARKS

Airknife to 5' bgs.
1'- Brownish-gray gravelly silty sand, moist, subangular and subrounded rock 1"-2" <10%
3'- Brownish-gray gravelly silty sand, gravel <20% subrounded and subangular, 1-2" rocks, moist
5'- Medium Reddish-brown gravelly silty sand, gravel <10%, subangular and subrounded rock

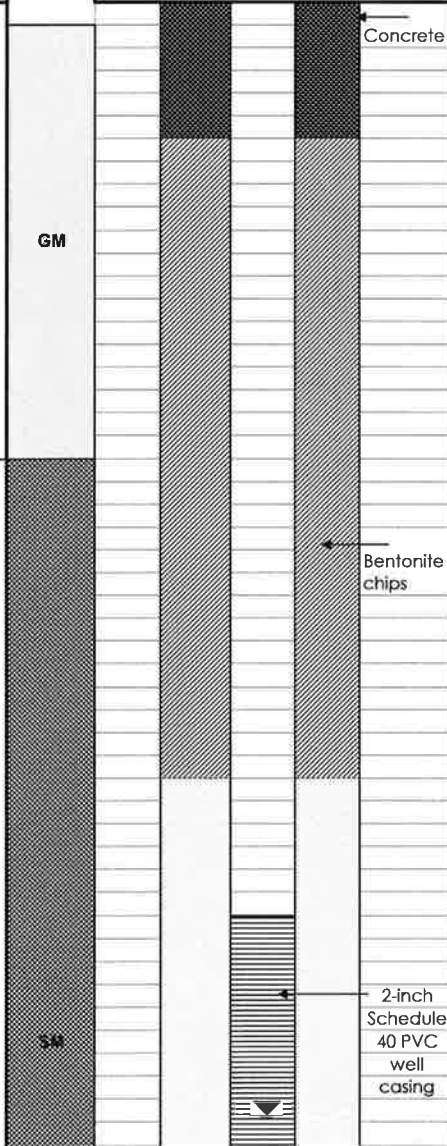
Brown, fine silty sand, uniform, no rocks

15'- Brown, silty med. Coarse sand, uniform, no rocks, moist

20'- As above, some Iron Staining and banding

WELL CONSTRUCTION DIAGRAM

Flush Mount





BORING LOG

BORING NUMBER: **MW-13**

PROJECT NUMBER: W-52510EC-I
PROJECT NAME: Former Cherry Cleaners
ADDRESS: 2510 E Cherry St. Seattle, WA
CLIENT: Encompass/AllState
CONTRACTOR: Cascade Drilling

LOCATION:
COORDINATES N: E:
SURFACE ELEVATION:
DATUM:

DRILLER: Cascade Drilling
INSPECTOR: E Silver (A/K).

START DATE: 6/28/2012 (A/K)
RESUME DATE: 7/3/2012 (HSA)

DRILLING METHOD: A/K, Drilling TOTAL DEPTH: 35' SAMPLER TYPE:
RIG TYPE: TOP OF ROCK: HAMMER WT.: FALL:

WELL ID DIAMETER (INCH) MATERIAL TYPE

SCREEN INTERVAL SLOT RISER

SAND PACK INT. SAND TYPE FINISH CASING TYPE

GROUND WATER DATA

SKETCH

DATE	TIME	DTW (ft.)	DTP (ft.)	PT (ft.)
7/3/2012		24.0		

DEPTH (ft.)	Time	PID (ppm)	Blow Counts	USCS SYMBOL
25		0	50/6	
30		0	50/6	
35		0	50/6	

FIELD CLASSIFICATION AND REMARKS

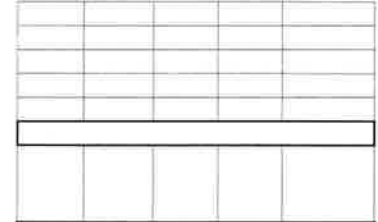
25'- Dark brown, med. Coarse sand with silt, wet, uniform no rocks

Driller observed wet soil conditions at 27'

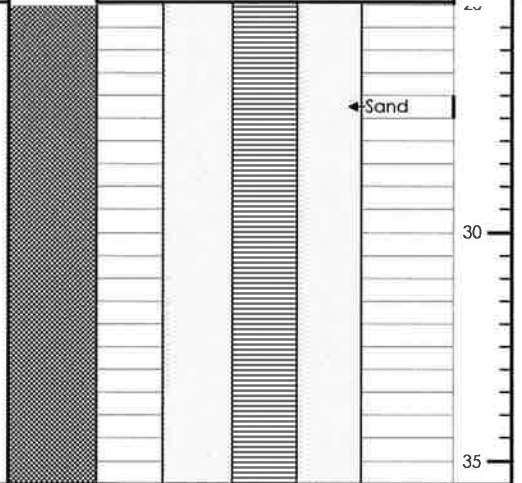
30'- Brown, wet fine sand, uniform, no rocks

35'- End boring
End of boring @ 35 ft bgs. Monitoring well MW-13 installed.
Screened 20-35 ft bgs. Flushmount completion.

WELL CONSTRUCTION DIAGRAM



Flush Mount



Water Table

Soil logged and continuously screened for visual and olfactory evidence. Discrete samples collected every foot for PID readings and potential lab analysis.

SW
SM
SP
MH
GW



BORING LOG

BORING NUMBER: **MW-14**

PROJECT NUMBER: W-S2510EC-1
PROJECT NAME: Former Cherry Cleaners
ADDRESS: 2510 E Cherry St. Seattle, WA
CLIENT: Encompass/AllState
CONTRACTOR: Cascade Drilling

LOCATION:
COORDINATES N: E:
SURFACE ELEVATION:
DATUM:

DRILLER: Cascade Drilling
INSPECTOR: E Silver (A/K)

START DATE: 6/29/2012 (A/K)
RESUME DATE: 7/3/2012 (HSA)

DRILLING METHOD: A/K, Drilling TOTAL DEPTH: 40' SAMPLER TYPE:
RIG TYPE: TOP OF ROCK: HAMMER WT.: FALL:

WELL ID	DIAMETER (INCH)	MATERIAL TYPE
SCREEN INTERVAL	SLOT	RISER
SAND PACK INT.	SAND TYPE	FINISH CASING TYPE

GROUND WATER DATA

SKETCH

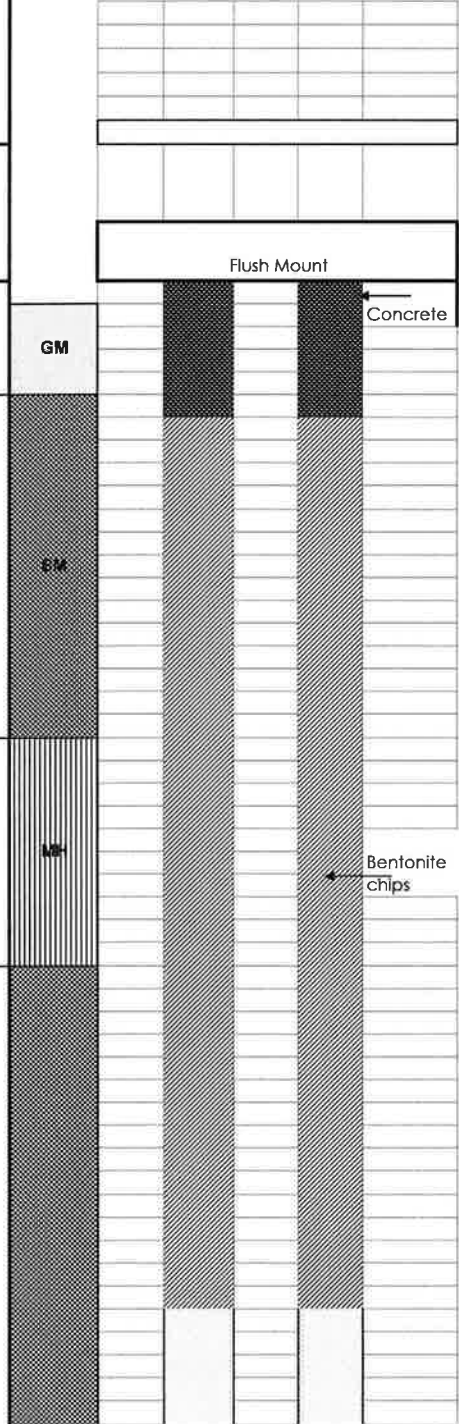
DATE	TIME	DTW	DTP	PT
		{ft.}	{ft.}	{ft.}
7/3/2012		33.0		

