Revised Remedial Investigation Report

Former West Olympia Landfill Site
Olympia, Washington

for
City of Olympia

December 5, 2019

GeoEngineers
Earth Science + Technology

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Former West Olympia Landfill Site
Olympia, Washington

File No. 0415-071-01

December 5, 2019

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ABBREVIATIONS AND ACRONYMS

afy	acre-feet per year
AO	Agreed Order No. 13797
ASTM	ASTM International
bgs	below ground surface
CAP	Cleanup Action Plan
City	City of Olympia
COC	contaminant of concern
CSM	conceptual site model
DWPA	drinking water protection area
E&E	Ecology and Environment, Inc.
Ecology	Washington State Department of Ecology
EPA	United States Environmental Protection Agency
ESN	ESN Northwest, Inc.
ft/day	feet per day
ft/ft	feet per foot
ft/year	feet per year
FS	Feasibility Study
IDW	investigation-derived waste
IHS	Indicator Hazardous Substance
LAI	Landau Associates, Inc.
LEL	lower explosive limit
µg/L	micrograms per liter
$\mu g/m^3$	micrograms per cubic meter
mg/kg	milligram per kilogram
mL	milliliters
MTCA	Model Toxics Control Act
ORP	oxidation-reduction potential
PCB	polychlorinated biphenyls
PCE	tetrachloroethene
PDBs	passive diffusion bags
PGG	Pacific Groundwater Group

ppm	parts per million
PQL	practical quantification limit
RCRA	Resource Conservation and Recovery Act
Redox	oxidation-reduction
RI	Remedial Investigation
Site	Former West Olympia Landfill
SLs	screening levels
SVOC	semivolatile organic compound
TBA	Targeted Brownfields Assessment
TCE	trichloroethene
TCLP	Toxicity Characteristic Leaching Procedure
TEE	Terrestrial Ecological Evaluation
Thurston PUD	Thurston County Public Utility District
TPH	total petroleum hydrocarbons
USGS	United States Geological Survey
Vashon	Vashon Stade of the Fraser Glaciation
VCP	Voluntary Cleanup Program
VOC	volatile organic compound
WAC	Washington Administrative Code
WDFW	Washington Department of Fish and Wildlife
WHPA	wellhead protection area
WOCP	West Olympia Commercial Property

1.0 INTRODUCTION

The purpose of this Remedial Investigation (RI) report is to document the nature and extent of contaminants of concern (COCs) at the City of Olympia (City) Former West Olympia Landfill Site (Site) for media including landfill waste, soil, soil gas, and groundwater as required under the Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) cleanup regulation[1]. This RI report satisfies the requirements of Agreed Order No. DE 13797 (AO) established between the City and Ecology on October 2, 2017 and supports preparation of the Feasibility Study (FS) and Cleanup Action Plan (CAP) to guide Site cleanup in accordance with the MTCA process. MTCA defines the Site (or facility) as any place where contaminants have been stored, deposited or come to be located[2]. For the purposes of this RI report, the Site is defined as the parcel owned by the City of Olympia (also referred to as the West Olympia Commercial Property [WOCP]) which is inclusive of the former landfill property (Figure 1-1). As discussed in this report, the former landfill is the source of the COCs for the Site cleanup required under the AO. The City is invested in putting this property back into economic use for the benefit of the community through sale to a private developer.

1.1. General Site Information

Project Contacts	
Property Owner (City of Olympia) Project Manager	Donna Buxton, LHG City of Olympia PO Box 1967 Olympia, WA 98504-1967 dbuxton@ci.olympia.wa.us (360) 753-8793
Department of Ecology Project Manager	Mohsen Kourehdar, P.E. Department of Ecology Southwest Regional Office PO Box 47775 Olympia, WA 98504-7775 Mkou461@ecy.wa.gov (360) 407-6256
Site Location and Description	
Site Name	Former West Olympia Landfill
Site Address	1305 Cooper Point Road SW Olympia, WA 98502
Latitude/Longitude	47.0352611N, -122.9428472W
Reference Point for Coordinates	Approximate center of Site

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[1] Washington Administrative Code (WAC) 173-340.

[2] WAC 173-340-200

Horizontal Collection Method	Global Positioning System
Horizontal Reference Datum	WGS84
Location Description	Township 18N, Range 2W, Section 21
Parcel Number	12821240103
Size (in acres)	12.3
Site Owner	City of Olympia 601 4th Avenue East PO Box 1967 ATTN: Legal Department Olympia, WA 98507-1967
Department of Ecology Facility/Site ID	1425
Department of Ecology Cleanup Site ID	4807

The Site includes the 12.3-acre former landfill property that is located within the city limits of Olympia, Washington northwest of the intersection of Black Lake Boulevard/Cooper Point Road and US Highway 101. The Site is surrounded by residential property to the north and commercial properties to the east and south. US Highway 101 is located just west of the Site's western boundary (Figure 1-1).

As discussed in Section 2.3, the Site is located northeast of the Black Hills, about ¼ mile north of Ken (Simmons) Lake, the nearest surface water body, and within the 10-year time-of-travel capture-zone boundary of the City's Allison Springs drinking water (wellhead) protection area (DWPA).

1.2. Site History

The City acquired the parcels that included the landfill property in two separate purchases in 1939 (from David Gammell) and in 1942 (from David and Jessie Gammell) (E&E 2017). Over time, portions of the original 27.5-acre property were subdivided by the City and sold in 1987, resulting in the current 12.3-acre landfill property portion of the Site that is the focus of this RI.

Prior to the City's purchase, the original property was used as a domestic waste dump by local residents. After acquisition, the City continued to operate the landfill property as a municipal landfill for residential and industrial waste. Waste was routinely burned and buried during the landfill operations. After the landfill ceased operations in about 1968, the City continued to use the landfill property to store construction debris, power poles, concrete pipe, tree trimmings, and other similar non-hazardous materials (E&E 2017). Currently, the landfill property is vacant and not actively used by the City. All stored materials have been removed and the landfill property is routinely patrolled by City enforcement to monitor and control trespassing. Based on the investigations described in this report, the 12.3-acre landfill property encompasses the full extent of the historical dumping and landfilling operation.

1.3. Current and Proposed Future Site Use

The Site is zoned General Commercial. Adjacent and nearby zoning includes High Density Corridor, Professional Office/Residential Multi-Family, Medical Service, Residential Multi-Family, Single Family Residential, and Residential Low-Impact.

The Site is in West Olympia, which is a rapidly growing commercial center in the Thurston County region. The Site is the last large undeveloped tract in the area and has a high potential for redevelopment due to its prime location at the intersection of US Highway 101 and two major City arterials: Black Lake Boulevard and Cooper Point Road. According to the City, West Olympia is a significant employment and commercial center with over 17,000 jobs and taxable retail sales comprising more than 50 percent of the City's retail tax revenue. Several large employers and two colleges support commerce in the area.

The City plans to sell the landfill property for private development after receiving Ecology's approval of a Site final cleanup action plan. The undeveloped landfill property currently attracts nuisance activities (illegal dumping and homeless encampments). When developed, the Site will become a community amenity.

1.4. Regulatory Framework

Operation of the landfill ceased in about 1968, prior to the effective date of the original solid waste regulations[3]. Therefore, the Site was never permitted and is not required to go through Ecology's formal landfill closure process. The Thurston County Public Health Department and Ecology have expressed no immediate concerns related to potential environmental impacts from the Site. Ecology assigned a ranking of 4 (out of 5, with 1 being the highest priority for additional activity) on the Hazardous Sites List under the MTCA cleanup regulation. The landfill does not pose an imminent threat to human health or the environment and was formerly recognized as a brownfield, amenable for development, by Ecology.

Discussions in the early 2000s between the City and Ecology, stemming from proposed development of the property, resulted in a determination that the Site could be cleaned up and developed as an independent action under the Ecology Voluntary Cleanup Program (VCP) since the improvements associated with development (i.e., structures and paved parking/driving areas) could effectively serve as capping/containment of the former landfill materials. Subsequently, in 2004, the City entered the Site in the VCP. After review of information available at that time, and as a requirement to complete the Site characterization as part of the MTCA RI process, Ecology requested that the City install additional groundwater monitoring wells at down-gradient off-site locations. As of 2007, the Site was no longer active in the VCP because the City was unable to obtain permission from landowners to install monitoring wells on the adjacent, down-gradient properties, and the Site was withdrawn from the VCP.

The City subsequently installed three downgradient wells (MW-23 in 2012, OLY-1 and OLY-2 in 2017; see Section 2.0) on private property and in City rights-of-way about 0.25 to 0.5 miles to the north-northwest of the landfill property, but still could not gain access to the adjacent downgradient properties for additional well installation. Further discussions in 2016 and 2017 between the City and Ecology eventually resulted in the AO that requires the current RI/FS activities and this report.

The activities completed by the City under the AO as part of preparation for Site cleanup have included additional outreach to the owner of adjacent down-gradient properties (Friendly Village of Olympia mobile home community and the Forestbrooke Apartments property). In May 2019, after consultation with Ecology regarding the proposed scope of work, the City made a written request to the Friendly Village of Olympia property owner for access to the mobile home community property, which is adjacent (to the north) of the former landfill parcel for purposes of sampling groundwater and soil gas. The written request included an access agreement with maps and a description of the planned sampling work. Also in May 2019, Ecology sent a letter to the Friendly Village of Olympia property owner explaining the rationale for the proposed sampling and expressing its support for the City's request for access and the proposed scope of work. In a

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[3] WAC 173-301

June 6, 2019 email correspondence to the City and Ecology, the Friendly Village of Olympia property owner denied the request for access and sampling on the mobile home community property.

As presented in this report, the data collected for the RI, including the downgradient groundwater monitoring data from wells MW-23, OLY-1 and OLY-2, documents the nature and extent of COCs at the Site for media including landfill waste, soil, soil gas, and groundwater as required under the MTCA. Additional data from the adjacent Friendly Village of Olympia mobile home community property is not necessary to support preparation of the FS and CAP to guide Site cleanup in accordance with the MTCA process.

2.0 FIELD INVESTIGATIONS

This section summarizes environmental and applicable hydrogeologic and geotechnical investigations completed at the Site. Section 2.1 "Previous Investigations" summarizes field activities completed at the Site that provide much of the data used for this RI. Section 2.2 "Supplemental Groundwater and Soil Gas Characterization" summarizes the additional soil gas investigation completed in June 2018, and the additional groundwater sampling and analysis completed in March 2019. Locations sampled during previous and recent investigations to collect the data presented in this RI are shown on Figure 2-1.

2.1. Previous Investigations

Environmental, hydrogeological, and geotechnical investigations were conducted at the Site from approximately 1984 to 2017. Ecology and Environment, Inc. (E&E) provided a comprehensive summary of these previous investigations in the Targeted Brownfields Assessment (TBA) report for the Site (E&E 2017). A chronological summary of previous investigations at the Site from 1984 to 2017 that includes details regarding each investigation (i.e., media investigated, type and number of subsurface explorations completed, and samples submitted for chemical analysis) is provided in Table 2-1.

Based on a review of the scope, focus, timing and quality of the available chemical analytical data from each investigation relative to various Site media (i.e., soil/waste, groundwater, and soil gas), the following data sets were selected to characterize the nature and extent of contamination at the Site:

- **Soil and Waste**—Data from 2000 to present:
    - Environmental Investigation for Proposed Home Depot (LAI 2000)
    - Drilling, Deep Well Installation, and Groundwater Sampling Activities, West Olympia Landfill Property (LAI 2005a)
- **Groundwater**—Data from 2014, 2015 and 2019 (most recent rounds):
    - Targeted Brownfields Assessment (E&E 2017)
    - Recent Supplemental Groundwater Characterization (as described in Section 2.2)
- **Soil Gas**—Data from 2014 to present:
    - Targeted Brownfields Assessment (E&E 2017)
    - Recent Supplemental Soil Gas Characterization (as described in Section 2.2)

Analytical data collected to date for each media (including historical data from previous investigations that were reviewed and considered but not specifically included in the characterization of the nature and extent of contamination at the Site) are provided in Appendix A. Summaries of the reports associated with RI data selected for characterization of the nature and extent of contamination are provided below.

Appendix A provides historical analytical data collected since 2000. This data was analyzed using various analytical methods and reporting limits, many of which are higher than current reporting limits and Site screening levels discussed in Section 3 that are based on current regulatory guidance. As part of the selection of the data used for the characterization of the nature and extent of contamination at the Site, the frequency of detection and reporting limits for the various analytes were reviewed to ensure that the selected data were representative of Site conditions and that potential analytes of concern were not overlooked. For groundwater, the analyte list and reporting limits were reviewed. Planning for the 2019 Supplemental Groundwater Investigation included verification that the reporting limits for the known and potential COCs are lower than the Site screening levels used for the RI.

2.1.1. Environmental Investigation for Proposed Home Depot by Landau Associates, Inc.

In July and September 2000, Landau Associates, Inc. (LAI) conducted a geotechnical and environmental subsurface investigation at the Site for The Home Depot. LAI completed 14 test pits (TP-1 through TP-14), and 19 borings (LAI-1 through LAI-19) at the Site. Three of the borings (LAI-1 through LAI-3) were completed as monitoring wells and screened within the first continuous groundwater zone (Qga aquifer discussed in Section 2.3) from approximately 69 to 76 feet below ground surface (bgs).

Landfill waste was identified at all but six of the 33 boring or test pit locations. The waste thickness was reported as varying from absent or thin near the Site boundaries, to a thickness of at least 17 feet toward the center of the Site (based on observations in boring LAI-19) where waste appeared to be mounded with little to no fill cover.

Discrete soil and landfill waste (if encountered) samples were collected from each of the borings and test pits, and groundwater samples were collected from the monitoring wells using low flow sampling techniques. The soil, waste, and groundwater samples were analyzed for one or more of the following:

- Total petroleum hydrocarbons (TPH) by Northwest Methods NWTPH-Gx and NWTPH-Dx;
- Volatile Organic Compounds (VOCs) by United States Environmental Protection Agency (EPA) Method 8260;
- Semivolatile organic compounds (SVOCs) by EPA Method 8270;
- Polychlorinated biphenyls (PCBs) by EPA Method 8081; and
- Total, dissolved, and toxicity characteristic leaching procedure (TCLP) metals (arsenic, cadmium, chromium, lead, and mercury) by EPA Methods 6010/7000 and 200.8.

Constituents that were detected in the various media at concentrations greater than the MTCA Method A or B cleanup levels for unrestricted land uses (the screening levels used by LAI) were:

- Soil: arsenic, chromium, and lead;
- Waste: arsenic, chromium, lead, PAHs, PCBs, and diesel- and heavy oil-range petroleum hydrocarbons; and
- Groundwater: arsenic and trichloroethene (TCE).

Based on the detected concentrations and frequency of screening level exceedances, LAI concluded that the major COCs for the landfill waste and soil were metals (arsenic, chromium and lead) and heavy oil-range petroleum hydrocarbons. Although arsenic exceeded the screening levels in groundwater, concentrations were low (i.e., less than the current MTCA Method A value of 5 micrograms per liter [µg/L]). LAI stated that the groundwater arsenic detections may have been representative of area background concentrations because of the depth to groundwater (50 feet bgs). TCE was identified as a COC for groundwater at the Site.

2.1.2. Environmental and Hydrogeologic Investigation by Landau Associates, Inc.

In September of 2005, LAI installed a deep monitoring well (LAI-5d) in the northwestern portion of the Site near existing monitoring well LAI-1. TCE had been identified in groundwater sampled from monitoring well LAI-1 in 2000, which is screened from approximately 55 to 76 feet bgs in the shallower Qga aquifer. Monitoring well LAI-5d was installed to verify the existence of the deeper Qpg aquifer beneath the Site, and to evaluate the vertical extent of TCE in groundwater. The Qpg aquifer was encountered and monitoring well LAI-5d was set and screened from approximately 142 to 152 feet bgs. The Qga and Qpg are discussed further in Section 2.3.

During drilling, three soil samples were collected for chemical analyses to document conditions at the following locations: 1) base of Qga aquifer, 2) top of Qpg aquifer, and 3) within the well screen interval. A grab groundwater sample was also collected during drilling from the Qga aquifer. Groundwater from the Qpg aquifer was sampled after the well was completed and developed.

Soil and groundwater samples were submitted for the following analyses:

- TPH by Northwest Methods NWTPH-Gx and NWTPH-Dx;
- VOCs by EPA Method 8260;
- SVOCs by EPA Method 8270;
- PCBs by EPA Method 8081; and
- Total and dissolved metals (arsenic, cadmium, chromium, lead, mercury, silver, and zinc) by EPA Methods 6010/7000 and 200.8.

COCs were not detected at concentrations greater than analytical reporting limits in any of the three soil samples collected, or in the groundwater sample from monitoring well LAI-5d screened in the deep Qpg aquifer. TCE was detected in the groundwater grab sample from the shallower Qga aquifer at a concentration similar to those historically detected in Site wells screened in the Qga aquifer including LAI-1.

2.1.3. Targeted Brownfields Assessment by Ecology and Environment, Inc.

E&E conducted a multi-phase investigation as part of the TBA from 2014 through 2016 to collect additional groundwater and soil gas data at the Site. Investigation elements included:

2.1.3.1. Groundwater

- Baseline groundwater sampling of 10 existing on-site wells (LAI-1 through LAI-3, LAI-MW-1 through LAI-MW-4, LAI-5d, PGG-1 and PGG-2) and one off-site well (MW-23).
- Installation of two wells (OLY-1 and OLY-2) downgradient from the Site.

- Four quarters of groundwater sampling (from March to December 2015) of two on-site wells (LAI-1 and LAI-MW-2) where TCE was detected at concentrations greater than the screening levels during baseline sampling and two off-site downgradient wells (OLY-1 and OLY-2).

Baseline groundwater samples were analyzed for a suite of water quality parameters (ammonia, chloride/sulfate, nitrite-nitrate, total organic carbon and total dissolved solids) and the following:

- TPH by Northwest Methods NWTPH-Gx and NWTPH-Dx;
- VOCs by EPA Method 8260;
- SVOCs by EPA Method 8270;
- PCBs by EPA Method 8081; and
- Total and dissolved metals (including arsenic, cadmium, chromium, lead, mercury, silver, and zinc) by EPA Methods 6010/7000 and 200.8.

Subsequent quarterly groundwater samples were analyzed for VOCs only. In general, the groundwater samples were collected using low-flow techniques.

2.1.3.2. Soil Gas

- Soil gas sampling from 14 existing and temporary on-site locations; and
- Passive soil gas grid-sampling from 64 temporary on-site locations.

Soil gas samples were submitted for analysis of VOCs and methane by EPA Method TO-15 and ASTM International (ASTM) Method D-1946. Refer to E&E's TBA report for active and passive soil gas sampling methodologies.

Chemicals detected at concentrations greater than the MTCA Method A cleanup levels for groundwater or Method B soil gas screening levels for shallow soil gas (that is, less than 15 feet bgs) (the screening levels used by E&E) were:

- **Groundwater**: TCE in one or more samples from two wells near the northeast corner of the Site (LAI-1 and LAI-MW-2) and one downgradient well to the north/northwest of the Site (OLY-2); and
- **Soil Gas**: VOCs including TCE, tetrachloroethene (PCE), hexane, benzene, and 1,3-butadiene. TCE in only two locations (GP-5 and GP-9) on the north half of the Site. PCE and other VOCs were identified across the Site.

Based on the results of this investigation, E&E identified VOCs as the primary contaminants of concern in groundwater and soil gas at the Site.

2.2. Supplemental Groundwater and Soil Gas Characterization

As requested by Ecology, additional investigations were conducted to:

- Document current groundwater conditions including the concentrations of the COCs based on previous investigations, and
- Further evaluate the nature and extent of VOCs in soil gas at the Site, including where VOCs were detected at concentrations above screening levels during previous soil gas investigations.

2.2.1. Groundwater Characterization: March 2019

The supplemental groundwater investigation included measuring the groundwater elevation and collecting groundwater samples from 13 monitoring wells in March 2019 (wet season; see below):

- Ten wells on the former landfill property (LAI-1, LAI-2, LAI-3, LAI-5d, LAI-MW-1, LAI-MW-2, LAI-MW-3, LAI-MW-4, PGG-1, and PGG-2); and
- Three off-property downgradient wells (OLY-1, OLY-2, and MW-23).

The purpose of the investigation was to supplement previously collected groundwater data to document current groundwater conditions. Data was used to document the current extent of groundwater contamination at the Site. Data was also used to document seasonal variations in groundwater elevations between winter-spring (i.e., wet season) and summer-fall (i.e., dry season) months as discussed in Section 2.3.3.1. A dry season groundwater sampling event will also be conducted and is planned for late summer-fall of 2019. The results of the dry season groundwater sampling event will be included in the FS for the Site.

The wet season supplemental groundwater investigation was conducted in accordance with the Ecology-approved Groundwater Sampling Work Plan dated March 1, 2019 (GEI 2019). Refer to Section 3.0 for a discussion of groundwater analytical results from this recent investigation and the results from the 2014 and 2015 sampling events.

2.2.1.1. Low-flow Groundwater Sampling and Analysis

Groundwater samples were collected from each well for water quality field parameters and laboratory analysis using a submersible bladder pump (or a submersible Grundfos pump in the case of deep well LAI-5d, and a dedicated submersible pump at MW-23) and low-flow sampling techniques. Laboratory analysis for the groundwater samples included:

- VOCs by United States Environmental Protection Agency (EPA) Method 8260C.
- Dissolved metals including arsenic (EPA 200.8), chromium (EPA 200.8), iron (EPA 6010D), lead (EPA 6010D), mercury (EPA 7470A), manganese (EPA 6010D), and nickel (EPA 200.8). Total metals analysis for the metals listed above was also completed for samples from two wells (LAI-MW-1 and LAI-MW-2) for comparative purposes, as outlined in the Groundwater Sampling Work Plan.
- Geochemistry parameters for the samples from three shallow monitoring wells (OLY-2, LAI-MW-1, and LAI-MW-2) and one deep well (LAI-5d). Geochemistry parameters included major ions (bicarbonate, chloride, sulfate, sodium, calcium, magnesium, potassium), silica and total dissolved solids.
- Natural attenuation parameters for the samples from two wells (OLY-2 and LAI-MW-2) for future use during the development of the Site FS. Natural attenuation parameters analyzed for included sulfate, nitrate, dissolved gases (methane, ethene, and ethane) and total organic carbon.

2.2.1.2. Passive Diffusion Bag (PDB) Sampling

Passive Diffusion Bags (PDBs) were deployed in groundwater monitoring wells LAI-MW-2 and OLY-2 in March 2019 to compare the laboratory analytical results for VOCs in samples collected using PDBs versus samples collected using traditional low-flow sampling techniques. The PDBs were deployed at the depth of the approximate center of the well screens, collected from the wells after 14 days and submitted for chemical analysis for VOCs by EPA 8260C. This VOC data comparison will be considered in determining sampling methodology for future groundwater monitoring events at the Site.

2.2.1.3. Equipment Decontamination and Investigation-Derived Waste

Dedicated single-use disposable tubing and bladders or single-use PDBs were used to collect groundwater samples. Equipment that came in direct contact with potentially contaminated media, including the water level indicator probe, the bladder pump and Grundfos pump housings was decontaminated between uses using a phosphate-free detergent (e.g., Alconox®) solution wash followed by a distilled water rinse. Investigation-derived waste (IDW), including refuse and monitoring well purge water, generated during the sampling event was contained, properly labeled, and stored on site for appropriate off-property disposal. One composite water sample was collected for disposal characterization and analyzed for VOCs using EPA Method 8260C and Resource Conservation and Recovery Act (RCRA) 8 metals using EPA Method 6010C/7471A.

2.2.2. Soil Gas Characterization: 2018

The supplemental soil gas investigation included the installation of 10 permanent soil gas monitoring points (GP-15 through GP-24) in February and May of 2018, and soil gas sample collection at the newly installed soil gas monitoring points and the five existing soil gas monitoring points (GP-1 through GP-5). The investigation was conducted in accordance with the procedures approved by Ecology, as presented in the work plan (LAI 2017) and Ecology's draft vapor intrusion guidance document (Ecology 2018a).

Specifically, additional data were collected to:

- Confirm concentrations of constituents previously detected above screening levels in soil gas (1,3-butadiene; 1,4-dichlorobenzene [1,4-DCB]; 1,1,1,2-tetrachloroethane; benzene; carbon tetrachloride; hexane; PCE; and TCE).
- Define the soil gas concentrations at the boundaries of the landfill property.
- Define the extent of previously high TCE and PCE soil gas concentrations.

2.2.3. Permanent Soil Gas Probe Installation

Ten soil gas probes were installed using direct-push drilling techniques by ESN Northwest, Inc. (ESN) of Olympia, Washington. GP-15 through GP-20 were installed on February 1 and 2, 2018 and GP-21 through GP-24 were installed on May 17, 2018[4]. GP-15, GP-16, and GP-19 were installed within the extent of the landfill waste. The remaining probes were installed along the perimeter of the landfill property outside of the extent of the waste. The perimeter probes were placed as close to the parcel boundary as feasible given uneven terrain and accessibility limited by thick vegetation and wet surface conditions. Prior to the start of drilling activities, all locations were determined to be clear of utilities through a public utility locate and a private utility locate. Soil gas probe boring logs and construction details are provided in Appendix B. The 2018 soil gas sampling locations are shown on Figure 2-2 (see Figure 2-1 for these soil gas sampling locations relative to other explorations).

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[4] The drilling of the last four soil gas probes was delayed due to high perched groundwater levels at the Site.

The 2.5-inch diameter borings were each drilled to a depth of approximately 7 feet bgs. Soil gas probes were constructed in accordance with the procedures described in the work plan, and generally:

- A vapor implant (¼-inch diameter, 6-inch length stainless steel) was attached to a length of ¼-inch diameter Teflon tubing.
- Sand was placed above and below the vapor implant to create a filter pack.
- Approximately 0.5 feet of dry granular bentonite was installed above the filter pack and hydrated bentonite grout was placed to approximately 2 feet below the surface.
- The surface was completed with concrete and a 6-inch stick-up monument to approximately 3 feet above ground surface with three protective bollards.

2.2.4. Soil Gas Sample Collection

Soil gas samples were collected on May 29 and 30, 2018 and June 18, 2018. The samples were collected from GP-1 through GP-5 (previously installed) and GP-15 through GP-24 (newly installed). For quality assurance purposes, leak testing was conducted prior to sample collection, confirming an air-tight seal and sample integrity. The leak tests included a shut-in test and a helium leak test, as described in the work plan (LAI 2017).

Prior to sampling, the air in the sample train was purged. For the LAI gas probes, a syringe was used to purge three volumes from the sample train (approximately 6 milliliters [mL] per foot of ¼-inch sample tubing). Due to the larger diameter of the Pacific Groundwater Group (PGG) gas probes (¾ inch), and the larger volume of air required to purge, the purge was completed using the LandTech GEM 2000 meter while monitoring gas quality parameters for stability prior to sampling at these locations.

Volatile Organic Compound Monitoring

Soil gas samples were collected into 1-liter Summa canisters for VOC analysis. Samples were collected slowly (at a flow rate less than 200 mL per minute) to prevent sample dilution. The samples were transported under proper chain-of-custody procedures to TestAmerica laboratory in Sacramento, California. Samples were analyzed for VOCs using EPA Method TO-15. VOCs were analyzed for constituents previously detected at the Site above screening levels (1,3-butadiene; 1,4-DCB; 1,1,1,2-tetrachloroethane; benzene; carbon tetrachloride; hexane; PCE; and TCE). 2018 and previously collected soil gas sample results are discussed in Section 3.0.

Fixed Gas Monitoring

Fixed gases associated with landfill gas (methane, carbon dioxide, and oxygen) were monitored at each sample location using a handheld landfill gas analyzer (LandTech GEM 5000) meter. The 2018 and historical landfill gas monitoring results are discussed in Section 3.0

2.2.5. Equipment Decontamination and Investigation-Derived Waste

Non-dedicated sampling equipment and downhole drilling equipment was decontaminated between locations using an Alconox®/tap water solution, followed by a tap water rinse and a de-ionized water rinse. Investigation-derived waste (IDW) soil generated as part of the subsurface investigation was contained, properly labeled, and stored on site. One composite soil sample was collected for waste disposal characterization. TestAmerica analyzed the composite soil sample for Resource Conservation and

Recovery Act (RCRA) 8 metals[5] using EPA Method 6010C/7471A. The IDW generated from the Site was disposed of offsite as non-hazardous waste.

2.3. Geology and Hydrogeology

This section summarizes Site geology and hydrogeology to provide background for the conceptual site model and contaminant fate and transport evaluation. Geologic and hydrogeologic information was summarized from the reports listed below:

- West Olympia Landfill Site Targeted Brownfield Assessment (E&E 2017)
- City of Olympia 2015–2020 Water System Plan, Chapter 7: Groundwater Protection (City of Olympia 2015)
- Survey of Existing Wells Within Allison Springs Drinking Water Protection Area (PGG 2011)
- Ground Water Level Measurement Project (TCEH 2009)
- Hydrogeologic Conditions in the City of Olympia Wellfield Areas, Thurston County, Washington (Golder Associates 2008)
- Hydrogeologic Conditions of Allison Springs (Horsley Witten Group 2007)
- West Olympia Landfill Groundwater Investigation (PGG 2006)
- Drilling, Deep Well Installation, and Groundwater Sampling Activities, West Olympia Landfill Property (LAI 2005a)
- Groundwater Monitoring Data – March 2005 sampling event, Former West Olympia Landfill Property (LAI 2005b)
- Well Installation and Groundwater Sampling Activities, West Olympia Landfill Property (LAI 2004a)
- Summary of Hydrogeologic Conditions, West Olympia Landfill Property (LAI 2004b)
- Geologic Map of Tumwater 7.5-minute Quadrangle, Thurston County, Washington (Walsh et al. 2003)
- August 2003 Groundwater Monitoring and Sampling Letter Report (Zipper Zeman Associates 2003a)
- Environmental Investigations, Proposed Home Depot Store, Olympia, Washington (LAI 2000)
- Conceptual Model and Numerical Simulation of the Ground-Water-Flow System in the Unconsolidated Sediments of Thurston County, Washington (Drost et al. 1999)
- On-Site Review and Testing, 27-Acre Site, Black Lake Blvd. and Cooper Point Road (Hart Crowser 1986)
- Report of Geotechnical Services, City of Olympia Landfill (Dames & Moore 1984)
- State of Washington Water Supply Bulletin No. 10: Geology and Ground-Water Resources of Thurston County, Washington, Volume 2 (Noble and Wallace 1966)

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[5] RCRA 8 metals are arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver.

2.3.1. Regional Physiography and Surface Water

The Site is located at the southern portion of a local geographic area with somewhat distinct physical attributes. The southern boundary of this area is roughly identified by local outcroppings of bedrock that form the Black Hills, Bush Mountain, and Tumwater Hill. The western boundary of the area is formed by Eld Inlet and Mud Bay. The eastern boundary is formed by Budd Inlet and Capitol Lake. Budd and Eld Inlets coalesce to the north to define a distinct peninsula.

Several small lakes and wetland areas are located within the local geographic area. Some of these lakes and wetlands drain to Green Cove Creek, a small water course that flows north into Eld Inlet. Otherwise, numerous small creeks drain off the uplands directly into either Eld Inlet or Budd Inlet. Black Lake Ditch drains surface water flow in the southern portion of the local geographic area south toward Black Lake. The locations of physiographic and surface water features in the local geographic area are shown on Figure 2-3.

2.3.2. Geology

A regional geologic conceptual model was developed based on the relevant reports listed in Section 2.3. The regional geologic model provides a framework to interpret the specific geology observed at the Site.

2.3.2.1. Regional Geology

The regional geology identified near the Site consists of a sequence of unconsolidated sediments above Tertiary bedrock (Golder Associates 2008). The near-surface deposits are dominated by the geology of the most recent Puget Sound glaciation (the Vashon Stade of the Fraser Glaciation [Vashon]). These deposits typically consist of recessional and advance outwash separated by dense glacial till. Beneath the Vashon-age deposits are older interglacial (non-glacial origin) fluvial and lacustrine deposits underlain by older glacial sand and gravel. This entire sequence of unconsolidated deposits is underlain by Tertiary age bedrock consisting primarily of basalt. Locally, outcroppings of Tertiary bedrock occur in areas southwest of US Highway 101. The bedrock is covered by unconsolidated sediments northeast of US Highway 101 and beneath the Site. Surficial geology of the local geographic area is presented on Figure 2-4. A description of geologic units, from youngest to oldest, is presented below:[6]

- **Vashon Recessional Outwash, Qgo (formerly Qvr)**: Typically consists of permeable sand and gravel but can include silt and peat. Deposits were formed from streams emanating from the melting and receding Vashon glacier. This unit occasionally includes perched groundwater that varies in occurrence locally and seasonally. The thickness of this unit in the local geographic area is reportedly greater than 25 feet (Drost et al. 1999).
- **Vashon Till, Qgt (formerly Qvt)**: Typically consists of sand and gravel in a dense matrix of silt and clay. Glacial till is either lodgment (i.e., sub-glacial) till or ablation till. Lodgment till is deposited at the base of the glacier and tends to be gray and very dense. Ablation till is deposited from melting stagnant ice and can form a brown, less dense mantle over the typically thicker lodgment till. Till is a low permeability deposit that acts as an aquitard. The thickness of this unit is highly variable regionally but is reportedly greater than 50 feet thick in places within the local geographic area (Drost et al. 1999).

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[6] The geologic nomenclature (i.e., Qgt for glacial till) follows the designations defined Washington Department of Natural Resources in the most recent surficial geologic map (Walsh et al. 2003) and adopted by the City of Olympia (Golder Associates 2008). Previously used designations by the US Geological Survey and others are presented in parentheses (i.e., Qvt for glacial till).

- **Vashon Advance Outwash, Qga (formerly Qva)**: Consists of sand and gravel deposited from melt waters emanating from the leading edge of the advancing Vashon ice sheet. This unit is a locally significant water supply aquifer. The majority of Site monitoring wells are screened in this aquifer unit. The City of Olympia Kaiser Well 1 water supply well is interpreted to be screened in this unit (Golder Associates 2008). Drost et al. (1999) document the Qga as typically being less than 50 feet thick in the local geographic area; however, this unit was observed to be almost 100 feet thick at Site boring LAI-5d.
- **Pre-Vashon Glaciolacustrine Deposits, Qpf (formerly Kitsap Formation, Qf)**: Consists of clay and silt with zones of sand, gravel, peat, and wood deposited in shallow lakes and wetlands prior to the Vashon glaciation. This unit serves as an aquitard that separates the overlying Vashon age deposits from underlying pre-Vashon deposits. Drost et al. (1999) estimate that the Qpf is more than 50 feet thick in most of the local geographic area. However, this unit was only about 17 feet thick at Site boring LAI-5d and appears to be absent at the City's Allison Springs wells (Figure 2-3) near Mud Bay.
- **Pre-Vashon Gravel, Qpg (formerly Penultimate Deposits, Qc)**: Consists predominantly of glacial sand and gravel deposits. Locally this unit contains silty zones. The coarse-grained portions of this unit form a regionally significant aquifer. This aquifer is reportedly the primary supply source for the City's Allison Springs Well 13 and Well 19 (Golder Associates 2008). Drost et al. (1999) estimate that the Qpg is less than 25 feet thick within most of the local geographic area. The unit is at least 14 feet thick beneath the northwest corner of the Site based on conditions encountered during the drilling for monitoring well LAI-5d.
- **Undifferentiated Quaternary and Tertiary Deposits (TQu)**: Fine- to coarse-grained unconsolidated sediments extending to bedrock. Consists of a sequence of aquifers and aquitards. This unit is an important water-bearing unit in Thurston County, but its thickness and extent are not well characterized in the local geographic area where the unit is assumed be absent or of limited thickness.
- **Crescent Formation basalt (bedrock), lower to middle Eocene (Evc)**: The Black Hills, Bush Mountain and Tumwater Hill located south and southwest of the Site (see Figures 2-3 and 2-4) all represent basalt bedrock that protrudes above the surrounding unconsolidated deposits. The outcroppings of this bedrock unit form the southern boundary of the local geographic area, but the unit is not exposed within the local geographic area.

The thickness and occurrence of these geologic units are variable in the local geographic area. Some of this variability is due to the difficulty in distinguishing the various Vashon-age geologic units from each other based on boring log descriptions. The glacial till, for example, is often locally described as grey or brown with a similar soil texture to the overlying and underlying outwash deposits. There also appears to be a transitional zone at the base of the glacial till where advanced outwash is incorporated into the till deposits. The stratigraphic relationships of the geologic units encountered in borings drilled in the Site vicinity are presented on a geologic cross-section based on descriptions from the available monitoring well logs. The cross-section location and the locations of monitoring wells used to construct the cross-section are shown on Figure 2-5. The regional geologic cross-section is presented on Figure 2-6. Monitoring well details are summarized in Table 2-2. Boring logs for the Site wells and explorations are provided in Appendix B.

2.3.2.2. Site Geology

The stratigraphy beneath most of the Site consists of landfill waste overlying the regional stratigraphic sequence of Vashon and pre-Vashon deposits. The landfill waste varies from absent or thin near the Site boundaries, to a thickness of at least 17 feet toward the center of the property based on boring LAI-19. The thickness of landfill waste identified in each of the Site explorations is presented in Table 2-3. The extent of the landfill waste and associated borings, test pits, and wells used to define the stratigraphy at the Site, and the site-specific cross-section alignment are shown on Figure 2-7. The waste extent is presented on the site-specific cross-section (Figure 2-8).

Both residential and industrial wastes were reportedly disposed at the landfill. The waste consists of a heterogeneous mixture of fill dirt, burned household garbage, ash, partially burned wood, glass fragments, rusted metal, and some brick and concrete fragments. This waste material was routinely burned and buried (Dames & Moore 1984). The ash fill was observed at the surface of the landfill at several locations and is fine-grained but varies in density from loose to dense.

A thin, discontinuous veneer (up to 5 feet thick) of recessional outwash (unit Qgo) appears to underlie the landfill waste. The recessional outwash is underlain by a relatively thick sequence of Vashon Till (unit Qgt). The till beneath the Site consists of a very dense silty, sandy gravel that varies from brown to gray. This till sequence may be a combination of ablation till overlying lodgment till. The till varies in thickness from about 5 feet to 40 feet. Vashon Advance Outwash (unit Qga) sand and gravel underlie the till. The Qga beneath the Site is described as a brown sand or gravel with varying amounts of silt. Most of the monitoring wells at the Site extend at least 20 feet into the Qga. The one deep monitoring well at the Site (LAI-5d) extends through the Qga and the underlying pre-Vashon glaciolacustrine deposits (unit Qpf) into the pre-Vashon Gravel (unit Qpg). At LAI-5d, the Qga was 95 feet thick and the Qpf was 17 feet thick. The Qpf is described as a grey silt with varying amounts of sand. The boring for monitoring well LAI-5d was advanced into the Qpg unit approximately 14 feet. The Qpg unit is described as a grey sand with gravel and silt.

2.3.3. Hydrogeology

The primary regional aquifers within the local geographic area are the Qga and Qpg aquifers (Golder Associates 2008, LAI 2004b). The Qga is unconfined (i.e., the water table is below the bottom of the glacial till unit) near the Site but is probably confined beneath till in other portions of the local geographic area. The Qpg is confined beneath the Site by the Qpf layer. In places where the Qpf is missing (such as at the Allison Springs wells) the Qga and Qpg likely form a continuous aquifer system. Both of these aquifers pinch out near the south end of the local geographic area where unconsolidated strata abut relatively impermeable bedrock (Golder Associates 2008). The Qgo (recessional outwash) aquifer is also identified as a significant aquifer in Thurston County but appears to be a relatively thin, perched near-surface water-bearing zone within the local geographic area. The Qgo is likely important as a recharge source to surface water features in the local geographic area but appears to have little potential as a water supply aquifer (Figure 2-6). The TQu aquifer is also identified as a significant aquifer in Thurston County but is largely uncharacterized in the local geographic area.

Recharge to the Qga and Qpg aquifer system is from infiltrating precipitation through the glacial till. Another likely significant source of recharge is from interflow and surface water run-on coming off the basalt uplands at the south end of the local geographic area. Discharge from this aquifer system is predominantly to Budd and Eld Inlets (Figure 2-4).

2.3.3.1. Groundwater Levels and Groundwater Flow

Groundwater flow paths and rates affect where contaminants released to soil can potentially migrate and what resources or receptors could potentially be impacted. Regional groundwater flow within the local geographic area in the Qga was identified by Golder Associates (2008) as being from the center of the local geographic area toward Eld Inlet and Mud Bay to the west, and toward Budd Inlet and Capitol Lake to the east. PGG (2011) defined the Qga groundwater flow direction in the vicinity of the site as being to the northwest based on an evaluation of measured groundwater levels. Similarly, PGG defined groundwater flow direction in the Qpg as being to the west-northwest along the north end of the Black Hills toward Allison Springs (Figure 2-3).

As part of historical Site investigations, the 10 existing wells were installed within the Site property boundary.[7] Two wells (OLY-1 and OLY-2) were also installed approximately 0.25 miles northwest of the Site in 2015. City monitoring well MW-23, located approximately 0.5 miles northwest of the Site was also used to evaluate hydrogeologic conditions. Depth to water is approximately 40 to 70 feet bgs in the wells screened in the Qga aquifer and 50 to 60 feet bgs in one well (LAI-5d) screened in the deeper Qpg aquifer. Between 2004 and 2019, the fluctuation between the minimum and maximum groundwater elevations ranged from 9.90 to 16.93 feet for wells screened in the Qga aquifer, and the groundwater elevation fluctuation was 10.68 feet for the well screened in the lower Qpg aquifer (LAI-5d). The highest water level elevations generally occur in the spring (March/April) and the lowest water elevations generally occur in the fall (September/October). Groundwater levels were collected from local monitoring wells periodically between 2004 and 2019. Maximum and minimum groundwater elevations are shown in Table 2-4. A summary of water level measurements for Site wells (including OLY-1, OLY-2, and MW-23) are provided in Appendix C.

Groundwater flow directions at the Site were evaluated by PGG in July 2006 (PGG 2006). Based on measured water levels, there appeared to be a groundwater mound beneath the Site, with groundwater flow to both the southwest and northwest. The mounding could be due to the location of the Site near a groundwater divide. Groundwater flow in a portion of the Site may be toward Ken Lake to the southwest. Ken Lake is a small kettle lake connected to stormwater features that flow south via the Black Lake Ditch to Percival Creek and ultimately Budd Inlet. Groundwater flow in the remainder of the Site appeared to be to the northwest toward Eld Inlet based on synoptic water levels collected in March 2018 from the Site and from off-site monitoring wells OLY-1, OLY-2, and City monitoring well MW-23. Synoptic water levels collected in March 2019 are generally consistent with the March 2018 measurements. The groundwater levels measured at the Site indicate a groundwater gradient to the northwest. Groundwater level contour maps from 2006 and 2018 are presented on Figures 2-9 and 2-10, respectively.

Hydraulic gradients were calculated to support the assessment of the direction and rate of groundwater flow both horizontally (i.e., within and from the Site) and vertically (i.e., between water-bearing zones at the Site) to assess the potential for contaminant migration in the subsurface. Horizontal hydraulic gradients in the Qga aquifer were calculated at about 0.007 feet per foot (ft/ft) to the northwest based on the groundwater level contours shown on Figures 2-9 and 2-10. Groundwater level elevations indicate that there is a slight downward vertical gradient between the Qga and Qpg aquifers beneath the Site. Based on data from monitoring wells LAI-1 and LAI-5d, the minimum vertical gradient was 0.01245 ft/ft and the maximum vertical gradient was 0.02660 ft/ft. Calculated vertical gradients are presented in Table 2-5.

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[7] Three monitoring wells (MW-1 through MW-3) were installed by Dames & Moore in 1984 but are assumed to have been decommissioned.

2.3.3.2. Hydraulic Conductivity and Groundwater Velocity

Hydraulic conductivity is a measure of how easily water moves through various types of soil and, along with hydraulic gradient and porosity, is used to calculate groundwater velocity. Groundwater velocity is used to assess the potential rate of contaminant migration at the Site through advective groundwater flow.

Horizontal hydraulic conductivity estimates for the Qga and Qpg aquifers were summarized by Golder Associates (2008) based on a review of specific capacity values at individual wells in the local geographic area. Horizontal hydraulic conductivity was estimated at 28 to 47 feet per day (ft/day) in the Qga aquifer based on data from the City's Kaiser Road Well 1. Horizontal hydraulic conductivity was estimated at between 117 to 440 feet per day (ft/day) in the Qpg aquifer based on data from the City's Allison Springs wells (Figure 2-3). The United States Geological Survey (USGS; Drost et al. 1999) presented horizontal hydraulic conductivity estimates based on specific capacity. Golder Associates (2008) summarized these data for the local geographic area. Based on this summary, the median horizontal hydraulic conductivity of the Qga aquifer was 135 ft/day, and the median horizontal hydraulic conductivity of the Qpg aquifer was 130 ft/day. In addition, the USGS provided horizontal hydraulic conductivity values for the upper confining units (Qgt and Qpf). The median horizontal hydraulic conductivity was 14 ft/day in the Qgt and 17 ft/day in the Qpf (Drost et al. 1999).

An estimate of groundwater velocity in the Qga aquifer can be calculated from Darcy's Law as described below. Groundwater velocities in the Qga range from 0.65 to 1.1 ft/day.

$$V = ki/n$$

k (hydraulic conductivity) = 28 ft/day to 47 ft/day (based on data from Golder Associates 2008)

i (horizontal gradient) = 0.007 ft/ft (based on Figures 2-9 and 2-10)

n (porosity) = 0.3 (assumed)

Data were not available to calculate horizontal gradients for the Qpg. However, the Site is located at the far eastern, upgradient edge of the Allison Springs DWPA's 10-year time-of-travel zone (City of Olympia 2015). The DWPA was calculated using the USGS Thurston County Model (Drost et al. 1999). The 10-year time-of-travel zone extends approximately 11,700 feet upgradient of the wellfield. This time of travel is equivalent to an average Qpg groundwater velocity of 3.2 ft/day. Similarly, a DWPA was defined for the Kaiser Well #1 screened in the Qga. The 10-year time-of-travel zone extends about 1,680 feet upgradient of the well, which is equivalent to a groundwater velocity of about 0.5 ft/day. The Allison Springs wells and Kaiser Well 1 DWPAs are shown on Figure 2-11.

The available and calculated hydraulic conductivity and groundwater velocity estimates are variable and likely reflect variations in soil texture and uncertainty associated with specific capacity data used to calculate these values. The groundwater velocity estimates for the Qga aquifer between 0.5 and 1.1 ft/day are reasonable for sand and gravel aquifers in the Puget Sound area. The groundwater velocity estimate of 3.2 feet per year (ft/year) for the Qpg aquifer appears to be on the high end of expected values but this may be due in part to the pumping impacts of the Allison Springs wells. Since groundwater contamination only occurs in the Qga aquifer beneath the site, groundwater velocity values for the Qga aquifer should be used in assessing contaminant migration potential.

2.3.4. Groundwater Geochemistry

Select geochemical parameters were analyzed to evaluate aquifer recharge and refine the understanding of groundwater flow and contaminant fate and transport. Geochemistry analyses consisted of major ions (bicarbonate, chloride, sulfate, sodium, calcium, magnesium, potassium), silica, and total dissolved solids. These geochemistry analyses were performed on groundwater samples collected at four wells (LAI-MW-1, LAI-MW-2, OLY-2, and LAI-5d) during the March 2019 sampling event (Figure 2-5). Wells LAI-MW-1 and LAI-MW-2 represent wells that are at higher risk of being impacted by landfill discharges based on their location adjacent to the landfill and screen placement in the shallow Qga aquifer near the water table. LAI-MW-1 is at the upgradient (south) landfill boundary and LAI-MW-2 is at the downgradient (north) landfill boundary. Well LAI-5d is located adjacent to the landfill but is screened in the lower (deeper) Qpg aquifer. Well OLY-2 is screened in the shallow Qga aquifer but is located approximately 0.25 miles downgradient from the landfill. A summary of the geochemical analytical results for samples from wells LAI-MW-1, LAI-MW-2, OLY-2, and LAI-5d, along with historical data from Kaiser Road Well 1 and Allison Well 19 and the median values for major ions published by the USGS for Thurston County are presented in Table 2-6.

The results of TDS analysis indicate the total amount of ions present in solution. Anthropogenic impacts (e.g., septic tanks, road runoff, landfill leachate) can increase TDS. Water present in deep groundwater systems where groundwater residence times are longer (i.e., groundwater is older) also tend to have naturally higher TDS (Freeze and Cherry 1979). The highest TDS value of 680 mg/L was detected at well LAI-5d. This value likely reflects the older age of the groundwater in the deeper Qpg aquifer. TDS at LAI-MW-2 (northwest, downgradient of the landfill) was 250 mg/L, which is appreciably higher than the median value published by the USGS. The lower TDS values at LAI-MW-1 (south, upgradient of the landfill; 72 mg/L) and at OLY-2 (approximately 0.25 miles downgradient from the landfill; 120 mg/L) are more typical of values expected for shallow groundwater. The relatively higher TDS value at downgradient landfill well LAI-MW-2 could be an indication of minor anthropogenic impacts from the landfill.

Elevated nitrate and sulfate concentrations can also be an indicator of anthropogenic impacts. These two constituents are also useful for evaluating oxidation-reduction (redox) conditions. For example, the occurrence of nitrate is consistent with relatively aerobic conditions, whereas, low concentrations of sulfate may indicate anaerobic/reducing conditions. As shown in Table 2-6, the sulfate concentrations show a similar pattern to the TDS values: sulfate was relatively higher (170 mg/L) at well LAI-5d and slightly higher (55 mg/L) at well LAI-MW-2 as compared to results from LAI-MW-1 (14 mg/L) and OLY-2 (12 mg/L) which are considered more typical for shallow groundwater. The presence of sulfate at elevated or typical concentrations suggests that sulfate reducing conditions are not present. Nitrate was analyzed at two Site wells: LAI-MW-2 (2 mg/L) and OLY-2 (1.7 mg/L). The presence of nitrate at these two wells is consistent with low level regional anthropogenic impacts and is consistent with but slightly greater than the nitrate concentrations measured at the City wells (Allison Well 19 and Kaiser Well 1), and greater than the median USGS value of 0.33 mg/L. The presence of nitrate at LAI-MW-2 and OLY-2 indicate that nitrate-reducing conditions are not present and that the shallow aquifer is primarily aerobic.

Natural attenuation analyses consisted of field measurements of dissolved oxygen and oxygen-reduction potential (ORP) and laboratory analyses of nitrate, sulfate, dissolved gases (methane, ethene, and ethane), and total organic carbon. The natural attenuation analyses were completed to evaluate the redox state of the shallow aquifer and the potential for in-situ degradation of chlorinated VOCs, primarily TCE. Natural attenuation analyses were performed on groundwater samples collected at two wells (LAI-MW-2 and OLY-2) screened in the shallow Qga aquifer. Groundwater samples from both of these wells have indicated that concentrations of TCE are present. As noted above, LAI-MW-2 is northwest and directly downgradient of the landfill; OLY-2 is also northwest and approximately 0.25 miles downgradient from the landfill. A summary of the data used to evaluate natural attenuation is presented in Table 2-7. The available data indicate aerobic aquifer conditions at both wells. Even though the available data indicate primarily aerobic conditions, the recent sample from LAI-MW-2 also indicated the presence of the TCE degradation product cis-1,2-dichloroethene (cDCE), suggesting there may locally be reducing conditions in areas beneath the landfill.

2.3.5. Groundwater Use Near the Site

Groundwater use near the Site was evaluated to determine the potential for human exposure to contaminated groundwater. Groundwater users consist of public water systems (Group A and Group B wells[8]) in the vicinity of the Site (Washington Department of Health 2018). In addition to the public water systems, water rights and Ecology well logs were reviewed to evaluate private drinking water wells near the Site. Information about the depths and pumping rates of the Group A and B wells, as well as private water wells in the vicinity of the Site is provided in Table 2-8 and Table 2-9 respectively. The Group A and B wells and private water wells in the vicinity of the Site are shown on Figure 2-11.

2.3.5.1. Group A Wells

The City operates a large municipal Group A water supply system, which includes Allison Springs Well 13 and Well 19 located within 2 miles downgradient of the Site. The Site is located at the far eastern, upgradient edge of the Allison Springs DWPA's 10-year time-of-travel zone (as noted in Section 2.3.3.2 and shown on Figure 2-11) (City of Olympia 2015). The Allison Springs DWPA was delineated for two City wells (Wells 13 and 19), which in combination with another City well (Shana Park Well 11), provide up to 26 percent of the City's total water supply. The wells are typically utilized between May and October, with occasional year-round use. Additionally, the City operates another well in the vicinity of the Allison Springs wells (Kaiser Road Well 1) for emergency use.

DWPAs represent groundwater travel times and generally outline areas where groundwater will be directed to the well within the next 0.5, 1, 5 and 10 years. The time of travel outlines are produced using numerical modeling with inputs such as well pumping rates and aquifer parameters such as transmissivity and groundwater gradients. Assuming both the Allison Springs wells were pumping continuously at full capacity, it would take an estimated 10 years (assuming no attenuation of contaminants) for groundwater from the landfill area to reach the wells. In addition, the Allison Springs wells are pulling water from the deeper Qpg aquifer. The contamination from the landfill is within the shallow Qga aquifer, and has not been detected in the deeper Qpg aquifer as documented by the data from the recent and historical sampling of well LAI-5d. In addition, no TCE has been detected in the Allison Springs Wells. Kaiser Road Well 1 is screened from 73 to 92 ft bgs and is assumed to be in the Qga aquifer; however, the landfill is outside of the 10 year travel time associated with this well. Also, Kaiser Road Well 1 is used only for emergency use and is therefore less likely to draw the contaminant plume towards it.

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[8] Washington Department of Health defines Group A public water systems as those serving more than 15 connections and more than 25 people per day; large municipal purveyors fall in this category. Group B public water systems serve fewer than 15 connections and fewer than 25 people per day.

There are eight other Group A wells within a 2-mile radius of the Site. Two of the eight wells are upgradient or cross-gradient from the Site:

- Jones Industrial Park: one groundwater well at a depth of 100 feet bgs and a pumping capacity of 43.5 gpm
- Unity Church of Olympia: one groundwater well at a depth of 140 feet bgs and a pumping capacity of 30 gpm

Six of the eight wells are north/northwest of the Site (downgradient):

- Coach Post Mobile Park: two groundwater wells with depths of 78 feet bgs and 128 feet bgs and pumping capacities of 25 and 50 gpm
- Olympia Bible: one groundwater well at a depth of 138 feet bgs and a pumping capacity of 29 gpm
- Heritage West: two groundwater wells with depths of 118 and 122 feet bgs and pumping capacities of 40 and 45 gpm
- West Olympia Medical Park: one groundwater well at a depth of 148 feet bgs and a pumping capacity of 25 gpm

2.3.5.2. Group B Wells

There are six Group B wells within a 2-mile radius of the Site. Two of the six wells are south/southwest of the Site (cross-gradient):

- Regal Park: one groundwater well at a depth of 106 feet bgs with four connections and a pumping capacity of 50 gpm
- Carpenter: one groundwater well at a depth of 36 feet bgs with three connections and a pumping capacity of 30 gpm

Four of the six wells are north/northwest of the Site (downgradient).

- Kaiser Industrial Park: one groundwater well at a depth of 320 feet bgs with three connections and a pumping capacity of 4.5 gpm
- Bob Lemon: one groundwater well at a depth of 140 feet bgs with four connections and a pumping capacity of 23 gpm
- The 14th Street Community: one groundwater well at a depth of 100 feet bgs with four connections and a pumping capacity of 30 gpm
- Kessler Water Supply: One groundwater well at an unknown depth with four connections and an unknown pumping capacity

2.3.5.3. Possible Private Wells

A large portion of the geographic area surrounding the Site is within the City's service area (Figure 2-3). Thurston County Public Utility District (Thurston PUD) serves part of the remaining local geographic area (although not all [Thurston PUD 2018]). Golder Associates (2008) documented several water rights in the vicinity of the Site ranging from 0 to 907 acre-feet per year (afy). According to Ecology's Water Rights

Tracking System (WRTS; Ecology 2018c), there are 63 water rights within a 2-mile downgradient direction of the Site. Of those water rights, 15 are certificates, and 48 are claims. The groundwater claims represent pre-1945 groundwater use (prior to adoption of the state groundwater code) and are relatively unlikely to represent current water use within the City's service area. Of the 15 certificates, four are documented as partial or complete domestic use and are not identified by the City as being serviced by City water (Table 2-9 and Figure 2-11). It is unlikely that these wells are drawing contaminated groundwater associated with the Site due to their distance from the Site and low pumping rates.

3.0 SCREENING LEVELS AND INDICATOR HAZARDOUS SUBSTANCES

The nature and extent of contamination at the Site was evaluated and documented by comparing the concentrations of contaminants detected in the various Site media to screening levels developed following regulatory guidance. This comparison allows for the elimination of those hazardous substances that contribute a small percentage of the overall threat to human health and the environment and identifies the contaminants that pose the greatest potential risk to people and ecological receptors, which are termed Indicator Hazardous Substances (IHSs). The selected IHSs are not only representative of those chemicals that pose the greatest risk, but collectively encompass the footprint of other (non-IHS) chemicals. The identification of the Site IHSs ultimately informs the technologies and remedies evaluated in the FS for Site cleanup.

The screening levels developed for each Site media (soil, groundwater, and soil gas) are based, in part, on: 1) contaminants present in each media; 2) potential land-use, and 3) potential receptors and exposure pathways present at the Site.

3.1. Screening Levels

This section summarizes the development of screening levels (SLs) for soil, groundwater, and soil gas at the Site. The SLs have been developed in accordance with the MTCA requirements[9].

Contaminant-specific SLs were developed based on available numerical regulatory standards or toxicity data that were used to calculate protective criteria. The soil, groundwater, and soil gas SLs were developed based on the unrestricted land use scenario for all constituents analyzed at the Site and for the various exposure pathways. Typically, the SLs are the lowest of the comparative value concentrations.

The development and selection of SLs for the constituents detected in soil, groundwater, and soil gas for the various exposure pathways is summarized in Tables 3-1 to 3-3.

3.1.1. Soil

The SLs for the constituents detected in soil are presented in Table 3-1. The soil SLs were selected from the following criteria:

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[9] WAC 173-340-720 and 740

- **Human Direct Contact**: MTCA standard Method B soil cleanup levels protective of human health for unrestricted land use[10], obtained from Ecology's "CLARC Master Spreadsheet.xlsx" dated August 2015 (CLARC database[11]) or calculated using equations in MTCA[12]. MTCA Method A soil cleanup levels for unrestricted land use[13] obtained from MTCA Table 740-1 are used for analytes without Method B soil cleanup levels (TPH and lead).
- **Terrestrial Ecological Evaluation (TEE)**: A simplified TEE was conducted for the Site (see Appendix D). The Site does not qualify for any of the TEE MTCA exceptions; therefore, the simplified TEE soil screening levels for unrestricted land use in MTCA Table 749-2 are included in Table 3-1.
- **Groundwater Protection**: Soil criteria protective of groundwater quality (based on the lowest groundwater criteria that are presented in Table 3-2 and discussed below in Section 3.1.2). These criteria were only calculated for soil constituents that were detected in groundwater at concentrations greater than the respective groundwater SLs. These soil criteria address the soil to groundwater pathway and were calculated using the MTCA fixed parameter three-phase partitioning model[14]. Default assumptions provided in MTCA Equation 747-1 and Equation 747-2[15] for vadose and saturated zone soils were used in the calculations, and model input parameter values (K_{oc} and Henry's Law constants) were taken directly from Ecology's CLARC database.

  The default f_{oc} of 0.001 was used to calculate MTCA Method B soil cleanup levels based on the protection of groundwater.

MTCA specifies that the screening level for a given constituent shall not be set at a level lower than the natural background concentration or the practical quantification limit (PQL), whichever is higher[16]. Soil SLs were selected based on the lowest of the applicable numerical criteria. The SLs were then adjusted upward, as warranted, based on background concentrations (metals) and PQLs. The background metals concentrations are the Puget Sound region 90th percentile values reported by Ecology (1994), except for arsenic; the natural background concentration for arsenic is based on MTCA Table 740-1. The PQLs listed in Table 3-1 are the lowest PQLs reported by LAI during the 2000 and 2005 soil sampling events at the Site.

The soil SLs listed in the columns titled "Preliminary Soil Screening Level" in Table 3-1 are the lowest risk-based concentration and have not been adjusted for background or PQLs. The SLs for vadose and saturated zone soil presented in the last two columns of Table 3-1 are after adjustment for background and PQL.

3.1.2. Groundwater

The SLs for the constituents detected in groundwater are presented in Table 3-2. The groundwater SLs are based on protection of the following media/exposure scenarios:

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[10] WAC 173-340-740[3][b]

[11] https://fortress.wa.gov/ecy/clarc/CLARCDataTables.aspx

[12] WAC 173-340-740(3)(b)(iii)(B)

[13] WAC 173-340-740[2]

[14] WAC 173-340-747[4]

[15] WAC 173-340-747(4)(b)

[16] WAC 173-340-705[6]

- **Protection of Drinking Water.** Groundwater numerical criteria are based on the standard for potable groundwater[17]. MTCA Method B standard formula values, based on the protection of human health via the consumption of drinking water, were obtained from Ecology's "CLARC Master Spreadsheet.xlsx" dated August 2015. As noted in MTCA[18], the standard formula values are necessary when sufficiently protective criteria have not been established under applicable state and federal laws. Ecology considers a criterion sufficiently protective if the excess cancer risk is not greater than 1 x 10^{-5} or the hazard quotient is not greater than 1 (Ecology 2005). State or federal criteria that are not sufficiently protective were adjusted to a cancer risk of 1 x 10^{-5} or a hazard quotient of 1. These downward adjusted values are presented in Table 3-2 in the columns "Carc. Adjusted" and "Non-Carc. Adjusted," respectively.
- **Protection of Indoor Air.** Groundwater numerical criteria protective of indoor air (via the vapor intrusion pathway) were obtained from Ecology's August 2015 "CLARC Master Spreadsheet.xlsx."

MTCA[19] specifies that the screening level for a given constituent shall not be set at a value below the natural background concentration or analytical PQL, whichever is higher. Preliminary groundwater SLs were selected based on the lowest of the applicable numerical criteria described above. The SLs were then adjusted as necessary based on background concentrations (arsenic only) and PQLs. The background value for arsenic in groundwater is based on the MTCA Method A groundwater cleanup level, which is identified as the regulatory background concentration for arsenic in Washington state. The PQLs listed in Table 3-2 are the lowest, regularly attained PQLs from groundwater samples obtained at the Site by LAI, PGG, and E&E.

The groundwater SLs listed in the column titled "Preliminary Groundwater Screening Level" in Table 3-2 are the lowest risk-based concentration and have not been adjusted for background or PQLs. The SLs for groundwater presented in the last column of Table 3-2 are after adjustment for background or PQL.

3.1.3. Soil Gas

The SLs for the constituents detected in soil gas are presented in Table 3-3. The soil gas SLs are based on protection of the following media/exposure scenarios:

- **Protection of Indoor Air.** The concentrations of VOCs detected in shallow soil gas samples are compared to MTCA Method B sub-slab soil gas screening levels developed for protection of indoor air. These screening levels are used for samples collected between 5 and 15 feet bgs (Ecology 2018). Soil gas numerical criteria protective of indoor air (via the vapor intrusion pathway) were obtained from Ecology's August 2015 "CLARC Master Spreadsheet.xlsx."

MTCA[20] specifies that the screening level for a given constituent shall not be set at a value below the natural background concentration or analytical PQL, whichever is higher. Natural background concentrations are not applicable to soil gas and the soil gas PQLs are lower than the soil gas SLs; therefore, no adjustments were necessary. The PQLs listed in Table 3-3 are from TestAmerica.

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[17] WAC 173-340-720[4][b]

[18] WAC 173-340-730(3)(b)(iii)

[19] WAC 173-340-705[6]

[20] WAC 173-340-705[6]

The soil gas SLs listed in the columns titled “Preliminary Soil Gas Screening Level” and “Soil Gas Screening Level (After PQL Adjustment)” of Table 3-3 are the same since no adjustments were necessary.

Methane results are compared to the lower explosive limit (LEL) of 5 percent by volume to determine if hazardous conditions are present.

3.2. Indicator Hazardous Substances

IHSs for the Site were selected according to WAC 173-340-703 to focus the evaluation of the nature and extent of contaminants and to inform the technologies and remedies that will be evaluated in the FS for Site cleanup. This process eliminated hazardous substances that contribute a small percentage of the overall threat to human health and the environment. The selected IHSs are not only representative of those chemicals that pose the greatest risk, but collectively encompass the footprint of other (non-IHS) chemicals. Remedial alternatives that address the IHSs will also address other chemicals that exceed SLs but were not selected as IHSs.

The first step in selecting the IHSs for each medium was to identify the frequency and magnitude at which individual constituents exceed their respective SLs. Table 3-4 presents the soil data (from Appendix A, Table A-2) selected for use for the RI Site characterization, as noted in Section 2.1, screened against the respective SLs. Table 3-5 presents the selected groundwater data (from Appendix A, Table A-3) screened against the respective SLs. Table 3-6 presents the selected soil gas data (from Appendix A, Table A-4 through A-7) screened against the respective SLs. The frequency at which a constituent exceeds its SL is termed the “frequency of exceedance.” The magnitude by which a constituent exceeds its SL is termed the “exceedance ratio,” and is derived by dividing the detected concentration by the SL concentration. Constituents were initially considered as potential IHSs if they met either of the following criteria (based on soil compliance monitoring criteria in WAC 173-340-740[7][e]):

- The constituent had a frequency of exceedance of at least 10 percent, or
- The constituent had an exceedance ratio of 2 or more.

The selection of soil, groundwater and soil gas IHSs are discussed below. Tables 3-4 to 3-6 present selected soil, groundwater and soil gas summary statistics and information for the constituents detected in each medium, as well as comments and rationale for IHS selection. As noted above, the data sets selected for the RI Site characterization and to identify the IHSs are discussed in Section 2.1.

3.2.1. Soil Indicator Hazardous Substances

Two constituents were selected as soil IHSs (Table 3-4) and are listed below, with a description of the basis for selection:

- Chromium -- exceeds the SL in 52 percent of the samples with an exceedance ratio of up to 67 times the SL.
- Lead -- exceeds the SL in 66 percent of the samples with an exceedance ratio of up to 12 times the SL.

Constituents that were detected in soil but that did not meet the initial IHS selection criteria were evaluated to determine if they should be retained as IHSs. Diesel-range hydrocarbons was detected in soil at a concentration greater than the SL in one out of 29 samples (frequency of exceedance equals 3.4 percent) and the maximum detected diesel-range hydrocarbons concentration of 480 mg/kg is only slightly greater than the simplified TEE-based SL of 460 mg/kg (maximum exceedance ratio equals 1.0). In addition, the maximum detected concentration is from a sample obtained at a depth of 7.5- to 8.0-feet bgs, which is below the conditional point of compliance for ecological receptors (6 feet bgs). Diesel-range hydrocarbons were not detected at concentrations greater than the next lowest soil SL of 2,000 mg/kg. The remaining constituents that were detected in soil samples were not detected at concentrations greater than applicable soil SLs. This evaluation confirmed that it was appropriate to eliminate these constituents from further consideration as IHSs in soil based on the initial selection criteria.

The effect of elevated analytical reporting limits on the IHS selection process was also evaluated. TCE, which was retained as a groundwater IHS, had elevated reporting limits in the soil samples obtained from LAI-5d at depths ranging from 119- to 148-feet bgs. However, because the TCE screening level is based on the protection of groundwater and TCE was not detected in monitoring well LAI-5d, which was screened from 142- to 152-feet bgs, the elevated reporting limits in the LAI-5d soil samples is not a data gap. The TCE reporting limits in soil samples obtained from borings LAI-5 (0.0011 milligram per kilogram [mg/kg]) and LAI-7 (0.0012 mg/kg) are greater than the soil screening level of 0.001 mg/kg but are not considered elevated because the screening level is set at the laboratory PQL, which is adjusted on a sample-by-sample basis to account for the moisture content of soil.

