



7070 SW Fir Loop, Suite 100
Tigard, Oregon 97223
www.atcassociates.com
503.684.0525
fax 503.624.0415

September 2, 2014

Mr. Ed Ralston
Remediation Management
Phillips 66 Company
76 Broadway
Sacramento, California 95818

**Subject: Remedial Actions Summary Report – Mercer Corridor Project
Former Phillips 66 Facility No. 255353 (AOC # 1396)
600 Westlake Avenue North
Seattle, Washington
Washington State Department of Ecology VCP No. NW1714
Cardno ATC Project No. 076.75118.1396**

Dear Mr. Ralston:

Enclosed is a copy of Cardno ATC's report summarizing remedial actions that occurred concurrently with the Mercer Corridor Project for the Former Phillips 66 Company (Phillips 66) facility located at 600 Westlake Avenue North in Seattle, Washington. The Mercer Corridor Project is being implemented by the City of Seattle in cooperation with King County, the State of Washington, and the United States to improve traffic congestion in and around the Mercer Street corridor between Interstate 5 and Elliot Avenue West.

If you have questions regarding the information presented in this report, or if you need additional information, please do not hesitate to contact us at (503) 684-0525.

Sincerely,

CARDNO ATC

Simon Payne, L.G.
Project Geologist

Kyle Sattler, L.G.
Senior Project Manager

Enclosures



**REMEDIAL ACTIONS SUMMARY REPORT –
MERCER CORRIDOR PROJECT**

**Former Phillips 66 Facility No. 255353 (AOC #1396)
600 Westlake Avenue North
Seattle, Washington**

Cardno ATC Project No. 076.75118.1396

Prepared on behalf of:
Mr. Ed Ralston
Phillips 66 Company
76 Broadway
Sacramento, California 95818

Prepared by:

Cardno ATC
7070 Southwest Fir Loop, Suite 100
Tigard, Oregon 97223
Phone: (503) 684-0525

September 2, 2014

TABLE OF CONTENTS

1.0 INTRODUCTION..... 1

**2.0 MERCER CORRIDOR PROJECT AND RELATIONSHIP TO SITE CLEANUP
1**

3.0 P66 PROPERTY DESCRIPTION AND BACKGROUND 2

3.1 SITE CLEANUP HISTORY 2

4.0 MCP REMEDIAL ACTIONS 5

4.1 MERCER STREET 6

4.1.1 Abandonment of Groundwater Monitor Wells 6

4.1.2 Utility Installations and Soil Removal Actions 6

4.1.3 AS/SVE Installation Activities 7

4.2 WESTLAKE AVENUE NORTH 7

4.2.1 Abandonment of Groundwater Monitor Wells 7

4.2.2 Utility Installations and Soil Removal Actions 8

4.2.3 SVE/AS Installation 8

4.3 VALLEY STREET 8

4.3.1 Abandonment of Groundwater Monitor Wells 8

4.3.2 Utility Installations and Soil Removal Actions 9

4.3.3 SVE/AS Installation 9

4.4 TERRY AVENUE NORTH 9

4.4.1 Abandonment of Groundwater Monitor Wells 10

4.4.2 Soil Removal Actions 10

4.4.3 SVE/AS Installation 10

5.0 CONCLUSIONS..... 10

TABLES:

Table 1 Summary of Soil Removal Volumes within Phillips 66 Area during Mercer Corridor Project (2011) – Mercer Street

Table 2 Summary of Soil Removal Volumes within Phillips 66 Area during Mercer Corridor Project (2011) – Westlake Avenue North

Table 3 Summary of Soil Removal Volumes within Phillips 66 Area during Mercer Corridor Project (2011) – Valley Street

Table 4 Summary of Soil Removal Volumes within Phillips 66 Area during Mercer Corridor Project (2011) – Terry Avenue North

FIGURES:

Figure 1 Site Vicinity Map

Figure 2 Site Layout Diagram

Figure 3 Mercer Street - AS/SVE Wells

Figure 4 Westlake Avenue North - AS/SVE Wells

Figure 5 Valley Street - AS/SVE Wells

Figure 6 Terry Avenue - AS/SVE Wells

APPENDICIES:

- Appendix A Ecology Resource Protection Well Reports – Well Installations For Mercer Street
- Appendix B Ecology Resource Protection Well Reports – Well Decommissioning For Westlake Avenue North
- Appendix C Original Well Logs with Decommissioning Field Notes – Valley Street
- Appendix D Ecology Resource Protection Well Reports – Well Installations for Valley Street
- Appendix E Ecology Resource Protection Well Reports – Well Decommissioning For Terry Avenue North

1.0 INTRODUCTION

Cardno ATC has prepared this report on behalf of Phillips 66 Company (P66) to document remedial activities that were performed in conjunction with construction activities associated with the City of Seattle's (City) Department of Transportation (SDOT) Mercer Corridor Project (MCP). The MCP is a major construction project being implemented by the City of Seattle in cooperation with King County, the State of Washington, and the United States to improve traffic congestion in and around the Mercer Street corridor between Interstate 5 and Elliot Avenue West.

P66 is conducting investigation, cleanup, and monitoring of the former P66 facility (located on the south half of the city block that is bounded on the north by Valley Street, to the east by Terry Avenue North, to the south by Mercer Street, and to the west by Westlake Avenue North) and those properties on or around the block (including portions of Westlake Avenue North, Valley Street, Terry Avenue North, and Mercer Street). It is possible this city block is known as City Block #77 (and will be referred to as City Block #77 herein). The south half of City Block #77 will be herein referenced as the Site.

P66 is conducting the investigation, cleanup, and monitoring pursuant to a Settlement and Remedial Action Agreement (Settlement Agreement) among ConocoPhillips (now P66), Union Oil Company of California, City Investors XI, LLC (City Investors), and the City of Seattle (City) that was executed in April 2007.

The Site is currently enrolled in the Washington State Department of Ecology's (Ecology) and has been assigned VCP No. NW1714. The Site is shown relative to surrounding physical features in Figure 1. The current layout of the Site is shown on Figure 2.

2.0 MERCER CORRIDOR PROJECT AND RELATIONSHIP TO SITE CLEANUP

The MCP was implemented to improve access to and from Interstate-5 (I-5) at the Mercer Street/Valley Street couplet within the City of Seattle, Washington. The improvements have included; 1) the widening of Mercer Street (under condemnation) approximately 60 to 70 feet primarily to the north and altering Mercer Street to convey two-way traffic; 2) narrowing Valley Street to two lanes each direction; 3) widening Fairview Avenue; and 4) reconstructing sections of Boren Avenue, Terry Avenue, Westlake Avenue, and 9th Avenue, among other improvements. The project has also removed, replaced, and installed new subsurface infrastructure in this area. Gary Merlino Construction Company was contracted by the City to complete the MCP. The contract is being administered by SDOT. The MCP commenced in early 2010.

P66 and the City anticipated, based on previous environmental investigations, that gasoline impacts might be encountered in soil excavated during the course of the MCP construction, some of which P66 would be responsible for, and some of which could be attributable to other source(s). Therefore, prior to P66 and the City signing a formal Memorandum of Agreement, the parties proceeded on agreement in principle that costs related to excavation, handling, and disposal of soil excavated during the course of the MCP construction from depths at or below 7.5-feet below ground surface (bgs) within the ROW adjacent to P66's property (specifically in Mercer Street, and in Westlake Avenue North and Terry Avenue North, south of the northern P66 property boundary) and from

depths at or below 5.5-feet bgs within the ROW adjacent to the north half of Block #77 (specifically in Valley Street and Westlake Avenue North and Terry Avenue North, north of the northern P66 property boundary) would be the responsibility of P66. Soil excavated during the course of the MCP construction from depths above these levels, i.e., above the groundwater smear zone, or from any location outside this defined “P66 Area,” would be the responsibility of the City.

Additionally, the parties cooperated in the incorporation of design specifications for P66’s air sparge/soil vapor extraction (AS/SVE) wells and associated conveyance piping (prepared by Stantec Consulting Incorporated, dated October 15, 2009) into the plans and specifications for the MCP. P66’s AS/SVE wells and associated conveyance piping would be installed in the Mercer Street ROW abutting the P66 property (including in the condemnation area) and in the Valley Street ROW abutting the north half of Block #77 by SDOT’s contractor during the course of the MCP construction. These wells and associated conveyance piping would then be tied together with the remedial wells and conveyance piping that was previously installed within Westlake Avenue North and Terry Avenue North prior to the MCP. Furthermore, the City was deemed responsible for transporting soil cuttings generated during environmental drilling activities necessary for the installation of P66 remediation wells.

Lastly, the Memorandum of Agreement established that all P66 owned groundwater monitor wells located in City ROWs within the P66 Area would be abandoned by the City’s contractor and the City would be responsible for the appropriate notification to the Washington State Department of Ecology.

3.0 P66 PROPERTY DESCRIPTION AND BACKGROUND

P66 is the current owner of the property that comprises the south half of City Block #77. City Investors XI, LLC (City Investors) currently owns the property that comprises the north half of the block. The eastern portion of the north half of City Block #77 was formerly occupied by the Brace Lumber Mill and subsequently by a Denny’s restaurant. A former Union 76-branded gasoline service station (previously owned by Union Oil Company of California [Unocal]) previously occupied the southwest portion of City Block #77. The City currently holds easements for public rights-of-way on the streets and avenues surrounding the block.

All previous facilities on City Block #77 have been removed and/or demolished, and the north half of the block (owned by City Investors) is currently used as a parking lot. As part of the MCP, the City acquired a 70-foot wide strip of land from P66 located along on the north side of Mercer Street between Terry Avenue North and Westlake Avenue North in the MCP area. The approximate western two-thirds of the current P66 property is occupied by numerous above ground storage/treatment tanks utilized as part of a construction dewatering system associated with the development of the city block west of City Block #77, across Westlake Avenue North. The approximate eastern one-third of the current P66 property is occupied by the above ground AS/SVE system compound that is currently operating.

3.1 Site Cleanup History

In May 1980, Unocal discovered that approximately 80,000 gallons of supreme leaded gasoline was released from a product line south of the western pump islands at the Westlake 76 Station to the

subsurface over a four-month period. In response to the release the underground storage tanks (USTs) and product lines were replaced. Two recovery trenches and numerous recovery wells installed at the property removed a total of approximately 41,900 gallons of liquid phase hydrocarbons (LPH) between June 1980 and October 1992.

In 1988, an initial SVE system was installed utilizing the then existing recovery wells and trenches. Approximately 4,262 pounds of gasoline was recovered by the SVE system between June 1998 and August 1990, when the system was shut down due to decreasing extracted vapor concentrations. In February 1990, five USTs were removed from the former Unocal service station on the City Investors property located at the southeast corner of Westlake Avenue North and Valley Street. The USTs ranged from 550 gallons to 5,000 gallons in capacity and were previously used to store used motor oil and gasoline. Approximately 800 cubic yards of petroleum contaminated soil was excavated during removal of the USTs.

Between January 1991 and July 1993, approximately 465 gallons of LPH was recovered during periodic manual/passive LPH removal efforts. The initial SVE system continued to operate through May 1995.

In May 2001, a gasoline product line was ruptured during the removal of waste oil and heating oil USTs at the Westlake 76 Station. An estimated 600 gallons of supreme unleaded gasoline was released. Approximately 500 gallons of product was immediately removed from the excavation utilizing a vacuum truck. Throughout the year, vacuum trucks and hand bailing were used for fluid recovery from adjacent monitor wells. Approximately 4 gallons of LPH was manually recovered. Approximately 12,100 gallons of impacted groundwater was removed by vacuum truck.

In 2003, P66 installed a new AS/SVE system at the Westlake 76 Station that included an AS/SVE trench, SVE wells, and several deep AS wells. The system became operational in August 2003. Approximately 1,410 tons of petroleum impacted soil was removed and transported for treatment during the installation of the remediation system trenches and wells.

Further investigations conducted by P66 and other parties in 2004 and 2005 indicated petroleum contamination remained in soil and groundwater in various areas of the Site. In addition to residual impacts from the 1980 release on the Westlake 76 Station, these investigations indicated the presence of petroleum products released from past operations on the City Investors property, including the Union 76-branded gasoline service station and the former Brace Lumber Mill and Denny's restaurant. Additional investigation also indicated that petroleum products were released during past operations of service station and/or fuel storage facilities formerly located on neighboring properties, including the former Rosen property located at 961-965 Mercer Street, south of the P66 property. Releases of petroleum products on and from these properties and potentially other sources had impacted the City street and utility ROWs surrounding Block #77.

Between July 2006 and April 2007, pursuant to the April 2007 Settlement Agreement between P66 and the City, P66 implemented the first phase of the Westlake/Mercer Cleanup Project (herein referred to as Phase I). Phase I was performed as an independent remedial action and designed and completed on an expedited basis, as required to meet the City's timeline for construction of the South Lake Union Streetcar line and to avoid disruption of the Streetcar line due to remedial action at the Site. The Phase I remedial activities included; 1) installation of steel shoring, excavation and off-site

disposal of petroleum-impacted soil from the eastern lanes of Westlake Avenue North, and installation of AS/SVE wells and associated conveyance piping back to the P66 property boundary and connection to the then existing above ground AS/SVE system; 2) installation of SVE and enhanced fluid recovery (EFR) wells in Terry Avenue North and installation of associated conveyance piping back to the P66 property and connection to the then existing above ground AS/SVE system; 3) soil and groundwater sampling and analysis; and 4) backfilling and surface restoration. A total of approximately 16,172 tons of soil was excavated from the Westlake and Terry Avenue North ROWs, between Mercer and Valley Streets. Influent vapor samples indicated that the petroleum hydrocarbon impact was highest in those SVE wells completed in Terry Avenue North. Information regarding the Phase I W/MCP is provided in URS Corporation's Phase I Close Out Report, prepared in 2007.

Between November 2007 and August 2008, biweekly enhanced fluid recovery was performed utilizing the recovery wells in Terry Avenue North. A total of 28,142 gallons of impacted groundwater was removed from the wells during this time. Cumulative petroleum hydrocarbon removal from September 2003 through March 2008 was approximately 1,940 pounds. Total liquid phase hydrocarbons (LPH) recovered from June 1980 through the end of the third quarter 2008 was approximately 43,632 gallons. Information regarding the recovery of petroleum impacted fluids and vapor between November 2007 and August 2008 is provided in Delta's On-Site Environmental Assessment – Horizontal and Vertical Delineation report prepared in 2005.

In September 2008, the Westlake 76 Station was demolished, all above-ground structures were removed, and all of the existing conveyance piping for the remediation wells were cut and capped in their respective ROWs to facilitate Phase II W/MCP excavation activities.

Between November 2008 and June 2009, P66 implemented the second phase of the Westlake/Mercer Cleanup Project (herein referred to as Phase II), where City Block #77 (with the exception of the southeast corner) was excavated to depths up to 20 feet below ground surface (bgs). A soil/cement/bentonite (SCB) gravity wall was installed along the south, east, and north boundaries of City Block #77 (Figure 2). The SCB gravity wall, in conjunction with the previously installed sheet pile wall along the west property boundary, provided shoring for Phase II excavation activities and continues to serve as a hydraulic barrier. Backfill and surface restoration activities were completed in July 2009. A total of approximately 54,450 tons of soil was excavated from the Site during the Phase II excavation activities and transported off-site for disposal. Information regarding the Phase II is provided in URS Corporations Phase II Soil Sampling Report, prepared in 2009.

Confirmation soil sampling was conducted during the Phase II excavation activities to document conditions at the base of the excavation and to assess whether additional excavation was required to achieve cleanup levels or other project requirements. A total of 244 samples were collected from 65 sampling cells. On a cell by cell basis, P66 evaluated the data and assessed whether or not site conditions and/or project objectives required additional excavation. If requested by P66, the excavation continued downward until residual concentrations were below Ecology's Model Toxics Control Act (MTCA) Method A Cleanup Levels or as far as reasonably practicable depending on the accessibility of the petroleum impacts and other actual conditions in the field.

Soils encountered during the Phase I and Phase II excavation activities generally consisted of sandy fill down to depths of at least 5 feet bgs. Fill between 5 feet to 35 feet bgs consisted of highly

variable compositions of silty sand, sandy silt, sand, silt to silty clay, clayey silt, sand with clay, sandy gravel, and occasionally thin layers of peat/clay. The fill material also includes variable proportions of wood or wood chips/wood debris, and sawdust, as thick as 5 to 11 feet.

The current monitor well network consists of 14 wells, including MWR-1 through MWR-6, MW-41, MW-45, MW-50, MW-54, MW-209 through MW-211, and SMW-3. All other wells have either been destroyed or decommissioned due to construction or remedial activities. Documentation for the former well network can be found in previous reports. Depth to groundwater typically fluctuates between 9 and 12 feet bgs over much of the area. Based on depth to groundwater measurements, it is apparent that groundwater flow is not consistent beneath the P66 property, but generally appears to flow towards the north. Groundwater flow direction is likely impacted by subsurface hydro-geologic barriers installed during remedial excavation activities completed in 2008 and/or the current dewatering activities taking place west of the Site.

Groundwater monitoring has been conducted at the Site since 1988. Groundwater monitoring has been conducted on a quarterly basis from the current monitor well network since at least 1995 through December 2012. A baseline monitoring event was conducted in November 2013 prior to starting the currently operating remediation system. Analytical results were similar to historic results since 2011.

During the MCP, numerous SVE and AS wells were installed in Terry Avenue North, Mercer Street, and Westlake Avenue North. Most recently, in July 2013, numerous remediation wells were installed in the Valley Street ROW under the oversight of SDOT. Between August and November 2013, all of the remediation wells/conveyance piping located in the Mercer and Valley Street ROWs and the Westlake and Terry Avenue ROWs were connected to new above ground AS/SVE treatment system currently located on the Phillips 66 property. The installation of the current above ground AS/SVE treatment system is described in this report.

4.0 MCP REMEDIAL ACTIONS

Remedial actions performed during the MCP construction included removal of petroleum hydrocarbon impacted soil within the P66 designated Area of Mercer and Valley Streets and Westlake and Terry Avenues North. Soil removal actions were completed during installation and/or upgrades of various subsurface utilities, including electrical and transmission duct banks and vaults, water, storm, and sanitary sewer systems. A summary of soil volumes removed from the P66 Area along Mercer and Valley Streets and Westlake and Terry Avenues North during the MCP construction are summarized in Tables 1 through 4. The information summarized in Tables 1 through 3 was provided to Cardno ATC via three sources including; 1) material ledgers (providing volumes of soil delivered to Waste Management) generated by SDOT; 2) truck logs provided by SDOT; and 3) an Excel® tracking spreadsheet produced and provided by PI Resources, LLC of Seattle, Washington (an environmental consultant for SDOT). The information summarized in Table 4 was provided by Clearcreek Contractors.

Tables 1 through 4 provide a description of the waste stream (as described by SDOT and/or PI Resources), the date the soil was transported, the contractor who hauled the soil, the truck number, and the approximate volume transported (in tons). Where truck numbers were not provided, the volumes provided on the tables were based on estimates made in the field (and not based on weigh

tickets). Most of the soil generated during the removal actions in Valley Street were placed on-site in a stockpile designated for P66 waste soil only and subsequently transported to Waste Management's Alaska Street facility, located at 70 South Alaska Street, Seattle, Washington, for disposal. Most of the soil generated during the removal actions in Mercer Street and Westlake and Terry Avenues North were direct hauled to Waste Management's Alaska Street facility for disposal.

Additionally, numerous AS/SVE remediation wells and associated conveyance piping (installed within excavated trenches) were completed in the P66 designated Area of Mercer and Valley Streets prior to the MCP construction. P66 also excavated soil along Terry Avenue during the MCP construction in order to install conveyance piping connected to the AS/SVE remediation wells installed in Valley Street. These trench excavation activities are summarizing in Cardno's Remediation System Installation and Startup Report dated June 20, 2014.

Numerous monitor wells were also abandoned during the MCP construction. The remedial actions and well abandonment activities conducted during the MCP construction along Mercer Street, Westlake Avenue North, Valley Street, and Terry Avenue North is summarized in the following sections.

4.1 Mercer Street

Remedial actions performed during the MCP, including the removal of petroleum impacted soil and the installation of numerous AS/SVE remediation wells and conveyance piping trenching, occurred within Mercer Street and the 70-foot easement between January 2011 and May 2012. Well abandonment, soil excavation, and AS/SVE well installation activities completed in Mercer Street are presented in the following sections.

4.1.1 Abandonment of Groundwater Monitor Wells

Between December 2010 and January 2011, the City reportedly oversaw the abandonment of groundwater monitor wells located in the P66 Area of Mercer Street prior to soil excavation activities. However, neither the City, SDOT, or their contractors could provide Cardno with documentation supporting the decommissioning activities. Additionally, Cardno could not locate any of the Resource Protection Well Reports documenting well decommissioning activities on Ecology's website. Monitor wells reportedly decommissioned along Mercer Street within the P66 Area include MW-18, MW-19, MW-24, MW-37, MW-40, MW-71, MW-72, MW-73, MW-200, MW-201, MW-202, MW-206 and MW-208. None of Ecology's Resource Protection Well Reports documenting well decommissioning activities in the P66 Area correlate with the dates the wells were reportedly decommissioned.

4.1.2 Utility Installations and Soil Removal Actions

Subsurface utilities, including electrical and transmission duct banks and vaults, water, storm, and sanitary sewer systems were installed and or upgraded within the P66 Area of Mercer Street between January 2011 and May 2012. As described in Section 2.0, P66 was responsible for costs related to excavation, handling, and disposal of soil generated along Mercer Street below 7.5 feet bgs. Approximately 1,183 tons of soil from within the P66 area and below 7.5 feet bgs was documented as removed and transported to Waste Management's Alaska Street Facility in Seattle, Washington for

disposal during the utility installation and upgrade activities along Mercer Street. A summary of soil volumes documented as removed during the MCP construction in Mercer Street is summarized in Table 1. An estimate of the soil volume removed during the MCP along Mercer Street that was not the responsibility of P66 is also provided in Table 1.

4.1.3 AS/SVE Installation Activities

In January 2011, Clearcreek Contractors (Clearcreek) of Marysville, Washington (Merlino Construction's remediation and earthwork contractor) installed a vault box on the north side of Mercer Street to route the future AS/SVE conveyance piping to be installed in Mercer Street. Between May and June, 2011 the City oversaw the installation of eight 1-inch diameter AS wells to approximately 20 feet bgs, designated MAS-20 through MAS-27, and eight 1-inch diameter SVE wells to approximately 8 feet bgs, designated MSVE-10 and MSVE-13 through MSVE-19 in Mercer Street, including the 70 foot easement. Clearcreek also excavated the conveyance piping trenching in Mercer Street in order to install the conveyance piping from the wells to the vault box.

In March and April, 2012 the City oversaw the installation of 19 1-inch diameter AS wells to approximately 20 feet bgs, designated MAS-1 through MAS-19, and 11 1-inch diameter SVE wells to approximately 8 feet bgs, designated MSVE-1 through MSVE-9, MSVE-11 and MSVE-12 within Mercer Street. Clearcreek and Interwest Construction of Seattle, Washington, also excavated the conveyance piping trenching in Mercer Street in order to install the conveyance piping from the wells to the vault box installed in January, 2011.

Approximately 916 tons of soil was removed during the well and conveyance pipe installation activities in Mercer Street and transported to Waste Management for disposal. A summary of soil volumes documented as removed during the installation of the AS/SVE wells and associated trenching is summarized in Table 1.

Locations of the AS/SVE wells installed in Mercer Street are shown in Figure 3. Copies of Ecology's available Resource Protection Well Reports documenting some of the AS/SVE well installation activities in Mercer Street are provided in Appendix A.

4.2 Westlake Avenue North

Remedial actions performed within Westlake Avenue North during the MCP, including removal of petroleum impacted soil and the installation of AS wells occurred between December 2010 and December 2011. In 2007, prior to the MCP, steel shoring was installed along the east side of Westlake Avenue North, east of the former street car tracks in order to facilitate excavation of petroleum impacted soil within Westlake Avenue North. The location of the shoring is shown on Figure 2. A total of 21 AS wells (identified as AS-1 through AS-21) were subsequently installed within the Westlake ROW at the locations shown on Figure 4. Well abandonment, soil excavation, and AS/SVE well installation activities are presented in the following sections.

4.2.1 Abandonment of Groundwater Monitor Wells

In June 2006, the City reportedly oversaw the abandonment of numerous groundwater monitor wells located in the P66 Area of Westlake Avenue North, including MW-8, MW-13 through MW-17, MW-

27, MW-42, MW-44, MW-70, MW-84, MW-98, MW-99, MW-105, and MW-205. Each well abandonment was performed by removing the vault box and filling the well with bentonite to ground surface. Copies of Ecology's Resource Protection Well Reports documenting the decommissioning of wells MW-13 through MW-16 and MW-44 are provided in Appendix B. Copies of the original well logs with decommissioning field notes for the remaining wells are also provided in Appendix B. Cardno could not locate any of the Resource Protection Well Reports documenting well decommissioning activities for these wells.

4.2.2 Utility Installations and Soil Removal Actions

As described in Section 3.1, the majority of the soil excavation activities within Westlake Avenue North occurred between July 2006 and April 2007 during Phase I of the W/MCP, prior to the MCP. However, some subsurface utilities were installed and/or upgraded within the "P66 Area" of Westlake Avenue North between January 2011 and December 2011. As described in Section 2.0, P66 was responsible for costs related to excavation, handling, and disposal of soil generated during utility excavation work along Westlake Avenue North below 7.5 feet south of the north P66 property boundary and below 5.5 feet bgs north of the north P66 property boundary. Approximately 438 tons of soil was documented as removed and transported to Waste Management for disposal during the utility installation and upgrade activities along Westlake Avenue North within the P66 Area. A summary of the soil volumes documented as removed during the MCP construction along Westlake Avenue North, is summarized in Table 2.

4.2.3 SVE/AS Installation

All AS/SVE remedial well installation activities in Westlake Avenue North occurred between July 2006 and April 2007, prior to the MCP work. A total of 21 AS wells and 9 SVE wells were installed. Between August and November 2013, all of the remediation wells/conveyance piping located in the Mercer and Valley Street ROWs and the Westlake and Terry Avenue ROWs were connected to new above ground AS/SVE treatment system currently located on the Phillips 66 property. The installation of the current above ground AS/SVE treatment system is described in Cardno ATC's Remediation System Installation and Startup Report, dated June 20, 2014.

4.3 Valley Street

Remedial actions performed during the MCP, including the removal of petroleum impacted soil and the installation of numerous AS/SVE remediation wells and associated conveyance piping trenching, occurred within Valley Street between January 2013 and July 2013. Well abandonment, soil excavation, and AS/SVE well installation activities completed in Valley Street are presented in the following sections.

4.3.1 Abandonment of Groundwater Monitor Wells

In June 2006, the City abandoned monitor well MW-204 located in Valley Street within the P66 Area. A copy of the original well log with decommissioning field notes for well MW-204 is provided in Appendix C. Between December 2010 and January 2011, the City reportedly oversaw the abandonment of additional groundwater monitor wells located in the P66 Area of Valley Street (including MW-86, MW-87, MW-88), prior to soil excavation activities. However, neither the City,

SDOT, or their contractors could provide Cardno with documentation supporting the decommissioning activities. Additionally, Cardno could not locate any of the Resource Protection Well Reports documenting well decommissioning activities on Ecology's website. None of Ecology's Resource Protection Well Reports documenting well decommissioning activities in the P66 Area correlate with the dates the wells were reportedly decommissioned.

4.3.2 Utility Installations and Soil Removal Actions

Subsurface utilities, including electrical and transmission duct banks and vaults, water, storm, and sanitary sewer systems were installed and or upgraded within the P66 Area of Valley Street between January 2013 and November 2013. As described in Section 2.0, P66 was responsible for costs related to excavation, handling, and disposal of soil excavated during the course of the MCP construction from depths at or below 5.5-feet bgs within the ROW adjacent to the north half of Block 77 (specifically in Valley Street and Westlake Avenue North and Terry Avenue North, north of the northern P66 property).

Approximately 3,746 tons of soil was documented as removed and transported to Waste Management for disposal during the utility installation and upgrade activities along Valley Street within the P66 Area. A summary of the soil volumes documented as removed during the MCP construction along Valley Street is summarized in Table 3.