DEPTH (ft.)	Time	PID (ppm)	Blow Counts	USCS SYMBOL

FIELD CLASSIFICATION AND REMARKS

				GM	Airknife 0 to 5' bgs. 1'- Med. Brown Gravelly Silty Sand, subangular and subrounded rocks 1"-2", moist 2'- Brownish-gray gravelly coarse silty sand, few fine roots
5		0	30 50/6	SM	3'- Reddish-brown clayey sand with some gravel, few rocks 1"-2", some mottling and iron staining 4'- Fine silty sand, Iron Oxide staining, few rocks 5'- Brown fine sand and silt, moist, iron oxide staining, few subangular rocks <1"
10		0	38 50/4	MH	10'- Brownish-gray clayey silt, damp, Iron Staining, fine silt layers, no rocks
15		0	50/6		15'- Reddish-brown silty sand, damp, Iron staining, no rocks, some silt layers near 15.5'
20		0	50/6		20'- Brown medium-fine sand with silt, silty layer near 20', Iron banding near top, moist,
25					

WELL CONSTRUCTION DIAGRAM





BORING LOG

BORING NUMBER: **MW-14**

PROJECT NUMBER: W-S2510EC-1
PROJECT NAME: Former Cherry Cleaners
ADDRESS: 2510 E Cherry St. Seattle, WA
CLIENT: Encompass/AllState
CONTRACTOR: Cascade Drilling

LOCATION:
COORDINATES N: E:
SURFACE ELEVATION:
DATUM:

DRILLER: Cascade Drilling
INSPECTOR: E Silver (A/K)

START DATE: 6/29/2012 (A/K)
RESUME DATE: 7/3/2012 (HSA)

DRILLING METHOD: A/K, Drilling TOTAL DEPTH: 40' SAMPLER TYPE:
RIG TYPE: TOP OF ROCK: HAMMER WT.: FALL:

WELL ID	DIAMETER (INCH)	MATERIAL TYPE
SCREEN INTERVAL	SLOT	RISER
SAND PACK INT.	SAND TYPE	FINISH CASING TYPE

GROUND WATER DATA

SKETCH

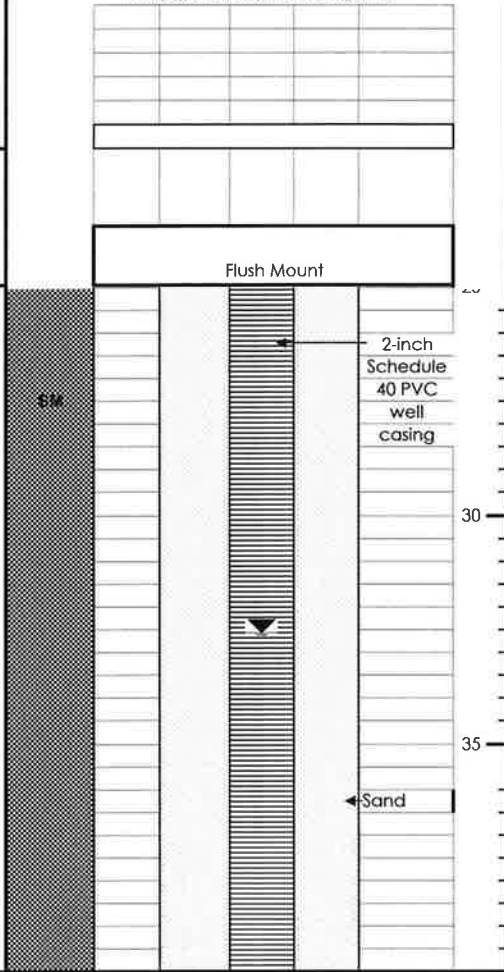
DATE	TIME	DTW (ft.)	DTP (ft.)	PT (ft.)
7/3/2012		33.0		

DEPTH (ft.)	Time	PID (ppm)	Blow Counts	USCS SYMBOL

FIELD CLASSIFICATION AND REMARKS

25'		0	50/6	SM	25'- Brown silty fine sand, no rocks, moist
30'		0	50/6		30'- Brown, silty fine sand, wet, uniform, no rocks Driller observed wet soil conditions at 33'
35'		0	50/6		35'- As above but saturated
40'					End of boring @ 40 ft bgs. Monitoring well MW-14 installed. Screened 25-40 ft bgs. Flushmount completion.

WELL CONSTRUCTION DIAGRAM



Water Table

Soil logged and continuously screened for visual and olfactory evidence. Discrete samples collected every foot for PID readings and potential lab analysis.

SW
SM
SP
MH
GW



BORING LOG

BORING NUMBER: MW-15

PROJECT NUMBER: W-S2510EC-1
 PROJECT NAME: Former Cherry Cleaners
 ADDRESS: 2510 E Cherry St. Seattle, WA
 CLIENT: Encompass/AllState
 CONTRACTOR: Cascade Drilling

LOCATION:
 COORDINATES N: E:
 SURFACE ELEVATION:
 DATUM:

DRILLER: Cascade Drilling
 INSPECTOR: E Silver (A/K)

START DATE: 6/29/2012 (A/K)
 RESUME DATE: 7/5/2012 (HSA)

DRILLING METHOD: A/K, Drilling TOTAL DEPTH: 38' SAMPLER TYPE:
 RIG TYPE: TOP OF ROCK: HAMMER WT.: FALL:

WELL ID	DIAMETER (INCH)	MATERIAL TYPE
SCREEN INTERVAL	SLOT	RISER
SAND PACK INT.	SAND TYPE	FINISH CASING TYPE

GROUND WATER DATA

SKETCH

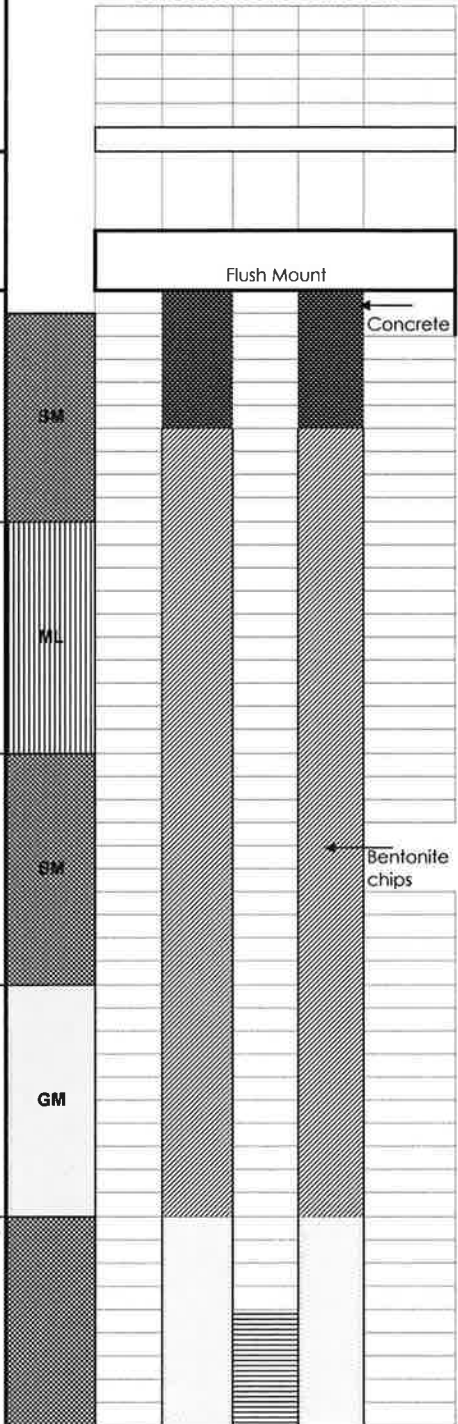
DATE	TIME	DTW (ft.)	DTP (ft.)	PT (ft.)
7/5/2012		29.0		

DEPTH (ft.)	Time	PID (ppm)	Blow Counts	USCS SYMBOL
5		0	8 10 28	SM
10		0	18 50/6	ML
15		0	50/6	SM
20		0	50/6	GM

FIELD CLASSIFICATION AND REMARKS

Airknife 0 to 5' bgs.
 1'- Brown, fine silty sand, moist, no rocks, few fine roots
 2'- Light-brown fine silty sand, some mottling
 3'- As above
 4'- As above
 5'- Brownish-gray fine silt, clay layers, Iron Oxide staining, some roots, no rocks, moist, fine layers of silt and clays
 10'- Reddish-brown silty fine sand, Blue reduced clay layer under 10'. Iron staining and banding, moist
 15'- Reddish-brown gravelly silty fine sand, damp, 10% subangular and subrounded rocks, silt and clay layers near
 20'- Brown silty med. Sand with 1 cobble, iron staining, damp, subrounded rocks <10%, clay layers near bottom

WELL CONSTRUCTION DIAGRAM



**BORING LOG**BORING NUMBER: **MW-15**

PROJECT NUMBER: W-S2510EC-1
PROJECT NAME: Former Cherry Cleaners
ADDRESS: 2510 E Cherry St. Seattle, WA
CLIENT: Encompass/AllState
CONTRACTOR: Cascade Drilling

LOCATION:
COORDINATES N: E;
SURFACE ELEVATION:
DATUM:

DRILLER: Cascade Drilling
INSPECTOR: E Silver (A/K),

START DATE: 6/29/2012 (A/K)
RESUME DATE: 7/5/2012 (HSA)

DRILLING METHOD: A/K, Drilling TOTAL DEPTH: 38' SAMPLER TYPE:
RIG TYPE: TOP OF ROCK: HAMMER WT.: FALL:

WELL ID	DIAMETER (INCH)	MATERIAL TYPE
SCREEN INTERVAL	SLOT	RISER
SAND PACK INT.	SAND TYPE	FINISH CASING TYPE

GROUND WATER DATA**SKETCH**

DATE	TIME	DTW (ft.)	DTP (ft.)	PT (ft.)
7/5/2012		29.0		

DEPTH (ft.)	Time	PID (ppm)	Blow Counts	USCS SYMBOL
25		0	50/6	SM
30		0	50/6	
35		0	50/6	

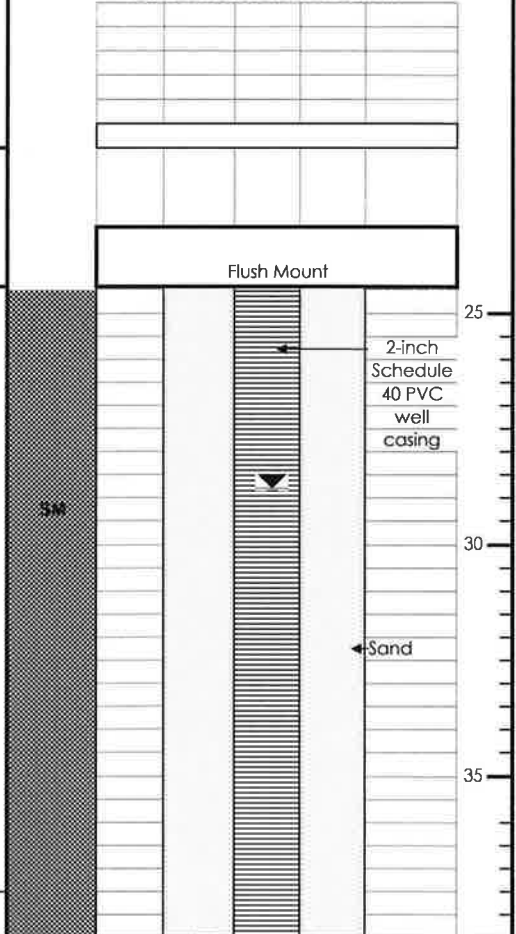
FIELD CLASSIFICATION AND REMARKS

25'- Brownish-gray silty fine sand, Iron staining throughout, damp, silty clay layer at 25'

Driller observed wet soil conditions at 28'

30'- Saturated, brown silty fine sand, uniform, few small subrounded rocks 1"-2"

End of boring @ 38 ft bgs. Monitoring well MW-15 installed.
Screened 23-38 ft bgs. Flushmount completion.

WELL CONSTRUCTION DIAGRAM**Water Table**

Soil logged and continuously screened for visual and olfactory evidence. Discrete samples collected every foot for PID readings and potential lab analysis.

SW
SM
SP
MH
GW

**BORING LOG**BORING NUMBER: **MW-16**

PROJECT NUMBER: W-S2510EC-1
PROJECT NAME: Former Cherry Cleaners
ADDRESS: 2510 E Cherry St. Seattle, WA
CLIENT: Encompass/AllState
CONTRACTOR: Cascade Drilling

LOCATION:
COORDINATES N: E:
SURFACE ELEVATION:
DATUM:

DRILLER: Cascade Drilling
INSPECTOR: E Silver (A/K)

START DATE: 6/29/2012 (A/K)
RESUME DATE: 7/20/2012 (HSA)

DRILLING METHOD: A/K, Drilling TOTAL DEPTH: 40' SAMPLER TYPE:
RIG TYPE: TOP OF ROCK: HAMMER WT.: FALL:

WELL ID	DIAMETER (INCH)	MATERIAL TYPE
SCREEN INTERVAL	SLOT	RISER
SAND PACK INT.	SAND TYPE	FINISH CASING TYPE

GROUND WATER DATA

SKETCH

DATE	TIME	DTW (ft.)	DTP (ft.)	PT (ft.)
7/20/2012		15.0		

DEPTH (ft.)	PID (ppm)	SAMPLING INTERVAL	RECOVERY	USCS SYM.
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FIELD CLASSIFICATION AND REMARKS

Airknife 0 to 5' bgs.
1'- Med. Brown Coarse Gravelly sand, moist
2'- As above, small subangular/subrounded rocks <1"
3'- As above, Iron oxide staining
4'- As above

5'- Brown coarse sand, salt and pepper appearance, no rocks, moist

SW

10'- Wet, Brown coarse sand, uniform, no rocks

15'- Saturated Gray silty fine sand, gray-brown "marbled" appearance, no rocks

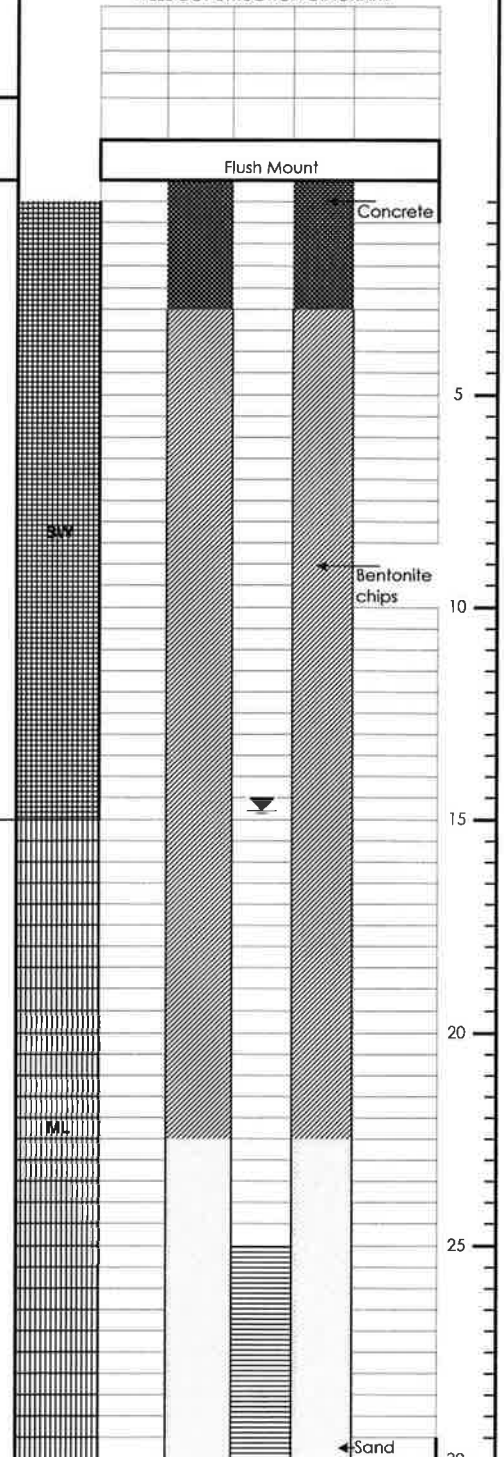
18' Driller observed hard layer of silt/clay

20'- Gray silty fine sand, brown silt layers embedded, silty towards bottom, no rocks, moist

ML

25'- Gray silty fine sand, moist, no rocks, pockets of Iron oxide staining, mottling

WELL CONSTRUCTION DIAGRAM



**BORING LOG**BORING NUMBER: **MW-16**

PROJECT NUMBER: W-S2510EC-1
PROJECT NAME: Former Cherry Cleaners
ADDRESS: 2510 E Cherry St. Seattle, WA
CLIENT: Encompass/AllState
CONTRACTOR: Cascade Drilling

LOCATION:
COORDINATES N: E
SURFACE ELEVATION:
DATUM:

DRILLER: Cascade Drilling
INSPECTOR: E Silver (A/K)

START DATE: 6/29/2012 (A/K)
RESUME DATE: 7/20/2012 (HSA)

DRILLING METHOD: A/K, Drilling TOTAL DEPTH: 40' SAMPLER TYPE:
RIG TYPE: TOP OF ROCK: HAMMER WT.: FALL:

WELL ID	DIAMETER (INCH)	MATERIAL TYPE
SCREEN INTERVAL	SLOT	RISER
SAND PACK INT.	SAND TYPE	FINISH CASING TYPE

GROUND WATER DATA

SKETCH

DATE	TIME	DTW (ft.)	DTP (ft.)	PT (ft.)
7/20/2012		15.0		

DEPTH (ft.)	PID (ppm)	SAMPLING INTERVAL	RECOVERY	USCS SYM.
30	0		50/6	
35	0		50/6	
40	0			

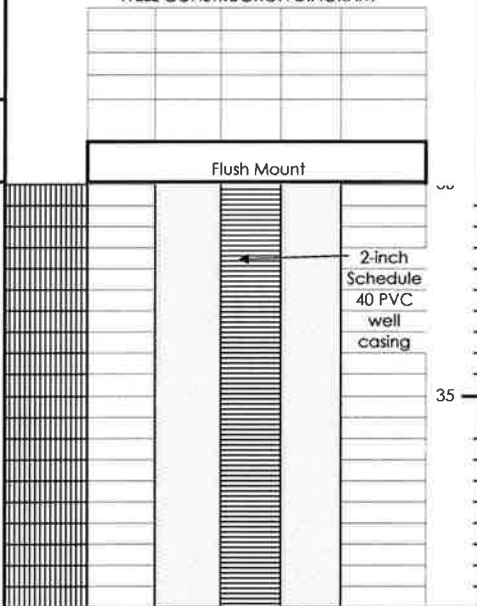
FIELD CLASSIFICATION AND REMARKS

30'- Brown coarse silty sand, no rocks, uniform, moist

35'- As above

End of boring @ 40 ft bgs. Monitoring well MW-16 installed.
Screened 25-40 ft bgs. Flushmount completion.