3.2.2. Groundwater Indicator Hazardous Substances

Only one constituent was selected as a groundwater IHS (see Table 3-5). The selected IHS is listed below, with a description of the basis for selection:

- TCE -- exceeds the SL in 45 percent of the samples with a maximum exceedance ratio of 32 times the SL.

Constituents that were detected in groundwater but that did not meet the initial IHS selection criteria were evaluated to determine if they should be retained as IHSs. Total manganese (one out of 15 samples) and dissolved manganese (two out of 26 samples) were detected in groundwater at concentrations greater than the SL (frequency of exceedance of 6.7 and 7.7 percent, respectively). The maximum detected manganese concentrations of 2,600 µg/L (dissolved) and 2,420 µg/L (total) are only slightly greater than the MTCA Method B drinking water-based SL of 2,200 µg/L (maximum exceedance ratio equals 1.2). These maximum detected manganese concentrations were detected in groundwater samples from LAI-5d, which is screened in the underlying Qpg aquifer, indicating that the manganese detected in LAI-5d are not related to the former landfill. The remaining constituents that were detected in groundwater were not detected at concentrations greater than applicable groundwater SLs. This evaluation confirmed that it was appropriate to eliminate these constituents from further consideration as IHSs in groundwater based on the initial selection criteria.

The effect of elevated analytical reporting limits on the IHS selection process was also evaluated. As shown in Table 3-5, there were no elevated reporting limits for constituents that were detected in groundwater in at least one sample. Elevated reporting limits, therefore, do not adversely affect the evaluation of the nature and extent of groundwater contamination at the Site.

Metals were not identified as IHSs based on the low frequency of SL exceedances and maximum exceedance ratios less than two, as discussed above. However, the metals manganese and iron are known indicators of landfill impacts to groundwater. Therefore, the detections of manganese and iron in the 2014, 2015, and 2019 groundwater data were considered during the evaluation of the nature and extent of contamination at the Site, as discussed in Section 4.0, and will continue to be evaluated (including during the planned 2019 dry season groundwater sampling and analysis event) as indicators of potential landfill impacts to groundwater.

3.2.3. Soil Gas Indicator Hazardous Substances

Development of IHSs for soil gas emphasized the 2018 sampling data for three primary reasons:

- State of the practice soil sampling techniques were used that included leak testing.
- The data are the most recent and therefore reflect current conditions.
- The scope of 2018 sampling included good geographic coverage of the Site.

The contaminants that exceeded the screening levels during the recent 2018 soil gas sampling are included as IHSs: 1,4-DCB, PCE, and TCE (see Table 3-6). Methane was also retained as a soil gas IHS because it has been detected historically at the Site at concentrations up to 10 percent by volume in soil gas probes, which is greater than the LEL of 5 percent.

Constituents that were previously detected in soil gas above screening levels include 1,1,1,2-tetrachloroethane, hexane, 1,3-butadiene, benzene and carbon tetrachloride. These constituents were not included as IHSs for the following reasons:

- None of these five constituents were detected above screening levels during the 2018 soil gas sampling event
- PCE (which is an IHS) was detected at higher concentrations (except for hexane) and at more locations (larger spatial footprint) than these other compounds (see Nature and Extent section). Addressing PCE in soil gas will address these other constituents.
- 1,3-butadiene and benzene are common constituents in background air due to wood burning and vehicle admissions (Puget Sound Clean Air Agency (PSCAA) 2010). The location of the site adjacent to US Route 101 may make it more susceptible to high concentrations of these constituents. These constituents were not detected during 2018 sampling.
- 1,1,1,2-tetrachloroethane was only detected above screening levels once in 2016 and was co-located with a PCE exceedance. This constituent was not detected during 2018 sampling.
- Carbon tetrachloride was only detected above screening levels at three locations during passive soil gas sampling in 2016. Carbon tetrachloride is a common constituent in background air due to its persistence and historical use as a household and industrial chemical (PSCAA 2010).
- The hexane screening level has changed. The concentration of hexane detected in a temporary soil gas probe in 2014 is less than the current screening level.

The effect of elevated analytical reporting limits on the IHS selection process was also evaluated for the 2018 data. As shown in Table 3-6, there were no elevated reporting limits for constituents that were detected in at least one soil gas sample. Elevated reporting limits, therefore, do not adversely affect the evaluation of nature and extent of soil gas at the Site.

4.0 NATURE AND EXTENT OF CONTAMINATION

This section describes the nature and extent of contamination in the various media at the Site including waste, soil, groundwater, and soil gas based on the IHSs identified in the previous section. The locations of the IHSs define the vertical and lateral extent of the contamination at the Site and allow for evaluation of the risk posed by contaminants to Site receptors and the environment. The IHSs also allow for the evaluation of potential cross-media impacts in the context of the conceptual site model (CSM) presented in Section 5.0. Chemical analytical results for the IHSs in waste, soil, groundwater, and soil gas are presented in Tables 4-1 through 4-4, respectively. As discussed in Section 2.1, data sets from the investigations conducted at the Site to date were selected, based on the age and quality of available chemical analytical data, to characterize the nature and extent of the contamination in Site media. The data sets used as part of this analysis included soil and waste data from 2000 to present, groundwater data from 2014, 2015 and 2019 and soil gas data from 2014 to 2018.

As discussed in Section 2, the Supplemental Groundwater Characterization was completed in March 2019 to establish current wet season groundwater conditions and document the nature and extent of the COCs (primarily PCE and TCE) in groundwater. As discussed below, TCE has been detected at concentrations greater than the laboratory reporting limits only in samples from wells along the north and northwest boundary of the former landfill parcel and in the sample from one off site well further to the north-northwest and hydraulically downgradient.

4.1. Waste

As outlined in Section 2.1, the waste material at the Site has been investigated to document its lateral and vertical occurrence and was sampled for the COCs as part of previous studies (primarily Landau 2000). The thickness of the waste material encountered at the Site ranged from 0 feet (absent) near the Site property boundaries to 17.5 feet thick near the central and northern portions of the property where the waste was placed in a mound with little to no fill cover. The IHSs for soil (chromium and lead) were used to evaluate the waste to identify potential sources of contamination to the underlying soil and groundwater. (Specific IHSs were not identified for the waste). The lateral extent of the waste and the extent of the IHSs (chromium and lead) are shown on Figures 4-1 and 4-2. The analytical results are presented in Table 4-1.

The nature and extent of the waste at the Site is represented by chemical analytical data from 12 borings where sample depths ranged from 2.5 to 11.5 feet bgs. Waste was also characterized using qualitative information like descriptions provided in exploration logs from other Site borings and test pits—many of which were completed to depths of 15 to 25 feet bgs to also allow evaluation of underlying native soil conditions.

Chromium was detected at concentrations greater than the SL of 48 mg/kg in waste material in 12 samples from nine borings across the Site at depths ranging from 5 to 11.5 feet bgs. The detected chromium concentrations greater than the SL ranged from 49 to 90 mg/kg in 11 of the 12 samples with chromium detected in the 12th sample at a concentration of 3,210 mg/kg (LAI-14 from 7.5 to 9 feet bgs). The chromium concentrations detected in the underlying native soil were less than the SL in four of the boring locations at depths ranging from 13 to 19 feet bgs (Table 4-1 and Figure 4-1).

Lead was detected at concentrations greater than the SL of 220 mg/kg in waste material in 13 samples from 10 borings) across the Site at depths ranging from 2.5 to 11.5 feet bgs. The detected lead concentrations greater than the SL ranged from 256 to 1,330 mg/kg in 11 of the 13 samples with the remaining two samples indicating concentrations of 2,330 mg/kg (LAI-13 at 8 to 9 feet bgs) and

2,630 mg/kg (LAI-9 at 5.5 to 6.5 feet bgs). The lead concentrations detected in the underlying native soil samples (from five borings at depths ranging from 13 to 25 feet bgs) were less than the SL (Table 4-1 and Figure 4-2).

4.2. Soil

The extent of the IHSs in soil at the Site is shown on Figure 4-3 and was evaluated based on samples collected during previous investigations from 2000 to the present (as discussed in Section 2.1). The soil data for the IHSs are provided in Table 4-2. The soil conditions at the Site are characterized using chemical analytical data from nine explorations with sample depths ranging from 13 to 50 feet bgs. Most of the borings were completed to depths ranging from approximately 12 to 34 feet bgs to evaluate the waste material, fill, and shallow native soil conditions. Four borings were advanced from 72 to 156 feet bgs to evaluate deep native soil and groundwater conditions beneath the Site. Specific details of RI investigation activities and previous Site investigations are discussed in Section 2.1.

Chromium was detected at concentrations greater than the SL of 48 mg/kg in soil at three locations (borings LAI-5, LAI-7, and LAI-15) across the Site from approximately 17.5 to 26 feet bgs at concentrations ranging from 50 to 88 mg/kg. Soil in this horizon was interpreted to be native advance outwash (sand and gravel) that underlies landfill waste material except at location LAI-15 which is just southeast of the interpreted extent of the waste. Lead was detected at concentrations greater than the SL of 220 mg/kg at two of the same locations (LAI-5; 391 mg/kg and LAI-7; 501 mg/kg) where chromium was detected at concentrations greater than the SL. The concentrations of both lead and chromium were greater than the SLs (by approximately 1 to 2 times) in the native soil underlying the landfill waste in these two locations. Based on the interpreted base depth of the waste material in boring LAI-7 (16.5 bgs), the sample collected from 17.5 to 19 feet bgs in boring LAI-7 may have contained some waste material that contributed to the lead and chromium exceedances in that sample.

4.3. Groundwater

The nature and extent of contamination in groundwater at the Site was evaluated based on samples collected in 2014, 2015 and 2019 (as discussed in Section 2.1), that consists of 28 groundwater samples collected from 10 monitoring wells on Site, and 12 groundwater samples collected from three monitoring wells downgradient from the Site (OLY-1, OLY-2, and MW-23). All of the wells sampled, except well LAI-5d, are screened in the upper Qga aquifer. Well LAI-5d is screened in the underlying Qpg aquifer.

As discussed in Sections 3.1.2 and 3.2.2, TCE is the only IHS identified for groundwater at the Site. TCE was selected as an IHS for groundwater at the Site based on the frequency and magnitude at which it was detected at concentrations greater than the SL of 1.6 µg/L. The analytical results for TCE in groundwater are presented in Table 4-3 and shown on Figure 4-4.

The detected concentrations of TCE range from 0.27 to 50 µg/L in the samples from five on-site monitoring wells (PGG-1, LAI-1, LAI-2, LAI-MW-2, and LAI-MW-4) that are screened in the Qga aquifer at depths ranging from 45 to 77 feet bgs (Table 2-2). The highest concentrations of TCE were detected in the samples from monitoring wells LAI-1 and LAI-MW-2 near the northwest corner of the former landfill property just outside of the estimated extent of the waste material. Monitoring well LAI-5d is also located in the northwest corner of the former landfill property directly adjacent to LAI-1 but is screened at approximately 142 to 152 feet bgs within the underlying Qpg aquifer. TCE has not been detected in any of the groundwater samples collected from well LAI-5d.

TCE has been detected at concentrations from 0.11J to 6.1 µg/L in samples from two of the three off-site downgradient wells (OLY-1 and OLY-2). The single detection in OLY-1 from December 2015 was flagged by the laboratory as an estimated value because the detected concentration was below the reporting limit, but above the detection limit. Therefore, this single detection may not be representative of groundwater at OLY-1. TCE was not detected above the laboratory reporting limit of 0.20 µg/L in the groundwater sample collected from OLY-1 in March 2019. The detected concentrations of TCE in the groundwater samples from OLY-2, which is located approximately 0.25 miles downgradient (north-northwest) from on-site monitoring wells LAI-1 and LAI-MW-2 (wells with the highest concentrations of TCE on the property), ranged from 2.6 µg/L (March 2015) to 6.1 µg/L (December 2015). TCE was detected at a concentration of 2.8 µg/L in the groundwater sample collected from OLY-2 in March 2019. TCE has not been detected at concentrations above the laboratory reporting limit in any of the groundwater sample collected to date from off-site downgradient well MW-23.

Using the available data for wells LAI-1 and LAI-MW-2 (12 data points from 2004 to 2019), a Mann-Kendall statistical analysis was conducted to assess the TCE concentration trend over time at individual wells. A statistically significant trend over time was not identified for either well (Figure 4-5).

4.4. Soil Gas

The following sections summarize the nature and extent of soil gas contamination. The soil gas IHSs identified (Section 3.2.3) include hazardous conditions associated with methane, and specific VOCs. Figure 4-6 shows the soil gas monitoring locations from 2006 through 2018.

4.4.1. Methane

Methane has been detected historically at the Site at concentrations up to 10 percent by volume; however, more recent data from 2006, 2014 and 2018 indicate methane concentrations in and near the landfill were below the LEL of 5 percent by volume or not detected. Figure 4-6 presents locations where methane concentrations have been analyzed since 2006. Appendix A, Tables A-4, A-5, and A-7 summarize available methane data from 2006 to 2018. A summary of previous detected methane concentrations is provided below:

- During a 1986 investigation by Hart Crowser, methane was measured at a concentration of 500 parts per million (ppm; 0.05 percent by volume) toward the center of the waste. No methane was detected in the other gas probe locations (Hart Crowser 1986). During a subsequent investigation in 1987, Hart Crowser detected methane concentrations up to 12 percent by volume in test pits within the refuse and up to 10 percent in gas probes (Zipper Zeman Associates 2003b). The gas probes were presumably decommissioned after the 1987 investigation. Due to the age of the data, locations are not shown on Figure 4-6 and data are not included in Appendix A.
- In 2006, permanent soil gas wells (GP-1 through GP-5) were installed and soil gas was measured in the field for methane, oxygen, and carbon dioxide. Methane was not detected (PGG 2006b). The 2006 methane results are presented in Appendix A, Table A-4.
- In 2014, methane was detected at concentrations ranging from 0.00089 to 3.6 percent. The highest methane concentrations were detected at GP-5 and GP-6 (0.51 percent and 3.6 percent, respectively). Methane was also detected in samples GP-8, and GP-10 through GP-14, though at lower concentrations. The 2014 methane results are presented in Appendix A, Table A-5.
- During the 2018 LAI soil gas sampling, methane was either not detected or detected at 0.1 percent. The 2018 methane results are presented in Appendix A, Table A-7.

All of the methane concentrations detected since 2006 are well below the LEL of 5 percent by volume. The monitoring results indicate landfill gas generation is limited, which is expected based on the age of the landfill. Results are also consistent with waste that was often burned before it was buried. The trace amounts of methane detected during the most recent sampling event indicate methane gas does not currently appear to be causing hazardous conditions.

4.4.2. Volatile Organic Compounds

VOCs in soil gas were measured at the Site in October 2014, July 2016, May 2018, and June 2018. Soil gas sampling events conducted in 2014 and 2018 used active soil gas sampling techniques, while the 2016 event used passive soil gas sampling techniques. Comprehensive results for the 2014, 2016, and 2018 sampling events are presented in Appendix A, Tables A-5 through A-7, respectively. The 2014 to 2018 results for the soil gas IHSs are presented in Table 4-4.

2014 Sampling Event

In October 2014, active soil gas samples were collected from five existing soil gas sampling locations and nine temporary soil gas sampling locations. Four VOCs (1,3-butadiene, benzene, PCE, and TCE) were detected at concentrations above the MTCA Method B screening levels. The VOC concentrations detected above the screening levels are shown on Figure 4-7 and summarized below:

- At four locations (GP-6, GP-10, GP-11, and GP-14), 1,3-butadiene was detected above the SL (2.8 micrograms per cubic meter [μg/m^3]) at concentrations ranging from 6.6 to 38 μg/m^3.
- At four locations (GP-8, GP-10, GP-11, and GP-14), benzene was detected above the screening level (11 μg/m^3) at concentrations ranging from 16 to 56 μg/m^3.
- At four locations (GP-2, GP-4, GP-8, and GP-9), PCE was detected above the screening level (320 μg/m^3) at concentrations ranging from 360 to 1800 μg/m^3.
- At two locations (GP-5 and GP-9), TCE was detected above the screening level (12 μg/m^3) at concentrations of 150 and 180 μg/m^3.

2016 Sampling Event

In July 2016, passive soil gas samples were collected from 64 locations. The passive samplers were placed in a grid configuration covering the northwest portion of the landfill. The grid points were labeled A through H in the west to east direction and 1 through 8 in the south to north direction. Six VOCs (benzene, carbon tetrachloride, PCE, TCE, 1,1,1,2--tetrachloroethane, and 1,4-DCB) were detected at concentrations above the screening levels. VOC concentrations detected above screening levels are shown on Figure 4-8 and summarized below:

- At two locations (D8 and H8), benzene was detected above the screening level (11 μg/m^3) at concentrations of 39.9 and 40.6 μg/m^3, respectively. It is also noted that the benzene reporting limit (up to 32.2 ug/ m^3) for all samples was about three times greater than the screening level.
- At three locations (B4, E1, and G1), carbon tetrachloride was detected above the screening level (14 μg/m^3) at concentrations ranging from 55.9 to 546 μg/m^3. It is also noted that the carbon tetrachloride reporting limit (up to 38. 7 μg/m^3 in the 2016 sampling event) for all samples was greater than screening level.

- At one location (G7), 1,1,1,2-tetrachloroethane was detected above the screening level (11 µg/m³) at a concentration of 16.3 µg/m³.
- At one location (E6), 1,4-DCB was detected above the screening level (7.6 µg/m³) at a concentration of 90.9 µg/m³.
- At 22 locations, PCE was detected above the screening level (320 µg/m³) at concentrations ranging from 354 µg/m³ to 2,860 µg/m³. There are apparently four PCE hot spots based on data presented on Figure 4-8. These hot spots are:
  - Two areas of elevated PCE concentrations are in the northern portion of the grid, one encompassing grid points A6, B6, and C7, and the other encompassing grid points F6, F7, G6, G7, and H7. Samples collected from locations F6 and F7 exhibited the highest PCE concentrations; with the addition of H7, these three sample locations were the only three where TCE was similarly detected.
  - One hotspot is in the eastern portion of the sample grid encompassing grid points G4 and H4.
  - One hotspot is at the southern boundary of the sample grid encompassing grid points B2, C1, D1, D2, D3, D4, E1, E2, F1, and F2. The southern hotspot appears to be centered on E1.
- At six locations, TCE was detected above the screening level (12 µg/m³) at concentrations ranging from 28.2 to 871 µg/m³. It is also noted that the TCE reporting limit (up to 14.5 µg/m³) for all samples was greater than screening level.
  - The highest TCE concentrations were in two locations (hotspots) in the northeast portion of the sample grid, encompassing grid points F6 and F7, and H6 and H7. These grid points are located near sample locations GP-5 and GP-9, where TCE was detected at concentrations above the screening level during the October 2014 soil gas sampling event.

2018 Sampling Events

During the May and June 2018 sampling events, soil gas samples were collected from 15 locations. Samples were analyzed only for those VOC constituents that exceeded screening levels in previous investigations (1,3-butadiene; 1,4-DCB; 1,1,1,2-tetrachloroethane; benzene; carbon tetrachloride; hexane; PCE; and TCE). The soil gas results are presented in Table 4-4. Three VOCs (1,4-DCB, TCE, and PCE) were detected above MTCA Method B shallow soil gas screening levels protective of indoor air. Exceedances are shown on Figure 4-9 and summarized below:

- 1,4-DCB was detected at a concentration above the screening level (7.6 µg/m³) at two locations. (8.5 µg/m³ and 13 µg/m³ at GP-2 and GP-3, respectively).
- PCE was detected at concentrations above the screening level (320 µg/m³) at four locations (GP-2, GP-4, GP-15 and GP-16) ranging from 470 µg/m³ to 1,200 µg/m³. The highest concentration was detected at G-16.
- TCE was detected at concentrations above the screening level (12 µg/m³) at four locations (GP-2, GP-5, GP-15 and GP-21) ranging from 21 µg/m³ to 210 µg/m³. The highest concentration was detected at GP-5.

5.0 CONCEPTUAL SITE MODEL

A CSM has been developed for the Site based on historical Site data and the additional groundwater and soil gas investigations completed as part of this RI as discussed in Sections 2.1 and 2.2. Based on review of the available data, Site conditions, including the lateral and vertical extents of soil, soil gas, and groundwater with contaminant concentrations greater than the SLs, have been sufficiently documented to develop the CSM. The CSM describes physical Site conditions, contaminant sources for the Site, contaminants of concern, impacted media, fate and transport of these chemicals, and exposure pathways that could affect human or environmental health (receptors). The CSM supports the development and evaluation of remedial alternatives in the FS.

The following sections summarize the geology and hydrogeology that serve as a basis for identifying transport pathways and presents the sources of contamination, transport and exposure pathways, and receptors.

5.1. Geology and Hydrogeology

The Site geology and hydrogeology are summarized to help identify existing transport pathways. As described in Section 2.3, the Site is in West Olympia between the Black Hills and Puget Sound (Figure 2-3). The Site was operated by the City of Olympia as an active landfill after they purchased the property in 1939, and from 1942 to the late 1960s; waste was placed at the Site and periodically burned and covered with fill or gravel. Prior to the City's operation the Site was used as a dump by local residents (E&E 2017).

The landfill waste varies from 0 feet thick near the Site landfill property boundaries to 17.5 feet thick toward the center, and overlies the regional stratigraphic sequence of Vashon and pre-Vashon deposits (as shown on Figure 5-1) that generally consist of alternating aquifers and aquitard units including:

1. Recessional outwash (Qgo) aquifer—relatively thin, discontinuous, perched near-surface water-bearing zone. Likely important as a recharge source to local surface water features but is not known to be used as a drinking water supply aquifer in the Study area.
2. Vashon till (Qgt) aquitard—a very dense silty, sandy gravel that varies from brown to gray ranging in thickness from about 5 feet to 40 feet.
3. Vashon advance outwash (Qga) aquifer—a brown sand or gravel with varying amounts of silt that underlies the Qgt unit. The Qga is unconfined (i.e., the water table is below the bottom of the glacial till unit) at and near the Site but is probably confined beneath till in other portions of the Study area. Most of the monitoring wells at the Site extend at least 20 feet into the Qga, which is at least 95 feet thick beneath the Site.
4. Pre-Vashon glaciolacustrine deposits (Qpf) aquitard—a grey silt with varying amounts of sand that is at least 17 feet thick beneath the Site.
5. Pre-Vashon gravel (Qpg) aquifer—a grey sand water-bearing unit with gravel and silt that is confined beneath the Site by the Qpf layer. In places where the Qpf is missing (such as at the Allison Springs wells) the Qga and Qpg likely form a continuous aquifer system. This aquifer serves as a drinking water source for the City in the Allison Springs area, which is located approximately 1.7 miles northwest of the Site.

Groundwater elevations in the Qgo and Qga aquifers vary seasonally, and recharge occurs from rainfall infiltration. Recharge may also occur from interflow and surface water run-on coming off the bedrock uplands to the south (Figure 2-4). The groundwater flow direction is generally from the southeast to the northwest in the Qga and Qpg aquifers, although Qga groundwater level contours suggest the presence of a local groundwater divide at the Site near monitoring well LAI-1 (see Figures 2-9 and 2-10).

The shallowest aquifer (Qgo), while likely discontinuous, provides a transport pathway for soluble contaminants in fill and waste in the unsaturated zone through rainwater infiltration or contact with shallow groundwater. Additionally, direct groundwater exchange between the recessional and advance outwash units (Qgo and Qga) may occur in areas where the Vashon till aquitard (Qgt) is discontinuous or thin. Contaminant transport from the Qga aquifer to the deeper Qpg aquifer beneath the Site is unlikely due to the vertical separation, the presence of the Qpf aquitard, and only a slight downward vertical gradient based on water levels measured at the Site (Section 2.3.3.1).

5.2. Sources of Contamination

The primary sources of contamination at the Site include landfilled waste and fill from undocumented sources that were historically placed at the Site. These primary sources have contaminated soil (lead and chromium), soil gas (TCE, PCE and 1,4_DCB) and groundwater (TCE) that then act as secondary sources of IHSs at concentrations greater than the SLs.

The data indicate that the detections of soil IHSs (chromium and lead) are relatively widespread in shallow soil and/or waste across the Site, but the detections of the groundwater IHSs are limited to TCE in groundwater samples collected from the Qga aquifer in the northwest corner of the Site near monitoring wells LAI-1 and LAI-MW-2. TCE has also been detected above the SL in groundwater from downgradient Qga aquifer monitoring well OLY-2. TCE was detected below the SL during one sampling event (December 2015) from downgradient (north-northwest) well OLY-1, which is also screened in the Qga aquifer. TCE has not been detected in samples from OLY-1 during any other monitoring event.

Similar to soil IHS detections, soil gas IHSs (PCE, TCE, 1,4-DCB) are fairly widespread across the Site, but are generally bounded within the footprint of the landfill waste. Detections of 1,4-DCB are relatively limited compared to PCE and TCE detections which are numerous and more commonly exceed Site SLs. PCE was the most frequently detected IHS, and was detected at higher soil gas concentrations than TCE within shallow soil and waste beneath the landfill.

5.3. Transport Pathways

The soil, groundwater, and soil gas transport pathways are identified in this section and shown on Figure 5-1. The specific transport pathways applicable to each medium and IHS are presented as part of the description of the CSM for the Site. Environmental chemistry affecting fate and transport of IHSs is presented in Appendix E.

5.3.1. Soil

Areas of Site soil contain IHSs (chromium and lead) at concentrations greater than the SLs as described in Section 4.2. Potential transport pathways for the soil IHSs include the following:

- Transport from soil to groundwater via leaching (through contact with infiltrating precipitation or shallow groundwater); and
- Transport from soil to soil gas/air via volatilization, diffusion, and advection.

5.3.2. Groundwater

Locally, groundwater contains the IHS (TCE) at concentrations greater than the SL described in Section 4.3. Potential transport pathways for the groundwater IHS include the following:

- Transport from groundwater to air (including soil gas) via volatilization, diffusion, and advection; and,
- Transport from shallow groundwater to deep groundwater via advection (where aquitards are not present or thin) and diffusion.
- Transport from soil gas to the groundwater table via diffusion and advection.

5.3.3. Soil Gas

Soil gas contains IHSs (PCE, TCE and 1,4-DCB) at concentrations greater than the SLs as described in Section 4.4. Potential transport pathways for soil gas IHSs include the following:

- Transport from soil gas to ambient air via diffusion and advection.

5.4. Site Exposure Model

5.4.1. Habitat

The Site is in West Olympia in an area that is zoned for commercial and residential uses. Approximately circular in shape, the landfill parcel is bounded by transportation corridors (US Highway 101 to the southwest), retail businesses and parking (to the east and southeast) and a large mobile home park (north). An undeveloped parcel is located along the northwest Site boundary.

Although much of the Site is covered with vegetation, some construction debris and other materials that were dumped at the Site over the years is exposed at the landfill property surface. The center of the Site is higher in elevation than the periphery and other portions of the Site. No perennial surface water features or runoff areas are present at the Site; however, low-lying areas collect rainwater during winter months and two small areas have some vegetation characteristic of wetlands.

Within the Site, the habitat is typical of disturbed Puget Sound lowland habitat. Big leaf maple, cottonwood, alder, Douglas fir, and to a lesser extent hemlock and cedar are present, primarily along the outer property boundary. Himalayan blackberry and reed canary grass dominate open areas. Understory trees in areas not choked by blackberry include hawthorn, hazelnut, Indian plum, cherry, and willow. Oregon grape, snowberry, salal, red current, bracken and sword ferns, thistle and dock are also present. Although the habitat quality was rated low as part of the simplified TEE procedure (Appendix D), it likely attracts birds (song birds, raptors), small mammals (e.g., rabbit, mice, voles), deer, amphibians and reptiles because of the heavy vegetated cover the Site provides, acting as a habitat “island” in a developed area. Various species of bats are noted by the Washington Department of Fish and Wildlife (WDFW) as occurring in the area; however, according the Priority Habitats and Species map details provided by WDFW, they do not appear to use the Site (no colonies or roosts have been documented as present).

Site photographs taken during the November 15, 2017 Site visit are included in Appendix F.

5.4.2. Exposure Pathways

Exposure pathways are how people or ecological receptors can be exposed to contaminants, either directly or indirectly. Exposure requires that contaminants partition from a contaminated medium (e.g., soil) across a biological membrane (e.g., skin, gut wall, lung surface) of a receptor following contact. Contact may involve touching or accidently ingesting contaminated soil or inhaling vapors rising through the soil. The receptors for this Site are trespassers, City maintenance or remediation workers, vegetation, soil organisms and wildlife. These receptors may be exposed to contaminated media via several key pathways. The following are current exposure pathways that pose a risk of exposure to contaminants for Site receptors, as illustrated in Figure 5-1:

- People touching or accidentally ingesting contaminated soil as they trespass or work on the Site (direct contact pathway)
- People drinking groundwater or ponded water, and animals drinking ponded water
- Both people and organisms inhaling soil gases (considered a minor pathway for the open conditions on-site with no structures where vapors could collect)
- Vegetation roots contacting landfill waste or contaminated soil
- Soil invertebrates (e.g., worms) contacting or ingesting contaminated soil (direct contact pathway)
- Small mammals incidentally ingesting contaminated soil during foraging or preening/cleaning their fur
- Small mammals and birds ingesting contaminated prey (bioaccumulation pathway)

The primary pathways representing a risk at the landfill are the direct contact pathway and drinking water pathway. The inhalation pathway is likely minor or incomplete. The bioaccumulation pathway is incomplete because the IHSs are not bioaccumulative.

5.5. Areas to be Evaluated in the Feasibility Study

Areas requiring remediation represent a combination of portions of the Site with active transport pathways and potential exposure pathways. The area of the landfill footprint represents the primary area requiring remediation; groundwater within the aquifers beneath the Site will also need to be addressed in the FS.

6.0 SUMMARY AND CONCLUSIONS

A remedial investigation was completed to document physical conditions and the nature and extent of COCs at the City West Olympia Landfill Site for media including landfill waste, soil, soil gas, and groundwater. As discussed in this report, the former landfill property owned by the City is the source of the COCs for the Site cleanup required under the AO. The City is invested in putting the former landfill property back into economic use for the benefit of the community through sale to a private developer.

This Remedial Investigation reviewed and considered all of the available historical data for the Site that has been collected since 1984 but, after review and evaluation of all of the data, the investigation is now focused on the data collected for the Site from 2000 through 2019. The available data for each media provide the information required to characterize the nature and extent of contamination. The data also supported development of a CSM to illustrate the physical Site conditions, impacted media, COCs and their fate and transport, and exposure pathways that could affect human or environmental health (receptors).

The understanding of the nature and extent of contamination and the CSM will be used to identify and evaluate cleanup action alternatives in the feasibility study.

6.1. Nature and Extent of Contamination

The findings of the RI regarding the nature and extent of contamination include:

- **Waste**: The thickness of the landfill waste material at the landfill property ranges from 0 feet (absent) near the property boundaries to 17.5 feet thick near the central and northern portions of the property where the waste was placed in a mound with little to no fill cover. Specific IHSs were not identified for the waste. The IHSs for soil (chromium and lead) were used to evaluate the waste to identify potential sources of contamination to the underlying soil and groundwater (Figures 4-1 and 4-2). Chromium was detected at concentrations greater than the SL of 48 mg/kg in waste material in 12 samples from nine borings across the Site at depths ranging from 5 to 11.5 feet bgs. Lead was detected at concentrations greater than the SL of 220 mg/kg in waste material in 13 samples from 10 borings across the Site at depths ranging from 2.5 to 11.5 feet bgs (Table 4-1).
- **Soil**: The extent of the IHSs in soil (chromium and lead) at the Site is shown on Figure 4-3. The soil conditions at the Site are characterized by samples from nine explorations at depths ranging from 13 to approximately 148 feet bgs. Most of the borings were completed to depths ranging from approximately 20 to 25 feet bgs to evaluate the waste material, fill, and shallow native soil conditions. Four borings were advanced from 72 to 156 feet bgs to evaluate deep native soil and groundwater conditions beneath the Site. Chromium was detected at concentrations greater than the SL of 48 mg/kg in soil at three locations (LAI 5, LAI-7, and LAI-15) across the Site from approximately 17.5 to 26 feet bgs at concentrations ranging from 50 to 88 mg/kg. Lead was detected at concentrations greater than the SL of 220 mg/kg at two of the locations (LAI-5; 391 mg/kg and LAI-7; 501 mg/kg) where chromium was detected at concentrations greater than the SL (Table 4-2).
- **Groundwater**: The VOC TCE is the only IHS identified for groundwater at the Site, and the nature and extent of contamination in groundwater was evaluated based on samples collected from 2014, 2015 and 2019 from 10 monitoring wells on the landfill property and from three monitoring wells located downgradient (Figure 4-4).

  TCE has been detected at concentrations greater than the analytical reporting limits in five of the 10 monitoring wells on the landfill property (PGG-1, LAI-1, LAI-2, LAI-MW-2, and LAI-MW-4). Only the samples from the two wells (LAI-1 and LAI-MW-2) located near the northwest corner of the landfill property just outside of the estimated extent of the waste material had concentrations of TCE greater than the SL (Table 4-3). The detected concentrations of TCE in the samples from these on-property wells, which are all screened in the shallow Qga aquifer at depths ranging from 45 to 77 feet bgs, range from 0.27 to 50 μg/L. TCE has not been detected at concentrations greater than the laboratory reporting limit in the samples from monitoring well LAI-5d that is also located in the northwest corner of the landfill property directly adjacent to LAI-1, but is screened at approximately 142 to 152 feet bgs within the underlying Qpg aquifer. The TCE results from LAI-5d indicate that the TCE in the shallow Qga aquifer has not reached the underlying Qpg aquifer.

  Of the three downgradient off-property wells, TCE has only been detected in the samples from OLY-2 at concentrations (from 2.6 to 6.1 μg/L) greater than the screening level. TCE was also detected in the December 2015 sample from OLY-1, but the detected concentration was below the screening level. This TCE concentration was qualified as an estimate (J) because the concentration was between the reporting limit and the detection limit. TCE was not detected above the laboratory reporting limit in the

March 2019 sample from OLY-1. TCE has also not been detected at concentrations greater than the laboratory reporting limit in any of the samples collected to date from downgradient off-property well MW-23.

A statistically significant TCE concentration trend was not identified based on evaluation of the available data (2000 to 2019) for wells LAI-1 and LAI-MW-2 indicating that the TCE has not attenuated significantly over time (Figure 4-5). In addition, TCE breakdown products have not been identified in groundwater at significant concentrations.

Metals were not identified as IHSs for groundwater based on the low frequency of SL exceedances and the maximum exceedance ratios of less than two, as discussed in Section 3.2.2. However, the metals manganese and iron are well known indicators of landfill impacts to groundwater and thus will continue to be evaluated (including during the planned 2019 dry season groundwater sampling and analysis event) as indicators of potential landfill impacts to groundwater.

- **Soil Gas:** The soil gas investigation identified and evaluated three IHSs [the VOCs 1,4-DCB, PCE, and TCE] and the potential for hazardous conditions associated with landfill gas, primarily methane, based on the sampling and analysis conducted to date at the Site (Figure 4-6). Methane has been detected historically at the Site at concentrations up to 10 percent by volume in gas probes; however, all the concentrations detected within and near the waste footprint at the landfill property since 2006 are less than the lower explosive limit of 5 percent by volume. The monitoring results indicate that landfill gas generation is limited, which is expected based on the age of the landfill. Results are also consistent with waste that was often burned before it was buried. The trace amounts of methane detected during the most recent 2018 sampling event indicate methane gas does not currently appear to be causing hazardous conditions.

  VOCs in soil gas were measured at the Site in October 2014 (Figure 4-7), July 2016 (Figure 4-8), and May and June 2018 (Figure 4-9), and consisted of active soil gas sampling in 2014 and 2018, and passive sampling in 2016. During the May and June 2018 sampling events, the three IHSs were detected at concentrations greater than the SLs; PCE was the most frequently detected IHS. Locations with exceedances of the SLs are bounded by concentrations below the SLs within the landfill property boundaries. As shown on Figure 6-1, PCE exceedances in soil gas measured since 2014 occurred primarily within the former landfill footprint and as noted above are bounded by concentrations below the SL within the landfill property boundaries.

  PCE is detected at higher soil gas concentrations than TCE within shallow soil and waste beneath the landfill, However, TCE is the primary constituent of concern in groundwater in the Qga aquifer located 45 ft bgs. The higher PCE soil gas concentrations relative to TCE may be due to a different waste disposal history for the two substances. For example, TCE may have been disposed of earlier in time, at higher concentrations and at a single discrete location while PCE may have been disposed of more uniformly throughout the landfill at lower concentrations. This type of source history could cause TCE to migrate into the subsurface, penetrating the relatively shallow glacial till beneath the Site and leaching into the vadose zone beneath the till. PCE would be more likely to be detected because it is more uniformly distributed but at the same time less likely to migrate vertically. Additionally, TCE has a much higher vapor pressure (74 mm Hg) and solubility (1.07 g/L) than PCE (vapor pressure 18.5 mm Hg; solubility 0.150 g/L). A TCE free phase source in the unsaturated zone would therefore tend to vaporize and dissolve into infiltrating precipitation at a higher rate than PCE. Therefore, considering the chemical properties of the analytes and everything else being equal, PCE would tend to be more persistent in the waste while TCE would tend to dissolve into the perched aquifer and move into the underlying vadose zone and Qga aquifer.

6.2. Conceptual Site Model

The following sections summarize the geology and hydrogeology that serve as a basis for identifying transport pathways and present the sources of contamination, transport and exposure pathways, and receptors as part of the CSM.

Geology and Hydrogeology: The Site was operated by the City of Olympia as an active landfill after they purchased the property in 1939 and from 1942 to the late 1960s; waste was placed at the Site and periodically burned and covered with fill or gravel. The landfill waste overlies the regional stratigraphic sequence of Vashon and pre-Vashon deposits that generally consist of alternating aquifers and aquitard units including:

- Recessional outwash (Qgo) aquifer—relatively thin, discontinuous, perched near-surface water bearing zone.
- Vashon till (Qgt) aquitard—a very dense silty, sandy gravel ranging in thickness from about 5 feet to 40 feet.
- Vashon advance outwash (Qga) aquifer—an at least 95 feet thick unconfined aquifer (i.e., the water table is below the bottom of the glacial till unit) at and near the Site. Most of the monitoring wells at the Site extend at least 20 feet into the Qga.
- Pre-Vashon glaciolacustrine deposits (Qpf) aquitard—a silt with varying amounts of sand that is at least 17 feet thick beneath the Site.
- Pre-Vashon gravel (Qpg) aquifer—a sand water-bearing unit with gravel and silt that is confined beneath the Site by the Qpf layer. This aquifer serves as a drinking water source for the City in the Allison Springs area, which is located approximately 1.7 miles north of the Site.

The shallowest aquifer (Qgo), while likely discontinuous, provides a transport pathway for soluble contaminants in fill and waste in the unsaturated zone through rainwater infiltration or contact with shallow groundwater. Additionally, groundwater exchange between the recessional outwash units (Qgo and Qga) may occur in areas where the Vashon till aquitard (Qgt) is discontinuous or thin. Contaminant transport from the Qga aquifer to the deeper Qpg aquifer beneath the Site is unlikely due to the vertical separation, the presence of the Qpf aquitard, and only a slight downward vertical gradient based on water levels measured at the Site.

Sources of Contamination: The primary sources of contamination at the Site include landfilled waste and fill from undocumented sources that were historically placed at the Site. These primary sources have contaminated soil, soil gas and groundwater that subsequently act as secondary sources for the IHSs (chromium, lead, TCE, PCE, and 1,4-DCB) at concentrations greater than the SLs.

Transport Pathways: The soil, groundwater, and soil gas transport pathways are identified in this section and shown on Figure 5-1.

- Soil - Transport from soil to groundwater via leaching (through contact with infiltrating precipitation or shallow groundwater); and transport from soil to soil gas/air via volatilization, diffusion, and advection.
- Groundwater - Transport from groundwater to soil gas via volatilization, diffusion, and advection.

- Soil Gas - Transport from soil gas to ambient air via diffusion and advection.

Site Exposure Model: The Site area is zoned for commercial and residential uses and is bounded by transportation corridors, retail businesses and parking, and a large mobile home park. The landfill property surface contains some exposed construction debris and other materials. No perennial surface water features or runoff areas are present at the Site; however, low-lying areas collect rainwater during winter months and two small areas have vegetation characteristic of wetlands. The habitat is typical of disturbed Puget Sound lowland habitat. Although the habitat quality was rated low as part of the simplified TEE procedure (Appendix D), it likely attracts birds (song birds, raptors), small mammals (e.g., rabbit, mice, voles), deer, amphibians and reptiles. The heavy vegetated cover provides a habitat “island” in a developed area.

Exposure pathways are how people or ecological receptors can be exposed to contaminants, either directly or indirectly. The following are exposure pathways that may pose a risk of exposure to contaminants for Site receptors, as illustrated in Figure 5-1:

- People touching or accidentally ingesting contaminated soil as they trespass or work on the Site (direct contact pathway)
- People drinking groundwater or ponded water, or animals drinking ponded water
- Both people and organisms inhaling soil gas contaminants that may be present in air (considered a minor pathway for the open conditions on-site with no structures where vapors could collect)
- Vegetation roots contacting landfill waste or contaminated soil
- Soil invertebrates (e.g., worms) contacting or ingesting contaminated soil (direct contact pathway)
- Small mammals incidentally ingesting contaminated soil during foraging or preening/cleaning their fur
- Small mammals and birds ingesting contaminated prey (bioaccumulation pathway)

The primary pathways that currently represent a potential risk at the landfill are the direct contact pathway and drinking water pathways. The inhalation pathway is minor or incomplete. The bioaccumulation pathway is incomplete because the IHSs do not bioaccumulate.

6.3. Conclusions

The RI has documented the nature and extent of the IHSs at the West Olympia Landfill Site, and the pathways of concern and potential receptors as identified through the CSM. The conclusions of the RI are as follows:

- The waste and undocumented fill placed at the landfill property as part of the former landfilling operations are the source of the IHSs.
- The IHSs chromium and lead are locally present in the shallow soils at the landfill property, the IHS TCE is present in shallow groundwater at and downgradient of the landfill property, and the IHSs TCE, PCE, and 1,4-DCB are locally present in soil gas. These IHSs are present at concentrations greater than the SLs but are bounded by concentrations below the SLs within the landfill property boundaries.
- Direct contact is the primary pathway of concern for the localized chromium and lead concentrations in shallow soil.

- Ingestion is the primary pathway of concern for the TCE concentrations in shallow groundwater (from the Qga aquifer); there is no evidence that TCE from the Site has affected the deeper Qpg groundwater aquifer, which is a drinking water source for the area.
- Inhalation is a potential pathway of concern due to the localized TCE, PCE, and 1,4-DCB concentrations in soil gas, if structures are constructed where vapors might collect.
- Based on the occurrence of the IHSs, the current landfill property use, and the availability of publicly supplied drinking water, the IHSs do not pose an imminent threat to human health or the environment.

6.4. Feasibility Study Development

The nature and extent of contamination in media at the West Olympia Landfill Site has been characterized in accordance with the AO and the Ecology MTCA cleanup regulation. Based on the results of the RI, there is sufficient data to prepare the FS, and to identify and evaluate cleanup alternatives for contaminated media at the Site. During development of the FS, cleanup levels will be established based on current and future site use and applicable exposure pathways and receptors. The FS will identify and evaluate applicable remedial technologies and alternatives for cleanup of the West Olympia Landfill Site to the cleanup levels identified in the FS. The FS will also consider the results of the pending 2019 dry season groundwater data.

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8.0 LIMITATIONS

We have prepared this report for the exclusive use of the City of Olympia for West Olympia Landfill Site. City of Olympia may distribute copies of this report to authorized agents and regulatory agencies as may be required for the Project.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted environmental science practices in this area at the time this report was prepared. The conclusions and opinions presented in this report are based on our professional knowledge, judgment and experience. No warranty, express or implied, applies to this report.

Any electronic form, facsimile or hard copy of the original document (email, text, table and/or figure), if provided, and any attachments should be considered a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

Table 2-1

Previous Site Investigations

Former West Olympia Landfill Site
Olympia, Washington

				Number of Explorations Completed and Corresponding Depth(s)								Number of Samples Submitted for Chemical Analysis^{1}			
Year	Title	Consultant	Investigation Summary	Test Pits	Depth (ft bgs)	Borings (not including wells)	Depth (ft bgs)	Monitoring Wells^{2}	Depth (ft bgs)	Soil Vapor Probes^{2} (temporary or permanent)	Depth (ft bgs)	Waste	Soil Vapor	Soil	Groundwater
1984	Report of Geotechnical Services – City of Olympia Landfill – Olympia, Washington	Dames and Moore	Completed a geotechnical investigation. Borings and test pits were completed to determine the extent of landfill waste and to install monitoring wells. Waste included burned household garbage, ash, partially burned wood, glass fragments, rusted metal, and some brick and concrete fragments. A waste thickness of approximately 10 to 15 feet was observed. Methane was detected in the some of the test pits.	38	5 - 15	5 (B-1 through B-5)	12 - 34.5	3 (MW-1 through MW-3)	29.5	--	--	--	--	--	0; groundwater not encountered
1986	Dames & Moore - Letter Report Recommendations for Methane and Leachate Management - Proposed Costco Store, Olympia, Washington	Dames and Moore	Report was not available for review.	--	--	--	--	--	--	--	--	--	--	--	--
1986	Onsite Review and Testing – 27-Acre Site Black Lake Boulevard and Cooper Point Road – Olympia,	Hart-Crowser & Associates	Completed exploratory test pits to further delineate the extent of waste material. One groundwater sample from a previously installed monitoring well was submitted for chemical analysis. Concentrations of arsenic, chromium, iron, and manganese exceeded federal drinking water standards. Four gas probes were installed. Methane was detected in one of the gas probes.	7 (HC-1 through HC-6, HC-6A)	4 - 9.5	--	--	--	--	4 (HC-1 through HC-4)	5	visual classification only	Field screening of test pits and probes, no collected samples	visual classification only	1 (MW-2)
1987	Ground Water and Methane Evaluations – 27-Acre Site Black Lake Boulevard and Cooper Point Road – Olympia, WA	Hart-Crowser & Associates	This report was summarized by Zipper Zeman Associates (2003b) but was not available for review. Activities included installation of three new monitoring wells within the landfill waste area (well information and locations are unknown), completion of four test pits and installation of four gas probes. Groundwater samples were collected during three subsequent sampling events. A complete list of tested analytes was not available, but concentrations of arsenic, chromium, iron, and manganese were greater than the federal drinking water standards (assumed to be primary MCLs) at MW-2.	4	not available	--	--	3 (GW-1 through GW-3)	18, 39, 34	4	not available	not available	not available	not available	3 wells for 3 rounds (MW-2, GW-2 and GW-3)
1989	Letter Report Recommendations for Methane and Leachate Management - Proposed Costco Store, Olympia, Washington	Dames and Moore	Report was not available for review.	--	--	--	--	--	--	--	--	--	--	--	--
1992	West Olympia Landfill Test Pit Samples	Parametrix, Inc. 1992	The report has been summarized in E&E 2017 but was not available for review. Test pits were completed through landfill waste to native soil; composite soil samples were collected at shallow and deep intervals. Most of the landfill waste material at the site exceeded MTCA cleanup levels, Dangerous Waste Regulation levels, and High Risk Waste Levels established by Thurston County for total petroleum hydrocarbons and metals.	8 (TP-1 through TP-8)	8 - 18	--	--	--	--	--	--	not available; composite sampling likely included soil and waste	--	not available; composite sampling likely included soil and waste	--
2000	Environmental Investigation for Proposed Home Depot	Landau Associates	Completed borings and test pits and installed three additional monitoring wells. Soil, landfill waste, and groundwater samples were collected. Most landfill waste samples had concentrations of total lead, arsenic and chromium and oil-range petroleum hydrocarbons above MTCA Method A or B cleanup levels for unrestricted land use. Arsenic concentrations were greater than MTCA Method B cleanup level for all three wells. TCE was greater than MTCA Method B in LAI-1.	14 (TP-1 through TP-14)	15.5 - 26.5	16 (LAI-4 though LAI-19)	4.5 - 14	3 (LAI-1 through LAI-3)	76, 69, 72.5	--	--	23	--	8	3

				Number of Explorations Completed and Corresponding Depth(s)								Number of Samples Submitted for Chemical Analysis[1]			
Year	**Title**	**Consultant**	**Investigation Summary**	**Test Pits**	**Depth (ft bgs)**	**Borings (not including wells)**	**Depth (ft bgs)**	**Monitoring Wells[2]**	**Depth (ft bgs)**	**Soil Vapor Probes[2] (temporary or permanent)**	**Depth (ft bgs)**	**Waste**	**Soil Vapor**	**Soil**	**Groundwater**
2003a	Ground Water Monitoring and Sampling Letter Report– Former Olympia Landfill, Black Lake Boulevard – Olympia, Washington	Zipper Zeman Associates, Inc.	Conducted a groundwater monitoring event on three onsite monitoring wells (LAI-1, LAI-2 and LAI-3). Trichloroethene (TCE) concentrations in LAI-1 exceeded MTCA Method A cleanup level of 5 ug/L for groundwater. TCE was detected in monitoring well LAI-2 below MTCA and was not detected in LAI-3.	--	--	--	--	--	--	--	--	--	--	--	3 wells for 3 rounds (LAI-1, LAI-2, LAI-3)
2003b	Summary Letter Report– Former Olympia Landfill, Black Lake Boulevard – Olympia, Washington	Zipper Zeman Associates, Inc.	Provided a historical site summary detailing prior site investigations.	--	--	--	--	--	--	--	--	--	--	--	--
2004	Summary of Hydrologic Conditions West Olympia Land Fill Property – Olympia, Washington	Landau Associates	Installed four additional groundwater monitoring wells (LAI-MW-1 through LAI-MW-4) outside the landfill footprint. TCE was detected in wells located along the northern margin of the landfill property (LAI-1, LAI-MW-2, and LAI-2).	--	--	--	--	4 (LAI-MW-1 through LAI-MW-4)	55 - 70	--	--	--	--	--	7
2005	Drilling, Deep Well Installation and Groundwater Sampling Activities for Southridge Properties	Landau Associates	Monitoring well installed outside the landfill footprint into deep Qc aquifer to further document hydrogeologic conditions at the Site and determine the vertical extent of TCE contamination in groundwater from the Qva aquifer.	--	--	--	--	1 (LAI-5d)	152	--	--	--	--	--	--
2006a	West Olympia Landfill 2006 Q3 (3rd Quarter) Sampling Results	Pacific Groundwater Group	Conducted a groundwater monitoring event. TCE detected above the Washington State Ground Water Contaminant Level (GWCL) in wells LAI-MW-2 and LAI-1. TCE was detected in monitoring well PGG-1 at a concentration less than the GWCL.	--	--	--	--	--	--	--	--	--	--	--	5 (LAI-1, LAI-MW-2, LAI-5d, PGG-1 and PGG-2)
2006b	West Olympia Landfill Ground Water Investigation	Pacific Groundwater Group	Installed five gas probes and two monitoring wells along the western boundary of the site, just outside the extent of waste. Gas samples were collected and methane was not detected. Groundwater was sampled in two subsequent sampling events. TCE concentrations were detected above GWCL in monitoring wells LAI-MW-2 and LAI-1. TCE was detected in monitoring well PGG-1 and LAI-2 at a concentration less than GWCL.	--	--	--	--	2 (PGG-1 and PGG-2)	45, 83	5 (GP-1 through GP-5)	13 - 17	--	Field screening only	--	5 wells for two rounds (LAI-1, LAI-MW-2, LAI-5d, PGG-1 and PGG-2)
2008	2008 Wellhead Protection Area Delineation for the City of Olympia Wellfield Areas – Thurston County, Washington	Golder Associates, Inc	The report was not available for review but was summarized in E&E 2017. Completed a wellhead protection area delineation for the City of Olympia. The updated Allison Springs wellhead protection area was found to encompass the landfill property.	--	--	--	--	--	--	--	--	--	--	--	--
2009	West Olympia Landfill Groundwater Sampling Fourth Quarter, 2008 (2008 Q4)	Pacific Groundwater Group	Conducted a groundwater monitoring event for 5 wells (LAI-1, LAI-2, LAI-MW-2, LAI-5d, PGG-1, and PGG-2). TCE (LAI-1 and LAI-MW-2), and Bis(2-ethylhexyl) phthalate (LAI-1and PGG-2) were detected above their respective GWCLs.	--	--	--	--	--	--	--	--	--	--	--	6 wells for one round (LAI-1, LAI-2, LAI-MW-2, LAI-5d, PGG-1 and PGG-2)
2009	Report on GW Level Measurements	Thurston County Environmental Health	The report provides a review of measured groundwater elevations and corresponding flow direction(s); no sampling was conducted.	--	--	--	--	--	--	--	--	--	--	--	--
2010	West Olympia Landfill Groundwater Sampling Fourth Quarter, 2010 (2010 Q4)	Pacific Groundwater Group	Collected groundwater samples from 5 monitoring wells (LAI-1, LAI-MW-2, LAI-5d, and PGG-1). Analytes detected above their respective GWCLs included dissolved iron in LAI-MW-2 and TCE in LAI-1 and LAI-MW-2.	--	--	--	--	--	--	--	--	--	--	--	4 wells for one round (LAI-1, LAI-MW-2, LAI-5d, PGG-1)

Year	Title	Consultant	Investigation Summary	Number of Explorations Completed and Corresponding Depth(s)								Number of Samples Submitted for Chemical Analysis[1]			
				Test Pits	Depth (ft bgs)	Borings (not including wells)	Depth (ft bgs)	Monitoring Wells[2]	Depth (ft bgs)	Soil Vapor Probes[2] (temporary or permanent)	Depth (ft bgs)	Waste	Soil Vapor	Soil	Groundwater
2017	West Olympia Landfill Site Targeted Brownfields Assessment	Ecology and Environment, Inc.	Conducted additional subsurface investigations as part of an EPA Targeted Brownfields Assessment. Collected groundwater samples from 10 existing on-Site wells (LAI-1 through LAI-3, LAI-MW-1 through LAI-MW-4, LAI-5d, PGG-1 and PGG-2) and one off-Site well (MW-23). Installed two wells downgradient from the Site. Conducted 4 quarters of groundwater sampling from wells (LAI-1 and LAI-MW-2). Collected soil vapor samples from 14 existing and temporary points on Site, and collected 64 passive soil vapor samples using a grid across the Site. TCE was detected in groundwater above MTCA Method A in wells LAI-1 and LAI-MW-2 in the northwest corner of the Site, and was detected less than MTCA in downgradient well OLY-2. Five VOCs were detected in soil vapor samples from across the Site.	--	--	--	--	2 (OLY-01 and OLY-02)	90 and 75	14 active samples (GP-6 through GP-14); 68 passive sampling points (grid)	13 - 18	--	82	--	18

Notes:

[1] The listed number of samples submitted for chemical analysis does not include samples collected for QA/QC purposes (duplicates, MS/MSDs) or samples collected specifically collected to characterize investigation derived waste.

[2] Refer to Table 2-3 for monitoring well and soil vapor probe screened intervals (where available).

Table 2-2

Monitoring Well Details

Former West Olympia Landfill Site
Olympia, Washington

Monitoring Well ID	Ecology Well ID	Aquifer	Northing	Easting	Date Installed	Ground Surface Elevation (ft)	Top of Casing Elevation (ft)	Total Depth of Boring (ft bgs)	Screened Interval (ft bgs)	Bottom of Screen Elevation (ft)
LAI-1	NA	Upper (Qga)	630396.1501	1031099.2898	7/20/2000	170.75	173.35	76.5	56 - 76	94.75
LAI-2	NA	Upper (Qga)	630428.9873	1031535.1242	7/20/2000	167.00	169.07	71.5	49 - 69	98.00
LAI-3	NA	Upper (Qga)	629979.3885	1031701.8149	7/19/2000	176.12	178.52	73.0	52 - 72	104.12
LAI-5d	ALL-031	Lower (Qpg)	630404.0047	1031081.3223	9/23/2005	170.06	172.07	156.0	142 - 152	18.06
LAI-MW-1	ALB-467	Upper (Qga)	629674.1574	1031472.0781	6/7/2004	160.97	163.21	55.5	35 - 55	105.97
LAI-MW-2	ALB-468	Upper (Qga)	630425.7084	1031275.8292	6/7/2004	170.62	170.23	65.4	45 - 65	105.62
LAI-MW-3	ALB-469	Upper (Qga)	630199.9484	1031837.8684	6/8/2004	170.01	171.89	66.0	45 - 65	105.01
LAI-MW-4	ALB-470	Upper (Qga)	629863.9395	1031282.3711	6/9/2004	169.77	172.21	70.5	50 - 70	99.77
MW-23	BHF-999	Upper (Qga)	632235.6451	1029298.3843	12/1/2012	192.22	188.79	113	98 - 108	83.72
OLY-1	BIK-286	Upper (Qga)	631612.2825	1030606.6546	3/17/2015	186.68	186.38	90.0	70 - 90	96.68
OLY-2	BIK-287	Upper (Qga)	631832.2122	1031056.9943	3/18/2015	171.08	170.78	75.0	55 - 75	96.08
PGG-1	ALJ-756	Upper (Qga)	630266.9335	1031041.8988	6/21/2006	167.36	169.54	83.0	72 - 77	90.36
PGG-2	APN-757	Upper (Qga)	630048.3434	1031054.3322	6/20/2006	166.70	169.50	82.0	46 - 56	110.70

Notes:

bgs = below ground surface

Ecology = Washington State Department of Ecology

NA = not available

ft = feet

ID = identification

Source of TOC elevations: PGG 2006 Report for all wells except OLY-1, OLY-2, and MW-23 which were surveyed by the City of Olympia's surveyor and converted to NGVD29 from NAVD88.

Horizontal Datum: NAD83 Washington State Plane South (ft)

Vertical Datum: NGVD29

Table 2-3
Exploration Details
Former West Olympia Landfill Site
Olympia, Washington

Exploration	Type of Exploration	Consultant	Completion Date	Exploration Depth (ft)	Ground Elevation (ft)	Screened Interval (ft bgs)	Waste Material Top Depth (ft)	Waste Material Base Depth (ft)	Waste Material Base Elevation (ft)	Waste Material Thickness (ft)
LAI-1	Monitoring Well	Landau Associates	7/20/2000	76.5	170.8	56 - 76	NA	0	--	0.0
LAI-2	Monitoring Well	Landau Associates	7/20/2000	71.5	167.0	49 - 69	NA	0	--	0.0
LAI-3	Monitoring Well	Landau Associates	7/19/2000	73.0	176.1	52 - 72	4.5	15.5	160.6	11.0
LAI-4	Soil Boring	Landau Associates	9/7/2000	15.5	174.0	Not Applicable	7.0	9.0	165.0	2.0
LAI-5	Soil Boring	Landau Associates	9/7/2000	26.0	179.0		5.5	17.0	162.0	11.5
LAI-6	Soil Boring	Landau Associates	9/6/2000	20.2	172.0		8.0	14.0	158.0	6.0
LAI-7	Soil Boring	Landau Associates	9/7/2000	25.5	181.0		0.0	16.5	164.5	16.5
LAI-8	Soil Boring	Landau Associates	9/7/2000	20.9	175.0		3.0	16.0	159.0	13.0
LAI-9	Soil Boring	Landau Associates	9/6/2000	26.5	175.0		0.0	11.0	164.0	11.0
LAI-10	Soil Boring	Landau Associates	9/7/2000	20.4	169.0		2.5	8.0	161.0	5.5
LAI-11	Soil Boring	Landau Associates	9/8/2000	22.9	176.0		7.5	15.5	160.5	8.0
LAI-12	Soil Boring	Landau Associates	9/6/2000	25.5	167.0		0.0	15.5	151.5	15.5
LAI-13	Soil Boring	Landau Associates	9/6/2000	26.5	176.0		0.0	15.0	161.0	15.0
LAI-14	Soil Boring	Landau Associates	9/8/2000	26.0	176.0		1.5	14.5	161.5	13.0
LAI-15	Soil Boring	Landau Associates	9/8/2000	22.8	168.0		NA	0	--	0.0
LAI-16	Soil Boring	Landau Associates	9/11/2000	20.5	140.0		NA	0	--	0.0
LAI-17	Soil Boring	Landau Associates	9/6/2000	16.6	176.0		0.0	10.0	166.0	10.0
LAI-18	Soil Boring	Landau Associates	9/11/2000	21.5	170.0		5.0	12.5	157.5	7.5
LAI-19	Soil Boring	Landau Associates	9/8/2000	25.3	176.0		2.0	17.5	158.5	15.5
TP-1	Test Pit	Landau Associates	9/12/2000	14.0	170.0		0.0	>14.0	<156.0	14.0
TP-2	Test Pit	Landau Associates	9/12/2000	4.5	160.0		0.0	3.0	157.0	3.0
TP-3	Test Pit	Landau Associates	9/13/2000	13.5	177.0		0.0	12.0	165.0	12.0
TP-4	Test Pit	Landau Associates	9/12/2000	8.0	167.0		0.0	7.5	159.5	7.5
TP-5	Test Pit	Landau Associates	9/13/2000	12.5	175.0		0.0	11.0	164.0	11.0
TP-6	Test Pit	Landau Associates	9/13/2000	13.5	173.0		4.5	13.0	160.0	8.5
TP-7	Test Pit	Landau Associates	9/12/2000	13.0	176.0		0.0	>13.0	<163.0	13.0
TP-8	Test Pit	Landau Associates	9/12/2000	12.0	179.0		3.0	>12.0	<167.0	9.0
TP-9	Test Pit	Landau Associates	9/13/2000	14.0	178.0		4.0	>14.0	<164.0	10.0
TP-10	Test Pit	Landau Associates	9/12/2000	7.5	170.0		0.0	7.0	163.0	7.0
TP-11	Test Pit	Landau Associates	9/12/2000	9.5	172.0		0.0	9.0	163.0	9.0
TP-12	Test Pit	Landau Associates	9/12/2000	4.5	165.0		0.0	2.0	163.0	2.0
TP-13	Test Pit	Landau Associates	9/12/2000	4.5	164.0		NA	0	--	0.0
TP-14	Test Pit	Landau Associates	9/12/2000	9.5	157.0		NA	0	--	0.0
LAI-MW-1	Monitoring Well	Landau Associates	6/7/2004	55.5	160.97	35 - 55	NA	0	--	0.0
LAI-MW-2	Monitoring Well	Landau Associates	6/7/2004	65.4	170.62	45 - 65	NA	0	--	0.0
LAI-MW-3	Monitoring Well	Landau Associates	6/8/2004	66.0	170.01	45 - 65	NA	0	--	0.0
LAI-MW-4	Monitoring Well	Landau Associates	6/9/2004	70.5	169.77	50 - 70	0.00	5	164.77	5.0
LAI-5d	Monitoring Well	Landau Associates	9/23/2005	156.0	170.06	142 - 152	NA	0	--	0.0
PGG-1	Monitoring Well	Pacific Groundwater Group	6/21/2006	83	167.36	72 - 77	NA	0	--	0.0
PGG-2	Monitoring Well	Pacific Groundwater Group	6/20/2006	82	166.70	46 - 56	NA	0	--	0.0
GP-1	Gas Probe	Pacific Groundwater Group	6/19/2006	16	172.16	3 - 13	NA	0	--	0.0
GP-2	Gas Probe	Pacific Groundwater Group	6/21/2006	13	166.64	3 - 13	NA	0	--	0.0
GP-3	Gas Probe	Pacific Groundwater Group	6/19/2006	14.5	176.76	3 - 13	NA	0	--	0.0
GP-4	Gas Probe	Pacific Groundwater Group	6/20/2006	17	176.87	3 - 8	0	6	170.87	6.0
GP-5	Gas Probe	Pacific Groundwater Group	6/20/2006	16	166.24	3 - 13	0	13	153.24	13.0
GP-6 through GP-14	Gas Probes	Ecology and Environment, Inc.	10/13 - 10/15/2014	Varied, typically 13 to 17	NA	3 - 13 (except GP-11 which was 3 - 11)	NA	NA	NA	NA
GP-15	Gas Probe	Landau Associates	2/1/2018	7	NA	6 - 6.5	0	7	NA	7.0
GP-16	Gas Probe	Landau Associates	2/1/2018	7	NA	6 - 6.5	0	7	NA	7.0
GP-17	Gas Probe	Landau Associates	2/2/2018	7	NA	6 - 6.5	NA	0	--	0.0
GP-18	Gas Probe	Landau Associates	2/2/2018	7	NA	6 - 6.5	NA	0	--	0.0
GP-19	Gas Probe	Landau Associates	2/2/2018	7	NA	6 - 6.5	0	5	NA	5.0
GP-20	Gas Probe	Landau Associates	2/2/2018	7	NA	6 - 6.5	NA	0	--	0.0
GP-21	Gas Probe	Landau Associates	5/17/2018	6.8	NA	5.8 - 6.3	NA	0	--	0.0
GP-22	Gas Probe	Landau Associates	5/17/2018	7.2	NA	6 - 6.5	NA	0	--	0.0
GP-23	Gas Probe	Landau Associates	5/17/2018	7.1	NA	5.5 - 6	NA	0	--	0.0
GP-24	Gas Probe	Landau Associates	5/17/2018	7	NA	6 - 6.5	NA	0	--	0.0
A through H (1 through 8)	Passive Gas Sampler	Ecology and Environment, Inc.	7/12 - 7/17/2016	3	NA	0 - 3	NA	NA	NA	NA
1-1	Test Pit	Dames & Moore	7/26/1984	10.5	170	Not Applicable	NA	0	--	0.0
1-2	Test Pit	Dames & Moore	7/26/1984	10	183		not available	>10	<173	>10
1-3	Test Pit	Dames & Moore	7/26/1984	10	172		not available	>10	<172	>10
1-4	Test Pit	Dames & Moore	7/26/1984	5	166		NA	0	--	0.0
1-5	Test Pit	Dames & Moore	7/26/1984	5	166		NA	0	--	0.0
2-1	Test Pit	Dames & Moore	7/26/1984	10	176		not available	5	171	5.0
2-2	Test Pit	Dames & Moore	7/26/1984	15	176		not available	13	163	13.0
2-3	Test Pit	Dames & Moore	7/26/1984	15	176		not available	>15	<161	>15
2-4	Test Pit	Dames & Moore	7/26/1984	10	178		not available	>10	<168	>10
2-5	Test Pit	Dames & Moore	7/26/1984	5	170		not available	1.5	168.5	1.5
3-1	Test Pit	Dames & Moore	7/26/1984	10	171		not available	6	165	6.0
3-2	Test Pit	Dames & Moore	7/26/1984	12.5	175		not available	11.5	163.5	11.5
3-3	Test Pit	Dames & Moore	7/26/1984	15	175		not available	14	161	14.0
3-4	Test Pit	Dames & Moore	7/26/1984	15	176		not available	14	162	14.0
3-5	Test Pit	Dames & Moore	7/26/1984	10	176		not available	>10	<166	>10
4-1	Test Pit	Dames & Moore	7/26/1984	10	169		not available	6	163	6.0

Exploration	Type of Exploration	Consultant	Completion Date	Exploration Depth (ft)	Ground Elevation (ft)	Screened Interval (ft bgs)	Waste Material Top Depth (ft)	Waste Material Base Depth (ft)	Waste Material Base Elevation (ft)	Waste Material Thickness (ft)
4-2	Test Pit	Dames & Moore	7/26/1984	10.5	172	Not Applicable	not available	10	162	10.0
4-3	Test Pit	Dames & Moore	7/26/1984	10	169		not available	>10	<159	>10
4-4	Test Pit	Dames & Moore	7/26/1984	10	175		not available	>10	<165	>10
4-5	Test Pit	Dames & Moore	7/26/1984	10	172		not available	>10	<162	>10
5-0	Test Pit	Dames & Moore	7/26/1984	>11	NA		not available	11	NA	11.0
5-2	Test Pit	Dames & Moore	7/26/1984	10	172		not available	>10	<162	>10
5-3	Test Pit	Dames & Moore	7/26/1984	10	170		not available	>10	<160	>10
5-4	Test Pit	Dames & Moore	7/26/1984	10	171		not available	>10	<161	>10
5-5	Test Pit	Dames & Moore	7/26/1984	6	160		NA	0	--	0.0
B-1	Soil Boring	Dames & Moore	7/31/1984	34	179		1.5	13.5	165.5	12.0
B-2	Soil Boring	Dames & Moore	8/1/1984	25	175		2	8	167	6.0
B-3	Soil Boring	Dames & Moore	8/1/1984	29.5	175		1.5	10	165	8.5
B-4	Soil Boring	Dames & Moore	8/1/1984	15.5	175		3	13	162	10.0
B-5	Soil Boring	Dames & Moore	8/1/1984	12	170		2.5	5.5	164.5	3.0
TP-1	Test Pit	Dames & Moore	7/25/1984	7.5	168		NA	0	--	0.0
TP-2	Test Pit	Dames & Moore	7/25/1984	6.5	156		NA	0	--	0.0
TP-3	Test Pit	Dames & Moore	7/25/1984	6	163		NA	0	--	0.0
TP-4	Test Pit	Dames & Moore	7/25/1984	6	152		NA	0	--	0.0
TP-5	Test Pit	Dames & Moore	7/25/1984	6.5	154		NA	0	--	0.0
TP-6	Test Pit	Dames & Moore	7/25/1984	5	157		NA	0	--	0.0
TP-7	Test Pit	Dames & Moore	7/25/1984	10.5	157		NA	0	--	0.0
TP-8	Test Pit	Dames & Moore	7/25/1984	10.5	NA		NA	0	--	0.0
TP-9	Test Pit	Dames & Moore	7/25/1984	10	NA		NA	0	--	0.0
TP-10	Test Pit	Dames & Moore	7/25/1984	11	157		NA	0	--	0.0
TP-11	Test Pit	Dames & Moore	7/25/1984	6	157		NA	0	--	0.0
TP-12	Test Pit	Dames & Moore	7/25/1984	11	157		NA	0	--	0.0
TP-13	Test Pit	Dames & Moore	7/25/1984	11	NA		NA	0	--	0.0
MW-1	Monitoring Well	Dames & Moore	7/30/1984	29.5	168	NA	NA	0	--	0.0
MW-2	Monitoring Well	Dames & Moore	7/31/1984	29.5	161	NA	NA	0	--	0.0
MW-3	Monitoring Well	Dames & Moore	7/31/1984	29.5	161	NA	NA	0	--	0.0
HC-1	Test Pit	HartCrowser	5/29/1986	9	157	Not Applicable	NA	0	--	0.0
HC-2	Test Pit	HartCrowser	5/29/1986	9.5	174		2	>9.5	--	>7.5
HC-3	Test Pit	HartCrowser	5/29/1986	9.5	157		NA	0	--	0.0
HC-4	Test Pit	HartCrowser	5/29/1986	8	170		NA	0	--	0.0
HC-5	Test Pit	HartCrowser	5/29/1986	5	172		NA	0	--	0.0
HC-6	Test Pit	HartCrowser	5/29/1986	6	162		0	1	--	1.0
HC-6A	Test Pit	HartCrowser	5/29/1986	4	161		NA	0	--	0.0

Notes:

-- = No Waste Material Present

ft = feet

NA = No information available

Vertical Datum: NGVD29

Ground elevations for Dames & Moore and HartCrowser explorations are estimated.