4.3.3 SVE/AS Installation

In July 2013, the City oversaw the installation of 14 1-inch diameter air sparge wells to approximately 20 feet bgs, designated VAS-1 through VAS-14, and eight 1-inch diameter soil vapor extraction wells to approximately 8 feet bgs, designated VSVE-1 through VSVE-7, and VSEVE-9 within the Valley Street ROW. Clearcreek also excavated trenching within Valley Street in order to install conveyance piping from the wells. The conveyance piping trench was excavated toward the southwest corner of the intersection of Valley Street and Terry Avenue North, and was terminated on the west side of Terry Avenue North, approximately 20 feet south of the intersection. Soil generated during installation of the remediation wells was temporarily contained in 23 labeled 55-gallon drums. The contents of the drums were subsequently emptied into a truck and were transported to Waste Management for disposal on September 27, 2013.

Locations of the AS/SVE wells installed in Valley Street are shown in Figure 5. Copies of Ecology's available Resource Protection Well Reports documenting the AS well installation activities are provided in Appendix D. Resource Protection Well Reports documenting the SVE well installation activities could not be located.

4.4 Terry Avenue North

Limited improvements were conducted during the MCP in Terry Avenue. Remedial actions performed on Terry Avenue North during the MCP included well abandonment activities and removal of soil during the installation of conveyance piping associated with the AS/SVE wells located along Valley Street between December 2010 and October, 2013.

4.4.1 Abandonment of Groundwater Monitor Wells

In June 2006, the City abandoned well MW-36, MW-47 and MW-101, located in the P66 Area of Terry Avenue North. Copies of the original well logs with decommissioning field notes for these wells are provided in Appendix E. Between December 2010 and January 2011, the City reportedly oversaw the abandonment of additional groundwater monitor wells located in the P66 Area of Terry Avenue North (including MW-10, MW-69, MW-103, and MW-202) prior to soil excavation activities. However, neither the City, SDOT, or their contractors could provide Cardno with documentation supporting decommissioning activities for these wells. Additionally, Cardno could not locate any of the Resource Protection Well Reports documenting well decommissioning activities on Ecology's website. None of Ecology's Resource Protection Well Reports documenting well decommissioning activities in the P66 Area correlate with the dates the wells were reportedly decommissioned.

4.4.2 Soil Removal Actions

As described in Section 2.0, P66 was responsible for costs related to excavation, handling, and disposal of soil generated during utility excavation work along Terry Avenue North below 7.5 feet south of the north P66 property boundary and below 5.5 feet bgs north of the north P66 property boundary. Trenching activities for the conveyance piping connected to the AS/SVE remediation wells installed in Valley Street began in the northwest corner of Terry Avenue on September 23, 2013. These trenching activities were conducted by Clearcreek under the supervision of Cardno ATC. The trench was excavated approximately 3-feet bgs. A total of 182.36 tons of soil was transported to Waste Management for disposal between September 27 and October 9, 2014. The soil volumes removed are summarized on Table 4. The trench excavation activities completed in Terry Avenue between September and October 2013 are summarized in Cardno ATC's System Installation and Startup Report, dated June 18, 2014.

4.4.3 SVE/AS Installation

All AS/SVE remedial well installation activities in Terry Avenue occurred between July 2006 and April 2007, prior to the MCP work. A total of 15 SVE wells were installed. No AS wells were installed in Terry Avenue North. The installation of the current above ground AS/SVE treatment system is described in Cardno ATC's System Installation and Startup Report, dated June 18, 2014. Locations of the AS/SVE wells installed in Terry Avenue North are shown in Figure 6.

5.0 CONCLUSIONS

Limited documentation is available to support the remediation well installation activities, monitor well decommissioning activities and soil excavation activities within the P66 Area during the MCP construction activities. The total documented soil volume removed from the ROWs in the P66 designated area during the MCP construction is approximately 6,466 tons. The documented excavated soil volumes are presented in Tables 1 through 4.

Between August and November 2013, all of the remediation wells/conveyance piping located in the Mercer and Valley Street ROWs and the Westlake and Terry Avenue ROWs were connected to new above ground AS/SVE treatment system currently located on the Phillips 66 property. The

installation of the current above ground AS/SVE treatment system is described in Cardno ATC's Remediation System Installation and Startup Report, dated June 20, 2014.

TABLES

Table 1**Summary of Soil Removal Volumes within Phillips 66 Area during Mercer Corridor Project (2011) - Mercer Street**

Phillips 66 Site No. 255353 (AOC 1396)
 600 Westlake Avenue North
 Seattle, Washington

Waste Stream	Date	Transport	Truck #	Approximate Tonnage
--------------	------	-----------	---------	---------------------

Mercer Street

Installation of vault S625L1; Mercer St, west of Terry Ave	01/11/11	GMCC	170	18.09
Installation of vault S625L1; Mercer St, west of Terry Ave	01/11/11	GMCC	170	14.58
Installation of vault S625L1; Mercer St, west of Terry Ave	01/11/11	GMCC	166	15.15
Installation of vault S625L1; Mercer St, west of Terry Ave	01/11/11	GMCC	169	18.64
Installation of vault S625L1; Mercer St, west of Terry Ave	01/11/11	GMCC	170	18.43
Installation of vault S625L1; Mercer St, west of Terry Ave	01/11/11	GMCC	166	18.86
Installation of vault S625L1; Mercer St, west of Terry Ave	01/11/11	GMCC	169	17.04
Installation of vault S625L1; Mercer St, west of Terry Ave	01/11/11	GMCC	170	17.18
Installation of vault S625L1; Mercer St, west of Terry Ave	01/11/11	GMCC	166	16.94
Installation of vault S625L1; Mercer St, west of Terry Ave	01/11/11	GMCC	169	16.93
Installation of vault S625L1; Mercer St, west of Terry Ave	01/11/11	GMCC	170	16.41
Installation of vault S625L1; Mercer St, west of Terry Ave	01/11/11	GMCC	169	17.56
Installation of vault S625L1; Mercer St, west of Terry Ave	01/12/11	GMCC	166	14.21
Installation of vault S625L1; Mercer St, west of Terry Ave	01/12/11	GMCC	170	13.07
Installation of vault S625L1; Mercer St, west of Terry Ave	01/12/11	GMCC	168	14.6
Installation of vault S625L1; Mercer St, west of Terry Ave	01/12/11	GMCC	166	12.09
Installation of vault S625L1; Mercer St, west of Terry Ave	01/12/11	GMCC	170	9.63
Installation of vault S625L1; Mercer St, west of Terry Ave	01/12/11	GMCC	168	8.52
Installation of vault S625L1; Mercer St, west of Terry Ave	01/12/11	GMCC	166	9.29
Installation of vault S625L1; Mercer St, west of Terry Ave	01/12/11	GMCC	170	10.99
Installation of vault S625L1; Mercer St, west of Terry Ave	01/12/11	GMCC	168	8.91
Installation of vault S625L1; Mercer St, west of Terry Ave	01/12/11	GMCC	166	11.8
Installation of vault S625L1; Mercer St, west of Terry Ave	01/12/11	GMCC	170	7.6
Installation of vault S625L1; Mercer St, west of Terry Ave	01/13/11	GMCC	166	10.74
Installation of vault S625L1; Mercer St, west of Terry Ave	01/13/11	GMCC	168	10.37
Installation of vault S625L1; Mercer St, west of Terry Ave	01/13/11	GMCC	170	9.01
Installation of vault S625L1; Mercer St, west of Terry Ave	01/13/11	GMCC	166	16.8
Cleaning out the casing at Terry	06/24/11	GMCC	180	10.16
Cleaning out the casing at Terry	06/24/11	GMCC	180	14.42

MH T-1 and run toward T-2	08/08/11	GMCC	179	15.47
MH T-1 and run toward T-2	08/08/11	GMCC	179	17.07
MH T-1 and run toward T-2	08/08/11	GMCC	179	17.92
MH T-1 and run toward T-2	08/08/11	GMCC	179	16.46
MH T-1 and run toward T-2	08/08/11	GMCC	179	17.07
Communications Duct Bank; Mercer St	09/14/11	GMCC	171	16.53
Communications Duct Bank; Mercer St	09/14/11	GMCC	171	14.77
Communications Duct Bank; Mercer St	09/14/11	GMCC	171	15.33
Communications Duct Bank; Mercer St	09/14/11	GMCC	171	14.58
Communications Duct Bank; Mercer St	09/20/11	GMCC	168	15.18
Communications Duct Bank; Mercer St	09/20/11	GMCC	168	14.07
Utility work on Mercer St at Terry Ave	09/21/11	GMCC	168	12.27
Utility work on Mercer St at Terry Ave	09/21/11	GMCC	179	12.72
Utility work on Mercer St at Terry Ave	09/23/11	GMCC	129	17.6
Utility work on Mercer St at Terry Ave	09/23/11	GMCC	129	10.13
Utility work on Mercer St at Terry Ave	09/27/11	GMCC	162	15.6
Utility work on Mercer St at Terry Ave	09/27/11	GMCC	175	4.68
Utility work on Mercer St at Terry Ave	09/28/11	GMCC	168	8.41
Utility work on Mercer St at Terry Ave	09/28/11	GMCC	178	14.03
Utility work on Mercer St at Terry Ave	09/28/11	GMCC	168	8.51
Utility work on Mercer St at Terry Ave	09/28/11	GMCC	178	13.65
Utility work on Mercer St at Terry Ave	09/29/11	GMCC	168	11.05
Utility work on Mercer St at Terry Ave	09/29/11	GMCC	168	10.79
Utility work on Mercer St at Terry Ave	09/29/11	GMCC	168	10.71
Utility work on Mercer St at Terry Ave	09/29/11	GMCC	168	10.45
Utility work on Mercer St at Terry Ave	10/06/11	GMCC	186	15.55
Utility work on Mercer St at Terry Ave	10/06/11	GMCC	186	17.1
Utility work on Mercer St at Terry Ave	10/06/11	GMCC	186	17.62
Utility work on Mercer St at Terry Ave	10/28/11	GMCC	171	15.12
Utility work on Mercer St at Terry Ave	10/28/11	GMCC	171	15.16
Utility work on Mercer St at Terry Ave	10/28/11	GMCC	186	14.62
Utility work on Mercer St at Terry Ave	10/28/11	GMCC	171	14.6
Utility work on Mercer St at Terry Ave	10/28/11	GMCC	186	16.64
Utility work on Mercer St at Terry Ave	10/28/11	GMCC	171	13.38
Utility work on Mercer St at Terry Ave	10/28/11	GMCC	186	16.02
Utility work on Mercer St at Terry Ave	10/28/11	GMCC	171	14.82
Utility work on Mercer St at Terry Ave	10/28/11	GMCC	186	16.4
Utility work on Mercer St at Terry Ave	10/28/11	GMCC	171	16.71
Utility work on Mercer St at Terry Ave	10/31/11	GMCC	171	20.18

Utility work on Mercer St at Terry Ave	10/31/11	GMCC	171	22.45
Utility work on Mercer St at Terry Ave	10/31/11	GMCC	167	20.46
Utility work on Mercer St at Terry Ave	11/01/11	GMCC	186	15.16
Utility work on Mercer St at Terry Ave	11/01/11	GMCC	186	15.7
Utility work on Mercer St at Terry Ave	11/01/11	GMCC	186	13.74
Utility work on Mercer St at Terry Ave	11/01/11	GMCC	186	13.99
Utility work on Mercer St at Terry Ave	11/01/11	GMCC	186	14.21
Utility work on Mercer St at Terry Ave	11/01/11	GMCC	186	17.56
Utility work on Mercer St at Terry Ave	11/02/11	GMCC	186	16.55
Utility work on Mercer St at Terry Ave	11/02/11	GMCC	186	7.14
Utility work on Mercer St at Terry Ave	11/02/11	GMCC	186	14.99
Utility work on Mercer St at Terry Ave	11/03/11	GMCC	186	17.27
Utility work on Mercer St at Terry Ave	11/04/11	GMCC	170	17.87
Utility work on Mercer St at Terry Ave	11/04/11	GMCC	170	19.21
Subtotal Utility Installation Work on Mercer Street			1183.29	
Sparging system on Mercer between Westlake and Terry	02/02/11	Clearcreek	44	16.72
Sparging system on Mercer between Westlake and Terry	02/02/11	Clearcreek	43	15.97
Sparging system on Mercer between Westlake and Terry	02/02/11	Clearcreek	44	15.49
Sparging system on Mercer between Westlake and Terry	02/02/11	Clearcreek	43	16.24
Sparging system on Mercer between Westlake and Terry	02/03/11	Clearcreek	44	15.3
Sparging system on Mercer between Westlake and Terry	02/03/11	Clearcreek	43	14.89
Sparging system on Mercer between Westlake and Terry	02/03/11	Interwest	564	14.3
Sparging system on Mercer between Westlake and Terry	02/03/11	Interwest	566	15.76
Sparging system on Mercer between Westlake and Terry	02/03/11	Interwest	572	16.6
Sparging system on Mercer between Westlake and Terry	02/03/11	Clearcreek	44	17.88
Sparging system on Mercer between Westlake and Terry	02/03/11	Clearcreek	43	18.16
Sparging system on Mercer between Westlake and Terry	02/04/11	Interwest	564	14.27
Sparging system on Mercer between Westlake and Terry	02/04/11	Interwest	566	15.44
Sparging system on Mercer between Westlake and Terry	02/04/11	Interwest	572	16.8
Sparging system on Mercer between Westlake and Terry	02/04/11	Clearcreek	44	17.05
Sparging system on Mercer between Westlake and Terry	02/04/11	Interwest	564	15.74
Sparging system on Mercer between Westlake and Terry	02/04/11	Interwest	566	16.31
Sparging system on Mercer between Westlake and Terry	02/04/11	Interwest	572	15.33
Sparging system on Mercer between Westlake and Terry	02/04/11	Clearcreek	44	16.21
Sparging system on Mercer between Westlake and Terry	02/04/11	Interwest	564	16
Sparging system on Mercer between Westlake and Terry	02/04/11	Interwest	566	14.78
Sparging system on Mercer between Westlake and Terry	02/04/11	Interwest	572	15.94
Sparging system on Mercer between Westlake and Terry	02/04/11	Clearcreek	44	18.99

Sparging system on Mercer between Westlake and Terry	02/04/11	Interwest	564	15.3
Sparging system on Mercer between Westlake and Terry	02/04/11	Interwest	566	16.63
Sparging system on Mercer between Westlake and Terry	02/04/11	Interwest	572	15.2
Sparging system on Mercer between Westlake and Terry	02/04/11	Interwest	564	13.13
Sparging system on Mercer between Westlake and Terry	02/07/11	Interwest	566	13.29
Sparging system on Mercer between Westlake and Terry	02/07/11	Clearcreek	44	18.03
Sparging system on Mercer between Westlake and Terry	02/07/11	Interwest	566	18.7
Sparging system on Mercer between Westlake and Terry	02/07/11	Clearcreek	44	19.75
Sparging system on Mercer between Westlake and Terry	02/07/11	Interwest	566	19.65
Sparging system on Mercer between Westlake and Terry	02/07/11	Clearcreek	44	6.97
Sparging system on Mercer between Westlake and Terry	06/02/11	Clearcreek	43	20.66
Sparging system on Mercer between Westlake and Terry	06/03/11	Clearcreek	44	15.95
Sparging system on Mercer between Westlake and Terry	06/03/11	Interwest	82	15.21
Sparging system on Mercer between Westlake and Terry	06/03/11	Interwest	82	15.23
Sparging system on Mercer between Westlake and Terry	06/03/11	Clearcreek	43	17.56
Sparging system on Mercer between Westlake and Terry	06/03/11	Clearcreek	44	17.29
Sparging system on Mercer between Westlake and Terry	06/03/11	Clearcreek	44	16.82
Sparging system on Mercer between Westlake and Terry	06/03/11	Interwest	82	13.75
Sparging system on Mercer between Westlake and Terry	06/03/11	Clearcreek	44	16.11
Sparging system on Mercer between Westlake and Terry	06/03/11	Clearcreek	43	15.39
Sparging system on Mercer between Westlake and Terry	06/06/11	Clearcreek	44	19.47
Sparging system on Mercer between Westlake and Terry	06/06/11	Clearcreek	43	14.74
Sparging system on Mercer between Westlake and Terry	06/06/11	Clearcreek	44	15.75
Sparging system on Mercer between Westlake and Terry	06/06/11	Clearcreek	44	20.1
Sparging system on Mercer between Westlake and Terry	06/06/11	Clearcreek	43	18.17
Sparging system on Mercer between Westlake and Terry	06/06/11	Clearcreek	44	17.55
Sparging system on Mercer between Westlake and Terry	06/06/11	Clearcreek	43	16.41
Sparging system on Mercer between Westlake and Terry	06/07/11	Clearcreek	44	17.37
Sparging system on Mercer between Westlake and Terry	06/07/11	Clearcreek	44	19.14
Sparging system on Mercer between Westlake and Terry	06/07/11	Clearcreek	44	17.35
Sparging system on Mercer between Westlake and Terry	06/08/11	Clearcreek	44	18.92
Sparging system on Mercer between Westlake and Terry	06/08/11	Clearcreek	44	19.41
COP site between Westlake & Terry and Mercer & Valley	06/03/11	Clearcreek	44	10.98
Subtotal Sparging System Installation on Mercer Street				916.15
Total Waste Soil - Mercer Street				2099.44

Table 2**Summary of Soil Removal Volumes within Phillips 66 Area during Mercer Corridor Project (2011) - Westlake Avenue North**

Phillips 66 Site No. 255353 (AOC 1396)

600 Westlake Avenue North

Seattle, Washington

Waste Stream	Date	Transport	Truck #	Approximate Tonnage
--------------	------	-----------	---------	---------------------

Westlake Avenue

Installation of Vault S623L1 at the NE corner of Westlake & Mercer	10/27/11	GMCC	186	10.963
Installation of Vault S623L1 at the NE corner of Westlake & Mercer	10/27/11	GMCC	173	14.34
Installation of Vault S623L1 at the NE corner of Westlake & Mercer	10/27/11	GMCC	173	16.74
Installation of Vault S623L1 at the NE corner of Westlake & Mercer	10/27/11	GMCC	186	13.67
Installation of Vault S623L1 at the NE corner of Westlake & Mercer	10/27/11	GMCC	173	16.55
Installation of Vault S623L1 at the NE corner of Westlake & Mercer	10/27/11	GMCC	186	11.63
Installation of Vault S623L1 at the NE corner of Westlake & Mercer	10/27/11	GMCC	173	14.68
Installation of Vault S623L1 at the NE corner of Westlake & Mercer	10/27/11	GMCC	186	14.26
Installation of Vault S623L1 at the NE corner of Westlake & Mercer	10/27/11	GMCC	173	15.58
Installation of Vault S623L1 at the NE corner of Westlake & Mercer	10/27/11	GMCC	186	13.07
Installation of Vault S623L1 at the NE corner of Westlake & Mercer	10/27/11	GMCC	173	15.57
Utility Work on Westlake at Mercer	11/09/11	GMCC	171	15.12
Utility Work on Westlake at Mercer	11/09/11	GMCC	172	14.82
Utility Work on Westlake at Mercer	11/09/11	GMCC	171	14.86
Utility Work on Westlake at Mercer	11/09/11	GMCC	172	16.02

Utility Work on Westlake at Mercer	11/09/11	GMCC	171	16.99
Utility Work on Westlake at Mercer	11/09/11	GMCC	172	15.98
Utility Work on Westlake at Mercer	11/09/11	GMCC	171	17.72
Utility Work on Westlake at Mercer	11/14/11	GMCC	186	17.11
Utility Work on Westlake at Mercer	11/14/11	GMCC	186	17.84
Utility Work on Westlake at Mercer	11/15/11	GMCC	186	14.52
Utility Work on Westlake at Mercer	11/15/11	GMCC	186	16.94
Utility Work on Westlake at Mercer	11/15/11	GMCC	186	12.64
Utility Work on Westlake at Mercer	11/16/11	GMCC	186	16.89
Utility Work on Westlake at Mercer	11/17/11	GMCC	186	15.58
Utility Work on Westlake at Mercer	11/18/11	GMCC	186	12.54
Utility Work on Westlake at Mercer	11/18/11	GMCC	186	14.21
Utility Work on Westlake at Mercer	11/18/11	GMCC	186	17.39
Utility Work on Westlake at Mercer	11/18/11	GMCC	186	14.16
Total Waste Soil - Westlake Ave				438.383

Table 3**Summary of Soil Removal Volumes within Phillips 66 Area during Mercer Corridor Project (2013) - Valley Street**

Phillips 66 Site No. 255353 (AOC 1396)

600 Westlake Avenue North

Seattle, Washington

Waste Stream	Date	Transport	Truck #	Approximate Tonnage
--------------	------	-----------	---------	---------------------

Valley Street

Bin Haul out P66 Comm bore pit - 3 solos on 1/24/13 to WM	01/24/13	Disposal from P66 Stockpile		15
Bin Haul out P66 Comm bore pit - 3 solos on 1/24/13 to WM	01/24/13	Disposal from P66 Stockpile		15
Bin Haul out P66 Comm bore pit - 3 solos on 1/24/13 to WM	01/24/13	Disposal from P66 Stockpile		15
Bin Haul out P66 water bore pit - 2 solos on 1/29/13 to WM	01/29/13	Disposal from P66 Stockpile		15
Bin Haul out P66 water bore pit - 2 solos on 1/29/13 to WM	01/29/13	Disposal from P66 Stockpile		15
Bin Haul out Terry & Valley Water Casing to Waste Management (no quantity identified)	01/30/13	Disposal from P66 Stockpile		15
Bin Haul out Terry & Valley Water Casing to Waste Management (no quantity identified)	01/31/13	Disposal from P66 Stockpile		15
Bin Haul out 2 solo Terry & Valley storm casing pit (P66)	02/13/13	Disposal from P66 Stockpile		15
Bin Haul out 2 solo Terry & Valley storm casing pit (P66)	02/13/13	Disposal from P66 Stockpile		15
Disposal - Profile 1072430R - P66 Area - Valley & Terry >5.5 feet	03/14/13	Disposal from P66 Stockpile	12152	11.72
Disposal - Profile 1072430R - P66 Area - Valley & Terry >5.5 feet	03/21/13	Disposal from P66 Stockpile	12152	13.14
Disposal - Profile 1072430R - P66 Area - Valley & Terry >5.5 feet	03/25/13	Disposal from P66 Stockpile	SS 109	11.71
Disposal - Profile 1072430R - P66 Area - Valley & Terry >5.5 feet	03/25/13	Disposal from P66 Stockpile	SS 109	11.02
Disposal - Profile 1072430R - P66 Area - Valley & Terry >5.5 feet	03/26/13	Disposal from P66 Stockpile	12 153	12.98
Disposal - Profile 1072430R - P66 Area - Valley & Terry >5.5 feet	03/26/13	Disposal from P66 Stockpile	12 153	13.27
Disposal - Profile 1072430R - P66 Area - Valley & Terry >5.5 feet	03/26/13	Disposal from P66 Stockpile	12 153	11.4
Disposal - Profile 1072430R - P66 Area - Valley & Terry >5.5 feet	03/26/13	Disposal from P66 Stockpile	12 153	16.12
Disposal - Profile 1072430R - P66 Area - Valley & Terry >5.5 feet	03/27/13	Disposal from P66 Stockpile	SS 117	27.71
Disposal - Profile 1072430R - P66 Area - Valley & Terry >5.5 feet	03/28/13	Disposal from P66 Stockpile	12 153	16.34
Disposal - Profile 1072430R - P66 Area - Valley & Terry >5.5 feet	03/28/13	Disposal from P66 Stockpile	12 153	14.67
Logged by GMCC - no disposal ticket	03/28/13	Disposal from P66 Stockpile		15
Disposal - Profile 1072430R - COP Area - Valley & Terry	03/29/13	Disposal from P66 Stockpile	SS 121	33.18
Disposal - Profile 1072430R - COP Area - Valley & Terry	04/01/13	Disposal from P66 Stockpile	12 153	15.02
Disposal - Profile 1072430R - COP Area - Valley & Terry	04/01/13	Disposal from P66 Stockpile	12 153	15.04
Disposal - Profile 1072430R - COP Area - Valley & Terry	04/03/13	Disposal from P66 Stockpile	SS 1180	16.71
Disposal - Profile 1072430R - COP Area - Valley & Terry	04/04/13	Disposal from P66 Stockpile	SS 95	27.59
Disposal - Profile 1072430R - COP Area - Valley & Terry	04/04/13	Disposal from P66 Stockpile	SS 117	29.46
Logged by GMCC - no disposal ticket	04/05/13	Disposal from P66 Stockpile		30

Disposal - Profile 1072430R - COP Area - Valley & Terry	05/14/13	Disposal from P66 Stockpile	SS95	29.61
Disposal - Profile 1072430R - COP Area - Valley & Terry	05/15/13	Disposal from P66 Stockpile	Tmax37	14.28
Disposal - Profile 1072430R - COP Area - Valley & Terry	05/15/13	Disposal from P66 Stockpile	Tmax37	15.99
Disposal - Profile 1072430R - COP Area - Valley & Terry	05/15/13	Disposal from P66 Stockpile	Tmax37	15.91
Disposal - Profile 1072430R - COP Area - Valley & Terry	05/15/13	Disposal from P66 Stockpile	Tmax37	12.62
Disposal - Profile 1072430R - COP Area - Valley & Terry	05/16/13	Disposal from P66 Stockpile	SS95	29.33
Disposal - Profile 1072430R - COP Area - Valley & Terry	05/17/13	Disposal from P66 Stockpile	SS95	31.74
Disposal - Profile 1072430R - COP Area - Valley & Terry	05/17/13	Disposal from P66 Stockpile	SS95	29.96
Disposal - Profile 1072430R - COP Area - Valley & Terry	05/17/13	Disposal from P66 Stockpile	SS95	32.27
Disposal - Profile 1072430R - COP Area - Valley & Terry	05/21/13	Disposal from P66 Stockpile	12 169	27.54
Disposal - Profile 1072430R - COP Area - Valley & Terry	05/21/13	Disposal from P66 Stockpile	12 169	27
Disposal - Profile 1072430R - COP Area - Valley & Terry	05/23/13	Disposal from P66 Stockpile	Tmax37	15.42
Disposal - Profile 1072430R - COP Area - Valley & Terry	05/23/13	Disposal from P66 Stockpile	Tmax37	13.96
Disposal - Profile 1072430R - COP Area - Valley & Terry	05/23/13	Disposal from P66 Stockpile	Tmax37	13.41
Disposal - Profile 1072430R - COP Area - Valley & Terry	05/28/13	Disposal from P66 Stockpile	SS95	32.97
Disposal - Profile 1072430R - COP Area - Valley & Terry	05/28/13	Disposal from P66 Stockpile	SS95	34.47
Disposal - Profile 1072430R - COP Area - Valley & Terry	05/28/13	Disposal from P66 Stockpile	SS119	33.64
Disposal - Profile 1072430R - COP Area - Valley & Terry	05/28/13	Disposal from P66 Stockpile	SS119	30.03
Disposal - Profile 1072430R - COP Area - Valley & Terry	05/29/13	Disposal from P66 Stockpile	Tmax45	29.47
Disposal - Profile 1072430R - COP Area - Valley & Terry	05/29/13	Disposal from P66 Stockpile	SS119	35.64
Disposal - Profile 1072430R - COP Area - Valley & Terry	05/29/13	Disposal from P66 Stockpile	SS95	32.48
Disposal - Profile 1072430R - COP Area - Valley & Terry	05/30/13	Disposal from P66 Stockpile	SS95	34.76
Disposal - Profile 1072430R - COP Area - Valley & Terry	05/30/13	Disposal from P66 Stockpile	SS95	34.17
Disposal - Profile 1072430R - COP Area - Valley & Terry	05/30/13	Disposal from P66 Stockpile	SS95	33.69
Disposal - Profile 1072430R - COP Area - Valley & Terry	05/30/13	Disposal from P66 Stockpile	SS119	30.35
Disposal - Profile 1072430R - COP Area - Valley & Terry	05/30/13	Disposal from P66 Stockpile	SS95	33.2
Disposal - Profile 1072430R - COP Area - Valley & Terry	05/31/13	Disposal from P66 Stockpile		30
Disposal - Profile 1072430R - COP Area - Valley & Terry	06/03/13	Disposal from P66 Stockpile		30
Disposal - Profile 1072430R - COP Area - Valley & Terry	06/03/13	Disposal from P66 Stockpile		30
Disposal - Profile 1072430R - COP Area - Valley & Terry	06/06/13	Disposal from P66 Stockpile	SS95	32.04
Disposal - Profile 1072430R - COP Area - Valley & Terry	06/10/13	Disposal from P66 Stockpile		30
Disposal - Profile 1072430R - COP Area - Valley & Terry	06/10/13	Disposal from P66 Stockpile		30
Disposal - Profile 1072430R - COP Area - Valley & Terry	06/11/13	Disposal from P66 Stockpile		30
Disposal - Profile 1072430R - COP Area - Valley & Terry	06/13/13	Disposal from P66 Stockpile		30
Disposal - Profile 1072430R - COP Area - Valley & Terry	06/14/13	Disposal from P66 Stockpile		30
Disposal - Profile 1072430R - COP Area - Valley & Terry	06/18/13	Disposal from P66 Stockpile		30
Disposal - Profile 1072430R - COP Area - Valley & Terry	06/25/13	Disposal from P66 Stockpile	SS95	28.6
Disposal - Profile 1072430R - COP Area - Valley & Terry	06/26/13	Disposal from P66 Stockpile	SS95	29.58
Disposal - Profile 1072430R - COP Area - Valley & Terry	07/08/13	Disposal from P66 Stockpile	SS119	27.57
Disposal - Profile 1072430R - COP Area - Valley & Terry	07/08/13	Disposal from P66 Stockpile	SS119	23.95
Total Soil Volume - Valley Street				3746.44