WELL CONSTRUCTION DIAGRAM



Water Table

Soil logged and continuously screened for visual and olfactory evidence. Discrete samples collected every foot for PID readings and potential lab analysis.

SW
SM
SP
MH
GW



BORING LOG

BORING NUMBER: **MW-17**

PROJECT NUMBER: W-S2510EC-1
PROJECT NAME: Former Cherry Cleaners
ADDRESS: 2510 E Cherry St. Seattle, WA
CLIENT: Encompass/AllState
CONTRACTOR: Cascade Drilling

LOCATION:
COORDINATES N: E:
SURFACE ELEVATION:
DATUM:

DRILLER: Cascade Drilling
INSPECTOR: E Silver (A/K)

START DATE: 6/29/2012 (A/K)
RESUME DATE: 7/20/2012 (HSA)

DRILLING METHOD: A/K, Drilling TOTAL DEPTH: 40' SAMPLER TYPE:
RIG TYPE: TOP OF ROCK: HAMMER WT.: FALL:

WELL ID	DIAMETER (INCH)	MATERIAL TYPE
SCREEN INTERVAL	SLOT	RISER
SAND PACK INT.	SAND TYPE	FINISH CASING TYPE

GROUND WATER DATA

SKETCH

DATE	TIME	DTW (ft.)	DTP (ft.)	PI (ft.)
7/20/2012		32.0		

DEPTH (ft.)	Time	PID (ppm)	Blow Counts	USCS SYMBOL

FIELD CLASSIFICATION AND REMARKS

Airknife 0 to 5' bgs.
1'- Reddish-brown gravelly silty sand, few roots, subangular and subrounded rocks <1"
2'- As above, few fine roots, mottling
3'- As above, mottling
4'- As above

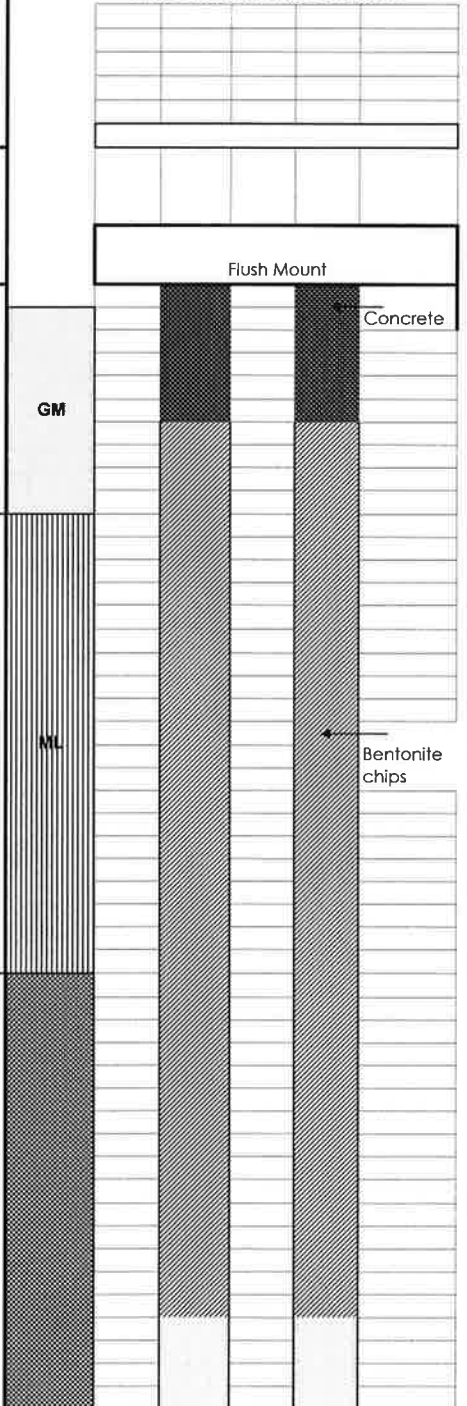
5'- As above, gray clay layer with mottling and iron oxide staining near 6.5'

10'- Gray clayey-silt with mottling and iron oxide banding, few subrounded rocks <1", sandy blue clay layer at 11'

15'- Blue-gray silty fine sand, layers of dark brown silt, no rocks, brown silty fine sand layer with Fe oxide staining at 16'

20'- Brown silty fine sand, uniform, iron oxide banding and mottling, no rocks

WELL CONSTRUCTION DIAGRAM





BORING LOG

BORING NUMBER: **MW-17**

PROJECT NUMBER: W-S2510EC-1
 PROJECT NAME: Former Cherry Cleaners
 ADDRESS: 2510 E Cherry St. Seattle, WA
 CLIENT: Encompass/AllState
 CONTRACTOR: Cascade Drilling

LOCATION:
 COORDINATES N: E:
 SURFACE ELEVATION:
 DATUM:

DRILLER: Cascade Drilling
 INSPECTOR: E Silver (A/K).

START DATE: 6/29/2012 (A/K)
 RESUME DATE: 7/20/2012 (HSA)

DRILLING METHOD: A/K, Drilling TOTAL DEPTH: 40' SAMPLER TYPE:
 RIG TYPE: TOP OF ROCK: HAMMER WT.: FALL:

WELL ID	DIAMETER (INCH)	MATERIAL TYPE
SCREEN INTERVAL	SLOT	RISER
SAND PACK INT.	SAND TYPE	FINISH CASING TYPE

GROUND WATER DATA

SKETCH

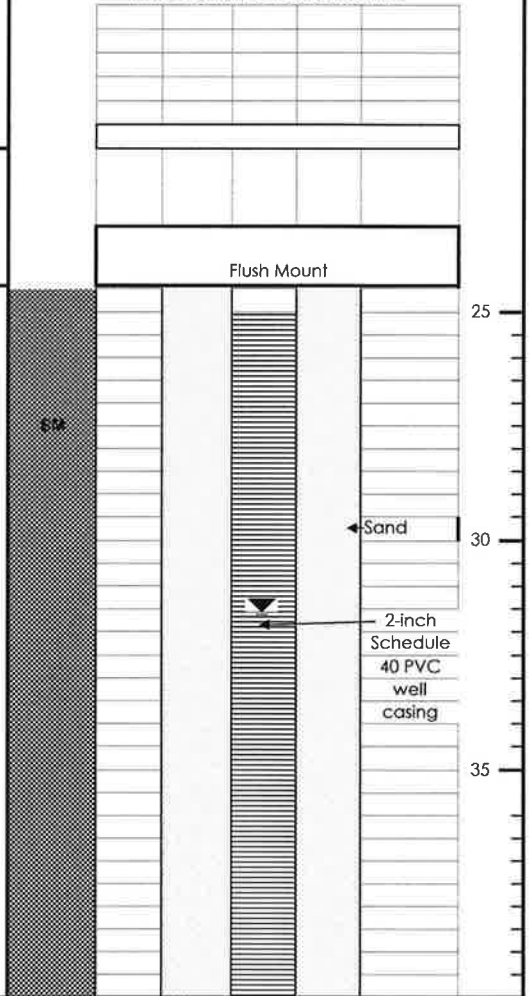
DATE	TIME	DTW (ft.)	DTP (ft.)	PT (ft.)
7/20/2012		32.0		

DEPTH (ft.)	Time	PID (ppm)	Blow Counts	USCS SYMBOL

FIELD CLASSIFICATION AND REMARKS

25		0	50/6	SM	25'- Brown silty fine sand, moist, no rocks, iron oxide layers near 25.5', uniform profile
30		0	50/3		30'- Brown gravelly coarse silty sand, <25% subrounded and subangular, rocks <2" 32'-33" Driller informed water level
35		0	50/6		35'- Saturated, brown silty fine sand, (1) rock 2.5"
40			50/6		End of boring @ 40 ft bgs. Monitoring well MW-17 installed. Screened 25-40 ft bgs. Flushmount completion.