Table 2-4

Minimum and Maximum Groundwater Elevations

Former West Olympia Landfill Site
Olympia, Washington

Well ID	Aquifer	Minimum Groundwater Elevation Date	Minimum Groundwater Elevations (ft)	Maximum Groundwater Elevation Date	Maximum Groundwater Elevations (ft)	Fluctuation (ft)
LAI-1	Upper (Qga)	10/24/2006	111.45	3/29/2018	121.35	9.90
LAI-2	Upper (Qga)	6/18/2004	109.63	3/29/2018	121.70	12.07
LAI-3	Upper (Qga)	10/13/2008	116.53	3/7/2019	127.48	10.95
LAI-5d	Lower (Qpg)	10/24/2006	109.28	3/29/2018	119.96	10.68
LAI-MW-1	Upper (Qga)	10/13/2008	112.89	3/7/2019	126.67	13.78
LAI-MW-2	Upper (Qga)	9/23/2015	108.09	3/26/2015	125.02	16.93
LAI-MW-3	Upper (Qga)	10/13/2008	116.62	3/7/2019	127.24	10.62
LAI-MW-4	Upper (Qga)	10/13/2008	111.54	3/7/2019	123.75	12.21
OLY-1	Upper (Qga)	9/23/2015	106.60	3/29/2018	118.63	12.03
OLY-2	Upper (Qga)	9/23/2015	106.52	3/29/2018	118.32	11.80
PGG-1	Upper (Qga)	10/24/2006	111.95	3/29/2018	124.05	12.10
PGG-2	Upper (Qga)	10/13/2008	112.60	3/29/2018	124.01	11.41

Notes:

ft = feet

ID = identification

Note: MW-23 not included because only two water levels were collected from this well.

Vertical Datum: NGVD29

Table 2-5

Vertical Hydraulic Gradient - LAI-1 to LAI-5d

Former West Olympia Landfill Site
Olympia, Washington

Date	LAI-1 Groundwater Elevation (ft) (Qva)	LAI-5d Groundwater Elevation (ft) (Qc)	Water Level Difference (ft)	Vertical Gradient (ft/ft)	
7/11/2006	114.3	113.28	1.02	0.01245	Downward
10/24/2006	111.47	109.29	2.18	0.02660	Downward
10/13/2008	111.5	109.63	1.87	0.02282	Downward
12/3/2008	112.75	111.33	1.42	0.01733	Downward
2/26/2009	116.63	115.16	1.47	0.01794	Downward
1/15/2014	114.05	112.71	1.34	0.01635	Downward
3/29/2018	121.37	119.97	1.4	0.01709	Downward
3/7/2019	120.66	118.65	2.01	0.02453	Downward

Notes:

bgs = below ground surface

ft = feet

ft/ft = feet per foot

Center of Screen Elevations: LAI-1 = 105 ft and LAI-5d = 23.06 ft

Vertical Datum: NGVD29

Table 2-6

Geochemistry Table

Former West Olympia Landfill Site
Olympia, Washington

Well ID	Aquifer	TDS	Sulfate	Chloride	Bicarbonate	Nitrate (as N)	Calcium	Sodium	Magnesium	Potassium
LAI-MW-1	Upper (Qga)	72	14	2.8	58	--	19	7	4.1	1.7
LAI-MW-2	Upper (Qga)	250	55	3.8	150	2	61	15	13	2.4
Oly-2	Upper (Qga)	120	12	4.8	80	1.7	23	11	7.2	1.2
LAI-5d	Lower (Qpg)	680	170	34	380	--	120	2	64	10
Kaiser Rd Well #1	Upper (Qga)	73 (c)	3.6 (d)	4.2 (d)	71 (e)	0.95(d)	13.6 (e)	6.8 (d)	8.6 (e)	--
Allison Well #19	Upper (Qga)	75 (c)	2.9 (d)	5.3 (d)	48 (e)	1.30(d)	10.1 (e)	5.6 (d)	4.5 (e)	--
USGS (a)	--	112	4	3.4	68.3 (b)	0.33	11	6.5	5.8	1.6

Notes:

[1] All on Site samples were collected between March 21st and 28th, 2019.

[2] All measurements are in mg/L.

[a] Data represents the median value from 359 wells and springs throughout the Thurston County region, all concentrations are dissolved

[b] Concentration was calculated by multiplying Alkalinity as CaCO3 by a conversion factor of 1.22.

c Sample was collected on 11/18/1997.

[d] Samples were collected on 11/13/2013.

[e] Samples were collected on 9/22/2011.

mg = milligram

L = liter

N = nitrogen

-- = data not available

Table 2-7

Natural Attenuation Assessment Parameters Table

Former West Olympia Landfill Site
Olympia, Washington

Monitoring Well ID	Aquifer	Sample Date	Volatile Organic Compounds								Aquifer Redox Conditions							Electron Donor Indicator
			PCE (µg/L)	TCE (µg/L)	cDCE (µg/L)	tDCE (µg/L)	11DCE (µg/L)	VC (µg/L)	Ethene (µg/L)	Ethane (µg/L)	DO (mg/L)	ORP (mV)	Nitrate (mg/L as N)	Iron II (mg/L)	Sulfate (mg/L)	Methane (µg/L)	Aquifer Redox State	TOC (mg/L)
LAI-MW-2	Upper (Qga)	3/21/2019	<0.2	22	0.85	<0.2	<0.2	<0.2	<0.5	<0.5	5.1	230.1	2	--	55	<1.0	Aerobic	<1.0
OLY-2	Upper (Qga)	3/21/2019	<0.2	2.8	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	5.09	217.4	1.7	--	12	<1.0	Aerobic	<1.0

Notes:

PCE = tetrachloroethene
TCE = trichloroethene
cDCE = cis-1,2-dichloroethene
tDCE = trans-1,2-dichloroethene
11DCE = 1,1-dichloroethene
VC = vinyl chloride

Table 2-8

Group A and B Wells: Pumping Capacity and Depth

Former West Olympia Landfill Site
Olympia, Washington

Well Type	Well Name	Ecology Well Tag	Name	Capacity (gpm)	Depth (ft)
Group A Wells	Kaiser Well #1	--	The City of Olympia	300	95
	Allison Well # 13	AHM691	The City of Olympia	650	200
	Allison Well # 19	AHM692	The City of Olympia	900	183
	Well #1 WW	AKB339	Heritage West	40	122
	Well #2 WW	AKB341	Heritage West	45	118
	Well #1	AHF166	Coach Post Mobile Park	25	128
	Well #2	AHF167	Coach Post Mobile Park	50	78
	Well D	AGC719	Jones Industrial Park	43.5	100
	Well #1	AKY158	Unity Church of Olympia	30	140
	Well #1	AKY159	Olympia Bible	29	138
	Well #1	AEJ247	West Olympia Medical Park	25	148
Group B Wells	Well #1	AHF176	14th Street Community	30	100
	Well #2	AHF199	Kessler Water Supply	--	--
	Well #1	--	Bob Lemon	23	140
	Well #2	ALL405	Kaiser Industrial Park	4.5	320
	Well #1	BBP683	Regal Park	50	106
	Well #1	AEJ189	Carpenter	30	36

Notes:

-- = information not available

See Figure 2-11 for location of wells in relation to Site

Table 2-9

Private Domestic Well Information

Former West Olympia Landfill Site
Olympia, Washington

Water Right Certificate Number	Purpose of Use	Qi (GPM)	Qa (AFY)	Well Depth (ft bgs)	Priority Year	Tax Parcel
G2-*11044 C	Domestic Single	5.0	1.0	156	1970	12818130800
G2-24250 C	Domestic Single	10.0	1.0	113	1976	12817210900
G2-29023	Domestic Single, Stockwater, Irrigation	15.0	7.9	114	1994	12808330100
G2-29794	Domestic Single, Irrigation	30.0	3.1	108	1998	12817210600

Notes:

Sources: Ecology Water Rights Tracking System (WRTS), Thurston County Office of the Assessor.

See Figure 2-11 for approximate location of wells in relation to Site.

The water right priority year is the year in which the application for the water right was filed.

AFY = acre-feet per year
bgs = below ground surface
ft = feet
GPM = gallons per minute
Q = 1/4 section
Qa = maximum annual quantity
Qi = maximum instantaneous quantity
QQ = 1/4 1/4 section
WR = water right

Table 3-1

Soil Screening Levels

Former West Olympia Landfill Site
Olympia, Washington

		Human Health Direct Contact		Ecological	Concentrations Protective of Groundwater							Modifying Factors		Soil Screening Level (After adjustment for background and PQL)	
		MTCA Method B Value for Unrestricted Land Use[1]		Simplified TEE Ecological Indicator Soil Concentrations (MTCA Table 749-2)				Soil Concentration Protective of Groundwater Screening Level[5]		Preliminary Soil Screening Level		Background Concentration[6]	Practical Quantitation Limit[7] (PQL)		
Analyte	CAS Number	Carcinogen mg/kg	Non-Carcinogen mg/kg	mg/kg	Koc[2] L/kg	Kd[3] L/kg	H[4] (-)	Vadose Zone Soil mg/kg	Saturated Soil mg/kg	Vadose mg/kg	Saturated mg/kg	mg/kg	mg/kg	Vadose mg/kg	Saturated mg/kg
Petroleum Hydrocarbons															
Gasoline-Range Hydrocarbons W/Benzene	NA	--	--	2.0E+02	--	--	--	3.0E+01	3.0E+01	3.0E+01	3.0E+01	--	5.0E+00	3.0E+01	3.0E+01
Gasoline-Range Hydrocarbons	NA	--	--	2.0E+02	--	--	--	1.0E+02	1.0E+02	1.0E+02	1.0E+02	--	5.0E+00	1.0E+02	1.0E+02
Diesel-Range Hydrocarbons[5]	NA	--	--	4.6E+02	--	--	--	2.0E+03	2.0E+03	4.6E+02	4.6E+02	--	2.5E+01	4.6E+02	4.6E+02
Lube Oil-Range Hydrocarbons[5]	NA	--	--	--	--	--	--	2.0E+03	2.0E+03	2.0E+03	2.0E+03	--	5.0E+01	2.0E+03	2.0E+03
Metals															
Arsenic	7440-38-2	6.7E-01	2.4E+01	2.0E+01	--	2.9E+01	0.0E+00	Not a GW COC	Not a GW COC	6.7E-01	6.7E-01	2.0E+01	4.3E+00	2.0E+01	2.0E+01
Cadmium	7440-43-9	--	8.0E+01	2.5E+01	--	6.7E+00	0.0E+00	Not a GW COC	Not a GW COC	2.5E+01	2.5E+01	1.0E+00	4.9E-01	2.5E+01	2.5E+01
Chromium III / Total	16065-83-1	--	1.2E+05	4.2E+01	--	1.0E+03	0.0E+00	Not a GW COC	Not a GW COC	4.2E+01	4.2E+01	4.8E+01	not reported	4.8E+01	4.8E+01
Lead[1]	7439-92-1	2.5E+02		2.2E+02	--	1.0E+04	0.0E+00	Not a GW COC	Not a GW COC	2.2E+02	2.2E+02	1.7E+01	not reported	2.2E+02	2.2E+02
Mercury (mercuric chloride)	7439-97-6	--	2.4E+01	9.0E+00	--	5.2E+01	4.7E-01	Not a GW COC	Not a GW COC	9.0E+00	9.0E+00	7.0E-02	1.9E-02	9.0E+00	9.0E+00
Nickel	7440-02-0	--	1.6E+03	1.0E+02	--	6.5E+01	0.0E+00	Not a GW COC	Not a GW COC	1.0E+02	1.0E+02	4.8E+01	2.4E+01	1.0E+02	1.0E+02
Silver	7440-22-4	--	4.0E+02	--	--	8.3E+00	0.0E+00	Not a GW COC	Not a GW COC	4.0E+02	4.0E+02	--	1.7E+00	4.0E+02	4.0E+02
Zinc	7440-66-6	--	2.4E+04	2.7E+02	--	6.2E+01	0.0E+00	Not a GW COC	Not a GW COC	2.7E+02	2.7E+02	8.5E+01	not reported	2.7E+02	2.7E+02
Semivolatile Organic Compounds (SVOCs)															
2,4,5-Trichlorophenol	95-95-4	--	8.0E+03	--	1.6E+03	1.6E+00	1.8E-04	2.9E+01	Not a GW COC	2.9E+01	8.0E+03	--	6.7E-03	2.9E+01	8.0E+03
2,4,6-Trichlorophenol	88-06-2	9.1E+01	8.0E+01	--	3.8E+02	3.8E-01	3.2E-04	5.8E-02	Not a GW COC	5.8E-02	8.0E+01	--	6.7E-03	5.8E-02	8.0E+01
2,4-Dichlorophenol	120-83-2	--	2.4E+02	--	1.5E+02	1.5E-01	1.3E-04	1.7E-01	Not a GW COC	1.7E-01	2.4E+02	--	6.7E-03	1.7E-01	2.4E+02
2,4-Dimethylphenol	105-67-9	--	1.6E+03	--	2.1E+02	2.1E-01	8.2E-05	1.3E+00	Not a GW COC	1.3E+00	1.6E+03	--	6.7E-03	1.3E+00	1.6E+03
2,4-Dinitrophenol	51-28-5	--	1.6E+02	--	1.0E-02	1.0E-05	1.8E-05	1.3E-01	Not a GW COC	1.3E-01	1.6E+02	--	6.7E-03	1.3E-01	1.6E+02
2,4-Dinitrotoluene	121-14-2	3.2E+00	1.6E+02	--	9.6E+01	9.6E-02	3.8E-06	3.0E-02	Not a GW COC	3.0E-02	3.2E+00	--	6.7E-03	3.0E-02	3.2E+00
2,6-Dinitrotoluene	606-20-2	6.7E-01	2.4E+01	--	6.9E+01	6.9E-02	3.1E-05	2.7E-02	Not a GW COC	2.7E-02	6.7E-01	--	6.7E-03	2.7E-02	6.7E-01
2-Chloronaphthalene	91-58-7	--	6.4E+03	--	--	--	--	--	--	6.4E+03	6.4E+03	--	6.7E-03	6.4E+03	6.4E+03
2-Chlorophenol	95-57-8	--	4.0E+02	--	3.9E+02	3.9E-01	7.3E-03	4.7E-01	Not a GW COC	4.7E-01	4.0E+02	--	6.7E-03	4.7E-01	4.0E+02
2-Methylnaphthalene	91-57-6	--	3.2E+02	--	--	--	--	Not a GW COC	Not a GW COC	3.2E+02	3.2E+02	--	7.1E-02	3.2E+02	3.2E+02
2-methylphenol (o-Cresol)	95-48-7	--	4.0E+03	--	9.1E+01	9.1E-02	4.9E-05	Not a GW COC	Not a GW COC	4.0E+03	4.0E+03	--	6.7E-03	4.0E+03	4.0E+03
2-Nitroaniline	88-74-4	--	8.0E+02	--	--	--	--	Not a GW COC	Not a GW COC	8.0E+02	8.0E+02	--	6.7E-03	8.0E+02	8.0E+02
2-Nitrophenol	88-75-5	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	6.7E-03	NE	NE
3 & 4 Methylphenol	108-39-4	--	4.0E+03	--	--	--	--	Not a GW COC	Not a GW COC	4.0E+03	4.0E+03	--	6.7E-03	4.0E+03	4.0E+03
3,3'-Dichlorobenzidine	91-94-1	2.2E+00	--	--	7.2E+02	7.2E-01	1.6E-07	Not a GW COC	Not a GW COC	2.2E+00	2.2E+00	--	6.7E-03	2.2E+00	2.2E+00
3-Nitroaniline	99-09-2	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	6.7E-03	NE	NE
4,6-Dinitro-2-Methylphenol	534-52-1	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	6.7E-03	NE	NE
4-Bromophenyl phenyl ether	101-55-3	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	6.7E-03	NE	NE
4-Chloro-3-Methylphenol	59-50-7	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	6.7E-03	NE	NE
4-Chloroaniline	106-47-8	5.0E+00	3.2E+02	--	6.6E+01	6.6E-02	1.4E-05	Not a GW COC	Not a GW COC	5.0E+00	5.0E+00	--	6.7E-03	5.0E+00	5.0E+00
4-Chlorophenyl-Phenylether	7005-72-3	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	6.7E-03	NE	NE
4-Nitroaniline	100-01-6	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	6.7E-03	NE	NE
4-Nitrophenol (p-Nitrophenol)	100-02-7	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	6.7E-03	NE	NE
Acenaphthene	83-32-9	--	4.8E+03	--	4.9E+03	4.9E+00	2.1E-03	Not a GW COC	Not a GW COC	4.8E+03	4.8E+03	--	7.1E-02	4.8E+03	4.8E+03
Acenaphthylene	208-96-8	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	7.1E-02	NE	NE
Anthracene	120-12-7	--	2.4E+04	--	2.3E+04	2.3E+01	2.7E-03	Not a GW COC	Not a GW COC	2.4E+04	2.4E+04	--	7.1E-02	2.4E+04	2.4E+04
Benzo(a)anthracene	56-55-3	cPAH TEC	--	--	3.6E+05	3.6E+02	1.4E-04	Not a GW COC	Not a GW COC	NE	NE	--	7.1E-02	NE	NE
Benzo(a)pyrene	50-32-8	cPAH TEC	2.4E+01	3.0E+01	9.7E+05	9.7E+02	4.6E-05	Not a GW COC	Not a GW COC	2.4E+01	2.4E+01	--	7.1E-02	2.4E+01	2.4E+01
Benzo(b)fluoranthene	205-99-2	cPAH TEC	--	--	1.2E+06	1.2E+03	7.7E-04	Not a GW COC	Not a GW COC	NE	NE	--	7.1E-02	NE	NE

		Human Health Direct Contact		Ecological	Concentrations Protective of Groundwater							Modifying Factors		Soil Screening Level (After adjustment for background and PQL)	
		MTCA Method B Value for Unrestricted Land Use[1]		Simplified TEE Ecological Indicator Soil Concentrations				Soil Concentration Protective of Groundwater Screening Level[5]		Preliminary Soil Screening Level		Background Concentration[6]	Practical Quantitation Limit[7]		
Analyte	CAS Number	Carcinogen mg/kg	Non-Carcinogen mg/kg	(MTCA Table 749-2) mg/kg	Koc[2] L/kg	Kd[3] L/kg	H[4] (-)	Vadose Zone Soil mg/kg	Saturated Soil mg/kg	Vadose mg/kg	Saturated mg/kg	mg/kg	(PQL) mg/kg	Vadose mg/kg	Saturated mg/kg
Benzo(ghi)perylene	191-24-2	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	7.1E-02	NE	NE
Benzo(k)fluoranthene	207-08-9	cPAH TEC	--	--	1.2E+06	1.2E+03	3.4E-05	Not a GW COC	Not a GW COC	NE	NE	--	7.1E-02	NE	NE
Benzoic Acid	65-85-0	--	3.2E+05	--	6.0E-01	6.0E-04	6.3E-05	Not a GW COC	Not a GW COC	3.2E+05	3.2E+05	--	6.7E-03	3.2E+05	3.2E+05
Benzyl Alcohol	100-51-6	--	8.0E+03	--	--	--	--	Not a GW COC	Not a GW COC	8.0E+03	8.0E+03	--	6.7E-03	8.0E+03	8.0E+03
Bis(2-Chloroethoxy)Methane	111-91-1	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	6.7E-03	NE	NE
Bis(2-Chloroethyl)Ether	111-44-4	9.1E-01	--	--	7.6E+01	7.6E-02	2.9E-04	Not a GW COC	Not a GW COC	9.1E-01	9.1E-01	--	6.7E-03	9.1E-01	9.1E-01
Bis(2-Chloroisopropyl)Ether	39638-32-9	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	6.7E-03	NE	NE
Bis(2-Ethylhexyl)phthalate	117-81-7	7.1E+01	1.6E+03	--	1.1E+05	1.1E+02	4.2E-06	Not a GW COC	Not a GW COC	7.1E+01	7.1E+01	--	6.7E-03	7.1E+01	7.1E+01
Butyl benzyl Phthalate	85-68-7	5.3E+02	1.6E+04	--	1.4E+04	1.4E+01	5.2E-05	Not a GW COC	Not a GW COC	5.3E+02	5.3E+02	--	6.7E-03	5.3E+02	5.3E+02
Chrysene	218-01-9	cPAH TEC	--	--	4.0E+05	4.0E+02	7.1E-04	Not a GW COC	Not a GW COC	NE	NE	--	7.1E-02	NE	NE
Dibenzo(a,h)anthracene	53-70-3	cPAH TEC	--	--	1.8E+06	1.8E+03	6.0E-07	Not a GW COC	Not a GW COC	NE	NE	--	7.1E-02	NE	NE
Dibenzofuran	132-64-9	--	8.0E+01	--	--	--	--	Not a GW COC	Not a GW COC	8.0E+01	8.0E+01	--	7.1E-02	8.0E+01	8.0E+01
Dibutyl phthalate	84-74-2	--	8.0E+03	--	1.6E+03	1.6E+00	3.9E-08	Not a GW COC	Not a GW COC	8.0E+03	8.0E+03	--	6.7E-03	8.0E+03	8.0E+03
Diethyl phthalate	84-66-2	--	6.4E+04	--	8.2E+01	8.2E-02	1.9E-05	Not a GW COC	Not a GW COC	6.4E+04	6.4E+04	--	6.7E-03	6.4E+04	6.4E+04
Dimethyl phthalate	131-11-3	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	6.7E-03	NE	NE
Di-n-ocytylphthalate	117-84-0	--	8.0E+02	--	8.3E+07	8.3E+04	2.7E-03	Not a GW COC	Not a GW COC	8.0E+02	8.0E+02	--	6.7E-03	8.0E+02	8.0E+02
Fluoranthene	206-44-0	--	3.2E+03	--	4.9E+04	4.9E+01	6.6E-04	Not a GW COC	Not a GW COC	3.2E+03	3.2E+03	--	7.1E-02	3.2E+03	3.2E+03
Fluorene	86-73-7	--	3.2E+03	--	7.7E+03	7.7E+00	8.6E-04	Not a GW COC	Not a GW COC	3.2E+03	3.2E+03	--	7.1E-02	3.2E+03	3.2E+03
Hexachlorobenzene	118-74-1	6.3E-01	6.4E+01	--	8.0E+04	8.0E+01	1.4E-02	Not a GW COC	Not a GW COC	6.3E-01	6.3E-01	--	6.7E-03	6.3E-01	6.3E-01
Hexachlorobutadiene	87-68-3	1.3E+01	8.0E+01	--	5.4E+04	5.4E+01	1.4E-01	Not a GW COC	Not a GW COC	1.3E+01	1.3E+01	--	6.7E-03	1.3E+01	1.3E+01
Hexachlorocyclopentadiene	77-47-4	--	4.8E+02	--	2.0E+05	2.0E+02	4.2E-01	Not a GW COC	Not a GW COC	4.8E+02	4.8E+02	--	6.7E-03	4.8E+02	4.8E+02
Hexachloroethane	67-72-1	2.5E+01	5.6E+01	--	1.8E+03	1.8E+00	7.2E-02	Not a GW COC	Not a GW COC	2.5E+01	2.5E+01	--	6.7E-03	2.5E+01	2.5E+01
Indeno(1,2,3-cd)pyrene	193-39-5	cPAH TEC	--	--	3.5E+06	3.5E+03	6.6E-05	Not a GW COC	Not a GW COC	NE	NE	--	7.1E-02	NE	NE
Isophorone	78-59-1	1.1E+03	1.6E+04	--	4.7E+01	4.7E-02	2.7E-04	Not a GW COC	Not a GW COC	1.1E+03	1.1E+03	--	6.7E-03	1.1E+03	1.1E+03
Naphthalene	91-20-3	--	1.6E+03	--	1.2E+03	1.2E+00	8.2E-03	Not a GW COC	Not a GW COC	1.6E+03	1.6E+03	--	7.1E-02	1.6E+03	1.6E+03
Nitrobenzene	98-95-3	--	1.6E+02	--	1.2E+02	1.2E-01	4.0E-04	Not a GW COC	Not a GW COC	1.6E+02	1.6E+02	--	6.7E-03	1.6E+02	1.6E+02
N-nitrosodi-n-propylamine	621-64-7	1.4E-01	--	--	2.4E+01	2.4E-02	9.2E-05	Not a GW COC	Not a GW COC	1.4E-01	1.4E-01	--	6.7E-03	1.4E-01	1.4E-01
Ni-nitrosodiphenylamine	86-30-6	2.0E+02	--	--	1.3E+03	1.3E+00	2.1E-04	Not a GW COC	Not a GW COC	2.0E+02	2.0E+02	--	6.7E-03	2.0E+02	2.0E+02
Pentachlorophenol	87-86-5	2.5E+00	4.0E+02	--	5.9E+02	5.9E-01	1.0E-06	Not a GW COC	Not a GW COC	2.5E+00	2.5E+00	--	6.7E-03	2.5E+00	2.5E+00
Phenanthrene	85-01-8	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	6.7E-03	NE	NE
Phenol	108-95-2	--	2.4E+04	--	2.9E+01	2.9E-02	1.6E-05	Not a GW COC	Not a GW COC	2.4E+04	2.4E+04	--	6.7E-03	2.4E+04	2.4E+04
Pyrene	129-00-0	--	2.4E+03	--	6.8E+04	6.8E+01	1.1E-04	Not a GW COC	Not a GW COC	2.4E+03	2.4E+03	--	6.7E-03	2.4E+03	2.4E+03
cPAH TEC	NA	1.9E-01	--	--	9.7E+05	9.7E+02	4.6E-05	Not a GW COC	Not a GW COC	1.9E-01	1.9E-01	--	1.1E-01	1.9E-01	1.9E-01
Volatile Organic Compounds (VOCs)															
1,1,1,2-Tetrachloroethane	630-20-6	3.8E+01	2.4E+03	--	--	--	--	Not a GW COC	Not a GW COC	3.8E+01	3.8E+01	--	1.0E-03	3.8E+01	3.8E+01
1,1,1-Trichloroethane	71-55-6	--	1.6E+05	--	1.4E+02	1.4E-01	4.2E-01	Not a GW COC	Not a GW COC	1.6E+05	1.6E+05	--	1.0E-03	1.6E+05	1.6E+05
1,1,2,2-Tetrachloroethane	79-34-5	5.0E+00	1.6E+03	--	7.9E+01	7.9E-02	7.0E-03	Not a GW COC	Not a GW COC	5.0E+00	5.0E+00	--	1.0E-03	5.0E+00	5.0E+00
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	76-13-1	--	2.4E+06	--	--	--	--	Not a GW COC	Not a GW COC	2.4E+06	2.4E+06	--	1.0E-03	2.4E+06	2.4E+06
1,1,2-Trichloroethane	79-00-5	1.8E+01	3.2E+02	--	7.5E+01	7.5E-02	2.0E-02	Not a GW COC	Not a GW COC	1.8E+01	1.8E+01	--	1.0E-03	1.8E+01	1.8E+01
1,1-Dichloroethane	75-34-3	1.8E+02	1.6E+04	--	5.3E+01	5.3E-02	1.4E-01	Not a GW COC	Not a GW COC	1.8E+02	1.8E+02	--	1.0E-03	1.8E+02	1.8E+02
1,1-Dichloroethene	75-35-4	--	4.0E+03	--	6.5E+01	6.5E-02	7.1E-01	Not a GW COC	Not a GW COC	4.0E+03	4.0E+03	--	1.0E-03	4.0E+03	4.0E+03
1,1-Dichloropropene	563-58-6	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	1.0E-03	NE	NE
1,2,3-Trichlorobenzene	87-61-6	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	1.0E-03	NE	NE
1,2,3-Trichloropropane	96-18-4	3.3E-02	3.2E+02	--	--	--	--	Not a GW COC	Not a GW COC	3.3E-02	3.3E-02	--	1.0E-03	3.3E-02	3.3E-02
1,2,4-Trichlorobenzene	120-82-1	3.4E+01	8.0E+02	--	1.7E+03	1.7E+00	2.4E-02	Not a GW COC	Not a GW COC	3.4E+01	3.4E+01	--	1.0E-03	3.4E+01	3.4E+01
1,2,4-Trimethylbenzene	95-63-6	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	1.0E-03	NE	NE
1,2-Dibromo-3-Chloropropane	96-12-8	1.3E+00	1.6E+01	--	--	--	--	Not a GW COC	Not a GW COC	1.3E+00	1.3E+00	--	5.0E-03	1.3E+00	1.3E+00
1,2-dibromoethane (EDB)	106-93-4	5.0E-01	7.2E+02	--	--	--	--	Not a GW COC	Not a GW COC	5.0E-01	5.0E-01	--	1.0E-03	5.0E-01	5.0E-01

Analyte	CAS Number	Human Health Direct Contact		Ecological	Concentrations Protective of Groundwater					Preliminary Soil Screening Level		Modifying Factors		Soil Screening Level (After adjustment for background and PQL)	
		MTCA Method B Value for Unrestricted Land Use[1]		Simplified TEE Ecological Indicator Soil Concentrations (MTCA Table 749-2)				Soil Concentration Protective of Groundwater Screening Level[5]				Background Concentration[6]	Practical Quantitation Limit[7] (PQL)		
		Carcinogen mg/kg	Non-Carcinogen mg/kg	mg/kg	Koc[2] L/kg	Kd[3] L/kg	H[4] (-)	Vadose Zone Soil mg/kg	Saturated Soil mg/kg	Vadose mg/kg	Saturated mg/kg	mg/kg	mg/kg	Vadose mg/kg	Saturated mg/kg
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	--	7.2E+03	--	3.8E+02	3.8E-01	3.5E-02	Not a GW COC	Not a GW COC	7.2E+03	7.2E+03	--	1.0E-03	7.2E+03	7.2E+03
1,2-Dichloroethane (EDC)	107-06-2	1.1E+01	4.8E+02	--	3.8E+01	3.8E-02	2.3E-02	Not a GW COC	Not a GW COC	1.1E+01	1.1E+01	--	1.0E-03	1.1E+01	1.1E+01
1,2-Dichloropropane	78-87-5	2.8E+01	7.2E+03	--	4.7E+01	4.7E-02	6.5E-02	Not a GW COC	Not a GW COC	2.8E+01	2.8E+01	--	1.0E-03	2.8E+01	2.8E+01
1,3,5-Trimethylbenzene	108-67-8	--	8.0E+02	--	--	--	--	Not a GW COC	Not a GW COC	8.0E+02	8.0E+02	--	1.0E-03	8.0E+02	8.0E+02
1,3-Dichlorobenzene (m-Dichlorobenzene)	541-73-1	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	1.0E-03	NE	NE
1,3-Dichloropropane	142-28-9	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	1.0E-03	NE	NE
1,4-Dichlorobenzene (p-Dichlorobenzene)	106-46-7	1.9E+02	5.6E+03	--	6.2E+02	6.2E-01	4.6E-02	Not a GW COC	Not a GW COC	1.9E+02	1.9E+02	--	1.0E-03	1.9E+02	1.9E+02
2,2-Dichloropropane	594-20-7	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	1.0E-03	NE	NE
2-Butanone (MEK)	78-93-3	--	4.8E+04	--	--	--	--	Not a GW COC	Not a GW COC	4.8E+04	4.8E+04	--	5.0E-03	4.8E+04	4.8E+04
2-Chloroethyl vinyl ether	110-75-8	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	5.0E-03	NE	NE
2-Chlorotoluene	95-49-8	--	1.6E+03	--	--	--	--	Not a GW COC	Not a GW COC	1.6E+03	1.6E+03	--	1.0E-03	1.6E+03	1.6E+03
2-Hexanone	591-78-6	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	5.0E-03	NE	NE
4-Chlorotoluene	106-43-4	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	1.0E-03	NE	NE
4-Methyl-2-Pentanone (Methyl isobutyl ketone)	108-10-1	--	6.4E+03	--	--	--	--	Not a GW COC	Not a GW COC	6.4E+03	6.4E+03	--	5.0E-03	6.4E+03	6.4E+03
Acetone	67-64-1	--	7.2E+04	--	5.8E-01	5.8E-04	9.7E-04	Not a GW COC	Not a GW COC	7.2E+04	7.2E+04	--	5.0E-03	7.2E+04	7.2E+04
Acrolein	107-02-8	--	4.0E+01	--	--	--	--	Not a GW COC	Not a GW COC	4.0E+01	4.0E+01	--	5.0E-02	4.0E+01	4.0E+01
Acrylonitrile	107-13-1	1.9E+00	3.2E+03	--	--	--	--	Not a GW COC	Not a GW COC	1.9E+00	1.9E+00	--	5.0E-03	1.9E+00	1.9E+00
Benzene	71-43-2	1.8E+01	3.2E+02	--	6.2E+01	6.2E-02	1.3E-01	Not a GW COC	Not a GW COC	1.8E+01	1.8E+01	--	1.0E-03	1.8E+01	1.8E+01
Bromobenzene	108-86-1	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	1.0E-03	NE	NE
Bromochloromethane	74-97-5	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	1.0E-03	NE	NE
Bromodichloromethane	75-27-4	1.6E+01	1.6E+03	--	5.5E+01	5.5E-02	3.7E-02	Not a GW COC	Not a GW COC	1.6E+01	1.6E+01	--	1.0E-03	1.6E+01	1.6E+01
Bromoethane	593-60-2	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	2.0E-03	NE	NE
Bromoform (Tribromomethane)	75-25-2	1.3E+02	1.6E+03	--	1.3E+02	1.3E-01	1.2E-02	Not a GW COC	Not a GW COC	1.3E+02	1.3E+02	--	1.0E-03	1.3E+02	1.3E+02
Bromomethane	74-83-9	--	1.1E+02	--	9.0E+00	9.0E-03	1.8E-01	Not a GW COC	Not a GW COC	1.1E+02	1.1E+02	--	1.0E-03	1.1E+02	1.1E+02
Carbon Disulfide	75-15-0	--	8.0E+03	--	4.6E+01	4.6E-02	8.0E-01	Not a GW COC	Not a GW COC	8.0E+03	8.0E+03	--	1.0E-03	8.0E+03	8.0E+03
Carbon Tetrachloride	56-23-5	1.4E+01	3.2E+02	--	1.5E+02	1.5E-01	7.4E-01	Not a GW COC	Not a GW COC	1.4E+01	1.4E+01	--	1.0E-03	1.4E+01	1.4E+01
Chlorobenzene	108-90-7	--	1.6E+03	--	2.2E+02	2.2E-01	7.9E-02	Not a GW COC	Not a GW COC	1.6E+03	1.6E+03	--	1.0E-03	1.6E+03	1.6E+03
Chloroethane	75-00-3	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	1.0E-03	NE	NE
Chloroform	67-66-3	3.2E+01	8.0E+02	--	5.3E+01	5.3E-02	9.2E-02	Not a GW COC	Not a GW COC	3.2E+01	3.2E+01	--	1.0E-03	3.2E+01	3.2E+01
Chloromethane	74-87-3	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	1.0E-03	NE	NE
cis-1,2-Dichloroethene	156-59-2	--	1.6E+02	--	3.6E+01	3.6E-02	1.0E-01	Not a GW COC	Not a GW COC	1.6E+02	1.6E+02	--	1.0E-03	1.6E+02	1.6E+02
cis-1,3-Dichloropropene	542-75-6	1.0E+01	2.4E+03	--	2.7E+01	2.7E-02	4.0E-01	Not a GW COC	Not a GW COC	1.0E+01	1.0E+01	--	1.0E-03	1.0E+01	1.0E+01
Dibromochloromethane	124-48-1	1.2E+01	1.6E+03	--	6.3E+01	6.3E-02	2.1E-02	Not a GW COC	Not a GW COC	1.2E+01	1.2E+01	--	1.0E-03	1.2E+01	1.2E+01
Dibromomethane	74-95-3	--	8.0E+02	--	--	--	--	Not a GW COC	Not a GW COC	8.0E+02	8.0E+02	--	1.0E-03	8.0E+02	8.0E+02
Ethylbenzene	100-41-4	--	8.0E+03	--	2.0E+02	2.0E-01	3.2E-01	Not a GW COC	Not a GW COC	8.0E+03	8.0E+03	--	1.0E-03	8.0E+03	8.0E+03
Hexachlorobutadiene	87-68-3	1.3E+01	8.0E+01	--	5.4E+04	5.4E+01	1.4E-01	Not a GW COC	Not a GW COC	1.3E+01	1.3E+01	--	5.0E-03	1.3E+01	1.3E+01
Isopropylbenzene (Cumene)	98-82-8	--	8.0E+03	--	--	--	--	Not a GW COC	Not a GW COC	8.0E+03	8.0E+03	--	1.0E-03	8.0E+03	8.0E+03
Methyl Iodide (Iodomethane)	74-88-4	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	1.0E-03	NE	NE
Methylene Chloride	75-09-2	5.0E+02	4.8E+02	--	1.0E+01	1.0E-02	5.7E-02	Not a GW COC	Not a GW COC	4.8E+02	4.8E+02	--	3.0E-03	4.8E+02	4.8E+02
Naphthalene	91-20-3	--	1.6E+03	--	1.2E+03	1.2E+00	8.2E-03	Not a GW COC	Not a GW COC	1.6E+03	1.6E+03	--	5.0E-03	1.6E+03	1.6E+03
n-Butylbenzene	104-51-8	--	4.0E+03	--	--	--	--	Not a GW COC	Not a GW COC	4.0E+03	4.0E+03	--	2.0E-03	4.0E+03	4.0E+03
n-Propylbenzene	103-65-1	--	8.0E+03	--	--	--	--	Not a GW COC	Not a GW COC	8.0E+03	8.0E+03	--	1.0E-03	8.0E+03	8.0E+03
p-Isopropyltoluene	99-87-6	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	1.0E-03	NE	NE
Sec-Butylbenzene	135-98-8	--	8.0E+03	--	--	--	--	Not a GW COC	Not a GW COC	8.0E+03	8.0E+03	--	1.0E-03	8.0E+03	8.0E+03
Styrene	100-42-5	--	1.6E+04	--	9.1E+02	9.1E-01	5.6E-02	Not a GW COC	Not a GW COC	1.6E+04	1.6E+04	--	1.0E-03	1.6E+04	1.6E+04
Tert-Butylbenzene	98-06-6	--	8.0E+03	--	--	--	--	Not a GW COC	Not a GW COC	8.0E+03	8.0E+03	--	1.0E-03	8.0E+03	8.0E+03
Tetrachloroethene	127-18-4	4.8E+02	4.8E+02	--	2.7E+02	2.7E-01	4.0E-01	Not a GW COC	Not a GW COC	4.8E+02	4.8E+02	--	1.0E-03	4.8E+02	4.8E+02

		Human Health Direct Contact		Ecological	Concentrations Protective of Groundwater					Preliminary Soil Screening Level		Modifying Factors		Soil Screening Level (After adjustment for background and PQL)	
		MTCA Method B Value for Unrestricted Land Use[1]		Simplified TEE Ecological Indicator Soil Concentrations (MTCA Table 749-2)				Soil Concentration Protective of Groundwater Screening Level[5]				Background Concentration[6]	Practical Quantitation Limit[7] (PQL)		
Analyte	CAS Number	Carcinogen mg/kg	Non-Carcinogen mg/kg	mg/kg	Koc[2] L/kg	Kd[3] L/kg	H[4] (-)	Vadose Zone Soil mg/kg	Saturated Soil mg/kg	Vadose mg/kg	Saturated mg/kg	mg/kg	mg/kg	Vadose mg/kg	Saturated mg/kg
Toluene	108-88-3	--	6.4E+03	--	1.4E+02	1.4E-01	1.5E-01	Not a GW COC	Not a GW COC	6.4E+03	6.4E+03	--	1.0E-03	6.4E+03	6.4E+03
Trans-1,2-Dichloroethene	156-60-5	--	1.6E+03	--	3.8E+01	3.8E-02	2.4E-01	Not a GW COC	Not a GW COC	1.6E+03	1.6E+03	--	1.0E-03	1.6E+03	1.6E+03
Trans-1,3-Dichloropropene	542-75-6	1.0E+01	2.4E+03	--	2.7E+01	2.7E-02	4.0E-01	Not a GW COC	Not a GW COC	1.0E+01	1.0E+01	--	1.0E-03	1.0E+01	1.0E+01
Trans-1,4-Dichloro-2-butene	110-57-6	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	5.0E-03	NE	NE
Trichloroethene	79-01-6	1.2E+01	4.0E+01	--	9.4E+01	9.4E-02	2.4E-01	9.8E-03	5.9E-04	9.8E-03	5.9E-04	--	1.0E-03	9.8E-03	1.0E-03
Trichlorofluoromethane (CFC-11)	75-69-4	--	2.4E+04	--	--	--	--	Not a GW COC	Not a GW COC	2.4E+04	2.4E+04	--	1.0E-03	2.4E+04	2.4E+04
Vinyl Acetate	108-05-4	--	8.0E+04	--	5.3E+00	5.3E-03	1.2E-02	Not a GW COC	Not a GW COC	8.0E+04	8.0E+04	--	5.0E-03	8.0E+04	8.0E+04
Vinyl Chloride	75-01-4	6.7E-01	2.4E+02	--	1.9E+01	1.9E-02	8.1E-01	Not a GW COC	Not a GW COC	6.7E-01	6.7E-01	--	1.0E-03	6.7E-01	6.7E-01
Xylene, m-	108-38-3	--	1.6E+04	--	2.0E+02	2.0E-01	1.5E-01	Not a GW COC	Not a GW COC	1.6E+04	1.6E+04	--	1.0E-03	1.6E+04	1.6E+04
Xylene, p-	95-47-6	--	1.6E+04	--	2.4E+02	2.4E-01	1.1E-01	Not a GW COC	Not a GW COC	1.6E+04	1.6E+04	--	1.0E-03	1.6E+04	1.6E+04
Xylene, o-	106-42-3	--	1.6E+04	--	3.1E+02	3.1E-01	1.6E-01	Not a GW COC	Not a GW COC	1.6E+04	1.6E+04	--	1.0E-03	1.6E+04	1.6E+04
Polychlorinated Biphenyls (PCBs)															
Aroclor 1016	12674-11-2	1.4E+01	5.6E+00	--	--	--	--	Not a GW COC	Not a GW COC	5.6E+00	5.6E+00	--	3.6E-02	5.6E+00	5.6E+00
Aroclor 1221	11104-28-2	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	7.2E-02	NE	NE
Aroclor 1232	11141-16-5	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	3.6E-02	NE	NE
Aroclor 1242	53269-21-9	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	3.6E-02	NE	NE
Aroclor 1248	12672-29-6	--	--	--	--	--	--	Not a GW COC	Not a GW COC	NE	NE	--	3.6E-02	NE	NE
Aroclor 1254	11097-69-1	5.0E-01	1.6E+00	--	--	--	--	Not a GW COC	Not a GW COC	5.0E-01	5.0E-01	--	3.6E-02	5.0E-01	5.0E-01
Aroclor 1260	11096-82-5	5.0E-01	--	--	--	--	--	Not a GW COC	Not a GW COC	5.0E-01	5.0E-01	--	3.6E-02	5.0E-01	5.0E-01
Total PCBs	1336-36-3	5.0E-01	--	2.0E+00	--	1.0E+00	1.0E+00	Not a GW COC	Not a GW COC	5.0E-01	5.0E-01	--	3.6E-02	5.0E-01	5.0E-01

Notes:

[1] The MTCA Method A Cleanup Level was used for lead as no MTCA Method B Cleanup Level is available for lead.

[2] Values for Koc are from Ecology's "CLARC Master Spreadsheet.xlsx" dated August 2015.

[3] For ionizing and non-ionizing organics, $K_d = K_{oc} \times f_{oc}$ and uses the MTCA default f_{oc} of 0.1% in upland soil. Metals Kd values are from Ecology's "CLARC Master Spreadsheet.xlsx" dated August 2015.

[4] Values for H are from Ecology's "CLARC Master Spreadsheet.xlsx" dated August 2015. Values are temperature-adjusted based on 13 degrees Celsius when available; otherwise values are based on 25 degrees Celsius.

[5] Soil concentrations protective of groundwater calculated per WAC 173-340-740(3)(b)(iii)(A) using Equations 747-1 and 747-2 referencing preliminary groundwater cleanup levels presented in RI Table 3-2. The Method A Soil Cleanup Level is used for the gasoline-, diesel- and oil-range total petroleum hydrocarbon concentrations protective of groundwater. Groundwater screening levels are presented in RI Table 3-2.

[6] Metals background values (Puget Sound Region 90th percentile values) are from *Natural Background Soil Metals Concentrations in Washington State* (Ecology Publication #94-115, 1994). Arsenic value from MTCA Table 740-1 (natural background for soil in Washington).

[7] PQL is the lowest PQL reported by LAI.

-- = No screening criteria available

cPAH = Carcinogenic polycyclic aromatic hydrocarbon

EPA = Environmental Protection Agency

f_{oc} = Sediment fraction of organic carbon

k_d = Distribution coefficient

k_{oc} = Soil organic carbon-water partitioning coefficient

L/kg = Liter per kilogram

mg/kg = Milligram per kilogram

MTCA = Washington State Model Toxics Control Act

NE = Not Established

PQL = Practical quantitation limit

RI = Remedial investigation

TEC = Toxic equivalent concentration

Not a GW COC = Analyte is not a groundwater contaminant of concern (COC); analyte was not detected in groundwater at a concentration greater than its groundwater screening level (see RI Table 3-2).

Gray shading identifies the basis for the preliminary soil screening level.

Blue shading identifies the basis for the soil screening level (after PQL adjustment)

Green shading identifies the soil screening level after adjustment for background and the PQL.

Table 3-2

Groundwater Screening Levels

Former West Olympia Landfill Site

Olympia, Washington

Analyte	CAS Number	Drinking Water Criteria						Vapor Intrusion[5]		Preliminary Groundwater Screening Level µg/L	Modifying Factor	Groundwater Screening Level (After PQL Adjustment) µg/L
		Federal MCL[1] µg/L	State MCL[2] µg/L	MTCA Method B Value[3, 4]				Carc. µg/L	Non-Carc. µg/L		PQL[6] µg/L	
				Carc. µg/L	Carc. Adjusted µg/L	Non-Carc. µg/L	Non-Carc. Adjusted µg/L					
Petroleum Hydrocarbons												
Gasoline-Range Hydrocarbons[8]	NA	--	--	--	--	8.0E+02	8.0E+02	--	--	8.0E+02	2.5E+02	8.0E+02
Diesel-Range Hydrocarbons[8]	NA	--	--	--	--	5.0E+02	5.0E+02	--	--	5.0E+02	2.5E+02	5.0E+02
Heavy Oil-Range Hydrocarbons[8]	NA	--	--	--	--	5.0E+02	5.0E+02	--	--	5.0E+02	5.0E+02	5.0E+02
Metals												
Aluminum	7429-90-5	--	--	--	--	1.6E+04	1.6E+04	--	--	1.6E+04	2.0E+02	1.6E+04
Antimony	7440-36-0	6.0E+00	6.0E+00	--	--	6.4E+00	--	--	--	6.0E+00	2.0E+00	6.0E+00
Arsenic[7]	7440-38-2	1.0E+01	1.0E+01	5.8E-02	5.8E-01	4.8E+00	4.8E+00	--	--	5.8E-01	1.0E+00	5.0E+00
Barium	7440-39-3	2.0E+03	2.0E+03	--	--	3.2E+03	--	--	--	2.0E+03	1.0E+01	2.0E+03
Beryllium	7440-41-7	4.0E+00	4.0E+00	--	--	3.2E+01	--	--	--	4.0E+00	1.0E+00	4.0E+00
Cadmium	7440-43-9	5.0E+00	5.0E+00	--	--	8.0E+00	--	--	--	5.0E+00	1.0E+00	5.0E+00
Chromium (Total)	7440-47-3	1.0E+02	1.0E+02	--	--	2.4E+04	--	--	--	1.0E+02	2.0E+00	1.0E+02
Cobalt	7440-48-4	--	--	--	--	--	--	--	--	NE	1.0E+00	NE
Copper	7440-50-8	1.3E+03	1.3E+03	--	--	6.4E+02	6.4E+02	--	--	6.4E+02	2.0E+00	6.4E+02
Iron	7439-89-6	--	--	--	--	1.1E+04	1.1E+04	--	--	1.1E+04	1.0E+02	1.1E+04
Lead	7439-92-1	1.5E+01	1.5E+01	--	--	--	--	--	--	1.5E+01	1.0E+00	1.5E+01
Manganese	7439-96-5	--	--	--	--	2.2E+03	2.2E+03	--	--	2.2E+03	1.0E+00	2.2E+03
Mercury (mercuric chloride)	7439-97-6	2.0E+00	2.0E+00	--	--	--	--	--	8.9E-01	8.9E-01	2.0E-01	8.9E-01
Nickel	7440-02-0	--	1.0E+02	--	--	3.2E+02	--	--	--	1.0E+02	2.0E+00	1.0E+02
Selenium	7782-49-2	5.0E+01	5.0E+01	--	--	8.0E+01	--	--	--	5.0E+01	5.0E+00	5.0E+01
Silver	7440-22-4	--	--	--	--	8.0E+01	8.0E+01	--	--	8.0E+01	1.0E+00	8.0E+01
Thallium	7440-28-0	2.0E+00	2.0E+00	--	--	1.6E-01	1.6E-01	--	--	1.6E-01	1.0E+00	1.0E+00
Vanadium	7440-62-2	--	--	--	--	8.0E+01	8.0E+01	--	--	8.0E+01	5.0E+00	8.0E+01
Zinc	7440-66-6	--	--	--	--	4.8E+03	4.8E+03	--	--	4.8E+03	1.0E+01	4.8E+03
Semivolatile Organic Compounds (SVOCs)												
1,1-Biphenyl	92-52-4	--	--	5.5E+00	5.5E+00	4.0E+03	4.0E+03	--	--	5.5E+00	5.0E+00	5.5E+00
1,2,4,5-Tetrachlorobenzene	95-94-3	--	--	--	--	4.8E+00	4.8E+00	--	--	4.8E+00	5.0E+00	5.0E+00
1,2,4-Trichlorobenzene	120-82-1	7.0E+01	7.0E+01	1.5E+00	1.5E+01	8.0E+01	--	--	3.9E+01	1.5E+01	5.0E-01	1.5E+01
1,2-Dichlorobenzene	95-50-1	6.0E+02	6.0E+02	--	--	7.2E+02	--	--	2.6E+03	6.0E+02	2.0E-01	6.0E+02
1,3-Dichlorobenzene	541-73-1	--	--	--	--	--	--	--	--	NE	2.0E-01	NE
1,4-Dichlorobenzene	106-46-7	7.5E+01	7.5E+01	8.1E+00	--	5.6E+02	--	4.9E+00	7.8E+03	4.9E+00	2.0E-01	4.9E+00
1-Methylnaphthalene	90-12-0	--	--	1.5E+00	1.5E+00	5.6E+02	5.6E+02	--	--	1.5E+00	1.0E+00	1.5E+00
2,2'-Oxybis[1-chloropropane]	108-60-1	--	--	6.3E-01	6.3E-01	3.2E+02	3.2E+02	--	--	6.3E-01	1.0E+00	1.0E+00
2,3,4,6-Tetrachlorophenol	58-90-2	--	--	--	--	4.8E+02	4.8E+02	--	--	4.8E+02	5.0E+00	4.8E+02
2,4,5-Trichlorophenol	95-95-4	--	--	--	--	8.0E+02	8.0E+02	--	--	8.0E+02	5.0E+00	8.0E+02
2,4,6-Trichlorophenol	88-06-2	--	--	4.0E+00	4.0E+00	8.0E+00	8.0E+00	--	--	4.0E+00	5.0E+00	5.0E+00
2,4-Dichlorophenol	120-83-2	--	--	--	--	2.4E+01	2.4E+01	--	--	2.4E+01	5.0E+00	2.4E+01
2,4-Dimethylphenol	105-67-9	--	--	--	--	1.6E+02	1.6E+02	--	--	1.6E+02	1.0E+00	1.6E+02
2,4-Dinitrophenol	51-28-5	--	--	--	--	3.2E+01	3.2E+01	--	--	3.2E+01	1.0E+01	3.2E+01
2,4-Dinitrotoluene	121-14-2	--	--	2.8E-01	2.8E-01	3.2E+01	3.2E+01	--	--	2.8E-01	5.0E+00	5.0E+00
2,6-Dinitrotoluene	606-20-2	--	--	5.8E-02	5.8E-02	4.8E+00	4.8E+00	--	--	5.8E-02	5.0E+00	5.0E+00
2-Chloronaphthalene	91-58-7	--	--	--	--	6.4E+02	6.4E+02	--	--	6.4E+02	1.0E+00	6.4E+02
2-Chlorophenol	95-57-8	--	--	--	--	4.0E+01	4.0E+01	--	--	4.0E+01	1.0E+00	4.0E+01
2-Methylnaphthalene	91-57-6	--	--	--	--	3.2E+01	3.2E+01	--	--	3.2E+01	1.0E-01	3.2E+01
2-methylphenol (o-Cresol)	95-48-7	--	--	--	--	4.0E+02	4.0E+02	--	--	4.0E+02	1.0E+00	4.0E+02
2-Nitroaniline	88-74-4	--	--	--	--	1.6E+02	1.6E+02	--	--	1.6E+02	5.0E+00	1.6E+02
2-Nitrophenol	88-75-5	--	--	--	--	--	--	--	--	NE	5.0E+00	NE
3 & 4 Methylphenol	108-39-4	--	--	--	--	4.0E+02	4.0E+02	--	--	4.0E+02	4.2E+00	4.0E+02

		Drinking Water Criteria						Vapor Intrusion[5]			Modifying Factor	
				MTCA Method B Value[3, 4]								
Analyte	CAS Number	Federal MCL[1] µg/L	State MCL[2] µg/L	Carc. µg/L	Carc. Adjusted µg/L	Non-Carc. µg/L	Non-Carc. Adjusted µg/L	Carc. µg/L	Non-Carc. µg/L	Preliminary Groundwater Screening Level µg/L	PQL[6] µg/L	Groundwater Screening Level (After PQL Adjustment) µg/L
3,3'-Dichlorobenzidine	91-94-1	–	–	1.9E-01	1.9E-01	–	–	–	–	1.9E-01	5.0E+00	5.0E+00
3-Nitroaniline	99-09-2	–	–	–	–	–	–	–	–	NE	5.0E+00	NE
4,6-Dinitro-2-Methylphenol	534-52-1	–	–	–	–	–	–	–	–	NE	1.0E+01	NE
4-Bromophenyl phenyl ether	101-55-3	–	–	–	–	–	–	–	–	NE	1.0E+00	NE
4-Chloro-3-Methylphenol	59-50-7	–	–	–	–	–	–	–	–	NE	5.0E+00	NE
4-Chloroaniline	106-47-8	–	–	2.2E-01	2.2E-01	3.2E+01	3.2E+01	–	–	2.2E-01	5.0E+00	5.0E+00
4-Chlorophenyl-Phenylether	7005-72-3	–	–	–	–	–	–	–	–	NE	1.0E+00	NE
4-methylphenol (p-Cresol)	106-44-5	–	–	–	–	8.0E+02	8.0E+02	–	–	8.0E+02	1.0E+00	8.0E+02
4-Nitroaniline	100-01-6	–	–	–	–	–	–	–	–	NE	5.0E+00	NE
4-Nitrophenol (p-Nitrophenol)	100-02-7	–	–	–	–	–	–	–	–	NE	5.0E+00	NE
Acenaphthene	83-32-9	–	–	–	–	9.6E+02	9.6E+02	–	–	9.6E+02	1.0E-01	9.6E+02
Acenaphthylene	208-96-8	–	–	–	–	–	–	–	–	NE	1.0E-01	NE
Anthracene	120-12-7	–	–	–	–	4.8E+03	4.8E+03	–	–	4.8E+03	1.0E-01	4.8E+03
Atrazine	1912-24-9	3.0E+00	3.0E+00	3.8E-01	–	5.6E+02	–	–	–	3.0E+00	5.0E+00	5.0E+00
Benzaldehyde	100-52-7	–	–	–	–	8.0E+02	8.0E+02	–	–	8.0E+02	5.0E+00	8.0E+02
Benzo(a)anthracene	56-55-3	–	–	cPAH TEC	–	–	–	–	–	NE	1.0E-01	NE
Benzo(a)pyrene	50-32-8	cPAH TEC	cPAH TEC	cPAH TEC	–	4.8E+00	4.8E+00	–	–	4.8E+00	1.0E-01	4.8E+00
Benzo(b)fluoranthene	205-99-2	–	–	cPAH TEC	–	–	–	–	–	NE	1.0E-01	NE
Benzo(ghi)perylene	191-24-2	–	–	–	–	–	–	–	–	NE	1.0E-01	NE
Benzo(k)fluoranthene	207-08-9	–	–	cPAH TEC	–	–	–	–	–	NE	1.0E-01	NE
Benzoic Acid	65-85-0	–	–	–	–	6.4E+04	6.4E+04	–	–	6.4E+04	1.0E+01	6.4E+04
Benzyl Alcohol	100-51-6	–	–	–	–	8.0E+02	8.0E+02	–	–	8.0E+02	5.0E+00	8.0E+02
Bis(2-Chloroethoxy)Methane	111-91-1	–	–	–	–	–	–	–	–	NE	1.0E+00	NE
Bis(2-Chloroethyl)Ether	111-44-4	–	–	4.0E-02	4.0E-02	–	–	2.6E+01	–	4.0E-02	1.0E+00	1.0E+00
Bis(2-Chloroisopropyl)Ether	39638-32-9	–	–	–	–	–	–	–	–	NE	2.1E+00	NE
Bis(2-Ethylhexyl)phthalate	117-81-7	6.0E+00	6.0E+00	6.3E+00	–	3.2E+02	–	–	–	6.0E+00	1.0E+00	6.0E+00
Butyl benzyl Phthalate	85-68-7	–	–	4.6E+01	4.6E+01	3.2E+03	3.2E+03	–	–	4.6E+01	1.0E+00	4.6E+01
Caprolactam	105-60-2	–	–	–	–	8.0E+03	8.0E+03	–	–	8.0E+03	5.0E+00	8.0E+03
Carbazole	86-74-8	–	–	–	–	–	–	–	–	NE	1.0E+00	NE
Chrysene	218-01-9	–	–	cPAH TEC	–	–	–	–	–	NE	1.0E-01	NE
Dibenzo(a,h)anthracene	53-70-3	–	–	cPAH TEC	–	–	–	–	–	NE	1.0E-01	NE
Dibenzofuran	132-64-9	–	–	–	–	1.6E+01	1.6E+01	–	–	1.6E+01	1.0E+00	1.6E+01
Dibutyl phthalate	84-74-2	–	–	–	–	1.6E+03	1.6E+03	–	–	1.6E+03	1.0E+00	1.6E+03
Diethyl phthalate	84-66-2	–	–	–	–	1.3E+04	1.3E+04	–	–	1.3E+04	1.0E+00	1.3E+04
Dimethyl phthalate	131-11-3	–	–	–	–	–	–	–	–	NE	1.0E+00	NE
Di-n-ocytylphthalate	117-84-0	–	–	–	–	1.6E+02	1.6E+02	–	–	1.6E+02	1.0E+00	1.6E+02
Ethanone, 1-Phenyl- (Acetophenone)	98-86-2	–	–	–	–	8.0E+02	8.0E+02	–	–	8.0E+02	5.0E+00	8.0E+02
Fluoranthene	206-44-0	–	–	–	–	6.4E+02	6.4E+02	–	–	6.4E+02	1.0E-01	6.4E+02
Fluorene	86-73-7	–	–	–	–	6.4E+02	6.4E+02	–	–	6.4E+02	1.0E-01	6.4E+02
Hexachlorobenzene	118-74-1	1.0E+00	1.0E+00	5.5E-02	5.5E-01	1.3E+01	–	–	–	5.5E-01	1.0E+00	1.0E+00
Hexachlorobutadiene	87-68-3	–	–	5.6E-01	5.6E-01	8.0E+00	8.0E+00	8.1E-01	–	5.6E-01	5.0E-01	5.6E-01
Hexachlorocyclopentadiene	77-47-4	5.0E+01	5.0E+01	–	–	4.8E+01	4.8E+01	–	–	4.8E+01	5.0E+00	4.8E+01
Hexachloroethane	67-72-1	–	–	1.1E+00	1.1E+00	5.6E+00	5.6E+00	3.1E+00	1.9E+02	1.1E+00	1.0E+00	1.1E+00
Indeno(1,2,3-cd)pyrene	193-39-5	–	–	cPAH TEC	cPAH TEC	–	–	–	–	NE	1.0E-01	NE
Isophorone	78-59-1	–	–	4.6E+01	4.6E+01	1.6E+03	1.6E+03	–	–	4.6E+01	1.0E+00	4.6E+01
Naphthalene	91-20-3	–	–	–	–	1.6E+02	1.6E+02	8.9E+00	1.7E+02	8.9E+00	1.0E-01	8.9E+00
Nitrobenzene	98-95-3	–	–	–	–	1.6E+01	1.6E+01	1.6E+02	1.1E+04	1.6E+01	1.0E+00	1.6E+01
N-nitrosodi-n-propylamine	621-64-7	–	–	1.3E-02	1.3E-02	–	–	–	–	1.3E-02	2.0E+00	2.0E+00
Ni-nitrosodiphenylamine	86-30-6	–	–	1.8E+01	1.8E+01	–	–	–	–	1.8E+01	1.0E+00	1.8E+01
Pentachlorophenol	87-86-5	1.0E+00	1.0E+00	2.2E-01	–	8.0E+01	–	–	–	1.0E+00	2.0E-01	1.0E+00
Phenanthrene	85-01-8	–	–	–	–	–	–	–	–	NE	1.0E-01	NE
Phenol	108-95-2	–	–	–	–	2.4E+03	2.4E+03	–	–	2.4E+03	1.0E+00	2.4E+03
Pyrene	129-00-0	–	–	–	–	4.8E+02	4.8E+02	–	–	4.8E+02	1.0E-01	4.8E+02
cPAH TEC	n/a	2.0E-01	2.0E-01	2.3E-02	–	–	–	–	–	2.0E-01	2.0E-01	2.0E-01