Table 4**Summary of Soil Removal Volumes within Phillips 66 Area during Mercer Corridor Project (2013) - Terry Avenue North**

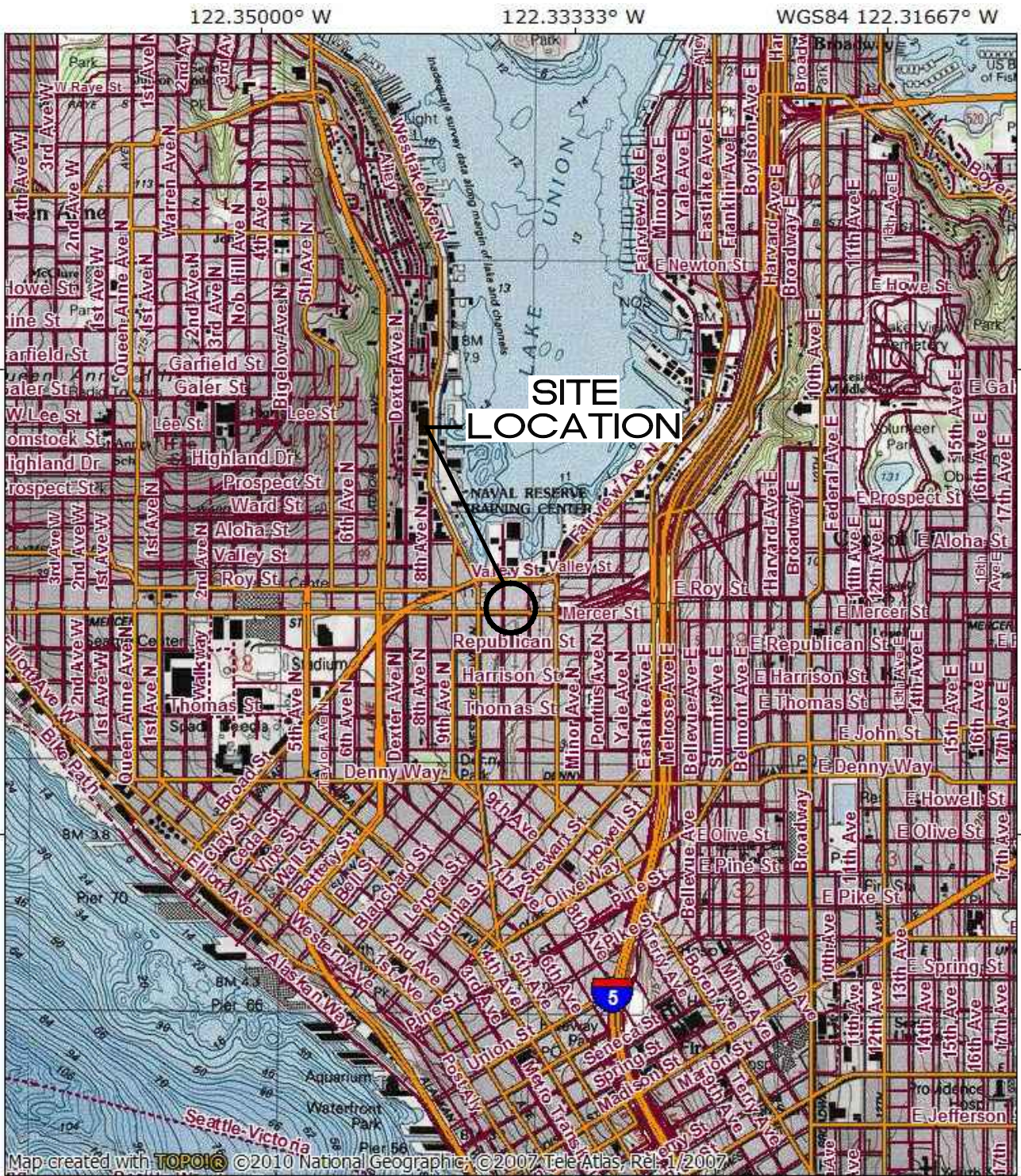
Phillips 66 Site No. 255353 (AOC 1396)

600 Westlake Avenue North

Seattle, Washington

Waste Stream	Date	Transport	Truck #	Tonnage
Terry Avenue North				
Trenching Material from Terry Avenue	09/27/13	Clearcreek Contractors	43	17.3
Trenching Material from Terry Avenue	09/27/13	Clearcreek Contractors	43	19.44
Trenching Material from Terry Avenue	09/27/13	Clearcreek Contractors	43	15.11
Trenching Material from Terry Avenue	10/07/13	Clearcreek Contractors	43	18.59
Trenching Material from Terry Avenue	10/07/13	Clearcreek Contractors	43	19.31
Trenching Material from Terry Avenue	10/07/13	Clearcreek Contractors	43	19.46
Trenching Material from Terry Avenue	10/07/13	Clearcreek Contractors	43	19.19
Trenching Material from Terry Avenue	10/08/13	Clearcreek Contractors	43	17.9
Trenching Material from Terry Avenue	10/08/13	Clearcreek Contractors	43	16.41
Trenching Material from Terry Avenue	10/09/13	Clearcreek Contractors	43	19.65
Total Soil Volume - Valley Street				182.36

FIGURES



SOURCE: USGS TOPO MAP, SEATTLE SOUTH E, WA QUAD, 1983

SITE VICINITY MAP

PHILLIPS 66 FACILITY NO. 255353 (AOC 1396)
 600 WESTLAKE AVENUE N
 SEATTLE, WA

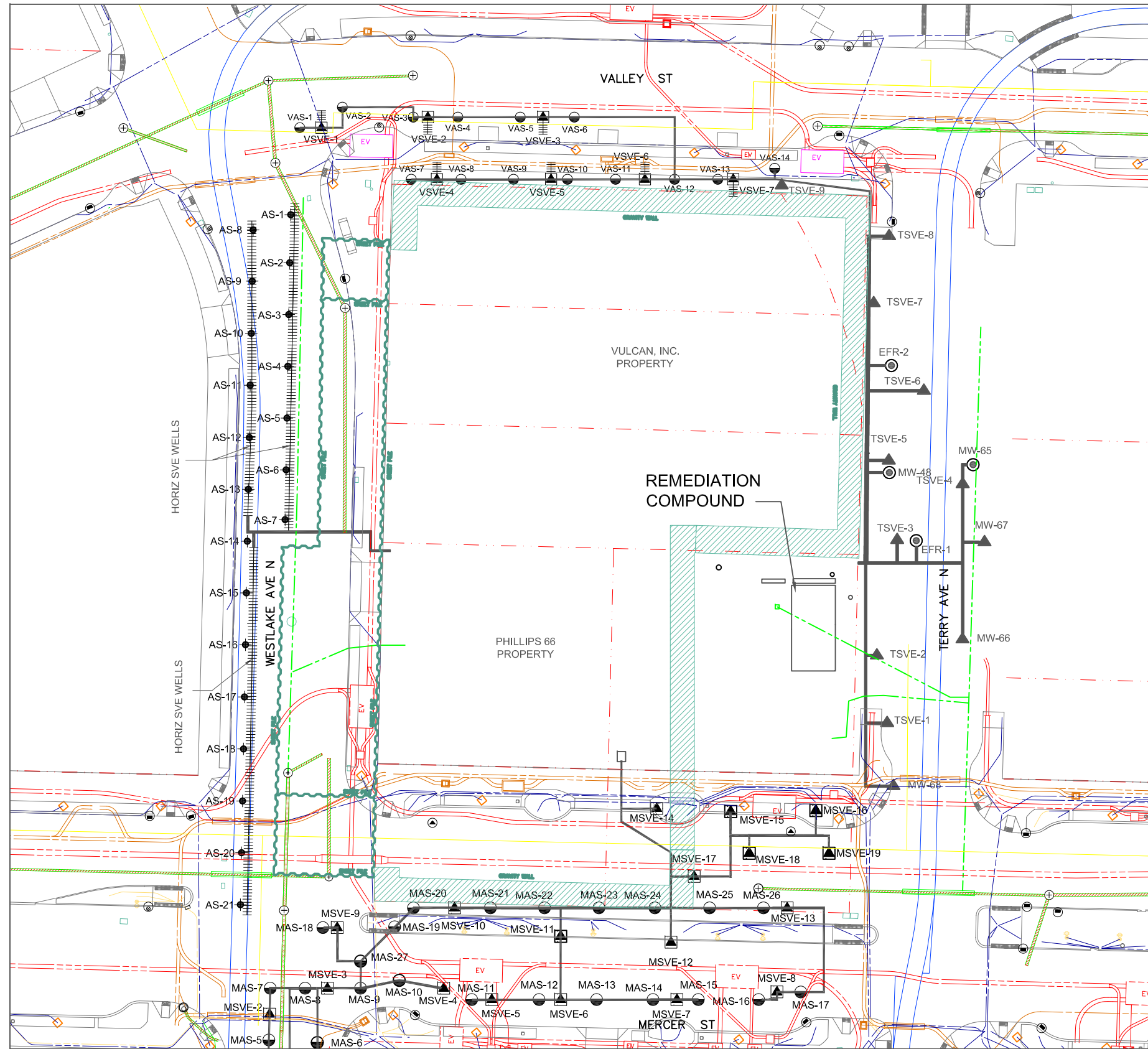
PROJECT NUMBER: 76.75118.1396	DATE: 6/20/14	FIGURE
APPROVED BY: KS	DRAWN BY: BK	1

Cardno ATC 6347 Seaview Avenue NW
 Seattle, Washington 98107
 Ph: (206) 781-1449 *** Fax: (206) 781-1543

NOTES:

1. LOCATIONS OF SITE FEATURES CONSTRUCTED FOR THE P-66 REMEDIATION SYSTEM (REMEDIATION COMPOUND, ON-SITE TRENCHES, TERRY AVE. TRENCH EXTENSION) HAVE NOT BEEN SURVEYED AND ARE APPROXIMATE.

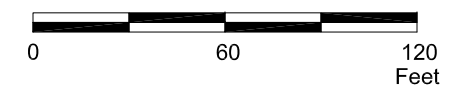
2. LOCATIONS OF ALL OTHER SITE AND AREA FEATURES ARE BASED ON PLANS SUPPLIED BY SDOT, AND HAVE NOT BEEN VERIFIED BY THE PROJECT ENGINEER.



LEGEND:

- LAMP POST LOCATION
- PROPERTY LINES
- TRENCH ROUTES
- AIR SPARGE WELL ON WESTLAKE AVENUE
- HORIZONTAL SVE WELL
- SVE WELLS ON TERRY AVENUE
- MONITORING WELL
- ENHANCED FLUID RECOVERY WELL
- AS WELL ON MERCER
- SVE WELLS ON MERCER
- VALLEY STREET AS WELL
- VALLEY STREET HORIZONTAL SVE WELL
- ELECTRICAL LINE LOCATION FOR STREET LIGHTS
- SANITARY/ STORM SEWER LOCATION
- STORM SEWER MANHOLE/CATCH BASIN LOCATION
- ELECTRICAL LINE LOCATION (SCL)
- COMMUNICATION LINE LOCATION
- GAS LINE LOCATION
- STREET CAR LINE LOCATION

APPROXIMATE SCALE



SITE LAYOUT DIAGRAM

PHILLIPS 66 Facility No. 255353
600 Westlake Avenue North
Seattle, Washington

EXPLANATION:

- SHEET PILE LOCATION
- GRAVITY WALL LOCATION

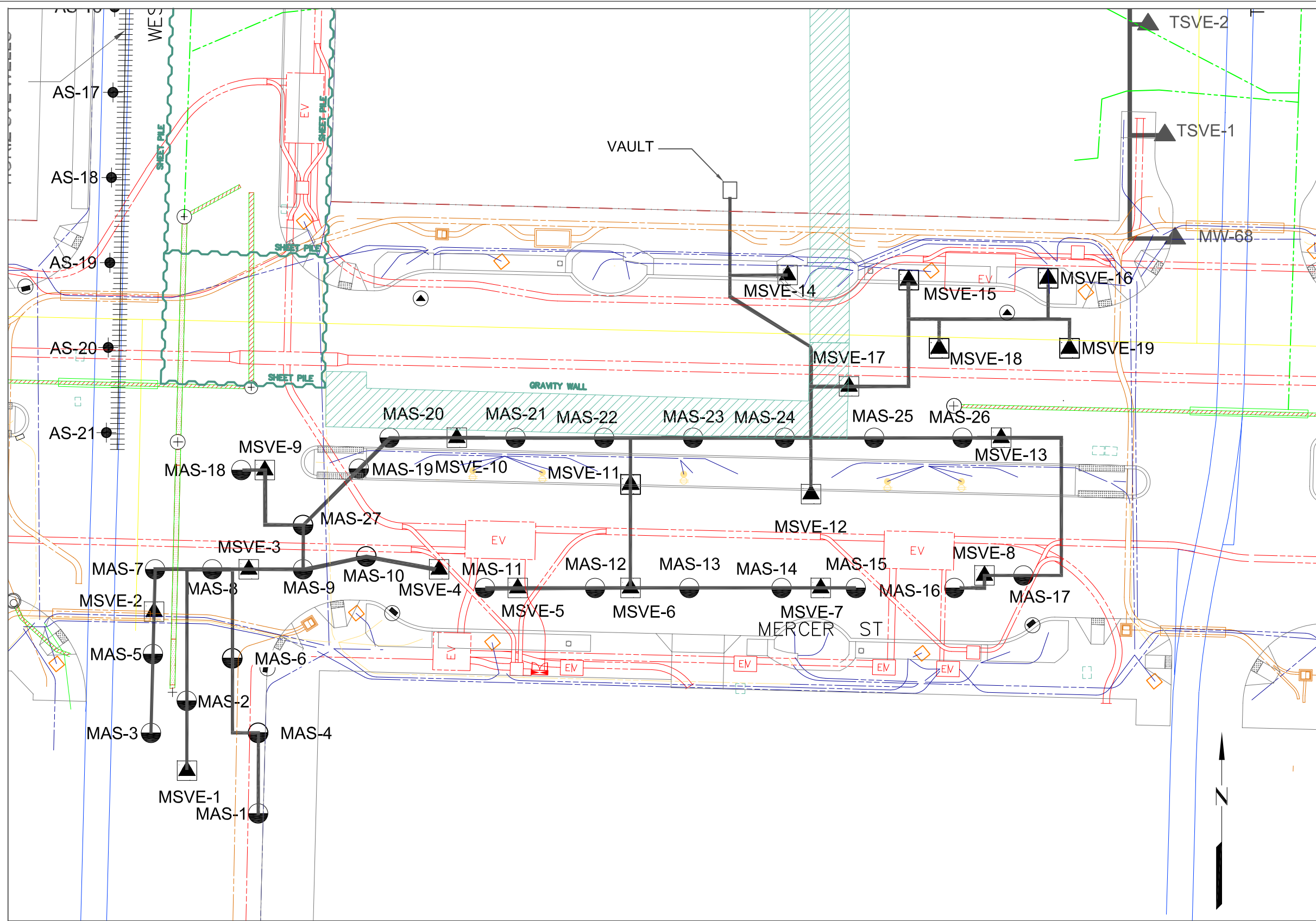
PROJECT NO.

03132603

FIGURE

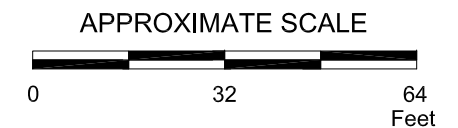
2

EJB: 06/20/14



LEGEND:

- LAMP POST LOCATION
- PROPERTY LINES
- ELECTRICAL LINE LOCATION FOR STREET LIGHTS
- SANITARY/ STORM SEWER LOCATION
- STORM SEWER MANHOLE/CATCH BASIN LOCATION
- ELECTRICAL LINE LOCATION (SCL)
- COMMUNICATION LINE LOCATION
- GAS LINE LOCATION
- CURB/ SIDEWALK LOCATION
- SHEET PILE LOCATION
- GRAVITY WALL LOCATION
- STREET CAR LINE LOCATION



MERCER ST. AS/SVE WELLS
 PHILLIPS 66 Facility No. 255353
 600 Westlake Avenue North
 Seattle, Washington

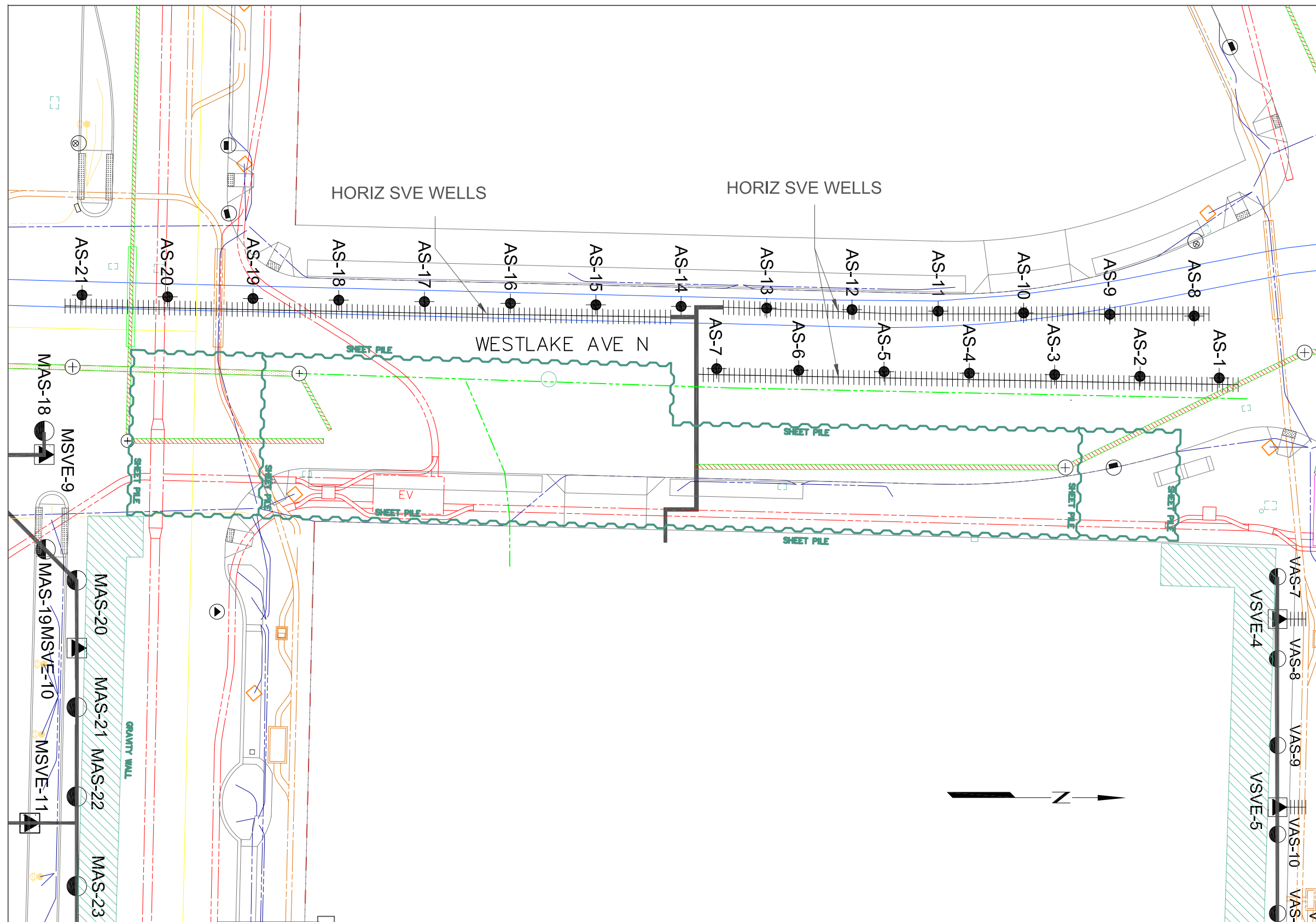
EXPLANATION:

TRENCH ROUTES	TSVE-1 SVE WELLS ON TERRY AVENUE
AS-1 AIR SPARGE WELL ON WESTLAKE AVENUE	MAS-1 AS WELL ON MERCER
HORIZONTAL SVE WELL	MSVE-7 SVE WELLS ON MERCER

PROJECT NO.
03132603

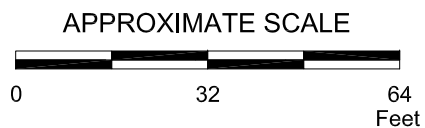
FIGURE
3

EJB: 06/20/14



LEGEND:

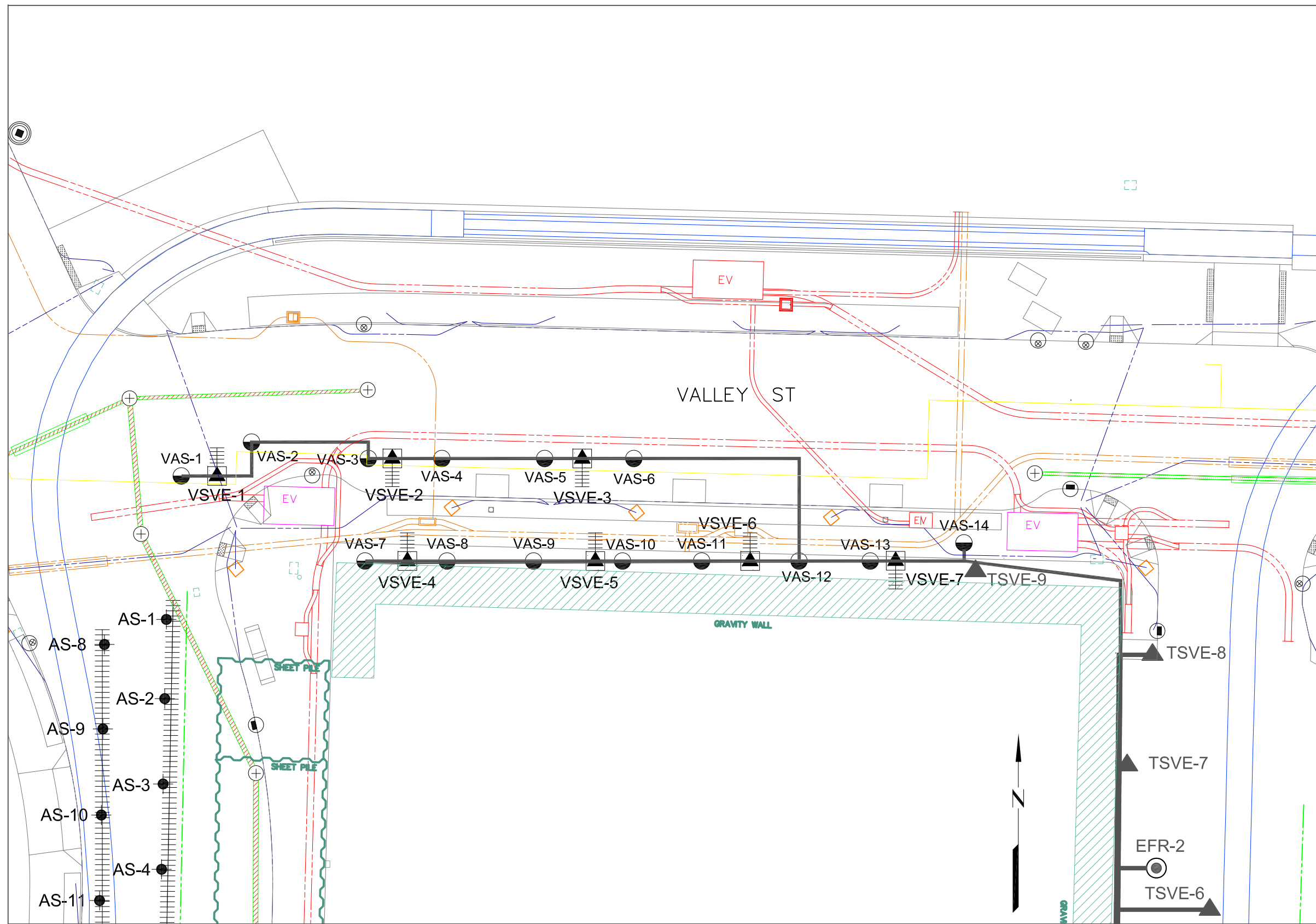
- LAMP POST LOCATION
- PROPERTY LINES
- ELECTRICAL LINE LOCATION FOR STREET LIGHTS
- SANITARY/ STORM SEWER LOCATION
- STORM SEWER MANHOLE/CATCH BASIN LOCATION
- ELECTRICAL LINE LOCATION (SCL)
- COMMUNICATION LINE LOCATION
- GAS LINE LOCATION
- CURB/ SIDEWALK LOCATION
- SHEET PILE LOCATION
- GRAVITY WALL LOCATION
- STREET CAR LINE LOCATION



WESTLAKE AVE. AS/SVE WELLS

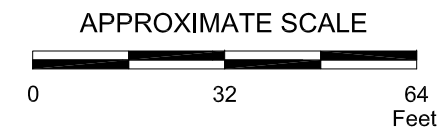
PHILLIPS 66 Facility No. 255353
 600 Westlake Avenue North
 Seattle, Washington

EXPLANATION:		PROJECT NO.	
TRENCH ROUTES	TSVE-1 SVE WELLS ON TERRY AVENUE	03132603	
AS-1 AIR SPARGE WELL ON WESTLAKE AVENUE	MAS-1 AS WELL ON MERCER	FIGURE	
HORIZONTAL SVE WELL	MSVE-7 SVE WELLS ON MERCER	4	
	VAS-13 VALLEY STREET AS WELL	EJB: 06/20/14	
	VSVE-7 VALLEY STREET HORIZONTAL SVE WELL		



LEGEND:

- LAMP POST LOCATION
- PROPERTY LINES
- ELECTRICAL LINE LOCATION FOR STREET LIGHTS
- SANITARY/ STORM SEWER LOCATION
- STORM SEWER MANHOLE/CATCH BASIN LOCATION
- ELECTRICAL LINE LOCATION (SCL)
- COMMUNICATION LINE LOCATION
- GAS LINE LOCATION
- CURB/ SIDEWALK LOCATION
- SHEET PILE LOCATION
- GRAVITY WALL LOCATION
- STREET CAR LINE LOCATION



VALLEY ST. AS/SVE WELLS
 PHILLIPS 66 Facility No. 255353
 600 Westlake Avenue North
 Seattle, Washington