WELL CONSTRUCTION DIAGRAM



Water Table

Soil logged and continuously screened for visual and olfactory evidence. Discrete samples collected every foot for PID readings and potential lab analysis.

SW
SM
SP
MH
GW

Appendix B

Low-Flow Groundwater Stabilization Logs

Appendix B
Low-Flow Groundwater Stabilization Logs –
3Q12

SHEET 1 OF 1

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

SHEET 1 OF 1

DATE: 8/1/12

CONSULTING FIRM: CCS Halliburton

FIELD PERSONNEL: by

ECC Horizon
Km

WELL PERMIT #:

WELL DEPTH: _____
WELL DIAMETER: 4 inches

SCREENED/OPEN INTERVAL: 20-40

PID/FID READINGS (ppm):

BACKGROUND

PUMP INTAKE DEPTH:

31

below TOC

BENEATH OUTER CAP:
BENEATH INNER CAP:

DEPTH TO WATER BEI

PUMP INSTALLATION

29.60 ft below TOC

COMMENTS:
Started pouring @ 1520. Water is pink colored with free product mixed in.
Sample collected @ 1545

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

SHEET 1 OF 1

CONSULTING FIRM: ECC Malina
FIELD PERSONNEL: by

SCREENED/OPEN INTERVAL: 20-40

BACKGROUND:

BENEATH OUTER CAP:

BENEATH INNER CAP:

PUMP INTAKE DEPTH: 35 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 30.55 ft below TOC

Pumping started at 1415, free phase product mix, no colour, odor

* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

SHEET 1 OF 1

[illegible]

Sample Time @ 0955

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mV for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

SHEET 1 OF 1

Begin Pumpin @ 1120 Sampling Time @ 1200

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mV for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

SHEET 1 OF 1

DATE: 8/1/12

CONSULTING FIRM: EC Horizon
FIELD PERSONNEL: PH

FIELD PERSONNEL:

WELL PERMIT #: _____ WELL DIAMETER: 2 _____ inches

SCREENED/OPEN INTERVAL: 31.5-41.5

PID/FID READINGS (ppm):

BACKGROUND:

BENEATH OUTER CAP:

BENEATH INNER CAP:

PUMP INTAKE DEPTH: _____ ft below TOC

DEPTH TO WATER BEFORE PUMP INSTALLATION: 21.96 ft below TOC

Started page 6015
Sampled at 1000

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

SHEET 1 OF 1

28.20 ft below TOC

35 ft below TOC

COMMENTS: Logging started at 1130
Sampled @ 1200
Free product mixed with large water

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

SHEET 1 OF 1

Cherry Cleaves

CONSTITUTION

ECC 400

7/28/12 7/30/12

FILE D BEDSCOVERS

22

1/20/2019

MW-8

WELL DEPTH: 40

SCREENED OPEN INTERVAL: 20-40 B95

24

WELL DIAMETER: 7 inches

RECEIVED THE NEW YORK PUBLIC LIBRARY

PID/FID READINGS (ppm):

BACKGROUND

3

BENEATH OUTER CAP: _____

DEPTH TO WATER BEFORE PUMP INSTALLATION: 25.94 ft below TOC

[illegible]

* Conductivity questionable

Sample Time @ 1545

* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

SHEET 1 OF 1

[illegible][illegible]

Begin Pumping @ 1015
Sampling at 1045

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

SHEET 1 OF 1

DEPTH TO WATER BEFORE PUMP INSTALLATION: 22.8 ft below TOC

COMMENTS: (solidation of units in MS)

Sample 2 1330

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

DATA SHEET

SHEET)
OF

[illegible]

* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: Cherry Creek
DATE: 8/1/12
WEATHER: Sunny 70's
CONSULTING FIRM: ECC Horizon
FIELD PERSONNEL: PK

MONITOR WELL #: MW-15 WELL DEPTH: 38 inches
WELL PERMIT #: _____ WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL: 23-38

PID/FID READINGS (ppm):
BACKGROUND: _____
BENEATH OUTER CAP: _____
BENEATH INNER CAP: _____
PUMP INTAKE DEPTH: 34 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 28.89 ft below TOC

TIME	PURGING	SAMPLING	pH		SPECIFIC CONDUCTIVITY		REDOX POTENTIAL		DISSOLVED OXYGEN		TURBIDITY		TEMPERATURE		PUMPING RATE	DEPTH TO WATER
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
1325	X		6.97	NA	.510	NA	111	NA	8.20	NA		NA	14.72	NA	0.3	28.91
1330	X		6.64		.500		105		6.63				14.01		0.3	28.94
1335	X		6.66		.502		99		6.21				13.90		0.3	28.98
1340	X		6.67		.515		96		5.91				13.85		0.3	29.02
1345	X		6.68		.510		95		5.79				13.78		0.3	29.04
1400	X		—													

COMMENTS: Begin purging at 1320 Light Brown precipitate, slightly turbid
Sampled @ 1400

* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.

SHEET 1 **OF** 1

COMMENTS: Light Brown slightly turbid
Sampled @ 1445

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature ± 10 mV for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

SHEET 1 OF 1

Sampled @ 1330

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mV for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

Appendix B
Low-Flow Groundwater Stabilization Logs –
4Q12

SHEET 1 OF 1

CONSULTING FIRM: ECC Holdings
FIELD PERSONNEL: RH

ECC Horizon
RH

SCREENED/OPEN INTERVAL: 22-42

BENEATH INNER CAP:

PUMP INTAKE DEPTH: 32 ft below TOC

DEPTH TO WATER BEFORE PUMP INSTALLATION: 32.1 ft below TOC

COMMENTS:

Sampled 2 days

FREE Product in FREE WATER

Simplified 0945

Free Product in Fuller White

* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

SHEET 1 **OF** 1

DATE: 11/6/12

WEATHER:

SCREENED/OPEN INTERVAL: 50-55

UNDE

PUMP INTAKE DEPTH: 52.5 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 28.19 ft below TOC

[illegible]

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature, ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

SHEET 7 OF 1

[illegible]

SCREENED/OPEN INTERVAL: 20-40

SCREENED/OPEN INTERVAL: 20-40

BACKGROUND: _____
BENEATH OUTER CAP: _____
PUMP INTAKE DEPTH: 36 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 30.7 ft below TOC

COMMENTS:
Well off allen
Sample # 1400
Water is pink colored with facet product mixed in

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature, ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.**

SHEET / OF 1

DATE: 11/6/12

WEATHER:**WELL PERMIT #:**

SCREENED/OPEN INTERVAL: 20-40

PID/FID READINGS (ppm):

PUMP INTAKE DEPTH: 30 ft below TOC

BENEATH OUTER CAP:
BENEATH INNER CAP:

DEPTH TO WATER BEFORE PUMP INSTALLATION: 3.70 ft below TOC

[illegible]

COMMENTS:

Sum Plaid @ 1500

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

SHEET 1 OF 1

ECC Horizon
R2H

SCREENED/OPEN INTERVAL: 25-35

DEPTH TO WATER BEFORE PUMP INSTALLATION: 21.79 ft below TOC

Sample 1430

*** INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential and $\pm 10\%$ for Dissolved Oxygen and Turbidity.**

SHEET 1 OF 1

Ecc Horizon

WELL DEPTH: 40
WELL DIAMETER: 2 inches

SCREENED/OPEN INTERVAL: 20-40 31.5-41.5

BACKGROUND:

PUMP INTAKE DEPTH: _____ ft below TOC

BENEATH OUTER CAP:

DEPTH TO WATER BEFORE PUMP INSTALLATION: 27.42 ft below TOC

Sampled @ 1000

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature, ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.**

SHEET 1 OF 1

DEPTH TO WATER BEFORE PUMP INSTALLATION: 21.1 ft below TOC

COMMENTS:

Jan 1930

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

SHEET 1 OF 1

Ecc Horizon
Per

SCREENED/OPEN INTERVAL: 20-40

PUMP INTAKE DEPTH: 30 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 31.80 ft below TOC

EOS Flare Product mixed with Polysulfone

*** INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.**

SHEET 1 **OF** 1

**CONSULTING FIRM:
FIELD PERSONNEL:**

WELL DEPTH: 40
WELL DIAMETER: 2 inches

SCREENED/OPEN INTERVAL: 20-40

BACKGROUND:

1

PUMP INTAKE DEPTH: _____ ft below TOC

DEPTH TO WATER BEFORE PUMP INSTALLATION: 27.34 ft below TOC

COMMENTS:

Sample 21530

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

SHEET 7 OF 1

Ecc Horizon
for

SCREENED/OPEN INTERVAL: 10-30

6.69 ft below TOC

COMMENTS:

Snigdha 1030

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

—

ECC Horizon
KH

SCREENED/OPEN INTERVAL: 18-33

PUMP INTAKE DEPTH: 30 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 25.61 ft below TOC

COMMENTS:

* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

SHEET 1 **OF** 1

ECC Horizon
12H

SCREENED/OPEN INTERVAL: 20-35

BENEATH OUTER CAP: _____
BENEATH INNER CAP: _____
DEPTH TO WATER BEFORE PUMP INSTALLATION: 24.19 ft below TOC

COMMENTS:

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.**

SHEET 1 OF 1

CONSULTING FIRM: ECC Halpern
FIELD PERSONNEL: Per

SCREENED/OPEN INTERVAL: 25-40

BACKGROUND: _____
BENEATH OUTER CAP: _____
BENEATH INNER CAP: _____
PUMP INTAKE DEPTH: _____ ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 32.52 ft below TOC

[illegible]

Sam Flader 1430

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.**

SHEET 1 OF 1

ECC HQ, 2021
24

SCREENED/OPEN INTERVAL: 23-38

DEPTH TO WATER BEFORE PUMP INSTALLATION: 30.22 ft below TOC

COMMENTS:

Df-10000 collector (3) Sampled @ 1230

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.**

SHEET 1 OF 1

CONSULTING FIRM: ECC Helix

FIELD PERSONNEL: RH

SCREENED/OPEN INTERVAL: 25-40

BACKGROUND:

PUR

ft below TOC

DEP

PUMP INSTALLATION

1

[illegible]

Sampled @ 1000

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.**

SHEET 1 OF 1

EC Horizon
PCN

Archives

SCREENED/OPEN INTERVAL: 25-40

BACKGROUND:

1

PUMP INTAKE DEPTH: 35 ft below TOC

BENEATH OUTER CAP:

DEPTH TO WATER BEFORE PUMP INSTALLATION: 3268 ft below TOC

Sampled @ 1195

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.**

Appendix B
Low-Flow Groundwater Stabilization Logs –
1Q13

SHEET 1 OF 1

	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TDC)
TIME			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
1130	X		5.18	NA	1722	NA	+78.1	NA	6.28	NA		NA	12.24	NA	0.2	30.10
1135	X		5.20		1732		+76.1		4.18				12.97		0.2	30.26
1140	X		5.20		1734		+78.2		2.96				13.41		0.2	30.41
1145	X		5.21		1736		+82.4		2.31				13.52		0.2	30.47
1150	X															
1200	X															

COMMENTS:

EOS in purg water

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.**

SHEET 1 OF 1

Ecc Horizon
P. Hubner

SCREENED/OPEN INTERVAL: 50-55

BACKGROUND: _____
BENEATH OUTER CAP: _____
BENEATH INNER CAP: _____
PUMP INTAKE DEPTH: 52.5 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 27.1 ft below TOC

~~KOS in progress~~

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.**

SHEET 1 OF 1

MONITOR WELL #: MW-2 WELL DEPTH: _____
WELL PERMIT #: _____ WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL: 20-40

[illegible][illegible]

*** INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.**

SHEET 1 **OF** 1

DATE: 2/7/13

CONSULTING FIRM: ECC HOLDING
FIELD PERSONNEL: R. HUBNER

FIELD PERSONNEL:

WELL DEPTH:

WELL DIAMETER: 4 inches

SCREENED/OPEN INTERVAL: 20-40

PID/FID READINGS (ppm):

D:

BENEATH OILTI

PUMP INTAKE DEPTH: _____ ft below TOC

BENEATH OUTER CAB:

DEPTH TO WATER BEFORE PUMP INSTALLATION: 28.10 ft below TOC

[illegible]**COMMENTS:**

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.**

SHEET 1 OF 1

DATE: 2/5/13
WEATHER: Rain Mid-4⁰'s

Ecc Holizon
R. HUBBARD

SCREENED/OPEN INTERVAL: 25-35

DEPTH TO WATER BEFORE PUMP INSTALLATION: 21.10 ft below TOC

COMMENTS:

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

SHEET 1 OF 1

DATE: 2/4/13

WEATHER: Partly Cloudy

CONSULTING FIRM: ECG Holizon
FIELD PERSONNEL: D. HUBNER

WELL PERMIT #: _____ WELL DIAMETER: 2 inches

SCREENED/OPEN INTERVAL: 31.5-41.5

BACKGROUND:

PUMP INTAKE DEPTH: _____ ft below TOC

BENEATH OUTER CAP:

DEPTH TO WATER BEFORE PUMP INSTALLATION: 26.25 ft below TOC

[illegible]

COMMENTS:

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

SHEET 1 OF 1

$$\frac{2}{6} / 13$$

polyribon

ECC Horizon
R. Huebner

WELL DEPTH:

WELL DIAMETER:

Radicals (ppm):

1

PUMP INTAKE DEPTH:
DEPTH TO WATER BEF

27.78 ft below TOC

[illegible]

COMMENTS:

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.**

SHEET 1 OF 1

SHEET 1 OF 1

PUMP INTAKE DEPTH: _____ ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 29.90 ft below TOC

COMMENTS:

EOS in perspective

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

SHEET ____ OF ____

CONSULTING FIRM: ECG Hollizon

FIELD PERSONNEL: B. HUBNER

SCREENED/OPEN INTERVAL: 20-40

BACKGROUND:

PUMP INTAKE DEPTH: _____ ft below TOC

BENEATH OUTER CAP:

DEPTH TO WATER BEFORE PUMP INSTALLATION: 25.9' ft below TOC

COMMENTS:

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

SHEET 1 OF 1

DATE: 2/3/13
WEATHER: Rainy 40's 50's

ECC Holizans
R. HUBNER

WELL DEPTH: _____
WELL DIAMETER: 2 inches

SCREENED/OPEN INTERVAL: 20-40

BACKGROUND:

PUMP INTAKE DEPTH: _____ ft below TOC

BENEATH OUTER CAP:
BENEATH INNER CAP:

DEPTH TO WATER BEFORE PUMP INSTALLATION: 25.65 ft below TOC

COMMENTS:
Sampled @ 1800

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.**

SHEET 1 OF 1

DATE: 2/5/13
WEATHER: light rain 40-55

CONSULTING FIRM: ECC Holizon
FIELD PERSONNEL: R. HUBNER

FIELD PERSONNEL:

WELL DEPTH:

WELL DIAMETER:

SCREENED/OPEN INTERVAL:

10-30

END:

END:

PUMP INTAKE DEPTH: _____ ft below TOC

BENEATH OUTER CAP:

1

DEPTH TO WATER BEFORE PUMP INSTALLATION: 2.52 ft below TOC

COMMENTS:

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.**

SHEET 1 OF 1

Ecc horizon

R. HUBER

inches

SCREENED/OPEN INTERVAL: 20-40

BACKGROUND:

PUMP INTAKE DEPTH: _____ ft below TOC

BENEATH OUTER CAP:

DEPTH TO WATER BEFORE PUMP INSTALLATION: 21.70 ft below TOC

[illegible]

COMMENTS:

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

SHEET 1 **OF** 1

DATE: 2/6/13

CONSULTING FIRM:
FIELD PERSONNEL:

Ecc Horizon
P. HUBNER

WELL DEPTH: _____

WELL DIAMETER: _____ **Inches**

SCREENED/OPEN INTERVAL: 18-33

BUMP INTAKE DEPTH: # below TOC

DEPTH TO WATER BEFORE PUMP INSTALLATION: 23.80 ft below TOC

[illegible]

COMMENTS:

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential and $\pm 10\%$ for Dissolved Oxygen and Turbidity.**

SHEET 1 OF 1

ECC HUNZON
R. HUBBARD

SCREENED/OPEN INTERVAL: 20:35

DEPTH TO WATER BEFORE PUMP INSTALLATION: 22.74 ft below TOC

[illegible]**COMMENTS:**

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.**

SHEET 1 **OF** 1

ECC Holzon
R. Huebner

SCREENED/OPEN INTERVAL: 25-40

PUMP INTAKE DEPTH: _____ ft below TOC

BENEATH OUTER CAP: _____
BENEATH INNER CAP: _____
DEPTH TO WATER BEFORE PUMP INSTALLATION: 31.6 ft below TOC

COMMENTS:

* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

SHEET 1 OF 1

[illegible]

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

SHEET 1 OF 1

DATE: 2/5/13

WEATHER:

WELL PERMIT #:

WELL DIAMETER: 2 inches

SCREENED/OPEN INTERVAL: 25-40

PID/FID READINGS (ppm): BACKGROUND:

PUMP INTAKE DEPTH: _____ ft below TOC

BENEATH OUTER CAP: _____
BENEATH INNER CAP: _____
DEPTH TO WATER BEFORE PUMP INSTALLATION: 30.62 ft below TOC

COMMENTS:

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.