		Drinking Water Criteria						Vapor Intrusion[5]		Preliminary Groundwater Screening Level µg/L	Modifying Factor	Groundwater Screening Level (After PQL Adjustment) µg/L
				MTCA Method B Value[3, 4]								
Analyte	CAS Number	Federal MCL[1] µg/L	State MCL[2] µg/L	Carc. µg/L	Carc. Adjusted µg/L	Non-Carc. µg/L	Non-Carc. Adjusted µg/L	Carc. µg/L	Non-Carc. µg/L		PQL[6] µg/L	
Volatile Organic Compounds (VOCs)												
1,1,1,2-Tetrachloroethane	630-20-6	--	--	1.7E+00	1.7E+00	2.4E+02	2.4E+02	7.4E+00	--	1.7E+00	2.0E-01	1.7E+00
1,1,1-Trichloroethane	71-55-6	2.0E+02	2.0E+02	--	--	1.6E+04	--	--	5.2E+03	2.0E+02	2.0E-01	2.0E+02
1,1,2,2-Tetrachloroethane	79-34-5	--	--	2.2E-01	2.2E-01	1.6E+02	1.6E+02	6.2E+00	--	2.2E-01	2.0E-01	2.2E-01
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	76-13-1	--	--	--	--	2.4E+05	2.4E+05	--	1.1E+03	1.1E+03	2.0E-01	1.1E+03
1,1,2-Trichloroethane	79-00-5	5.0E+00	5.0E+00	7.7E-01	--	3.2E+01	--	7.7E+00	4.5E+00	4.5E+00	2.0E-01	4.5E+00
1,1-Dichloroethane	75-34-3	--	--	7.7E+00	7.7E+00	1.6E+03	1.6E+03	1.1E+01	--	7.7E+00	2.0E-01	7.7E+00
1,1-Dichloroethene	75-35-4	7.0E+00	7.0E+00	--	--	4.0E+02	--	--	1.3E+02	7.0E+00	2.0E-01	7.0E+00
1,1-Dichloropropene	563-58-6	--	--	--	--	--	--	--	--	NE	2.0E-01	NE
1,2,3-Trichlorobenzene	87-61-6	--	--	--	--	--	--	--	--	NE	5.0E-01	NE
1,2,3-Trichloropropane	96-18-4	--	--	1.5E-03	1.5E-03	3.2E+01	3.2E+01	--	--	1.5E-03	5.0E-01	5.0E-01
1,2,4-Trichlorobenzene	120-82-1	7.0E+01	7.0E+01	1.5E+00	1.5E+01	8.0E+01	--	--	3.9E+01	1.5E+01	5.0E-01	1.5E+01
1,2,4-Trimethylbenzene	95-63-6	--	--	--	--	--	--	--	2.8E+01	2.8E+01	2.0E-01	2.8E+01
1,2-Dibromo-3-Chloropropane	96-12-8	2.0E-01	2.0E-01	5.5E-02	--	1.6E+00	--	--	--	2.0E-01	5.0E-01	5.0E-01
1,2-dibromoethane (EDB)	106-93-4	5.0E-02	5.0E-02	2.2E-02	--	7.2E+01	--	2.8E-01	2.8E+02	5.0E-02	2.0E-01	2.0E-01
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	6.0E+02	6.0E+02	--	--	7.2E+02	--	--	2.6E+03	6.0E+02	2.0E-01	6.0E+02
1,2-Dichloroethane (EDC)	107-06-2	5.0E+00	5.0E+00	4.8E-01	4.8E+00	4.8E+01	--	4.2E+00	1.4E+02	4.2E+00	2.0E-01	4.2E+00
1,2-Dichloropropane	78-87-5	5.0E+00	5.0E+00	1.2E+00	--	7.2E+02	--	3.9E+00	2.8E+01	3.9E+00	2.0E-01	3.9E+00
1,3,5-Trichlorobenzene	108-70-3	--	--	--	--	--	--	--	--	NE	2.0E-01	NE
1,3,5-Trimethylbenzene	108-67-8	--	--	--	--	8.0E+01	8.0E+01	--	--	8.0E+01	2.0E-01	8.0E+01
1,3-Dichlorobenzene (m-Dichlorobenzene)	541-73-1	--	--	--	--	--	--	--	--	NE	2.0E-01	NE
1,3-Dichloropropane	142-28-9	--	--	--	--	--	--	--	--	NE	2.0E-01	NE
1,4-Dichlorobenzene (p-Dichlorobenzene)	106-46-7	7.5E+01	7.5E+01	8.1E+00	--	5.6E+02	--	4.9E+00	7.8E+03	4.9E+00	2.0E-01	4.9E+00
2,2-Dichloropropane	594-20-7	--	--	--	--	--	--	--	--	NE	2.0E-01	NE
2-Butanone (MEK)	78-93-3	--	--	--	--	4.8E+03	4.8E+03	--	1.7E+06	4.8E+03	1.0E+00	4.8E+03
2-Chloroethyl vinyl ether	110-75-8	--	--	--	--	--	--	--	--	NE	5.0E-01	NE
2-Chlorotoluene	95-49-8	--	--	--	--	1.6E+02	1.6E+02	--	--	1.6E+02	2.0E-01	1.6E+02
2-Hexanone	591-78-6	--	--	--	--	--	--	--	--	NE	1.0E+00	NE
4-Chlorotoluene	106-43-4	--	--	--	--	--	--	--	--	NE	2.0E-01	NE
4-Methyl-2-Pentanone (Methyl isobutyl ketone)	108-10-1	--	--	--	--	6.4E+02	6.4E+02	--	4.7E+05	6.4E+02	1.0E+00	6.4E+02
Acetic Acid, Methyl Ester (Methyl acetate)	79-20-9	--	--	--	--	8.0E+03	8.0E+03	--	--	8.0E+03	5.0E-01	8.0E+03
Acetone	67-64-1	--	--	--	--	7.2E+03	7.2E+03	--	--	7.2E+03	1.0E+00	7.2E+03
Acrolein	107-02-8	--	--	--	--	4.0E+00	4.0E+00	--	2.9E+00	2.9E+00	5.0E+00	5.0E+00
Acrylonitrile	107-13-1	--	--	8.1E-02	8.1E-02	3.2E+02	3.2E+02	1.6E+01	4.0E+02	8.1E-02	1.0E+00	1.0E+00
Benzene	71-43-2	5.0E+00	5.0E+00	8.0E-01	--	3.2E+01	--	2.4E+00	1.0E+02	2.4E+00	2.0E-01	2.4E+00
Bromobenzene	108-86-1	--	--	--	--	--	--	--	--	NE	2.0E-01	NE
Bromochloromethane	74-97-5	--	--	--	--	--	--	--	--	NE	2.0E-01	NE
Bromodichloromethane	75-27-4	8.0E+01	8.0E+01	7.1E-01	7.1E+00	1.6E+02	--	1.8E+00	--	1.8E+00	2.0E-01	1.8E+00
Bromoethane	593-60-2	--	--	--	--	--	--	--	--	NE	2.0E-01	NE
Bromoform (Tribromomethane)	75-25-2	8.0E+01	8.0E+01	5.5E+00	5.5E+01	1.6E+02	--	2.0E+02	--	5.5E+01	2.0E-01	5.5E+01
Bromomethane	74-83-9	--	--	--	--	1.1E+01	1.1E+01	--	1.3E+01	1.1E+01	2.0E-01	1.1E+01
Carbon Disulfide	75-15-0	--	--	--	--	8.0E+02	8.0E+02	--	4.0E+02	4.0E+02	2.0E-01	4.0E+02
Carbon Tetrachloride	56-23-5	5.0E+00	5.0E+00	6.3E-01	--	3.2E+01	--	5.4E-01	5.9E+01	5.4E-01	2.0E-01	5.4E-01
Chlorobenzene	108-90-7	1.0E+02	1.0E+02	--	--	1.6E+02	--	--	2.9E+02	1.0E+02	2.0E-01	1.0E+02
Chloroethane	75-00-3	--	--	--	--	--	--	--	1.8E+04	1.8E+04	2.0E-01	1.8E+04
Chloroform	67-66-3	8.0E+01	8.0E+01	1.4E+00	1.4E+01	8.0E+01	--	1.2E+00	4.9E+02	1.2E+00	2.0E-01	1.2E+00
Chloromethane	74-87-3	--	--	--	--	--	--	--	1.5E+02	1.5E+02	2.0E-01	1.5E+02
cis-1,2-Dichloroethene	156-59-2	7.0E+01	7.0E+01	--	--	1.6E+01	1.6E+01	--	--	1.6E+01	2.0E-01	1.6E+01
cis-1,3-Dichloropropene	542-75-6	--	--	4.4E-01	4.4E-01	2.4E+02	2.4E+02	1.6E+00	2.3E+01	4.4E-01	2.0E-01	4.4E-01

		Drinking Water Criteria						Vapor Intrusion[5]			Modifying Factor	
				MTCA Method B Value[3, 4]								
Analyte	CAS Number	Federal MCL[1] µg/L	State MCL[2] µg/L	Carc. µg/L	Carc. Adjusted µg/L	Non-Carc. µg/L	Non-Carc. Adjusted µg/L	Carc. µg/L	Non-Carc. µg/L	Preliminary Groundwater Screening Level µg/L	PQL[6] µg/L	Groundwater Screening Level (After PQL Adjustment) µg/L
Cyclohexane	110-82-7	--	--	--	--	--	--	--	--	NE	5.0E-01	NE
Cyclohexane, Methyl-	108-87-2	--	--	--	--	--	--	--	--	NE	5.0E-01	NE
Dibromochloromethane	124-48-1	8.0E+01	8.0E+01	5.2E-01	5.2E+00	1.6E+02	--	4.5E+00	--	4.5E+00	2.0E-01	4.5E+00
Dibromomethane	74-95-3	--	--	--	--	8.0E+01	8.0E+01	--	--	8.0E+01	2.0E-01	8.0E+01
Dichlorodifluoromethane (CFC-12)	75-71-8	--	--	--	--	1.6E+03	1.6E+03	--	5.7E+00	5.7E+00	5.0E-01	5.7E+00
Ethylbenzene	100-41-4	7.0E+02	7.0E+02	--	--	8.0E+02	--	--	2.8E+03	7.0E+02	2.0E-01	7.0E+02
Hexachlorobutadiene	87-68-3	--	--	5.6E-01	5.6E-01	8.0E+00	8.0E+00	8.1E-01	--	5.6E-01	5.0E-01	5.6E-01
Isopropylbenzene (Cumene)	98-82-8	--	--	--	--	8.0E+02	8.0E+02	--	7.2E+02	7.2E+02	2.0E-01	7.2E+02
Methyl Iodide (Iodomethane)	74-88-4	--	--	--	--	--	--	--	--	NE	2.0E-01	NE
Methyl t-butyl ether	1634-04-4	--	--	2.4E+01	2.4E+01	--	--	6.1E+02	8.7E+04	2.4E+01	5.0E-01	2.4E+01
Methylene Chloride	75-09-2	5.0E+00	5.0E+00	2.2E+01	--	4.8E+01	--	4.4E+03	4.9E+03	5.0E+00	3.0E-01	5.0E+00
Naphthalene	91-20-3	--	--	--	--	1.6E+02	1.6E+02	8.9E+00	1.7E+02	8.9E+00	5.0E-01	8.9E+00
n-Butylbenzene	104-51-8	--	--	--	--	4.0E+02	4.0E+02	--	--	4.0E+02	2.0E-01	4.0E+02
n-Propylbenzene	103-65-1	--	--	--	--	8.0E+02	8.0E+02	--	--	8.0E+02	2.0E-01	8.0E+02
p-Isopropyltoluene	99-87-6	--	--	--	--	--	--	--	--	NE	2.0E-01	NE
Sec-Butylbenzene	135-98-8	--	--	--	--	8.0E+02	8.0E+02	--	--	8.0E+02	2.0E-01	8.0E+02
Styrene	100-42-5	1.0E+02	1.0E+02	--	--	1.6E+03	--	--	8.1E+03	1.0E+02	2.0E-01	1.0E+02
Tert-Butylbenzene	98-06-6	--	--	--	--	8.0E+02	8.0E+02	--	--	8.0E+02	2.0E-01	8.0E+02
Tetrachloroethene	127-18-4	5.0E+00	5.0E+00	2.1E+01	--	4.8E+01	--	2.3E+01	4.4E+01	5.0E+00	2.0E-01	5.0E+00
Toluene	108-88-3	1.0E+03	1.0E+03	--	--	6.4E+02	6.4E+02	--	1.6E+04	6.4E+02	2.0E-01	6.4E+02
Trans-1,2-Dichloroethene	156-60-5	1.0E+02	1.0E+02	--	--	1.6E+02	--	--	--	1.0E+02	2.0E-01	1.0E+02
Trans-1,3-Dichloropropene	542-75-6	--	--	4.4E-01	4.4E-01	2.4E+02	2.4E+02	1.6E+00	2.3E+01	4.4E-01	2.0E-01	4.4E-01
Trans-1,4-Dichloro-2-butene	110-57-6	--	--	--	--	--	--	--	--	NE	1.0E+00	NE
Trichloroethene	79-01-6	5.0E+00	5.0E+00	5.4E-01	--	4.0E+00	4.0E+00	1.6E+00	3.8E+00	1.6E+00	2.0E-01	1.6E+00
Trichlorofluoromethane (CFC-11)	75-69-4	--	--	--	--	2.4E+03	2.4E+03	--	1.2E+02	1.2E+02	2.0E-01	1.2E+02
Vinyl Acetate	108-05-4	--	--	--	--	8.0E+03	8.0E+03	--	7.8E+03	7.8E+03	2.0E-01	7.8E+03
Vinyl Chloride	75-01-4	2.0E+00	2.0E+00	2.9E-02	2.9E-01	2.4E+01	--	3.5E-01	5.7E+01	2.9E-01	2.0E-01	2.9E-01
Xylene, m-	108-38-3	--	--	--	--	1.6E+03	1.6E+03	--	3.1E+02	3.1E+02	2.0E-01	3.1E+02
Xylene, o-	95-47-6	--	--	--	--	1.6E+03	1.6E+03	--	4.4E+02	4.4E+02	2.0E-01	4.4E+02
Xylene, p-	106-42-3	--	--	--	--	1.6E+03	1.6E+03	--	2.9E+02	2.9E+02	2.0E-01	2.9E+02
Polychlorinated Biphenyls (PCBs)												
Aroclor 1016	12674-11-2	--	--	1.3E+00	1.3E+00	1.1E+00	1.1E+00	--	--	1.1E+00	1.0E-01	1.1E+00
Aroclor 1221	11104-28-2	--	--	--	--	--	--	--	--	NE	1.0E-01	NE
Aroclor 1232	11141-16-5	--	--	--	--	--	--	--	--	NE	1.0E-01	NE
Aroclor 1242	53269-21-9	--	--	--	--	--	--	--	--	NE	1.0E-01	NE
Aroclor 1248	12672-29-6	--	--	--	--	--	--	--	--	NE	1.0E-01	NE
Aroclor 1254	11097-69-1	--	--	4.4E-02	4.4E-02	3.2E-01	3.2E-01	--	--	4.4E-02	1.0E-01	1.0E-01
Aroclor 1260	11096-82-5	--	--	4.4E-02	4.4E-02	--	--	--	--	4.4E-02	1.0E-01	1.0E-01
Total PCBs	1336-36-3	5.0E-01	5.0E-01	4.4E-02	4.4E-01	--	--	--	--	4.4E-01	1.0E-01	4.4E-01

Notes:

[1] National Primary Drinking Water Regulation; http://water.epa.gov/drink/contaminants.index.cfm; CLARC Master Spreadsheet.xlsx dated August 2015.

[2] Washington Primary Drinking Water Standards, WAC 246-290-130; CLARC Master Spreadsheet.xlsx dated August 2015.

[3] MTCA Method B groundwater screening levels calculated according to WAC-173-340-720(3)(b)(iii)(A)(equation 720-1) and WAC-173-340-720(3)(b)(iii)(B)(equation 720-2); CLARC Master Spreadsheet.xlsx dated August 2015.

[4] "Carc. Adjusted" (i.e., carcinogenic adjusted) and "Non-Carc. Adjusted" (i.e., non-carcinogenic adjusted) columns are applicable when a state or federal groundwater standard is available, but is not considered to be "sufficiently protective" under MTCA (that is, the standard is based on a hazard quotient greater than 1 or a cancer risk greater than 1 x 10^{-5}). In these cases WAC 173-340-720(7)(b) allows the standard to be adjusted downward to a hazard quotient of 1 or a cancer risk of 1 x 10^{-5}. For this table, the "Carc. Adjusted" and "Non-Carc. Adjusted" column are also used in cases where no state or federal standards are available.

[5] MTCA Method B groundwater screening levels protective of indoor air; CLARC Master Spreadsheet.xlsx dated August 2015.

[6] PQL is the lowest, regularly attained PQL from groundwater samples obtained by LAI, PGG, and E&E.

[7] Groundwater screening level set at background level for groundwater in Washington (MTCA Table 720-1).

[8] The MTCA Method A Cleanup Level was used for the petroleum hydrocarbon fractions as MTCA Method B Cleanup Levels are not available for these analytes.

Gray shading identifies the basis for the preliminary groundwater screening level.

Blue shading identifies the basis for the groundwater screening level (after PQL adjustment)

Green shading identifies the groundwater screening level after adjustment for background and the PQL.

NE = Not established
cPAH = Carcinogenic polycyclic aromatic hydrocarbon
EPA = Environmental Protection Agency
MCL = Maximum contaminant level
MTCA = Washington State Model Toxics Control Act

PQL = Practical quantitation limit
TEC = Toxic equivalent concentration
µg/L = Microgram per liter
-- = No screening criteria available

Table 3-3

Soil Gas Screening Levels

Former West Olympia Landfill Site

Olympia, Washington

Analyte	CAS Number	Vapor Intrusion[1]		Preliminary Soil Gas Screening Level	Modifying Factor	Soil Gas Screening Level (After PQL Adjustment)
		Carc. µg/m³	Non-Carc. µg/m³	µg/m³	PQL[2] µg/m³	µg/m³
Volatile Organic Compounds (VOCs)						
1,1,1,2-Tetrachloroethane	630-20-6	1.1E+01	--	1.1E+01	2.7E+00	1.1E+01
1,3-Butadiene	106-99-0	2.8E+00	3.0E+01	2.8E+00	1.8E+00	2.8E+00
1,4-Dichlorobenzene (p-Dichlorobenzene)	106-46-7	7.6E+00	1.2E+04	7.6E+00	2.4E+00	7.6E+00
Benzene	71-43-2	1.1E+01	4.6E+02	1.1E+01	1.3E+00	1.1E+01
Carbon Tetrachloride	56-23-5	1.4E+01	1.5E+03	1.4E+01	5.0E+00	1.4E+01
Hexane	110-54-3	--	1.1E+04	1.1E+04	2.8E+00	1.1E+04
Tetrachloroethene	127-18-4	3.2E+02	6.1E+02	3.2E+02	2.7E+00	3.2E+02
Trichloroethene	79-01-6	1.2E+01	3.0E+01	1.2E+01	2.0E+00	1.2E+01

Notes:

[1] MTCA Method B shallow soil gas screening levels protective of indoor air; CLARC Master Spreadsheet.xlsx dated August 2015.

[2] PQL is the lowest, regularly attained PQL from TestAmerica of Sacramento, California.

MTCA = Washington State Model Toxics Control Act

PQL = Practical quantitation limit

µg/m³ = Microgram per cubic meter

-- = No screening criteria available

Gray shading identifies the basis for the preliminary soil gas screening level.

Blue shading identifies the basis for the soil gas screening level (after PQL adjustment)

Green shading identifies the soil gas screening level after adjustment for the PQL.

Table 3-4

Selection of Soil Indicator Hazardous Substances (IHS)[1]

Former West Olympia Landfill Site
Olympia, Washington

Analyte	Screening Level (mg/kg)	Sample Number	Detection Frequency (%)	Results Below Reporting Limits	Detected Results			IHS Selection Considerations				
				Frequency of SL Exceedance by Reporting Limit	Maximum Concentration	Frequency of SL Exceedances (%)	Maximum Exceedance Ratio	Meet Initial Selection Criteria?	Groundwater IHS?	Soil Gas IHS?	Proposed Soil IHS?	Comments/Rationale
Initial IHS Selection Criteria[2]						>=10	>2x					
Total Petroleum Hydrocarbons												
Diesel-range hydrocarbons	460	29	62.1	0	480	3.4	1.0	No	No	No	No	None
Metals												
Chromium	48	29	100	0	3,210	52	67	Yes	No	No	Yes	Chromium and lead were selected as soil IHSs because of the high frequency of exceedances and maximum exceedance ratio.
Lead	220	29	100	0	2,630	66	12	Yes	No	No	Yes	
Analytes Detected with No Exceedances												
Total Petroleum Hydrocarbons												
Lube Oil-range Hydrocarbons	2,000	29	62.1	0	1,000	0	0	No	No	No	No	None
Metals												
Arsenic	20	29	10.3	21	20	0	1.0	No	No	No	No	None
Nickel	48	3	66.7	0	33.1	0	<1	No	No	No	No	None
Zinc	86	3	100	0	30.9	0	<1	No	No	No	No	None
Semivolatile Organic Compounds												
2-Methylnaphthalene	320	28	3.6	0	0.2	0	<1	No	No	No	No	None
Acenaphthene	4,800	28	3.6	0	0.96	0	<1	No	No	No	No	None
Benzo(a)anthracene	NE	28	7.1	NE	1	NE	NE	No	No	No	No	None
Benzo(a)pyrene	24	28	10.7	0	0.11	0	<1	No	No	No	No	None
Benzo(b)fluoranthene	NE	28	14.3	NE	0.12	NE	NE	No	No	No	No	None
Benzo(g,h,i)perylene	NE	28	7.1	NE	0.11	NE	NE	No	No	No	No	None
Benzo(k)fluoranthene	NE	28	10.7	NE	0.1	NE	NE	No	No	No	No	None
Chrysene	NE	28	17.9	NE	0.12	NE	NE	No	No	No	No	None
Fluoranthene	3,200	28	17.9	0	1	0	<1	No	No	No	No	None
Indeno(1,2,3-c,d)pyrene	NE	28	3.6	NE	0.081	NE	NE	No	No	No	No	None
Naphthalene	1,600	28	10.7	0	0.92	0	<1	No	No	No	No	None
Phenanthrene	NE	28	10.7	NE	0.1	NE	NE	No	No	No	No	None
Pyrene	2,400	28	21.4	0	0.16	0	<1	No	No	No	No	None
Total cPAH TEQ (ND=0.5RL)	0.19	28	21.4	3.6	0.156	0	<1	No	No	No	No	None
Volatile Organic Compounds												
Acetone	72,000	3	100	0	0.012	0	<1	No	No	No	No	None
Styrene	16,000	6	16.7	0	0.001	0	<1	No	No	No	No	None
Tetrachloroethene	480	6	16.7	0	0.001	0	<1	No	No	Yes	No	Not selected as an IHS because there were no SL exceedances
Toluene	200	6	33.3	0	0.001	0	<1	No	No	No	No	None
Trichloroethene	0.001	6	16.7	83	0.001	0	1.0	No	Yes	Yes	No	Not selected as an IHS because there were no SL exceedances
Polychlorinated Biphenyls												
PCB-Aroclor 1248	NE	29	24.1	NE	0.41	NE	NE	No	No	No	No	None
PCB-Aroclor 1254	0.5	29	24.1	0	0.33	0	<1	No	No	No	No	None
PCB-Aroclor 1260	0.5	29	6.9	0	0.075	0	<1	No	No	No	No	None

Notes:

[1] Data from 2000 to present used for RI characterization; see Section 2.1.

[2] IHS selection conducted using soil samples collected from the waste material and from the soil beneath the waste material.

Frequency of Screening Level Exceedances = (# of samples with an analyte detected at a concentration greater than Screening Level)/(total # of samples analyzed for the analyte)

Exceedance Ratio (max) = ratio of maximum detected concentration divided by Screening Level

Analyte meets initial IHS selection criteria (Exceedance Frequency ≥ 10% or Exceedance Factor > 2)

Analyte identified as an IHS based on both satisfaction of initial selection criteria and consideration of other selection criteria , or on consideration of other selection criteria alone.

mg/kg = milligram per kilogram

NE = A Screening Level was not established for this analyte (See Table 3-1)

TEQ = toxicity equivalency concentration

cPAH = carcinogenic polycyclic aromatic hydrocarbon

Table 3-5

Selection of Groundwater Indicator Hazardous Substances (IHSs)[1]

West Olympia Landfill Site
Olympia, Washington

Analyte	Screening Level (µg/L)	Sample Number	Detection Frequency (%)	Results Below Reporting Limits	Detected Results			IHS Selection Considerations				
				Frequency of SL Exceedance by Reporting Limit (%)	Maximum Concentration (µg/L)	Frequency of SL Exceedances (%)	Maximum Exceedance Ratio	Meet Initial Selection Criteria?	Soil IHS?	Soil Gas IHS?	Proposed Groundwater IHS?	Comments/Rationale
Initial IHS Selection Criteria						>=10	>2x					
Metals												
Manganese (Total)	2,240	15	87	0	2,420	6.7	1.1	No	No	No	No	None
Manganese (Dissolved)	2,240	26	58	0	2,600	7.7	1.2	No	No	No	No	None
Volatile Organic Compounds												
Trichloroethene	1.55	42	60	0	50	45	32	Yes	No	Yes	Yes	Trichloroethene was selected as a groundwater IHS because of the high frequency of exceedance and maximum exceedance ratio.
Analytes Detected with No Exceedances												
Metals												
Aluminum (Total)	16,000	13	54	0	549	0	<1	No	No	No	No	None
Aluminum (Dissolved)	16,000	13	23	0	456	0	<1	No	No	No	No	None
Arsenic (Total)	5	15	20	0	0.9	0	<1	No	No	No	No	None
Arsenic (Dissolved)	5	26	7.7	0	0.98	0	<1	No	No	No	No	None
Barium (Total)	2,000	13	77	0	73.3	0	<1	No	No	No	No	None
Barium (Dissolved)	2,000	13	77	0	72.5	0	<1	No	No	No	No	None
Cadmium (Total)	5	13	7.7	0	0.21	0	<1	No	No	No	No	None
Calcium (Total)	NE	17	100	0	120,000	NE	NE	No	No	No	No	None
Calcium (Dissolved)	NE	13	100	0	117,000	NE	NE	No	No	No	No	None
Chromium (Total)	100	13	92	0	37.6	0	<1	No	Yes	No	No	Not selected as an IHS because there were no SL exceedances
Chromium (Dissolved)	100	13	92	0	1.7	0	<1	No	Yes	No	No	Not selected as an IHS because there were no SL exceedances
Cobalt (Total)	100	13	46	0	1.4	0	<1	No	No	No	No	None
Cobalt (Dissolved)	100	13	15	0	1.3	0	<1	No	No	No	No	None
Copper (Dissolved)	640	13	7.7	0	2.1	0	<1	No	No	No	No	None
Iron (Total)	11,200	15	73	0	2,410	0	<1	No	No	No	No	None
Iron (Dissolved)	11,200	26	15	0	2,250	0	<1	No	No	No	No	None
Lead (Total)	15	15	67	0	2.7	0	<1	No	Yes	No	No	Not selected as an IHS because there were no SL exceedances
Lead (Dissolved)	15	26	39	0	0.78	0	<1	No	Yes	No	No	Not selected as an IHS because there were no SL exceedances
Magnesium (Total)	NE	17	100	0	64,000	NE	NE	No	No	No	No	None
Magnesium (Dissolved)	NE	13	100	0	58,200	NE	NE	No	No	No	No	None
Mercury (Total)	0.89	15	6.7	0	0.012	0	<1	No	No	No	No	None
Nickel (Total)	100	13	100	0	23.1	0	<1	No	No	No	No	None
Nickel (Dissolved)	100	13	100	0	2.8	0	<1	No	No	No	No	None
Potassium (Total)	NE	17	65	NE	10,000	NE	NE	No	No	No	No	None
Potassium (Dissolved)	NE	13	62	NE	7,320	NE	NE	No	No	No	No	None
Selenium (Total)	50	13	7.7	0	2.6	0	<1	No	No	No	No	None
Selenium (Dissolved)	50	13	7.7	0	2.5	0	<1	No	No	No	No	None
Silver (Total)	80	13	46	0	0.15	0	<1	No	No	No	No	None
Silver (Dissolved)	80	13	15	0	0.11	0	<1	No	No	No	No	None
Sodium (Total)	NE	17	100	0	27,600	NE	NE	No	No	No	No	None
Sodium (Dissolved)	NE	13	100	0	26,900	NE	NE	No	No	No	No	None
Vanadium (Total)	80	13	15	0	1.3	0	<1	No	No	No	No	None
Vanadium (Dissolved)	80	13	15	0	0.91	0	<1	No	No	No	No	None
Zinc (Total)	4,800	13	100	0	55	0	<1	No	No	No	No	None
Zinc (Dissolved)	4,800	13	100	0	9.1	0	<1	No	No	No	No	None

Analyte	Screening Level (µg/L)	Sample Number	Detection Frequency (%)	Results Below Reporting Limits	Detected Results			IHS Selection Considerations				
				Frequency of SL Exceedance by Reporting Limit (%)	Maximum Concentration (µg/L)	Frequency of SL Exceedances (%)	Maximum Exceedance Ratio	Meet Initial Selection Criteria?	Soil IHS?	Soil Gas IHS?	Proposed Groundwater IHS?	Comments/Rationale
Initial IHS Selection Criteria						**>=10**	**>2x**					
Semivolatile Organic Compounds												
Benzo(g,h,i)perylene	NE	11	27	NE	0.13	NE	NE	No	No	No	No	None
Volatile Organic Compounds												
Acetone	7,200	42	9.5	0	14	0	<1	No	No	No	No	None
Bromomethane	11.2	42	2.4	0	0.35	0	<1	No	No	No	No	None
cis-1,2-Dichloroethene	16	42	33	0	2.2	0	<1	No	No	No	No	None
Dichlorodifluoromethane (CFC-12)	5.66	42	2.4	0	0.34	0	<1	No	No	No	No	None
Methylene Chloride	5	42	4.8	0	0.13	0	<1	No	No	No	No	None
Tetrachloroethene	5	42	4.8	0	1.5	0	<1	No	No	Yes	No	Not selected as an IHS because there were no SL exceedances
Trans-1,2-Dichloroethene	100	42	2.4	0	0.12	0	<1	No	No	No	No	None

Notes:

[1] Only data from 2014, 2015 and 2019 used for RI characterization; see Section 2.1.

Frequency of Screening Level Exceedances = (# of samples with an analyte detected at a concentration greater than Screening Level)/(total # of samples analyzed for the analyte)

Exceedance Ratio (max) = ratio of maximum detected concentration divided by Screening Level

Analyte meets initial IHS selection criteria (Exceedance Frequency ≥ 10% or Exceedance Factor > 2)

Analyte identified as an IHS based on both satisfaction of initial selection criteria and consideration of other selection criteria , or on consideration of other selection criteria alone.

cPAH = carcinogenic polycyclic aromatic hydrocarbon

mg/kg = milligram per kilogram

NE = A Screening Level was not established for this analyte (See Table 3-2)

TEQ = toxicity equivalency concentration

Table 3-6

Selection of Soil Gas Indicator Hazardous Substances (IHS)[1]

West Olympia Landfill Site
Olympia, Washington

				Results Below Reporting Limits	Detected Results			IHS Selection Considerations				
Analyte	Screening Level ($\mu g/m^3$)	Sample Number	Detection Frequency (%)	Frequency of SL Exceedance by Reporting Limit	Maximum Concentration	Frequency of SL Exceedances (%)	Maximum Exceedance Ratio	Meet Initial Selection Criteria?	Soil IHS?	Groundwater IHS?	Proposed Soil Gas IHS?	Comments/Rationale
Initial IHS Selection Criteria						>=10	>2x					
Volatile Organic Compounds												
1,4-Dichlorobenzene	7.58	15	47%	0	13	13%	1.7	Yes	No	No	Yes	None
Tetrachloroethene	321	15	60%	0	1,200	27%	3.7	Yes	No	No	Yes	None
Trichloroethene	12.3	15	33%	0	210	27%	17	Yes	No	Yes	Yes	None
Analytes Detected with No Exceedances												
Volatile Organic Compounds												
Carbon Tetrachloride	13.9	15	13%	0	8.7	0	<1	No	No	No	No	None
Hexane	10,700	15	6.7%	0	3.8	0	<1	No	No	No	No	None

Notes:

[1] Data from 2014 to present used for RI characterization; see Section 2.1.

µg/m3 = microgram per cubic meter

Frequency of Screening Level Exceedances = (# of samples with an analyte detected at a concentration greater than Screening Level)/(total # of samples analyzed for the analyte)

Exceedance Ratio (max) = ratio of maximum detected concentration divided by Screening Level

Analyte meets initial IHS selection criteria (Exceedance Frequency ≥ 10% or Exceedance Factor > 2)

Analyte identified as an IHS based on both satisfaction of initial selection criteria and consideration of other selection criteria , or on consideration of other selection criteria alone.

Table 4-1

IHS Concentrations in Waste

Former West Olympia Landfill Site

Olympia, Washington

Exploration Location[1]	Sample ID	Sample Date	Depth (feet bgs)	Metals[2] (mg/kg)	
				Chromium	Lead
LAI-4	LAI-4/D/7.5-9	9/7/2000	7.5 - 9	**50**	**1,300**
LAI-6	LAI-6/D/5-6	9/6/2000	5 - 6	**25.1**	**988**
LAI-8	LAI-8/D/7.5-9	9/7/2000	7.5 - 9	**51**	**256**
	LAI-8/D/10-11.5	9/7/2000	10 - 11.5	**63**	**1,070**
LAI-9	LAI-9/D/5.5-6.5	9/6/2000	5.5 - 6.5	**79**	**2,630**
	LAI-9/D/7.5-9	9/6/2000	7.5 - 9	**30.5**	**78**
	LAI-9/D/10-11	9/6/2000	10 - 11	**33.2**	**194**
LAI-10	LAI-10/D/5-5.5	9/7/2000	5 - 5.5	**66**	**1,460**
	LAI-10/D/7.5-8.0	9/7/2000	7.5 - 8	**49**	**343**
LAI-11	LAI-11/D/7.5-9	9/8/2000	7.5 - 9	**62**	**1,140**
	LAI-11/D/10.5-11	9/8/2000	10.5 - 11	**29.7**	**98**
LAI-13	LAI-13/D/8-9	9/6/2000	8 - 9	**89**	**2,330**
LAI-14	LAI-14/D/7.5-9	9/8/2000	7.5 - 9	**3,210**	**1,330**
	LAI-14/D/10.5-11	9/8/2000	10.5 - 11	**66**	**720**
LAI-15	LAI-15/C/2.5-7.5	9/8/2000	2.5 - 7.5	**29.9**	**22**
LAI-17	LAI-19/D/7.5-8.5[3]	9/6/2000	7.5 - 8.5	**58**	**978**
LAI-18	LAI-20/D/7.5-8.0[3]	9/11/2000	7.5 - 8	**90**	**1,230**
LAI-19	LAI-21/C/2.5-7.5[3]	9/8/2000	2.5 - 7.5	**30.4**	**60**
			Site-specific Screening Level	48	220

Notes:

[1] Approximate exploration locations shown on Figures 4-1 and 4-2.

[2] Total metals analyzed by EPA 6010.

[3] An incorrect location was included in the Sample ID on the original laboratory chain-of-custody. For example, the Sample ID for the soil sample at Location LAI-17 should have been LAI-17/D/7.5-8.5 and not LAI-19/D/7.5-8.5.

mg/kg = milligrams per kilogram

Bolding indicates analyte was detected. Shading indicates analyte was detected at a concentration greater than the screening level.

Table 4-2

IHS Concentrations in Soil

Former West Olympia Landfill Site
Olympia, Washington

Exploration Location[1]	**Sample ID**	**Sample Date**	**Depth (feet bgs)**	**Metals[2] (mg/kg)**	
				Chromium	**Lead**
LAI-4	LAI-4/D/15-15.5	9/7/2000	15 - 15.5	**26.8**	**29**
LAI-5	LAI-5/D/25-26	9/7/2000	25 - 26	**50**	**391**
LAI-5d	LAI-5D (146-148)	9/26/2005	21 - 23	**18.9**	**2.04**
	LAI-5D (136-138)	9/26/2005	31 - 33	**18.8**	**1.85**
	LAI-5D (119-121)	9/26/2005	48 - 50	**27.5**	**1.77**
LAI-7	LAI-7/D/17.5-19	9/7/2000	17.5 - 19	**88**	**501**
LAI-11	LAI-11/D/17.5-19	9/8/2000	17.5 - 19	**26.1**	**4**
LAI-15	LAI-15/D/22.5-24	9/8/2000	22.5 - 24	**54.5**	**13**
LAI-17	LAI-19/D/16-16.5[3]	9/6/2000	16 - 16.5	**23.9**	**35**
LAI-18	LAI-20/D/13-14[3]	9/11/2000	13 - 14	**27.5**	**6**
LAI-19	LAI-21/C/20.5-25[3]	9/8/2000	20.5 - 25	**25.1**	**3**
Site-specific Screening Level				48	220

Notes:

[1] Approximate exploration locations shown on Figure 4-3.

[2] Total metals analyzed by EPA 6010.

[3] An incorrect location was included in the Sample ID on the original laboratory chain-of-custody. For example, the Sample ID for the soil sample at Location LAI-17 should have been LAI-17/D/7.5-8.5 and not LAI-19/D/7.5-8.5.

mg/kg = milligrams per kilogram

Bolding indicates analyte was detected. Shading indicates analyte was detected at a concentration greater than the screening level.

Table 4-3

IHS Concentrations in Groundwater

Former West Olympia Landfill Site
Olympia, Washington

Exploration Location[1]	Sample ID	Sample Date	VOCs[2] (µg/L) TCE
LAI-1	JGLX0	1/15/2014	**17**
	JGWE0DL	3/25/2015	**27**
	JG5R0	6/24/2015	**20**
	JHAY0	9/23/2015	**19**
	JHEH0	12/16/2015	**21**
	LAI-1-20190320	3/20/2019	**23**
LAI-2	JGLX2	1/14/2014	**1.1**
	LAI-2-20190321	3/21/2019	**2.6**
LAI-3	JGLX4	1/13/2014	0.5 U
	LAI-3-20190322	3/22/2019	0.20 U
LAI-5d	JGLX6	1/15/2014	0.5 U
	LAI-5D-032819	03/28/19	0.20 U
LAI-MW-1	JGLX8	1/13/2014	0.5 U
	LAI-MW-1-20190322	03/22/19	0.20 U
LAI-MW-2	JGLY0DL	1/15/2014	**41**
	JGWE1DL	3/26/2015	**22**
	JG5R1	6/24/2015	**50**
	JHAY1	9/23/2015	**19**
	JHEH1	12/16/2015	**43**
	LAI-MW-2-20190321	03/21/19	**22**
LAI-MW-3	JGLY2	1/14/2014	0.5 U
	LAI-MW-3-20190322	03/22/19	0.20 U
LAI-MW-4	JGLY4	1/13/2014	0.5 U
	LAI-MW-4-20190321	03/21/19	**0.27**
MW-23	JGLZ0	1/23/2014	0.5 U
	MW-23-031919	03/19/19	0.20 U
OLY-01	JGWE2	3/25/2015	0.5 U
	JG5R2	6/24/2015	0.5 U
	JHAY2	9/23/2015	0.5 U
	JHEH2	12/16/2015	**0.11 J**
	OLY-1-20190321	03/21/19	0.20 U
OLY-02	JGWE3	3/25/2015	**2.6**
	JG5R3	6/24/2015	**2.8**
	JHAY3	9/23/2015	**4.5**
	JHEH3	12/17/2015	**6.1**
	OLY-2-20190321	03/21/19	**2.8**
PGG-1	JGLY6	1/14/2014	**0.27 J**
	PGG-1-20190320	3/20/2019	**0.29**
PGG-2	JGLY8	1/14/2014	0.5 U
	PGG-2-20190321	03/21/19	0.20 U
		Site-specific Screening Level	1.6

Notes:

[1] Approximate exploration locations shown on Figure 4-4.

[2] Volatile organic compounds (VOCs) analyzed by EPA 8260.

J = analyte was positively identified and the value is an estimated quantity because the concentration was below the Contract-Required Quantitation Limits (CRQLs).

TCE = trichloroethene

U = analyte not detected, laboratory reporting limit shown.

µg/L = micrograms per liter

Detected analyte value is bolded. Detected value greater than screening level is shaded.

Table 4-4

Indicator Hazardous Substances Concentrations in Soil Gas

Former West Olympia Landfill Site
Olympia, Washington

Exploration Location (a)	Sample ID	Sample Date	Screen Interval (ft bgs)	VOCs (µg/m^3)		
				1,4-DCB	PCE	TCE
GP-1	14414101	10/13/2014	3 - 13	1.0 U	1.1 U	0.90 U
	320-39906-4	5/29/2018		**5.6**	2.7 U	2.1 U
GP-2	14414102	10/13/2014	3 - 13	5.4 U	**1500**	4.9 U
	320-40405-3	6/18/2018		**8.5**	**1,000**	**21**
GP-3	14414103	10/14/2014	3 - 13	1.0 U	**20**	0.92 U
	320-40405-2	6/18/2018		**13**	**22**	2.1 U
GP-4	14414104	10/15/2014	3 - 8	1.8 U	**430**	1.6 U
	320-39906-12	5/30/2018		**2.8**	**470**	2.1 U
GP-5	14414105	10/16/2014	3 - 13	110 U	120 U	**180**
	320-39906-10	5/30/2018		2.4 U	**30**	**210**
GP-6	14414106	10/14/2014	3 - 13	10 U	12 U	9.4 U
GP-7	14414107	10/14/2014	3 - 13	1.1 U	**37**	0.97 U
GP-8	14414108	10/14/2014	3 - 13	68 U	**360**	60 U
GP-9	14414109	10/14/2014	3 - 13	5.3 U	**1500**	**110**
GP-9	14414115	10/14/2014	3 - 13	5.4 U	**1800**	**150**
GP-10	14414110	10/14/2014	3 - 13	2.2 U	2.5 U	2 U
GP-11	14414111	10/14/2014	3 - 13	1.1 U	**3.6**	1 U
GP-12	14414112	10/14/2014	3 - 13	1 U	**2.9**	0.94 U
GP-13	14414113	10/15/2014	3 - 13	1.1 U	**98**	0.95 U
GP-14	14414114	10/15/2014	3 - 13	1.3 U	**270**	**12**
A1	16294242	7/17/2016	3 (b)	1.49 U	2.95 U	14.3 U
A2	16294243	7/17/2016	3 (b)	1.49 U	2.95 U	14.3 U
A3	16294244	7/17/2016	3 (b)	1.5 U	2.96 U	14.3 U
A3	16294244D	7/17/2016	3 (b)	1.5 U	2.96 U	14.3 U
A4	16294223	7/17/2016	3 (b)	1.46 U	2.88 U	14.1 U
A5	16294216	7/17/2016	3 (b)	1.45 U	**128**	14 U
A6	16294215	7/17/2016	3 (b)	1.45 U	**689**	14 U
A7	16294200	7/17/2016	3 (b)	1.44 U	**14.9**	14 U
A8	16284208	7/16/2016	3 (b)	1.44 U	2.85 U	14 U
B1	16294236	7/17/2016	3 (b)	1.46 U	**102**	14.1 U
B2	16294234	7/17/2016	3 (b)	1.46 U	**1070**	14.1 U
B3	16294224	7/17/2016	3 (b)	1.46 U	**51.1**	14.1 U
B4	16294222	7/17/2016	3 (b)	1.46 U	**124**	14.1 U
B5	16294217	7/17/2016	3 (b)	1.45 U	**15.2**	14 U
B6	16294214	7/17/2016	3 (b)	1.45 U	**978**	14 U
B7	16294201	7/17/2016	3 (b)	1.44 U	**165**	14 U
B8	16284209	7/17/2016	3 (b)	1.45 U	2.87 U	14 U
C1	16294237	7/17/2016	3 (b)	1.46 U	**557**	14.1 U
C2	16294235	7/17/2016	3 (b)	1.46 U	**54.0**	14.1 U
C3	16294225	7/17/2016	3 (b)	1.46 U	**242**	14.1 U
C4	16294221	7/17/2016	3 (b)	1.46 U	**26.0**	14.1 U
C5	16294218	7/17/2016	3 (b)	1.45 U	**4.29**	14 U
C6	16294213	7/17/2016	3 (b)	1.45 U	**161**	14 U
C7	16294202	7/17/2016	3 (b)	1.44 U	**878**	14 U

Exploration Location (a)	Sample ID	Sample Date	Screen Interval (ft bgs)	VOCs (µg/m^3)		
				1,4-DCB	PCE	TCE
C8	16284210	7/17/2016	3 (b)	1.45 U	**6.07**	14 U
D1	16294238	7/17/2016	3 (b)	1.46 U	**751**	14.1 U
D2	16294233	7/17/2016	3 (b)	1.46 U	**562**	14.1 U
D3	16294226	7/17/2016	3 (b)	1.46 U	**354**	14.1 U
D4	16294220	7/17/2016	3 (b)	1.46 U	**811**	14.1 U
D4	16294220D	7/17/2016	3 (b)	1.46 U	**791**	14.1 U
D5	16294219	7/17/2016	3 (b)	1.45 U	**71.6**	14 U
D6	16294212	7/17/2016	3 (b)	1.45 U	**37.2**	14 U
D7	16294203	7/17/2016	3 (b)	1.44 U	**184**	14 U
D8	16284212	7/16/2016	3 (b)	1.45 U	**3.73**	14.1 U
E1	16294239	7/17/2016	3 (b)	1.46 U	**1390**	14.1 U
E2	16294232	7/17/2016	3 (b)	1.46 U	**525**	14.1 U
E3	16294227	7/17/2016	3 (b)	1.46 U	**50.2**	14.1 U
E4	16294249	7/17/2016	3 (b)	1.53 U	**101**	14.5 U
E5	16294248	7/17/2016	3 (b)	1.52 U	**202**	14.5 U
E6	16294211	7/17/2016	3 (b)	**90.9**	**7.66**	14 U
E7	16294204	7/17/2016	3 (b)	1.44 U	**70.7**	14 U
E8	16284211	7/16/2016	3 (b)	1.45 U	**4.79**	14 U
F1	16294240	7/17/2016	3 (b)	1.46 U	**732**	14.1 U
F2	16294231	7/17/2016	3 (b)	1.46 U	**965**	14.1 U
F3	16294228	7/17/2016	3 (b)	1.46 U	**87.7**	14.1 U
F4	16294247	7/17/2016	3 (b)	1.51 U	**85.3**	14.4 U
F5	16294250	7/17/2016	3 (b)	**5.03**	**16.3**	14.5 U
F6	16294210	7/17/2016	3 (b)	1.45 U	**2560**	**428**
F6	16294210D	7/17/2016	3 (b)	1.45 U	**2520**	**439**
F7	16294205	7/17/2016	3 (b)	**2.02**	**2860**	**871**
F8	16294208	7/17/2016	3 (b)	1.45 U	**138**	14 U
G1	16294241	7/17/2016	3 (b)	1.46 U	**248**	14.1 U
G2	16294230	7/17/2016	3 (b)	1.46 U	**15.7**	14.1 U
G3	16294229	7/17/2016	3 (b)	1.46 U	**161**	14.1 U
G4	16294246	7/17/2016	3 (b)	1.51 U	**401**	14.4 U
G5	16294245	7/17/2016	3 (b)	1.51 U	**63.2**	**47.0**
G6	16294209	7/17/2016	3 (b)	1.45 U	**443**	14 U
G7	16294206	7/17/2016	3 (b)	1.44 U	**720**	14 U
G8	16294207	7/17/2016	3 (b)	1.44 U	**13.0**	14 U
H1	16284200	7/12/2016	3 (b)	1.44 U	**42.8**	14 U
H1	16284200D	7/12/2016	3 (b)	1.44 U	**45.6**	14 U
H2	16284201	7/12/2016	3 (b)	1.44 U	**97.5**	14 U
H3	16284202	7/12/2016	3 (b)	1.45 U	**15.4**	14 U
H4	16284203	7/12/2016	3 (b)	1.45 U	**945**	14 U
H5	16284204	7/12/2016	3 (b)	1.45 U	**42.2**	14 U
H6	16284205	7/12/2016	3 (b)	1.45 U	**48.4**	**456**
H7	16284206	7/12/2016	3 (b)	1.46 U	**427**	**28.2**
H8	16284207	7/12/2016	3 (b)	1.46 U	2.89 U	14.1 U
GP-15	320-39906-2	5/29/2018	6 - 6.5	**3.3**	**570**	**92**
GP-16	320-39906-7	5/29/2018	6 - 6.5	2.4 U	**1,200**	2.1 U
GP-17	320-39906-8	5/30/2018	6 - 6.5	2.4 U	2.7 U	2.1 U
GP-18	320-39906-9	5/30/2018	6 - 6.5	**2.6**	2.7 U	2.1 U
GP-19	320-40405-1	6/18/2018	6 - 6.5	2.4 U	**12**	**8.3**

Exploration Location (a)	Sample ID	Sample Date	Screen Interval (ft bgs)	VOCs (µg/m³)		
				1,4-DCB	PCE	TCE
GP-20	320-39906-15	5/29/2018	6 - 6.5	**4.0**	**21**	2.1 U
GP-21	320-39906-1	5/29/2018	5.8 - 6.3	2.4 U	2.7 U	**25**
GP-22	320-39906-6	5/29/2018	6 - 6.5	2.4 U	**21**	2.1 U
GP-23	320-39906-5	5/29/2018	5.5 - 6	2.4 U	2.7 U	2.1 U
GP-24	320-39906-3	5/29/2018	6 - 6.5	2.4 U	2.7 U	2.1 U
			Site-Specific Screening Level	7.6	320	12

Notes:

(a) Approximate exploration locations shown on Figures 4-5 through 4-8.

(b) Screening location is a discrete depth rather than an interval due to the sample collection method.

1,4-DCB = 1,4-dichlorobenzene

ID = identification

NA = not applicable

µg/m³ = micrograms per meter cubed

PCE = tetrachloroethene

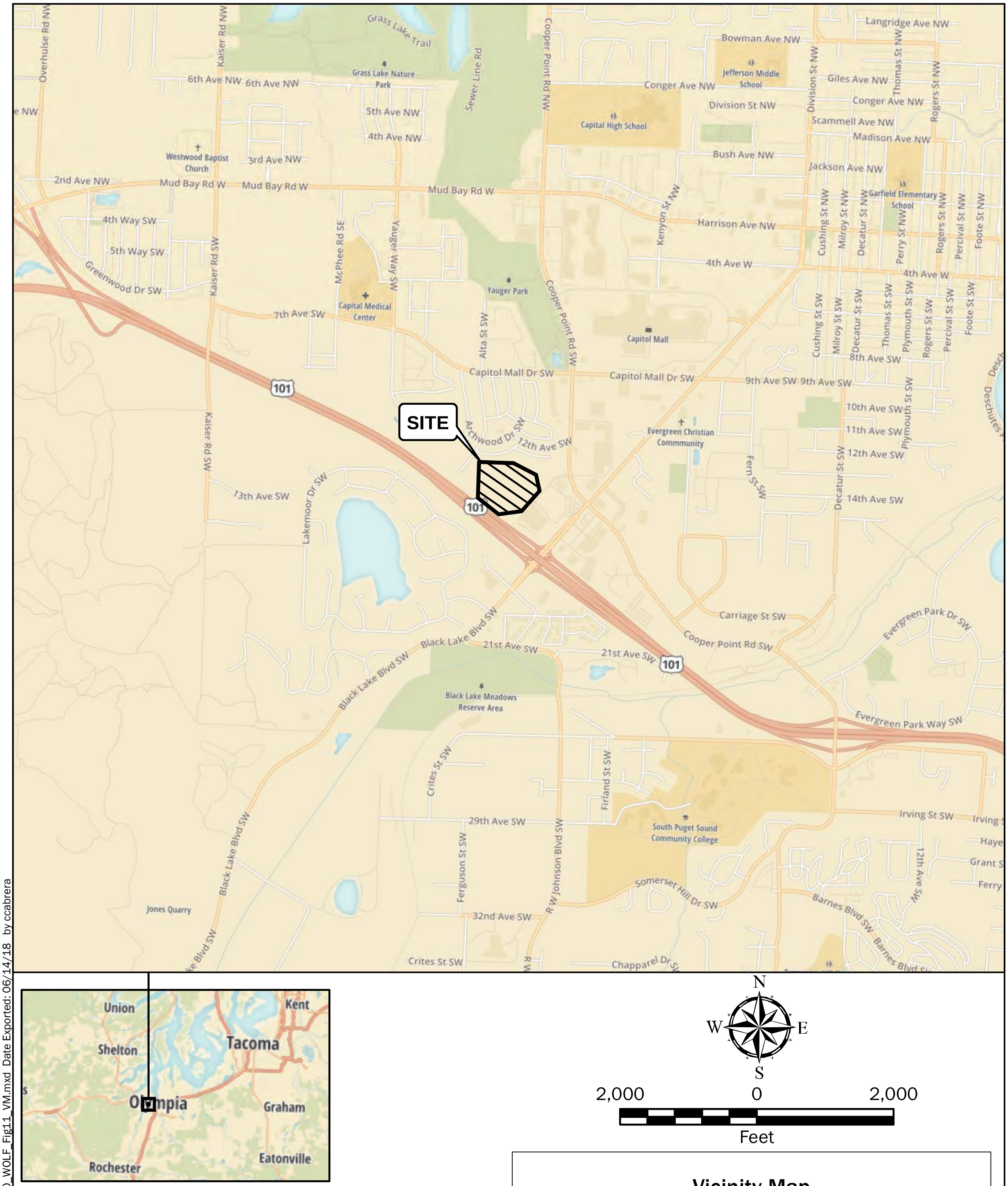
TCE = trichloroethene

VOC = volatile organic compound

Bold indicates analyte was detected.

Gray shading indicates analyte was detected at a concentration greater than the screening level.

Blue shading indicates analyte was not detected at a concentration greater than the screening level.



Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Mapbox Open Street Map, 2016

Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

Vicinity Map

West Olympia Landfill Site
Olympia, Washington

GeoEngineers

Figure 1-1

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Legend

● Existing Monitoring Well

◑ Soil Boring (Landau Associates 2000)

■ Test Pit (Landau Associates 2000)

◉ Temporary Passive Soil Gas Sample Location

◉ Temporary Active Soil Gas Sample Location

⊙ Permanent Soil Gas Monitoring Location

🟩 Approximate Extent of Waste

☐ Approximate Parcel Boundary

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers and will serve as the official record of this communication.

Data Source: Aerial map service and street layer from Thurston County GIS.

Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

Site Exploration Locations

West Olympia Landfill Site
Olympia, Washington

GEOENGINEERS

Figure 2-1

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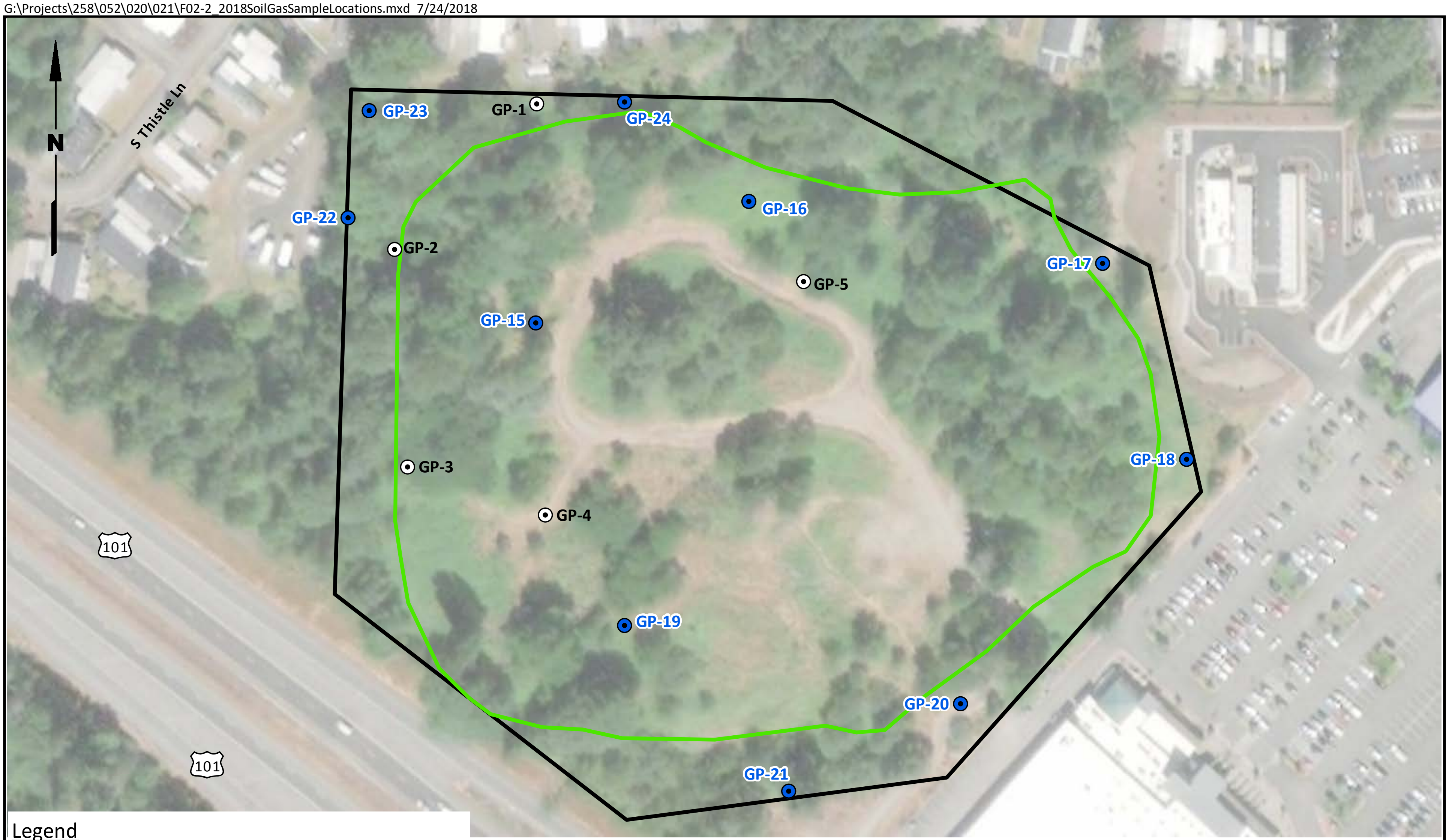

Legend

⊙ Existing Active Soil Gas Sample Location (Installed 2006)

● Permanent Soil Gas Monitoring Location (Installed 2018)

▭ Subject Property

🟩 Approximate Extent of Waste

0 150 300

Scale in Feet

Data Sources: Thurston County GIS; Esri World Imagery.

Notes

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

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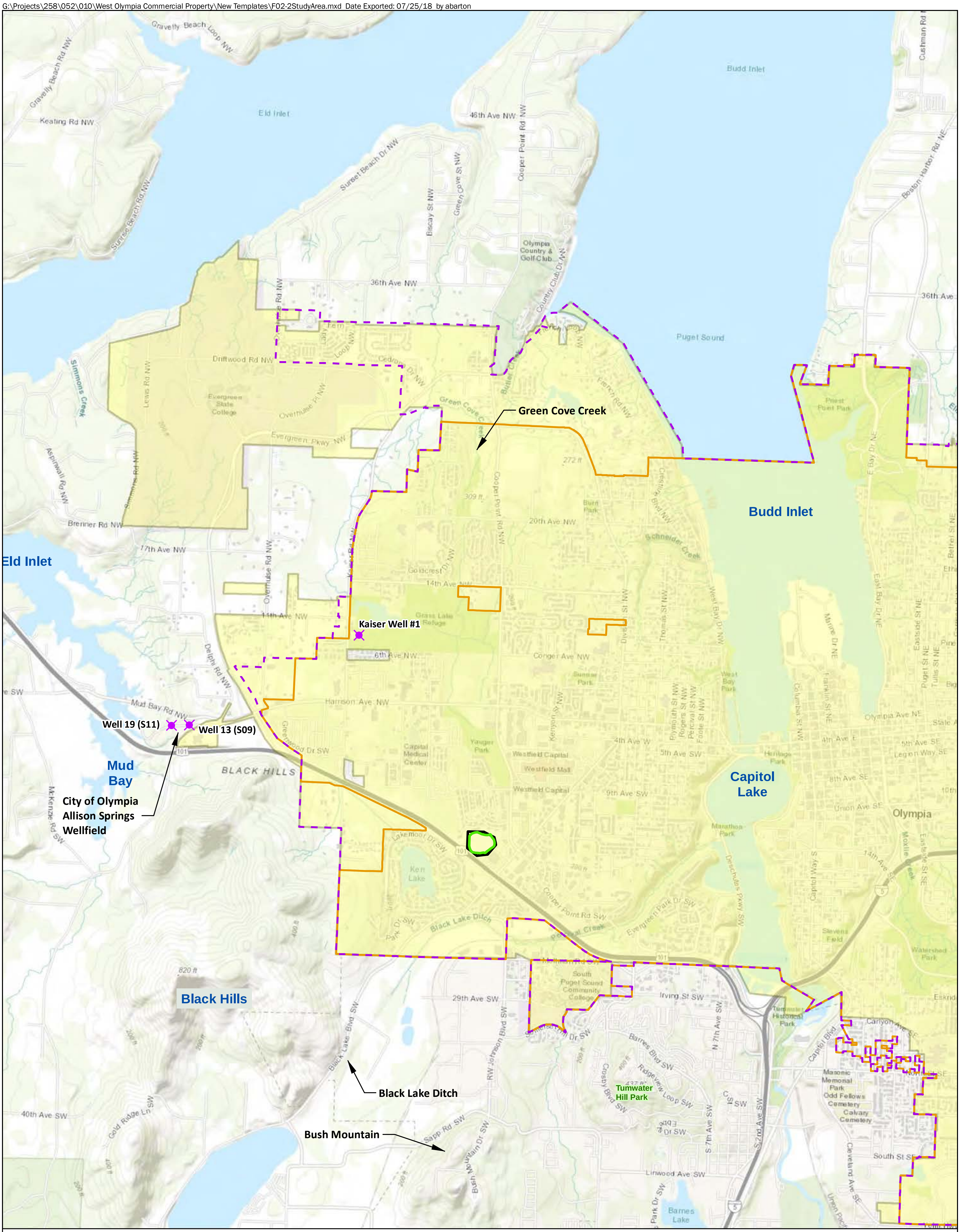
West Olympia Landfill Site
Olympia, Washington

2018 Soil Gas Sample Locations

Figure
2-2

G:\Projects\258\052\010\West Olympia Commercial Property\New Templates\F02-2StudyArea.mxd Date Exported: 07/25/18 by abarton



Legend

- ✱ City of Olympia Production Well
- 🟩 Approximate Extent of Waste
- ☐ Approximate Parcel Boundary
- 🟧 City of Olympia City Limits
- ▭ City of Olympia Urban Growth Area
- 🟨 City of Olympia Water Service Area

N
W E
S

3,000 0 3,000
Feet

Notes:
1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

Data Sources: WA Department of Health; Thurston County GIS; Esri World Imagery.

Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

Study Area

West Olympia Landfill Site
Olympia, Washington

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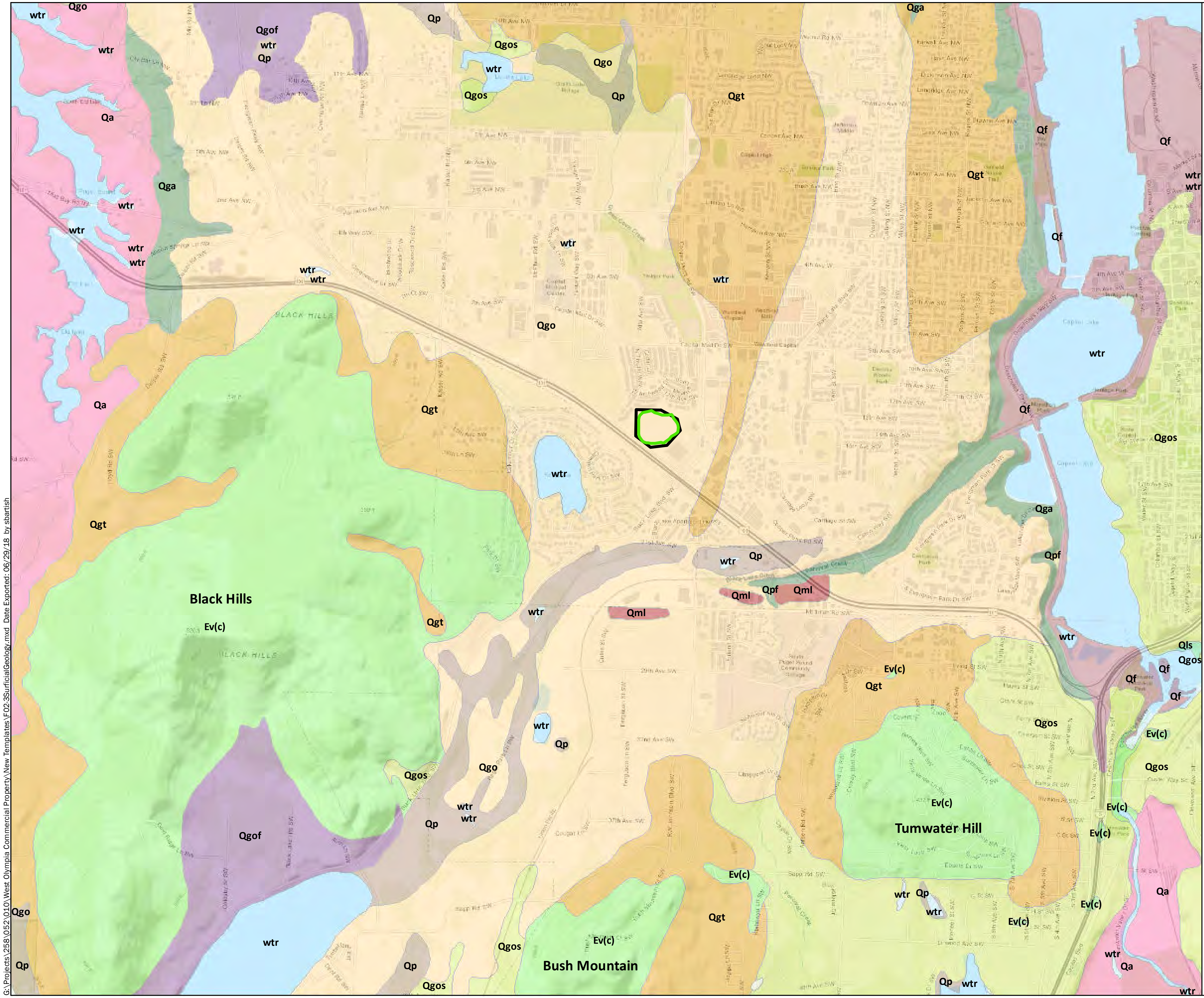
Figure 2-3



Legend

- ▢ Approximate Extent of Waste
- ▢ Approximate Parcel Boundary
- 🟩 Ev(c):Tertiary volcanic rocks, Crescent Formation
- 🟥 Qa:Quaternary alluvium
- 🟥 Qf:Holocene artificial fill
- 🟩 Qga:Pleistocene Vashon advance outwash
- 🟨 Qgo:Pleistocene Vashon recessional outwash
- 🟪 Qgof:Pleistocene Latest Vashon recessional outwash - fine grained
- 🟩 Qgos:Pleistocene Latest Vashon recessional Sand
- 🟧 Qgt:Pleistocene Vashon till
- 🟩 Qls:Quaternary mass-wasting deposits
- 🟥 Qml:Holocene modified land
- 🟫 Qp:Quaternary Peat
- 🟧 Qpf:Pleistocene Pre-Vashon glaciolacustrine
- 🟩 Qps:Pleistocene Pre-Vashon sandy
- 🟦 wtr:Water

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. Landau Associates cannot guarantee the accuracy and content of electronic files. The master file is stored by Landau Associates and will serve as the official record of this communication.

Data Sources: WADNR; Thurston County GIS; Esri World Topo Map.

Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

N
W E
S

2,000 0 2,000
Feet

Surficial Geology

West Olympia Landfill Site
Olympia, Washington

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Figure 2-4

G:\Projects\258\052\010\West Olympia Commercial Property\New Templates\F02-3SurficialGeology.mxd Date Exported: 06/29/18 by sbartish

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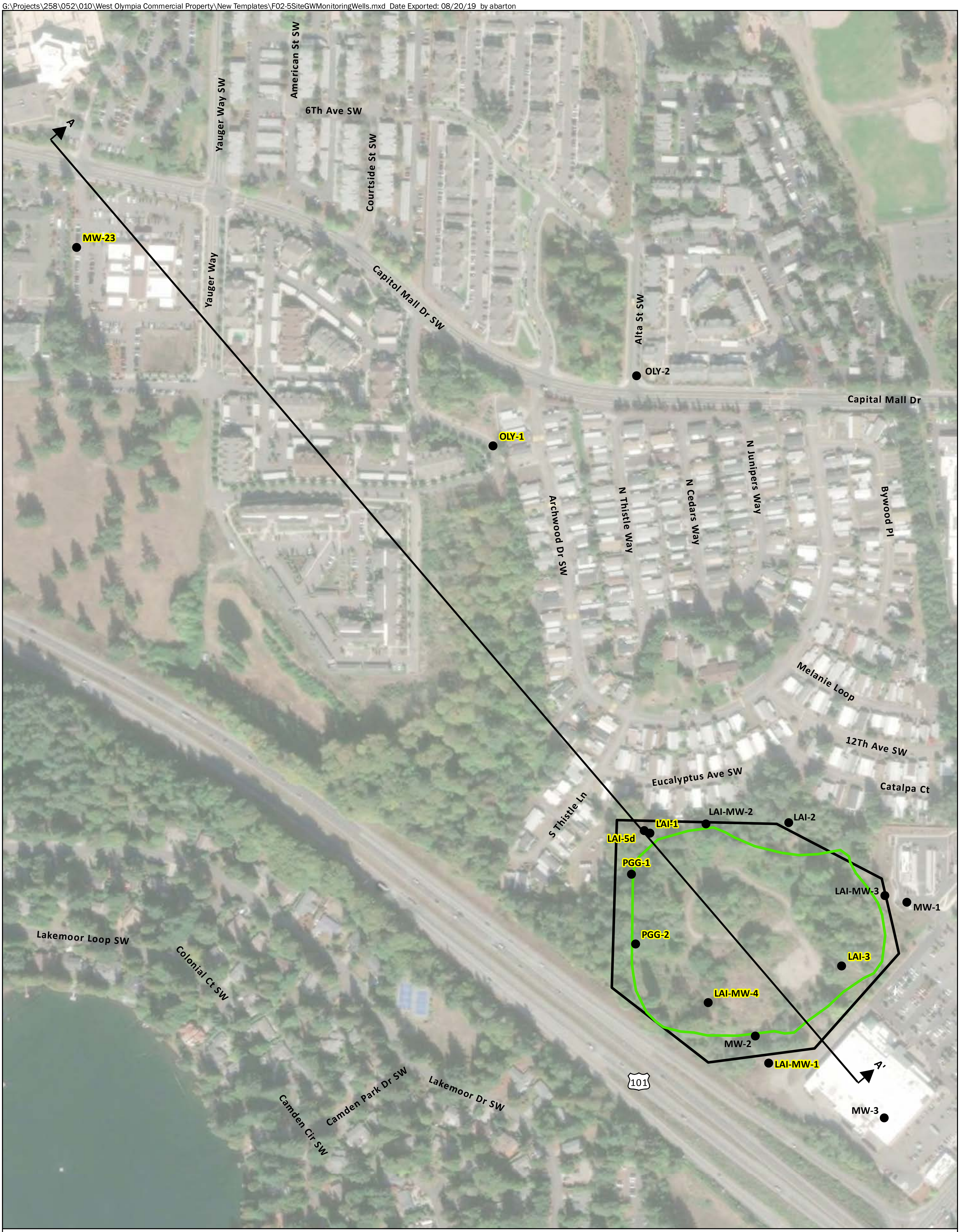

Legend

- ● Existing Monitoring Well
- Cross Section Location
- 🟩 Approximate Extent of Waste
- ☐ Approximate Parcel Boundary

N W E S

300 0 300

Feet

Notes:
1. Highlighted wells are shown on the cross-section.
2. The locations of all features shown are approximate.
3. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. Landau Associates cannot guarantee the accuracy and content of electronic files. The master file is stored by Landau Associates and will serve as the official record of this communication.