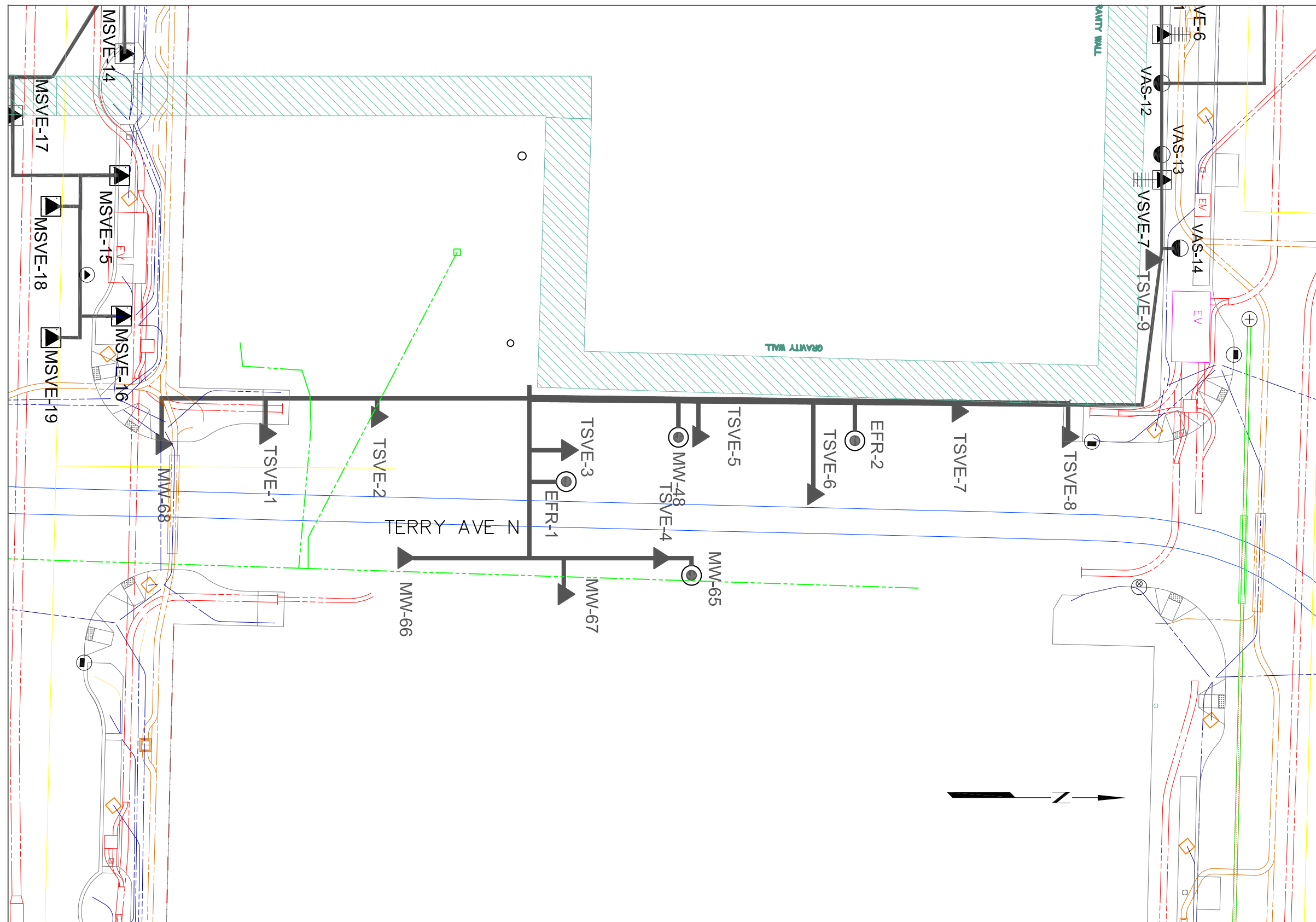
EXPLANATION:

TRENCH ROUTES	TSVE-1 SVE WELLS ON TERRY AVENUE
AS-1 AIR SPARGE WELL ON WESTLAKE AVENUE	EFR-1 ENHANCED FLUID RECOVERY WELL
HORIZONTAL SVE WELL	VAS-13 VALLEY STREET AS WELL
	VSVE-7 VALLEY STREET HORIZONTAL SVE WELL

PROJECT NO.
03132603

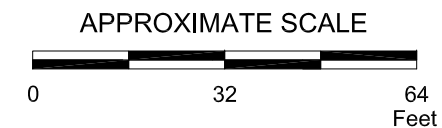
FIGURE
5

EJB: 06/20/14



LEGEND:

- LAMP POST LOCATION
- PROPERTY LINES
- ELECTRICAL LINE LOCATION FOR STREET LIGHTS
- SANITARY/ STORM SEWER LOCATION
- STORM SEWER MANHOLE/CATCH BASIN LOCATION
- ELECTRICAL LINE LOCATION (SCL)
- COMMUNICATION LINE LOCATION
- GAS LINE LOCATION
- CURB/ SIDEWALK LOCATION
- SHEET PILE LOCATION
- GRAVITY WALL LOCATION
- STREET CAR LINE LOCATION



TERRY AVE. AS/SVE WELLS
 PHILLIPS 66 Facility No. 255353
 600 Westlake Avenue North
 Seattle, Washington

EXPLANATION:

	TRENCH ROUTES		TSVE-1	SVE WELLS ON TERRY AVENUE	
	MAS-1	AS WELL ON MERCER			
	VALLEY STREET AS WELL		MSVE-7	SVE WELLS ON MERCER	
	VSVE-7	VALLEY STREET HORIZONTAL SVE WELL		MW-67	MONITORING WELL
				EFR-1	ENHANCED FLUID RECOVERY WELL

PROJECT NO.
03132603

FIGURE
6

EJB: 06/20/14

APPENDIX A

**ECOLOGY RESOURCE PROTECTION WELL REPORTS – WELL INSTALLATIONS
FOR MERCER STREET**

The Department of Ecology does NOT warrant the Data and/or the Information on this Well Report.

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
 Notice of Intent No. 25-4B-301
RE05927

Construction/Decommission
 Construction
 Decommission ORIGINAL INSTALLATION Notice
 of Intent Number MAS24 419262

Type of Well
 Resource Protection
 Geotechnical Soil Boring

Consulting Firm Clearcreek Contractor's

Property Owner Mercer Corridor
 Site Address Westlake Ave. N. & Mercer St.
 City Seattle County 17-King

Unique Ecology Well ID
 Tag No. BHR 441

Location 1/4 NE 1/4 SE Sec 30 Twn 25N R 4E or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Lat/Long (s,t,r still Required) Lat Deg _____ Lat Min/Sec _____
 Long Deg _____ Long Min/Sec _____

Driller Trainee Name (Print) Scott Krueger
 Driller/Trainee Signature _____
 Driller/Trainee License No. 2073

Tax Parcel No. _____

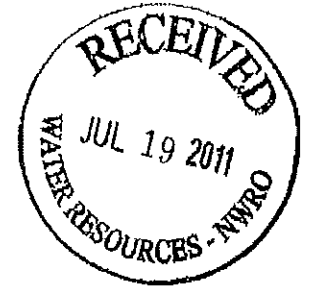
If trainee, licensed driller's Signature and License No. _____

Cased or Uncased Diameter 8 1/4 Static Level 14

Work/Decommission Start Date 6/11/11

Work/Decommission End Date _____

Construction/Design	Well Data W11-329	Formation Description
	Concrete Surface Seal Depth <u>Pipe 4" below grade</u> FT	<u>0 - 20'4" FT</u> brown Silty Sand
	Blank Casing (dia x dep) <u>1 16'4"</u>	
	Material <u>5-5</u>	
	Backfill <u>10'4"</u> FT	
	Type <u>Neat cement</u>	
	Seal <u>4</u>	<u>0</u> FT
	Material <u>Beet chips</u>	
	Gravel Pack <u>2</u> FT	
	Material <u>2/12</u>	
	Screen (dia x dep) <u>1 1</u>	<u>0</u> FT
Slt Size <u>.020</u>		
Material <u>S.S.</u>		
Well Depth <u>20'4"</u> FT		
Backfill _____		
Material _____		
Total Hole Depth _____ FT		



Scale 1" = _____

Page _____ of _____

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

25-4E-30J

CURRENT
Notice of Intent No. RE05927

Construction/Decommission
 Construction
 Decommission ORIGINAL INSTALLATION Notice of Intent Number _____

Type of Well
 Resource Protection
 Geotechnical Soil Boring

Consulting Firm Clearcreek Contractor's

Property Owner Mercer Corridor
 Site Address Westlake Ave. N. & Mercer St.
 City Seattle County 17-King

Unique Ecology Well ID Tag No. BHB 442

Location 1/4 NE 1/4 SE Sec 30 Twn 25N R 4E or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Lat/Long (s,t,r still Required) Lat Deg _____ Lat Min/Sec _____
 Long Deg _____ Long Min/Sec _____

Driller Trainee Name (Print) Scott Krueger
 Driller/Trainee Signature _____
 Driller/Trainee License No. 2073

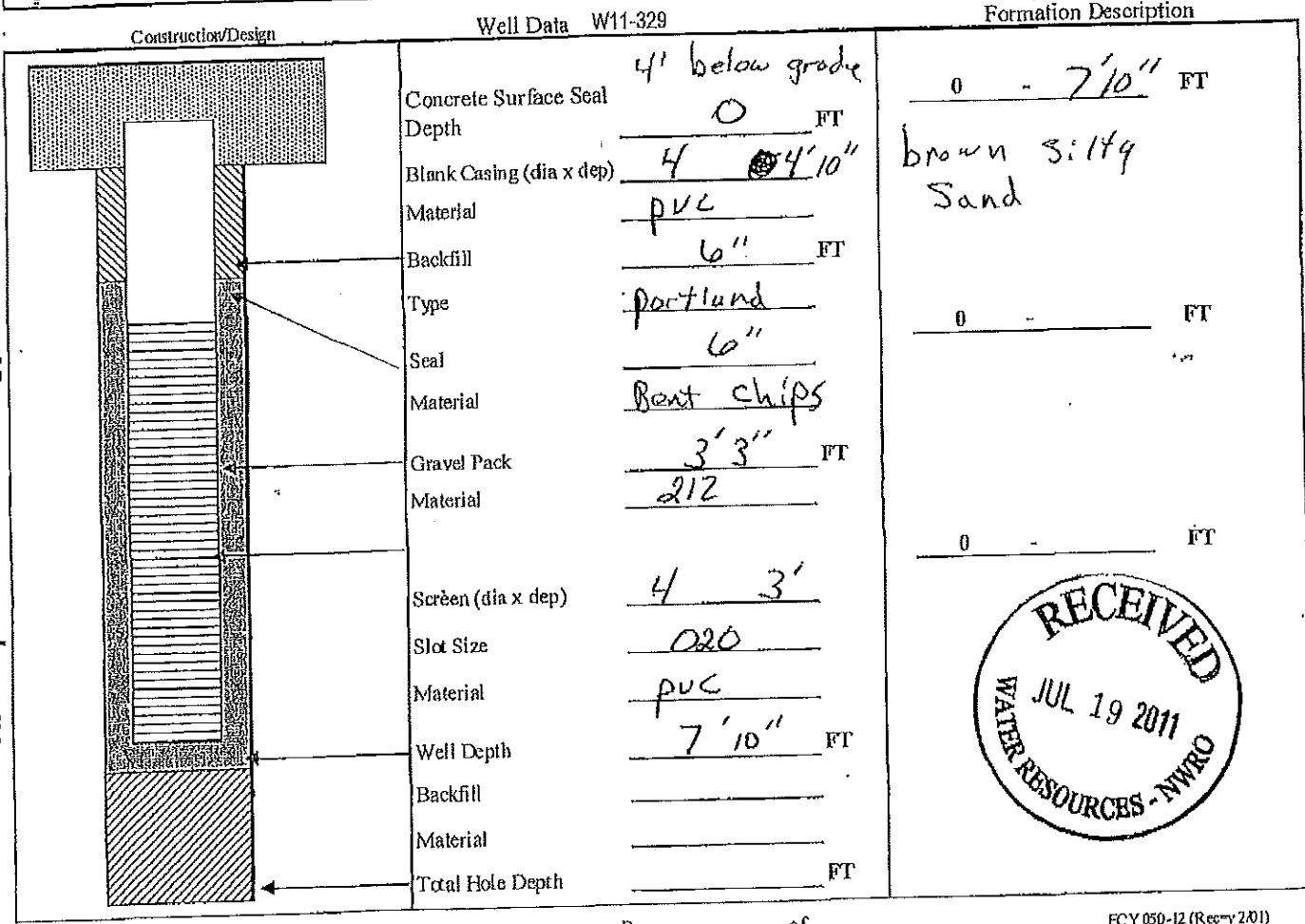
Tax Parcel No. _____

If trainee, licensed driller's Signature and License No. _____

Cased or Uncased Diameter 4' 10" Static Level N/A

Work/Decommission Start Date 5-31-11

Work/Decommission End Date 11 11



Scale 1" = _____

Page _____ of _____

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. RE05927

25-4E-30J

Construction/Decommission MSVE 19 419265

Type of Well
 Resource Protection
 Geotechnical Soil Boring

Construction
 Decommission ORIGINAL INSTALLATION Notice
of Intent Number _____

Property Owner Mercer Corridor
Site Address Westlake Ave. N. & Mercer St.
City Seattle County 17-King

Consulting Firm Clearcreek Contractor's

Location 1/4 NE 1/4 SE Sec 30 Twn 25N R 4E or WWM
 EWM
 WWM

Unique Ecology Well ID
Tag No. BHB 443

Lat/Long (s, e, r Lat Deg _____ Lat Min/Sec _____
still Required) Long Deg _____ Long Min/Sec _____

WELL CONSTRUCTION CERTIFICATION: I consulted and/or accept responsibility for
construction of this well, and its compliance with all Washington well construction standards
Materials used and the information reported above are true to my best knowledge and belief

Tax Parcel No. _____

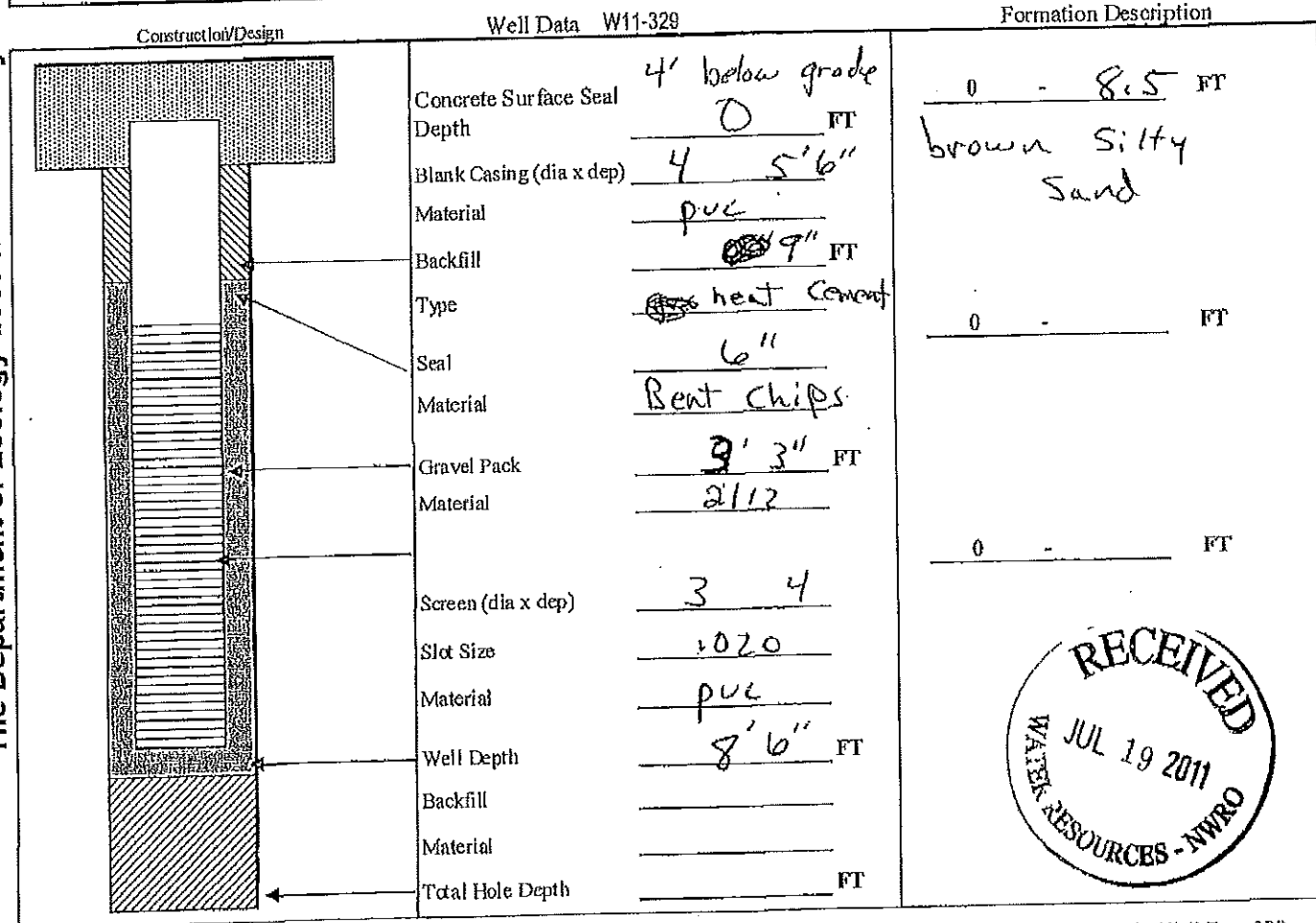
Driller Trainee Name (Print) Scott Krueger
Driller/Trainee Signature _____
Driller/Trainee License No. 2073

Cased or Uncased Diameter 10 Static Level N/A

If trainee, licensed driller's
Signature and License No. _____

Work/Decommission Start Date 5 31 11

Work/Decommission End Date _____



Scale 1" = _____

Page _____ of _____

ECY 050-12 (Rev=V 201)

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

25-48-300

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. RE05927

Construction/Decommission
 Construction
 Decommission ORIGINAL INSTALLATION Notice
 of Intent Number _____

MSVE16 419267

Type of Well
 Resource Protection
 Geotechnical Soil Boring

Consulting Firm Clearcreek Contractor's

Property Owner Mercer Corridor
 Site Address Westlake Ave. N. & Mercer St.
 City Seattle County 17-King

Unique Ecology Well ID BHB 444
 Tag No. _____

Location 1/4 NE 1/4 SE Sec 30 Twn 25N R 4E or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Lat/Long (s,t,r still Required) Lat Deg _____ Lat Min/Sec _____
 Long Deg _____ Long Min/Sec _____

Driller Trainee Name (Print) Scott Krueger
 Driller/Trainee Signature _____
 Driller/Trainee License No. 2073

Tax Parcel No. _____
 Cased or Uncased Diameter 10 Static Level NA

If trainee, licensed driller's Signature and License No. _____

Work/Decommission Start Date 5-31-11
 Work/Decommission End Date 11

Construction/Design	Well Data W11-329	Formation Description
	Concrete Surface Seal Depth <u>4' below grade</u>	<u>0 - 7'4" FT</u>
	Blank Casing (dia x dep) <u>4 1/2" x 44"</u>	<u>brown silty sand</u>
	Material <u>pvc</u>	
	Backfill <u>6" FT</u>	
	Type <u>neat cement</u>	
	Seal <u>6" FT</u>	
	Material <u>Best chips</u>	
	Gravel Pack <u>3'3" FT</u>	
	Material <u>2/12</u>	
	Screen (dia x dep) <u>4 3</u>	<u>0 - FT</u>
Slot Size <u>.1020</u>		
Material <u>pvc</u>		
Well Depth <u>7.4" FT</u>		
Backfill _____		
Material _____		
Total Hole Depth _____ FT	<u>0 - FT</u>	



Scale 1" = _____

Page _____ of _____

ECY 050-12 (Rev 2/01)

25-48-30J

The Department of Ecology does NOT Warrant the Data and/or the Information on this Well Report.

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT

Notice of Intent No.

RE05927

Construction/Decommission

Construction

Decommission ORIGINAL INSTALLATION Notice of Intent Number _____

MSVE 15 419269

Type of Well

Resource Protection

Geotechnical Soil Boring

Consulting Firm Clearcreek Contractor's

Property Owner Mercer Corridor

Site Address Westlake Ave. N. & Mercer St.

City Seattle County 17-King

Unique Ecology Well ID Tag No. BHR 445

Location 1/4 NE 1/4 SE Sec 30 Twn 25N R 4E or BWM WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Lat/Long (s,t,r) Lat Deg _____ Lat Min/Sec _____ still Required) Long Deg _____ Long Min/Sec _____

Driller Trainee Name (Print) Scott Krueger
Driller/Trainee Signature [Signature]
Driller/Trainee License No. 2073

Tax Parcel No. _____

Cased or Uncased Diameter 10 Static Level N/A

Work/Decommission Start Date 5-31-18

If trainee, licensed driller's Signature and License No. _____

Work/Decommission End Date 11

Construction/Design	Well Data W11-329	Formation Description
	Concrete Surface Seal Depth <u>4' below grade</u>	<u>0 - 7'10" FT</u>
	Blank Casing (dia x dep) <u>4 4'10"</u>	<u>brown silty sand</u>
	Material <u>pvc</u>	
	Backfill <u>6" FT</u>	
	Type <u>neat cement</u>	
	Seal <u>6" FT</u>	
	Material <u>Best chips</u>	
	Gravel Pack <u>3'3" FT</u>	
	Material <u>2/12</u>	
	Screen (dia x dep) <u>4 3</u>	
Slot Size <u>2020</u>		
Material <u>pvc</u>		
Well Depth <u>7'10" FT</u>		
Backfill _____		
Material _____		
Total Hole Depth _____ FT		



Scale 1" = _____

Page _____ of _____

ECY 050-12 (Rev 2/01)

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

25-4E-30J

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. RE05927

Construction/Decommission MSVE 18
 Construction 419270
 Decommission ORIGINAL INSTALLATION Notice
 of Intent Number _____

Type of Well
 Resource Protection
 Geotechnical Soil Boring

Consulting Firm Clearcreek Contractor's

Property Owner Mercer Corridor
 Site Address Westlake Ave. N. & Mercer St.
 City Seattle County 17-King EWM

Unique Ecology Well ID
 Tag No. BHB 446

Location 1/4 NE 1/4 SE Sec 30 Twn 25N R 4E or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Lat/Long (s,t,r Lat Deg _____ Lat Min/Sec _____
 still Required) Long Deg _____ Long Min/Sec _____

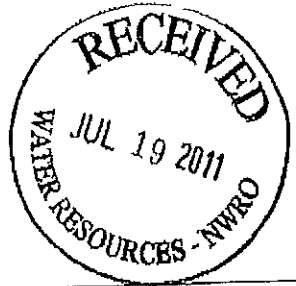
Driller Trainee Name (Print) Scott Krueger
 Driller/Trainee Signature [Signature]
 Driller/Trainee License No. 2073

Tax Parcel No. _____
 Cased or Uncased Diameter 10 Static Level 21/2

If trainee, licensed driller's
 Signature and License No. _____

Work/Decommission Start Date 5-31-11
 Work/Decommission End Date "

Construction/Design	Well Data W11-329	Formation Description
	Concrete Surface Seal Depth <u>4' below grade</u>	<u>0 - 7' 10" FT</u>
	Blank Casing (dia x dep) Material <u>4 4' 10" PVC</u>	<u>brown silty Sand</u>
	Backfill Type <u>6" neat cement</u>	<u>0 - _____ FT</u>
	Seal Material <u>6" Bent chips</u>	<u>0 - _____ FT</u>
	Gravel Pack Material <u>3' 3" 2112</u>	<u>0 - _____ FT</u>
	Screen (dia x dep) Slot Size <u>4 3 1020</u>	
	Material <u>PVC</u>	
	Well Depth <u>7' 10" FT</u>	
	Backfill	
	Material	
Total Hole Depth _____ FT		



Scale 1" = _____

Page _____ of _____

ECY 050-12 (Rev. 201)

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

25-4E-300

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. RE05927

Construction/Decommission
 Construction
 Decommission ORIGINAL INSTALLATION Notice
 of Intent Number MAS 23 419271

Type of Well
 Resource Protection
 Geotechnical Soil Boring

Consulting Firm Clearcreek Contractor's

Property Owner Mercer Corridor
 Site Address Westlake Ave. N. & Mercer St.
 City Seattle County 17-King

Unique Ecology Well ID
 Tag No. BHR 447

Location 1/4 NE 1/4 SE Sec 30 Twn 25N R 4E or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

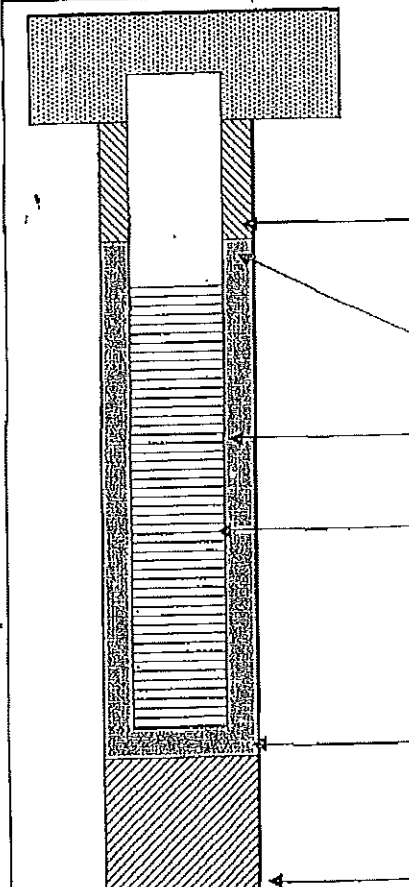
Lat/Long (s,t,r still Required) Lat Deg _____ Lat Min/Sec _____
 Long Deg _____ Long Min/Sec _____

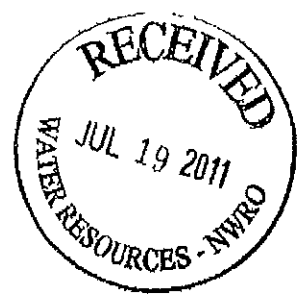
Driller Trainee Name (Print) Scott Krueger
 Driller/Trainee Signature [Signature]
 Driller/Trainee License No. 2073

Tax Parcel No. _____
 Cased or Uncased Diameter 8 1/4 Static Level 14

If trainee, licensed driller's Signature and License No. _____

Work/Decommission Start Date 6/1/11
 Work/Decommission End Date _____

Construction/Design	Well Data W11-329	Formation Description
	Concrete Surface Seal Depth <u>Pipe 4' below grade</u> Blank Casing (dia x dep) <u>1 16' 1"</u> Material <u>S.S.</u> Backfill <u>10' 1" FT</u> Type <u>neat cement</u> Seal <u>4'</u> Material <u>rent chips</u> Gravel Pack <u>2 FT</u> Material <u>2/1/2</u> Screen (dia x dep) <u>1 1/4</u> Slot Size <u>.020</u> Material <u>S.S.</u> Well Depth <u>20' 1" FT</u> Backfill _____ Material _____ Total Hole Depth _____ FT	<u>0 - 20 FT</u> <u>brown silty sand</u> <u>0 - FT</u> <u>0 - FT</u>



Scale 1" = _____

Page _____ of _____

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. RE05927

25-4E-300

Construction/Decommission
 Construction
 Decommission ORIGINAL INSTALLATION Notice
of Intent Number _____

MA5 22 419273

Type of Well
 Resource Protection
 Geotechnical Soil Boring

Consulting Firm Clearcreek Contractor's

Property Owner Mercer Corridor
Site Address Westlake Ave. N. & Mercer St.
City Seattle County 17-King

Unique Ecology Well ID
Tag No. BHR 448

Location 1/4 NE 1/4 SE Sec 30 Twp 25N R 4E or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Lat/Long (s,t,r Lat Deg _____ Lat Min/Sec _____
still Required) Long Deg _____ Long Min/Sec _____

Driller Trainee Name (Print) Scott Krueger
Driller/Trainee Signature [Signature]
Driller/Trainee License No. 2073

If trainee, licensed driller's
Signature and License No. _____

Tax Parcel No. _____
Cased or Uncased Diameter 8.4 Static Level 18
Work/Decommission Start Date 6/1/11
Work/Decommission End Date _____

Construction/Design Well Data W11-329 Formation Description

	Concrete Surface Seal	<u>4' below grade</u>	
	Depth	<u>0</u> FT	<u>0 - 20.3" FT</u>
	Blank Casing (dia x dep)	<u>1 16' 3"</u>	<u>brown Silty Sand</u>
	Material	<u>5.5</u>	
	Backfill	<u>12' 3" FT</u>	
	Type	<u>Neat cement</u>	
	Seal	<u>4</u>	<u>0 - 0 FT</u>
	Material	<u>Bent chips</u>	
	Gravel Pack	<u>2' FT</u>	
	Material	<u>2/2</u>	<u>0 - 0 FT</u>
Screen (dia x dep)	<u>1 1</u>		
Slot Size	<u>1020</u>		
Material	<u>5.5</u>		
Well Depth	<u>20.3</u> FT		
Backfill	_____		
Material	_____		
Total Hole Depth	_____ FT		



The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. RE05927

Construction/Decommission
 Construction
 Decommission ORIGINAL INSTALLATION Notice
 of Intent Number _____

Type of Well
 Resource Protection
 Geotechnical Soil Boring

Consulting Firm Clearcreek Contractor's

Property Owner Mercer Corridor
 Site Address Westlake Ave. N. & Mercer St.
 City Seattle County King

Unique Ecology Well ID
 Tag No. BKB 449

Location 1/4 NE 1/4 SE Sec 30 Twn 25N R 4E or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Records used and the information reported above are true to my best knowledge and belief.