SHEET 1 OF 1

DATE: 2/5/13

MONITOR WELL #: MW-17 WELL DEPTH: 40

PID/FID READINGS (ppm): BACKGROUND:

BENEATH OUTER CAP: _____

G		SPECIFIC	REDOX
NG			

TIME	PUR		AM	
	READING	CHANGE	READING	CHANGE
	(pH units)		(mv)	
	(mS/cm)			

1300	X	6.05	MA	-769	MA	+112
------	---	------	----	------	----	------

[illegible]

1315
x
6
27
996
1155

[illegible]

[illegible]

[illegible]

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE R**

±10 mv for Redox Potentials; and ±10% for Dissolved Oxygen and Turbidity

[illegible]

Appendix B
Low-Flow Groundwater Stabilization Logs –
2Q13

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: Cherry Cleaners
 DATE: 6/10/13
 WEATHER: Sunny, 72°
 CONSULTING FIRM: ECC Horizon
 FIELD PERSONNEL: Rn

MONITOR WELL #: MW-1 WELL DEPTH: _____ SCREENED/OPEN INTERVAL: 22.42
 WELL PERMIT #: _____ WELL DIAMETER: 2 inches

PID/FID READINGS (ppm): BACKGROUND: _____ PUMP INTAKE DEPTH: 32 ft below TOC
 BENEATH OUTER CAP: _____ DEPTH TO WATER BEFORE PUMP INSTALLATION: 29.01 ft below TOC
 BENEATH INNER CAP: _____

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
1400																
1405	X		5.02	NA	1.444	NA	+97.6	NA	2.62	NA		NA	14.23	NA	0.3	29.10
1410	X		5.00		1.433		+101.6		1.56				14.11		0.3	29.20
1415	X		4.97		1.420		+105.7		0.82				14.16		0.3	29.25
1420	X		4.95		1.411		+102.6		0.74				14.30		0.3	29.30
1430		✓														

COMMENTS: Ferrous Iron (unfiltered) = > 3.30 with 1:10 dilution (mg/L)
 (filtered) = > 3.30 with 1:10 dilution (mg/L)

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature;
 ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.

SHEET 1 **OF** 1

MONITOR WELL #: MW-4 WELL DEPTH: _____ SCREENED/OPEN INTERVAL: 25-35
WELL PERMIT #: _____ WELL DIAMETER: 2 inches

PID/FID READINGS (ppm):

BACKGROUND:	_____	PUMP INTAKE DEPTH:	<u>30</u> ft below TOC
BENEATH OUTER CAP:	_____	DEPTH TO WATER BEFORE PUMP INSTALLATION:	<u>19.20</u> ft below TOC
BENEATH INNER CAP:	_____		

[illegible]

COMMENTS: Ferrous Iron (unfiltered) = 0.06 mg/L
Ferrous Iron (Filtered) = 0.01 mg/L

*** INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.**

SHEET 1 OF 1

CONSULTING FIRM: ECC Horizon
FIELD PERSONNEL: RH

MONITOR WELL #: mw-1D WELL DEPTH: _____ SCREENED/OPEN INTERVAL: 50-55
WELL PERMIT #: _____ WELL DIAMETER: 2 inches

PID/FID READINGS (ppm): **BACKGROUND:** _____ **PUMP INTAKE DEPTH:** 52.5 ft below TOC
BENEATH OUTER CAP: _____ **DEPTH TO WATER BEFORE PUMP INSTALLATION:** 25.63 ft below TOC
BENEATH INNER CAP: _____

[illegible]

COMMENTS: Ferrous Iron (unfiltered) = 0.01 mg/L
Ferrous Iron (filtered) = 0.00 mg/L

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.**

SHEET 1 **OF** 1

MONITOR WELL #: MW-2 WELL DEPTH: _____ SCREENED/OPEN INTERVAL: 20-40
WELL PERMIT #: _____ WELL DIAMETER: 4 inches

[illegible]

COMMENTS: Depth to EOS: 23.84 EOS present in sample water. PINK-colored water Ferrous Iron (unfiltered): 2.11 with 1:10 dilution
Water: 28.46 (filtered) = 2.46 mg/L with 1:10 dilution

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.**

SHEET 1 **OF** 1

MONITOR WELL #: MW-3 WELL DEPTH: _____ SCREENED/OPEN INTERVAL: 20.40
WELL PERMIT #: _____ WELL DIAMETER: 4 inches

[illegible]

COMMENTS:	Pink-Colored water with EDS in Bucket	bTEOs :	24.55	ferrous Iron (unfiltered) = 73.3 with 1:10 dilution UN (filtered) = 3.15 mg/L
		DTW :	27.10	

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.**

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: Cherry Cleaners
 DATE: 6/6/13
 WEATHER: Sunny 71°F
 CONSULTING FIRM: ECC Horizon
 FIELD PERSONNEL: PK

MONITOR WELL #: MW-5 WELL DEPTH: _____
 WELL PERMIT #: _____ WELL DIAMETER: 2 inches
 SCREENED/OPEN INTERVAL: 31.5-41.5

PID/FID READINGS (ppm):
 BACKGROUND: _____
 BENEATH OUTER CAP: _____
 BENEATH INNER CAP: _____
 PUMP INTAKE DEPTH: 36.5 ft below TOC
 DEPTH TO WATER BEFORE PUMP INSTALLATION: 25.23 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
1135	X		6.80	NA	.382	NA	+31.1	NA	6.00	NA		NA	15.85	NA		25.10
1140	X		6.74		.375		+60.5		5.75				14.76			25.20
1145	X		6.65		.370		+73.1		5.64				14.54			25.29
1150	X		6.59		.365		+70.1		5.62				14.49			25.35
1200	X	X														

COMMENTS: Ferrous Iron (unfiltered) = 0.32 mg/L
(filtered) = 0.11 mg/L

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: Cherry Cleaners
 DATE: 6/7/13
 WEATHER: _____

CONSULTING FIRM: ECC Horizon
 FIELD PERSONNEL: RH

MONITOR WELL #: MW-6 WELL DEPTH: _____ SCREENED/OPEN INTERVAL: 31.5-41.5
 WELL PERMIT #: _____ WELL DIAMETER: 2 Inches

PID/FID READINGS (ppm): BACKGROUND: _____ PUMP INTAKE DEPTH: 36.5 ft below TOC
 BENEATH OUTER CAP: _____ DEPTH TO WATER BEFORE PUMP INSTALLATION: 26.75 ft below TOC
 BENEATH INNER CAP: _____

1030 TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
1035	X		7.10	NA	.328	NA	435.3	NA	6.28	NA		NA	14.61	NA	0.3	
1040	X		6.96		.324		478.1		5.93				14.17		0.3	
1045	X		6.89		.315		490.2		5.77				14.12		0.3	
1050	X		6.85		.313		493.3		5.76				14.07		0.3	
1100	X															

COMMENTS: Ferrous Iron (unfiltered) = 0.00 mg/L
 (filtered) = 0.00 mg/L

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.

SHEET 1 **OF** 1

MONITOR WELL #: MW-7 WELL DEPTH: _____ SCREENED/OPEN INTERVAL: 20-40
WELL PERMIT #: _____ WELL DIAMETER: 4 inches

[illegible]

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.**

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: Cherry cleaners
 DATE: 6/5/13
 WEATHER: Sunny, 62°F
 CONSULTING FIRM: ECC Horizon
 FIELD PERSONNEL: RH

MONITOR WELL #: MW-8 WELL DEPTH: _____ SCREENED/OPEN INTERVAL: 20-96
 WELL PERMIT #: _____ WELL DIAMETER: 2 inches

PID/FID READINGS (ppm): BACKGROUND: _____ PUMP INTAKE DEPTH: 30 ft below TOC
 BENEATH OUTER CAP: _____ DEPTH TO WATER BEFORE PUMP INSTALLATION: 24.73 ft below TOC
 BENEATH INNER CAP: _____

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (gal/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
0930	X		6.86	NA	.266	NA	85.5	NA	7.66	NA		NA	13.42	NA	0.2	24.81
0940	X		6.87		.267		84.6		7.56				13.39		0.2	24.90
0945	X		6.89		.267		84.1		7.52				13.34		0.2	25.01
0950	X		6.91		.267		84.0		7.51				13.28		0.2	25.10
1000	X															

COMMENTS: Ferrous Iron (Filtered) = 0.01 mg/L
 Ferrous Iron (unfiltered) = 0.11 mg/L

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature;
 ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.