Data Source: Thruston County GIS; Esri World Imagery.

Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

Regional Cross-Section and Well Locations

West Olympia Landfill Site
Olympia, Washington

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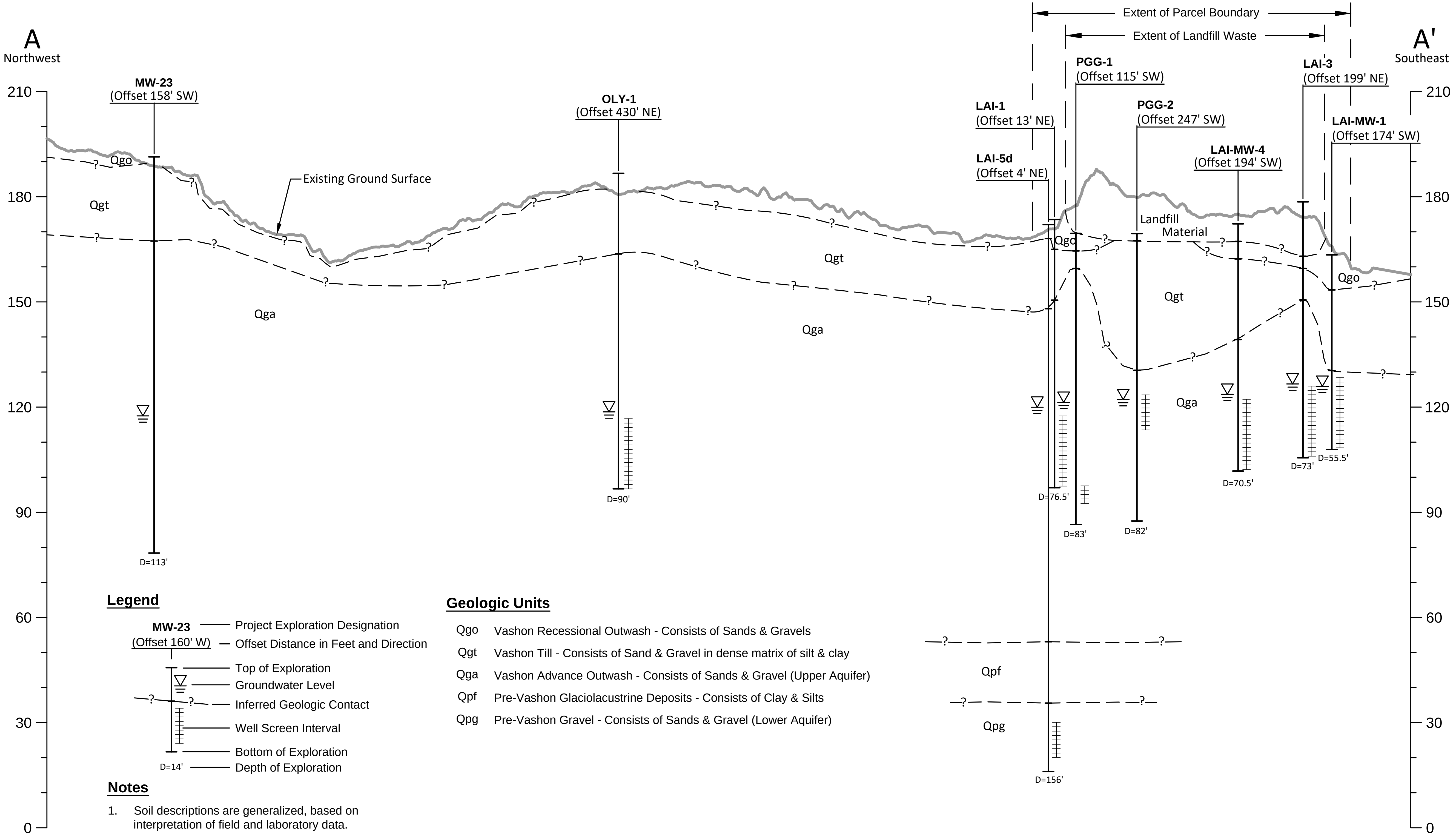
Figure 2-5



Geologic Units

Qgo	Vashon Recessional Outwash - Consists of Sands & Gravels
Qgt	Vashon Till - Consists of Sand & Gravel in dense matrix of silt & clay
Qga	Vashon Advance Outwash - Consists of Sands & Gravel (Upper Aquifer)
Qpf	Pre-Vashon Glaciolacustrine Deposits - Consists of Clay & Silts
Qpg	Pre-Vashon Gravel - Consists of Sands & Gravel (Lower Aquifer)

Notes

1. Soil descriptions are generalized, based on interpretation of field and laboratory data. Stratigraphic contacts are interpolated between borings and based on topographic features; actual conditions may vary.
2. See report text for descriptions of geologic units.
3. For Cross Section location, see Figure 2-4.

Geologic Profile A-A'
Horizontal Scale in Feet: 1"=300'
Vertical Scale in Feet: 1"=30'
Vertical Datum: NGVD29

0 300 600
Scale in Feet

Source: PSLC Lidar Data

West Olympia
Landfill Site
Olympia, Washington

Conceptual Regional Geologic Cross Section A-A'

Figure
2-6

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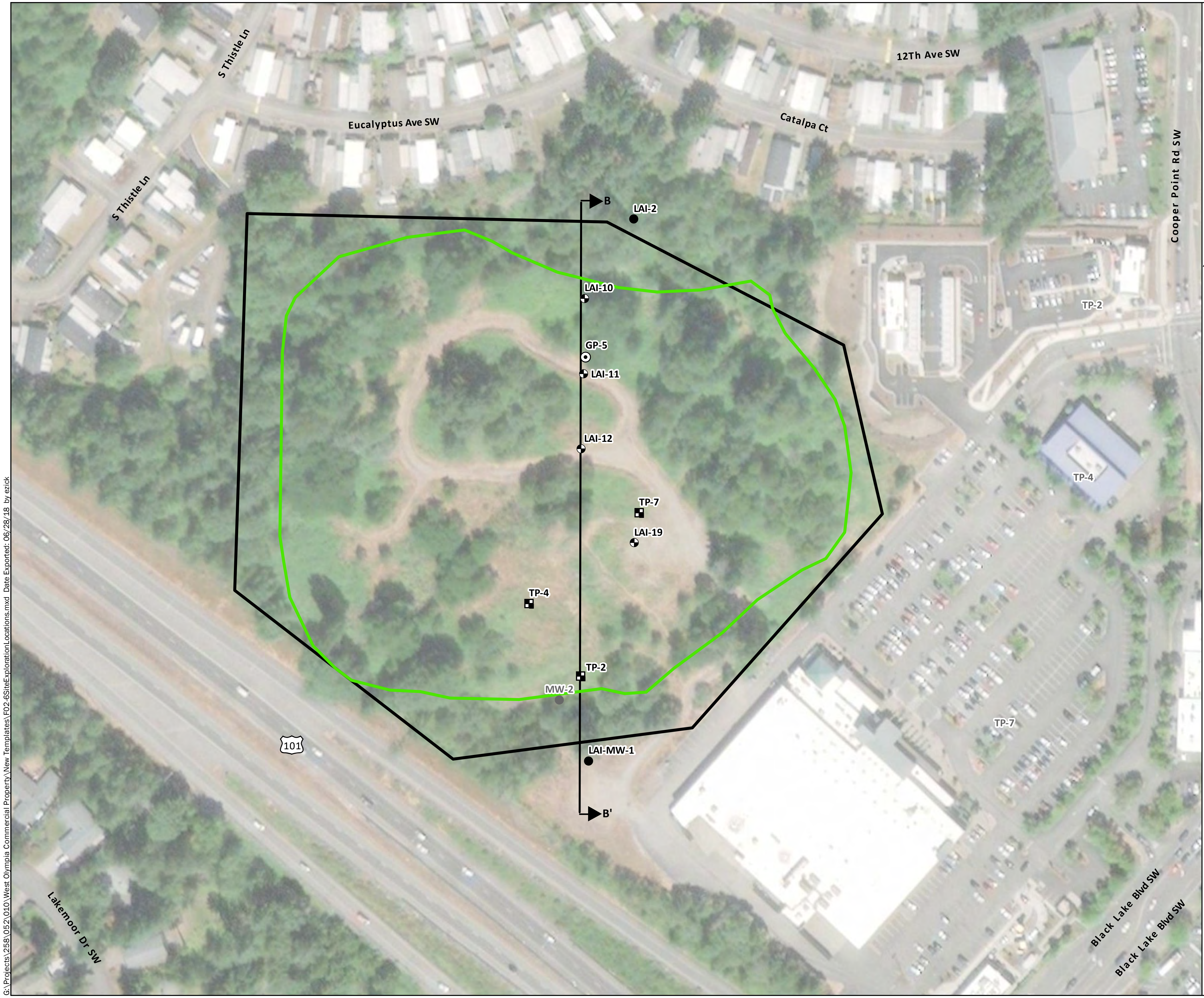

Legend

- ⊙ Soil Gas Sample
- ● Existing Monitoring Well
- ◐ Soil Boring (Landau Associates 2000)
- ▣ Test Pit (Landau Associates 2000)
- ● Monitoring Well (Dames & Moore 1984)
- 🟩 Approximate Extent of Waste
- ☐ Approximate Parcel Boundary
- ▲ Cross Section Location

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. Landau Associates cannot guarantee the accuracy and content of electronic files. The master file is stored by Landau Associates and will serve as the official record of this communication.

Data Source: Thurston County GIS; Esri World Imagery.

Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

N
W E
S

140 0 140
Feet

Site Cross-Section and Exploration Locations

West Olympia Landfill Site
Olympia, Washington

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Figure 2-7

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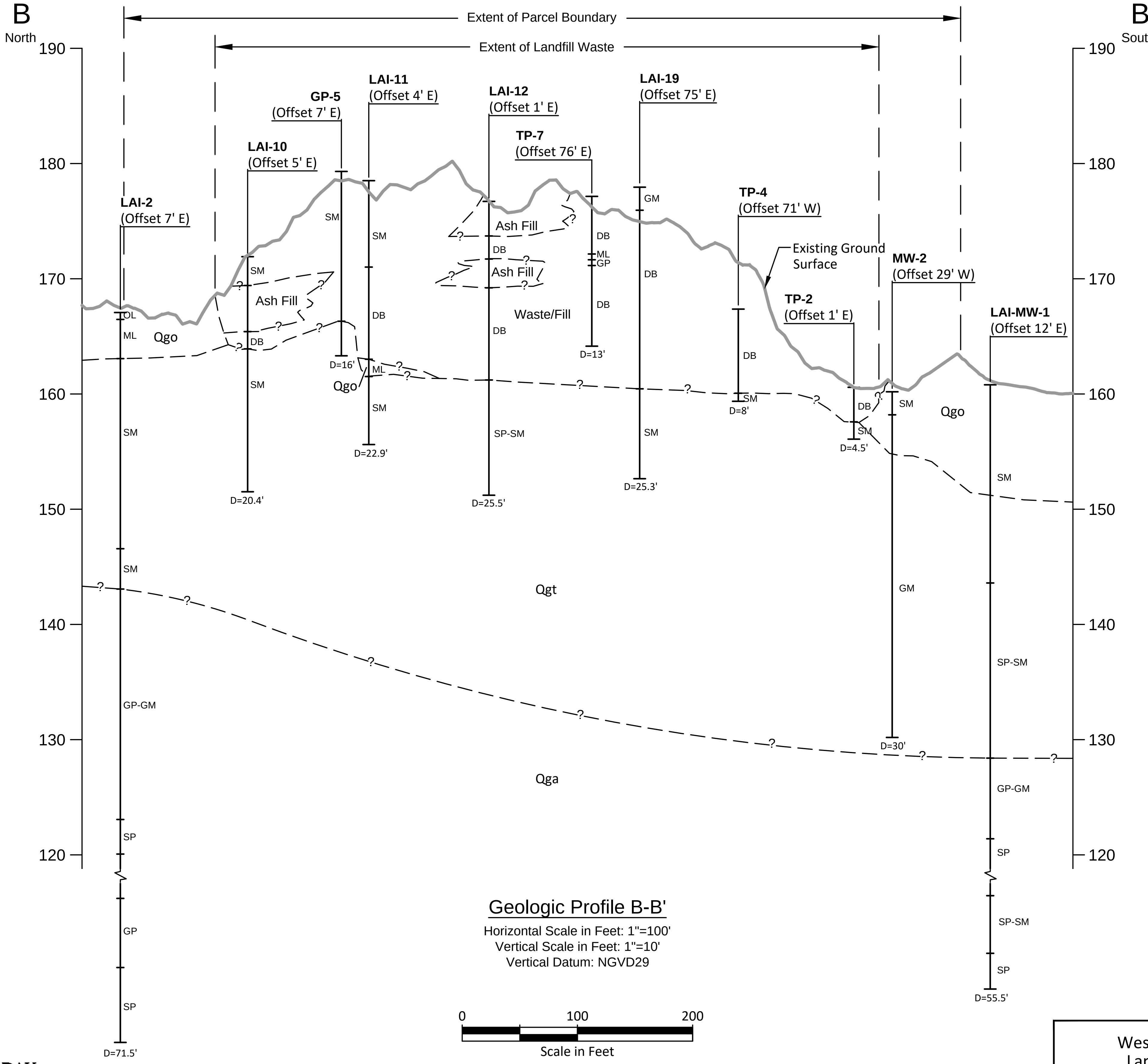

Geologic Profile B-B'

Horizontal Scale in Feet: 1"=100'
Vertical Scale in Feet: 1"=10'
Vertical Datum: NGVD29

Legend

MW-2 — Project Exploration Designation
(Offset 29' W) — Offset Distance in Feet and Direction
Top of Exploration
?—?— Inferred Geologic Contact
GM — Unified Soils Classification Symbol (USCS)
Bottom of Exploration
D=14' — Depth of Exploration

Geologic Units

Qgo	Vashon Recessional Outwash - Consists of Sands & Gravels
Qgt	Vashon Till - Consists of Sand & Gravel in dense matrix of silt & clay
Qga	Vashon Advance Outwash - Consists of Sands & Gravel (Upper Aquifer)

USCS Legend

DB	Construction debris, garbage
GM	Silty gravel; gravel/sand/silt mixture(s)
GP	Poorly graded gravel; gravel/sand mixture(s); little or no fines
ML	Inorganic silt and very fine sand; rock flour; silty or clayey fine sand or clayey silt with slight plasticity
OL	Organic silt; organic, silty clay of low plasticity
SM	Silty sand; sand/silt mixture(s)
SP	Poorly graded sand; gravelly sand; little or no fines

Notes

1. Soil descriptions are generalized, based on interpretation of field and laboratory data. Stratigraphic contacts are interpolated between borings and based on topographic features; actual conditions may vary.
2. See report text for descriptions of geologic units.
3. For Cross Section location, see Figure 2-6.

Landau Associates | G:\Projects\258\052\010\Cross Sections\F02-7SiteGeology\CrossSectionBB.dwg | 6/28/2018 3:09 PM

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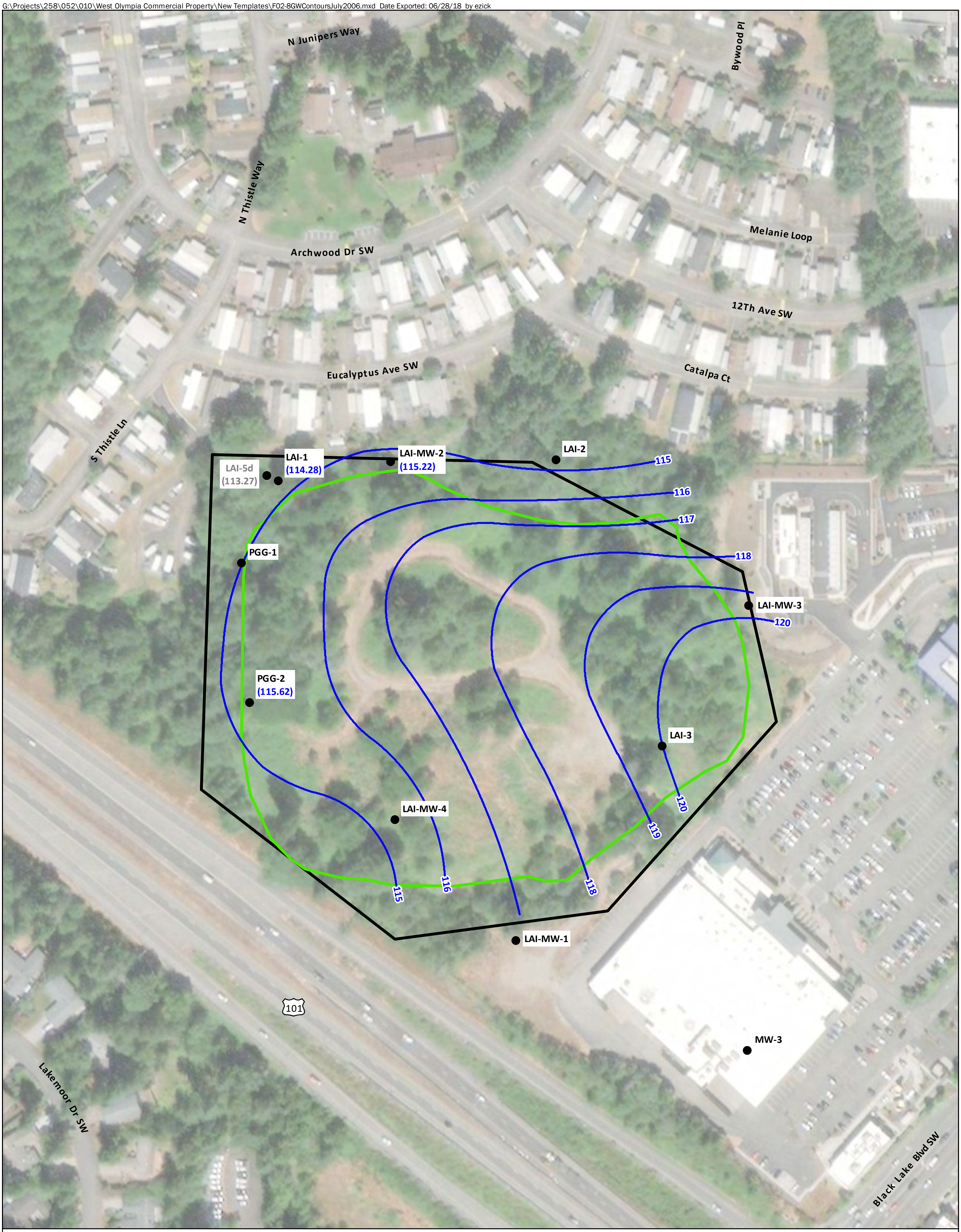
West Olympia
Landfill Site
Olympia, Washington

Site Geologic
Cross Section B-B'

Figure
2-8

G:\Projects\258\052\010\West Olympia Commercial Property\New Templates\F02-8GWContoursJuly2006.mxd Date Exported: 06/28/18 by ezick



Legend

● Monitoring Well Location

Groundwater Elevation Contours

🟩 Approximate Extent of Waste

☐ Approximate Parcel Boundary

N W E S

150 0 150

Feet

Notes:

1. Vertical datum = NGVD29.
2. LAI-5d is screened in the lower aquifer (Qpg) and is not used for these contours, but is shown for reference.
3. Groundwater elevations and contours are from PGG 2006 report. Wells that do not have reported groundwater elevations are assumed to have been collected; however, the data could not be located.
4. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

Data Sources: PGG, 2006; Thurston County GIS; Esri World Imagery.

Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

Groundwater Elevation Contours
Upper Aquifer (Qga) - July 2006

West Olympia Landfill Site
Olympia, Washington

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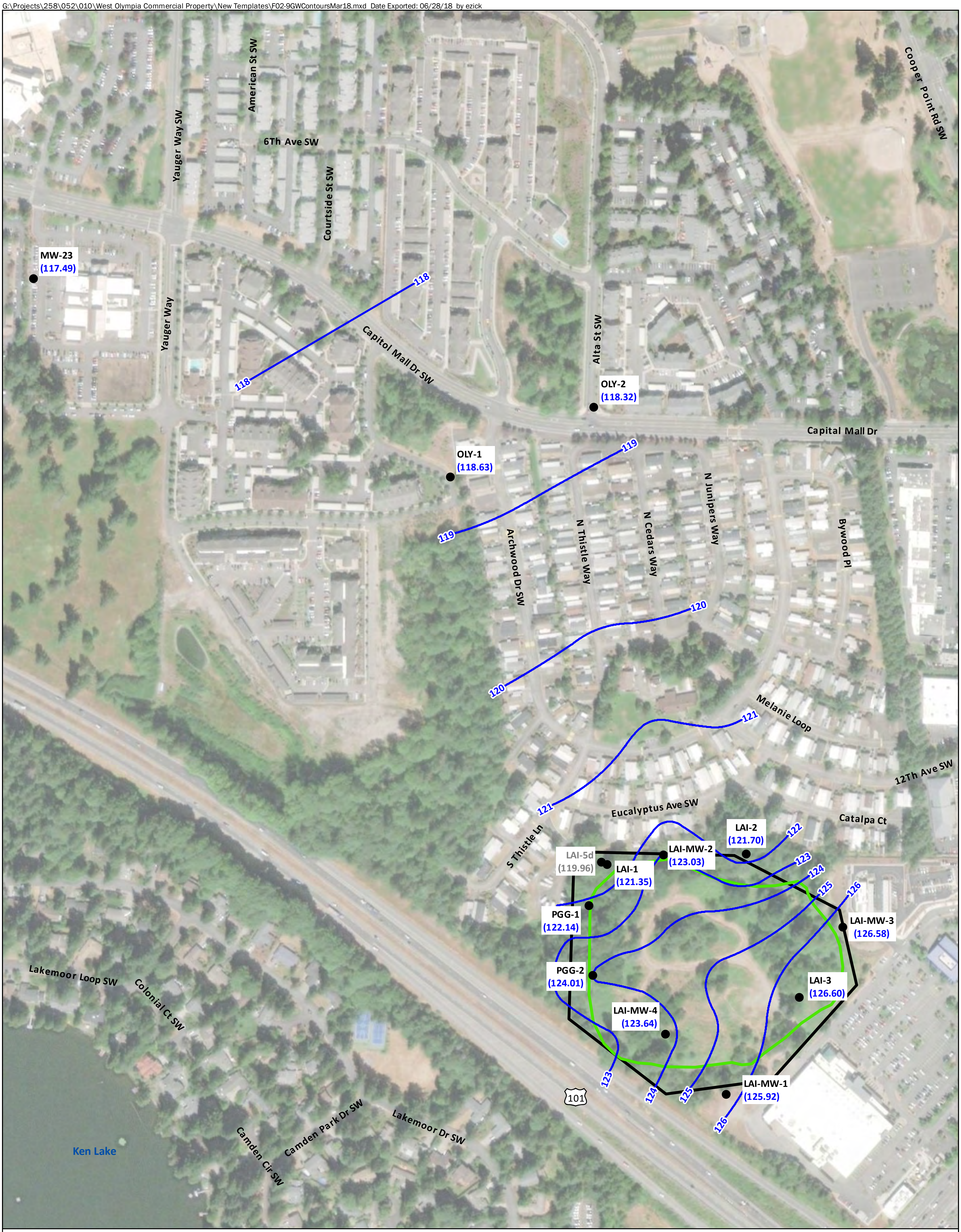
Figure 2-9

G:\Projects\258\052\010\West Olympia Commercial Property\New Templates\F02-9GWContoursMar18.mxd Date Exported: 06/28/18 by ezick



Legend

● Monitoring Well Location

― Groundwater Elevation Contours

🟩 Approximate Extent of Waste

☐ Approximate Parcel Boundary

N
W E
S

150 0 150

Feet

Notes:

1. Vertical datum = NGVD29.
2. LAI-5d is screened in the lower aquifer (Qpg) and is not used for these contours, but is shown for reference.
3. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

Data Sources: PGG, 2006; Thurston County GIS; Esri World Imagery.

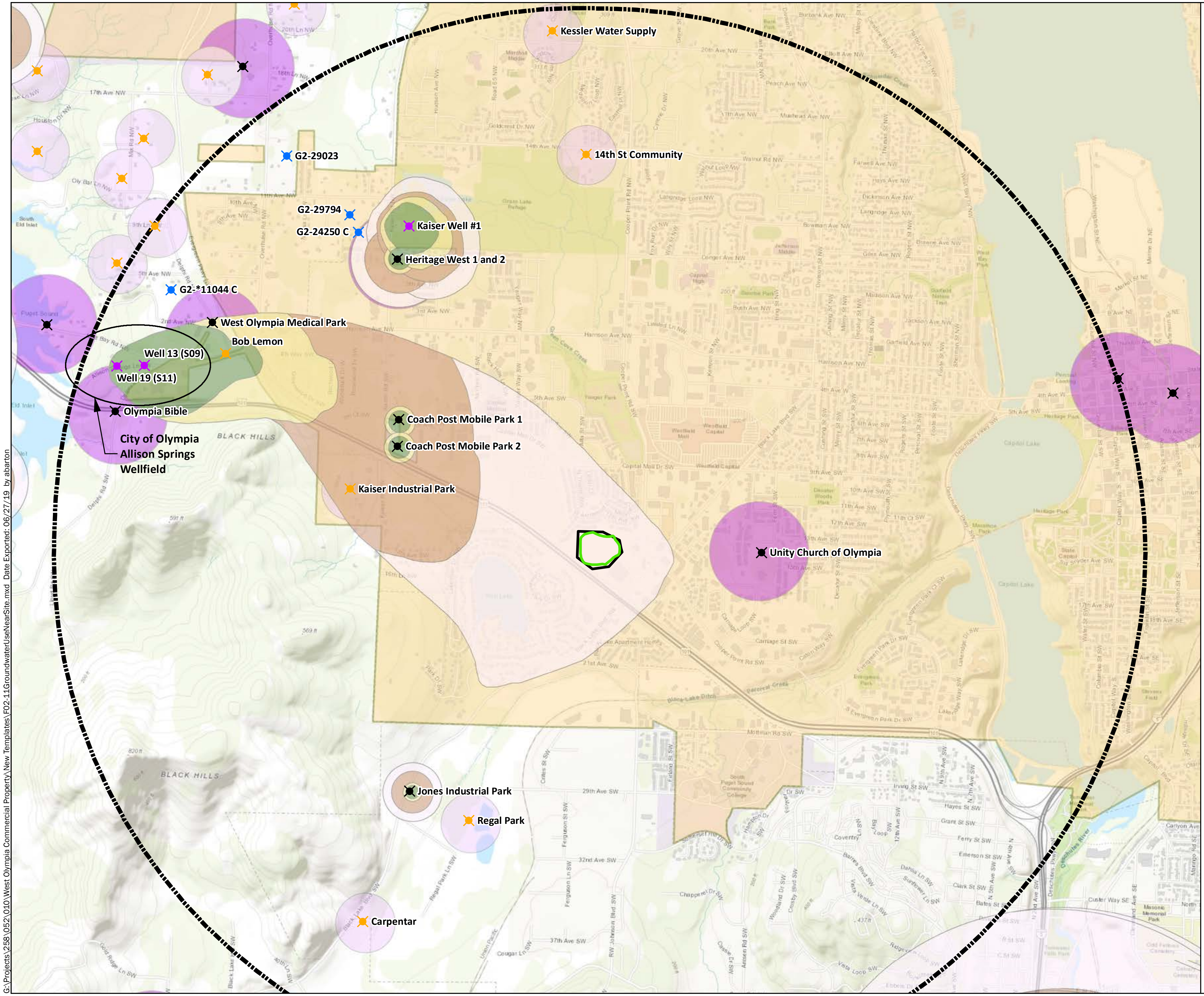
Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

Groundwater Elevation Contours
Upper Aquifer (Qga) - March 2018

West Olympia Landfill Site
Olympia, Washington

Landau Associates

Figure 2-10



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Legend

✱	City of Olympia Production Well
✱	Group A Production Well
✱	Group B Production Well
✱	Possible Private Domestic Well
🟩	Approximate Extent of Waste
☐	Approximate Parcel Boundary
☐	Approximate Parcel Boundary 2-Mile Radius
🟨	City of Olympia Water Service Area

Wellhead Protection Area Groundwater Time of Travel

🟩	0.5 Year
🟨	1 Year
🟫	5 Year
☐	10 Year
🟪	Assigned (600-ft)
🟪	Assigned (1,000-ft)

Notes:
1. Domestic well locations are approximate and based off coordinates from the Ecology Water Rights Tracking System.
2. The locations of all features shown are approximate.
3. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. Landau Associates cannot guarantee the accuracy and content of electronic files. The master file is stored by Landau Associates and will serve as the official record of this communication.

Data Sources: WA Department of Health; Thurston County GIS; Esri World Topo Map.

Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

N
W E
S

2,400 0 2,400
Feet

Groundwater Use Near Site

West Olympia Landfill Site
Olympia, Washington

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Figure 2-11

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Legend

●	Existing Monitoring Well
⊕	Soil Boring (Landau Associates 2000)
⊕	Chromium Detected in Waste from Boring at Concentrations < SL
⊕	Chromium Detected in Waste from Boring at Concentrations > SL (48 mg/kg)
🟩	Approximate Extent of Waste
▭	Approximate Parcel Boundary

(9 ft) Value in parentheses indicates maximum depth (ft bgs) of chromium SL exceedance.

* Indicates underlying sample (waste or soil) exists in which chromium was detected <SL (48 mg/kg).

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers and will serve as the official record of this communication.
3. mg/kg = milligrams per kilogram
4. bgs = below ground surface
5. SL = Screening Level

Data Source: Aerial map service and street layer from Thurston County GIS.

Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

N
W E
S

140 0 140

Feet

Waste Samples – Chromium Analytical Results

West Olympia Landfill Site
Olympia, Washington

GEOENGINEERS

Figure 4-1

Legend

●	Existing Monitoring Well
◐	Soil Boring (Landau Associates 2000)
🟩	Lead Detected in Waste from Boring at Concentrations < SL
🟥	Lead Detected in Waste from Boring at Concentrations > SL (220 mg/kg)
🟩	Approximate Extent of Waste
☐	Approximate Parcel Boundary
(9 ft)	Value in parentheses indicates maximum depth (ft bgs) of lead SL exceedance.
*	Indicates underlying sample (waste or soil) exists in which lead was detected <SL (220 mg/kg).

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers and will serve as the official record of this communication.
3. mg/kg = milligrams per kilogram
4. bgs = below ground surface
5. SL = Screening Level

Data Source: Aerial map service and street layer from Thurston County GIS.

Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

N
W E
S

140 0 140
Feet

Waste Samples – Lead Analytical Results

West Olympia Landfill Site
Olympia, Washington

GEOENGINEERS

Figure 4-2

P:\0\0415071\GIS\MXD\041507100_F42_LeadAnalytical.mxd Date Exported: 07/10/18 by ccabrera

Legend

● Existing Monitoring Well

◐ Soil Boring (Landau Associates 2000)

🟢 Chromium and Lead Detected in Soil Sample(s) from This Boring at Concentrations < SLs

🟢 Chromium and/or Lead Detected in Soil Sample(s) from this Monitoring Well at Concentrations <SLs

🔴 Chromium and/or Lead Detected in Soil from Boring at Concentrations > SLs (48 mg/kg and 220 mg/kg respectively)

🟩 Approximate Extent of Waste

⬜ Approximate Parcel Boundary

(19 ft) Value in parentheses indicates maximum depth (ft bgs) of chromium and/or lead SL exceedance.

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers and will serve as the official record of this communication.
3. mg/kg = milligrams per kilogram
4. bgs = below ground surface
5. SL = Screening Level

Data Source: Aerial map service and street layer from Thurston County GIS.

Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

N
W E
S

140 0 140
Feet

Soil Samples - Chromium and Lead Analytical Results

West Olympia Landfill Site
Olympia, Washington

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Figure 4-3

P:\0415071\GIS\MXD\041507100_F43_ChromiumLeadAnalytical.mxd Date Exported: 07/10/18 by ccabrera

P:\0\0415071\GIS\MXD\041507100_F44_GW_TCE.mxd Date Exported: 05/07/19 by ccabrera

OLY-2

Sample Date	TCE (ug/L)
3/2015	2.6
6/2015	2.8
9/2015	4.5
12/2015	6.1
3/2019	2.8

OLY-1

Sample Date	TCE (ug/L)
3/2015	0.5 U
6/2015	0.5 U
9/2015	0.5 U
12/2015	0.11 J
3/2019	0.20 U

LAI-1

Sample Date	TCE (ug/L)
1/2014	17
3/2015	27
6/2015	20
9/2015	19
12/2015	21
3/2019	23

LAI-MW-2

Sample Date	TCE (ug/L)
1/2014	41
3/2015	22
6/2015	50
9/2015	19
12/2015	43
3/2019	22

LAI-2

Sample Date	TCE (ug/L)
1/2014	1.1
3/2019	2.6

PGG-1

Sample Date	TCE (ug/L)
1/2014	0.27 J
3/2019	0.29

LAI-MW-4

Sample Date	TCE (ug/L)
3/2015	1 U
6/2015	1 U
9/2015	1 U
12/2015	1 U
3/2019	0.27

Legend

🟩	Approximate Extent of Waste
⬛	Approximate Parcel Boundary
●	TCE not detected in groundwater >RL.
🟡	TCE RLs detected in groundwater >RLs, but <SL during one or more sampling events.
🔴	TCE detected in groundwater >SL (1.6 μg/L) during one or more sampling events.

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers and will serve as the official record of this communication.
3. Only groundwater data collected from 2014 to 2015 is presented
4. μg/L = micrograms per Liter
5. U = analyte not detected above the listed reporting limit.
6. TCE = trichloroethene
7. SL = screening level
8. RL = reporting limit
9. JQ = analyte positively identified and value is an estimated quantity because the concentration was below the contract-required quantitation limits.

Data Sources: PGG, 2006; Thurston County GIS; Esri World Imagery.
Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

N
W E
S

300 0 300
Feet

Groundwater Samples -
TCE Analytical Results

West Olympia Landfill Site
Olympia, Washington

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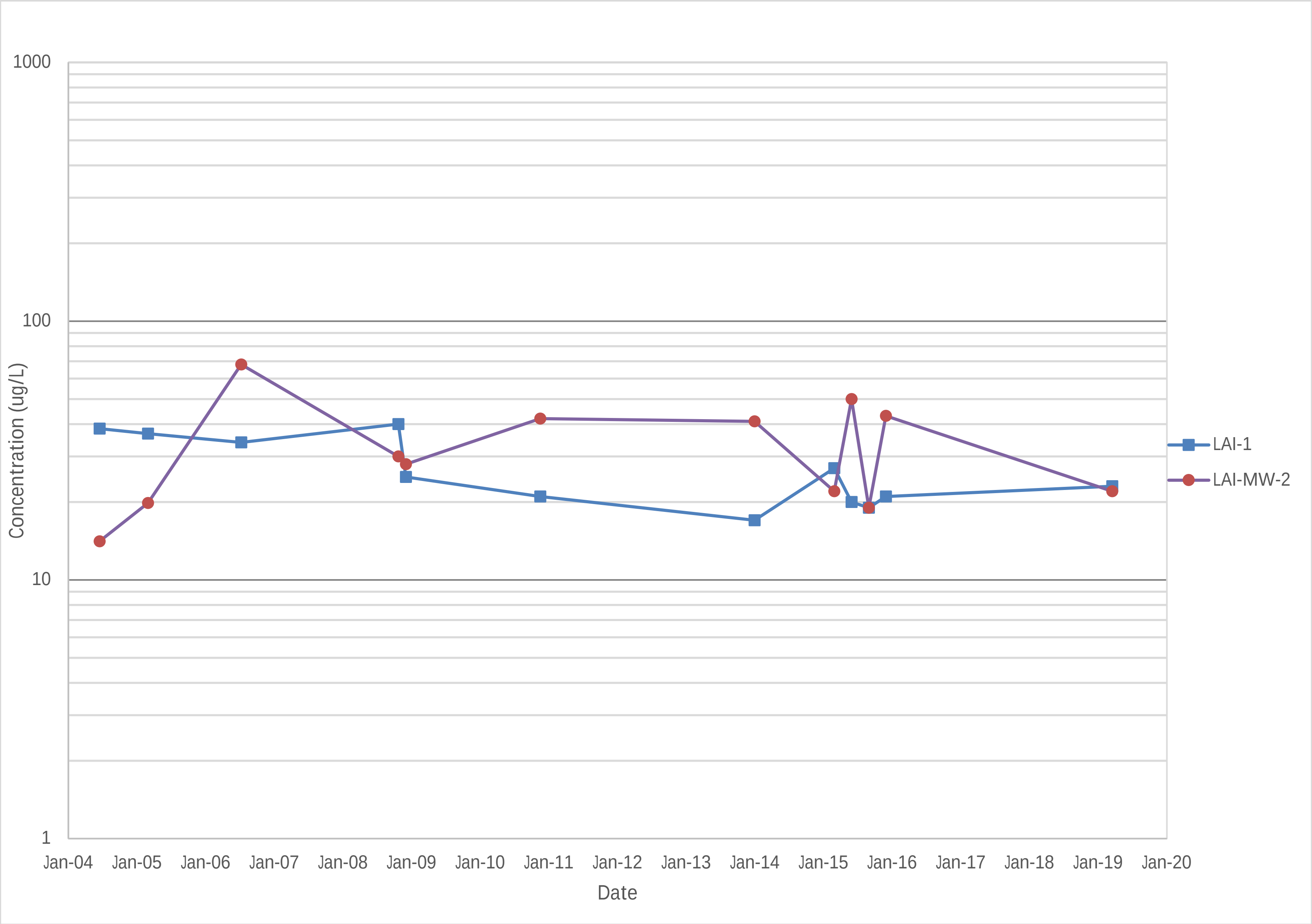
Figure 4-4



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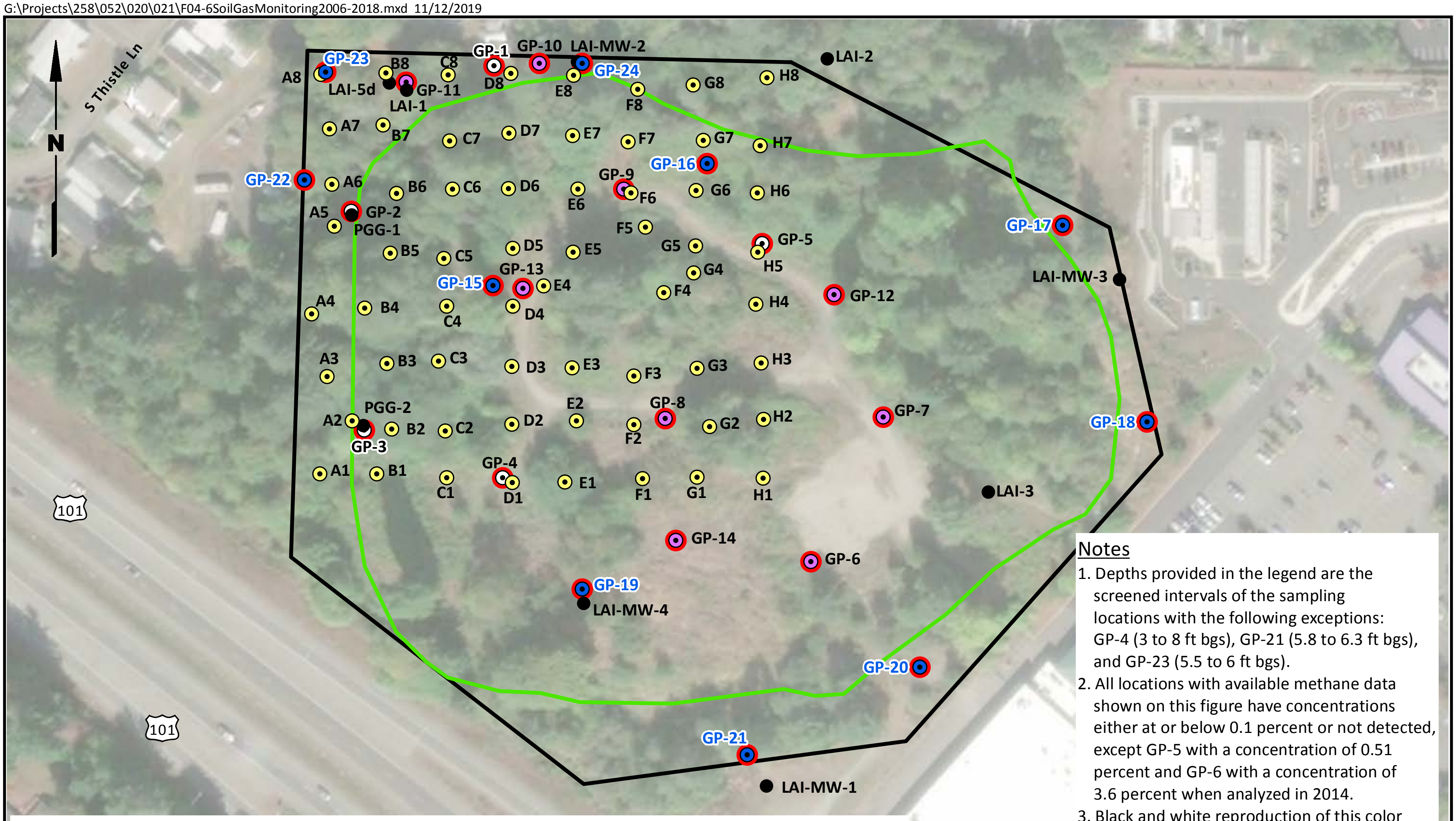
West Olympia Landfill Site
Olympia, Washington

TCE Groundwater Concentrations at Select Wells Over Time

Figure
4-5

G:\Projects\258\052\020\021\F04-6SoilGasMonitoring2006-2018.mxd 11/12/2019



Notes

1. Depths provided in the legend are the screened intervals of the sampling locations with the following exceptions: GP-4 (3 to 8 ft bgs), GP-21 (5.8 to 6.3 ft bgs), and GP-23 (5.5 to 6 ft bgs).
2. All locations with available methane data shown on this figure have concentrations either at or below 0.1 percent or not detected, except GP-5 with a concentration of 0.51 percent and GP-6 with a concentration of 3.6 percent when analyzed in 2014.
3. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

Legend

- ● Existing Monitoring Well Location
- ⊙ Permanent Soil Gas Sample Location (3 to 13 ft bgs, Installed 2006)
- ⊙ Temporary Active Soil Gas Sample Location (3 to 13 ft bgs, October 2014)
- ⊙ Temporary Passive Soil Gas Sample Location (3 ft bgs, July 2016)
- ⊙ Permanent Soil Gas Sample Location (6 to 6.5 ft bgs, Installed 2018)
- ● Soil Gas Sample Location with Available Methane Data
- 🟩 Approximate Extent of Waste
- ▭ Subject Property

0 150 300

Scale in Feet

Data Sources: Thurston County GIS; Esri World Imagery.

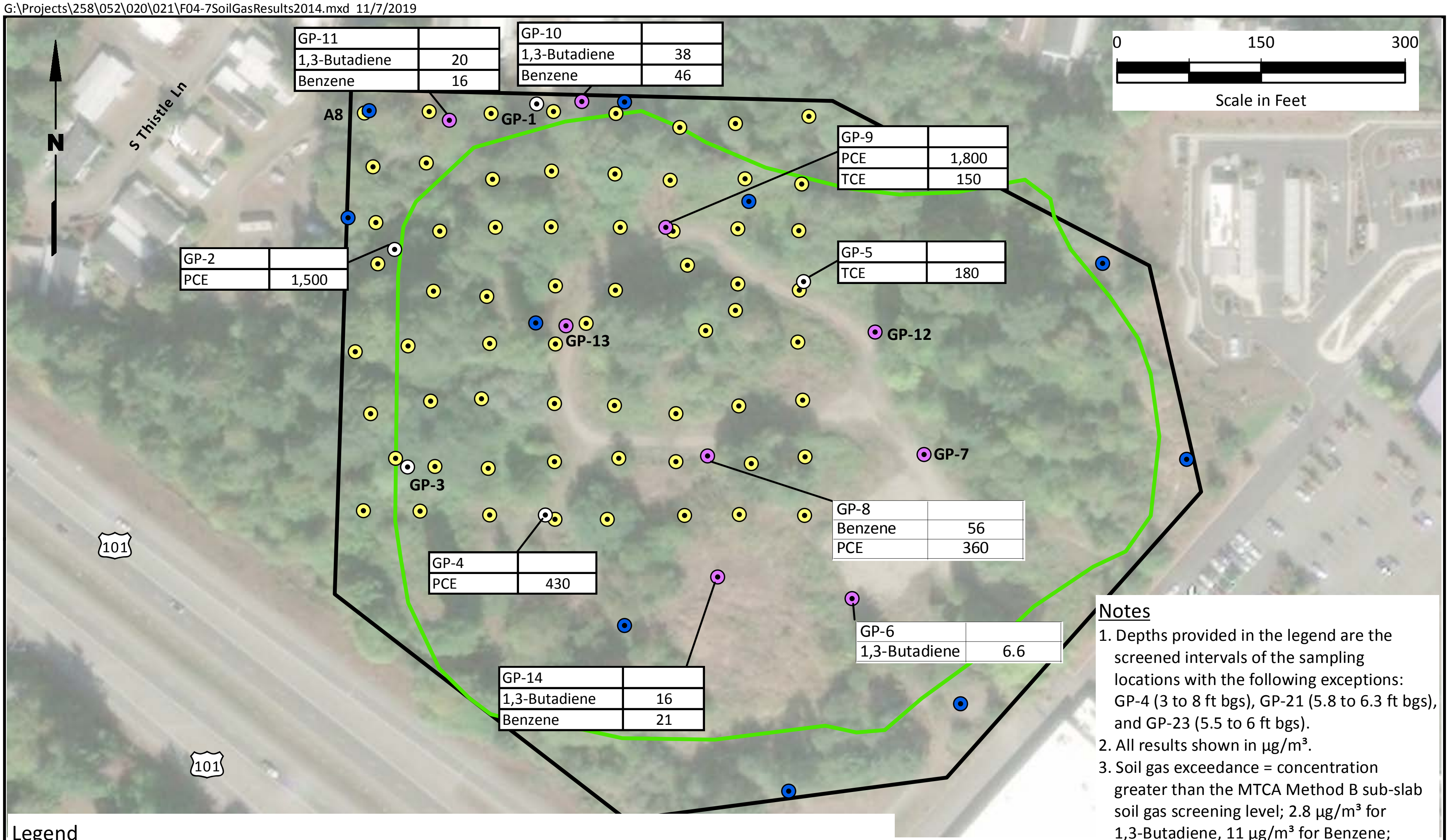
LANDAU ASSOCIATES

West Olympia Landfill Site
Olympia, Washington

Soil Gas Monitoring Locations 2006 to 2018

Figure
4-6

G:\Projects\258\052\020\021\F04-7SoilGasResults2014.mxd 11/7/2019



Notes

1. Depths provided in the legend are the screened intervals of the sampling locations with the following exceptions: GP-4 (3 to 8 ft bgs), GP-21 (5.8 to 6.3 ft bgs), and GP-23 (5.5 to 6 ft bgs).
2. All results shown in µg/m³.
3. Soil gas exceedance = concentration greater than the MTCA Method B sub-slab soil gas screening level; 2.8 µg/m³ for 1,3-Butadiene, 11 µg/m³ for Benzene; 11,000 µg/m³ for n=hexane; 320 µg/m³ for PCE; and 12 µg/m³ for TCE.
4. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

Legend

2014 Sampling Locations

- ◉ Existing Active Soil Gas Sample Location (3 to 13 ft bgs, Installed 2006)
- ◉ Temporary Active Soil Gas Sample Location (3 to 13 ft bgs, October 2014)

Other Sampling Locations

- ◉ Temporary Passive Soil Gas Sample Location (3 ft bgs, July 2016)
- ◉ Permanent Soil Gas Monitoring Location (6 to 6.5 ft bgs, Installed 2018)

- ▭ Subject Property
- 🟩 Approximate Extent of Waste

GP-2	3-13 ft bgs
PCE	1,500

Exceedance of Soil Gas Screening Level

Data Sources: Thurston County GIS; Esri World Imagery.

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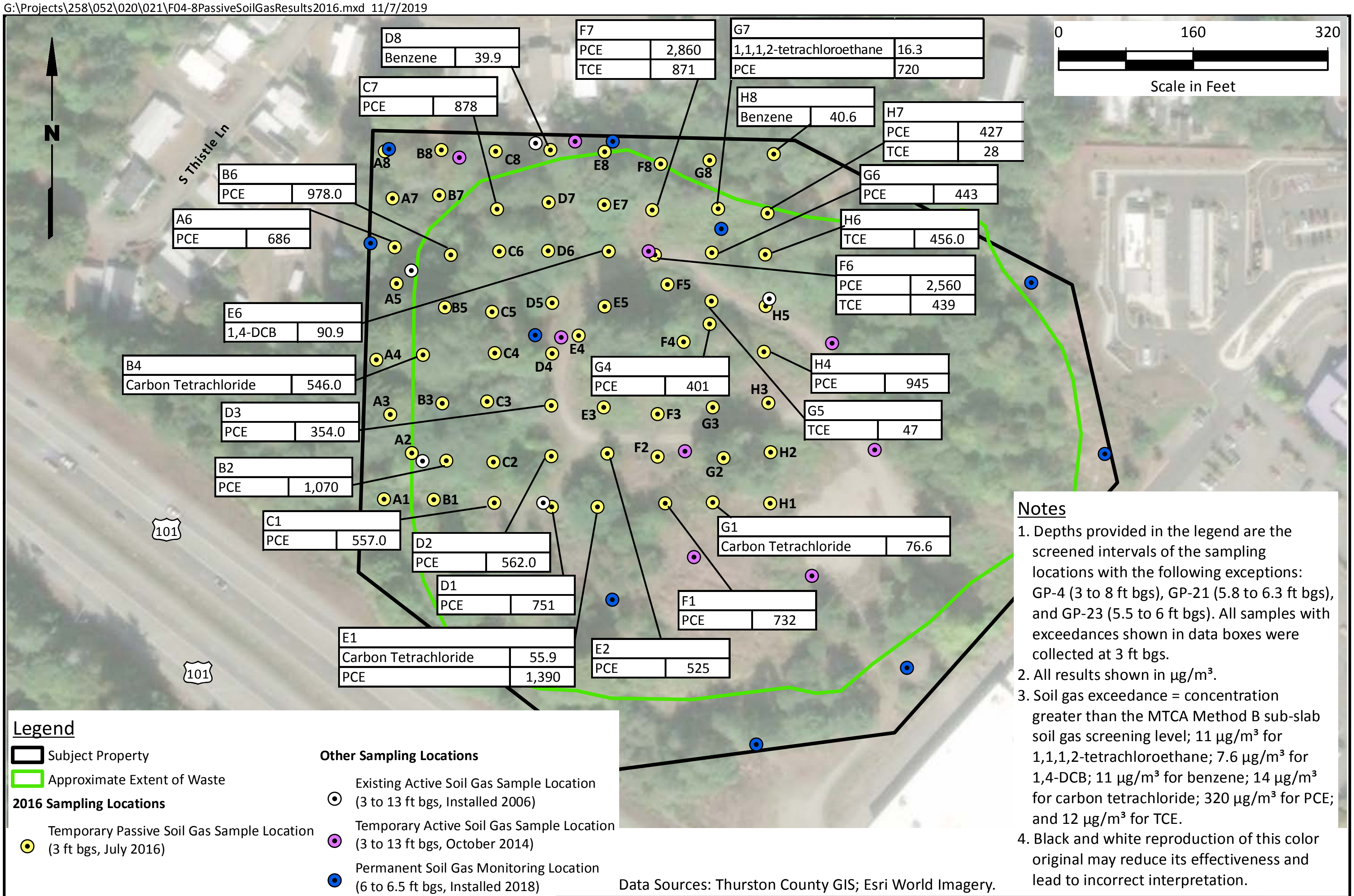
West Olympia Landfill Site
Olympia, Washington

Active Soil Gas Results Detected Constituents That Exceed Screening Levels (2014)

Figure
4-7

G:\Projects\258\052\020\021\F04-8PassiveSoilGasResults2016.mxd 11/7/2019



Legend

- ▭ Subject Property
- 🟩 Approximate Extent of Waste

2016 Sampling Locations

- ● Temporary Passive Soil Gas Sample Location (3 ft bgs, July 2016)

Other Sampling Locations

- ⊙ Existing Active Soil Gas Sample Location (3 to 13 ft bgs, Installed 2006)
- ● Temporary Active Soil Gas Sample Location (3 to 13 ft bgs, October 2014)
- ● Permanent Soil Gas Monitoring Location (6 to 6.5 ft bgs, Installed 2018)

GP-2		Exceedance of Soil Gas Screening Level
PCE	1,500	

Data Sources: Thurston County GIS; Esri World Imagery.

Notes

1. Depths provided in the legend are the screened intervals of the sampling locations with the following exceptions: GP-4 (3 to 8 ft bgs), GP-21 (5.8 to 6.3 ft bgs), and GP-23 (5.5 to 6 ft bgs). All samples with exceedances shown in data boxes were collected at 3 ft bgs.
2. All results shown in µg/m³.
3. Soil gas exceedance = concentration greater than the MTCA Method B sub-slab soil gas screening level; 11 µg/m³ for 1,1,1,2-tetrachloroethane; 7.6 µg/m³ for 1,4-DCB; 11 µg/m³ for benzene; 14 µg/m³ for carbon tetrachloride; 320 µg/m³ for PCE; and 12 µg/m³ for TCE.
4. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

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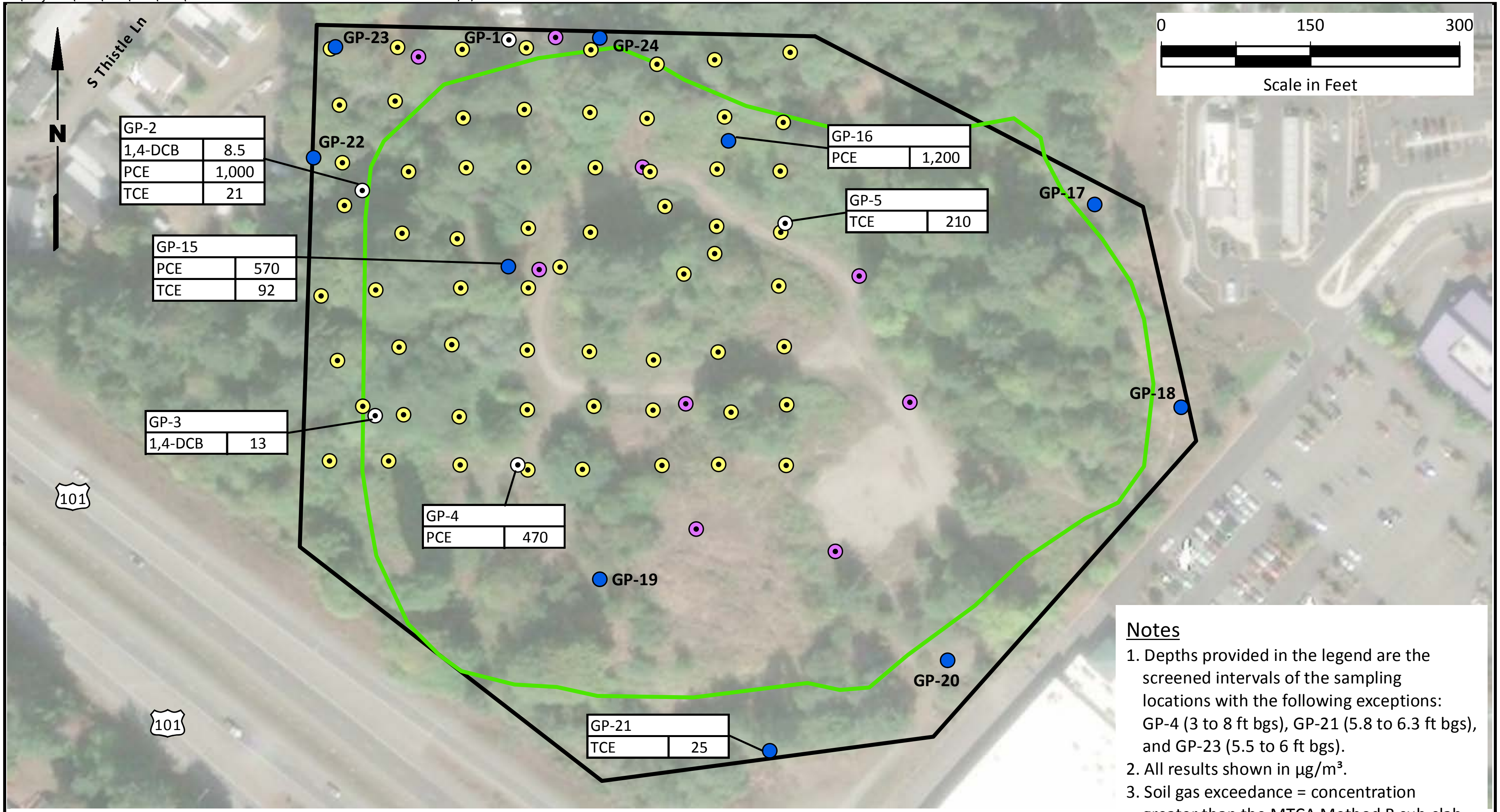
West Olympia Landfill Site
Olympia, Washington

Passive Soil Gas Results Detected Constituents That Exceed Screening Levels (2016)

Figure
4-8

G:\Projects\258\052\020\021\F04-9SoilGasResultsExceedances2018.mxd 11/7/2019



Legend

2018 Sampling Event

● Permanent Soil Gas Monitoring Location (6 to 6.5 ft bgs, Installed 2018)

⊙ Permanent Soil Gas Sample Location (3 to 13 ft bgs, Installed 2006)

Other Sampling Event

⊙ Temporary Active Soil Gas Sample Location (3 to 13 ft bgs, October 2014)

⊙ Temporary Passive Soil Gas Sample Location (3 ft bgs, July 2016)

▭ Subject Property

🟩 Approximate Extent of Waste

GP-2	
PCE	1,500

Exceedance of Soil Gas Screening Level

Data Sources: Thurston County GIS; Esri World Imagery.

Notes

1. Depths provided in the legend are the screened intervals of the sampling locations with the following exceptions: GP-4 (3 to 8 ft bgs), GP-21 (5.8 to 6.3 ft bgs), and GP-23 (5.5 to 6 ft bgs).
2. All results shown in µg/m³.
3. Soil gas exceedance = concentration greater than the MTCA Method B sub-slab soil gas screening level; 7.6 µg/m³ for 1,4-DCB; 320 µg/m³ for PCE; and 12 µg/m³ for TCE.
4. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

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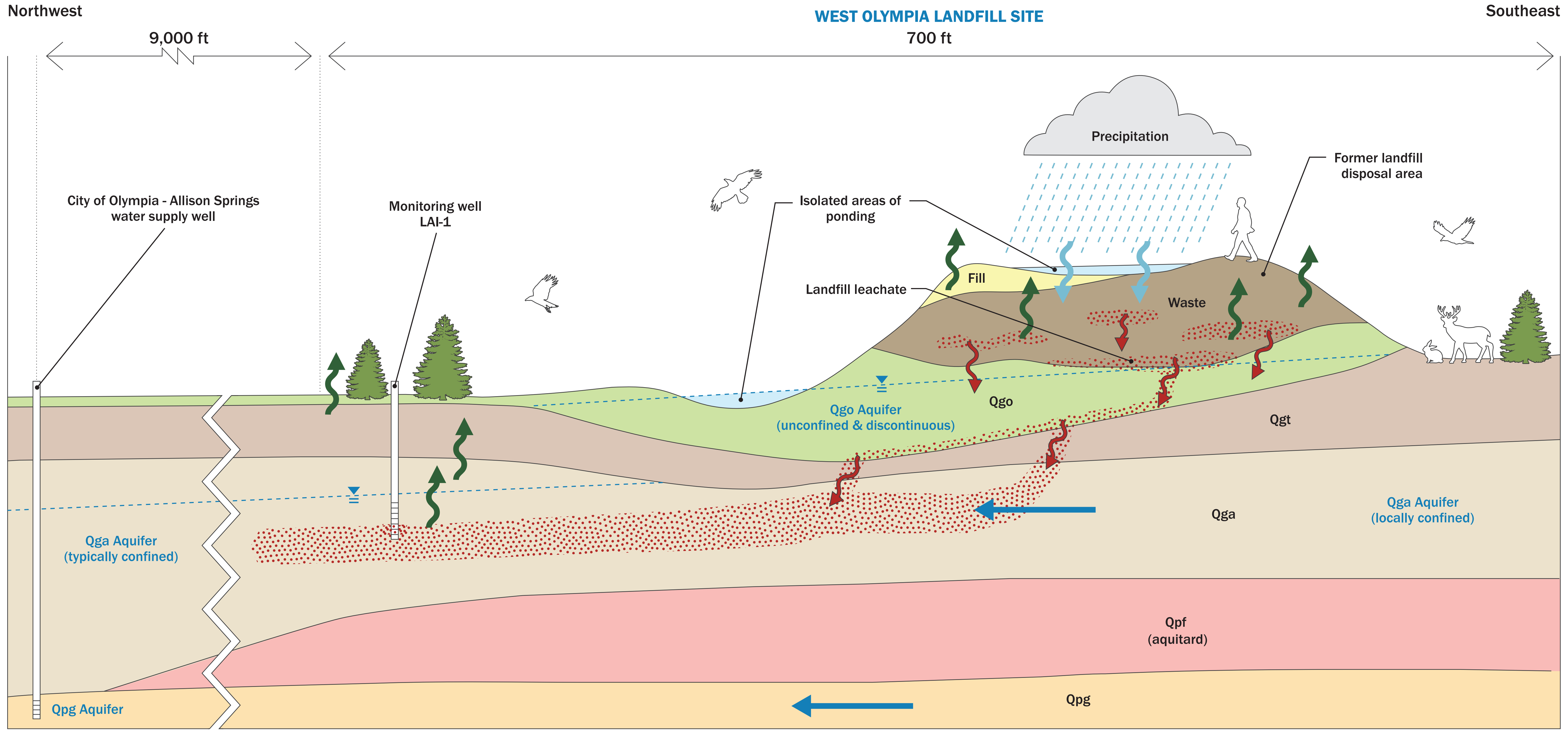
West Olympia Landfill Site
Olympia, Washington

Soil Gas Results Exceedances of Screening Levels (2018)

Figure
4-9



Notes:

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NOT TO SCALE

Legend

Qgo	Vashon Recessional Outwash
Qgt	Vashon Till
Qga	Vashon Advance Outwash
Qpf	Kitsap Formation
Qpg	Penultimate Deposits

➡ Prevailing groundwater flow

- - ▽ - - Groundwater

〰➤ Landfill gases migration mechanism

〰➤ Precipitation/infiltration migration mechanism

〰➤ Leachate migration

⁙ Dissolved phase TCE

Conceptual Site Model

West Olympia Landfill Site
Olympia, WA

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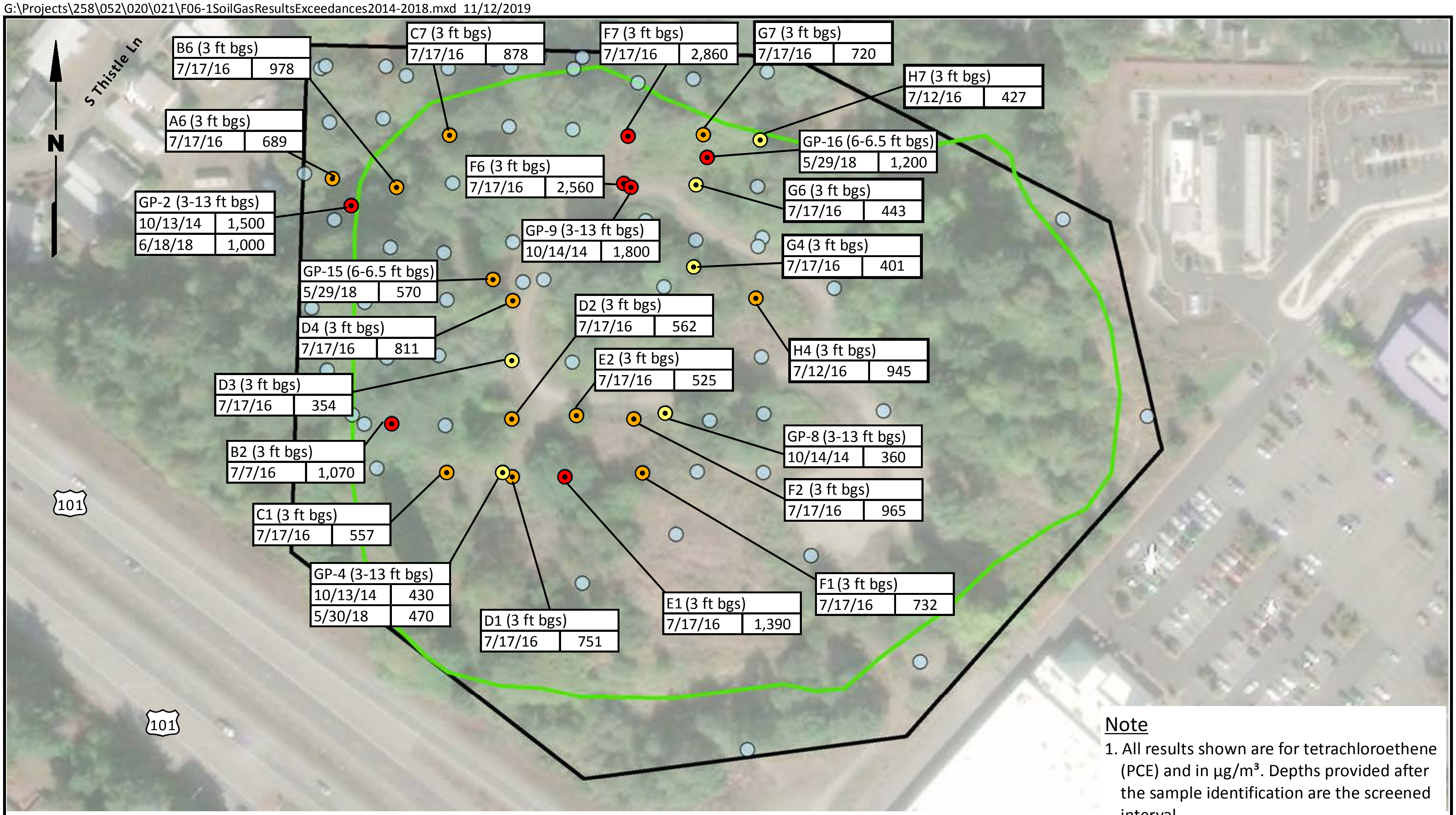
Figure 5-1

G:\Projects\258\052\020\021\F06-1SoilGasResultsExceedances2014-2018.mxd 11/12/2019



Note

1. All results shown are for tetrachloroethene (PCE) and in μg/m³. Depths provided after the sample identification are the screened interval.
2. Soil gas exceedance = concentration greater than the MTCA Method B sub-slab soil gas screening level; 320 μg/m³ for PCE.
3. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

Legend

- 🟡 PCE Concentration (>320 μg/m³)
- 🟠 PCE Concentration (>500 μg/m³)
- 🔴 PCE Concentration (>1,000 μg/m³)
- ⚪ PCE Concentration Below Screening Level
- ▭ Subject Property
- 🟩 Approximate Extent of Waste

D1 (3 ft bgs)		Exceedance of Soil Gas
7/17/16	751	Screening Level

0 150 300
Scale in Feet

Data Sources: Thurston County GIS; Esri World Imagery.