Lat/Long (s,t,r Lat Deg _____ Lat Min/Sec _____
 still Required) Long Deg _____ Long Min/Sec _____

Driller Trainee Name (Print) Scott Krueger
 Driller/Trainee Signature [Signature]
 Driller/Trainee License No. 2073

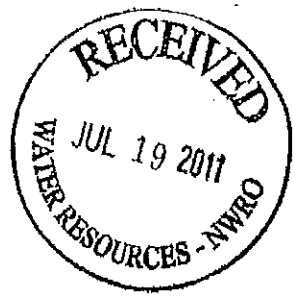
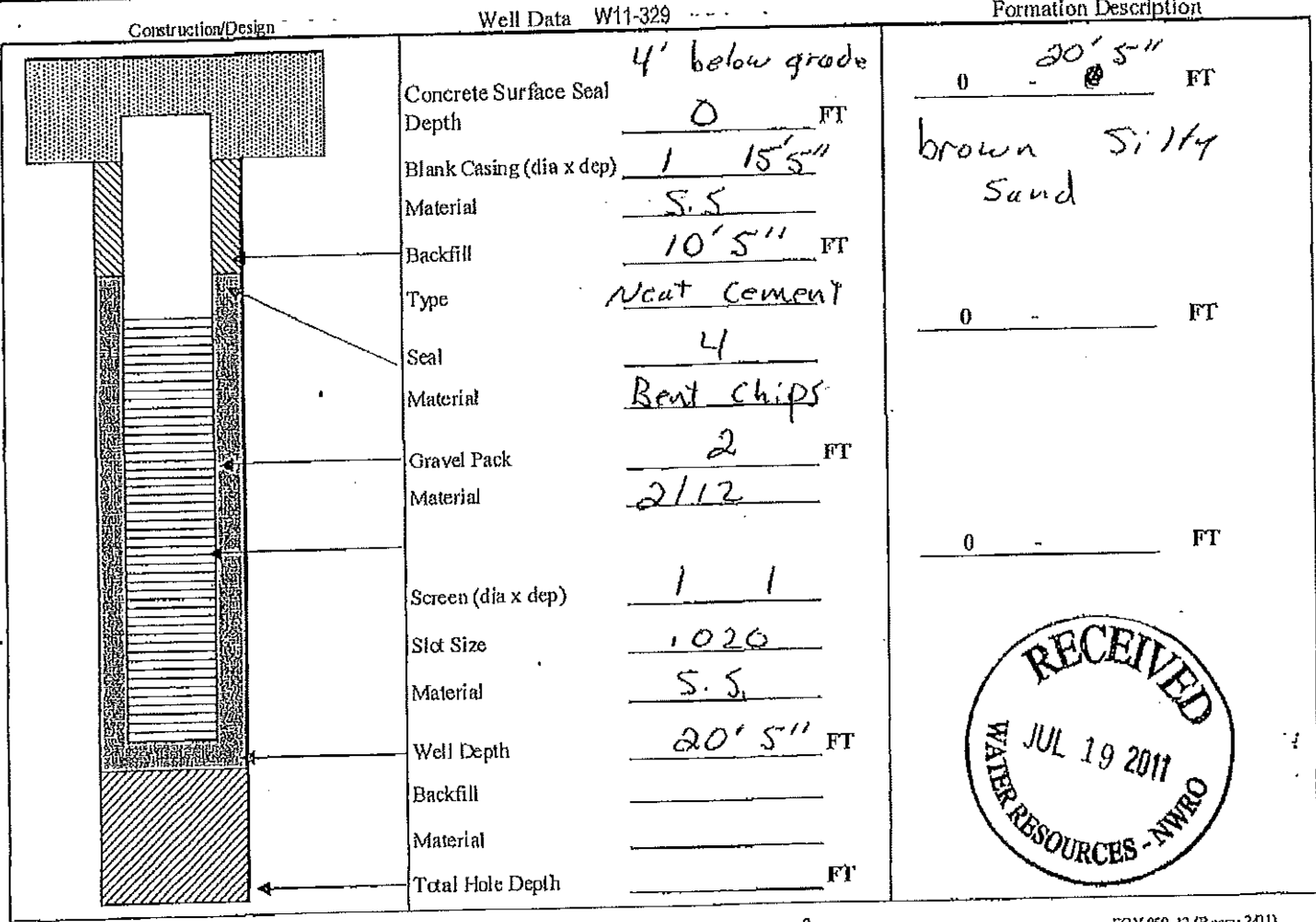
Tax Parcel No. _____

If trainee, licensed driller's
 Signature and License No. _____

Cased or Uncased Diameter 8 1/4 Static Level 14

Work/Decommission Start Date 6/11/11

Work/Decommission End Date "



Scale 1" = _____

Page _____ of _____

ECY 050-12 (Rev 2011)

The Department of Ecology does NOT warrant the Data and/or the Information on this Well Report.

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. RE05927

25-4E-30J

Construction/Decommission 419276
MAS 20
 Construction
 Decommission ORIGINAL INSTALLATION Notice
of Intent Number _____

Type of Well
 Resource Protection
 Geotechnical Soil Boring

Consulting Firm Clearcreek Contractor's

Property Owner Mercer Corridor
Site Address Westlake Ave. N. & Mercer St.
City Seattle County 17-King

Unique Ecology Well ID
Tag No. BH B 450

Location 1/4 NE 1/4 SE Sec 30 Twn 25N R 4E or EWM
WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Lat/Long (s,t,r still Required) Lat Deg _____ Lat Min/Sec _____
Long Deg _____ Long Min/Sec _____

Driller Trainee Name (Print) Scott Krueger
Driller/Trainee Signature _____
Driller/Trainee License No. 2073

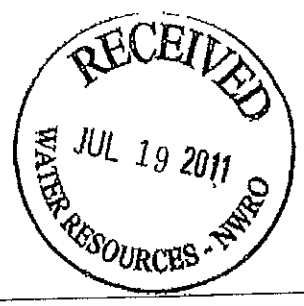
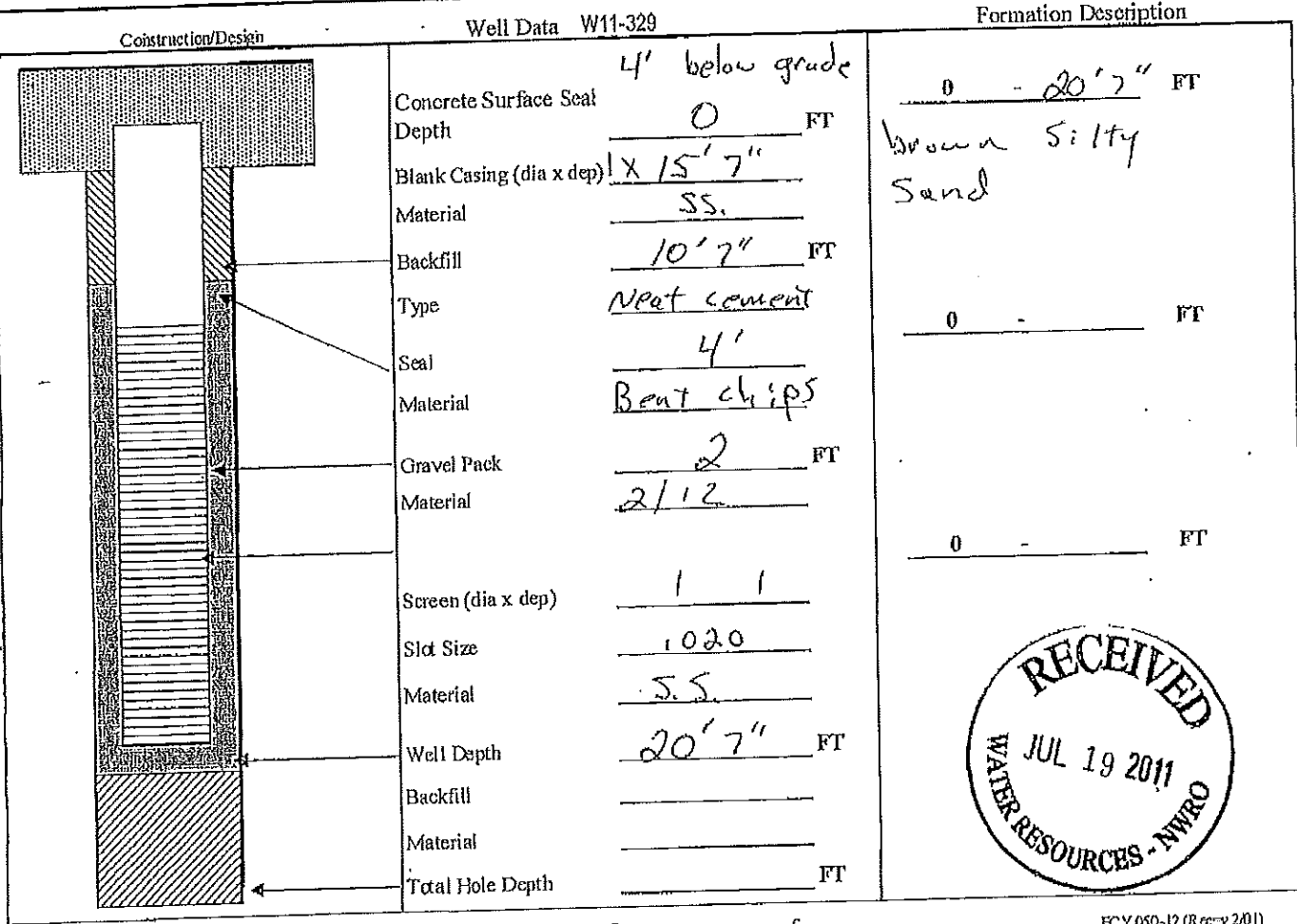
Tax Parcel No. _____

If trainee, licensed driller's
Signature and License No. _____

Cased or Uncased Diameter 8 1/2 Static Level 14

Work/Decommission Start Date 6/11/11

Work/Decommission End Date "



Scale 1" = _____

Page _____ of _____

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

25-4E-30J

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. RE05927

Construction/Decommission 419277 MAS 25
 Construction
 Decommission ORIGINAL INSTALLATION Notice
of Intent Number _____

Type of Well
 Resource Protection
 Geotechnical Soil Boring

Consulting Firm Clearcreek Contractor's

Property Owner Mercer Corridor
Site Address Westlake Ave. N. & Mercer St.
City Seattle County 17-King

Unique Ecology Well ID
Tag No. BHB 451

Location 1/4 NE 1/4 SE Sec 30 Twn 25N R 4E or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards.
Materials used and the information reported above are true to my best knowledge and belief.

Lat/Long (s,t,r Lat Deg _____ Lat Min/Sec _____
still Required) Long Deg _____ Long Min/Sec _____

Driller Trainee Name (Print) Scott Krueger
Driller/Trainee Signature [Signature]
Driller/Trainee License No. 2073

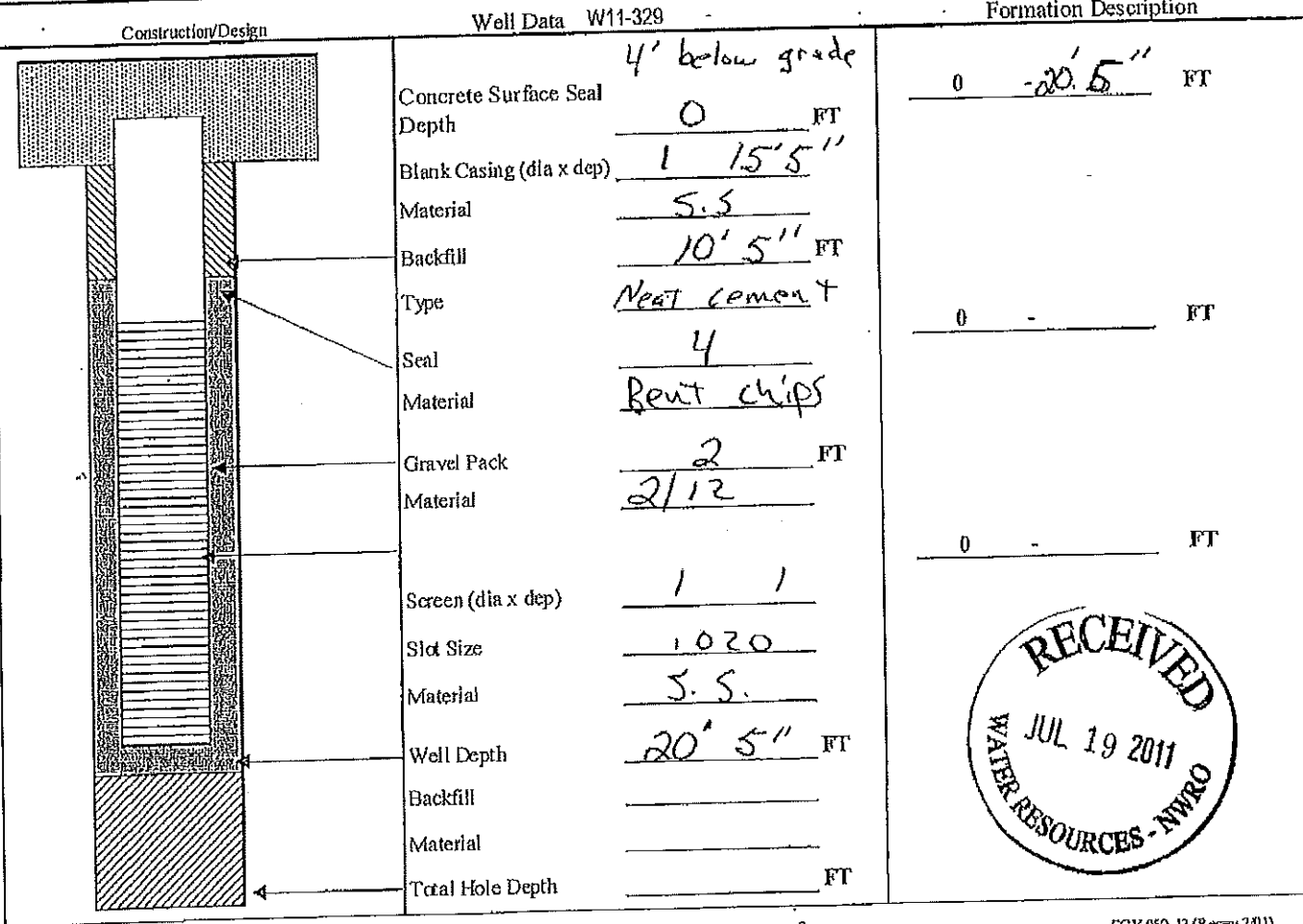
Tax Parcel No. _____

If trainee, licensed driller's
Signature and License No. _____

Cased or Uncased Diameter 8 1/4 Static Level 14

Work/Decommission Start Date 6/11/11

Work/Decommission End Date 11



Scale 1" = _____

Page _____ of _____

ECY 050-12 (Rev. 2/01)

25-4B-300

The Department of Ecology does NOT Warrant the Data and/or the Information on this Well Report.

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. RE05927

Construction/Decommission 419278
MAS 26
 Construction
 Decommission ORIGINAL INSTALLATION Notice
of Intent Number _____

Type of Well
 Resource Protection
 Geotechnical Soil Boring

Consulting Firm Clearcreek Contractor's

Property Owner Mercer Corridor
Site Address Westlake Ave. N. & Mercer St.
City Seattle County King

Unique Ecology Well ID
Tag No. BHB 452

Location 1/4 NE 1/4 SE Sec 30 Twn 25N R 4E or BWM
WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Lat/Long (s,t,r) Lat Deg _____ Lat Min/Sec _____
still Required) Long Deg _____ Long Min/Sec _____

Driller Trainee Name (Print) Scott Krueger
Driller/Trainee Signature [Signature]
Driller/Trainee License No. 2073

Tax Parcel No. _____
Cased or Uncased Diameter 8 1/4 Static Level 14

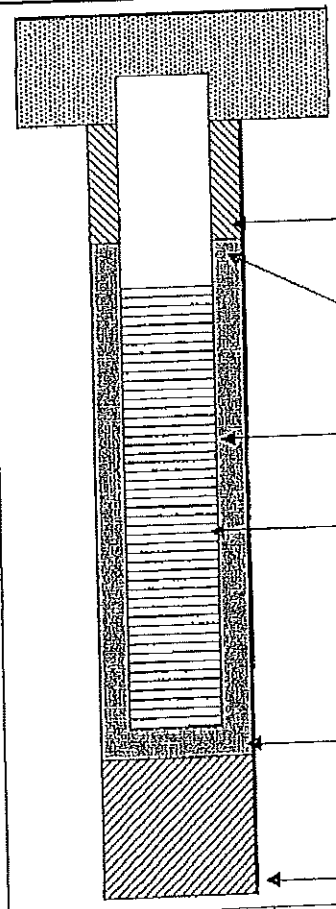
If trainee, licensed driller's
Signature and License No. _____

Work/Decommission Start Date 6/11/11
Work/Decommission End Date "

Construction/Design

Well Data W11-329

Formation Description

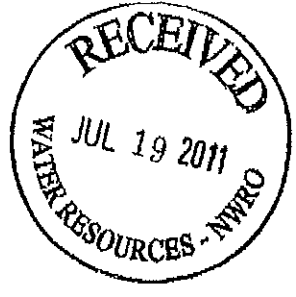


Concrete Surface Seal	<u>4' below grade</u>
Depth	<u>0</u> FT
Blank Casing (dia x dep)	<u>1 15'9"</u>
Material	<u>S.S.</u>
Backfill	<u>10' 9" FT</u>
Type	<u>Neat Cement</u>
Seal	<u>4'</u>
Material	<u>Bent chips</u>
Gravel Pack	<u>2</u> FT
Material	<u>S 1/2</u>
Screen (dia x dep)	<u>1 1</u>
Slot Size	<u>.020</u>
Material	<u>S.S.</u>
Well Depth	<u>20' 9" FT</u>
Backfill	_____
Material	_____
Total Hole Depth	_____ FT

0 - 20' 9" FT
brown silty sand

0 - _____ FT

0 - _____ FT



Scale 1" = _____

Page _____ of _____

ECY 050-12 (Rev=2/01)

The Department of Ecology does NOT warrant the Data and/or the Information on this Well Report.

25-4E-303

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT

Notice of Intent No.

RE05927

Construction/Decommission

419279

Construction

Decommission ORIGINAL INSTALLATION Notice of Intent Number _____

Type of Well

Resource Protection

Geotechnical Soil Boring

Consulting Firm Clearcreek Contractor's

Property Owner Mercer Corridor

Site Address Westlake Ave. N. & Mercer St.

City Seattle County 17-King

Unique Ecology Well ID

BHB 453

Tag No.

Location $\frac{1}{4}$ NE $\frac{1}{4}$ SE Sec 30 Twn 25N R 4E or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards

Materials used and the information reported above are true to my best knowledge and belief

Lat/Long (s,t,r Lat Deg _____ Lat Min/Sec _____

still Required) Long Deg _____ Long Min/Sec _____

Tax Parcel No. _____

Driller

Trainee Name (Print)

Scott Krueger

Driller/Trainee Signature

[Signature]

Driller/Trainee License No.

2073

Cased or Uncased Diameter

8 1/4

Static Level N/A

Work/Decommission Start Date

6/11/11

Work/Decommission End Date

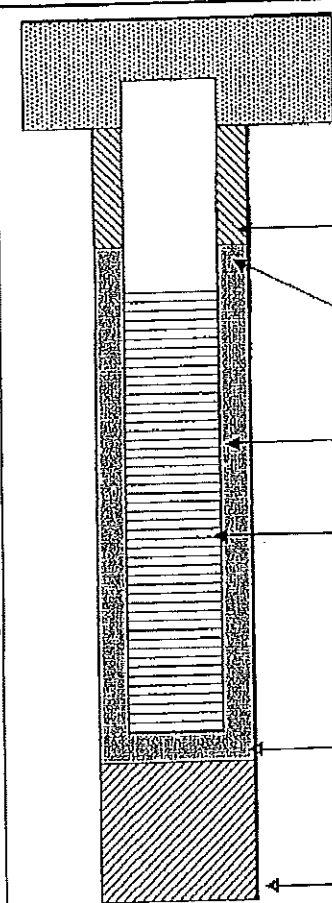
"

If trainee, licensed driller's Signature and License No. _____

Construction/Design

Well Data W11-329 -

Formation Description



Concrete Surface Seal 4' below grade

Depth 0 FT

Blank Casing (dia x dep) 4 4'10"

Material pvc

Backfill 6" FT

Type Next cement

Seal 6"

Material Bent chips

Gravel Pack 3'3" FT

Material 2 1/2

Screen (dia x dep) 4 3

Slot Size 1020

Material pvc

Well Depth 7'10" FT

Backfill _____

Material _____

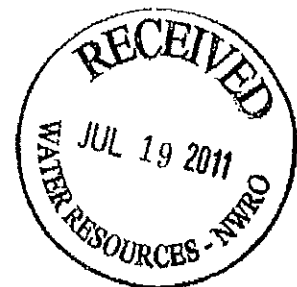
Total Hole Depth _____ FT

0 - 7'10" FT

brown silty sand

0 - FT

0 - FT



Scale 1" = _____

Page _____ of _____

ECY 050-12 (Rev. 2/01)

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT

Notice of Intent No. RE05927

Construction/Decommission 419280 MSVE 17

Type of Well

- Resource Protection
 Geotechnical Soil Boring

Construction

Decommission ORIGINAL INSTALLATION Notice of Intent Number _____

Property Owner Mercer Corridor

Site Address Westlake Ave. N. & Mercer St.

City Seattle County 17-King

Consulting Firm. Clearcreek Contractor's

Location 1/4 NE 1/4 SE Sec 30 Twn 25N R 4E or BWM
WWM

Unique Ecology Well ID

Tag No. BHB 454

Lat/Long (s,t,r Lat Deg _____ Lat Min/Sec _____
still Required) Long Deg _____ Long. Min/Sec _____

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards

Materials used and the information reported above are true to my best knowledge and belief

Tax Parcel No. _____

Driller Trainee Name (Print) Scott Krueger

Cased or Uncased Diameter 8 1/2 Static Level N/A

Driller/Trainee Signature _____

Driller/Trainee License No. 2073

Work/Decommission Start Date 6/2/11

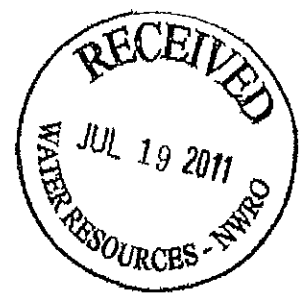
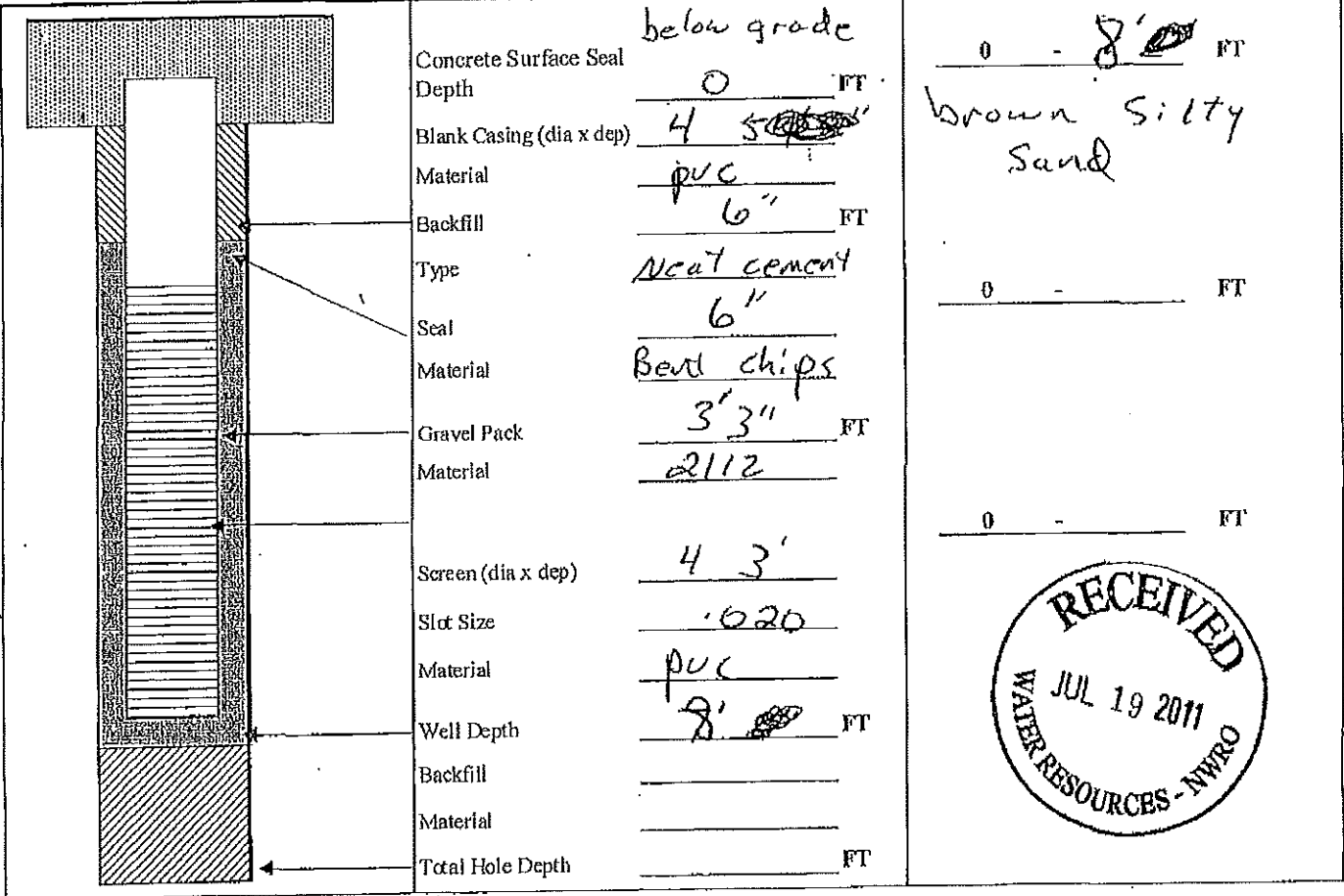
If trainee, licensed driller's Signature and License No. _____

Work/Decommission End Date "

Construction/Design

Well Data W11-329

Formation Description



Scale 1" = _____

Page _____ of _____

ECY 050-12 (Rev. 2/01)

25-4E-30J

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT

Notice of Intent No.