SHEET 7 **OF** 1

CONSULTING FIRM: ECC Horizon
FIELD PERSONNEL: RM

SCREENED/OPEN INTERVAL: 20-40

PUMP INTAKE DEPTH: 30 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 24.70 ft below TOC

COMMENTS: Ferrous Iron (unfiltered) = 0.69 mg/L
 Ferrous Iron (filtered) = > 3.30 detect. Limit 1:10 dilution = 0.41 mg/L
 10 mL sample / 90 mL DI H₂O

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.**

LOW FLOW SAMPLING DATA SHEET

SHEET 4 OF 4

SITE: Cherry Creek
 DATE: 6/4/13
 WEATHER: Sunny, 72°F
 CONSULTING FIRM: ECC Horizon
 FIELD PERSONNEL: PH

MONITOR WELL #: MW-10 WELL DEPTH: 2
 WELL PERMIT #: _____ WELL DIAMETER: 4 Inches
 SCREENED/OPEN INTERVAL: 10-30

PID/FID READINGS (ppm):
 BACKGROUND: _____ PUMP INTAKE DEPTH: 20 ft below TOC
 BENEATH OUTER CAP: _____ DEPTH TO WATER BEFORE PUMP INSTALLATION: 6.26 ft below TOC
 BENEATH INNER CAP: _____

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
1215	X		6.22	NA	129	NA	+160.1	NA	6.90	NA		NA	14.14	NA	0.3	6.30
1225	X		6.86		124		+223.1		6.42				14.58		0.3	6.38
1230	X		6.97		118		+252.0		6.10				14.23		0.3	6.51
1235	X		6.89		116		+245.3		5.92				14.17		0.3	6.60
1300	X															

COMMENTS: Ferrous Iron unfiltered = 0.00 mg/L
 filtered = 0.00 mg/L

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: Cherry Cleaners
DATE: 6/2/13
WEATHER: _____
CONSULTING FIRM: ECC Horizon
FIELD PERSONNEL: RN

MONITOR WELL #: MW-11 **WELL DEPTH:** _____
WELL PERMIT #: _____ **WELL DIAMETER:** 2 inches **SCREENED/OPEN INTERVAL:** 20-40

PID/FID READINGS (ppm): **BACKGROUND:** _____ **PUMP INTAKE DEPTH:** 30 ft below TOC
BENEATH OUTER CAP: _____ **DEPTH TO WATER BEFORE PUMP INSTALLATION:** 26.84 ft below TOC
BENEATH INNER CAP: _____

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
1145	x		7.06	NA	.400	NA	+47.1	NA	3.79	NA		NA	14.62	NA		26.95
1150	x		6.95		.420		+72.4		3.23				14.36			27.10
1200	x		6.84		.439		+72.7		3.07				14.33			27.16
1205	x		6.80		.441		+69.9		2.97				14.31			27.20
1230	x	x														

COMMENTS: Ferrous Iron (unfiltered) = 0.00 mg/L
 (filtered) = 0.00 mg/L

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: Cherry St.
 DATE: 6/4/13
 WEATHER: Sunny, 75°F
 CONSULTING FIRM: ECC Horizon
 FIELD PERSONNEL: RM

MONITOR WELL #: MW-12 WELL DEPTH: _____
 WELL PERMIT #: _____ WELL DIAMETER: 2 inches
 SCREENED/OPEN INTERVAL: 18-33

PID/FID READINGS (ppm):
 BACKGROUND: _____ PUMP INTAKE DEPTH: _____ ft below TOC
 BENEATH OUTER CAP: _____ DEPTH TO WATER BEFORE PUMP INSTALLATION: 22.86 ft below TOC
 BENEATH INNER CAP: _____

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
1400	X		6.88	NA	339	NA	+46.6	NA	5.88	NA		NA	14.95	NA	0.3	22.91
1405	X		6.90		355		+56.3		5.46				14.32		0.3	22.99
1410	X		7.01		357		+57.0		5.25				14.29		0.3	23.08
1415	X		7.09		358		+56.3		5.15				14.21		0.3	23.12
1420	X															
1500	X															

COMMENTS: Ferrous Iron (unfiltered) = 0.00 mg/l
 (filtered) = 0.00 mg/l

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature;
 ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: Cherry cleaners
 DATE: 6/6/13
 WEATHER: Sunny, 75°F
 CONSULTING FIRM: ECC Horizon
 FIELD PERSONNEL: Ru

MONITOR WELL #: MW-13 WELL DEPTH: _____
 WELL PERMIT #: _____ WELL DIAMETER: 2 inches
 SCREENED/OPEN INTERVAL: 20-35

PID/FID READINGS (ppm):
 BACKGROUND: _____
 BENEATH OUTER CAP: _____
 BENEATH INNER CAP: _____
 PUMP INTAKE DEPTH: 27.5 ft below TOC
 DEPTH TO WATER BEFORE PUMP INSTALLATION: 21.62 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (gpm/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
1215	X		7.19	NA	.170	NA	+77.3	NA	7.65	NA		NA	15.40	NA	0.3	21.70
1255			7.04		.167		+135.1		7.18				14.48		0.3	21.78
1300			6.91		.199		+152.2		6.63				14.21		0.3	21.85
1305			6.86		.189		+135.2		6.23				14.09		0.3	21.90
1310			6.79		.187		.131.3		6.19				14.01		0.3	21.95
1330	X															

COMMENTS: Ferrous Iron (unfiltered) = 0.20 mg/L
 (filtered) = 0.08 mg/L

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature;
 ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: Cherry cleaners
 DATE: 6/5/13
 WEATHER: Sunny, 76°F
 CONSULTING FIRM: ECC Horizon
 FIELD PERSONNEL: PH

MONITOR WELL #: MW-14 WELL DEPTH: _____
 WELL PERMIT #: _____ WELL DIAMETER: 2 inches
 SCREENED/OPEN INTERVAL: 25-40

PID/FID READINGS (ppm):
 BACKGROUND: _____ PUMP INTAKE DEPTH: 32.5 ft below TOC
 BENEATH OUTER CAP: _____ DEPTH TO WATER BEFORE PUMP INSTALLATION: 29.95 ft below TOC
 BENEATH INNER CAP: _____

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
1115	x		6.56	NA	.414	NA	+38.8	NA	5.48	NA		NA	14.76	NA	0.3	29.99
1125	x		6.60		.398		+65.1		5.52				14.62		0.3	30.10
1130	x		6.62		.389		+66.6		5.50				14.61		0.3	30.25
1135	x		6.65		.383		+70.3		5.49				14.57		0.3	30.30
1200	x															

COMMENTS: Ferrous Iron (filtered) = 0.04 mg/L
 Ferrous Iron (unfiltered) = 0.00 mg/L

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature;
 ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.

SHEET 1 **OF** 1

CONSULTING FIRM: ECC HORIZON
FIELD PERSONNEL: PH

SCREENED/OPEN INTERVAL: 23-38

DEPTH TO WATER BEFORE PUMP INSTALLATION: 27.75 ft below TOC

Collected VOC duplicate @ obco (3) MW-115 Ferrous Iron (unfiltered) = 0.01 mg/L
(filtered) = 0.00 mg/L

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity.**

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: Cherry Cleaners
 DATE: 6/6/13
 WEATHER: Sunny, 60°F
 CONSULTING FIRM: ECC Horizon
 FIELD PERSONNEL: RM

MONITOR WELL #: MW-16 WELL DEPTH: 40
 WELL PERMIT #: _____ WELL DIAMETER: 2 inches
 SCREENED/OPEN INTERVAL: 25-40

PID/FID READINGS (ppm):
 BACKGROUND: _____ PUMP INTAKE DEPTH: 35 ft below TOC
 BENEATH OUTER CAP: _____ DEPTH TO WATER BEFORE PUMP INSTALLATION: 29.61 ft below TOC
 BENEATH INNER CAP: _____

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
1020	X		6.49	NA	.405	NA	+35.6	NA	5.39	NA		NA	15.36	NA	0.3	29.70
1025	X		6.45		.378		+79.3		5.08				14.59		0.3	29.79
1030	X		6.41		.376		+94.8		5.02				14.41		0.3	29.89
1035	X		6.31		.378		+101.8		4.74				14.33		0.3	29.95
1100	X															

COMMENTS: Ferrous Iron (unfiltered) = 0.26 mg/L
 (filtered) = 0.09 mg/L

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature;
 ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: Cherry
 DATE: 6/4/13
 WEATHER: Sunny 65°
 CONSULTING FIRM: ECC Horizon
 FIELD PERSONNEL: RH

MONITOR WELL #: MW-17 WELL DEPTH: _____
 WELL PERMIT #: _____ WELL DIAMETER: 2 inches
 SCREENED/OPEN INTERVAL: 25.40

PID/FID READINGS (ppm): BACKGROUND: _____
 BENEATH OUTER CAP: _____
 BENEATH INNER CAP: _____
 PUMP INTAKE DEPTH: 32.5 ft below TOC
 DEPTH TO WATER BEFORE PUMP INSTALLATION: 30.11 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
1015	X		6.46	NA	.371	NA	+44.0	NA	4.31	NA		NA	15.77	NA	0.3	30.20
1020	X		5.42		.361		+98.3		4.07				15.16		0.3	30.26
1030	X		5.02		.357		+129.1		4.14				14.87		0.3	30.32
1035	X		5.19		.356		+125.1		4.26				14.67		0.3	30.36
1040	X		5.35		.353		+121		4.33				14.58		0.3	30.40
1100	X															

COMMENTS: Ferrous Iron = 0.00 unfiltered
 0.00 Filtered

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.

Appendix C

Soil Laboratory Analytical Reports