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West Olympia Landfill Site
Olympia, Washington

PCE Soil Gas Results Exceedances of Screening Levels (2014, 2016, and 2018)

Figure
6-1

APPENDIX A

Comprehensive RI Data Sets

Table A-1

Comprehensive Waste Data

West Olympia Landfill Site
Olympia, Washington

			Sampling Event:	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**
			Sample ID:	**LAI-4/D/7.5-9**	**LAI-6/D/5-6**	**LAI-8/D/10-11.5**	**LAI-8/D/7.5-9**	**LAI-9/D/10-11**	**LAI-9/D/5.5-6.5**
			Location:	**LAI-4**	**LAI-6**	**LAI-8**	**LAI-8**	**LAI-9**	**LAI-9**
			Date:	**09/07/00**	**09/06/00**	**09/07/00**	**09/07/00**	**09/06/00**	**09/06/00**
Parameter Group:	**Parameter:**	**Unit(s):**	**Screening Level:**						
Fuels	Gasoline	mg/Kg	**100**	--	--	--	--	--	--
Fuels	Diesel-range hydrocarbons	mg/Kg	**460**	**12**	**88**	**23**	**140**	**28**	**20**
Fuels	Lube Oil-range Hydrocarbons	mg/Kg	**2,000**	**100**	**700**	**96**	**470**	**43**	**44**
Metals	Arsenic	mg/Kg	**20**	30 U	5 U	30 U	10 U	6 U	30 U
Metals	Cadmium	mg/Kg	**25**	--	--	--	--	--	--
Metals	Chromium	mg/Kg	**48**	**50**	**25.1**	**63**	**51**	**33.2**	**79**
Metals	Lead	mg/Kg	**220**	**1,300**	**988**	**1,070**	**256**	**194**	**2,630**
Metals	Mercury	mg/Kg	**9.0**	--	--	--	--	--	--
Metals	Nickel	mg/Kg	**100**	--	--	--	--	--	--
Metals	Silver	mg/Kg	**400**	--	--	--	--	--	--
Metals	Zinc	mg/Kg	**270**	--	--	--	--	--	--
VOCs	Benzene	mg/Kg	**18**	--	--	--	--	--	--
VOCs	Toluene	mg/Kg	**6,400**	--	--	--	--	--	--
VOCs	Ethylbenzene	mg/Kg	**8,000**	--	--	--	--	--	--
VOCs	Xylene, m-,p-	mg/Kg	**16,000**	--	--	--	--	--	--
VOCs	Xylene, o-	mg/Kg	**16,000**	--	--	--	--	--	--
VOCs	Total Xylenes	mg/Kg	**16,000**	--	--	--	--	--	--
VOCs	1,1,1,2-Tetrachloroethane	mg/Kg	**38**	--	--	--	--	--	--
VOCs	1,1,1-Trichloroethane	mg/Kg	**160,000**	--	--	--	--	--	--
VOCs	1,1,2,2-Tetrachloroethane	mg/Kg	**5.0**	--	--	--	--	--	--
VOCs	1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	mg/Kg	**2,400,000**	--	--	--	--	--	--
VOCs	1,1,2-Trichloroethane	mg/Kg	**18**	--	--	--	--	--	--
VOCs	1,1-Dichloroethane	mg/Kg	**180**	--	--	--	--	--	--
VOCs	1,1-Dichloroethene	mg/Kg	**4,000**	--	--	--	--	--	--
VOCs	1,1-Dichloropropene	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	1,2,3-Trichlorobenzene	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	1,2,3-Trichloropropane	mg/Kg	**0.033**	--	--	--	--	--	--
VOCs	1,2,4-Trichlorobenzene	mg/Kg	**340**	--	--	--	--	--	--
VOCs	1,2,4-Trimethylbenzene	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	1,2-Dibromo-3-Chloropropane	mg/Kg	**1.2**	--	--	--	--	--	--
VOCs	1,2-Dibromoethane	mg/Kg	**0.50**	--	--	--	--	--	--
VOCs	1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/Kg	**7,200**	--	--	--	--	--	--
VOCs	1,2-Dichloroethane	mg/Kg	**11**	--	--	--	--	--	--
VOCs	1,2-Dichloropropane	mg/Kg	**28**	--	--	--	--	--	--
VOCs	1,3,5-Trichlorobenzene	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	1,3,5-Trimethylbenzene	mg/Kg	**800**	--	--	--	--	--	--
VOCs	1,3-Dichlorobenzene (m-Dichlorobenzene)	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	1,3-Dichloropropane	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/Kg	**20**	--	--	--	--	--	--

			Sampling Event:	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**
			Sample ID:	**LAI-4/D/7.5-9**	**LAI-6/D/5-6**	**LAI-8/D/10-11.5**	**LAI-8/D/7.5-9**	**LAI-9/D/10-11**	**LAI-9/D/5.5-6.5**
			Location:	**LAI-4**	**LAI-6**	**LAI-8**	**LAI-8**	**LAI-9**	**LAI-9**
			Date:	**09/07/00**	**09/06/00**	**09/07/00**	**09/07/00**	**09/06/00**	**09/06/00**
Parameter Group:	**Parameter:**	**Unit(s):**	**Screening Level:**						
VOCs	2,2-Dichloropropane	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	2-Butanone (MEK)	mg/Kg	**48,000**	--	--	--	--	--	--
VOCs	2-Chloroethyl vinyl ether	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	2-Chlorotoluene	mg/Kg	**1,600**	--	--	--	--	--	--
VOCs	2-Hexanone	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	4-Chlorotoluene	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	4-Methyl-2-Pentanone (Methyl isobutyl ketone)	mg/Kg	**6,400**	--	--	--	--	--	--
VOCs	Acetone	mg/Kg	**72,000**	--	--	--	--	--	--
VOCs	Acrolein	mg/Kg	**40**	--	--	--	--	--	--
VOCs	Acrylonitrile	mg/Kg	**1.9**	--	--	--	--	--	--
VOCs	Bromobenzene	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	Bromochloromethane	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	Bromodichloromethane	mg/Kg	**16**	--	--	--	--	--	--
VOCs	Bromoethane	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	Bromoform (Tribromomethane)	mg/Kg	**130**	--	--	--	--	--	--
VOCs	Bromomethane	mg/Kg	**110**	--	--	--	--	--	--
VOCs	Carbon Disulfide	mg/Kg	**8,000**	--	--	--	--	--	--
VOCs	Carbon Tetrachloride	mg/Kg	**14**	--	--	--	--	--	--
VOCs	Chlorobenzene	mg/Kg	**1,600**	--	--	--	--	--	--
VOCs	Chloroethane	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	Chloroform	mg/Kg	**32**	--	--	--	--	--	--
VOCs	Chloromethane	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	cis-1,2-Dichloroethene	mg/Kg	**160**	--	--	--	--	--	--
VOCs	cis-1,3-Dichloropropene	mg/Kg	**10**	--	--	--	--	--	--
VOCs	Dibromochloromethane	mg/Kg	**12**	--	--	--	--	--	--
VOCs	Dibromomethane	mg/Kg	**800**	--	--	--	--	--	--
VOCs	Dichlorodifluoromethane (CFC-12)	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	Hexachlorobutadiene	mg/Kg	**13**	--	--	--	--	--	--
VOCs	Isopropylbenzene (Cumene)	mg/Kg	**8,000**	--	--	--	--	--	--
VOCs	Methyl Iodide (Iodomethane)	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	Methylene Chloride	mg/Kg	**480**	--	--	--	--	--	--
VOCs	n-Butylbenzene	mg/Kg	**4,000**	--	--	--	--	--	--
VOCs	n-Propylbenzene	mg/Kg	**8,000**	--	--	--	--	--	--
VOCs	p-Isopropyltoluene	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	Sec-Butylbenzene	mg/Kg	**8,000**	--	--	--	--	--	--
VOCs	Styrene	mg/Kg	**16,000**	--	--	--	--	--	--
VOCs	Tert-Butylbenzene	mg/Kg	**8,000**	--	--	--	--	--	--
VOCs	Tetrachloroethene	mg/Kg	**480**	--	--	--	--	--	--
VOCs	Trans-1,2-Dichloroethene	mg/Kg	**1,600**	--	--	--	--	--	--
VOCs	Trans-1,3-Dichloropropene	mg/Kg	**10**	--	--	--	--	--	--
VOCs	Trans-1,4-Dichloro-2-butene	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	Trichloroethene	mg/Kg	**0.0098**	--	--	--	--	--	--
VOCs	Trichlorofluoromethane (CFC-11)	mg/Kg	**24,000**	--	--	--	--	--	--
VOCs	Vinyl Acetate	mg/Kg	**80,000**	--	--	--	--	--	--

			Sampling Event:	2000 Landau	2000 Landau	2000 Landau	2000 Landau	2000 Landau	2000 Landau
			Sample ID:	LAI-4/D/7.5-9	LAI-6/D/5-6	LAI-8/D/10-11.5	LAI-8/D/7.5-9	LAI-9/D/10-11	LAI-9/D/5.5-6.5
			Location:	LAI-4	LAI-6	LAI-8	LAI-8	LAI-9	LAI-9
			Date:	09/07/00	09/06/00	09/07/00	09/07/00	09/06/00	09/06/00
Parameter Group:	**Parameter:**	**Unit(s):**	**Screening Level:**						
VOCs	Vinyl Chloride	mg/Kg	**0.67**	--	--	--	--	--	--
PAHs	2-Methylnaphthalene	mg/Kg	**320**	0.078 U	0.072 U	0.081 U	**0.2**	0.083 U	0.08 U
PAHs	Acenaphthene	mg/Kg	**4,800**	0.078 U	0.072 U	0.081 U	0.083 U	0.083 U	0.08 U
PAHs	Acenaphthylene	mg/Kg	**NE**	0.078 U	0.072 U	0.081 U	0.083 U	0.083 U	0.08 U
PAHs	Anthracene	mg/Kg	**24,000**	0.078 U	0.072 U	0.081 U	0.083 U	0.083 U	0.08 U
PAHs	Benzo(g,h,i)perylene	mg/Kg	**NE**	0.078 U	**0.073**	0.081 U	0.083 U	0.083 U	**0.11**
PAHs	Dibenzofuran	mg/Kg	**80**	0.078 U	0.072 U	0.081 U	0.083 U	0.083 U	0.08 U
PAHs	Fluoranthene	mg/Kg	**3,200**	0.078 U	**0.13**	0.081 U	**0.088**	0.083 U	0.08 U
PAHs	Fluorene	mg/Kg	**3,200**	0.078 U	0.072 U	0.081 U	0.083 U	0.083 U	0.08 U
PAHs	Naphthalene	mg/Kg	**1,600**	0.078 U	0.072 U	0.081 U	**0.12**	0.083 U	0.08 U
PAHs	Phenanthrene	mg/Kg	**NE**	0.078 U	**0.084**	**0.079 J**	**0.1**	0.083 U	0.08 U
PAHs	Pyrene	mg/Kg	**2,400**	0.078 U	**0.16**	0.081 U	**0.12**	0.083 U	0.08 U
PAHs	Benzo(a)pyrene	mg/Kg	**30**	0.078 U	**0.086**	0.081 U	0.083 U	0.083 U	**0.098**
PAHs	Benzo(a)anthracene	mg/Kg	**NE**	0.078 U	0.072 U	0.081 U	0.083 U	0.083 U	0.08 U
PAHs	Benzo(b)fluoranthene	mg/Kg	**NE**	0.078 U	**0.095**	0.081 U	0.083 U	0.083 U	**0.11**
PAHs	Benzo(k)fluoranthene	mg/Kg	**NE**	0.078 U	**0.087**	0.081 U	0.083 U	0.083 U	**0.1**
PAHs	Dibenzo(a,h)anthracene	mg/Kg	**NE**	0.078 U	0.072 U	0.081 U	0.083 U	0.083 U	0.08 U
PAHs	Indeno(1,2,3-c,d)pyrene	mg/Kg	**NE**	0.078 U	0.072 U	0.081 U	0.083 U	0.083 U	**0.081**
PAHs	Chrysene	mg/Kg	**NE**	0.078 U	**0.12**	0.081 U	**0.088**	0.083 U	0.08 U
PAHs	Total cPAH TEQ (ND=0.5RL)	mg/Kg	**0.14**	0.0589 U	**0.116**	0.0612 U	**0.0631**	0.0627 U	**0.136**
SVOCs	2,4,5-Trichlorophenol	mg/Kg	**29**	--	--	--	--	--	--
SVOCs	2,4,6-Trichlorophenol	mg/Kg	**0.058**	--	--	--	--	--	--
SVOCs	2,4-Dichlorophenol	mg/Kg	**0.17**	--	--	--	--	--	--
SVOCs	2,4-Dimethylphenol	mg/Kg	**1.3**	--	--	--	--	--	--
SVOCs	2,4-Dinitrophenol	mg/Kg	**0.13**	--	--	--	--	--	--
SVOCs	2,4-Dinitrotoluene	mg/Kg	**0.030**	--	--	--	--	--	--
SVOCs	2,6-Dinitrotoluene	mg/Kg	**0.027**	--	--	--	--	--	--
SVOCs	2-Chloronaphthalene	mg/Kg	**6,400**	--	--	--	--	--	--
SVOCs	2-Chlorophenol	mg/Kg	**0.47**	--	--	--	--	--	--
SVOCs	2-methylphenol (o-Cresol)	mg/Kg	**4,000**	--	--	--	--	--	--
SVOCs	2-Nitroaniline	mg/Kg	**800**	--	--	--	--	--	--
SVOCs	2-Nitrophenol	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	3 & 4 Methylphenol	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	3,3'-Dichlorobenzidine	mg/Kg	**2.2**	--	--	--	--	--	--
SVOCs	3-Nitroaniline	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	4,6-Dinitro-2-Methylphenol	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	4-Bromophenyl phenyl ether	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	4-Chloro-3-Methylphenol	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	4-Chloroaniline	mg/Kg	**5.0**	--	--	--	--	--	--
SVOCs	4-Chlorophenyl-Phenylether	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	4-Nitroaniline	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	4-Nitrophenol (p-Nitrophenol)	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	Benzoic Acid	mg/Kg	**320,000**	--	--	--	--	--	--
SVOCs	Benzyl Alcohol	mg/Kg	**8,000**	--	--	--	--	--	--

			Sampling Event:	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**
			Sample ID:	**LAI-4/D/7.5-9**	**LAI-6/D/5-6**	**LAI-8/D/10-11.5**	**LAI-8/D/7.5-9**	**LAI-9/D/10-11**	**LAI-9/D/5.5-6.5**
			Location:	**LAI-4**	**LAI-6**	**LAI-8**	**LAI-8**	**LAI-9**	**LAI-9**
			Date:	**09/07/00**	**09/06/00**	**09/07/00**	**09/07/00**	**09/06/00**	**09/06/00**
Parameter Group:	**Parameter:**	**Unit(s):**	**Screening Level:**						
SVOCs	Bis(2-Chloroethoxy)Methane	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	Bis(2-Chloroethyl)Ether	mg/Kg	**0.91**	--	--	--	--	--	--
SVOCs	Bis(2-chloroisopropyl) ether	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	Bis(2-Ethylhexyl) Phthalate	mg/Kg	**71**	--	--	--	--	--	--
SVOCs	Butyl benzyl Phthalate	mg/Kg	**530**	--	--	--	--	--	--
SVOCs	Di-N-Octyl Phthalate	mg/Kg	**800**	--	--	--	--	--	--
SVOCs	Dibutyl Phthalate	mg/Kg	**8,000**	--	--	--	--	--	--
SVOCs	Diethyl Phthalate	mg/Kg	**64,000**	--	--	--	--	--	--
SVOCs	Dimethyl Phthalate	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	Hexachlorobenzene	mg/Kg	**0.62**	--	--	--	--	--	--
SVOCs	Hexachlorocyclopentadiene	mg/Kg	**480**	--	--	--	--	--	--
SVOCs	Hexachloroethane	mg/Kg	**25**	--	--	--	--	--	--
SVOCs	Isophorone	mg/Kg	**1,100**	--	--	--	--	--	--
SVOCs	N-Nitrosodi-n-propylamine	mg/Kg	**0.14**	--	--	--	--	--	--
SVOCs	N-Nitrosodiphenylamine (as diphenylamine)	mg/Kg	**200**	--	--	--	--	--	--
SVOCs	Nitrobenzene	mg/Kg	**160**	--	--	--	--	--	--
SVOCs	Pentachlorophenol	mg/Kg	**2.5**	--	--	--	--	--	--
SVOCs	Phenol	mg/Kg	**24,000**	--	--	--	--	--	--
PCBs	PCB-Aroclor 1016	mg/Kg	**5.6**	0.039 U	0.036 U	0.04 U	0.041 U	0.042 U	0.04 U
PCBs	PCB-Aroclor 1221	mg/Kg	**NE**	0.078 U	0.071 U	0.08 U	0.083 U	0.083 U	0.079 U
PCBs	PCB-Aroclor 1232	mg/Kg	**NE**	0.039 U	0.036 U	0.04 U	0.041 U	0.042 U	0.04 U
PCBs	PCB-Aroclor 1242	mg/Kg	**NE**	0.039 U	0.036 U	0.04 U	0.041 U	0.042 U	0.04 U
PCBs	PCB-Aroclor 1248	mg/Kg	**NE**	0.039 U	**0.41**	0.04 U	0.041 U	0.042 U	0.04 U
PCBs	PCB-Aroclor 1254	mg/Kg	**0.50**	**0.027 J**	**0.33**	**0.037 J**	0.041 U	0.042 U	0.04 U
PCBs	PCB-Aroclor 1260	mg/Kg	**0.50**	0.039 U	**0.075**	0.04 U	0.041 U	0.042 U	0.04 U
PCBs	Total PCBs	mg/Kg	**0.50**	**0.0270**	**0.815**	**0.0370**	0.0830 U	0.0830 U	0.0790 U

			Sampling Event:	2000 Landau	2000 Landau	2000 Landau	2000 Landau	2000 Landau	2000 Landau
			Sample ID:	LAI-9/D/7.5-9	LAI-10/D/5-5.5	LAI-10/D/7.5-8.0	LAI-11/D/10.5-11	LAI-11/D/7.5-9	LAI-13/D/8-9
			Location:	LAI-9	LAI-10	LAI-10	LAI-11	LAI-11	LAI-13
			Date:	09/06/00	09/07/00	09/07/00	09/08/00	09/07/00	09/06/00
Parameter Group:	**Parameter:**	**Unit(s):**	**Screening Level:**						
Fuels	Gasoline	mg/Kg	**100**	--	--	--	--	--	--
Fuels	Diesel-range hydrocarbons	mg/Kg	**460**	**48**	**32**	**17**	**240**	**140**	5.9 U
Fuels	Lube Oil-range Hydrocarbons	mg/Kg	**2,000**	**510**	**150**	**86**	**760**	**390**	12 U
Metals	Arsenic	mg/Kg	**20**	**12**	10 U	20 U	6 U	20 U	20 U
Metals	Cadmium	mg/Kg	**25**	--	--	--	--	--	--
Metals	Chromium	mg/Kg	**48**	**30.5**	**66**	**49**	**29.7**	**62**	**89**
Metals	Lead	mg/Kg	**220**	**78**	**1,460**	**343**	**98**	**1,140**	**2,330**
Metals	Mercury	mg/Kg	**9.0**	--	--	--	--	--	--
Metals	Nickel	mg/Kg	**100**	--	--	--	--	--	--
Metals	Silver	mg/Kg	**400**	--	--	--	--	--	--
Metals	Zinc	mg/Kg	**270**	--	--	--	--	--	--
VOCs	Benzene	mg/Kg	**18**	--	--	--	--	--	--
VOCs	Toluene	mg/Kg	**6,400**	--	--	--	--	--	--
VOCs	Ethylbenzene	mg/Kg	**8,000**	--	--	--	--	--	--
VOCs	Xylene, m-,p-	mg/Kg	**16,000**	--	--	--	--	--	--
VOCs	Xylene, o-	mg/Kg	**16,000**	--	--	--	--	--	--
VOCs	Total Xylenes	mg/Kg	**16,000**	--	--	--	--	--	--
VOCs	1,1,1,2-Tetrachloroethane	mg/Kg	**38**	--	--	--	--	--	--
VOCs	1,1,1-Trichloroethane	mg/Kg	**160,000**	--	--	--	--	--	--
VOCs	1,1,2,2-Tetrachloroethane	mg/Kg	**5.0**	--	--	--	--	--	--
VOCs	1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	mg/Kg	**2,400,000**	--	--	--	--	--	--
VOCs	1,1,2-Trichloroethane	mg/Kg	**18**	--	--	--	--	--	--
VOCs	1,1-Dichloroethane	mg/Kg	**180**	--	--	--	--	--	--
VOCs	1,1-Dichloroethene	mg/Kg	**4,000**	--	--	--	--	--	--
VOCs	1,1-Dichloropropene	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	1,2,3-Trichlorobenzene	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	1,2,3-Trichloropropane	mg/Kg	**0.033**	--	--	--	--	--	--
VOCs	1,2,4-Trichlorobenzene	mg/Kg	**340**	--	--	--	--	--	--
VOCs	1,2,4-Trimethylbenzene	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	1,2-Dibromo-3-Chloropropane	mg/Kg	**1.2**	--	--	--	--	--	--
VOCs	1,2-Dibromoethane	mg/Kg	**0.50**	--	--	--	--	--	--
VOCs	1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/Kg	**7,200**	--	--	--	--	--	--
VOCs	1,2-Dichloroethane	mg/Kg	**11**	--	--	--	--	--	--
VOCs	1,2-Dichloropropane	mg/Kg	**28**	--	--	--	--	--	--
VOCs	1,3,5-Trichlorobenzene	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	1,3,5-Trimethylbenzene	mg/Kg	**800**	--	--	--	--	--	--
VOCs	1,3-Dichlorobenzene (m-Dichlorobenzene)	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	1,3-Dichloropropane	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/Kg	**20**	--	--	--	--	--	--

			Sampling Event:	2000 Landau	2000 Landau	2000 Landau	2000 Landau	2000 Landau	2000 Landau
			Sample ID:	LAI-9/D/7.5-9	LAI-10/D/5-5.5	LAI-10/D/7.5-8.0	LAI-11/D/10.5-11	LAI-11/D/7.5-9	LAI-13/D/8-9
			Location:	LAI-9	LAI-10	LAI-10	LAI-11	LAI-11	LAI-13
			Date:	09/06/00	09/07/00	09/07/00	09/08/00	09/07/00	09/06/00
Parameter Group:	**Parameter:**	**Unit(s):**	**Screening Level:**						
VOCs	2,2-Dichloropropane	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	2-Butanone (MEK)	mg/Kg	**48,000**	--	--	--	--	--	--
VOCs	2-Chloroethyl vinyl ether	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	2-Chlorotoluene	mg/Kg	**1,600**	--	--	--	--	--	--
VOCs	2-Hexanone	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	4-Chlorotoluene	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	4-Methyl-2-Pentanone (Methyl isobutyl ketone)	mg/Kg	**6,400**	--	--	--	--	--	--
VOCs	Acetone	mg/Kg	**72,000**	--	--	--	--	--	--
VOCs	Acrolein	mg/Kg	**40**	--	--	--	--	--	--
VOCs	Acrylonitrile	mg/Kg	**1.9**	--	--	--	--	--	--
VOCs	Bromobenzene	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	Bromochloromethane	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	Bromodichloromethane	mg/Kg	**16**	--	--	--	--	--	--
VOCs	Bromoethane	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	Bromoform (Tribromomethane)	mg/Kg	**130**	--	--	--	--	--	--
VOCs	Bromomethane	mg/Kg	**110**	--	--	--	--	--	--
VOCs	Carbon Disulfide	mg/Kg	**8,000**	--	--	--	--	--	--
VOCs	Carbon Tetrachloride	mg/Kg	**14**	--	--	--	--	--	--
VOCs	Chlorobenzene	mg/Kg	**1,600**	--	--	--	--	--	--
VOCs	Chloroethane	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	Chloroform	mg/Kg	**32**	--	--	--	--	--	--
VOCs	Chloromethane	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	cis-1,2-Dichloroethene	mg/Kg	**160**	--	--	--	--	--	--
VOCs	cis-1,3-Dichloropropene	mg/Kg	**10**	--	--	--	--	--	--
VOCs	Dibromochloromethane	mg/Kg	**12**	--	--	--	--	--	--
VOCs	Dibromomethane	mg/Kg	**800**	--	--	--	--	--	--
VOCs	Dichlorodifluoromethane (CFC-12)	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	Hexachlorobutadiene	mg/Kg	**13**	--	--	--	--	--	--
VOCs	Isopropylbenzene (Cumene)	mg/Kg	**8,000**	--	--	--	--	--	--
VOCs	Methyl Iodide (Iodomethane)	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	Methylene Chloride	mg/Kg	**480**	--	--	--	--	--	--
VOCs	n-Butylbenzene	mg/Kg	**4,000**	--	--	--	--	--	--
VOCs	n-Propylbenzene	mg/Kg	**8,000**	--	--	--	--	--	--
VOCs	p-Isopropyltoluene	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	Sec-Butylbenzene	mg/Kg	**8,000**	--	--	--	--	--	--
VOCs	Styrene	mg/Kg	**16,000**	--	--	--	--	--	--
VOCs	Tert-Butylbenzene	mg/Kg	**8,000**	--	--	--	--	--	--
VOCs	Tetrachloroethene	mg/Kg	**480**	--	--	--	--	--	--
VOCs	Trans-1,2-Dichloroethene	mg/Kg	**1,600**	--	--	--	--	--	--
VOCs	Trans-1,3-Dichloropropene	mg/Kg	**10**	--	--	--	--	--	--
VOCs	Trans-1,4-Dichloro-2-butene	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	Trichloroethene	mg/Kg	**0.0098**	--	--	--	--	--	--
VOCs	Trichlorofluoromethane (CFC-11)	mg/Kg	**24,000**	--	--	--	--	--	--
VOCs	Vinyl Acetate	mg/Kg	**80,000**	--	--	--	--	--	--

			Sampling Event:	2000 Landau	2000 Landau	2000 Landau	2000 Landau	2000 Landau	2000 Landau
			Sample ID:	LAI-9/D/7.5-9	LAI-10/D/5-5.5	LAI-10/D/7.5-8.0	LAI-11/D/10.5-11	LAI-11/D/7.5-9	LAI-13/D/8-9
			Location:	LAI-9	LAI-10	LAI-10	LAI-11	LAI-11	LAI-13
			Date:	09/06/00	09/07/00	09/07/00	09/08/00	09/07/00	09/06/00
Parameter Group:	**Parameter:**	**Unit(s):**	**Screening Level:**						
VOCs	Vinyl Chloride	mg/Kg	**0.67**	--	--	--	--	--	--
PAHs	2-Methylnaphthalene	mg/Kg	**320**	0.086 U	0.075 U	0.084 U	0.082 U	--	0.078 U
PAHs	Acenaphthene	mg/Kg	**4,800**	0.086 U	0.075 U	0.084 U	0.082 U	--	0.078 U
PAHs	Acenaphthylene	mg/Kg	**NE**	0.086 U	0.075 U	0.084 U	0.082 U	--	0.078 U
PAHs	Anthracene	mg/Kg	**24,000**	0.086 U	0.075 U	0.084 U	0.082 U	--	0.078 U
PAHs	Benzo(g,h,i)perylene	mg/Kg	**NE**	0.086 U	0.075 U	0.084 U	0.082 U	--	0.078 U
PAHs	Dibenzofuran	mg/Kg	**80**	0.086 U	0.075 U	0.084 U	0.082 U	--	0.078 U
PAHs	Fluoranthene	mg/Kg	**3,200**	0.086 U	0.075 U	0.084 U	**0.14**	--	0.078 U
PAHs	Fluorene	mg/Kg	**3,200**	0.086 U	0.075 U	0.084 U	0.082 U	--	0.078 U
PAHs	Naphthalene	mg/Kg	**1,600**	0.086 U	0.075 U	0.084 U	0.082 U	--	0.078 U
PAHs	Phenanthrene	mg/Kg	**NE**	0.086 U	0.075 U	0.084 U	0.082 U	--	0.078 U
PAHs	Pyrene	mg/Kg	**2,400**	0.086 U	0.075 U	0.084 U	**0.11**	--	0.078 U
PAHs	Benzo(a)pyrene	mg/Kg	**30**	0.086 U	0.075 U	0.084 U	**0.11**	--	0.078 U
PAHs	Benzo(a)anthracene	mg/Kg	**NE**	0.086 U	0.075 U	0.084 U	**0.088**	--	0.078 U
PAHs	Benzo(b)fluoranthene	mg/Kg	**NE**	0.086 U	0.075 U	0.084 U	**0.12**	--	0.078 U
PAHs	Benzo(k)fluoranthene	mg/Kg	**NE**	0.086 U	0.075 U	0.084 U	**0.1**	--	0.078 U
PAHs	Dibenzo(a,h)anthracene	mg/Kg	**NE**	0.086 U	0.075 U	0.084 U	0.082 U	--	0.078 U
PAHs	Indeno(1,2,3-c,d)pyrene	mg/Kg	**NE**	0.086 U	0.075 U	0.084 U	0.082 U	--	0.078 U
PAHs	Chrysene	mg/Kg	**NE**	0.086 U	0.075 U	0.084 U	**0.11**	--	0.078 U
PAHs	Total cPAH TEQ (ND=0.5RL)	mg/Kg	**0.14**	0.0649 U	0.0566 U	0.0634 U	**0.15**	--	0.0589 U
SVOCs	2,4,5-Trichlorophenol	mg/Kg	**29**	--	--	--	--	--	--
SVOCs	2,4,6-Trichlorophenol	mg/Kg	**0.058**	--	--	--	--	--	--
SVOCs	2,4-Dichlorophenol	mg/Kg	**0.17**	--	--	--	--	--	--
SVOCs	2,4-Dimethylphenol	mg/Kg	**1.3**	--	--	--	--	--	--
SVOCs	2,4-Dinitrophenol	mg/Kg	**0.13**	--	--	--	--	--	--
SVOCs	2,4-Dinitrotoluene	mg/Kg	**0.030**	--	--	--	--	--	--
SVOCs	2,6-Dinitrotoluene	mg/Kg	**0.027**	--	--	--	--	--	--
SVOCs	2-Chloronaphthalene	mg/Kg	**6,400**	--	--	--	--	--	--
SVOCs	2-Chlorophenol	mg/Kg	**0.47**	--	--	--	--	--	--
SVOCs	2-methylphenol (o-Cresol)	mg/Kg	**4,000**	--	--	--	--	--	--
SVOCs	2-Nitroaniline	mg/Kg	**800**	--	--	--	--	--	--
SVOCs	2-Nitrophenol	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	3 & 4 Methylphenol	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	3,3'-Dichlorobenzidine	mg/Kg	**2.2**	--	--	--	--	--	--
SVOCs	3-Nitroaniline	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	4,6-Dinitro-2-Methylphenol	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	4-Bromophenyl phenyl ether	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	4-Chloro-3-Methylphenol	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	4-Chloroaniline	mg/Kg	**5.0**	--	--	--	--	--	--
SVOCs	4-Chlorophenyl-Phenylether	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	4-Nitroaniline	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	4-Nitrophenol (p-Nitrophenol)	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	Benzoic Acid	mg/Kg	**320,000**	--	--	--	--	--	--
SVOCs	Benzyl Alcohol	mg/Kg	**8,000**	--	--	--	--	--	--

			Sampling Event:	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**
			Sample ID:	**LAI-9/D/7.5-9**	**LAI-10/D/5-5.5**	**LAI-10/D/7.5-8.0**	**LAI-11/D/10.5-11**	**LAI-11/D/7.5-9**	**LAI-13/D/8-9**
			Location:	**LAI-9**	**LAI-10**	**LAI-10**	**LAI-11**	**LAI-11**	**LAI-13**
			Date:	**09/06/00**	**09/07/00**	**09/07/00**	**09/08/00**	**09/07/00**	**09/06/00**
Parameter Group:	**Parameter:**	**Unit(s):**	**Screening Level:**						
SVOCs	Bis(2-Chloroethoxy)Methane	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	Bis(2-Chloroethyl)Ether	mg/Kg	**0.91**	--	--	--	--	--	--
SVOCs	Bis(2-chloroisopropyl) ether	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	Bis(2-Ethylhexyl) Phthalate	mg/Kg	**71**	--	--	--	--	--	--
SVOCs	Butyl benzyl Phthalate	mg/Kg	**530**	--	--	--	--	--	--
SVOCs	Di-N-Octyl Phthalate	mg/Kg	**800**	--	--	--	--	--	--
SVOCs	Dibutyl Phthalate	mg/Kg	**8,000**	--	--	--	--	--	--
SVOCs	Diethyl Phthalate	mg/Kg	**64,000**	--	--	--	--	--	--
SVOCs	Dimethyl Phthalate	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	Hexachlorobenzene	mg/Kg	**0.62**	--	--	--	--	--	--
SVOCs	Hexachlorocyclopentadiene	mg/Kg	**480**	--	--	--	--	--	--
SVOCs	Hexachloroethane	mg/Kg	**25**	--	--	--	--	--	--
SVOCs	Isophorone	mg/Kg	**1,100**	--	--	--	--	--	--
SVOCs	N-Nitrosodi-n-propylamine	mg/Kg	**0.14**	--	--	--	--	--	--
SVOCs	N-Nitrosodiphenylamine (as diphenylamine)	mg/Kg	**200**	--	--	--	--	--	--
SVOCs	Nitrobenzene	mg/Kg	**160**	--	--	--	--	--	--
SVOCs	Pentachlorophenol	mg/Kg	**2.5**	--	--	--	--	--	--
SVOCs	Phenol	mg/Kg	**24,000**	--	--	--	--	--	--
PCBs	PCB-Aroclor 1016	mg/Kg	**5.6**	0.043 U	0.038 U	0.042 U	0.041 U	0.041 U	0.039 U
PCBs	PCB-Aroclor 1221	mg/Kg	**NE**	0.086 U	0.075 U	0.084 U	0.081 U	0.083 U	0.078 U
PCBs	PCB-Aroclor 1232	mg/Kg	**NE**	0.043 U	0.038 U	0.042 U	0.041 U	0.041 U	0.039 U
PCBs	PCB-Aroclor 1242	mg/Kg	**NE**	0.043 U	0.038 U	0.042 U	0.041 U	0.041 U	0.039 U
PCBs	PCB-Aroclor 1248	mg/Kg	**NE**	0.043 U	**0.053**	0.042 U	**0.2**	0.041 U	**0.049**
PCBs	PCB-Aroclor 1254	mg/Kg	**0.50**	0.043 U	**0.026 J**	0.042 U	**0.15**	0.041 U	0.039 U
PCBs	PCB-Aroclor 1260	mg/Kg	**0.50**	0.043 U	0.038 U	0.042 U	0.041 U	0.041 U	0.039 U
PCBs	Total PCBs	mg/Kg	**0.50**	0.0860 U	**0.0790**	0.0840 U	**0.35**	0.0830 U	**0.0490**

			Sampling Event:	2000 Landau	2000 Landau	2000 Landau	2000 Landau	2000 Landau	2000 Landau
			Sample ID:	LAI-14/D/10.5-11	LAI-14/D/7.5-9	LAI-15/C/2.5-7.5	LAI-19/D/7.5-8.5[a]	LAI-20/D/7.5-8.0[a]	LAI-21/C/2.5-7.5[a]
			Location:	LAI-14	LAI-14	LAI-15	LAI-17	LAI-18	LAI-19
			Date:	09/08/00	09/08/00	09/08/00	09/06/00	09/11/00	09/08/00
Parameter Group:	**Parameter:**	**Unit(s):**	**Screening Level:**						
Fuels	Gasoline	mg/Kg	**100**	--	--	--	--	--	--
Fuels	Diesel-range hydrocarbons	mg/Kg	**460**	6.7 U	**8.1**	**36**	**27**	**480**	**78**
Fuels	Lube Oil-range Hydrocarbons	mg/Kg	**2,000**	13 U	**40**	**270**	**120**	**1,000**	**450**
Metals	Arsenic	mg/Kg	**20**	30 U	30 U	5 U	**20**	60 U	5 U
Metals	Cadmium	mg/Kg	**25**	--	--	--	--	--	--
Metals	Chromium	mg/Kg	**48**	**66**	**3,210**	**29.9**	**58**	**90**	**30.4**
Metals	Lead	mg/Kg	**220**	**720**	**1,330**	**22**	**978**	**1,230**	**60**
Metals	Mercury	mg/Kg	**9.0**	--	--	--	--	--	--
Metals	Nickel	mg/Kg	**100**	--	--	--	--	--	--
Metals	Silver	mg/Kg	**400**	--	--	--	--	--	--
Metals	Zinc	mg/Kg	**270**	--	--	--	--	--	--
VOCs	Benzene	mg/Kg	**18**	--	--	--	--	--	--
VOCs	Toluene	mg/Kg	**6,400**	--	--	--	--	--	--
VOCs	Ethylbenzene	mg/Kg	**8,000**	--	--	--	--	--	--
VOCs	Xylene, m-,p-	mg/Kg	**16,000**	--	--	--	--	--	--
VOCs	Xylene, o-	mg/Kg	**16,000**	--	--	--	--	--	--
VOCs	Total Xylenes	mg/Kg	**16,000**	--	--	--	--	--	--
VOCs	1,1,1,2-Tetrachloroethane	mg/Kg	**38**	--	--	--	--	--	--
VOCs	1,1,1-Trichloroethane	mg/Kg	**160,000**	--	--	--	--	--	--
VOCs	1,1,2,2-Tetrachloroethane	mg/Kg	**5.0**	--	--	--	--	--	--
VOCs	1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	mg/Kg	**2,400,000**	--	--	--	--	--	--
VOCs	1,1,2-Trichloroethane	mg/Kg	**18**	--	--	--	--	--	--
VOCs	1,1-Dichloroethane	mg/Kg	**180**	--	--	--	--	--	--
VOCs	1,1-Dichloroethene	mg/Kg	**4,000**	--	--	--	--	--	--
VOCs	1,1-Dichloropropene	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	1,2,3-Trichlorobenzene	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	1,2,3-Trichloropropane	mg/Kg	**0.033**	--	--	--	--	--	--
VOCs	1,2,4-Trichlorobenzene	mg/Kg	**340**	--	--	--	--	--	--
VOCs	1,2,4-Trimethylbenzene	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	1,2-Dibromo-3-Chloropropane	mg/Kg	**1.2**	--	--	--	--	--	--
VOCs	1,2-Dibromoethane	mg/Kg	**0.50**	--	--	--	--	--	--
VOCs	1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/Kg	**7,200**	--	--	--	--	--	--
VOCs	1,2-Dichloroethane	mg/Kg	**11**	--	--	--	--	--	--
VOCs	1,2-Dichloropropane	mg/Kg	**28**	--	--	--	--	--	--
VOCs	1,3,5-Trichlorobenzene	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	1,3,5-Trimethylbenzene	mg/Kg	**800**	--	--	--	--	--	--
VOCs	1,3-Dichlorobenzene (m-Dichlorobenzene)	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	1,3-Dichloropropane	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/Kg	**20**	--	--	--	--	--	--

			Sampling Event:	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**
			Sample ID:	**LAI-14/D/10.5-11**	**LAI-14/D/7.5-9**	**LAI-15/C/2.5-7.5**	**LAI-19/D/7.5-8.5[a]**	**LAI-20/D/7.5-8.0[a]**	**LAI-21/C/2.5-7.5[a]**
			Location:	**LAI-14**	**LAI-14**	**LAI-15**	**LAI-17**	**LAI-18**	**LAI-19**
			Date:	**09/08/00**	**09/08/00**	**09/08/00**	**09/06/00**	**09/11/00**	**09/08/00**
Parameter Group:	**Parameter:**	**Unit(s):**	**Screening Level:**						
VOCs	2,2-Dichloropropane	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	2-Butanone (MEK)	mg/Kg	**48,000**	--	--	--	--	--	--
VOCs	2-Chloroethyl vinyl ether	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	2-Chlorotoluene	mg/Kg	**1,600**	--	--	--	--	--	--
VOCs	2-Hexanone	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	4-Chlorotoluene	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	4-Methyl-2-Pentanone (Methyl isobutyl ketone)	mg/Kg	**6,400**	--	--	--	--	--	--
VOCs	Acetone	mg/Kg	**72,000**	--	--	--	--	--	--
VOCs	Acrolein	mg/Kg	**40**	--	--	--	--	--	--
VOCs	Acrylonitrile	mg/Kg	**1.9**	--	--	--	--	--	--
VOCs	Bromobenzene	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	Bromochloromethane	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	Bromodichloromethane	mg/Kg	**16**	--	--	--	--	--	--
VOCs	Bromoethane	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	Bromoform (Tribromomethane)	mg/Kg	**130**	--	--	--	--	--	--
VOCs	Bromomethane	mg/Kg	**110**	--	--	--	--	--	--
VOCs	Carbon Disulfide	mg/Kg	**8,000**	--	--	--	--	--	--
VOCs	Carbon Tetrachloride	mg/Kg	**14**	--	--	--	--	--	--
VOCs	Chlorobenzene	mg/Kg	**1,600**	--	--	--	--	--	--
VOCs	Chloroethane	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	Chloroform	mg/Kg	**32**	--	--	--	--	--	--
VOCs	Chloromethane	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	cis-1,2-Dichloroethene	mg/Kg	**160**	--	--	--	--	--	--
VOCs	cis-1,3-Dichloropropene	mg/Kg	**10**	--	--	--	--	--	--
VOCs	Dibromochloromethane	mg/Kg	**12**	--	--	--	--	--	--
VOCs	Dibromomethane	mg/Kg	**800**	--	--	--	--	--	--
VOCs	Dichlorodifluoromethane (CFC-12)	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	Hexachlorobutadiene	mg/Kg	**13**	--	--	--	--	--	--
VOCs	Isopropylbenzene (Cumene)	mg/Kg	**8,000**	--	--	--	--	--	--
VOCs	Methyl Iodide (Iodomethane)	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	Methylene Chloride	mg/Kg	**480**	--	--	--	--	--	--
VOCs	n-Butylbenzene	mg/Kg	**4,000**	--	--	--	--	--	--
VOCs	n-Propylbenzene	mg/Kg	**8,000**	--	--	--	--	--	--
VOCs	p-Isopropyltoluene	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	Sec-Butylbenzene	mg/Kg	**8,000**	--	--	--	--	--	--
VOCs	Styrene	mg/Kg	**16,000**	--	--	--	--	--	--
VOCs	Tert-Butylbenzene	mg/Kg	**8,000**	--	--	--	--	--	--
VOCs	Tetrachloroethene	mg/Kg	**480**	--	--	--	--	--	--
VOCs	Trans-1,2-Dichloroethene	mg/Kg	**1,600**	--	--	--	--	--	--
VOCs	Trans-1,3-Dichloropropene	mg/Kg	**10**	--	--	--	--	--	--
VOCs	Trans-1,4-Dichloro-2-butene	mg/Kg	**NE**	--	--	--	--	--	--
VOCs	Trichloroethene	mg/Kg	**0.0098**	--	--	--	--	--	--
VOCs	Trichlorofluoromethane (CFC-11)	mg/Kg	**24,000**	--	--	--	--	--	--
VOCs	Vinyl Acetate	mg/Kg	**80,000**	--	--	--	--	--	--

			Sampling Event:	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**
			Sample ID:	**LAI-14/D/10.5-11**	**LAI-14/D/7.5-9**	**LAI-15/C/2.5-7.5**	**LAI-19/D/7.5-8.5^{a}**	**LAI-20/D/7.5-8.0^{a}**	**LAI-21/C/2.5-7.5^{a}**
			Location:	**LAI-14**	**LAI-14**	**LAI-15**	**LAI-17**	**LAI-18**	**LAI-19**
			Date:	**09/08/00**	**09/08/00**	**09/08/00**	**09/06/00**	**09/11/00**	**09/08/00**
Parameter Group:	**Parameter:**	**Unit(s):**	**Screening Level:**						
VOCs	Vinyl Chloride	mg/Kg	**0.67**	--	--	--	--	--	--
PAHs	2-Methylnaphthalene	mg/Kg	**320**	0.09 U	0.079 U	0.073 U	0.082 U	0.66 U	0.077 U
PAHs	Acenaphthene	mg/Kg	**4,800**	0.09 U	0.079 U	0.073 U	0.082 U	0.66 U	0.077 U
PAHs	Acenaphthylene	mg/Kg	**NE**	0.09 U	0.079 U	0.073 U	0.082 U	0.66 U	0.077 U
PAHs	Anthracene	mg/Kg	**24,000**	0.09 U	0.079 U	0.073 U	0.082 U	0.66 U	0.077 U
PAHs	Benzo(g,h,i)perylene	mg/Kg	**NE**	0.09 U	0.079 U	0.073 U	0.082 U	0.66 U	0.077 U
PAHs	Dibenzofuran	mg/Kg	**80**	0.09 U	0.079 U	0.073 U	0.082 U	0.66 U	0.077 U
PAHs	Fluoranthene	mg/Kg	**3,200**	0.09 U	0.079 U	0.073 U	**0.084**	0.66 U	0.077 U
PAHs	Fluorene	mg/Kg	**3,200**	0.09 U	0.079 U	0.073 U	0.082 U	0.66 U	0.077 U
PAHs	Naphthalene	mg/Kg	**1,600**	0.09 U	0.079 U	0.073 U	0.082 U	0.66 U	0.077 U
PAHs	Phenanthrene	mg/Kg	**NE**	0.09 U	0.079 U	0.073 U	0.082 U	0.66 U	0.077 U
PAHs	Pyrene	mg/Kg	**2,400**	0.09 U	0.079 U	0.073 U	**0.092**	0.66 U	**0.075 J**
PAHs	Benzo(a)pyrene	mg/Kg	**30**	0.09 U	0.079 U	0.073 U	0.082 U	0.66 U	0.077 U
PAHs	Benzo(a)anthracene	mg/Kg	**NE**	0.09 U	0.079 U	0.073 U	0.082 U	0.66 U	0.077 U
PAHs	Benzo(b)fluoranthene	mg/Kg	**NE**	0.09 U	0.079 U	0.073 U	0.082 U	0.66 U	0.077 U
PAHs	Benzo(k)fluoranthene	mg/Kg	**NE**	0.09 U	0.079 U	0.073 U	0.082 U	0.66 U	0.077 U
PAHs	Dibenzo(a,h)anthracene	mg/Kg	**NE**	0.09 U	0.079 U	0.073 U	0.082 U	0.66 U	0.077 U
PAHs	Indeno(1,2,3-c,d)pyrene	mg/Kg	**NE**	0.09 U	0.079 U	0.073 U	0.082 U	0.66 U	0.077 U
PAHs	Chrysene	mg/Kg	**NE**	0.09 U	0.079 U	0.073 U	0.082 U	0.66 U	**0.084**
PAHs	Total cPAH TEQ (ND=0.5RL)	mg/Kg	**0.14**	0.0680 U	0.0596 U	0.0551 U	0.0619 U	0.498 U	**0.0586**
SVOCs	2,4,5-Trichlorophenol	mg/Kg	**29**	--	--	--	--	--	--
SVOCs	2,4,6-Trichlorophenol	mg/Kg	**0.058**	--	--	--	--	--	--
SVOCs	2,4-Dichlorophenol	mg/Kg	**0.17**	--	--	--	--	--	--
SVOCs	2,4-Dimethylphenol	mg/Kg	**1.3**	--	--	--	--	--	--
SVOCs	2,4-Dinitrophenol	mg/Kg	**0.13**	--	--	--	--	--	--
SVOCs	2,4-Dinitrotoluene	mg/Kg	**0.030**	--	--	--	--	--	--
SVOCs	2,6-Dinitrotoluene	mg/Kg	**0.027**	--	--	--	--	--	--
SVOCs	2-Chloronaphthalene	mg/Kg	**6,400**	--	--	--	--	--	--
SVOCs	2-Chlorophenol	mg/Kg	**0.47**	--	--	--	--	--	--
SVOCs	2-methylphenol (o-Cresol)	mg/Kg	**4,000**	--	--	--	--	--	--
SVOCs	2-Nitroaniline	mg/Kg	**800**	--	--	--	--	--	--
SVOCs	2-Nitrophenol	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	3 & 4 Methylphenol	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	3,3'-Dichlorobenzidine	mg/Kg	**2.2**	--	--	--	--	--	--
SVOCs	3-Nitroaniline	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	4,6-Dinitro-2-Methylphenol	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	4-Bromophenyl phenyl ether	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	4-Chloro-3-Methylphenol	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	4-Chloroaniline	mg/Kg	**5.0**	--	--	--	--	--	--
SVOCs	4-Chlorophenyl-Phenylether	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	4-Nitroaniline	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	4-Nitrophenol (p-Nitrophenol)	mg/Kg	**NE**	--	--	--	--	--	--
SVOCs	Benzoic Acid	mg/Kg	**320,000**	--	--	--	--	--	--
SVOCs	Benzyl Alcohol	mg/Kg	**8,000**	--	--	--	--	--	--

			Sampling Event:	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**
			Sample ID:	**LAI-14/D/10.5-11**	**LAI-14/D/7.5-9**	**LAI-15/C/2.5-7.5**	**LAI-19/D/7.5-8.5[a]**	**LAI-20/D/7.5-8.0[a]**	**LAI-21/C/2.5-7.5[a]**
			Location:	**LAI-14**	**LAI-14**	**LAI-15**	**LAI-17**	**LAI-18**	**LAI-19**
			Date:	**09/08/00**	**09/08/00**	**09/08/00**	**09/06/00**	**09/11/00**	**09/08/00**
Parameter Group:	**Parameter:**	**Unit(s):**	**Screening Level:**						
SVOCs	Bis(2-Chloroethoxy)Methane	mg/Kg	**NE**	–	–	–	–	–	–
SVOCs	Bis(2-Chloroethyl)Ether	mg/Kg	**0.91**	–	–	–	–	–	–
SVOCs	Bis(2-chloroisopropyl) ether	mg/Kg	**NE**	–	–	–	–	–	–
SVOCs	Bis(2-Ethylhexyl) Phthalate	mg/Kg	**71**	–	–	–	–	–	–
SVOCs	Butyl benzyl Phthalate	mg/Kg	**530**	–	–	–	–	–	–
SVOCs	Di-N-Octyl Phthalate	mg/Kg	**800**	–	–	–	–	–	–
SVOCs	Dibutyl Phthalate	mg/Kg	**8,000**	–	–	–	–	–	–
SVOCs	Diethyl Phthalate	mg/Kg	**64,000**	–	–	–	–	–	–
SVOCs	Dimethyl Phthalate	mg/Kg	**NE**	–	–	–	–	–	–
SVOCs	Hexachlorobenzene	mg/Kg	**0.62**	–	–	–	–	–	–
SVOCs	Hexachlorocyclopentadiene	mg/Kg	**480**	–	–	–	–	–	–
SVOCs	Hexachloroethane	mg/Kg	**25**	–	–	–	–	–	–
SVOCs	Isophorone	mg/Kg	**1,100**	–	–	–	–	–	–
SVOCs	N-Nitrosodi-n-propylamine	mg/Kg	**0.14**	–	–	–	–	–	–
SVOCs	N-Nitrosodiphenylamine (as diphenylamine)	mg/Kg	**200**	–	–	–	–	–	–
SVOCs	Nitrobenzene	mg/Kg	**160**	–	–	–	–	–	–
SVOCs	Pentachlorophenol	mg/Kg	**2.5**	–	–	–	–	–	–
SVOCs	Phenol	mg/Kg	**24,000**	–	–	–	–	–	–
PCBs	PCB-Aroclor 1016	mg/Kg	**5.6**	0.045 U	0.04 U	0.037 U	0.041 U	0.041 U	0.039 U
PCBs	PCB-Aroclor 1221	mg/Kg	**NE**	0.09 U	0.079 U	0.073 U	0.082 U	0.082 U	0.077 U
PCBs	PCB-Aroclor 1232	mg/Kg	**NE**	0.045 U	0.04 U	0.037 U	0.041 U	0.041 U	0.039 U
PCBs	PCB-Aroclor 1242	mg/Kg	**NE**	0.045 U	0.04 U	0.037 U	0.041 U	0.041 U	0.039 U
PCBs	PCB-Aroclor 1248	mg/Kg	**NE**	0.045 U	0.04 U	0.037 U	0.041 U	**0.099**	0.039 U
PCBs	PCB-Aroclor 1254	mg/Kg	**0.50**	0.045 U	0.04 U	0.037 U	**0.058**	0.041 U	0.039 U
PCBs	PCB-Aroclor 1260	mg/Kg	**0.50**	0.045 U	0.04 U	0.037 U	0.041 U	**0.036 J**	0.039 U
PCBs	Total PCBs	mg/Kg	**0.50**	0.0900 U	0.0790 U	0.0730 U	**0.0580**	**0.135**	0.0770 U

Notes:

[a] An incorrect location was included in the Sample ID on the original laboratory chain-of-custody. For example, the Sample ID for the soil sample at Location LAI-17 should have been LAI-17/D/2.5-7.5 and not LAI-19/D/2.5-7.5.

J = analyte was positively identified and the associated numerical value is an estimated quantity.

mg/Kg = milligrams per kilogram

NE = not established

U = analyte not detected, laboratory reporting limit shown.

Bolding indicates analyte was detected.

Analyte was not detected in the sample; reporting limit exceeded the screening level.

Analyte concentration exceeded the screening level.

Table A-2

Comprehensive Soil Data

Former West Olympia Landfill Site
Olympia, Washington

			Sampling Event:	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**
			Sample ID:	**LAI-4/D/15-15.5**	**LAI-5/D/25-26**	**LAI-7/D/17.5-19**	**LAI-11/D/17.5-19**	**LAI-15/D/22.5-24**	**LAI-19/D/16-16.5**	**LAI-20/D/13-14**
			Location:	**LAI-4**	**LAI-5**	**LAI-7**	**LAI-11**	**LAI-15**	**LAI-17**	**LAI-18**
			Date:	**09/07/00**	**09/07/00**	**09/07/00**	**09/08/00**	**09/08/00**	**09/06/00**	**09/11/00**
Parameter Group:	**Parameter:**	**Unit(s):**	**Screening Level:**							
Fuels	Gasoline	mg/Kg	**100**	--	--	--	--	--	--	--
Fuels	Diesel-range hydrocarbons	mg/Kg	**460**	5.4 U	5.6 U	5.5 U	5.5 U	5.4 U	**15**	5.5 U
Fuels	Lube Oil-range Hydrocarbons	mg/Kg	**2,000**	11 U	11 U	11 U	11 U	11 U	**26**	11 U
Metals	Arsenic	mg/Kg	**20**	5 U	10 U	**10**	5 U	5 U	5 U	5 U
Metals	Cadmium	mg/Kg	**25**	--	--	--	--	--	--	--
Metals	Chromium	mg/Kg	**48**	**26.8**	**50**	**88**	**26.1**	**54.5**	**23.9**	**27.5**
Metals	Lead	mg/Kg	**220**	**29**	**391**	**501**	**4**	**13**	**35**	**6**
Metals	Mercury	mg/Kg	**9.0**	--	--	--	--	--	--	--
Metals	Nickel	mg/Kg	**100**	--	--	--	--	--	--	--
Metals	Silver	mg/Kg	**400**	--	--	--	--	--	--	--
Metals	Zinc	mg/Kg	**270**	--	--	--	--	--	--	--
VOCs	Benzene	mg/Kg	**18**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	Toluene	mg/Kg	**6,400**	**0.0008 J**	**0.0006 J**	0.0012 U	--	--	--	--
VOCs	Ethylbenzene	mg/Kg	**8,000**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	Xylene, m-,p-	mg/Kg	**16,000**	--	--	--	--	--	--	--
VOCs	Xylene, o-	mg/Kg	**16,000**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	Total Xylenes	mg/Kg	**16,000**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	1,1,1,2-Tetrachloroethane	mg/Kg	**38**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	1,1,1-Trichloroethane	mg/Kg	**160,000**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	1,1,2,2-Tetrachloroethane	mg/Kg	**5.0**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	mg/Kg	**2,400,000**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	1,1,2-Trichloroethane	mg/Kg	**18**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	1,1-Dichloroethane	mg/Kg	**180**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	1,1-Dichloroethene	mg/Kg	**4,000**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	1,1-Dichloropropene	mg/Kg	**NE**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	1,2,3-Trichlorobenzene	mg/Kg	**NE**	0.0011 U	0.0056 U	0.0059 U	--	--	--	--
VOCs	1,2,3-Trichloropropane	mg/Kg	**0.033**	0.0011 U	0.0022 U	0.0023 U	--	--	--	--
VOCs	1,2,4-Trichlorobenzene	mg/Kg	**340**	0.0011 U	0.0056 U	0.0059 U	--	--	--	--
VOCs	1,2,4-Trimethylbenzene	mg/Kg	**NE**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	1,2-Dibromo-3-Chloropropane	mg/Kg	**1.2**	0.0011 U	0.0056 U	0.0059 U	--	--	--	--
VOCs	1,2-Dibromoethane	mg/Kg	**0.50**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/Kg	**7,200**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	1,2-Dichloroethane	mg/Kg	**11**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	1,2-Dichloropropane	mg/Kg	**28**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	1,3,5-Trichlorobenzene	mg/Kg	**NE**	0.0011 U	--	--	--	--	--	--
VOCs	1,3,5-Trimethylbenzene	mg/Kg	**800**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	1,3-Dichlorobenzene (m-Dichlorobenzene)	mg/Kg	**NE**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	1,3-Dichloropropane	mg/Kg	**NE**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/Kg	**20**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	2,2-Dichloropropane	mg/Kg	**NE**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--

			Sampling Event:	2000 Landau	2000 Landau	2000 Landau	2000 Landau	2000 Landau	2000 Landau	2000 Landau
			Sample ID:	LAI-4/D/15-15.5	LAI-5/D/25-26	LAI-7/D/17.5-19	LAI-11/D/17.5-19	LAI-15/D/22.5-24	LAI-19/D/16-16.5	LAI-20/D/13-14
			Location:	LAI-4	LAI-5	LAI-7	LAI-11	LAI-15	LAI-17	LAI-18
			Date:	09/07/00	09/07/00	09/07/00	09/08/00	09/08/00	09/06/00	09/11/00
Parameter Group:	**Parameter:**	**Unit(s):**	**Screening Level:**							
VOCs	2-Butanone (MEK)	mg/Kg	**48,000**	0.0011 U	0.0056 U	0.0059 U	--	--	--	--
VOCs	2-Chloroethyl vinyl ether	mg/Kg	**NE**	0.0011 U	0.0056 U	0.0059 U	--	--	--	--
VOCs	2-Chlorotoluene	mg/Kg	**1,600**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	2-Hexanone	mg/Kg	**NE**	0.0011 U	0.0056 U	0.0059 U	--	--	--	--
VOCs	4-Chlorotoluene	mg/Kg	**NE**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	4-Methyl-2-Pentanone (Methyl isobutyl ketone)	mg/Kg	**6,400**	0.0011 U	0.0056 U	0.0059 U	--	--	--	--
VOCs	Acetone	mg/Kg	**72,000**	0.0011 U	**0.0096**	**0.012**	--	--	--	--
VOCs	Acrolein	mg/Kg	**40**	0.0011 U	0.056 U	0.059 U	--	--	--	--
VOCs	Acrylonitrile	mg/Kg	**1.9**	0.0011 U	0.0056 U	0.0059 U	--	--	--	--
VOCs	Bromobenzene	mg/Kg	**NE**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	Bromochloromethane	mg/Kg	**NE**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	Bromodichloromethane	mg/Kg	**16**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	Bromoethane	mg/Kg	**NE**	0.0011 U	0.0022 U	0.0023 U	--	--	--	--
VOCs	Bromoform (Tribromomethane)	mg/Kg	**130**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	Bromomethane	mg/Kg	**110**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	Carbon Disulfide	mg/Kg	**8,000**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	Carbon Tetrachloride	mg/Kg	**14**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	Chlorobenzene	mg/Kg	**1,600**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	Chloroethane	mg/Kg	**NE**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	Chloroform	mg/Kg	**32**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	Chloromethane	mg/Kg	**NE**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	cis-1,2-Dichloroethene	mg/Kg	**160**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	cis-1,3-Dichloropropene	mg/Kg	**10**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	Dibromochloromethane	mg/Kg	**12**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	Dibromomethane	mg/Kg	**800**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	Dichlorodifluoromethane (CFC-12)	mg/Kg	**NE**	0.0011 U	--	--	--	--	--	--
VOCs	Hexachlorobutadiene	mg/Kg	**13**	0.0011 U	0.0056 U	0.0059 U	--	--	--	--
VOCs	Isopropylbenzene (Cumene)	mg/Kg	**8,000**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	Methyl Iodide (Iodomethane)	mg/Kg	**NE**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	Methylene Chloride	mg/Kg	**480**	0.0011 U	0.0033 U	0.0035 U	--	--	--	--
VOCs	n-Butylbenzene	mg/Kg	**4,000**	0.0011 U	0.0022 U	0.0023 U	--	--	--	--
VOCs	n-Propylbenzene	mg/Kg	**8,000**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	p-Isopropyltoluene	mg/Kg	**NE**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	Sec-Butylbenzene	mg/Kg	**8,000**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	Styrene	mg/Kg	**16,000**	0.0011 U	**0.0006 J**	0.0012 U	--	--	--	--
VOCs	Tert-Butylbenzene	mg/Kg	**8,000**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	Tetrachloroethene	mg/Kg	**480**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	Trans-1,2-Dichloroethene	mg/Kg	**1,600**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	Trans-1,3-Dichloropropene	mg/Kg	**10**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	Trans-1,4-Dichloro-2-butene	mg/Kg	**NE**	0.0011 U	0.0056 U	0.0059 U	--	--	--	--
VOCs	Trichloroethene	mg/Kg	**0.0098**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	Trichlorofluoromethane (CFC-11)	mg/Kg	**24,000**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
VOCs	Vinyl Acetate	mg/Kg	**80,000**	0.0011 U	0.0056 U	0.0059 U	--	--	--	--
VOCs	Vinyl Chloride	mg/Kg	**0.67**	0.0011 U	0.0011 U	0.0012 U	--	--	--	--
PAHs	2-Methylnaphthalene	mg/Kg	**320**	0.0011 U	0.074 U	0.073 U	0.073 U	0.072 U	0.072 U	0.073 U

			Sampling Event:	2000 Landau	2000 Landau	2000 Landau	2000 Landau	2000 Landau	2000 Landau	2000 Landau
			Sample ID:	LAI-4/D/15-15.5	LAI-5/D/25-26	LAI-7/D/17.5-19	LAI-11/D/17.5-19	LAI-15/D/22.5-24	LAI-19/D/16-16.5	LAI-20/D/13-14
			Location:	LAI-4	LAI-5	LAI-7	LAI-11	LAI-15	LAI-17	LAI-18
			Date:	09/07/00	09/07/00	09/07/00	09/08/00	09/08/00	09/06/00	09/11/00
Parameter Group:	**Parameter:**	**Unit(s):**	**Screening Level:**							
PAHs	Acenaphthene	mg/Kg	**4,800**	0.0011 U	0.074 U	0.073 U	0.073 U	0.072 U	0.072 U	0.073 U
PAHs	Acenaphthylene	mg/Kg	**NE**	0.0011 U	0.074 U	0.073 U	0.073 U	0.072 U	0.072 U	0.073 U
PAHs	Anthracene	mg/Kg	**24,000**	0.0011 U	0.074 U	0.073 U	0.073 U	0.072 U	0.072 U	0.073 U
PAHs	Benzo(g,h,i)perylene	mg/Kg	**NE**	0.0011 U	0.074 U	0.073 U	0.073 U	0.072 U	0.072 U	0.073 U
PAHs	Dibenzofuran	mg/Kg	**80**	0.0011 U	0.074 U	0.073 U	0.073 U	0.072 U	0.072 U	0.073 U
PAHs	Fluoranthene	mg/Kg	**3,200**	0.0011 U	0.074 U	0.073 U	0.073 U	0.072 U	0.072 U	0.073 U
PAHs	Fluorene	mg/Kg	**3,200**	0.0011 U	0.074 U	0.073 U	0.073 U	0.072 U	0.072 U	0.073 U
PAHs	Naphthalene	mg/Kg	**1,600**	0.0011 U	0.0056 U	0.0059 U	**0.082**	0.072 U	0.072 U	0.073 U
PAHs	Phenanthrene	mg/Kg	**NE**	0.0011 U	0.074 U	0.073 U	0.073 U	0.072 U	0.072 U	0.073 U
PAHs	Pyrene	mg/Kg	**2,400**	0.0011 U	0.074 U	0.073 U	0.073 U	0.072 U	0.072 U	0.073 U
PAHs	Benzo(a)pyrene	mg/Kg	**30**	0.0011 U	0.074 U	0.073 U	0.073 U	0.072 U	0.072 U	0.073 U
PAHs	Benzo(a)anthracene	mg/Kg	**NE**	0.0011 U	0.074 U	0.073 U	0.073 U	0.072 U	0.072 U	0.073 U
PAHs	Benzo(b)fluoranthene	mg/Kg	**NE**	0.0011 U	0.074 U	0.073 U	0.073 U	0.072 U	0.072 U	0.073 U
PAHs	Benzo(k)fluoranthene	mg/Kg	**NE**	0.0011 U	0.074 U	0.073 U	0.073 U	0.072 U	0.072 U	0.073 U
PAHs	Dibenzo(a,h)anthracene	mg/Kg	**NE**	0.0011 U	0.074 U	0.073 U	0.073 U	0.072 U	0.072 U	0.073 U
PAHs	Indeno(1,2,3-c,d)pyrene	mg/Kg	**NE**	0.0011 U	0.074 U	0.073 U	0.073 U	0.072 U	0.072 U	0.073 U
PAHs	Chrysene	mg/Kg	**NE**	0.0011 U	0.074 U	0.073 U	0.073 U	0.072 U	0.072 U	0.073 U
PAHs	Total cPAH TEQ (ND=0.5RL)	mg/Kg	**0.14**	0.0011 U	0.0559 U	0.0551 U	0.0551 U	0.0544 U	0.0544 U	0.0551 U
SVOCs	2,4,5-Trichlorophenol	mg/Kg	**29**	0.0011 U	--	--	--	--	--	--
SVOCs	2,4,6-Trichlorophenol	mg/Kg	**0.058**	0.0011 U	--	--	--	--	--	--
SVOCs	2,4-Dichlorophenol	mg/Kg	**0.17**	0.0011 U	--	--	--	--	--	--
SVOCs	2,4-Dimethylphenol	mg/Kg	**1.3**	0.0011 U	--	--	--	--	--	--
SVOCs	2,4-Dinitrophenol	mg/Kg	**0.13**	0.0011 U	--	--	--	--	--	--
SVOCs	2,4-Dinitrotoluene	mg/Kg	**0.030**	0.0011 U	--	--	--	--	--	--
SVOCs	2,6-Dinitrotoluene	mg/Kg	**0.027**	0.0011 U	--	--	--	--	--	--
SVOCs	2-Chloronaphthalene	mg/Kg	**6,400**	0.0011 U	--	--	--	--	--	--
SVOCs	2-Chlorophenol	mg/Kg	**0.47**	0.0011 U	--	--	--	--	--	--
SVOCs	2-methylphenol (o-Cresol)	mg/Kg	**4,000**	0.0011 U	--	--	--	--	--	--
SVOCs	2-Nitroaniline	mg/Kg	**800**	0.0011 U	--	--	--	--	--	--
SVOCs	2-Nitrophenol	mg/Kg	**NE**	0.0011 U	--	--	--	--	--	--
SVOCs	3 & 4 Methylphenol	mg/Kg	**NE**	0.0011 U	--	--	--	--	--	--
SVOCs	3,3'-Dichlorobenzidine	mg/Kg	**2.2**	0.0011 U	--	--	--	--	--	--
SVOCs	3-Nitroaniline	mg/Kg	**NE**	0.0011 U	--	--	--	--	--	--
SVOCs	4,6-Dinitro-2-Methylphenol	mg/Kg	**NE**	0.0011 U	--	--	--	--	--	--
SVOCs	4-Bromophenyl phenyl ether	mg/Kg	**NE**	0.0011 U	--	--	--	--	--	--
SVOCs	4-Chloro-3-Methylphenol	mg/Kg	**NE**	0.0011 U	--	--	--	--	--	--
SVOCs	4-Chloroaniline	mg/Kg	**5.0**	0.0011 U	--	--	--	--	--	--
SVOCs	4-Chlorophenyl-Phenylether	mg/Kg	**NE**	0.0011 U	--	--	--	--	--	--
SVOCs	4-Nitroaniline	mg/Kg	**NE**	0.0011 U	--	--	--	--	--	--
SVOCs	4-Nitrophenol (p-Nitrophenol)	mg/Kg	**NE**	0.0011 U	--	--	--	--	--	--
SVOCs	Benzoic Acid	mg/Kg	**320,000**	0.0011 U	--	--	--	--	--	--
SVOCs	Benzyl Alcohol	mg/Kg	**8,000**	0.0011 U	--	--	--	--	--	--
SVOCs	Bis(2-Chloroethoxy)Methane	mg/Kg	**NE**	0.0011 U	--	--	--	--	--	--
SVOCs	Bis(2-Chloroethyl)Ether	mg/Kg	**0.91**	0.0011 U	--	--	--	--	--	--
SVOCs	Bis(2-chloroisopropyl) ether	mg/Kg	**NE**	0.0011 U	--	--	--	--	--	--