REC05927

The Department of Ecology does NOT Warrant the Data and/or the Information on this Well Report.

Construction/Decommission

MSVE 14 419281

Construction

Decommission ORIGINAL INSTALLATION Notice of Intent Number _____

Type of Well

Resource Protection

Geotechnical Soil Boring

Consulting Firm Clearcreek Contractor's

Property Owner Mercer Corridor

Site Address Westlake Ave. N. & Mercer St.

City Seattle County 17-King

Unique Ecology Well ID

BHB 455

Tag No. _____

Location 1/4 NE 1/4 SE Sec 30 Twn 25N R 4E or WWM

WELL CONSTRUCTION CERTIFICATION: I am assuming and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards

Materials used and the information reported above are true to my best knowledge and belief

Lat/Long (s, l, r) Lat Deg _____ Lat Min/Sec _____
still Required) Long Deg _____ Long Min/Sec _____

Tax Parcel No. _____

Driller

Trainee Name (Print)

Scott Krueger

Driller/Trainee Signature Scott Krueger

Cased or Uncased Diameter 8 1/2 Static Level N/A

Driller/Trainee License No. 2073

Work/Decommission Start Date 6/2/11

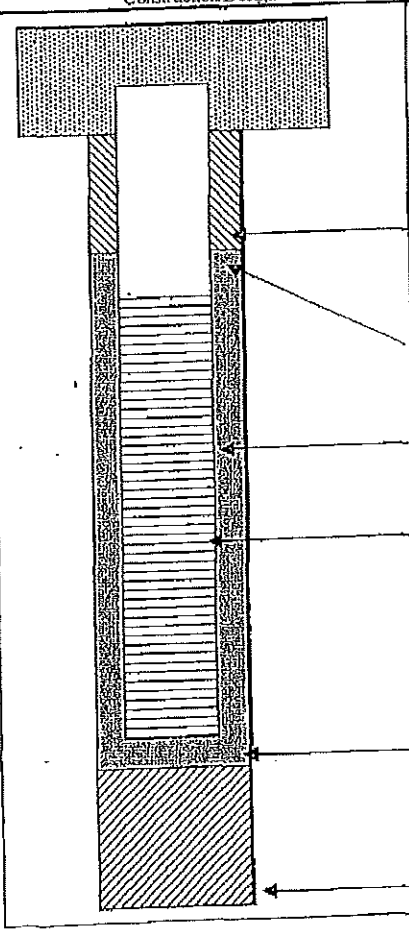
If trainee, licensed driller's Signature and License No. _____

Work/Decommission End Date _____

Construction/Design

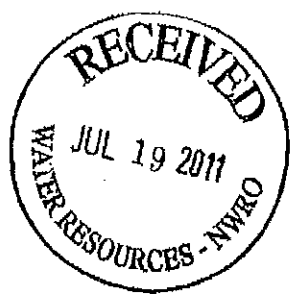
Well Data W11-329

Formation Description



Concrete Surface Seal	below grade
Depth	0 FT
Blank Casing (dia x dep)	4 3'6"
Material	pvc
Backfill	6" FT
Type	heat cement
Seal	6"
Material	Bent chips
Gravel Pack	3'3" FT
Material	2/12
Screen (dia x dep)	4 3
Slot Size	1020
Material	pvc
Well Depth	16.8" FT
Backfill	
Material	
Total Hole Depth	FT

0 - 6.5	FT
brown silty sand,	
0	FT
0	FT



Scale 1" = _____

Page _____ of _____

ECY 050-12 (Rev 2011)

APPENDIX B

**ECOLOGY RESOURCE PROTECTION WELL REPORTS – WELL DECOMMISSIONING
FOR MERCER STREET**



Please print, sign and return to the Department of Ecology

RESOURCE PROTECTION WELL REPORT

CURRENT Notice of Intent No. AE11933

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

Construction/Decommission ("x" in box)

- Construction
- Decommission

Type of Well ("x" in box)

- Resource Protection
- Geotech Soil Boring

ORIGINAL INSTALLATION Notice of Intent Number:

UNKNOWN

Consulting Firm

Unique Ecology Well IDTag No. DOT ATTACHED

Property Owner CITY OF SEATTLE

Site Address MERCER / FAIRVIEW / DEXTER / VALL ST

City SEATTLE County KING

Location SE 1/4-1/4 SE 1/4 Sec 30 Twn 24 R 4E

EWM or WWM

Lat/Long (s, l, r) Lat Deg _____ Min _____ Sec

still REQUIRED) Long Deg _____ Min _____ Sec

Tax Parcel No. _____

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Driller Engineer Trainee

Name (Print Last, First Name) JOHN ROUSH

Driller/Engineer/Trainee Signature *John Roush*

Driller or Trainee License No. 1805

Cased or Uncased Diameter 2" Static Level _____

Work/Decommission Start Date 1/24/2011

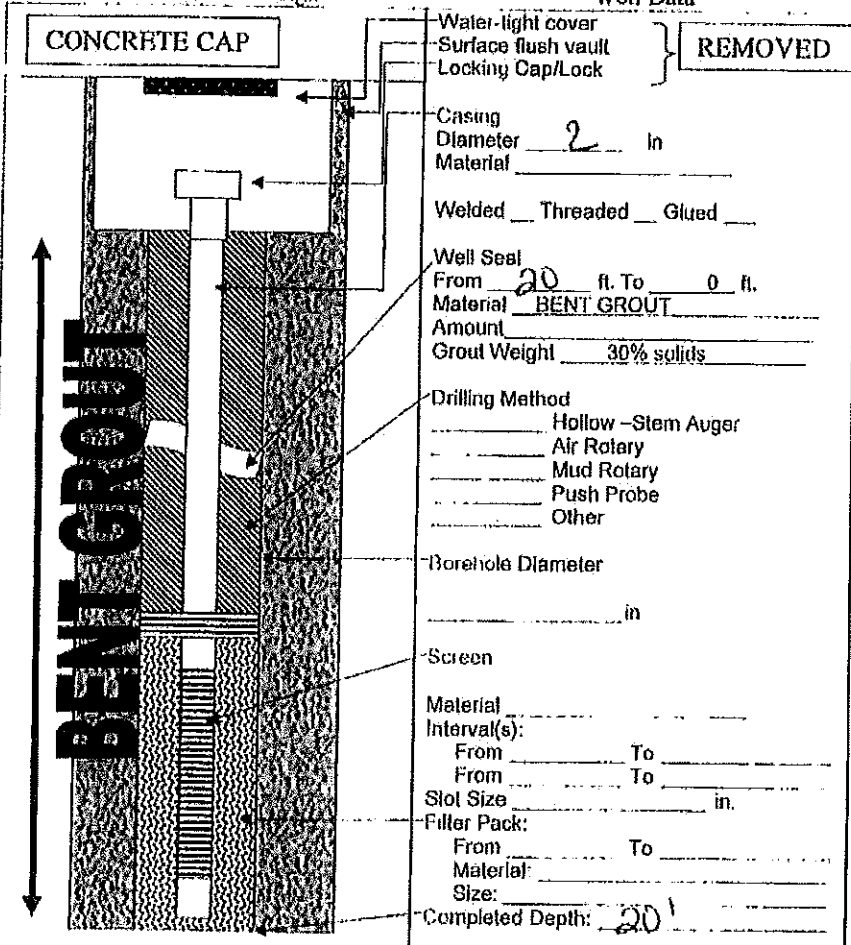
Work/Decommission Completed Date 1/28/2011

If trainee, licensed driller's Signature and License Number:

Construction Design

Well Data

Formation Description



REMOVED

REF# 34 mw. 13

EXTRACTED WELL AND FILLED WITH BENTONITE BOTTOM TO TOP OF GROUND

(34)

Please print, sign and return to the Department of Ecology

RESOURCE PROTECTION WELL REPORT

CURRENT Notice of Intent No. AE11933

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

Construction/Decommission ("x" in box)

- Construction
- Decommission

Type of Well ("x" in box)

- Resource Protection
- Geotech Soil Boring

ORIGINAL INSTALLATION Notice of Intent Number:

UNKNOWN

Consulting Firm

Unique Ecology Well ID Tag No. NOT ATTACHED

Property Owner CITY OF SEATTLE

Site Address MERCER / FAIRVIEW / DEXTER / VALL ST

City SEATTLE County KING

Location SE 1/4-1/4 SE 1/4 Sec 30 Twn 24 R 4E

EWM or WWM

Lat/Long (s, t, r still REQUIRED) Lat Deg _____ Min _____ Sec _____
Long Deg _____ Min _____ Sec _____

Tax Parcel No. _____

Cased or Uncased Diameter 2" Static Level _____

Work/Decommission Start Date 1/24/2011

Work/Decommission Completed Date 1/28/2011

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Driller Engineer Trainee

Name (Print Last, First Name) RONNIE JOHN

Driller/Engineer/Trainee Signature *John Ronish*

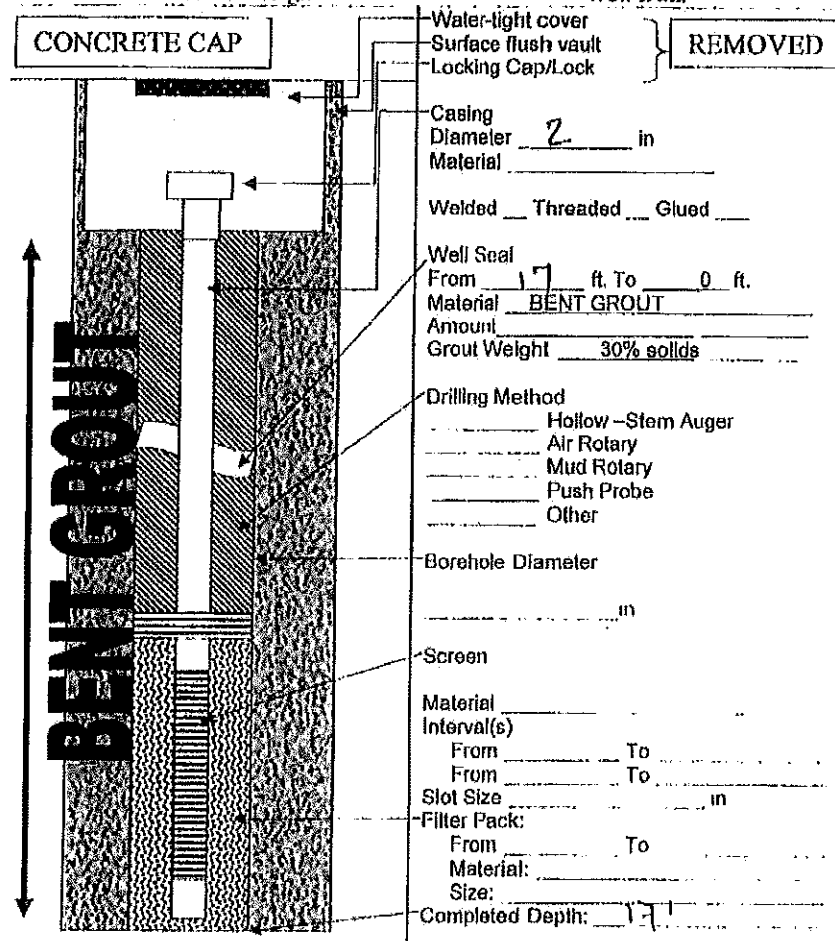
Driller or Trainee License No. 1805

If trainee, licensed driller's Signature and License Number:

Construction Design

Well Data

Formation Description



Water-tight cover
Surface flush vault
Locking Cap/Lock } **REMOVED**

Casing Diameter 2 in
Material _____
Welded ___ Threaded ___ Glued ___

Well Seal
From 17 ft. To 0 ft.
Material BENT GROUT
Amount _____
Grout Weight 30% solids

Drilling Method

Hollow-Stem Auger

Air Rotary

Mud Rotary

Push Probe

Other

Borehole Diameter _____ in

Screen
Material _____
Interval(s)
From _____ To _____
From _____ To _____
Slot Size _____ in

Filter Pack:
From _____ To _____
Material: _____
Size: _____

Completed Depth: 17

REF# 10 MW-14

EXTRACTED WELL AND FILLED WITH BENTONITE BOTTOM TO TOP OF GROUND

(10)

Please print, sign and return to the Department of Ecology

RESOURCE PROTECTION WELL REPORT

CURRENT Notice of Intent No. AE11933

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

Construction/Decommission ("x" in box)

- Construction
- Decommission

Type of Well ("x" in box)

- Resource Protection
- Geotech Soil Boring

ORIGINAL INSTALLATION Notice of Intent Number:

UNKNOWN

Consulting Firm _____

Unique Ecology Well IDTag No. NOT ATTACHED

Property Owner CITY OF SEATTLE

Site Address MERCER / FAIRVIEW / DEXTER / VALL ST

City SEATTLE County KING

Location SE 1/4-1/4 SE 1/4 Sec 30 Twn 24 R 4E

EWM or WWM

Lat/Long (s, t, r still REQUIRED) Lat Deg _____ Min _____ Sec _____
Long Deg _____ Min _____ Sec _____

Tax Parcel No. _____

Cased or Uncased Diameter 2" Static Level _____

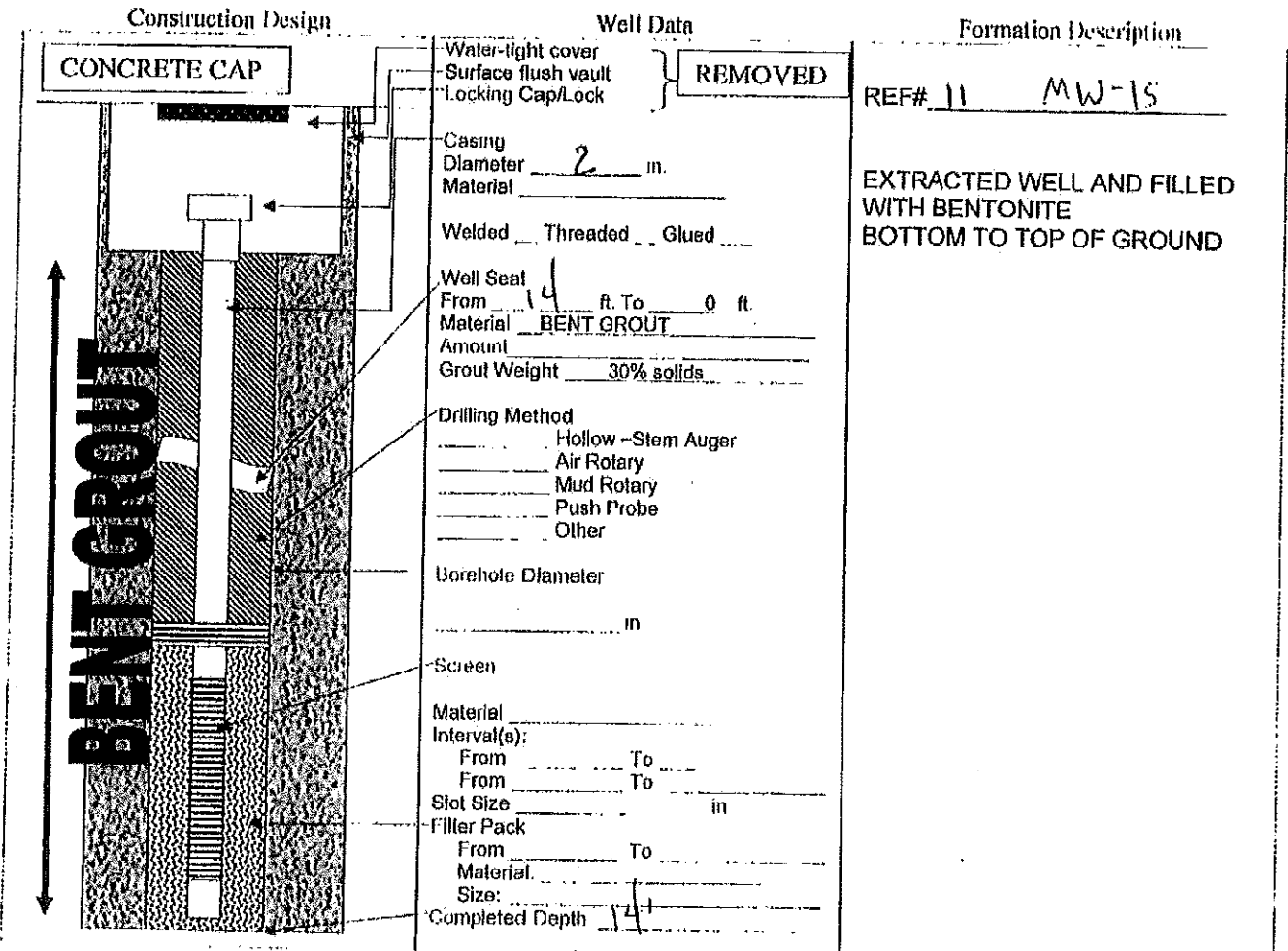
Work/Decommission Start Date 1/24/2011

Work/Decommission Completed Date 1/28/2011

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Driller Engineer Trainee
Name (Print Last, First Name) RONALD JOHN
Driller/Engineer/Trainee Signature John Ronald
Driller or Trainee License No. 1805

If trainee, licensed driller's Signature and License Number:



SCALE: 1"=

PAGE 1 OF 1

ECY 050-12 (Rev. 7/06)

Ecology is an Equal Opportunity Employee

10-023 MERCER CORRIDOR, GARY MERLINO CONSTRUCTION (QUANTITY 40)

Please print, sign and return to the Department of Ecology
RESOURCE PROTECTION WELL REPORT
 (SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT Notice of Intent No. AE11933

Construction/Decommission ("x" in box)

- Construction
- Decommission

Type of Well ("x" in box)

- Resource Protection
- Geotech Soil Boring

ORIGINAL INSTALLATION Notice of Intent Number:

UNKNOWN

Consulting Firm _____

Unique Ecology Well IDTag No. NOT ATTACHED

Property Owner CITY OF SEATTLE

Site Address MERCER / FAIRVIEW / DEXTER / VALI. ST

City SEATTLE County KING

Location SE 1/4-1/4 SE 1/4 Sec 30 Twn 24 R 4E

EWM or WWM

Lat/Long (s, l, r) Lat Deg _____ Min _____ Sec

Long Deg _____ Min _____ Sec

Tax Parcel No. _____

Cased or Uncased Diameter 2" Static Level _____

Work/Decommission Start Date 1/24/2011

Work/Decommission Completed Date 1/28/2011

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

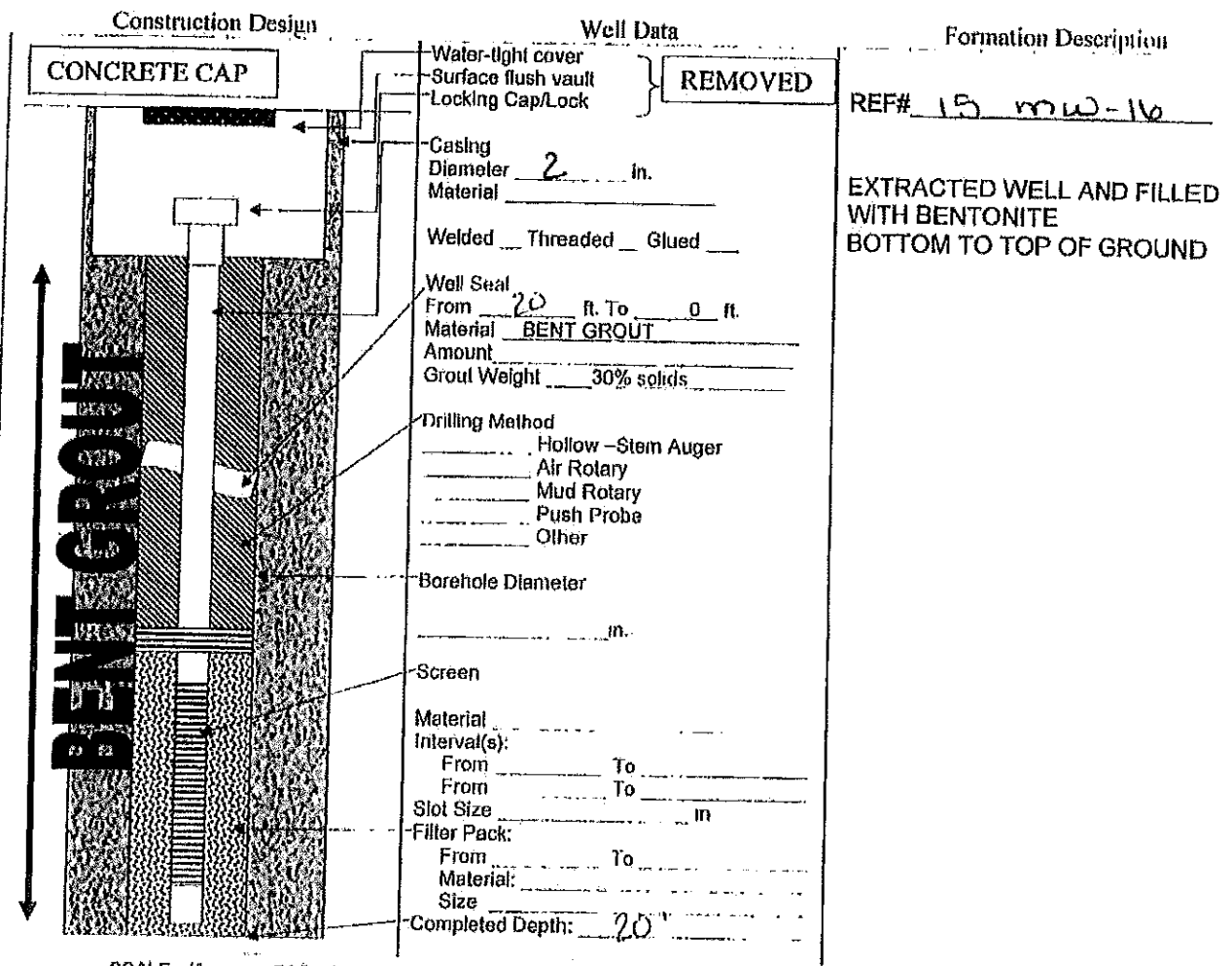
Driller Engineer Trainee

Name (Print Last, First Name) JOHN ROUSH

Driller/Engineer /Trainee Signature John Roush

Driller or Trainee License No. 1805

If trainee, licensed driller's Signature and License Number:



SCALE: 1"=

PAGE 1 OF 1

ECY 050-12 (Rev 7/06)

Ecology is an Equal Opportunity Employer

10-023 MERCER CORRIDOR, GARY MERLINO CONSTRUCTION (QUANTITY 40)

(3)

Please print, sign and return to the Department of Ecology

RESOURCE PROTECTION WELL REPORT

CURRENT Notice of Intent No. AE11933

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

Construction/Decommission ("x" in box)

- Construction
- Decommission

Type of Well ("x" in box)

- Resource Protection
- Geotech Soil Boring

ORIGINAL INSTALLATION Notice of Intent Number:

UNKNOWN

Consulting Firm

Unique Ecology Well ID Tag No. NOT ATTACHED

Property Owner CITY OF SEATTLE

Site Address MERCER / FAIRVIEW / DEXTER / VALL ST

City SEATTLE County KING

Location SE 1/4-1/4 SE 1/4 Sec 30 Twn 24 R 4E

EWM or WWM

Lat/Long (s, t, r) Lat Deg _____ Min _____ Sec

still REQUIRED) Long Deg _____ Min _____ Sec

Tax Parcel No. _____

Cased or Uncased Diameter 2" Static Level _____

Work/Decommission Start Date 1/24/2011

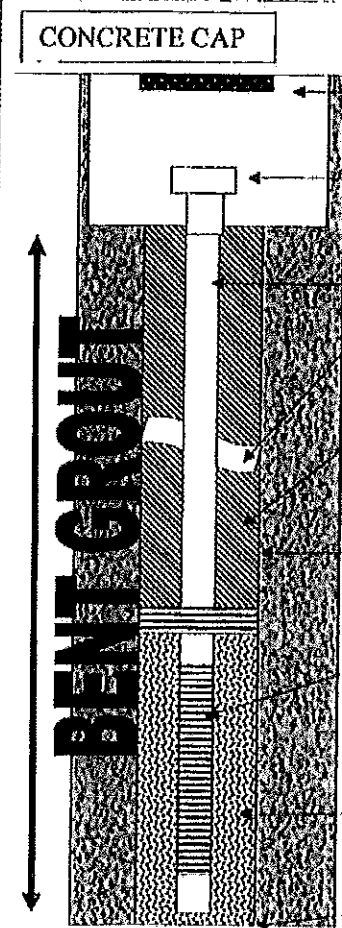
Work/Decommission Completed Date 1/28/2011

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Driller Engineer Trainee
 Name (Print Last, First Name) JOHN ROUSH
 Driller/Engineer /Trainee Signature John Roush
 Driller or Trainee License No. 1805

If trainee, licensed driller's Signature and License Number:

Construction Design



Well Data

Water-tight cover
Surface flush vault
Locking Cap/Lock } **REMOVED**

Casing Diameter 2 in.
Material _____
Welded ___ Threaded ___ Glued ___

Well Seal
From 20 ft. To 0 ft.
Material BENT GROUT
Amount _____
Grout Weight 30% solids

Drilling Method
 Hollow-Stem Auger
 Air Rotary
 Mud Rotary
 Push Probe
 Other

Borehole Diameter _____ in

Screen
Material _____
Interval(s):
From _____ To _____
From _____ To _____
Slot Size _____ in

Filter Pack:
From _____ To _____
Material _____
Size: _____

Completed Depth: 20'

Formation Description

REF# 310 mmo-44

EXTRACTED WELL AND FILLED WITH BENTONITE BOTTOM TO TOP OF GROUND

(310)

APPENDIX C

**ORIGINAL WELL LOGS WITH DECOMMISSIONING FILED NOTES – VALLEY
STREET**

Delta

Environmental Consultants, Inc.

PROJECT NO: WA255-3515-1 CLIENT: ConocoPhillips BORING/WELL NO: MW-204
 LOGGED BY: K. Johnson LOCATION: 600 Westlake Ave N, Seattle, WA PAGE 1 OF 1
 DRILLER: CDI DATE DRILLED: 10/21/2005
 DRILLING METHOD: HSA HOLE DIAMETER: 8.5" Location Map
 SAMPLING METHOD: SS HOLE DEPTH: 20' See Figure 2
 CASING TYPE: PVC WELL DIAMETER: 2"
 SLOT SIZE: 0.010" WELL DEPTH: 20'
 GRAVEL PACK: 10-20 CASING STICKUP: 0

ELEVATION: 28.13 NORTHING: 231872.5 EASTING: 1269363.1

Well Completion		Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing								
Conc	Conc					1			Asphalt/Concrete (~12")
Bent						2			Air-knifed/vac-cleared to 5'
						3			
						4			
						5			(No recovery)
						6			
						7		SP	Gravelly SAND; gray, firm, damp
						8			
						9		ML	Sandy SILT; gray, some gravel, firm, damp to moist
						10			
						11			(As above, wet)
						12			(No recovery)
						13			
						14			
						15			(Poor recovery, no sample)
						16			
						17		SM	Silty SAND; gray, soft, wet
						18			
						19			
						20			
						21			BOTTOM OF HOLE @ 20'
						22			

APPENDIX D

**ECOLOGY RESOURCE PROTECTION WELL REPORTS – WELL INSTALLATIONS
FOR VALLEY STREET**

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

Construction/Decommission

Construction

Decommission ORIGINAL INSTALLATION Notice of Intent Number

CURRENT

Notice of Intent No. RE08597

Type of Well

Resource Protection

Geotechnical Soil Boring

City of Seattle

Consulting Firm Clearcreek Contractor's

Property Owner

Site Address

City

Seattle

County

King

Valley St between Terry and Westlake

Unique Ecology Well ID

Tag No.

BIC 862

Location

1/4 SE NE NE Sec 30 TWN 25N R 4E or WWM

Lat/Long (s,t,r

still Required)

Lat Deg x

Lat Min/Sec x

Long Deg x

Long Min/Sec x

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards

Materials used and the information reported above are true to my best knowledge and belief

Driller Trainee Name (Print)

Driller/Trainee Signature

Driller/Trainee License No.