			Sampling Event:	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2000 Landau**
			Sample ID:	**LAI-4/D/15-15.5**	**LAI-5/D/25-26**	**LAI-7/D/17.5-19**	**LAI-11/D/17.5-19**	**LAI-15/D/22.5-24**	**LAI-19/D/16-16.5**	**LAI-20/D/13-14**
			Location:	**LAI-4**	**LAI-5**	**LAI-7**	**LAI-11**	**LAI-15**	**LAI-17**	**LAI-18**
			Date:	**09/07/00**	**09/07/00**	**09/07/00**	**09/08/00**	**09/08/00**	**09/06/00**	**09/11/00**
Parameter Group:	**Parameter:**	**Unit(s):**	**Screening Level:**							
SVOCs	Bis(2-Ethylhexyl) Phthalate	mg/Kg	**71**	0.0011 U	--	--	--	--	--	--
SVOCs	Butyl benzyl Phthalate	mg/Kg	**530**	0.0011 U	--	--	--	--	--	--
SVOCs	Di-N-Octyl Phthalate	mg/Kg	**800**	0.0011 U	--	--	--	--	--	--
SVOCs	Dibutyl Phthalate	mg/Kg	**8,000**	0.0011 U	--	--	--	--	--	--
SVOCs	Diethyl Phthalate	mg/Kg	**64,000**	0.0011 U	--	--	--	--	--	--
SVOCs	Dimethyl Phthalate	mg/Kg	**NE**	0.0011 U	--	--	--	--	--	--
SVOCs	Hexachlorobenzene	mg/Kg	**0.62**	0.0011 U	--	--	--	--	--	--
SVOCs	Hexachlorocyclopentadiene	mg/Kg	**480**	0.0011 U	--	--	--	--	--	--
SVOCs	Hexachloroethane	mg/Kg	**25**	0.0011 U	--	--	--	--	--	--
SVOCs	Isophorone	mg/Kg	**1,100**	0.0011 U	--	--	--	--	--	--
SVOCs	N-Nitrosodi-n-propylamine	mg/Kg	**0.14**	0.0011 U	--	--	--	--	--	--
SVOCs	N-Nitrosodiphenylamine (as diphenylamine)	mg/Kg	**200**	0.0011 U	--	--	--	--	--	--
SVOCs	Nitrobenzene	mg/Kg	**160**	0.0011 U	--	--	--	--	--	--
SVOCs	Pentachlorophenol	mg/Kg	**2.5**	0.0011 U	--	--	--	--	--	--
SVOCs	Phenol	mg/Kg	**24,000**	0.0011 U	--	--	--	--	--	--
PCBs	PCB-Aroclor 1016	mg/Kg	**5.6**	0.0011 U	0.037 U	0.037 U	0.036 U	0.036 U	0.036 U	0.037 U
PCBs	PCB-Aroclor 1221	mg/Kg	**NE**	0.0011 U	0.074 U	0.073 U	0.073 U	0.073 U	0.072 U	0.073 U
PCBs	PCB-Aroclor 1232	mg/Kg	**NE**	0.0011 U	0.037 U	0.037 U	0.036 U	0.036 U	0.036 U	0.037 U
PCBs	PCB-Aroclor 1242	mg/Kg	**NE**	0.0011 U	0.037 U	0.037 U	0.036 U	0.036 U	0.036 U	0.037 U
PCBs	PCB-Aroclor 1248	mg/Kg	**NE**	0.0011 U	0.037 U	0.037 U	**0.22**	0.036 U	0.036 U	0.037 U
PCBs	PCB-Aroclor 1254	mg/Kg	**0.50**	0.0011 U	0.037 U	0.037 U	**0.094**	0.036 U	0.036 U	0.037 U
PCBs	PCB-Aroclor 1260	mg/Kg	**0.50**	0.0011 U	0.037 U	0.037 U	0.036 U	0.036 U	0.036 U	0.037 U
PCBs	Total PCBs	mg/Kg	**0.50**	0.0011 U	0.0740 U	0.0730 U	**0.314**	0.0730 U	0.0720 U	0.0730 U

			Sampling Event:	**2000 Landau**	**2005 Landau**	**2005 Landau**	**2005 Landau**
			Sample ID:	**LAI-21/C/20.5-25**	**LAI-5D (119-121)**	**LAI-5D (136-138)**	**LAI-5D (146-148)**
			Location:	**LAI-19**	**LAI-5d**	**LAI-5d**	**LAI-5d**
			Date:	**09/08/00**	**09/27/05**	**09/27/05**	**09/26/05**
Parameter Group:	**Parameter:**	**Unit(s):**	**Screening Level:**				
Fuels	Gasoline	mg/Kg	**100**	--	23.2 U	19.5 U	21 U
Fuels	Diesel-range hydrocarbons	mg/Kg	**460**	**12**	58.1 U	48.7 U	52.5 U
Fuels	Lube Oil-range Hydrocarbons	mg/Kg	**2,000**	**24**	116 U	97.3 U	105 U
Metals	Arsenic	mg/Kg	**20**	5 U	4.89 U	4.39 U	4.29 U
Metals	Cadmium	mg/Kg	**25**	--	0.489 U	0.615 U	0.601 U
Metals	Chromium	mg/Kg	**48**	**25.1**	**27.5**	**18.8**	**18.9**
Metals	Lead	mg/Kg	**220**	**3**	**2.04**	**1.85**	**1.77**
Metals	Mercury	mg/Kg	**9.0**	--	0.019 U	0.0199 U	0.0218 U
Metals	Nickel	mg/Kg	**100**	--	**33.1**	**26.3**	23.7 U
Metals	Silver	mg/Kg	**400**	--	1.96 U	1.76 U	1.72 U
Metals	Zinc	mg/Kg	**270**	--	**30.9**	**30.2**	**25.3**
VOCs	Benzene	mg/Kg	**18**	--	0.049 U	0.0387 U	0.0439 U
VOCs	Toluene	mg/Kg	**6,400**	--	0.049 U	0.0387 U	0.0439 U
VOCs	Ethylbenzene	mg/Kg	**8,000**	--	0.049 U	0.0387 U	0.0439 U
VOCs	Xylene, m-,p-	mg/Kg	**16,000**	--	0.0981 U	0.0774 U	0.0879 U
VOCs	Xylene, o-	mg/Kg	**16,000**	--	0.049 U	0.0387 U	0.0439 U
VOCs	Total Xylenes	mg/Kg	**16,000**	--	--	--	--
VOCs	1,1,1,2-Tetrachloroethane	mg/Kg	**38**	--	0.049 U	0.0387 U	0.0439 U
VOCs	1,1,1-Trichloroethane	mg/Kg	**160,000**	--	0.049 U	0.0387 U	0.0439 U
VOCs	1,1,2,2-Tetrachloroethane	mg/Kg	**5.0**	--	0.049 U	0.0387 U	0.0439 U
VOCs	1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	mg/Kg	**2,400,000**	--	--	--	--
VOCs	1,1,2-Trichloroethane	mg/Kg	**18**	--	0.049 U	0.0387 U	0.0439 U
VOCs	1,1-Dichloroethane	mg/Kg	**180**	--	0.049 U	0.0387 U	0.0439 U
VOCs	1,1-Dichloroethene	mg/Kg	**4,000**	--	0.049 U	0.0387 U	0.0439 U
VOCs	1,1-Dichloropropene	mg/Kg	**NE**	--	0.049 U	0.0387 U	0.0439 U
VOCs	1,2,3-Trichlorobenzene	mg/Kg	**NE**	--	0.049 U	0.0387 U	0.0439 U
VOCs	1,2,3-Trichloropropane	mg/Kg	**0.033**	--	0.049 U	0.0387 U	0.0439 U
VOCs	1,2,4-Trichlorobenzene	mg/Kg	**340**	--	0.049 U	0.0387 U	0.0439 U
VOCs	1,2,4-Trimethylbenzene	mg/Kg	**NE**	--	0.049 U	0.0387 U	0.0439 U
VOCs	1,2-Dibromo-3-Chloropropane	mg/Kg	**1.2**	--	0.049 U	0.0387 U	0.0439 U
VOCs	1,2-Dibromoethane	mg/Kg	**0.50**	--	0.049 U	0.0387 U	0.0439 U
VOCs	1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/Kg	**7,200**	--	0.049 U	0.0387 U	0.0439 U
VOCs	1,2-Dichloroethane	mg/Kg	**11**	--	0.049 U	0.0387 U	0.0439 U
VOCs	1,2-Dichloropropane	mg/Kg	**28**	--	0.049 U	0.0387 U	0.0439 U
VOCs	1,3,5-Trichlorobenzene	mg/Kg	**NE**	--	0.049 U	0.0387 U	0.0439 U
VOCs	1,3,5-Trimethylbenzene	mg/Kg	**800**	--	0.049 U	0.0387 U	0.0439 U
VOCs	1,3-Dichlorobenzene (m-Dichlorobenzene)	mg/Kg	**NE**	--	0.0606 U	0.0387 U	0.0439 U
VOCs	1,3-Dichloropropane	mg/Kg	**NE**	--	0.049 U	0.0387 U	0.0439 U
VOCs	1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/Kg	**20**	--	0.049 U	0.0387 U	0.0439 U
VOCs	2,2-Dichloropropane	mg/Kg	**NE**	--	0.049 U	0.0387 U	0.0439 U

			Sampling Event:	2000 Landau	2005 Landau	2005 Landau	2005 Landau
			Sample ID:	LAI-21/C/20.5-25	LAI-5D (119-121)	LAI-5D (136-138)	LAI-5D (146-148)
			Location:	LAI-19	LAI-5d	LAI-5d	LAI-5d
			Date:	09/08/00	09/27/05	09/27/05	09/26/05
Parameter Group:	**Parameter:**	**Unit(s):**	**Screening Level:**				
VOCs	2-Butanone (MEK)	mg/Kg	**48,000**	–	–	–	–
VOCs	2-Chloroethyl vinyl ether	mg/Kg	**NE**	–	–	–	–
VOCs	2-Chlorotoluene	mg/Kg	**1,600**	–	0.049 U	0.0387 U	0.0439 U
VOCs	2-Hexanone	mg/Kg	**NE**	–	–	–	–
VOCs	4-Chlorotoluene	mg/Kg	**NE**	–	0.049 U	0.0387 U	0.0439 U
VOCs	4-Methyl-2-Pentanone (Methyl isobutyl ketone)	mg/Kg	**6,400**	–	–	–	–
VOCs	Acetone	mg/Kg	**72,000**	–	–	–	–
VOCs	Acrolein	mg/Kg	**40**	–	–	–	–
VOCs	Acrylonitrile	mg/Kg	**1.9**	–	–	–	–
VOCs	Bromobenzene	mg/Kg	**NE**	–	0.049 U	0.0387 U	0.0439 U
VOCs	Bromochloromethane	mg/Kg	**NE**	–	0.049 U	0.0387 U	0.0439 U
VOCs	Bromodichloromethane	mg/Kg	**16**	–	0.049 U	0.0387 U	0.0439 U
VOCs	Bromoethane	mg/Kg	**NE**	–	–	–	–
VOCs	Bromoform (Tribromomethane)	mg/Kg	**130**	–	0.049 U	0.0387 U	0.0439 U
VOCs	Bromomethane	mg/Kg	**110**	–	0.049 U	0.0387 U	0.0439 U
VOCs	Carbon Disulfide	mg/Kg	**8,000**	–	–	–	–
VOCs	Carbon Tetrachloride	mg/Kg	**14**	–	0.049 U	0.0387 U	0.0439 U
VOCs	Chlorobenzene	mg/Kg	**1,600**	–	0.049 U	0.0387 U	0.0439 U
VOCs	Chloroethane	mg/Kg	**NE**	–	0.049 U	0.0387 U	0.0439 U
VOCs	Chloroform	mg/Kg	**32**	–	0.049 U	0.0387 U	0.0439 U
VOCs	Chloromethane	mg/Kg	**NE**	–	0.049 U	0.0387 U	0.0439 U
VOCs	cis-1,2-Dichloroethene	mg/Kg	**160**	–	0.049 U	0.0387 U	0.0439 U
VOCs	cis-1,3-Dichloropropene	mg/Kg	**10**	–	0.049 U	0.0387 U	0.0439 U
VOCs	Dibromochloromethane	mg/Kg	**12**	–	0.049 U	0.0387 U	0.0439 U
VOCs	Dibromomethane	mg/Kg	**800**	–	0.049 U	0.0387 U	0.0439 U
VOCs	Dichlorodifluoromethane (CFC-12)	mg/Kg	**NE**	–	0.049 U	0.0387 U	0.0439 U
VOCs	Hexachlorobutadiene	mg/Kg	**13**	–	0.049 U	0.0387 U	0.0439 U
VOCs	Isopropylbenzene (Cumene)	mg/Kg	**8,000**	–	0.049 U	0.0387 U	0.0439 U
VOCs	Methyl Iodide (Iodomethane)	mg/Kg	**NE**	–	–	–	–
VOCs	Methylene Chloride	mg/Kg	**480**	–	0.049 U	0.0387 U	0.0439 U
VOCs	n-Butylbenzene	mg/Kg	**4,000**	–	0.049 U	0.0387 U	0.0439 U
VOCs	n-Propylbenzene	mg/Kg	**8,000**	–	0.049 U	0.0387 U	0.0439 U
VOCs	p-Isopropyltoluene	mg/Kg	**NE**	–	0.049 U	0.0387 U	0.0439 U
VOCs	Sec-Butylbenzene	mg/Kg	**8,000**	–	0.049 U	0.0387 U	0.0439 U
VOCs	Styrene	mg/Kg	**16,000**	–	0.049 U	0.0387 U	0.0439 U
VOCs	Tert-Butylbenzene	mg/Kg	**8,000**	–	0.049 U	0.0387 U	0.0439 U
VOCs	Tetrachloroethene	mg/Kg	**480**	–	0.049 U	0.0387 U	0.0439 U
VOCs	Trans-1,2-Dichloroethene	mg/Kg	**1,600**	–	0.049 U	0.0387 U	0.0439 U
VOCs	Trans-1,3-Dichloropropene	mg/Kg	**10**	–	0.049 U	0.0387 U	0.0439 U
VOCs	Trans-1,4-Dichloro-2-butene	mg/Kg	**NE**	–	–	–	–
VOCs	Trichloroethene	mg/Kg	**0.0098**	–	0.049 U	0.0387 U	0.0439 U
VOCs	Trichlorofluoromethane (CFC-11)	mg/Kg	**24,000**	–	0.049 U	0.0387 U	0.0439 U
VOCs	Vinyl Acetate	mg/Kg	**80,000**	–	–	–	–
VOCs	Vinyl Chloride	mg/Kg	**0.67**	–	0.049 U	0.0387 U	0.0439 U
PAHs	2-Methylnaphthalene	mg/Kg	**320**	0.071 U	0.0242 U	0.0215 U	0.0219 U

			Sampling Event:	2000 Landau	2005 Landau	2005 Landau	2005 Landau
			Sample ID:	LAI-21/C/20.5-25	LAI-5D (119-121)	LAI-5D (136-138)	LAI-5D (146-148)
			Location:	LAI-19	LAI-5d	LAI-5d	LAI-5d
			Date:	09/08/00	09/27/05	09/27/05	09/26/05
Parameter Group:	**Parameter:**	**Unit(s):**	**Screening Level:**				
PAHs	Acenaphthene	mg/Kg	**4,800**	0.071 U	0.0242 U	0.0215 U	0.0219 U
PAHs	Acenaphthylene	mg/Kg	**NE**	0.071 U	0.0242 U	0.0215 U	0.0219 U
PAHs	Anthracene	mg/Kg	**24,000**	0.071 U	0.0242 U	0.0215 U	0.0219 U
PAHs	Benzo(g,h,i)perylene	mg/Kg	**NE**	0.071 U	0.0242 U	0.0215 U	0.0219 U
PAHs	Dibenzofuran	mg/Kg	**80**	0.071 U	0.0606 U	0.0539 U	0.0547 U
PAHs	Fluoranthene	mg/Kg	**3,200**	0.071 U	0.0242 U	0.0215 U	0.0219 U
PAHs	Fluorene	mg/Kg	**3,200**	0.071 U	0.0242 U	0.0215 U	0.0219 U
PAHs	Naphthalene	mg/Kg	**1,600**	0.071 U	0.0242 U	0.0215 U	0.0219 U
PAHs	Phenanthrene	mg/Kg	**NE**	0.071 U	0.0242 U	0.0215 U	0.0219 U
PAHs	Pyrene	mg/Kg	**2,400**	0.071 U	0.0242 U	0.0215 U	0.0219 U
PAHs	Benzo(a)pyrene	mg/Kg	**30**	0.071 U	0.0242 U	0.0215 U	0.0219 U
PAHs	Benzo(a)anthracene	mg/Kg	**NE**	0.071 U	0.0242 U	0.0215 U	0.0219 U
PAHs	Benzo(b)fluoranthene	mg/Kg	**NE**	0.071 U	0.0215 U	0.0215 U	0.0219 U
PAHs	Benzo(k)fluoranthene	mg/Kg	**NE**	0.071 U	0.0215 U	0.0215 U	0.0219 U
PAHs	Dibenzo(a,h)anthracene	mg/Kg	**NE**	0.071 U	0.0242 U	0.0215 U	0.0219 U
PAHs	Indeno(1,2,3-c,d)pyrene	mg/Kg	**NE**	0.071 U	0.0242 U	0.0215 U	0.0219 U
PAHs	Chrysene	mg/Kg	**NE**	0.071 U	0.0242 U	0.0215 U	0.0219 U
PAHs	Total cPAH TEQ (ND=0.5RL)	mg/Kg	**0.14**	0.0536 U	0.0180 U	0.0162 U	0.0165 U
SVOCs	2,4,5-Trichlorophenol	mg/Kg	**29**	--	0.0606 U	0.0539 U	0.0547 U
SVOCs	2,4,6-Trichlorophenol	mg/Kg	**0.058**	--	0.0606 U	0.0539 U	0.0547 U
SVOCs	2,4-Dichlorophenol	mg/Kg	**0.17**	--	0.0606 U	0.0539 U	0.0547 U
SVOCs	2,4-Dimethylphenol	mg/Kg	**1.3**	--	0.0242 U	0.0215 U	0.0219 U
SVOCs	2,4-Dinitrophenol	mg/Kg	**0.13**	--	0.606 U	0.539 U	0.547 U
SVOCs	2,4-Dinitrotoluene	mg/Kg	**0.030**	--	0.121 U	0.108 U	0.109 U
SVOCs	2,6-Dinitrotoluene	mg/Kg	**0.027**	--	0.0606 U	0.0539 U	0.0547 U
SVOCs	2-Chloronaphthalene	mg/Kg	**6,400**	--	0.0242 U	0.0215 U	0.0219 U
SVOCs	2-Chlorophenol	mg/Kg	**0.47**	--	0.0606 U	0.0539 U	0.0547 U
SVOCs	2-methylphenol (o-Cresol)	mg/Kg	**4,000**	--	0.0606 U	0.0539 U	0.0547 U
SVOCs	2-Nitroaniline	mg/Kg	**800**	--	0.0242 U	0.0215 U	0.0219 U
SVOCs	2-Nitrophenol	mg/Kg	**NE**	--	0.0606 U	0.0539 U	0.0547 U
SVOCs	3 & 4 Methylphenol	mg/Kg	**NE**	--	0.0606 U	0.0539 U	0.0547 U
SVOCs	3,3'-Dichlorobenzidine	mg/Kg	**2.2**	--	0.242 U	0.215 U	0.219 U
SVOCs	3-Nitroaniline	mg/Kg	**NE**	--	0.121 U	0.108 U	0.109 U
SVOCs	4,6-Dinitro-2-Methylphenol	mg/Kg	**NE**	--	0.121 U	0.108 U	0.109 U
SVOCs	4-Bromophenyl phenyl ether	mg/Kg	**NE**	--	0.121 U	0.108 U	0.109 U
SVOCs	4-Chloro-3-Methylphenol	mg/Kg	**NE**	--	0.0606 U	0.0539 U	0.0547 U
SVOCs	4-Chloroaniline	mg/Kg	**5.0**	--	0.121 U	0.108 U	0.109 U
SVOCs	4-Chlorophenyl-Phenylether	mg/Kg	**NE**	--	0.121 U	0.108 U	0.109 U
SVOCs	4-Nitroaniline	mg/Kg	**NE**	--	0.242 U	0.215 U	0.219 U
SVOCs	4-Nitrophenol (p-Nitrophenol)	mg/Kg	**NE**	--	0.606 U	0.539 U	0.547 U
SVOCs	Benzoic Acid	mg/Kg	**320,000**	--	0.727 U	0.646 U	0.657 U
SVOCs	Benzyl Alcohol	mg/Kg	**8,000**	--	0.0606 U	0.0539 U	0.0547 U
SVOCs	Bis(2-Chloroethoxy)Methane	mg/Kg	**NE**	--	0.121 U	0.108 U	0.109 U
SVOCs	Bis(2-Chloroethyl)Ether	mg/Kg	**0.91**	--	0.121 U	0.108 U	0.109 U
SVOCs	Bis(2-chloroisopropyl) ether	mg/Kg	**NE**	--	0.303 U	0.269 U	0.274 U

			Sampling Event:	**2000 Landau**	**2005 Landau**	**2005 Landau**	**2005 Landau**
			Sample ID:	**LAI-21/C/20.5-25**	**LAI-5D (119-121)**	**LAI-5D (136-138)**	**LAI-5D (146-148)**
			Location:	**LAI-19**	**LAI-5d**	**LAI-5d**	**LAI-5d**
			Date:	**09/08/00**	**09/27/05**	**09/27/05**	**09/26/05**
Parameter Group:	**Parameter:**	**Unit(s):**	**Screening Level:**				
SVOCs	Bis(2-Ethylhexyl) Phthalate	mg/Kg	**71**	--	0.242 U	0.215 U	0.219 U
SVOCs	Butyl benzyl Phthalate	mg/Kg	**530**	--	0.242 U	0.215 U	0.219 U
SVOCs	Di-N-Octyl Phthalate	mg/Kg	**800**	--	0.242 U	0.215 U	0.219 U
SVOCs	Dibutyl Phthalate	mg/Kg	**8,000**	--	0.121 U	0.108 U	0.109 U
SVOCs	Diethyl Phthalate	mg/Kg	**64,000**	--	0.121 U	0.108 U	0.109 U
SVOCs	Dimethyl Phthalate	mg/Kg	**NE**	--	0.121 U	0.108 U	0.109 U
SVOCs	Hexachlorobenzene	mg/Kg	**0.62**	--	0.0242 U	0.0215 U	0.0219 U
SVOCs	Hexachlorocyclopentadiene	mg/Kg	**480**	--	0.0606 U	0.0539 U	0.0547 U
SVOCs	Hexachloroethane	mg/Kg	**25**	--	0.0606 U	0.0539 U	0.0547 U
SVOCs	Isophorone	mg/Kg	**1,100**	--	0.121 U	0.108 U	0.109 U
SVOCs	N-Nitrosodi-n-propylamine	mg/Kg	**0.14**	--	0.0606 U	0.0539 U	0.0547 U
SVOCs	N-Nitrosodiphenylamine (as diphenylamine)	mg/Kg	**200**	--	0.0242 U	0.0215 U	0.0219 U
SVOCs	Nitrobenzene	mg/Kg	**160**	--	0.121 U	0.108 U	0.109 U
SVOCs	Pentachlorophenol	mg/Kg	**2.5**	--	0.121 U	0.108 U	0.109 U
SVOCs	Phenol	mg/Kg	**24,000**	--	0.0606 U	0.0539 U	0.0547 U
PCBs	PCB-Aroclor 1016	mg/Kg	**5.6**	0.036 U	--	--	--
PCBs	PCB-Aroclor 1221	mg/Kg	**NE**	0.071 U	0.1 U	0.1 U	0.1 U
PCBs	PCB-Aroclor 1232	mg/Kg	**NE**	0.036 U	0.1 U	0.1 U	0.1 U
PCBs	PCB-Aroclor 1242	mg/Kg	**NE**	0.036 U	0.01 U	0.01 U	0.01 U
PCBs	PCB-Aroclor 1248	mg/Kg	**NE**	**0.018 J**	0.01 U	0.01 U	0.01 U
PCBs	PCB-Aroclor 1254	mg/Kg	**0.50**	0.036 U	0.01 U	0.01 U	0.01 U
PCBs	PCB-Aroclor 1260	mg/Kg	**0.50**	0.036 U	0.01 U	0.01 U	0.01 U
PCBs	Total PCBs	mg/Kg	**0.50**	**0.0180**	--	--	--

Notes:

J = analyte was positively identified and the associated numerical value is an estimated quantity.

mg/Kg = milligrams per kilogram

NE = not established

U = analyte not detected, laboratory reporting limit shown.

Bolding indicates analyte was detected.

Analyte was not detected in the sample; reporting limit exceeded the screening level.

Analyte concentration exceeded the screening level.

Table A-3a

Comprehensive Groundwater Data (2000 through 2015)

Former West Olympia Landfill Site
Olympia, Washington

				Sampling Event:	2000 Landau	2000 Landau	2000 Landau	2004 Landau	2004 Landau	2004 Landau	2004 Landau	2004 Landau
				Sample ID:	**LAI-1_000725**	**LAI-2_000725**	**LAI-3_000725**	**LAI-1_040618**	**LAI-2_040618**	**LAI-3_040618**	**LAI-MW-1_040618**	**LAI-MW-2_040618**
				Location:	**LAI-1**	**LAI-2**	**LAI-3**	**LAI-1**	**LAI-2**	**LAI-3**	**LAI-MW-1**	**LAI-MW-2**
				Date:	**07/25/00**	**07/25/00**	**07/25/00**	**06/18/04**	**06/18/04**	**06/18/04**	**06/18/04**	**06/18/04**
Parameter Group:	**Parameter:**	**Unit(s):**	**Total (T) or Dissolved (D):**	**Screening Level:**								
Fuels	Gasoline	µg/L	T	**800**	250 U	250 U	250 U	99.4 U	94.3 U	95.1 U	97.6 U	116 U
Fuels	Diesel-range hydrocarbons	µg/L	T	**500**	250 U	250 U	250 U	249 U	236 U	238 U	244 U	289 U
Fuels	Lube Oil-range Hydrocarbons	µg/L	T	**500**	500 U	500 U	500 U	497 U	472 U	475 U	488 U	578 U
Metals	Aluminum	µg/L	T	**16,000**	--	--	--	--	--	--	--	--
Metals	Aluminum	µg/L	D	**16,000**	--	--	--	--	--	--	--	--
Metals	Antimony	µg/L	T	**6.0**	--	--	--	--	--	--	--	--
Metals	Antimony	µg/L	D	**6.0**	--	--	--	--	--	--	--	--
Metals	Arsenic	µg/L	T	**5.0**	--	--	--	20 U	20 U	20 U	**29.8**	**211**
Metals	Arsenic	µg/L	D	**5.0**	**0.6**	**1.3**	**0.4**	20 U	20 U	20 U	20 U	20 U
Metals	Barium	µg/L	T	**2,000**	--	--	--	--	--	--	--	--
Metals	Barium	µg/L	D	**2,000**	--	--	--	--	--	--	--	--
Metals	Beryllium	µg/L	T	**4.0**	--	--	--	--	--	--	--	--
Metals	Beryllium	µg/L	D	**4.0**	--	--	--	--	--	--	--	--
Metals	Cadmium	µg/L	T	**5.0**	2 U	2 U	2 U	5 U	5 U	5 U	5 U	5 U
Metals	Cadmium	µg/L	D	**5.0**	--	--	--	5 U	5 U	5 U	5 U	5 U
Metals	Calcium	µg/L	T	**NE**	--	--	--	--	--	--	--	--
Metals	Calcium	µg/L	D	**NE**	--	--	--	--	--	--	--	--
Metals	Chromium	µg/L	T	**100**	5 U	5 U	5 U	**54.8**	**27.4**	**62.2**	**303**	**1,770**
Metals	Chromium	µg/L	D	**100**	--	--	--	10 U	10 U	10 U	10 U	10 U
Metals	Cobalt	µg/L	T	**100**	--	--	--	--	--	--	--	--
Metals	Cobalt	µg/L	D	**100**	--	--	--	--	--	--	--	--
Metals	Copper	µg/L	T	**640**	--	--	--	--	--	--	--	--
Metals	Copper	µg/L	D	**640**	--	--	--	--	--	--	--	--
Metals	Iron	µg/L	T	**11,000**	--	--	--	**33,600**	**10,600**	**20,100**	**79,600**	**520,000**
Metals	Iron	µg/L	D	**11,000**	--	--	--	--	--	--	--	--
Metals	Lead	µg/L	T	**15**	1 U	1 U	1 U	10 U	0.5 U	10 U	**13.4**	**99.2**
Metals	Lead	µg/L	D	**15**	--	--	--	10 U	10 U	10 U	10 U	10 U
Metals	Magnesium	µg/L	T	**NE**	--	--	--	**30,300**	**11,500**	**11,200**	**32,300**	**166,000**
Metals	Magnesium	µg/L	D	**NE**	--	--	--	**20,900**	**9,110**	**6,170**	**9,610**	**10,600**
Metals	Manganese	µg/L	T	**2,200**	--	--	--	--	--	--	--	--
Metals	Manganese	µg/L	D	**2,200**	--	--	--	--	--	--	--	--
Metals	Mercury	µg/L	T	**0.89**	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U	0.2 U	**0.215**	**1.1**
Metals	Mercury	µg/L	D	**0.89**	--	--	--	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Metals	Nickel	µg/L	T	**100**	--	--	--	--	--	--	--	--
Metals	Nickel	µg/L	D	**100**	--	--	--	--	--	--	--	--
Metals	Potassium	µg/L	T	**NE**	--	--	--	--	--	--	--	--
Metals	Potassium	µg/L	D	**NE**	--	--	--	--	--	--	--	--
Metals	Selenium	µg/L	T	**50**	--	--	--	--	--	--	--	--
Metals	Selenium	µg/L	D	**50**	--	--	--	--	--	--	--	--
Metals	Silver	µg/L	T	**80**	--	--	--	10 U	10 U	10 U	10 U	10 U
Metals	Silver	µg/L	D	**80**	--	--	--	10 U	10 U	10 U	10 U	10 U
Metals	Sodium	µg/L	T	**NE**	--	--	--	--	--	--	--	--
Metals	Sodium	µg/L	D	**NE**	--	--	--	--	--	--	--	--
Metals	Thallium	µg/L	T	**1.0**	--	--	--	--	--	--	--	--

				Sampling Event:	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2004 Landau**	**2004 Landau**	**2004 Landau**	**2004 Landau**	**2004 Landau**
				Sample ID:	**LAI-1_000725**	**LAI-2_000725**	**LAI-3_000725**	**LAI-1_040618**	**LAI-2_040618**	**LAI-3_040618**	**LAI-MW-1_040618**	**LAI-MW-2_040618**
				Location:	**LAI-1**	**LAI-2**	**LAI-3**	**LAI-1**	**LAI-2**	**LAI-3**	**LAI-MW-1**	**LAI-MW-2**
				Date:	**07/25/00**	**07/25/00**	**07/25/00**	**06/18/04**	**06/18/04**	**06/18/04**	**06/18/04**	**06/18/04**
Metals	Thallium	µg/L	D	**1.0**	--	--	--	--	--	--	--	--
Metals	Vanadium	µg/L	T	**80**	--	--	--	--	--	--	--	--
Metals	Vanadium	µg/L	D	**80**	--	--	--	--	--	--	--	--
Metals	Zinc	µg/L	T	**4,800**	--	--	--	**105**	**41.8**	**55.1**	**168**	**1,530**
Metals	Zinc	µg/L	D	**4,800**	--	--	--	50 U	50 U	50 U	50 U	50 U
VOCs	Benzene	µg/L	T	**2.4**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	Toluene	µg/L	T	**640**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	Ethylbenzene	µg/L	T	**700**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	Xylene, m-,p-	µg/L	T	**290**	--	--	--	--	--	--	--	--
VOCs	Xylene, o-	µg/L	T	**440**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	Total Xylenes	µg/L	T	**290**	1.0 U	1.0 U	1.0 U	2 U	2 U	2 U	2 U	10 U
VOCs	1,1,1,2-Tetrachloroethane	µg/L	T	**1.7**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	1,1,1-Trichloroethane	µg/L	T	**200**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	1,1,2,2-Tetrachloroethane	µg/L	T	**0.22**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	µg/L	T	**1,100**	2.0 U	2.0 U	2.0 U	--	--	--	--	--
VOCs	1,1,2-Trichloroethane	µg/L	T	**4.5**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	1,1-Dichloroethane	µg/L	T	**7.7**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	1,1-Dichloroethene	µg/L	T	**7.0**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	1,1-Dichloropropene	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	1,2,3-Trichlorobenzene	µg/L	T	**NE**	5.0 U	5.0 U	5.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	1,2,3-Trichloropropane	µg/L	T	**0.50**	3.0 U	3.0 U	3.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	1,2,4-Trichlorobenzene	µg/L	T	**15**	1.0 U	1.0 U	1.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
VOCs	1,2,4-Trimethylbenzene	µg/L	T	**28**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	1,2-Dibromo-3-Chloropropane	µg/L	T	**0.50**	5.0 U	5.0 U	5.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	1,2-Dibromoethane	µg/L	T	**0.20**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/L	T	**600**	1.0 U	1.0 U	1.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
VOCs	1,2-Dichloroethane	µg/L	T	**4.2**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	1,2-Dichloropropane	µg/L	T	**3.9**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	1,3,5-Trichlorobenzene	µg/L	T	**NE**	--	--	--	1 U	1 U	1 U	1 U	5 U
VOCs	1,3,5-Trimethylbenzene	µg/L	T	**80**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
VOCs	1,3-Dichloropropane	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/L	T	**4.8**	1.0 U	1.0 U	1.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
VOCs	2,2-Dichloropropane	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	2-Butanone (MEK)	µg/L	T	**4,800**	5.0 U	5.0 U	5.0 U	--	--	--	--	--
VOCs	2-Chloroethyl vinyl ether	µg/L	T	**NE**	5.0 U	5.0 U	5.0 U	--	--	--	--	--
VOCs	2-Chlorotoluene	µg/L	T	**160**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	2-Hexanone	µg/L	T	**NE**	5.0 U	5.0 U	5.0 U	--	--	--	--	--
VOCs	4-Chlorotoluene	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	4-Methyl-2-Pentanone (Methyl isobutyl ketone)	µg/L	T	**640**	5.0 U	5.0 U	5.0 U	--	--	--	--	--
VOCs	Acetic Acid, Methyl Ester	µg/L	T	**8,000**	--	--	--	--	--	--	--	--
VOCs	Acetone	µg/L	T	**7,200**	5.0 U	5.0 U	5.0 U	--	--	--	--	--
VOCs	Acrolein	µg/L	T	**5.0**	50 U	50 U	50 U	--	--	--	--	--
VOCs	Acrylonitrile	µg/L	T	**1.0**	5.0 U	5.0 U	5.0 U	--	--	--	--	--
VOCs	Bromobenzene	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	Bromochloromethane	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	Bromodichloromethane	µg/L	T	**1.8**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	Bromoethane	µg/L	T	**NE**	2.0 U	2.0 U	2.0 U	--	--	--	--	--
VOCs	Bromoform (Tribromomethane)	µg/L	T	**55**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	Bromomethane	µg/L	T	**11**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	Carbon Disulfide	µg/L	T	**400**	1.0 U	1.0 U	1.0 U	--	--	--	--	--
VOCs	Carbon Tetrachloride	µg/L	T	**0.54**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U

				Sampling Event:	2000 Landau	2000 Landau	2000 Landau	2004 Landau	2004 Landau	2004 Landau	2004 Landau	2004 Landau
				Sample ID:	LAI-1_000725	LAI-2_000725	LAI-3_000725	LAI-1_040618	LAI-2_040618	LAI-3_040618	LAI-MW-1_040618	LAI-MW-2_040618
				Location:	LAI-1	LAI-2	LAI-3	LAI-1	LAI-2	LAI-3	LAI-MW-1	LAI-MW-2
				Date:	07/25/00	07/25/00	07/25/00	06/18/04	06/18/04	06/18/04	06/18/04	06/18/04
VOCs	Chlorobenzene	µg/L	T	**100**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	Chloroethane	µg/L	T	**18,000**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	Chloroform	µg/L	T	**1.2**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	Chloromethane	µg/L	T	**150**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	cis-1,2-Dichloroethene	µg/L	T	**16**	**5.0**	1.0 U	1.0 U	**3.82**	1 U	1 U	1 U	5 U
VOCs	cis-1,3-Dichloropropene	µg/L	T	**0.44**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	Cyclohexane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Cyclohexane, Methyl-	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Dibromochloromethane	µg/L	T	**4.5**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	Dibromomethane	µg/L	T	**80**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	Dichlorodifluoromethane (CFC-12)	µg/L	T	**5.7**	--	--	--	1 U	1 U	1 U	1 U	5 U
VOCs	Hexachlorobutadiene	µg/L	T	**0.56**	2.0 U	2.0 U	2.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
VOCs	Isopropylbenzene (Cumene)	µg/L	T	**720**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	Methyl Iodide (Iodomethane)	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	--	--	--	--	--
VOCs	Methyl t-butyl ether	µg/L	T	**24**	--	--	--	--	--	--	--	--
VOCs	Methylene Chloride	µg/L	T	**5.0**	2.0 U	2.0 U	2.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	n-Butylbenzene	µg/L	T	**400**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	n-Propylbenzene	µg/L	T	**800**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	p-Isopropyltoluene	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	Sec-Butylbenzene	µg/L	T	**800**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	Styrene	µg/L	T	**100**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	Tert-Butylbenzene	µg/L	T	**800**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	Tetrachloroethene	µg/L	T	**5.0**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	Trans-1,2-Dichloroethene	µg/L	T	**100**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	Trans-1,3-Dichloropropene	µg/L	T	**0.44**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	Trans-1,4-Dichloro-2-butene	µg/L	T	**NE**	5.0 U	5.0 U	5.0 U	--	--	--	--	--
VOCs	Trichloroethene	µg/L	T	**1.6**	**66**	1.0 U	1.0 U	**38.4**	**3.47**	1 U	1 U	**14.1**
VOCs	Trichlorofluoromethane (CFC-11)	µg/L	T	**120**	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	5 U
VOCs	Vinyl Acetate	µg/L	T	**7,800**	5.0 U	5.0 U	5.0 U	--	--	--	--	--
VOCs	Vinyl Chloride	µg/L	T	**0.29**	1.0 U	1.0 U	1.0 U	0.4 U	0.4 U	0.4 U	0.4 U	2 U
PAHs	1-Methylnaphthalene	µg/L	T	**1.5**	--	--	--	--	--	--	--	--
PAHs	2-Methylnaphthalene	µg/L	T	**32**	1.0 U	1.0 U	1.0 U	0.0193 U	**0.0238**	**0.0109**	0.0195 U	**0.0683**
PAHs	Acenaphthene	µg/L	T	**960**	1.0 U	1.0 U	1.0 U	0.0193 U	0.019 U	0.0195 U	0.0195 U	0.0225 U
PAHs	Acenaphthylene	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	0.0193 U	0.019 U	0.0195 U	0.0195 U	0.0225 U
PAHs	Anthracene	µg/L	T	**4,800**	1.0 U	1.0 U	1.0 U	0.0193 U	0.019 U	0.0195 U	0.0195 U	0.0225 U
PAHs	Benzo(g,h,i)perylene	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	0.0193 U	0.019 U	0.0195 U	0.0195 U	0.0225 U
PAHs	Fluoranthene	µg/L	T	**640**	1.0 U	1.0 U	1.0 U	0.0193 U	0.019 U	0.0195 U	0.0195 U	0.0225 U
PAHs	Fluorene	µg/L	T	**640**	1.0 U	1.0 U	1.0 U	0.0193 U	0.019 U	0.0195 U	0.0195 U	**0.0169**
PAHs	Naphthalene	µg/L	T	**8.9**	1.0 U	1.0 U	1.0 U	0.0482 U	**0.0634**	0.0486 U	0.0488 U	**0.447**
PAHs	Phenanthrene	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	0.0193 U	**0.0106**	0.0195 U	0.0195 U	**0.0208**
PAHs	Pyrene	µg/L	T	**480**	1.0 U	1.0 U	1.0 U	0.0193 U	0.019 U	0.0195 U	0.0195 U	0.0225 U
PAHs	Benzo(a)pyrene	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	0.0193 U	0.019 U	0.0195 U	0.0195 U	0.0225 U
PAHs	Benzo(a)anthracene	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	0.0193 U	0.019 U	0.0195 U	0.0195 U	0.0225 U
PAHs	Benzo(b)fluoranthene	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	--	--	--	--	--
PAHs	Benzo(k)fluoranthene	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	--	--	--	--	--
PAHs	Benzofluoranthenes (Total)	µg/L	T	**NE**	--	--	--	0.0964 U	0.0951 U	0.0973 U	0.0977 U	0.113 U
PAHs	Dibenzo(a,h)anthracene	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	0.0193 U	0.019 U	0.0195 U	0.0195 U	0.0225 U
PAHs	Indeno(1,2,3-c,d)pyrene	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	0.0193 U	0.019 U	0.0195 U	0.0195 U	0.0225 U
PAHs	Chrysene	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	0.0193 U	0.019 U	0.0195 U	0.0195 U	0.0225 U
PAHs	Total cPAH TEQ (ND=0.5RL)	µg/L	T	**0.20**	0.755 U	0.755 U	0.755 U	0.0175 U	0.0172 U	0.0176 U	0.0177 U	0.0204 U
PAHs	Dibenzofuran	µg/L	T	**16**	1.0 U	1.0 U	1.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	1,1'-Biphenyl	µg/L	T	**5.5**	--	--	--	--	--	--	--	--

				Sampling Event:	2000 Landau	2000 Landau	2000 Landau	2004 Landau	2004 Landau	2004 Landau	2004 Landau	2004 Landau
				Sample ID:	LAI-1_000725	LAI-2_000725	LAI-3_000725	LAI-1_040618	LAI-2_040618	LAI-3_040618	LAI-MW-1_040618	LAI-MW-2_040618
				Location:	LAI-1	LAI-2	LAI-3	LAI-1	LAI-2	LAI-3	LAI-MW-1	LAI-MW-2
				Date:	07/25/00	07/25/00	07/25/00	06/18/04	06/18/04	06/18/04	06/18/04	06/18/04
SVOCs	1,2,4,5-Tetrachlorobenzene	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	2,2'-Oxybis[1-chloropropane]	µg/L	T	**1.0**	1.0 U	1.0 U	1.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	2,3,4,6-Tetrachlorophenol	µg/L	T	**480**	--	--	--	--	--	--	--	--
SVOCs	2,4,5-Trichlorophenol	µg/L	T	**800**	5.0 U	5.0 U	5.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	2,4,6-Trichlorophenol	µg/L	T	**5.0**	5.0 U	5.0 U	5.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	2,4-Dichlorophenol	µg/L	T	**24**	3.0 U	3.0 U	3.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	2,4-Dimethylphenol	µg/L	T	**160**	3.0 U	3.0 U	3.0 U	0.964 U	0.951 U	0.973 U	0.977 U	1.13 U
SVOCs	2,4-Dinitrophenol	µg/L	T	**32**	10 U	10 U	10 U	0.964 U	0.951 U	0.973 U	0.977 U	1.13 U
SVOCs	2,4-Dinitrotoluene	µg/L	T	**5.0**	5.0 U	5.0 U	5.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	2,6-Dinitrotoluene	µg/L	T	**5.0**	5.0 U	5.0 U	5.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	2-Chloronaphthalene	µg/L	T	**640**	1.0 U	1.0 U	1.0 U	0.0193 U	0.019 U	0.0195 U	0.0195 U	0.0225 U
SVOCs	2-Chlorophenol	µg/L	T	**40**	1.0 U	1.0 U	1.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	2-methylphenol (o-Cresol)	µg/L	T	**400**	2.0 U	2.0 U	2.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	2-Nitroaniline	µg/L	T	**160**	5.0 U	5.0 U	5.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	2-Nitrophenol	µg/L	T	**NE**	5.0 U	5.0 U	5.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	3 & 4 Methylphenol	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	3,3'-Dichlorobenzidine	µg/L	T	**5.0**	5.0 U	5.0 U	5.0 U	0.964 U	0.951 U	0.973 U	0.977 U	1.13 U
SVOCs	3-Nitroaniline	µg/L	T	**NE**	6.0 U	6.0 U	6.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	4,6-Dinitro-2-Methylphenol	µg/L	T	**NE**	10 U	10 U	10 U	0.964 U	0.951 U	0.973 U	0.977 U	1.13 U
SVOCs	4-Bromophenyl phenyl ether	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	4-Chloro-3-Methylphenol	µg/L	T	**NE**	2.0 U	2.0 U	2.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	4-Chloroaniline	µg/L	T	**5.0**	3.0 U	3.0 U	3.0 U	0.289 U	0.285 U	0.292 U	0.293 U	0.338 U
SVOCs	4-Chlorophenyl-Phenylether	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	4-methylphenol (p-Cresol)	µg/L	T	**800**	1.0 U	1.0 U	1.0 U	0.386 U	0.381 U	0.389 U	0.391 U	0.45 U
SVOCs	4-Nitroaniline	µg/L	T	**NE**	5.0 U	5.0 U	5.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	4-Nitrophenol (p-Nitrophenol)	µg/L	T	**NE**	5.0 U	5.0 U	5.0 U	0.964 U	0.951 U	0.973 U	0.977 U	1.13 U
SVOCs	Atrazine	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	Benzaldehyde	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	Benzoic Acid	µg/L	T	**64,000**	10 U	10 U	10 U	0.964 U	0.951 U	0.973 U	0.977 U	1.13 U
SVOCs	Benzyl Alcohol	µg/L	T	**800**	5.0 U	5.0 U	5.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	Bis(2-Chloroethoxy)Methane	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	Bis(2-Chloroethyl)Ether	µg/L	T	**1.0**	2.0 U	2.0 U	2.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	Bis(2-chloroisopropyl) ether	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Bis(2-Ethylhexyl) Phthalate	µg/L	T	**6.0**	**1.2**	1.0 U	1.0 U	1.45 U	1.43 U	1.46 U	1.46 U	**1.11**
SVOCs	Butyl benzyl Phthalate	µg/L	T	**46**	1.0 U	1.0 U	1.0 U	0.289 U	**0.233**	0.292 U	0.293 U	0.338 U
SVOCs	Caprolactam	µg/L	T	**8,000**	--	--	--	--	--	--	--	--

				Sampling Event:	**2000 Landau**	**2000 Landau**	**2000 Landau**	**2004 Landau**	**2004 Landau**	**2004 Landau**	**2004 Landau**	**2004 Landau**
				Sample ID:	**LAI-1_000725**	**LAI-2_000725**	**LAI-3_000725**	**LAI-1_040618**	**LAI-2_040618**	**LAI-3_040618**	**LAI-MW-1_040618**	**LAI-MW-2_040618**
				Location:	**LAI-1**	**LAI-2**	**LAI-3**	**LAI-1**	**LAI-2**	**LAI-3**	**LAI-MW-1**	**LAI-MW-2**
				Date:	**07/25/00**	**07/25/00**	**07/25/00**	**06/18/04**	**06/18/04**	**06/18/04**	**06/18/04**	**06/18/04**
SVOCs	Carbazole	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	--	--	--	--	--
SVOCs	Di-N-Octyl Phthalate	µg/L	T	**160**	1.0 U	1.0 U	1.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	Dibutyl Phthalate	µg/L	T	**1,600**	1.0 U	1.0 U	1.0 U	**0.331**	**0.258**	**0.23**	**0.238**	**0.283**
SVOCs	Diethyl Phthalate	µg/L	T	**13,000**	1.0 U	1.0 U	1.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	Dimethyl Phthalate	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	Ethanone, 1-Phenyl- (Acetophenone)	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	Hexachlorobenzene	µg/L	T	**1.0**	1.0 U	1.0 U	1.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	Hexachlorocyclopentadiene	µg/L	T	**48**	5.0 U	5.0 U	5.0 U	0.964 U	0.951 U	0.973 U	0.977 U	1.13 U
SVOCs	Hexachloroethane	µg/L	T	**1.1**	2.0 U	2.0 U	2.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	Isophorone	µg/L	T	**46**	1.0 U	1.0 U	1.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	N-Nitrosodi-n-propylamine	µg/L	T	**2.0**	2.0 U	2.0 U	2.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	N-Nitrosodiphenylamine (as diphenylamine)	µg/L	T	**18**	1.0 U	1.0 U	1.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	Nitrobenzene	µg/L	T	**16**	1.0 U	1.0 U	1.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
SVOCs	Pentachlorophenol	µg/L	T	**1.0**	5.0 U	5.0 U	5.0 U	0.193 U	0.19 U	0.195 U	0.195 U	**0.286**
SVOCs	Phenol	µg/L	T	**2,400**	2.0 U	2.0 U	2.0 U	0.193 U	0.19 U	0.195 U	0.195 U	0.225 U
PCBs	PCB-Aroclor 1016	µg/L	T	**1.1**	1.0 U	1.0 U	1.0 U	0.0972 U	0.0952 U	0.0952 U	0.0967 U	0.112 U
PCBs	PCB-Aroclor 1221	µg/L	T	**NE**	2.0 U	2.0 U	2.0 U	0.0972 U	0.0952 U	0.0952 U	0.0967 U	0.112 U
PCBs	PCB-Aroclor 1232	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	0.0972 U	0.0952 U	0.0952 U	0.0967 U	0.112 U
PCBs	PCB-Aroclor 1242	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	0.0972 U	0.0952 U	0.0952 U	0.0967 U	0.112 U
PCBs	PCB-Aroclor 1248	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	0.0972 U	0.0952 U	0.0952 U	0.0967 U	0.112 U
PCBs	PCB-Aroclor 1254	µg/L	T	**0.10**	1.0 U	1.0 U	1.0 U	0.0972 U	0.0952 U	0.0952 U	0.0967 U	0.112 U
PCBs	PCB-Aroclor 1260	µg/L	T	**0.10**	1.0 U	1.0 U	1.0 U	0.0972 U	0.0952 U	0.0952 U	0.0967 U	0.112 U
PCBs	Total PCBs	µg/L	T	**0.44**	2.0 U	2.0 U	2.0 U	0.0972 U	0.0952 U	0.0952 U	0.0967 U	0.112 U
Conventionals	Ammonia (Total as N)	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	AMMONIA-NITROGEN	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Carbon	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	CHEMICAL OXYGEN DEMAND	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Chloride	mg/L	--	**NE**	--	--	--	**4.19**	**2.59**	**2.6**	**2.89**	**5.37**
Conventionals	Conductivity	mS/cm	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Dissolved Oxygen	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate-Nitrite	mg/L as N	--	**NE**	--	--	--	**2.08**	**0.74**	**1.51**	**0.78**	**1.71**
Conventionals	Nitrate-nitrogen	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrite	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Oxidation-Reduction Potential (ORP)	mV	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	pH	SU	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Specific Conductance	umhos/cm	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Sulfate	mg/L	--	**NE**	--	--	--	**112**	**26.7**	**42**	**57.6**	**48.5**
Conventionals	Temperature	deg C	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Total Dissolved Solids	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Total Organic Carbon	mg/L	--	**NE**	--	--	--	**2.79**	**1.68**	**2.12**	**3.16**	**24.4**

				Sampling Event:	2004 Landau	2004 Landau	2004 Landau	2005 Landau	2005 Landau	2005 Landau	2005 Landau	2005 Landau
				Sample ID:	LAI-MW-3_040618	LAI-MW-4_040618	LAI-MW-41_0406181	LAI-1_050303	LAI-2_050303	LAI-3_050303	LAI-5D -QVA	LAI-5D-QC
				Location:	LAI-MW-3	LAI-MW-4	LAI-MW-4 (Duplicate Sample)	LAI-1	LAI-2	LAI-3	LAI-5d	LAI-5d
				Date:	6/17/2004	6/17/2004	6/17/2004	03/03/05	03/03/05	03/03/05	09/26/05	09/28/05
Parameter Group:	**Parameter:**	**Unit(s):**	**Total (T) or Dissolved (D):**	**Screening Level:**								
Fuels	Gasoline	µg/L	T	**800**	94.5 U	98.7 U	98.5 U	--	--	--	200 U	95.4 U
Fuels	Diesel-range hydrocarbons	µg/L	T	**500**	236 U	247 U	246 U	--	--	--	**2630 J**	239 U
Fuels	Lube Oil-range Hydrocarbons	µg/L	T	**500**	473 U	494 U	493 U	--	--	--	**10400 J**	477 U
Metals	Aluminum	µg/L	T	**16,000**	--	--	--	--	--	--	--	--
Metals	Aluminum	µg/L	D	**16,000**	--	--	--	--	--	--	--	--
Metals	Antimony	µg/L	T	**6.0**	--	--	--	--	--	--	--	--
Metals	Antimony	µg/L	D	**6.0**	--	--	--	--	--	--	--	--
Metals	Arsenic	µg/L	T	**5.0**	**40.6**	**187**	**148**	--	--	--	**145**	5 U
Metals	Arsenic	µg/L	D	**5.0**	20 U	20 U	20 U	0.6 U	0.6 U	0.6 U	50 U	**1.57**
Metals	Barium	µg/L	T	**2,000**	--	--	--	--	--	--	--	--
Metals	Barium	µg/L	D	**2,000**	--	--	--	--	--	--	--	--
Metals	Beryllium	µg/L	T	**4.0**	--	--	--	--	--	--	--	--
Metals	Beryllium	µg/L	D	**4.0**	--	--	--	--	--	--	--	--
Metals	Cadmium	µg/L	T	**5.0**	5 U	5 U	5 U	--	--	--	2.5 U	2.5 U
Metals	Cadmium	µg/L	D	**5.0**	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	5 U	1 U
Metals	Calcium	µg/L	T	**NE**	--	--	--	--	--	--	--	--
Metals	Calcium	µg/L	D	**NE**	--	--	--	--	--	--	--	--
Metals	Chromium	µg/L	T	**100**	**349**	**1830**	**1470**	--	--	--	**1810**	20 U
Metals	Chromium	µg/L	D	**100**	10 U	10 U	10 U	**12.9 J**	**2.01**	**2.45**	20 U	20 U
Metals	Cobalt	µg/L	T	**100**	--	--	--	--	--	--	--	--
Metals	Cobalt	µg/L	D	**100**	--	--	--	--	--	--	--	--
Metals	Copper	µg/L	T	**640**	--	--	--	--	--	--	--	--
Metals	Copper	µg/L	D	**640**	--	--	--	--	--	--	--	--
Metals	Iron	µg/L	T	**11,000**	**119000**	**562000**	**442000**	--	--	--	**9500**	**9290**
Metals	Iron	µg/L	D	**11,000**	--	--	--	**898 J**	20 U	20 U	--	--
Metals	Lead	µg/L	T	**15**	**15.4**	**99.1**	**73.3**	--	--	--	**145**	15 U
Metals	Lead	µg/L	D	**15**	10 U	10 U	10 U	0.5 U	5 U	0.5 U	15 U	15 U
Metals	Magnesium	µg/L	T	**NE**	**32000**	**204000**	**165000**	--	--	--	--	--
Metals	Magnesium	µg/L	D	**NE**	**3300**	**28300**	**29300**	**22.2 J**	**0.792**	**1.33**	--	--
Metals	Manganese	µg/L	T	**2,200**	--	--	--	--	--	--	**20100**	**1730**
Metals	Manganese	µg/L	D	**2,200**	--	--	--	--	--	--	**885**	**1620**
Metals	Mercury	µg/L	T	**0.89**	**0.209**	**1.09**	**0.754**	--	--	--	**0.695**	0.2 U
Metals	Mercury	µg/L	D	**0.89**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Metals	Nickel	µg/L	T	**100**	--	--	--	--	--	--	**1370**	--
Metals	Nickel	µg/L	D	**100**	--	--	--	--	--	--	20 U	--
Metals	Potassium	µg/L	T	**NE**	--	--	--	--	--	--	--	--
Metals	Potassium	µg/L	D	**NE**	--	--	--	--	--	--	--	--
Metals	Selenium	µg/L	T	**50**	--	--	--	--	--	--	--	--
Metals	Selenium	µg/L	D	**50**	--	--	--	--	--	--	--	--
Metals	Silver	µg/L	T	**80**	10 U	10 U	10 U	--	--	--	10 U	10 U
Metals	Silver	µg/L	D	**80**	10 U	10 U	10 U	0.5 U	0.5 U	0.5 U	10 U	10 U
Metals	Sodium	µg/L	T	**NE**	--	--	--	--	--	--	--	--
Metals	Sodium	µg/L	D	**NE**	--	--	--	--	--	--	--	--
Metals	Thallium	µg/L	T	**1.0**	--	--	--	--	--	--	--	--

				Sampling Event:	2004 Landau	2004 Landau	2004 Landau	2005 Landau	2005 Landau	2005 Landau	2005 Landau	2005 Landau
				Sample ID:	LAI-MW-3_040618	LAI-MW-4_040618	LAI-MW-41_0406181	LAI-1_050303	LAI-2_050303	LAI-3_050303	LAI-5D -QVA	LAI-5D-QC
				Location:	LAI-MW-3	LAI-MW-4	LAI-MW-4 (Duplicate Sample)	LAI-1	LAI-2	LAI-3	LAI-5d	LAI-5d
				Date:	6/17/2004	6/17/2004	6/17/2004	03/03/05	03/03/05	03/03/05	09/26/05	09/28/05
Metals	Thallium	µg/L	D	**1.0**	--	--	--	--	--	--	--	--
Metals	Vanadium	µg/L	T	**80**	--	--	--	--	--	--	--	--
Metals	Vanadium	µg/L	D	**80**	--	--	--	--	--	--	--	--
Metals	Zinc	µg/L	T	**4,800**	**329**	**4300**	**3230**	--	--	--	**1390**	15 U
Metals	Zinc	µg/L	D	**4,800**	50 U	50 U	50 U	**4.53 J**	**2.51**	**1.68**	50 U	15 U
VOCs	Benzene	µg/L	T	**2.4**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	Toluene	µg/L	T	**640**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	Ethylbenzene	µg/L	T	**700**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	Xylene, m-,p-	µg/L	T	**290**	--	--	--	1 U	2 U	2 U	4 U	2 U
VOCs	Xylene, o-	µg/L	T	**440**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	Total Xylenes	µg/L	T	**290**	2 U	2 U	2 U	--	--	--	--	--
VOCs	1,1,1,2-Tetrachloroethane	µg/L	T	**1.7**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	1,1,1-Trichloroethane	µg/L	T	**200**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	1,1,2,2-Tetrachloroethane	µg/L	T	**0.22**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	µg/L	T	**1,100**	--	--	--	--	--	--	--	--
VOCs	1,1,2-Trichloroethane	µg/L	T	**4.5**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	1,1-Dichloroethane	µg/L	T	**7.7**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	1,1-Dichloroethene	µg/L	T	**7.0**	1 U	1 U	1 U	1 U	1 U	1 U	**2**	1 U
VOCs	1,1-Dichloropropene	µg/L	T	**NE**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	1,2,3-Trichlorobenzene	µg/L	T	**NE**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	1,2,3-Trichloropropane	µg/L	T	**0.50**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	1,2,4-Trichlorobenzene	µg/L	T	**15**	0.191 U	0.196 U	0.194 U	1 U	1 U	1 U	2.12 U	1 U
VOCs	1,2,4-Trimethylbenzene	µg/L	T	**28**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	1,2-Dibromo-3-Chloropropane	µg/L	T	**0.50**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	1,2-Dibromoethane	µg/L	T	**0.20**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/L	T	**600**	0.191 U	0.196 U	0.194 U	1 U	1 U	1 U	2 U	1 U
VOCs	1,2-Dichloroethane	µg/L	T	**4.2**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	1,2-Dichloropropane	µg/L	T	**3.9**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	1,3,5-Trichlorobenzene	µg/L	T	**NE**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	1,3,5-Trimethylbenzene	µg/L	T	**80**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/L	T	**NE**	0.191 U	0.196 U	0.194 U	1 U	1 U	1 U	2 U	1 U
VOCs	1,3-Dichloropropane	µg/L	T	**NE**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/L	T	**4.8**	0.191 U	0.196 U	0.194 U	1 U	1 U	1 U	2 U	1 U
VOCs	2,2-Dichloropropane	µg/L	T	**NE**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	2-Butanone (MEK)	µg/L	T	**4,800**	--	--	--	--	--	--	--	--
VOCs	2-Chloroethyl vinyl ether	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	2-Chlorotoluene	µg/L	T	**160**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	2-Hexanone	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	4-Chlorotoluene	µg/L	T	**NE**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	4-Methyl-2-Pentanone (Methyl isobutyl ketone)	µg/L	T	**640**	--	--	--	--	--	--	--	--
VOCs	Acetic Acid, Methyl Ester	µg/L	T	**8,000**	--	--	--	--	--	--	--	--
VOCs	Acetone	µg/L	T	**7,200**	--	--	--	--	--	--	--	--
VOCs	Acrolein	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
VOCs	Acrylonitrile	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
VOCs	Bromobenzene	µg/L	T	**NE**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	Bromochloromethane	µg/L	T	**NE**	1 U	1 U	1 U	**36.7**	**1**	1 U	2 U	1 U
VOCs	Bromodichloromethane	µg/L	T	**1.8**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	Bromoethane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Bromoform (Tribromomethane)	µg/L	T	**55**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	Bromomethane	µg/L	T	**11**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	Carbon Disulfide	µg/L	T	**400**	--	--	--	--	--	--	--	--
VOCs	Carbon Tetrachloride	µg/L	T	**0.54**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U

				Sampling Event: **Sample ID:** **Location:** **Date:**	**2004 Landau** **LAI-MW-3_040618** **LAI-MW-3** **6/17/2004**	**2004 Landau** **LAI-MW-4_040618** **LAI-MW-4** **6/17/2004**	**2004 Landau** **LAI-MW-41_0406181** **LAI-MW-4 (Duplicate Sample)** **6/17/2004**	**2005 Landau** **LAI-1_050303** **LAI-1** **03/03/05**	**2005 Landau** **LAI-2_050303** **LAI-2** **03/03/05**	**2005 Landau** **LAI-3_050303** **LAI-3** **03/03/05**	**2005 Landau** **LAI-5D -QVA** **LAI-5d** **09/26/05**	**2005 Landau** **LAI-5D-QC** **LAI-5d** **09/28/05**
VOCs	Chlorobenzene	µg/L	T	**100**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	Chloroethane	µg/L	T	**18,000**	1 U	1 U	1 U	**3.93**	1 U	1 U	2 U	1 U
VOCs	Chloroform	µg/L	T	**1.2**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	Chloromethane	µg/L	T	**150**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	cis-1,2-Dichloroethene	µg/L	T	**16**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	cis-1,3-Dichloropropene	µg/L	T	**0.44**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	Cyclohexane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Cyclohexane, Methyl-	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Dibromochloromethane	µg/L	T	**4.5**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	Dibromomethane	µg/L	T	**80**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	Dichlorodifluoromethane (CFC-12)	µg/L	T	**5.7**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	Hexachlorobutadiene	µg/L	T	**0.56**	0.191 U	0.196 U	0.194 U	1 U	1 U	1 U	2 U	1 U
VOCs	Isopropylbenzene (Cumene)	µg/L	T	**720**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	Methyl Iodide (Iodomethane)	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Methyl t-butyl ether	µg/L	T	**24**	--	--	--	--	--	--	--	--
VOCs	Methylene Chloride	µg/L	T	**5.0**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	n-Butylbenzene	µg/L	T	**400**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	n-Propylbenzene	µg/L	T	**800**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	p-Isopropyltoluene	µg/L	T	**NE**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	Sec-Butylbenzene	µg/L	T	**800**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	Styrene	µg/L	T	**100**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	Tert-Butylbenzene	µg/L	T	**800**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	Tetrachloroethene	µg/L	T	**5.0**	1 U	1 U	1 U	2 U	1 U	1 U	2 U	1 U
VOCs	Trans-1,2-Dichloroethene	µg/L	T	**100**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	Trans-1,3-Dichloropropene	µg/L	T	**0.44**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	Trans-1,4-Dichloro-2-butene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Trichloroethene	µg/L	T	**1.6**	1 U	1 U	1 U	**36.7**	3.2 U	1 U	12.5 U	1 U
VOCs	Trichlorofluoromethane (CFC-11)	µg/L	T	**120**	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
VOCs	Vinyl Acetate	µg/L	T	**7,800**	--	--	--	--	--	--	--	--
VOCs	Vinyl Chloride	µg/L	T	**0.29**	0.4 U	0.4 U	0.4 U	1 U	1 U	1 U	0.04 U	0.02 U
PAHs	1-Methylnaphthalene	µg/L	T	**1.5**	--	--	--	--	--	--	--	--
PAHs	2-Methylnaphthalene	µg/L	T	**32**	**0.0677**	**0.0153**	**0.0114**	--	--	--	0.53 U	0.564 U
PAHs	Acenaphthene	µg/L	T	**960**	0.0191 U	0.0196 U	0.0194 U	--	--	--	0.212 U	0.226 U
PAHs	Acenaphthylene	µg/L	T	**NE**	0.0191 U	0.0196 U	0.0194 U	--	--	--	0.212 U	0.226 U
PAHs	Anthracene	µg/L	T	**4,800**	0.0191 U	0.0196 U	0.0194 U	--	--	--	0.212 U	0.226 U
PAHs	Benzo(g,h,i)perylene	µg/L	T	**NE**	0.0191 U	0.0196 U	0.0194 U	--	--	--	0.212 U	0.226 U
PAHs	Fluoranthene	µg/L	T	**640**	0.0191 U	0.0196 U	0.0194 U	--	--	--	0.212 U	0.226 U
PAHs	Fluorene	µg/L	T	**640**	0.0191 U	0.0196 U	0.0194 U	--	--	--	0.212 U	0.226 U
PAHs	Naphthalene	µg/L	T	**8.9**	**0.0539**	**0.0569**	**0.0359**	1 U	1 U	1 U	0.53 U	0.564 U
PAHs	Phenanthrene	µg/L	T	**NE**	0.0191 U	0.0196 U	**0.0115**	--	--	--	0.212 U	0.226 U
PAHs	Pyrene	µg/L	T	**480**	0.0191 U	0.0196 U	0.0194 U	--	--	--	0.212 U	0.226 U
PAHs	Benzo(a)pyrene	µg/L	T	**NE**	0.0191 U	0.0196 U	0.0194 U	--	--	--	0.212 U	0.226 U
PAHs	Benzo(a)anthracene	µg/L	T	**NE**	0.0191 U	0.0196 U	0.0194 U	--	--	--	0.212 U	0.226 U
PAHs	Benzo(b)fluoranthene	µg/L	T	**NE**	--	--	--	--	--	--	0.212 U	0.226 U
PAHs	Benzo(k)fluoranthene	µg/L	T	**NE**	--	--	--	--	--	--	0.212 U	0.226 U
PAHs	Benzofluoranthenes (Total)	µg/L	T	**NE**	0.0953 U	0.0978 U	0.0972 U	--	--	--	--	--
PAHs	Dibenzo(a,h)anthracene	µg/L	T	**NE**	0.0191 U	0.0196 U	0.0194 U	--	--	--	0.212 U	0.226 U
PAHs	Indeno(1,2,3-c,d)pyrene	µg/L	T	**NE**	0.0191 U	0.0196 U	0.0194 U	--	--	--	0.212 U	0.226 U
PAHs	Chrysene	µg/L	T	**NE**	0.0191 U	0.0196 U	0.0194 U	--	--	--	0.212 U	0.226 U
PAHs	Total cPAH TEQ (ND=0.5RL)	µg/L	T	**0.20**	0.0173 U	0.0177 U	0.0176 U	--	--	--	0.160 U	0.171 U
PAHs	Dibenzofuran	µg/L	T	**16**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	1,1'-Biphenyl	µg/L	T	**5.5**	--	--	--	--	--	--	--	--