David Gose

2744

Tax Parcel No.

Cased or Uncased Diameter

8 1/2

Static Level

15'

Work/Decommission Start Date

6/26/13

Work/Decommission End Date

6/26/13

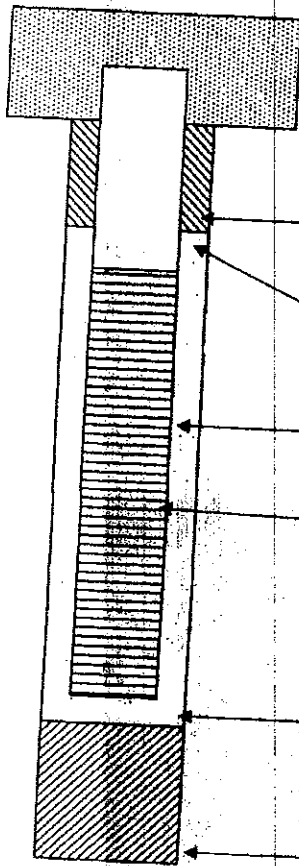
If trainee, licensed driller's

Signature and License No.

Construction/Design

Well Data W3-362

Formation Description



Concrete Surface Seal	Depth	<u>—</u>	FT
Blank Casing (dia x dep)		<u>14'</u>	
Material		<u>CS</u>	
Backfill		<u>6'</u>	FT
Type		<u>NEAT CEMENT</u>	
Seal		<u>4'</u>	
Material		<u>HYD BENT</u>	
Gravel Pack		<u>2'</u>	FT
Material		<u>2/12 SAND</u>	
Screen (dia x dep)		<u>1" x 1'</u>	
Slot Size		<u>.010</u>	
Material		<u>S.S.</u>	
Well Depth		<u>17'6"</u>	FT
Backfill		<u>—</u>	
Material		<u>—</u>	
Total Hole Depth		<u>17'6"</u>	FT

0 - 17'6" FT
GREYISH BLUE FINE TO
MEDIUM SILTY SANDS
W/ FEW GRAVELS
NEAR SURFACE

0 FT

0 FT

WELL # 1

Scale 1" =

Page of

ECY 050-12 (Rev 2/01)

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

Construction/Decommission

Construction

Decommission ORIGINAL INSTALLATION Notice of Intent Number _____

Consulting Firm Clearcreek Contractor's

Unique Ecology Well ID Tag No. BIC 583

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Driller Trainee Name (Print) DAVID GOSE

Driller/Trainee Signature _____

Driller/Trainee License No. 2744

If trainee, licensed driller's

Signature and License No. _____

CURRENT

Notice of Intent No. RE08597

Type of Well

Resource Protection

Geotechnical Soil Boring

City of Seattle

Valley St between Terry and Westlake

Property Owner _____

Site Address _____

City Seattle

County King

Location

1/4 SE

NE Sec 30

TWN 25N

R 4E

or

WWM

Lat/Long (s,t,r still Required)

Lat Deg x

Lat Min/Sec x

Long Deg x

Long Min/Sec x

Tax Parcel No. _____

Cased or Uncased Diameter 8 1/2

Static Level 15'

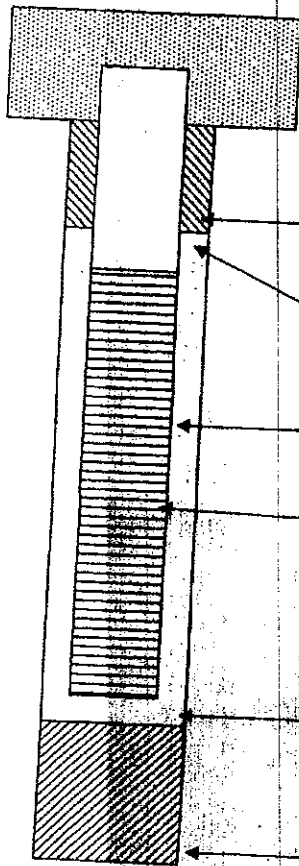
Work/Decommission Start Date 6/26/13

Work/Decommission End Date 6/26/13

Construction/Design

Well Data W3-362

Formation Description



Concrete Surface Seal Depth	<u> </u>	FT
Blank Casing (dia x dep)	<u>14'</u>	
Material	<u>CS</u>	
Backfill	<u>6'</u>	FT
Type	<u>NEAT CEMENT</u>	
Seal	<u>4'</u>	
Material	<u>HYD BENT</u>	
Gravel Pack	<u>2'</u>	FT
Material	<u>2/12 SAND</u>	
Screen (dia x dep)	<u>1" x 1'</u>	
Slot Size	<u>.010</u>	
Material	<u>S.S.</u>	
Well Depth	<u>17'6"</u>	FT
Backfill	<u> </u>	
Material	<u> </u>	
Total Hole Depth	<u>17'6"</u>	FT

0 - 17'6" FT
GREYISH BLUE FINE TO
MEDIUM SILTY SANDS
W/ FEW GRAVELS
NEAR SURFACE

0 FT

0 FT

WELL #2

Scale 1" = _____

Page _____ of _____

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

Construction/Decommission:

- Construction
 Decommission ORIGINAL INSTALLATION Notice of Intent Number _____

Consulting Firm Clearcreek Contractor's

Unique Ecology Well ID Tag No. BIC 554

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Driller Trainee Name (Print) DAVID GOSE
 Driller/Trainee Signature _____
 Driller/Trainee License No. 2744

If trainee, licensed driller's Signature and License No. _____

CURRENT

Notice of Intent No. RE08597

Type of Well

- Resource Protection
 Geotechnical Soil Boring

Property Owner _____
 Site Address Valley St between Terry and Westlake
 City Seattle County King

Location 1/4 SE NE NE Sec 30 TWN 25N R 4E EWM or WWM

Lat/Long (s,t,r still Required) Lat Deg x Lat Min/Sec x
 Long Deg x Long Min/Sec x

Tax Parcel No. _____

Cased or Uncased Diameter 8 1/2 Static Level 15'

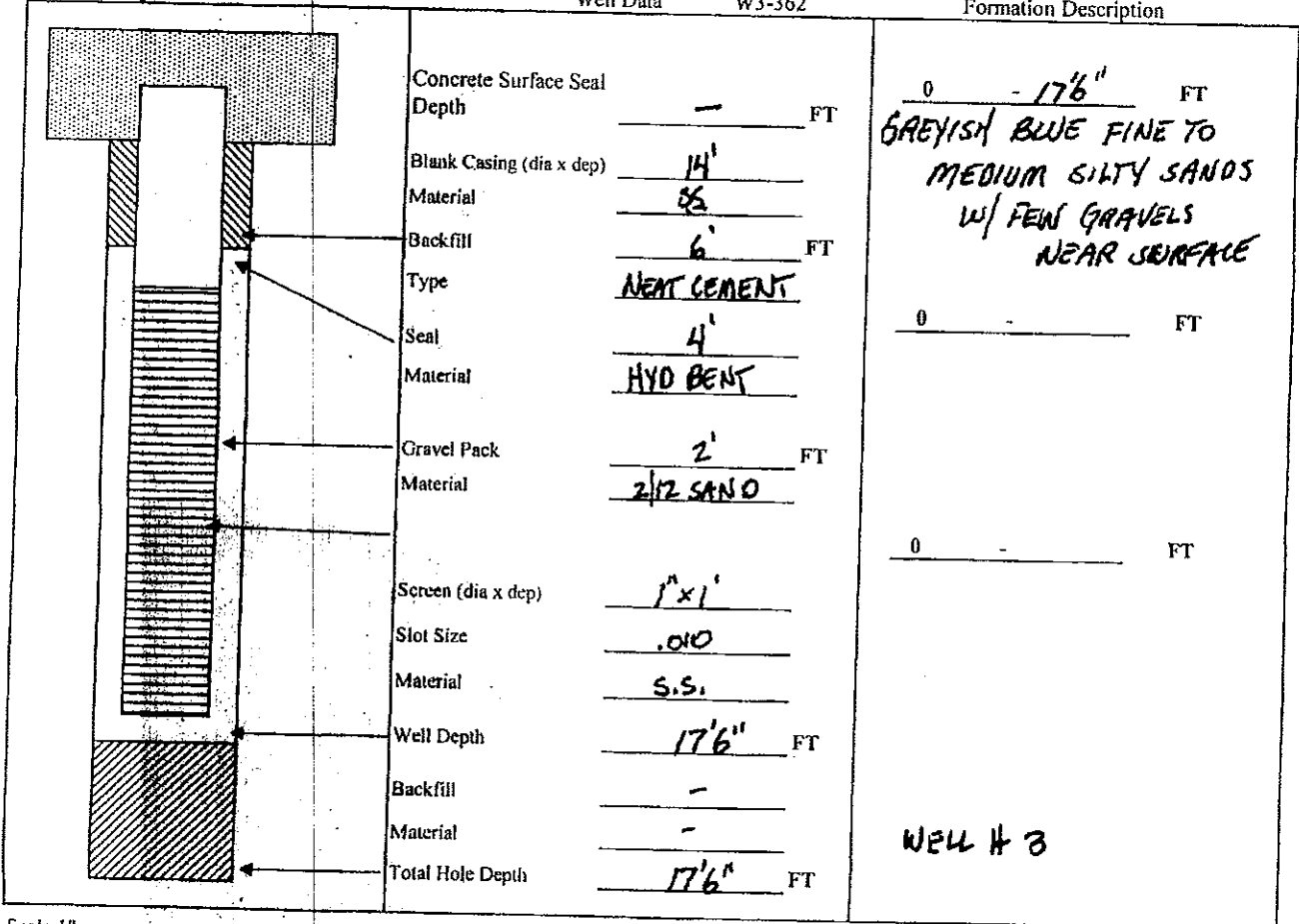
Work/Decommission Start Date 6-24-13

Work/Decommission End Date 6-24-13

Construction/Design

Well Data W3-362

Formation Description



Scale 1" = _____

Page _____ of _____

ECY 050-12 (Rev= 2/01)

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT

Notice of Intent No. RE08597

Construction/Decommission

Construction
 Decommission ORIGINAL INSTALLATION Notice of Intent Number _____

Type of Well

Resource Protection
 Geotechnical Soil Boring

Consulting Firm Clearcreek Contractor's

Property Owner _____
 Site Address Valley St between Terry and Westlake
 City Seattle County King

Unique Ecology Well ID Tag No. BIC 553

Location 1/4 SE NE NE Sec 30 TWN 25N R 4E or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards

Lat/Long (s,t,r still Required) Lat Deg x Lat Min/Sec x
 Long Deg x Long Min/Sec x

Materials used and the information reported above are true to my best knowledge and belief

Tax Parcel No. _____

Driller Trainee Name (Print) David Gose

Cased or Uncased Diameter 8 1/2 Static Level 15'

Driller/Trainee Signature _____

Work/Decommission Start Date 6-24-13

Driller/Trainee License No. 2744

Work/Decommission End Date 6-24-13

If trainee, licensed driller's

Signature and License No. _____

Construction/Design

Well Data W3-362

Formation Description

	Concrete Surface Seal	_____	_____	0	- 17'6"	FT
	Depth	_____	_____	GREYISH BLUE FINE TO MEDIUM SILTY SANDS W/ FEW GRAVELS NEAR SURFACE		
	Blank Casing (dia x dep)	<u>14'</u>	_____	0	_____	FT
	Material	<u>SS</u>	_____			
	Backfill	<u>6'</u>	_____	0	_____	FT
	Type	<u>NEAT CEMENT</u>	_____			
	Seal	<u>4'</u>	_____	0	_____	FT
	Material	<u>HYD BENT</u>	_____			
	Gravel Pack	<u>2'</u>	_____	0	_____	FT
	Material	<u>2/12 SAND</u>	_____			
	Screen (dia x dep)	<u>1" x 1'</u>	_____			
	Slot Size	<u>.010</u>	_____			
	Material	<u>S.S.</u>	_____			
	Well Depth	<u>17'6"</u>	_____			
Backfill	<u>-</u>	_____				
Material	<u>-</u>	_____				
Total Hole Depth	<u>17'6"</u>	_____				

WELL # 4

Scale 1" = _____

Page _____ of _____

ECY 050-12 (Rev 201)

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

Construction/Decommission

Construction
 Decommission ORIGINAL INSTALLATION Notice of Intent Number _____

Consulting Firm Clearcreek Contractor's

Unique Ecology Well ID Tag No. BIC 352

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards

Materials used and the information reported above are true to my best knowledge and belief

Driller Trainee Name (Print) DAVID GOSE

Driller/Trainee Signature _____

Driller/Trainee License No. 2744

If trainee, licensed driller's

Signature and License No. _____

CURRENT

Notice of Intent No. RE08597

Type of Well

Resource Protection
 Geotechnical Soil Boring

Property Owner _____

Site Address _____

City _____

Seattle

City of Seattle

Valley St between Terry and Westlake

County _____

King

Location

1/4 SE NE NE Sec 30 TWN 25N R 4E or WWM

Lat/Long (s,t,r

Lat Deg x

Lat Min/Sec x

still Required) Long Deg x

Long Deg x

Long Min/Sec x

Tax Parcel No. _____

Cased or Uncased Diameter 8 1/2

Static Level 15'

Work/Decommission Start Date 6-24-13

Work/Decommission End Date 6-24-13

Construction/Design

Well Data W3-362

Formation Description

	Concrete Surface Seal	_____	_____	_____
	Depth	<u>17'6"</u>	FT	
	Blank Casing (dia x dep)	<u>14'</u>		
	Material	<u>CS</u>		
	Backfill	<u>6'</u>	FT	
	Type	<u>NEAT CEMENT</u>		
	Seal	<u>4'</u>		
	Material	<u>HYD BENT</u>		
	Gravel Pack	<u>2'</u>	FT	
	Material	<u>2/12 SAND</u>		
	Screen (dia x dep)	<u>1' x 1'</u>		
	Slot Size	<u>.010</u>		
	Material	<u>S.S.</u>		
Well Depth	<u>17'6"</u>	FT		
Backfill	<u>-</u>			
Material	<u>-</u>			
Total Hole Depth	<u>17'6"</u>	FT		
			<p>0 - <u>17'6"</u> FT <u>GRAYISH BLUE FINE TO MEDIUM SILTY SANDS W/ FEW GRAVELS NEAR SURFACE</u></p> <p>0 - _____ FT</p> <p>0 - _____ FT</p> <p>WELL # 5</p>	

Scale 1" = _____

Page _____ of _____

ECY 050-12 (Rev 2/01)

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT

Notice of Intent No. RE08597

Construction/Decommission

- Construction
 Decommission ORIGINAL INSTALLATION Notice of Intent Number _____

Type of Well

- Resource Protection
 Geotechnical Soil Boring

Consulting Firm Clearcreek Contractor's

Property Owner _____
 Site Address Valley St between Terry and Westlake
 City Seattle County King

Unique Ecology Well ID Tag No. BIC 531

Location 1/4 SE NE NE Sec 30 TWN 25N R 4E of EWM WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards

Lat/Long (S, L, R still Required) Lat Deg x Lat Min/Sec x
 Long Deg x Long Min/Sec x

Materials used and the information reported above are true to my best knowledge and belief

Tax Parcel No. _____

Driller Trainee Name (Print) Ray Gose

Cased or Uncased Diameter 8 1/2 Static Level 15'

Driller/Trainee Signature _____

Work/Decommission Start Date 6-24-13

Driller/Trainee License No. 2744

Work/Decommission End Date 6-24-13

If trainee, licensed driller's Signature and License No. _____

Construction/Design Well Data W3-362 Formation Description

	Concrete Surface Seal Depth	<u>—</u> FT	<p>0 - <u>17'6"</u> FT GREYISH BLUE FINE TO MEDIUM SILTY SANDS W/ FEW GRAVELS NEAR SURFACE</p> <p>0 - _____ FT</p> <p>0 - _____ FT</p> <p>WELL #6</p>
	Blank Casing (dia x dep)	<u>14'</u>	
	Material	<u>CS</u>	
	Backfill	<u>6'</u> FT	
	Type	<u>NEAT CEMENT</u>	
	Seal	<u>4'</u>	
	Material	<u>HYD BENT</u>	
	Gravel Pack	<u>2'</u> FT	
	Material	<u>2 1/2 SAND</u>	
	Screen (dia x dep)	<u>1' x 1'</u>	
	Slot Size	<u>.010</u>	
	Material	<u>S.S.</u>	
Well Depth	<u>17'6"</u> FT		
Backfill	<u>—</u>		
Material	<u>—</u>		
Total Hole Depth	<u>17'6"</u> FT		

Scale 1" = _____

Page _____ of _____

ECY 050-12 (Rev 2/01)

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT

Notice of Intent No. RE08597

Construction/Decommission

- Construction
 Decommission ORIGINAL INSTALLATION Notice of Intent Number _____

Type of Well

- Resource Protection
 Geotechnical Soil Boring

Consulting Firm Clearcreek Contractor's

Property Owner _____
 Site Address Valley St between Terry and Westlake
 City Seattle County King

Unique Ecology Well ID Tag No. BIC 556

Location 1/4 SE NE NE Sec 30 TWN 25N R 4E or WWM EWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards

Lat/Long (s,l,r still Required) Lat Deg x Lat Min/Sec x
 Long Deg x Long Min/Sec x

Materials used and the information reported above are true to my best knowledge and belief

Tax Parcel No. _____

Driller Trainee Name (Print) Drew Gose

Cased or Uncased Diameter 8 1/2 Static Level 15'

Driller/Trainee Signature _____

Work/Decommission Start Date 6/25/13

Driller/Trainee License No. 2744

Work/Decommission End Date 6/25/13

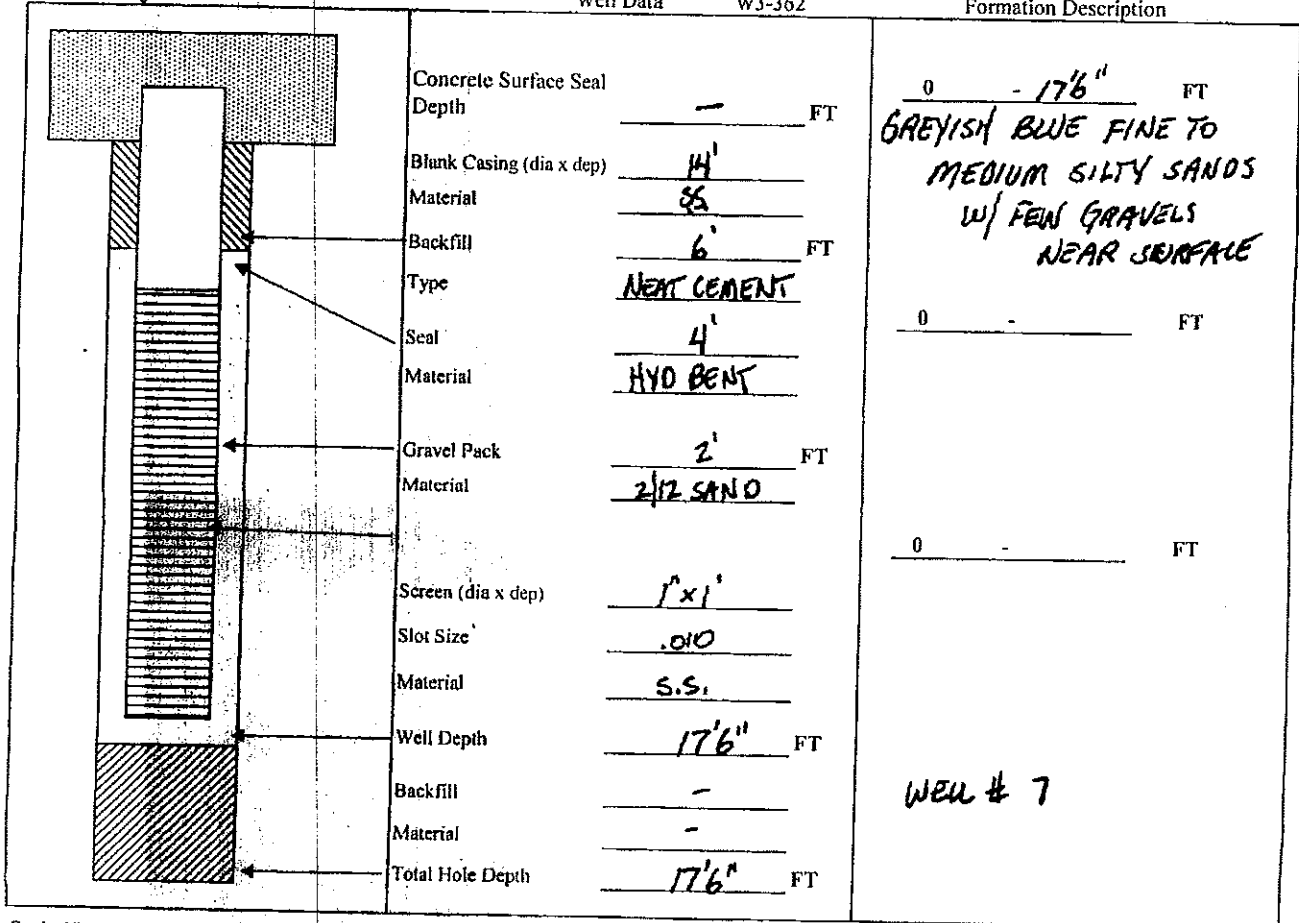
If trainee, licensed driller's

Signature and License No. _____

Construction/Design

Well Data W3-362

Formation Description



Scale 1" = _____

Page _____ of _____

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

Construction/Decommission

Construction
 Decommission ORIGINAL INSTALLATION Notice of Intent Number _____

Consulting Firm Clearcreek Contractor's

Unique Ecology Well ID Tag No. BIC 595

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Driller Trainee Name (Print) D. Gose
 Driller/Trainee Signature _____
 Driller/Trainee License No. 2744

If trainee, licensed driller's Signature and License No. _____

CURRENT

Notice of Intent No. RE08597

Type of Well
 Resource Protection
 Geotechnical Soil Boring
City of Seattle

Property Owner _____
 Site Address Valley St between Terry and Westlake
 City Seattle County King

Location 1/4 SE NE NE Sec 30 TWN 25N R 4E or WWM

Lat/Long (s,t,r still Required) Lat Deg x Lat Min/Sec x
 Long Deg x Long Min/Sec x

Tax Parcel No. _____

Cased or Uncased Diameter 8 1/2 Static Level 15'

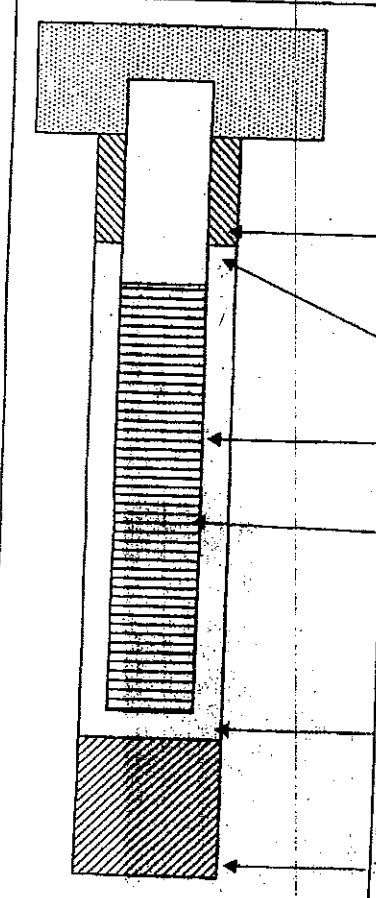
Work/Decommission Start Date 6-24-13

Work/Decommission End Date 6-24-13

Construction/Design

Well Data W3-362

Formation Description



Concrete Surface Seal Depth	<u>—</u>	FT
Blank Casing (dia x dep)	<u>14'</u>	
Material	<u>CS</u>	
Backfill	<u>6'</u>	FT
Type	<u>NEAT CEMENT</u>	
Seal	<u>4'</u>	
Material	<u>HYD BENT</u>	
Gravel Pack	<u>2'</u>	FT
Material	<u>2/12 SAND</u>	
Screen (dia x dep)	<u>1" x 1'</u>	
Slot Size	<u>.010</u>	
Material	<u>S.S.</u>	
Well Depth	<u>17'6"</u>	FT
Backfill	<u>—</u>	
Material	<u>—</u>	
Total Hole Depth	<u>17'6"</u>	FT

0 - 17'6" FT
GREYISH BLUE FINE TO MEDIUM SILTY SANDS W/ FEW GRAVELS NEAR SURFACE

0 - FT
0 - FT

WELL # 8

Scale 1" = _____

Page _____ of _____

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT

Notice of Intent No. RE08597

Construction/Decommission

Construction
 Decommission ORIGINAL INSTALLATION Notice of Intent Number

Type of Well

Resource Protection
 Geotechnical Soil Boring

Consulting Firm Clearcreek Contractor's

Property Owner _____
 Site Address Valley St between Terry and Westlake
 City Seattle County King

Unique Ecology Well ID Tag No. BIC 557

Location 1/4 SE NE NE Sec 30 TWN 25N R 4E or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards

Lat/Long (s,t,r still Required) Lat Deg x Lat Min/Sec x
 Long Deg x Long Min/Sec x

Materials used and the information reported above are true to my best knowledge and belief

Driller Trainee Name (Print) David Gose

Tax Parcel No. _____

Driller/Trainee Signature _____

Cased or Uncased Diameter 8 1/2 Static Level 15'

Driller/Trainee License No. 2744

Work/Decommission Start Date 6/25/13

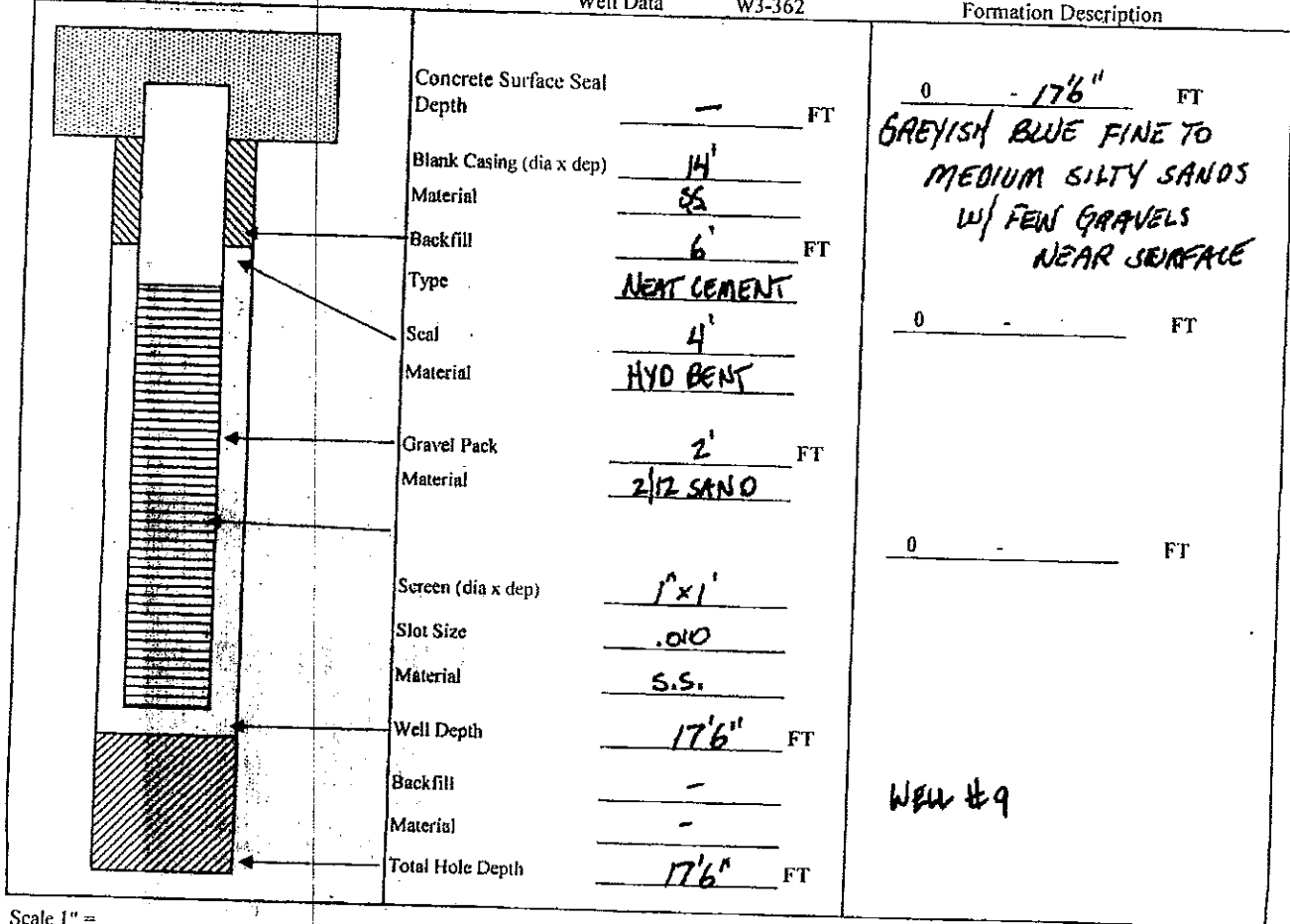
If trainee, licensed driller's Signature and License No. _____

Work/Decommission End Date 6/25/10

Construction/Design

Well Data W3-362

Formation Description



Scale 1" = _____

Page _____ of _____

ECY 050-12 (Rev= 2/01)

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

Construction/Decommission

- Construction
 Decommission ORIGINAL INSTALLATION Notice of Intent Number

Consulting Firm Clearcreek Contractor's

Unique Ecology Well ID Tag No. BIC 558

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Driller Trainee Name (Print) DAVID GOSE
 Driller/Trainee Signature _____
 Driller/Trainee License No. 2744

If trainee, licensed driller's Signature and License No. _____

CURRENT

Notice of Intent No. RE08597

Type of Well

- Resource Protection
 Geotechnical Soil Boring
 City of Seattle

Property Owner _____
 Site Address Valley St between Terry and Westlake
 City Seattle County King

Location 1/4 SE NE NE Sec 30 TWN 25N R 4E or EWM
 WWM

Lat/Long (s,t,r Lat Deg x Lat Min/Sec x
 still Required) Long Deg x Long Min/Sec x

Tax Parcel No. _____

Cased or Uncased Diameter 8 1/2 Static Level 15'

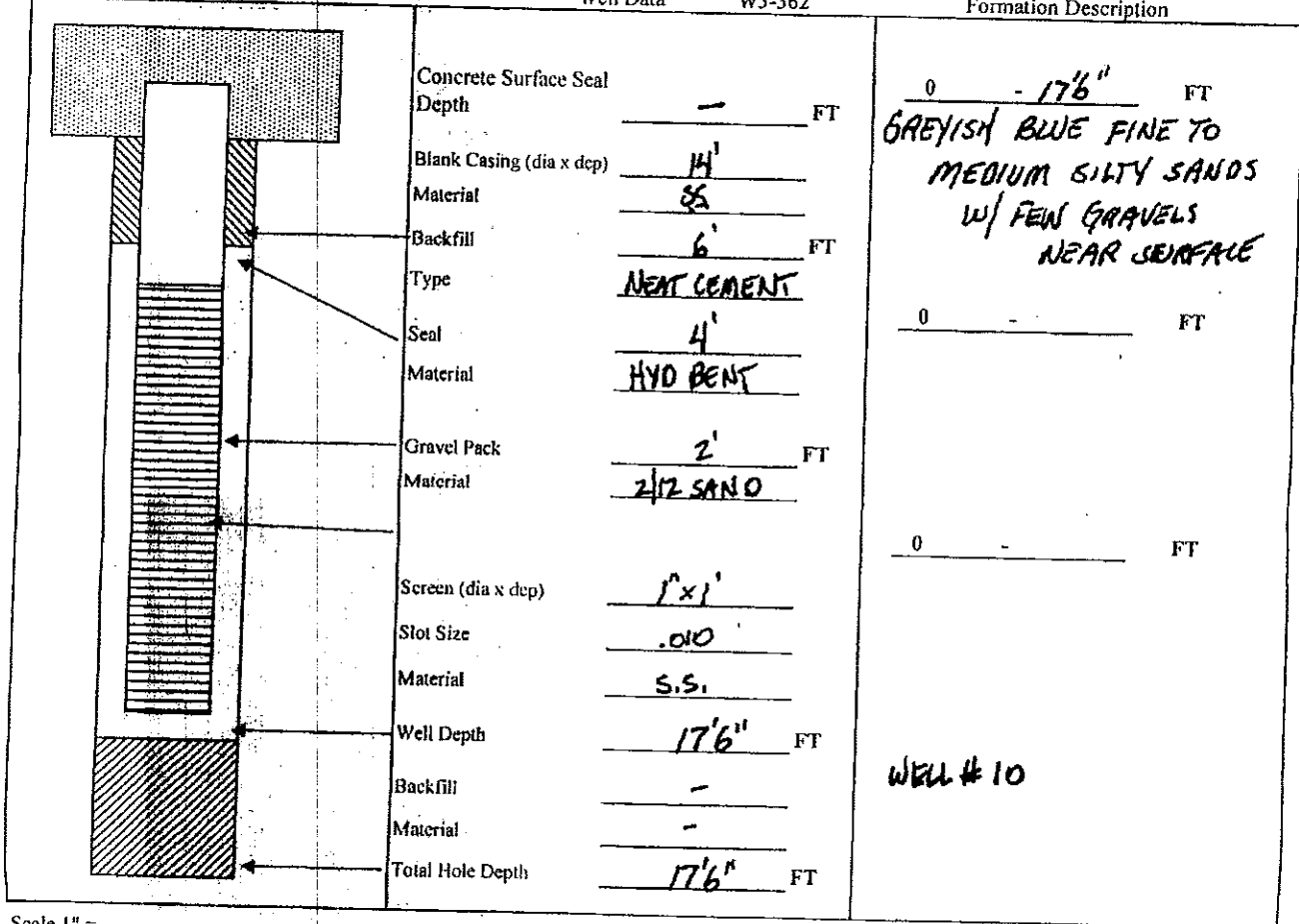
Work/Decommission Start Date 6/25/13

Work/Decommission End Date 6/25/13

Construction/Design

Well Data W3-362

Formation Description



Scale 1" = _____

Page _____ of _____

ECY 050-12 (Rev. 2/01)

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT

Notice of Intent No. RE08597

Construction/Decommission

Construction

Decommission ORIGINAL INSTALLATION Notice of Intent Number _____

Type of Well

Resource Protection

Geotechnical Soil Boring

City of Seattle

Consulting Firm Clearcreek Contractor's

Property Owner _____

Site Address _____

City _____

Seattle

Valley St between Terry and Westlake

County _____

King

Unique Ecology Well ID

Tag No. BIC 559

Location 1/4 SE NE NE Sec 30 TWN 25N R 4E or WWM EWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards

Materials used and the information reported above are true to my best knowledge and belief

Lat/Long (s,t,r still Required) Lat Deg x Lat Min/Sec x Long Deg x Long Min/Sec x

Driller Trainee Name (Print) David Gose

Driller/Trainee Signature _____

Driller/Trainee License No. 2744

Tax Parcel No. _____

Cased or Uncased Diameter 8 1/2 Static Level 15'

If trainee, licensed driller's

Signature and License No. _____

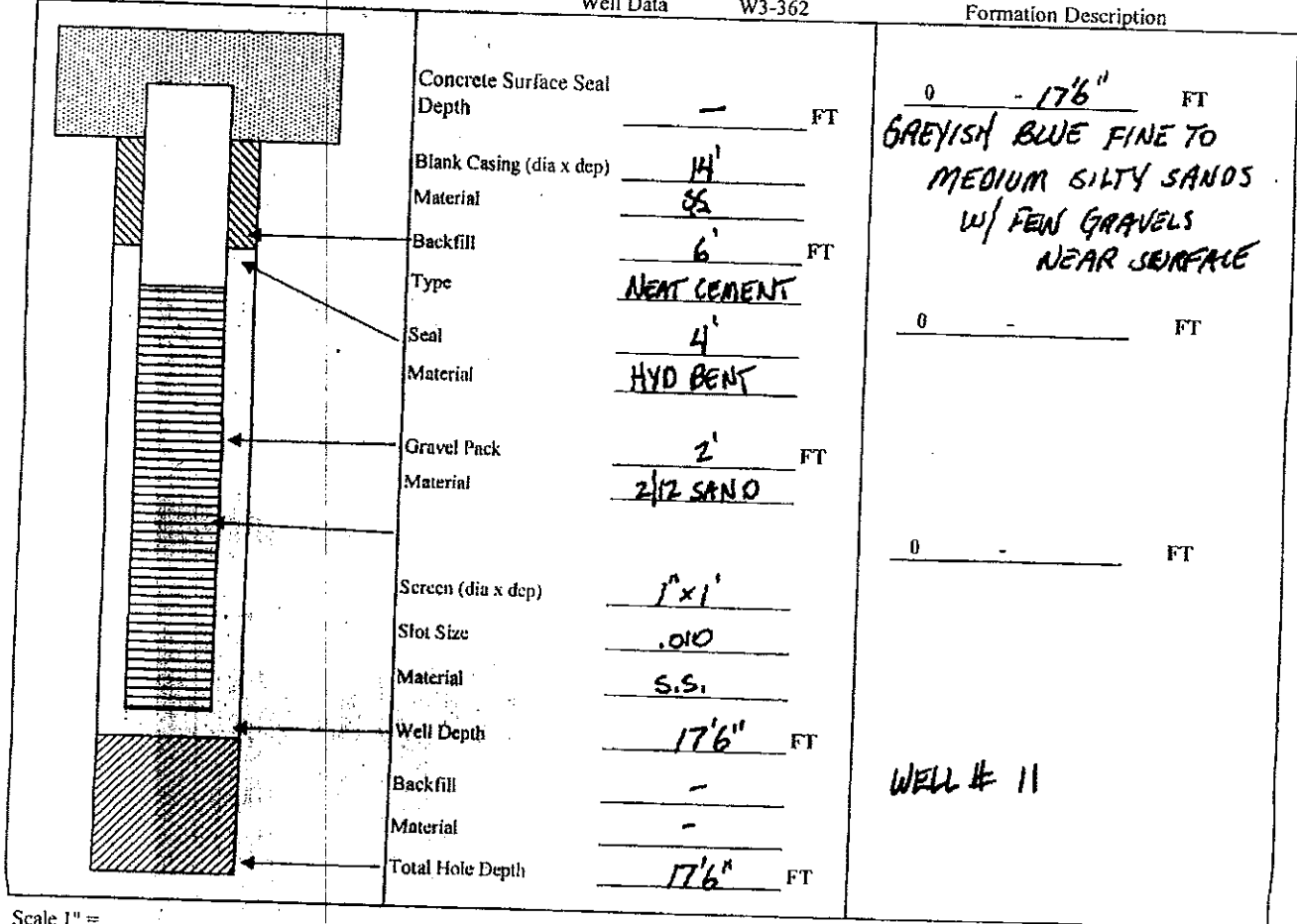
Work/Decommission Start Date 6/25/13

Work/Decommission End Date 6/25/13

Construction/Design

Well Data W3-362

Formation Description



Scale 1" = _____

Page _____ of _____

ECV 050-12 (Rev 2/01)

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT

Notice of Intent No. RE08597

Construction/Decommission:

- Construction
 Decommission ORIGINAL INSTALLATION Notice of Intent Number

Type of Well

- Resource Protection
 Geotechnical Soil Boring

Consulting Firm Clearcreek Contractor's

Property Owner _____
 Site Address Valley St between Terry and Westlake
 City Seattle County King

Unique Ecology Well ID
 Tag No. BIC 560

Location 1/4 SE NE NE Sec 30 TWN 25N R 4E or EWM or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Lat/Long (s,t,r Lat Deg x Lat Min/Sec x
 still Required) Long Deg x Long Min/Sec x

Driller Trainee Name (Print) David Gose

Tax Parcel No. _____

Driller/Trainee Signature _____

Cased or Uncased Diameter 8 1/2 Static Level 15'

Driller/Trainee License No. 2744

Work/Decommission Start Date 6/25/13

If trainee, licensed driller's _____

Work/Decommission End Date 6/25/13

Signature and License No. _____

Construction/Design

Well Data W3-362

Formation Description

	Concrete Surface Seal	_____	_____	0 - 17'6" FT
	Depth	_____	FT	
	Blank Casing (dia x dep)	<u>14'</u>	_____	
	Material	<u>CS</u>	_____	
	Backfill	<u>6'</u>	_____	
	Type	<u>NEAT CEMENT</u>	_____	
	Seal	<u>4'</u>	_____	
	Material	<u>HYD BENT</u>	_____	
	Gravel Pack	<u>2'</u>	_____	
	Material	<u>2/12 SAND</u>	_____	
Screen (dia x dep)	<u>1" x 1'</u>	_____		
Slot Size	<u>.010</u>	_____		
Material	<u>S.S.</u>	_____		
Well Depth	<u>17'6"</u>	_____	0 _____ FT	
Backfill	<u>-</u>	_____		
Material	<u>-</u>	_____		
Total Hole Depth	<u>17'6"</u>	_____	0 _____ FT	

WELL #12

Scale 1" = _____

Page _____ of _____

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

Construction/Decommission

Construction

Decommission ORIGINAL INSTALLATION Notice of Intent Number

Consulting Firm Clearcreek Contractor's

Unique Ecology Well ID Tag No. BIC 561

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Driller Trainee Name (Print)

Driller/Trainee Signature [Signature]

Driller/Trainee License No. 2744

If trainee, licensed driller's Signature and License No.

CURRENT

Notice of Intent No. RE08597

Type of Well

Resource Protection

Geotechnical Soil Boring

City of Seattle

Valley St between Terry and Westlake

Property Owner

Site Address

City Seattle

County King

Location

1/4 SE NE NE Sec 30 TWN 25N R 4E or WWM

Lat/Long (s,t,r still Required)

Lat Deg x

Lat Min/Sec x

Long Deg x

Long Min/Sec x

Tax Parcel No.

Cased or Uncased Diameter 8 1/2

Static Level 15'

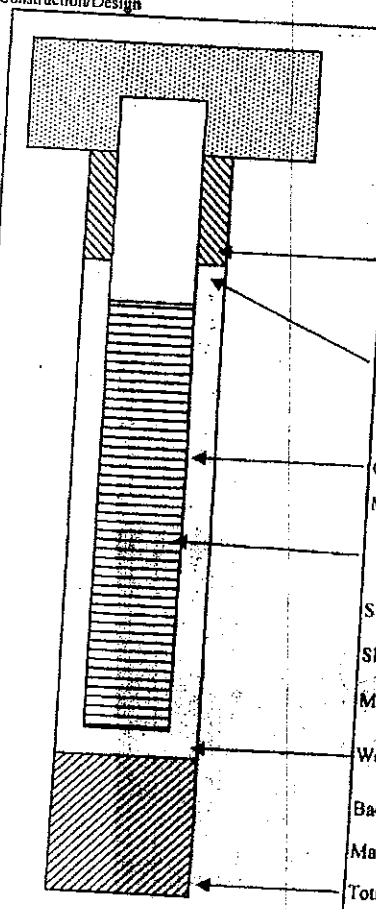
Work/Decommission Start Date 6/25/13

Work/Decommission End Date 6/25/13

Construction/Design

Well Data W3-362

Formation Description



Concrete Surface Seal	Depth	<u> </u>	FT
Blank Casing (dia x dep)	Material	<u>14'</u> <u>SS</u>	
Backfill	Type	<u>6'</u> <u>NEAT CEMENT</u>	FT
Seal	Material	<u>4'</u> <u>HYD BENT</u>	
Gravel Pack	Material	<u>2'</u> <u>2/12 SAND</u>	FT
Screen (dia x dep)	Slot Size	<u>1' x 1'</u> <u>.010</u>	
Well Depth	Material	<u>17'6"</u> <u>S.S.</u>	FT
Backfill	Material	<u> </u>	
Total Hole Depth		<u>17'6"</u>	FT

0 - 17'6" FT
GREYISH BLUE FINE TO MEDIUM SILTY SANDS W/ FEW GRAVELS NEAR SURFACE

0 FT

0 FT

WELL #13

Scale 1" =

Page of

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

Construction/Decommission

Construction
 Decommission ORIGINAL INSTALLATION Notice of Intent Number

Consulting Firm Clearcreek Contractor's

Unique Ecology Well ID Tag No. BIC 564

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Driller Trainee Name (Print) David Gose
 Driller/Trainee Signature [Signature]
 Driller/Trainee License No. 2744

If trainee, licensed driller's Signature and License No. _____

CURRENT Notice of Intent No. RE08597

Type of Well
 Resource Protection
 Geotechnical Soil Boring

Property Owner _____
 Site Address Valley St between Terry and Westlake
 City Seattle County King

Location 1/4 SE NE NE Sec 30 TWN 25N R 4E or EWM or WWM

Lat/Long (s,t,r Lat Deg x Lat Min/Sec x
 still Required) Long Deg x Long Min/Sec x

Tax Parcel No. _____

Cased or Uncased Diameter 8 1/2 Static Level 15'

Work/Decommission Start Date 6/26/13

Work/Decommission End Date 6/26/13

Well Data W3-362

Formation Description

	Concrete Surface Seal Depth	<u> </u> FT	<u>0</u> - <u>17 1/2"</u> FT
	Blank Casing (dia x dep)	<u>14'</u>	<u>GREYISH BLUE FINE TO MEDIUM SILTY SANDS w/ FEW GRAVELS NEAR SURFACE</u>
	Material	<u>SS</u>	
	Backfill	<u>6'</u> FT	<u>0</u> FT
	Type	<u>NEAT CEMENT</u>	
	Seal	<u>4'</u>	
	Material	<u>HYD BENT</u>	
	Gravel Pack	<u>2'</u> FT	
	Material	<u>2 1/2 SAND</u>	
	Screen (dia x dep)	<u>1' x 1'</u>	<u>0</u> FT
	Slot Size	<u>.010</u>	
	Material	<u>S.S.</u>	
	Well Depth	<u>17 1/2"</u> FT	
	Backfill	<u> </u>	
Material	<u> </u>		
Total Hole Depth	<u>17 1/2"</u> FT		

WELL # 14

Scale 1" = _____

Page _____ of _____

APPENDIX E

**ECOLOGY RESOURCE PROTECTION WELL REPORTS – WELL DECOMMISSIONING
FOR TERRY AVENUE NORTH**

MONITORING WELL NO. MW-36

WELL SCHEMATIC

Casing Elevation (ft.): 17.80
 Casing Stickup (ft.): -0.24

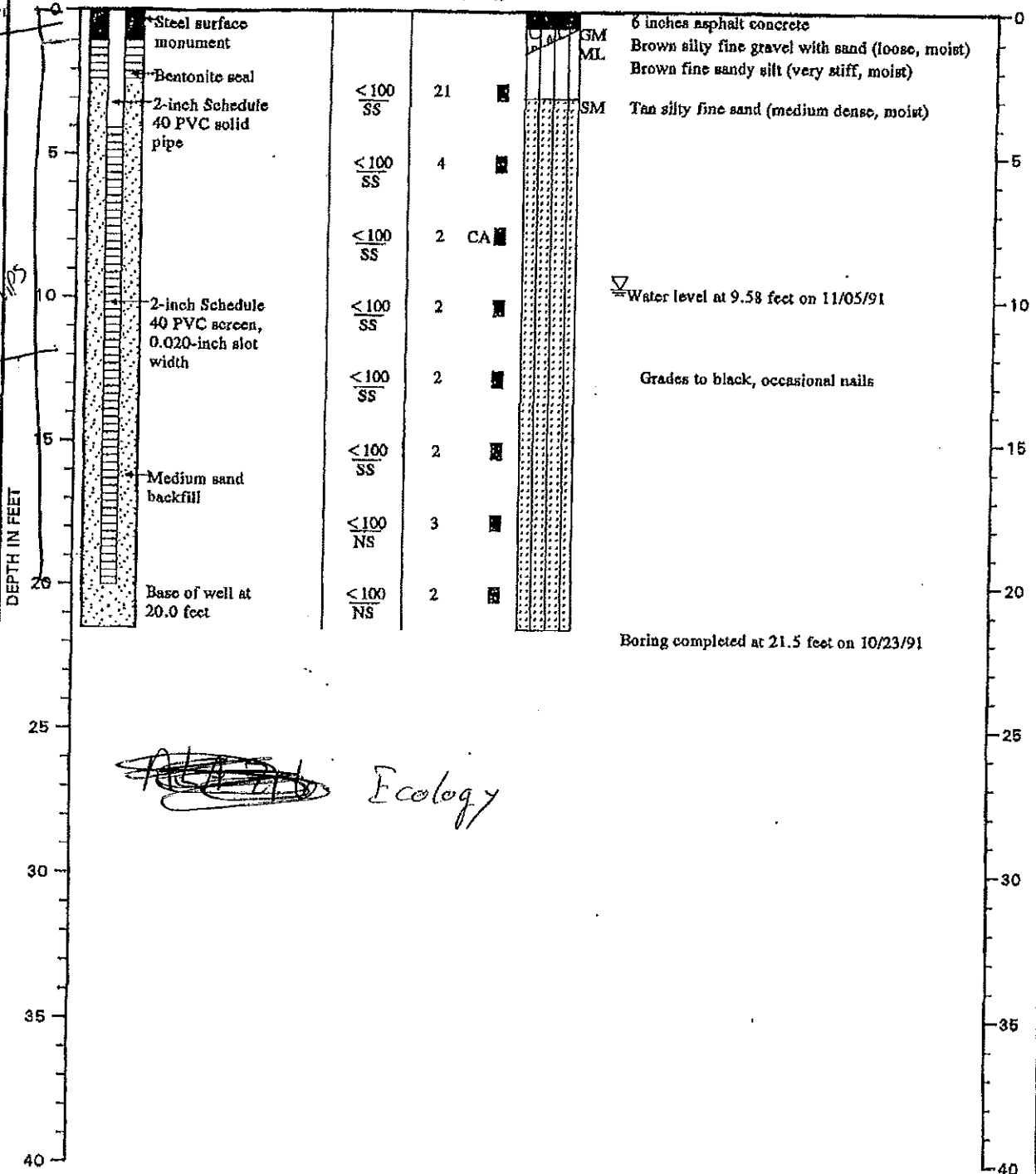
Vapor
 Conc. (ppm)
 Sheen

Blow
 Count
 Samples

Group
 Symbol

DESCRIPTION

Surface Elevation (ft.): 18.04



Note: See Figure A-2 for explanation of symbols

Geo  Engineers

LOG OF MONITORING WELL

FIGURE A-7

:WAPLJIBIDAC:CBK:CNS 6/24/92

0161-013-R69

MONITORING WELL NO. MW-47

WELL SCHEMATIC

Casing Elevation (ft.): 19.83
 Casing Stickup (ft.): -0.21

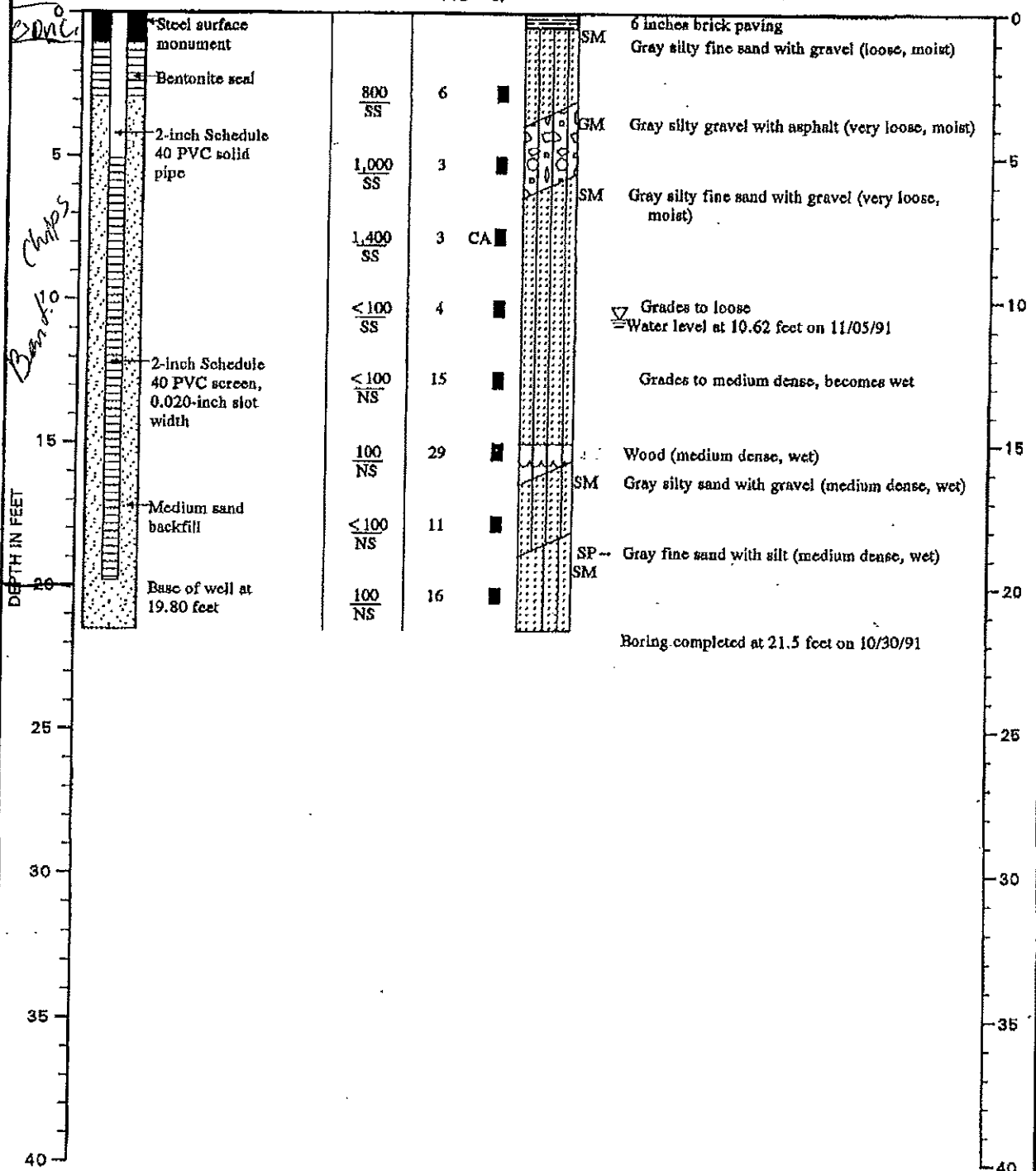
Vapor
 Conc. (ppm)
 Screen

Blow
 Count
 Samples

Group
 Symbol

DESCRIPTION

Surface Elevation (ft.): 20.04



Note: See Figure A-2 for explanation of symbols



LOG OF MONITORING WELL

FIGURE A-18

:WAP:LUB:DAC:CBK:CMS 6/24/92

0161-012-R69

Boring Log B2/Monitoring Well MW101



Project Site: Lot 14 & City ROWs Date: 10-14-04
 Project Name: Foster Pepper Location: Lot 14
 Project Manager: John Funderburk Drilling Company: Cascade
 Total Depth: 12 Feet Method Used: AMS Power Probe 10"
 Water Table Depth: 12 Feet Boring No.: MW101

Sample Number	Sample Interval	Field Screening Results In ppm	Depth In Feet	Soil Identification and Remarks (Include color, composition, moisture, and visual and olfactory observations of contamination)	Well Installation
No Sample Collected		No Odor	0	Brick Concrete	
			1		
			2	Brown medium sand. Dry.	
			3		
			4	(Burn down to 8') Cuttings	
			5	Tan sandy silt. Dry.	
			6		
			7		
		Very Strong Odor 1,800	8		
		Strong Odor	9	Sand with silt.	
			10		
			11		
			12	Fine silty sand.	
		No Odor	13		
		14	Wood chips.		
		15	Bottom of Boring 14 Ft. Full sheen at water table.		
		16			
		17			
		18			
		19			
		20			

A1A216 ▼ Water Table
 (Beology)