				Sampling Event: **Sample ID:** **Location:** **Date:**	**2004 Landau** **LAI-MW-3_040618** **LAI-MW-3** **6/17/2004**	**2004 Landau** **LAI-MW-4_040618** **LAI-MW-4** **6/17/2004**	**2004 Landau** **LAI-MW-41_0406181** **LAI-MW-4 (Duplicate Sample)** **6/17/2004**	**2005 Landau** **LAI-1_050303** **LAI-1** **03/03/05**	**2005 Landau** **LAI-2_050303** **LAI-2** **03/03/05**	**2005 Landau** **LAI-3_050303** **LAI-3** **03/03/05**	**2005 Landau** **LAI-5D -QVA** **LAI-5d** **09/26/05**	**2005 Landau** **LAI-5D-QC** **LAI-5d** **09/28/05**
SVOCs	1,2,4,5-Tetrachlorobenzene	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	2,2'-Oxybis[1-chloropropane]	µg/L	T	**1.0**	0.191 U	0.196 U	0.194 U	--	--	--	--	--
SVOCs	2,3,4,6-Tetrachlorophenol	µg/L	T	**480**	--	--	--	--	--	--	--	--
SVOCs	2,4,5-Trichlorophenol	µg/L	T	**800**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	2,4,6-Trichlorophenol	µg/L	T	**5.0**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	2,4-Dichlorophenol	µg/L	T	**24**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	2,4-Dimethylphenol	µg/L	T	**160**	0.953 U	0.978 U	0.972 U	--	--	--	10.6 U	11.3 U
SVOCs	2,4-Dinitrophenol	µg/L	T	**32**	0.953 U	0.978 U	0.972 U	--	--	--	10.6 U	11.3 U
SVOCs	2,4-Dinitrotoluene	µg/L	T	**5.0**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	2,6-Dinitrotoluene	µg/L	T	**5.0**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	2-Chloronaphthalene	µg/L	T	**640**	0.0191 U	0.0196 U	0.0194 U	--	--	--	0.212 U	0.226 U
SVOCs	2-Chlorophenol	µg/L	T	**40**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	2-methylphenol (o-Cresol)	µg/L	T	**400**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	2-Nitroaniline	µg/L	T	**160**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	2-Nitrophenol	µg/L	T	**NE**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	3 & 4 Methylphenol	µg/L	T	**NE**	--	--	--	--	--	--	4.24 U	4.51 U
SVOCs	3,3'-Dichlorobenzidine	µg/L	T	**5.0**	0.953 U	0.978 U	0.972 U	--	--	--	10.6 U	11.3 U
SVOCs	3-Nitroaniline	µg/L	T	**NE**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	4,6-Dinitro-2-Methylphenol	µg/L	T	**NE**	0.953 U	0.978 U	0.972 U	--	--	--	10.6 U	11.3 U
SVOCs	4-Bromophenyl phenyl ether	µg/L	T	**NE**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	4-Chloro-3-Methylphenol	µg/L	T	**NE**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	4-Chloroaniline	µg/L	T	**5.0**	0.286 U	0.293 U	0.292 U	--	--	--	3.18 U	3.39 U
SVOCs	4-Chlorophenyl-Phenylether	µg/L	T	**NE**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	4-methylphenol (p-Cresol)	µg/L	T	**800**	0.381 U	0.391 U	0.389 U	--	--	--	--	--
SVOCs	4-Nitroaniline	µg/L	T	**NE**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	4-Nitrophenol (p-Nitrophenol)	µg/L	T	**NE**	0.953 U	0.978 U	0.972 U	--	--	--	10.6 U	11.3 U
SVOCs	Atrazine	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	Benzaldehyde	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	Benzoic Acid	µg/L	T	**64,000**	0.953 U	0.978 U	0.972 U	--	--	--	10.6 U	11.3 U
SVOCs	Benzyl Alcohol	µg/L	T	**800**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	Bis(2-Chloroethoxy)Methane	µg/L	T	**NE**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	Bis(2-Chloroethyl)Ether	µg/L	T	**1.0**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	Bis(2-chloroisopropyl) ether	µg/L	T	**NE**	--	--	--	--	--	--	2.12 U	2.26 U
SVOCs	Bis(2-Ethylhexyl) Phthalate	µg/L	T	**6.0**	**0.878**	**0.857**	**1.95**	--	--	--	**28.3**	**27.2**
SVOCs	Butyl benzyl Phthalate	µg/L	T	**46**	**0.221**	0.293 U	**0.15**	--	--	--	**4.45**	**3.53**
SVOCs	Caprolactam	µg/L	T	**8,000**	--	--	--	--	--	--	--	--

				Sampling Event:	2004 Landau	2004 Landau	2004 Landau	2005 Landau	2005 Landau	2005 Landau	2005 Landau	2005 Landau
				Sample ID:	LAI-MW-3_040618	LAI-MW-4_040618	LAI-MW-41_0406181	LAI-1_050303	LAI-2_050303	LAI-3_050303	LAI-5D -QVA	LAI-5D-QC
				Location:	LAI-MW-3	LAI-MW-4	LAI-MW-4 (Duplicate Sample)	LAI-1	LAI-2	LAI-3	LAI-5d	LAI-5d
				Date:	6/17/2004	6/17/2004	6/17/2004	03/03/05	03/03/05	03/03/05	09/26/05	09/28/05
SVOCs	Carbazole	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Di-N-Octyl Phthalate	µg/L	T	**160**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	Dibutyl Phthalate	µg/L	T	**1,600**	**0.301**	**0.33**	**0.488**	--	--	--	**10.5**	2.26 U
SVOCs	Diethyl Phthalate	µg/L	T	**13,000**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	Dimethyl Phthalate	µg/L	T	**NE**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	Ethanone, 1-Phenyl- (Acetophenone)	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	Hexachlorobenzene	µg/L	T	**1.0**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	Hexachlorocyclopentadiene	µg/L	T	**48**	0.953 U	0.978 U	0.972 U	--	--	--	10.6 U	11.3 U
SVOCs	Hexachloroethane	µg/L	T	**1.1**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	Isophorone	µg/L	T	**46**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	N-Nitrosodi-n-propylamine	µg/L	T	**2.0**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	N-Nitrosodiphenylamine (as diphenylamine)	µg/L	T	**18**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	Nitrobenzene	µg/L	T	**16**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	Pentachlorophenol	µg/L	T	**1.0**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
SVOCs	Phenol	µg/L	T	**2,400**	0.191 U	0.196 U	0.194 U	--	--	--	2.12 U	2.26 U
PCBs	PCB-Aroclor 1016	µg/L	T	**1.1**	0.0952 U	0.0971 U	0.0981 U	0.00952 U	0.00952 U	0.00952 U	--	--
PCBs	PCB-Aroclor 1221	µg/L	T	**NE**	0.0952 U	0.0971 U	0.0981 U	0.00952 U	0.00952 U	0.00952 U	0.102 U	0.113 U
PCBs	PCB-Aroclor 1232	µg/L	T	**NE**	0.0952 U	0.0971 U	0.0981 U	0.00952 U	0.00952 U	0.00952 U	0.102 U	0.113 U
PCBs	PCB-Aroclor 1242	µg/L	T	**NE**	0.0952 U	0.0971 U	0.0981 U	0.00952 U	0.00952 U	0.00952 U	0.102 U	0.113 U
PCBs	PCB-Aroclor 1248	µg/L	T	**NE**	0.0952 U	0.0971 U	0.0981 U	0.00952 U	0.00952 U	0.00952 U	0.102 U	0.113 U
PCBs	PCB-Aroclor 1254	µg/L	T	**0.10**	0.0952 U	0.0971 U	0.0981 U	0.00952 U	0.00952 U	0.00952 U	0.102 U	0.113 U
PCBs	PCB-Aroclor 1260	µg/L	T	**0.10**	0.0952 U	0.0971 U	0.0981 U	0.00952 U	0.00952 U	0.00952 U	0.102 U	0.113 U
PCBs	Total PCBs	µg/L	T	**0.44**	0.0952 U	0.0971 U	0.0981 U	0.00952 U	0.00952 U	0.00952 U	0.102 U	0.113 U
Conventionals	Ammonia (Total as N)	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	AMMONIA-NITROGEN	mg/L	--	**NE**	--	--	--	**0.08**	**0.04**	**0.04 U**	**0.50**	**0.54**
Conventionals	Carbon	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	CHEMICAL OXYGEN DEMAND	mg/L	--	**NE**	--	--	--	**16.0 J**	**5 U**	5 U	**43.6**	**5 U**
Conventionals	Chloride	mg/L	--	**NE**	**2.26**	**8.8**	**8.38**	**4.49**	**2.88**	**3.18**	**12.7**	**60.6**
Conventionals	Conductivity	mS/cm	--	**NE**	--	--	--	**0.228**	**0.108**	**0.145**	--	--
Conventionals	Dissolved Oxygen	mg/L	--	**NE**	--	--	--	**4.26**	**8.04**	**6.32**	--	--
Conventionals	Nitrate	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate-Nitrite	mg/L as N	--	**NE**	**0.44**	**1.92**	**1.07**	**2.06**	**0.66**	**1.32**	**1.51 J**	**0.61 U**
Conventionals	Nitrate-nitrogen	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrite	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Oxidation-Reduction Potential (ORP)	mV	--	**NE**	--	--	--	**19.1**	**32.1**	**30.9**	--	--
Conventionals	pH	SU	--	**NE**	--	--	--	**6.44**	**6.74**	**6.48**	--	--
Conventionals	Specific Conductance	umhos/cm	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Sulfate	mg/L	--	**NE**	**3.88**	**124**	**124**	**99.5**	**29.2**	**58.6**	**139**	**166**
Conventionals	Temperature	deg C	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Total Dissolved Solids	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Total Organic Carbon	mg/L	--	**NE**	**1.78**	**9.03**	**18.5**	**3.27**	**1 U**	**1.01**	**7.67**	**2.18**

				Sampling Event:	2005 Landau	2005 Landau	2005 Landau	2005 Landau	2006 Q3	2006 Q3	2006 Q3	2006 Q3
				Sample ID:	LAI-MW-1_050303	LAI-MW-2_050303	LAI-MW-3_050303	LAI-MW-4_050303	LAI-1_060711	LAI-5D_060711	LAI-MW-2_060711	PGG-1_060711
				Location:	LAI-MW-1	LAI-MW-2	LAI-MW-3	LAI-MW-4	LAI-1	LAI-5d	LAI-MW-2	PGG-1
				Date:	03/03/05	03/03/05	03/03/05	03/03/05	07/11/06	07/11/06	07/11/06	07/11/06
Parameter Group:	**Parameter:**	**Unit(s):**	**Total (T) or Dissolved (D):**	**Screening Level:**								
Fuels	Gasoline	µg/L	T	**800**	--	--	--	--	250 U	250 U	250 U	250 U
Fuels	Diesel-range hydrocarbons	µg/L	T	**500**	--	--	--	--	630 U	630 U	630 U	630 U
Fuels	Lube Oil-range Hydrocarbons	µg/L	T	**500**	--	--	--	--	630 U	630 U	630 U	630 U
Metals	Aluminum	µg/L	T	**16,000**	--	--	--	--	--	--	--	--
Metals	Aluminum	µg/L	D	**16,000**	--	--	--	--	--	--	--	--
Metals	Antimony	µg/L	T	**6.0**	--	--	--	--	--	--	--	--
Metals	Antimony	µg/L	D	**6.0**	--	--	--	--	--	--	--	--
Metals	Arsenic	µg/L	T	**5.0**	--	--	--	--	50 U	50 U	50 U	50 U
Metals	Arsenic	µg/L	D	**5.0**	0.6 U	0.6 U	0.6 U	0.6 U	50 U	100 U	50 U	50 U
Metals	Barium	µg/L	T	**2,000**	--	--	--	--	--	--	--	--
Metals	Barium	µg/L	D	**2,000**	--	--	--	--	--	--	--	--
Metals	Beryllium	µg/L	T	**4.0**	--	--	--	--	--	--	--	--
Metals	Beryllium	µg/L	D	**4.0**	--	--	--	--	--	--	--	--
Metals	Cadmium	µg/L	T	**5.0**	--	--	--	--	2 U	2 U	2 U	2 U
Metals	Cadmium	µg/L	D	**5.0**	0.5 U	0.5 U	0.5 U	0.5 U	2 U	4 U	2 U	2 U
Metals	Calcium	µg/L	T	**NE**	--	--	--	--	--	--	--	--
Metals	Calcium	µg/L	D	**NE**	--	--	--	--	--	--	--	--
Metals	Chromium	µg/L	T	**100**	--	--	--	--	**39**	**7**	**149**	5 U
Metals	Chromium	µg/L	D	**100**	**2.53**	**3.19**	**1.13**	**8.11**	5 U	10 U	5 U	5 U
Metals	Cobalt	µg/L	T	**100**	--	--	--	--	--	--	--	--
Metals	Cobalt	µg/L	D	**100**	--	--	--	--	--	--	--	--
Metals	Copper	µg/L	T	**640**	--	--	--	--	--	--	--	--
Metals	Copper	µg/L	D	**640**	--	--	--	--	--	--	--	--
Metals	Iron	µg/L	T	**11,000**	--	--	--	--	--	--	--	--
Metals	Iron	µg/L	D	**11,000**	20 U	20 U	20 U	20 U	--	--	--	--
Metals	Lead	µg/L	T	**15**	--	--	--	--	20 U	20 U	20 U	20 U
Metals	Lead	µg/L	D	**15**	5 U	0.5 U	0.5 U	0.5 U	20 U	40 U	20 U	20 U
Metals	Magnesium	µg/L	T	**NE**	--	--	--	--	--	--	--	--
Metals	Magnesium	µg/L	D	**NE**	**4.93**	**42.9**	**4.25**	**14.2**	--	--	--	--
Metals	Manganese	µg/L	T	**2,200**	--	--	--	--	--	--	--	--
Metals	Manganese	µg/L	D	**2,200**	--	--	--	--	--	--	--	--
Metals	Mercury	µg/L	T	**0.89**	--	--	--	--	0.1 U	0.1 U	0.1 U	0.1 U
Metals	Mercury	µg/L	D	**0.89**	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.1 U
Metals	Nickel	µg/L	T	**100**	--	--	--	--	--	--	--	--
Metals	Nickel	µg/L	D	**100**	--	--	--	--	--	--	--	--
Metals	Potassium	µg/L	T	**NE**	--	--	--	--	--	--	--	--
Metals	Potassium	µg/L	D	**NE**	--	--	--	--	--	--	--	--
Metals	Selenium	µg/L	T	**50**	--	--	--	--	--	--	--	--
Metals	Selenium	µg/L	D	**50**	--	--	--	--	--	--	--	--
Metals	Silver	µg/L	T	**80**	--	--	--	--	3 U	3 U	3 U	3 U
Metals	Silver	µg/L	D	**80**	5 U	0.5 U	0.5 U	0.5 U	3 U	6 U	3 U	3 U
Metals	Sodium	µg/L	T	**NE**	--	--	--	--	--	--	--	--
Metals	Sodium	µg/L	D	**NE**	--	--	--	--	--	--	--	--
Metals	Thallium	µg/L	T	**1.0**	--	--	--	--	--	--	--	--

				Sampling Event:	**2005 Landau**	**2005 Landau**	**2005 Landau**	**2005 Landau**	**2006 Q3**	**2006 Q3**	**2006 Q3**	**2006 Q3**
				Sample ID:	**LAI-MW-1_050303**	**LAI-MW-2_050303**	**LAI-MW-3_050303**	**LAI-MW-4_050303**	**LAI-1_060711**	**LAI-5D_060711**	**LAI-MW-2_060711**	**PGG-1_060711**
				Location:	**LAI-MW-1**	**LAI-MW-2**	**LAI-MW-3**	**LAI-MW-4**	**LAI-1**	**LAI-5d**	**LAI-MW-2**	**PGG-1**
				Date:	**03/03/05**	**03/03/05**	**03/03/05**	**03/03/05**	**07/11/06**	**07/11/06**	**07/11/06**	**07/11/06**
Metals	Thallium	µg/L	D	**1.0**	--	--	--	--	--	--	--	--
Metals	Vanadium	µg/L	T	**80**	--	--	--	--	--	--	--	--
Metals	Vanadium	µg/L	D	**80**	--	--	--	--	--	--	--	--
Metals	Zinc	µg/L	T	**4,800**	--	--	--	--	**30**	**8**	**110**	6 U
Metals	Zinc	µg/L	D	**4,800**	**1.64**	**2.59**	**1.69**	**4.17**	6 U	10 U	**14**	6 U
VOCs	Benzene	µg/L	T	**2.4**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Toluene	µg/L	T	**640**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Ethylbenzene	µg/L	T	**700**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Xylene, m-,p-	µg/L	T	**290**	2 U	2 U	2 U	2 U	0.4 U	0.4 U	0.4 U	0.4 U
VOCs	Xylene, o-	µg/L	T	**440**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Total Xylenes	µg/L	T	**290**	--	--	--	--	--	--	--	--
VOCs	1,1,1,2-Tetrachloroethane	µg/L	T	**1.7**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,1,1-Trichloroethane	µg/L	T	**200**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,1,2,2-Tetrachloroethane	µg/L	T	**0.22**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	µg/L	T	**1,100**	--	--	--	--	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,1,2-Trichloroethane	µg/L	T	**4.5**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,1-Dichloroethane	µg/L	T	**7.7**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,1-Dichloroethene	µg/L	T	**7.0**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,1-Dichloropropene	µg/L	T	**NE**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,2,3-Trichlorobenzene	µg/L	T	**NE**	1 U	1 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U
VOCs	1,2,3-Trichloropropane	µg/L	T	**0.50**	1 U	1 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U
VOCs	1,2,4-Trichlorobenzene	µg/L	T	**15**	1 U	1 U	1 U	1 U	1 U	0.5 U	0.5 U	0.5 U
VOCs	1,2,4-Trimethylbenzene	µg/L	T	**28**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,2-Dibromo-3-Chloropropane	µg/L	T	**0.50**	1 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U
VOCs	1,2-Dibromoethane	µg/L	T	**0.20**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/L	T	**600**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,2-Dichloroethane	µg/L	T	**4.2**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,2-Dichloropropane	µg/L	T	**3.9**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,3,5-Trichlorobenzene	µg/L	T	**NE**	1 U	1 U	1 U	1 U	--	--	--	--
VOCs	1,3,5-Trimethylbenzene	µg/L	T	**80**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/L	T	**NE**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,3-Dichloropropane	µg/L	T	**NE**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/L	T	**4.8**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	2,2-Dichloropropane	µg/L	T	**NE**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	2-Butanone (MEK)	µg/L	T	**4,800**	--	--	--	--	1 U	1 U	1 U	1 U
VOCs	2-Chloroethyl vinyl ether	µg/L	T	**NE**	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U
VOCs	2-Chlorotoluene	µg/L	T	**160**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	2-Hexanone	µg/L	T	**NE**	--	--	--	--	1 U	1 U	1 U	1 U
VOCs	4-Chlorotoluene	µg/L	T	**NE**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	4-Methyl-2-Pentanone (Methyl isobutyl ketone)	µg/L	T	**640**	--	--	--	--	1 U	1 U	1 U	1 U
VOCs	Acetic Acid, Methyl Ester	µg/L	T	**8,000**	--	--	--	--	--	--	--	--
VOCs	Acetone	µg/L	T	**7,200**	--	--	--	--	**1.5**	1 U	1 U	1 U
VOCs	Acrolein	µg/L	T	**5.0**	--	--	--	--	5 U	5 U	5 U	5 U
VOCs	Acrylonitrile	µg/L	T	**1.0**	--	--	--	--	1 U	1 U	1 U	1 U
VOCs	Bromobenzene	µg/L	T	**NE**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Bromochloromethane	µg/L	T	**NE**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Bromodichloromethane	µg/L	T	**1.8**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Bromoethane	µg/L	T	**NE**	--	--	--	--	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Bromoform (Tribromomethane)	µg/L	T	**55**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Bromomethane	µg/L	T	**11**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Carbon Disulfide	µg/L	T	**400**	--	--	--	--	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Carbon Tetrachloride	µg/L	T	**0.54**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U

				Sampling Event:	2005 Landau	2005 Landau	2005 Landau	2005 Landau	2006 Q3	2006 Q3	2006 Q3	2006 Q3
				Sample ID:	LAI-MW-1_050303	LAI-MW-2_050303	LAI-MW-3_050303	LAI-MW-4_050303	LAI-1_060711	LAI-5D_060711	LAI-MW-2_060711	PGG-1_060711
				Location:	LAI-MW-1	LAI-MW-2	LAI-MW-3	LAI-MW-4	LAI-1	LAI-5d	LAI-MW-2	PGG-1
				Date:	03/03/05	03/03/05	03/03/05	03/03/05	07/11/06	07/11/06	07/11/06	07/11/06
VOCs	Chlorobenzene	µg/L	T	**100**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Chloroethane	µg/L	T	**18,000**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Chloroform	µg/L	T	**1.2**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Chloromethane	µg/L	T	**150**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	cis-1,2-Dichloroethene	µg/L	T	**16**	1 U	1 U	1 U	1 U	**4.4**	0.2 U	**3.5**	**0.2**
VOCs	cis-1,3-Dichloropropene	µg/L	T	**0.44**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Cyclohexane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Cyclohexane, Methyl-	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Dibromochloromethane	µg/L	T	**4.5**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Dibromomethane	µg/L	T	**80**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Dichlorodifluoromethane (CFC-12)	µg/L	T	**5.7**	1 U	1 U	1 U	1 U	--	--	--	--
VOCs	Hexachlorobutadiene	µg/L	T	**0.56**	1 U	1 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U
VOCs	Isopropylbenzene (Cumene)	µg/L	T	**720**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Methyl Iodide (Iodomethane)	µg/L	T	**NE**	--	--	--	--	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Methyl t-butyl ether	µg/L	T	**24**	--	--	--	--	--	--	--	--
VOCs	Methylene Chloride	µg/L	T	**5.0**	1 U	1 U	1 U	1 U	0.3 U	0.3 U	0.3 U	0.3 U
VOCs	n-Butylbenzene	µg/L	T	**400**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	n-Propylbenzene	µg/L	T	**800**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	p-Isopropyltoluene	µg/L	T	**NE**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Sec-Butylbenzene	µg/L	T	**800**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Styrene	µg/L	T	**100**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Tert-Butylbenzene	µg/L	T	**800**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Tetrachloroethene	µg/L	T	**5.0**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Trans-1,2-Dichloroethene	µg/L	T	**100**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Trans-1,3-Dichloropropene	µg/L	T	**0.44**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Trans-1,4-Dichloro-2-butene	µg/L	T	**NE**	--	--	--	--	1 U	1 U	1 U	1 U
VOCs	Trichloroethene	µg/L	T	**1.6**	1 U	**19.8**	1 U	1 U	**34**	0.2 U	**68**	**0.9**
VOCs	Trichlorofluoromethane (CFC-11)	µg/L	T	**120**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Vinyl Acetate	µg/L	T	**7,800**	--	--	--	--	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Vinyl Chloride	µg/L	T	**0.29**	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
PAHs	1-Methylnaphthalene	µg/L	T	**1.5**	--	--	--	--	--	--	--	--
PAHs	2-Methylnaphthalene	µg/L	T	**32**	--	--	--	--	1 U	1 U	1 U	1 U
PAHs	Acenaphthene	µg/L	T	**960**	--	--	--	--	1 U	1 U	1 U	1 U
PAHs	Acenaphthylene	µg/L	T	**NE**	--	--	--	--	1 U	1 U	1 U	1 U
PAHs	Anthracene	µg/L	T	**4,800**	--	--	--	--	1 U	1 U	1 U	1 U
PAHs	Benzo(g,h,i)perylene	µg/L	T	**NE**	--	--	--	--	1 U	1 U	1 U	1 U
PAHs	Fluoranthene	µg/L	T	**640**	--	--	--	--	1 U	1 U	1 U	1 U
PAHs	Fluorene	µg/L	T	**640**	--	--	--	--	1 U	1 U	1 U	1 U
PAHs	Naphthalene	µg/L	T	**8.9**	1 U	1 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U
PAHs	Phenanthrene	µg/L	T	**NE**	--	--	--	--	1 U	1 U	1 U	1 U
PAHs	Pyrene	µg/L	T	**480**	--	--	--	--	1 U	1 U	1 U	1 U
PAHs	Benzo(a)pyrene	µg/L	T	**NE**	--	--	--	--	1 U	1 U	1 U	1 U
PAHs	Benzo(a)anthracene	µg/L	T	**NE**	--	--	--	--	1 U	1 U	1 U	1 U
PAHs	Benzo(b)fluoranthene	µg/L	T	**NE**	--	--	--	--	1 U	1 U	1 U	1 U
PAHs	Benzo(k)fluoranthene	µg/L	T	**NE**	--	--	--	--	1 U	1 U	1 U	1 U
PAHs	Benzofluoranthenes (Total)	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Dibenzo(a,h)anthracene	µg/L	T	**NE**	--	--	--	--	1 U	1 U	1 U	1 U
PAHs	Indeno(1,2,3-c,d)pyrene	µg/L	T	**NE**	--	--	--	--	1 U	1 U	1 U	1 U
PAHs	Chrysene	µg/L	T	**NE**	--	--	--	--	1 U	1 U	1 U	1 U
PAHs	Total cPAH TEQ (ND=0.5RL)	µg/L	T	**0.20**	--	--	--	--	0.755 U	0.755 U	0.755 U	0.755 U
PAHs	Dibenzofuran	µg/L	T	**16**	--	--	--	--	1 U	1 U	1 U	1 U
SVOCs	1,1'-Biphenyl	µg/L	T	**5.5**	--	--	--	--	--	--	--	--

				Sampling Event:	2005 Landau	2005 Landau	2005 Landau	2005 Landau	2006 Q3	2006 Q3	2006 Q3	2006 Q3
				Sample ID:	**LAI-MW-1_050303**	**LAI-MW-2_050303**	**LAI-MW-3_050303**	**LAI-MW-4_050303**	**LAI-1_060711**	**LAI-5D_060711**	**LAI-MW-2_060711**	**PGG-1_060711**
				Location:	**LAI-MW-1**	**LAI-MW-2**	**LAI-MW-3**	**LAI-MW-4**	**LAI-1**	**LAI-5d**	**LAI-MW-2**	**PGG-1**
				Date:	**03/03/05**	**03/03/05**	**03/03/05**	**03/03/05**	**07/11/06**	**07/11/06**	**07/11/06**	**07/11/06**
SVOCs	1,2,4,5-Tetrachlorobenzene	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	2,2'-Oxybis[1-chloropropane]	µg/L	T	**1.0**	--	--	--	--	1 U	1 U	1 U	1 U
SVOCs	2,3,4,6-Tetrachlorophenol	µg/L	T	**480**	--	--	--	--	--	--	--	--
SVOCs	2,4,5-Trichlorophenol	µg/L	T	**800**	--	--	--	--	5 U	5 U	5 U	5 U
SVOCs	2,4,6-Trichlorophenol	µg/L	T	**5.0**	--	--	--	--	5 U	5 U	5 U	5 U
SVOCs	2,4-Dichlorophenol	µg/L	T	**24**	--	--	--	--	5 U	5 U	5 U	5 U
SVOCs	2,4-Dimethylphenol	µg/L	T	**160**	--	--	--	--	1 U	1 U	1 U	1 U
SVOCs	2,4-Dinitrophenol	µg/L	T	**32**	--	--	--	--	10 U	10 U	10 U	10 U
SVOCs	2,4-Dinitrotoluene	µg/L	T	**5.0**	--	--	--	--	5 U	5 U	5 U	5 U
SVOCs	2,6-Dinitrotoluene	µg/L	T	**5.0**	--	--	--	--	5 U	5 U	5 U	5 U
SVOCs	2-Chloronaphthalene	µg/L	T	**640**	--	--	--	--	1 U	1 U	1 U	1 U
SVOCs	2-Chlorophenol	µg/L	T	**40**	--	--	--	--	1 U	1 U	1 U	1 U
SVOCs	2-methylphenol (o-Cresol)	µg/L	T	**400**	--	--	--	--	1 U	1 U	1 U	1 U
SVOCs	2-Nitroaniline	µg/L	T	**160**	--	--	--	--	5 U	5 U	5 U	5 U
SVOCs	2-Nitrophenol	µg/L	T	**NE**	--	--	--	--	5 U	5 U	5 U	5 U
SVOCs	3 & 4 Methylphenol	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	3,3'-Dichlorobenzidine	µg/L	T	**5.0**	--	--	--	--	5 U	5 U	5 U	5 U
SVOCs	3-Nitroaniline	µg/L	T	**NE**	--	--	--	--	5 U	5 U	5 U	5 U
SVOCs	4,6-Dinitro-2-Methylphenol	µg/L	T	**NE**	--	--	--	--	10 U	10 U	10 U	10 U
SVOCs	4-Bromophenyl phenyl ether	µg/L	T	**NE**	--	--	--	--	1 U	1 U	1 U	1 U
SVOCs	4-Chloro-3-Methylphenol	µg/L	T	**NE**	--	--	--	--	5 U	5 U	5 U	5 U
SVOCs	4-Chloroaniline	µg/L	T	**5.0**	--	--	--	--	5 U	5 U	5 U	5 U
SVOCs	4-Chlorophenyl-Phenylether	µg/L	T	**NE**	--	--	--	--	1 U	1 U	1 U	1 U
SVOCs	4-methylphenol (p-Cresol)	µg/L	T	**800**	--	--	--	--	1 U	1 U	1 U	1 U
SVOCs	4-Nitroaniline	µg/L	T	**NE**	--	--	--	--	5 U	5 U	5 U	5 U
SVOCs	4-Nitrophenol (p-Nitrophenol)	µg/L	T	**NE**	--	--	--	--	5 U	5 U	5 U	5 U
SVOCs	Atrazine	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	Benzaldehyde	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	Benzoic Acid	µg/L	T	**64,000**	--	--	--	--	10 U	10 U	10 U	10 U
SVOCs	Benzyl Alcohol	µg/L	T	**800**	--	--	--	--	5 U	5 U	5 U	5 U
SVOCs	Bis(2-Chloroethoxy)Methane	µg/L	T	**NE**	--	--	--	--	1 U	1 U	1 U	1 U
SVOCs	Bis(2-Chloroethyl)Ether	µg/L	T	**1.0**	--	--	--	--	1 U	1 U	1 U	1 U
SVOCs	Bis(2-chloroisopropyl) ether	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Bis(2-Ethylhexyl) Phthalate	µg/L	T	**6.0**	--	--	--	--	1 U	**2**	**1.5**	1 U
SVOCs	Butyl benzyl Phthalate	µg/L	T	**46**	--	--	--	--	1 U	1 U	1 U	1 U
SVOCs	Caprolactam	µg/L	T	**8,000**	--	--	--	--	--	--	--	--

				Sampling Event:	2005 Landau	2005 Landau	2005 Landau	2005 Landau	2006 Q3	2006 Q3	2006 Q3	2006 Q3
				Sample ID:	LAI-MW-1_050303	LAI-MW-2_050303	LAI-MW-3_050303	LAI-MW-4_050303	LAI-1_060711	LAI-5D_060711	LAI-MW-2_060711	PGG-1_060711
				Location:	LAI-MW-1	LAI-MW-2	LAI-MW-3	LAI-MW-4	LAI-1	LAI-5d	LAI-MW-2	PGG-1
				Date:	03/03/05	03/03/05	03/03/05	03/03/05	07/11/06	07/11/06	07/11/06	07/11/06
SVOCs	Carbazole	µg/L	T	**NE**	--	--	--	--	1 U	1 U	1 U	1 U
SVOCs	Di-N-Octyl Phthalate	µg/L	T	**160**	--	--	--	--	1 U	1 U	1 U	1 U
SVOCs	Dibutyl Phthalate	µg/L	T	**1,600**	--	--	--	--	1 U	1 U	1 U	1 U
SVOCs	Diethyl Phthalate	µg/L	T	**13,000**	--	--	--	--	1 U	1 U	1 U	1 U
SVOCs	Dimethyl Phthalate	µg/L	T	**NE**	--	--	--	--	1 U	1 U	1 U	1 U
SVOCs	Ethanone, 1-Phenyl- (Acetophenone)	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	Hexachlorobenzene	µg/L	T	**1.0**	--	--	--	--	1 U	1 U	1 U	1 U
SVOCs	Hexachlorocyclopentadiene	µg/L	T	**48**	--	--	--	--	5 U	5 U	5 U	5 U
SVOCs	Hexachloroethane	µg/L	T	**1.1**	--	--	--	--	1 U	1 U	1 U	1 U
SVOCs	Isophorone	µg/L	T	**46**	--	--	--	--	1 U	1 U	1 U	1 U
SVOCs	N-Nitrosodi-n-propylamine	µg/L	T	**2.0**	--	--	--	--	5 U	5 U	5 U	5 U
SVOCs	N-Nitrosodiphenylamine (as diphenylamine)	µg/L	T	**18**	--	--	--	--	1 U	1 U	1 U	1 U
SVOCs	Nitrobenzene	µg/L	T	**16**	--	--	--	--	1 U	1 U	1 U	1 U
SVOCs	Pentachlorophenol	µg/L	T	**1.0**	--	--	--	--	5 U	5 U	5 U	5 U
SVOCs	Phenol	µg/L	T	**2,400**	--	--	--	--	1 U	1 U	1 U	1 U
PCBs	PCB-Aroclor 1016	µg/L	T	**1.1**	10.6 U	9.8 U	10 U	9.71 U	1 U	1 U	1 U	1 U
PCBs	PCB-Aroclor 1221	µg/L	T	**NE**	10.6 U	9.8 U	10 U	9.71 U	1 U	1 U	1 U	1 U
PCBs	PCB-Aroclor 1232	µg/L	T	**NE**	10.6 U	9.8 U	10 U	9.71 U	1 U	1 U	1 U	1 U
PCBs	PCB-Aroclor 1242	µg/L	T	**NE**	10.6 U	9.8 U	10 U	9.71 U	1 U	1 U	1 U	1 U
PCBs	PCB-Aroclor 1248	µg/L	T	**NE**	10.6 U	9.8 U	10 U	9.71 U	1 U	1 U	1 U	1 U
PCBs	PCB-Aroclor 1254	µg/L	T	**0.10**	10.6 U	9.8 U	10 U	9.71 U	1 U	1 U	1 U	1 U
PCBs	PCB-Aroclor 1260	µg/L	T	**0.10**	10.6 U	9.8 U	10 U	9.71 U	1 U	1 U	1 U	1 U
PCBs	Total PCBs	µg/L	T	**0.44**	10.6 U	9.80 U	10.0 U	9.71 U	1 U	1 U	1 U	1 U
Conventionals	Ammonia (Total as N)	mg/L as N	--	**NE**	--	--	--	--	**0.012**	**0.384**	**0.063**	**0.01 U**
Conventionals	AMMONIA-NITROGEN	mg/L	--	**NE**	**0.08**	**0.08**	**0.05**	**0.04 U**	--	--	--	--
Conventionals	Carbon	mg/L	--	**NE**	--	--	--	--	**2.26**	**1.6**	1.5 U	**1.61**
Conventionals	CHEMICAL OXYGEN DEMAND	mg/L	--	**NE**	**5.3**	**18.7**	**5 U**	**10.7**	--	--	--	--
Conventionals	Chloride	mg/L	--	**NE**	**2.67**	**4.03**	**2.44**	**4.6**	**5.3**	**58.2**	**4**	**4.1**
Conventionals	Conductivity	mS/cm	--	**NE**	**0.133**	**0.184**	**0.059**	**0.272**	--	--	--	--
Conventionals	Dissolved Oxygen	mg/L	--	**NE**	**3.84**	**2.98**	**7.86**	**3.62**	--	--	--	--
Conventionals	Nitrate	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate-Nitrite	mg/L as N	--	**NE**	**0.78**	**1.85**	**0.48**	**1.62**	**2.55**	**0.01 U**	**2.4**	**2.83**
Conventionals	Nitrate-nitrogen	mg/L as N	--	**NE**	--	--	--	--	**2.52**	**0.01 U**	**2.34**	**2.51**
Conventionals	Nitrite	mg/L as N	--	**NE**	--	--	--	--	**0.03**	**0.01 U**	**0.061**	**0.318**
Conventionals	Oxidation-Reduction Potential (ORP)	mV	--	**NE**	**28.3**	**20.6**	**-2.1**	**29.9**	--	--	--	--
Conventionals	pH	SU	--	**NE**	**6.36**	**6.57**	**7.24**	**6.98**	--	--	--	--
Conventionals	Specific Conductance	umhos/cm	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Sulfate	mg/L	--	**NE**	**30.1**	**49.8**	**4.12**	**112**	**117**	**199**	**103**	**66.4**
Conventionals	Temperature	deg C	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Total Dissolved Solids	mg/L	--	**NE**	--	--	--	--	**493**	**738**	**278**	**366**
Conventionals	Total Organic Carbon	mg/L	--	**NE**	**1.61**	**1.15**	**1 U**	**2.74**	--	--	--	--

				Sampling Event:	2006 Q3	2006 Q4	2006 Q4	2006 Q4	2006 Q4	2006 Q4	2008 Q4	2008 Q4
				Sample ID:	PGG-2_060711	LAI-1_061024	LAI-2_061024	LAI-5D_061024	LAI-MW-2_061024	PGG-1_061024	LAI-1_081203	LAI-2_090114
				Location:	PGG-2	LAI-1	LAI-2	LAI-5d	LAI-MW-2	PGG-1	LAI-1	LAI-2
				Date:	07/11/06	10/24/06	10/24/06	10/24/06	10/24/06	10/24/06	12/03/08	01/14/09
Parameter Group:	**Parameter:**	**Unit(s):**	**Total (T) or Dissolved (D):**	**Screening Level:**								
Fuels	Gasoline	µg/L	T	**800**	250 U	--	--	--	--	--	--	--
Fuels	Diesel-range hydrocarbons	µg/L	T	**500**	630 U	--	--	--	--	--	--	--
Fuels	Lube Oil-range Hydrocarbons	µg/L	T	**500**	630 U	--	--	--	--	--	--	--
Metals	Aluminum	µg/L	T	**16,000**	--	--	--	--	--	--	--	--
Metals	Aluminum	µg/L	D	**16,000**	--	--	--	--	--	--	--	--
Metals	Antimony	µg/L	T	**6.0**	--	--	--	--	--	--	--	--
Metals	Antimony	µg/L	D	**6.0**	--	--	--	--	--	--	--	--
Metals	Arsenic	µg/L	T	**5.0**	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Metals	Arsenic	µg/L	D	**5.0**	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Metals	Barium	µg/L	T	**2,000**	--	--	--	--	--	--	--	--
Metals	Barium	µg/L	D	**2,000**	--	--	--	--	--	--	--	--
Metals	Beryllium	µg/L	T	**4.0**	--	--	--	--	--	--	--	--
Metals	Beryllium	µg/L	D	**4.0**	--	--	--	--	--	--	--	--
Metals	Cadmium	µg/L	T	**5.0**	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Metals	Cadmium	µg/L	D	**5.0**	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Metals	Calcium	µg/L	T	**NE**	--	--	--	--	--	--	--	--
Metals	Calcium	µg/L	D	**NE**	--	--	--	--	--	--	--	--
Metals	Chromium	µg/L	T	**100**	5 U	**59**	**8**	5 U	**500**	**5**	5 U	5 U
Metals	Chromium	µg/L	D	**100**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Metals	Cobalt	µg/L	T	**100**	--	--	--	--	--	--	--	--
Metals	Cobalt	µg/L	D	**100**	--	--	--	--	--	--	--	--
Metals	Copper	µg/L	T	**640**	--	--	--	--	--	--	--	--
Metals	Copper	µg/L	D	**640**	--	--	--	--	--	--	--	--
Metals	Iron	µg/L	T	**11,000**	--	**22,600**	**580**	**2,530**	**149,000**	50 U	**390**	**160**
Metals	Iron	µg/L	D	**11,000**	--	--	--	--	--	--	--	--
Metals	Lead	µg/L	T	**15**	20 U	20 U	20 U	20 U	**30**	20 U	20 U	20 U
Metals	Lead	µg/L	D	**15**	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Metals	Magnesium	µg/L	T	**NE**	--	**27,500**	**15,700**	**61,200**	**48,300**	**21,700**	**21,400**	**11,400**
Metals	Magnesium	µg/L	D	**NE**	--	--	--	--	--	**19,900**	**20,700**	**11,100**
Metals	Manganese	µg/L	T	**2,200**	--	**504**	**16**	**2,610**	**4,370**	**9**	**8**	**8**
Metals	Manganese	µg/L	D	**2,200**	--	--	--	--	--	--	1 U	1 U
Metals	Mercury	µg/L	T	**0.89**	0.1 U	0.1 U	0.1 U	0.1 U	**0.3**	0.1 U	0.1 U	0.1 U
Metals	Mercury	µg/L	D	**0.89**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Metals	Nickel	µg/L	T	**100**	--	--	--	--	--	--	--	--
Metals	Nickel	µg/L	D	**100**	--	--	--	--	--	--	--	--
Metals	Potassium	µg/L	T	**NE**	--	--	--	--	--	--	--	--
Metals	Potassium	µg/L	D	**NE**	--	--	--	--	--	--	--	--
Metals	Selenium	µg/L	T	**50**	--	--	--	--	--	--	--	--
Metals	Selenium	µg/L	D	**50**	--	--	--	--	--	--	--	--
Metals	Silver	µg/L	T	**80**	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Metals	Silver	µg/L	D	**80**	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Metals	Sodium	µg/L	T	**NE**	--	--	--	--	--	--	--	--
Metals	Sodium	µg/L	D	**NE**	--	--	--	--	--	--	--	--
Metals	Thallium	µg/L	T	**1.0**	--	--	--	--	--	--	--	--

				Sampling Event:	**2006 Q3**	**2006 Q4**	**2006 Q4**	**2006 Q4**	**2006 Q4**	**2006 Q4**	**2008 Q4**	**2008 Q4**
				Sample ID:	**PGG-2_060711**	**LAI-1_061024**	**LAI-2_061024**	**LAI-5D_061024**	**LAI-MW-2_061024**	**PGG-1_061024**	**LAI-1_081203**	**LAI-2_090114**
				Location:	**PGG-2**	**LAI-1**	**LAI-2**	**LAI-5d**	**LAI-MW-2**	**PGG-1**	**LAI-1**	**LAI-2**
				Date:	**07/11/06**	**10/24/06**	**10/24/06**	**10/24/06**	**10/24/06**	**10/24/06**	**12/03/08**	**01/14/09**
Metals	Thallium	µg/L	D	**1.0**	--	--	--	--	--	--	--	--
Metals	Vanadium	µg/L	T	**80**	--	--	--	--	--	--	--	--
Metals	Vanadium	µg/L	D	**80**	--	--	--	--	--	--	--	--
Metals	Zinc	µg/L	T	**4,800**	6 U	**55**	**10**	6 U	**372**	**14**	10 U	10 U
Metals	Zinc	µg/L	D	**4,800**	6 U	6 U	6 U	6 U	6 U	6 U	10 U	10 U
VOCs	Benzene	µg/L	T	**2.4**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	Toluene	µg/L	T	**640**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	Ethylbenzene	µg/L	T	**700**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	Xylene, m-,p-	µg/L	T	**290**	0.4 U	2 U	0.4 U	0.4 U	2 U	0.4 U	1.2 U	0.4 U
VOCs	Xylene, o-	µg/L	T	**440**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	Total Xylenes	µg/L	T	**290**	--	--	--	--	--	--	--	--
VOCs	1,1,1,2-Tetrachloroethane	µg/L	T	**1.7**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	1,1,1-Trichloroethane	µg/L	T	**200**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	1,1,2,2-Tetrachloroethane	µg/L	T	**0.22**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	µg/L	T	**1,100**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	1,1,2-Trichloroethane	µg/L	T	**4.5**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	1,1-Dichloroethane	µg/L	T	**7.7**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	1,1-Dichloroethene	µg/L	T	**7.0**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	1,1-Dichloropropene	µg/L	T	**NE**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	1,2,3-Trichlorobenzene	µg/L	T	**NE**	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.5 U	0.5 U
VOCs	1,2,3-Trichloropropane	µg/L	T	**0.50**	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.5 U	0.5 U
VOCs	1,2,4-Trichlorobenzene	µg/L	T	**15**	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
VOCs	1,2,4-Trimethylbenzene	µg/L	T	**28**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	1,2-Dibromo-3-Chloropropane	µg/L	T	**0.50**	2 U	2.5 U	0.5 U	0.5 U	2.5 U	0.5 U	1.5 U	0.5 U
VOCs	1,2-Dibromoethane	µg/L	T	**0.20**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/L	T	**600**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	1,2-Dichloroethane	µg/L	T	**4.2**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	1,2-Dichloropropane	µg/L	T	**3.9**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	1,3,5-Trichlorobenzene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	1,3,5-Trimethylbenzene	µg/L	T	**80**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/L	T	**NE**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	1,3-Dichloropropane	µg/L	T	**NE**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/L	T	**4.8**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	2,2-Dichloropropane	µg/L	T	**NE**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	2-Butanone (MEK)	µg/L	T	**4,800**	1 U	5 U	1 U	1 U	5 U	1 U	7.5 U	2.5 U
VOCs	2-Chloroethyl vinyl ether	µg/L	T	**NE**	0.5 U	2.5 U	0.5 U	0.5 U	2.5 U	0.5 U	3 U	1 U
VOCs	2-Chlorotoluene	µg/L	T	**160**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	2-Hexanone	µg/L	T	**NE**	1 U	15 U	3 U	3 U	15 U	3 U	7.5 U	2.5 U
VOCs	4-Chlorotoluene	µg/L	T	**NE**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	4-Methyl-2-Pentanone (Methyl isobutyl ketone)	µg/L	T	**640**	1 U	5 U	1 U	1 U	5 U	1 U	7.5 U	2.5 U
VOCs	Acetic Acid, Methyl Ester	µg/L	T	**8,000**	--	--	--	--	--	--	--	--
VOCs	Acetone	µg/L	T	**7,200**	1 U	15 U	3 U	3 U	15 U	3 U	9 U	**5.3**
VOCs	Acrolein	µg/L	T	**5.0**	5 U	25 U	5 U	5 U	25 U	5 U	15 U	5 U
VOCs	Acrylonitrile	µg/L	T	**1.0**	1 U	5 U	1 U	1 U	5 U	1 U	3 U	1 U
VOCs	Bromobenzene	µg/L	T	**NE**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	Bromochloromethane	µg/L	T	**NE**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	Bromodichloromethane	µg/L	T	**1.8**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	Bromoethane	µg/L	T	**NE**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	Bromoform (Tribromomethane)	µg/L	T	**55**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	Bromomethane	µg/L	T	**11**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	1.5 U	0.5 U
VOCs	Carbon Disulfide	µg/L	T	**400**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	Carbon Tetrachloride	µg/L	T	**0.54**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U

				Sampling Event:	2006 Q3	2006 Q4	2006 Q4	2006 Q4	2006 Q4	2006 Q4	2008 Q4	2008 Q4
				Sample ID:	PGG-2_060711	LAI-1_061024	LAI-2_061024	LAI-5D_061024	LAI-MW-2_061024	PGG-1_061024	LAI-1_081203	LAI-2_090114
				Location:	PGG-2	LAI-1	LAI-2	LAI-5d	LAI-MW-2	PGG-1	LAI-1	LAI-2
				Date:	07/11/06	10/24/06	10/24/06	10/24/06	10/24/06	10/24/06	12/03/08	01/14/09
VOCs	Chlorobenzene	µg/L	T	**100**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	Chloroethane	µg/L	T	**18,000**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	Chloroform	µg/L	T	**1.2**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	Chloromethane	µg/L	T	**150**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	cis-1,2-Dichloroethene	µg/L	T	**16**	0.2 U	**3.4**	0.2 U	0.2 U	1 U	**0.2**	**2.5**	0.2 U
VOCs	cis-1,3-Dichloropropene	µg/L	T	**0.44**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	Cyclohexane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Cyclohexane, Methyl-	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Dibromochloromethane	µg/L	T	**4.5**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	Dibromomethane	µg/L	T	**80**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	Dichlorodifluoromethane (CFC-12)	µg/L	T	**5.7**	--	--	--	--	--	--	--	--
VOCs	Hexachlorobutadiene	µg/L	T	**0.56**	0.5 U	2.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
VOCs	Isopropylbenzene (Cumene)	µg/L	T	**720**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	Methyl Iodide (Iodomethane)	µg/L	T	**NE**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	3 U	1 U
VOCs	Methyl t-butyl ether	µg/L	T	**24**	--	--	--	--	--	--	--	--
VOCs	Methylene Chloride	µg/L	T	**5.0**	0.3 U	**3**	0.3 U	0.3 U	**2.1**	0.3 U	**2.7**	0.5 U
VOCs	n-Butylbenzene	µg/L	T	**400**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	n-Propylbenzene	µg/L	T	**800**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	p-Isopropyltoluene	µg/L	T	**NE**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	Sec-Butylbenzene	µg/L	T	**800**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	Styrene	µg/L	T	**100**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	Tert-Butylbenzene	µg/L	T	**800**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	Tetrachloroethene	µg/L	T	**5.0**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	Trans-1,2-Dichloroethene	µg/L	T	**100**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	Trans-1,3-Dichloropropene	µg/L	T	**0.44**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	Trans-1,4-Dichloro-2-butene	µg/L	T	**NE**	1 U	5 U	1 U	1 U	5 U	1 U	3 U	1 U
VOCs	Trichloroethene	µg/L	T	**1.6**	0.2 U	**40**	**0.5**	0.2 U	**30**	**0.9**	**25**	**1.8**
VOCs	Trichlorofluoromethane (CFC-11)	µg/L	T	**120**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
VOCs	Vinyl Acetate	µg/L	T	**7,800**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	3 U	1 U
VOCs	Vinyl Chloride	µg/L	T	**0.29**	0.2 U	1 U	0.2 U	0.2 U	1 U	0.2 U	0.6 U	0.2 U
PAHs	1-Methylnaphthalene	µg/L	T	**1.5**	--	--	--	--	--	--	1 U	1 U
PAHs	2-Methylnaphthalene	µg/L	T	**32**	1 U	--	--	1 U	1 U	--	1 U	1 U
PAHs	Acenaphthene	µg/L	T	**960**	1 U	--	--	1 U	1 U	--	1 U	1 U
PAHs	Acenaphthylene	µg/L	T	**NE**	1 U	--	--	1 U	1 U	--	1 U	1 U
PAHs	Anthracene	µg/L	T	**4,800**	1 U	--	--	1 U	1 U	--	1 U	1 U
PAHs	Benzo(g,h,i)perylene	µg/L	T	**NE**	1 U	--	--	1 U	1 U	--	1 U	1 U
PAHs	Fluoranthene	µg/L	T	**640**	1 U	--	--	1 U	1 U	--	1 U	1 U
PAHs	Fluorene	µg/L	T	**640**	1 U	--	--	1 U	1 U	--	1 U	1 U
PAHs	Naphthalene	µg/L	T	**8.9**	0.5 U	2.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
PAHs	Phenanthrene	µg/L	T	**NE**	1 U	--	--	1 U	1 U	--	1 U	1 U
PAHs	Pyrene	µg/L	T	**480**	1 U	--	--	1 U	1 U	--	1 U	1 U
PAHs	Benzo(a)pyrene	µg/L	T	**NE**	1 U	--	--	1 U	1 U	--	1 U	1 U
PAHs	Benzo(a)anthracene	µg/L	T	**NE**	1 U	--	--	1 U	1 U	--	1 U	1 U
PAHs	Benzo(b)fluoranthene	µg/L	T	**NE**	1 U	--	--	1 U	1 U	--	1 U	1 U
PAHs	Benzo(k)fluoranthene	µg/L	T	**NE**	1 U	--	--	1 U	1 U	--	1 U	1 U
PAHs	Benzofluoranthenes (Total)	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Dibenzo(a,h)anthracene	µg/L	T	**NE**	1 U	--	--	1 U	1 U	--	1 U	1 U
PAHs	Indeno(1,2,3-c,d)pyrene	µg/L	T	**NE**	1 U	--	--	1 U	1 U	--	1 U	1 U
PAHs	Chrysene	µg/L	T	**NE**	1 U	--	--	1 U	1 U	--	1 U	1 U
PAHs	Total cPAH TEQ (ND=0.5RL)	µg/L	T	**0.20**	0.755 U	--	--	0.755 U	0.755 U	--	0.755 U	0.755 U
PAHs	Dibenzofuran	µg/L	T	**16**	1 U	--	--	1 U	1 U	--	1 U	1 U
SVOCs	1,1'-Biphenyl	µg/L	T	**5.5**	--	--	--	--	--	--	--	--

				Sampling Event:	**2006 Q3**	**2006 Q4**	**2006 Q4**	**2006 Q4**	**2006 Q4**	**2006 Q4**	**2008 Q4**	**2008 Q4**
				Sample ID:	**PGG-2_060711**	**LAI-1_061024**	**LAI-2_061024**	**LAI-5D_061024**	**LAI-MW-2_061024**	**PGG-1_061024**	**LAI-1_081203**	**LAI-2_090114**
				Location:	**PGG-2**	**LAI-1**	**LAI-2**	**LAI-5d**	**LAI-MW-2**	**PGG-1**	**LAI-1**	**LAI-2**
				Date:	**07/11/06**	**10/24/06**	**10/24/06**	**10/24/06**	**10/24/06**	**10/24/06**	**12/03/08**	**01/14/09**
SVOCs	1,2,4,5-Tetrachlorobenzene	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	2,2'-Oxybis[1-chloropropane]	µg/L	T	**1.0**	1 U	--	--	1 U	1 U	--	1 U	1 U
SVOCs	2,3,4,6-Tetrachlorophenol	µg/L	T	**480**	--	--	--	--	--	--	--	--
SVOCs	2,4,5-Trichlorophenol	µg/L	T	**800**	5 U	--	--	5 U	5 U	--	5 U	5 U
SVOCs	2,4,6-Trichlorophenol	µg/L	T	**5.0**	5 U	--	--	5 U	5 U	--	5 U	5 U
SVOCs	2,4-Dichlorophenol	µg/L	T	**24**	5 U	--	--	5 U	5 U	--	5 U	5 U
SVOCs	2,4-Dimethylphenol	µg/L	T	**160**	1 U	--	--	1 U	1 U	--	1 U	1 U
SVOCs	2,4-Dinitrophenol	µg/L	T	**32**	10 U	--	--	10 U	10 U	--	10 U	10 U
SVOCs	2,4-Dinitrotoluene	µg/L	T	**5.0**	5 U	--	--	5 U	5 U	--	5 U	5 U
SVOCs	2,6-Dinitrotoluene	µg/L	T	**5.0**	5 U	--	--	5 U	5 U	--	5 U	5 U
SVOCs	2-Chloronaphthalene	µg/L	T	**640**	1 U	--	--	1 U	1 U	--	1 U	1 U
SVOCs	2-Chlorophenol	µg/L	T	**40**	1 U	--	--	1 U	1 U	--	1 U	1 U
SVOCs	2-methylphenol (o-Cresol)	µg/L	T	**400**	1 U	--	--	1 U	1 U	--	1 U	1 U
SVOCs	2-Nitroaniline	µg/L	T	**160**	5 U	--	--	5 U	5 U	--	5 U	5 U
SVOCs	2-Nitrophenol	µg/L	T	**NE**	5 U	--	--	5 U	5 U	--	5 U	5 U
SVOCs	3 & 4 Methylphenol	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	3,3'-Dichlorobenzidine	µg/L	T	**5.0**	5 U	--	--	5 U	5 U	--	5 U	5 U
SVOCs	3-Nitroaniline	µg/L	T	**NE**	5 U	--	--	5 U	5 U	--	5 U	5 U
SVOCs	4,6-Dinitro-2-Methylphenol	µg/L	T	**NE**	10 U	--	--	10 U	10 U	--	10 U	10 U
SVOCs	4-Bromophenyl phenyl ether	µg/L	T	**NE**	1 U	--	--	1 U	1 U	--	1 U	1 U
SVOCs	4-Chloro-3-Methylphenol	µg/L	T	**NE**	5 U	--	--	5 U	5 U	--	5 U	5 U
SVOCs	4-Chloroaniline	µg/L	T	**5.0**	5 U	--	--	5 U	5 U	--	5 U	5 U
SVOCs	4-Chlorophenyl-Phenylether	µg/L	T	**NE**	1 U	--	--	1 U	1 U	--	1 U	1 U
SVOCs	4-methylphenol (p-Cresol)	µg/L	T	**800**	1 U	--	--	1 U	1 U	--	1 U	1 U
SVOCs	4-Nitroaniline	µg/L	T	**NE**	5 U	--	--	5 U	5 U	--	5 U	5 U
SVOCs	4-Nitrophenol (p-Nitrophenol)	µg/L	T	**NE**	5 U	--	--	5 U	5 U	--	5 U	5 U
SVOCs	Atrazine	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	Benzaldehyde	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	Benzoic Acid	µg/L	T	**64,000**	10 U	--	--	10 U	10 U	--	10 U	10 U
SVOCs	Benzyl Alcohol	µg/L	T	**800**	5 U	--	--	5 U	5 U	--	5 U	5 U
SVOCs	Bis(2-Chloroethoxy)Methane	µg/L	T	**NE**	1 U	--	--	1 U	1 U	--	1 U	1 U
SVOCs	Bis(2-Chloroethyl)Ether	µg/L	T	**1.0**	1 U	--	--	1 U	1 U	--	1 U	1 U
SVOCs	Bis(2-chloroisopropyl) ether	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Bis(2-Ethylhexyl) Phthalate	µg/L	T	**6.0**	1 U	--	--	1 U	**14**	--	**28**	1 U
SVOCs	Butyl benzyl Phthalate	µg/L	T	**46**	1 U	--	--	1 U	1 U	--	1 U	1 U
SVOCs	Caprolactam	µg/L	T	**8,000**	--	--	--	--	--	--	--	--

				Sampling Event: **Sample ID:** **Location:** **Date:**	**2006 Q3** **PGG-2_060711** **PGG-2** **07/11/06**	**2006 Q4** **LAI-1_061024** **LAI-1** **10/24/06**	**2006 Q4** **LAI-2_061024** **LAI-2** **10/24/06**	**2006 Q4** **LAI-5D_061024** **LAI-5d** **10/24/06**	**2006 Q4** **LAI-MW-2_061024** **LAI-MW-2** **10/24/06**	**2006 Q4** **PGG-1_061024** **PGG-1** **10/24/06**	**2008 Q4** **LAI-1_081203** **LAI-1** **12/03/08**	**2008 Q4** **LAI-2_090114** **LAI-2** **01/14/09**
SVOCs	Carbazole	µg/L	T	**NE**	1 U	--	--	1 U	1 U	--	1 U	1 U
SVOCs	Di-N-Octyl Phthalate	µg/L	T	**160**	1 U	--	--	1 U	1 U	--	1 U	1 U
SVOCs	Dibutyl Phthalate	µg/L	T	**1,600**	1 U	--	--	1 U	1 U	--	1 U	1 U
SVOCs	Diethyl Phthalate	µg/L	T	**13,000**	1 U	--	--	1 U	1 U	--	1 U	1 U
SVOCs	Dimethyl Phthalate	µg/L	T	**NE**	1 U	--	--	1 U	1 U	--	1 U	1 U
SVOCs	Ethanone, 1-Phenyl- (Acetophenone)	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	Hexachlorobenzene	µg/L	T	**1.0**	1 U	--	--	1 U	1 U	--	1 U	1 U
SVOCs	Hexachlorocyclopentadiene	µg/L	T	**48**	5 U	--	--	5 U	5 U	--	5 U	5 U
SVOCs	Hexachloroethane	µg/L	T	**1.1**	1 U	--	--	1 U	1 U	--	1 U	1 U
SVOCs	Isophorone	µg/L	T	**46**	1 U	--	--	1 U	1 U	--	1 U	1 U
SVOCs	N-Nitrosodi-n-propylamine	µg/L	T	**2.0**	5 U	--	--	5 U	5 U	--	5 U	5 U
SVOCs	N-Nitrosodiphenylamine (as diphenylamine)	µg/L	T	**18**	1 U	--	--	1 U	1 U	--	1 U	1 U
SVOCs	Nitrobenzene	µg/L	T	**16**	1 U	--	--	1 U	1 U	--	1 U	1 U
SVOCs	Pentachlorophenol	µg/L	T	**1.0**	5 U	--	--	5 U	5 U	--	5 U	5 U
SVOCs	Phenol	µg/L	T	**2,400**	1 U	--	--	1 U	1 U	--	1 U	1 U
PCBs	PCB-Aroclor 1016	µg/L	T	**1.1**	1 U	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1221	µg/L	T	**NE**	1 U	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1232	µg/L	T	**NE**	1 U	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1242	µg/L	T	**NE**	1 U	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1248	µg/L	T	**NE**	1 U	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1254	µg/L	T	**0.10**	1 U	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1260	µg/L	T	**0.10**	1 U	--	--	--	--	--	--	--
PCBs	Total PCBs	µg/L	T	**0.44**	1 U	--	--	--	--	--	--	--
Conventionals	Ammonia (Total as N)	mg/L as N	--	**NE**	**0.01 U**	**0.037**	**0.02**	**0.398**	**0.172**	**0.01 U**	**0.027**	**0.02**
Conventionals	AMMONIA-NITROGEN	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Carbon	mg/L	--	**NE**	1.5 U	**2.42**	**1.5 U**	**2.25**	**5.62**	**3.17**	1.5 U	1.5 U
Conventionals	CHEMICAL OXYGEN DEMAND	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Chloride	mg/L	--	**NE**	**3.6**	**7.8**	**3.1**	**55.4**	**19.6**	**4.5**	**4.5**	**2.9**
Conventionals	Conductivity	mS/cm	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Dissolved Oxygen	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate	mg/L as N	--	**NE**	--	--	--	--	--	--	--	**0.7**
Conventionals	Nitrate-Nitrite	mg/L as N	--	**NE**	**2.21**	**0.457**	**0.666**	**0.01 U**	**2.32**	**2.59**	**2.68**	**0.7**
Conventionals	Nitrate-nitrogen	mg/L as N	--	**NE**	**2.19**	**0.443**	**0.666**	**0.01 U**	**2.12**	**2.57**	**2.68**	--
Conventionals	Nitrite	mg/L as N	--	**NE**	**0.021**	**0.014**	**0.01 U**	**0.01 U**	**0.204**	**0.018**	0.01 U	0.1 U
Conventionals	Oxidation-Reduction Potential (ORP)	mV	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	pH	SU	--	**NE**	--	--	--	--	--	--	**6.27**	**6.86**
Conventionals	Specific Conductance	umhos/cm	--	**NE**	--	--	--	--	--	--	**584**	**211**
Conventionals	Sulfate	mg/L	--	**NE**	**47.7**	**73.5**	**32.6**	**170**	**38.9**	**54.7**	**92.9**	**24.5**
Conventionals	Temperature	deg C	--	**NE**	--	--	--	--	--	--	**11.6**	**10.2**
Conventionals	Total Dissolved Solids	mg/L	--	**NE**	**244**	**398**	**158**	**732**	**208**	**376**	**302**	**158**
Conventionals	Total Organic Carbon	mg/L	--	**NE**	--	--	--	--	--	--	--	--

				Sampling Event:	**2008 Q4**	**2008 Q4**	**2008 Q4**	**2008 Q4**	**2010 Q4**	**2010 Q4**	**2010 Q4**	**2010 Q4**
				Sample ID:	**LAI-5D_081203**	**LAI-MW-2_081203**	**PGG-1_081203**	**PGG-2_081203**	**LAI-1_101118**	**LAI-2_101118**	**LAI-MW-2_101118**	**PGG-1_101118**
				Location:	**LAI-5d**	**LAI-MW-2**	**PGG-1**	**PGG-2**	**LAI-1**	**LAI-2**	**LAI-MW-2**	**PGG-1**
				Date:	**12/03/08**	**12/03/08**	**12/03/08**	**12/03/08**	**11/18/10**	**11/18/10**	**11/18/10**	**11/18/10**
Parameter Group:	**Parameter:**	**Unit(s):**	**Total (T) or Dissolved (D):**	**Screening Level:**								
Fuels	Gasoline	µg/L	T	**800**	--	--	--	--	--	--	--	--
Fuels	Diesel-range hydrocarbons	µg/L	T	**500**	--	--	--	--	--	--	--	--
Fuels	Lube Oil-range Hydrocarbons	µg/L	T	**500**	--	--	--	--	--	--	--	--
Metals	Aluminum	µg/L	T	**16,000**	--	--	--	--	--	--	--	--
Metals	Aluminum	µg/L	D	**16,000**	--	--	--	--	--	--	--	--
Metals	Antimony	µg/L	T	**6.0**	--	--	--	--	--	--	--	--
Metals	Antimony	µg/L	D	**6.0**	--	--	--	--	--	--	--	--
Metals	Arsenic	µg/L	T	**5.0**	50 U	50 U	50 U	50 U	--	--	--	--
Metals	Arsenic	µg/L	D	**5.0**	50 U	50 U	50 U	50 U	--	--	--	--
Metals	Barium	µg/L	T	**2,000**	--	--	--	--	--	--	--	--
Metals	Barium	µg/L	D	**2,000**	--	--	--	--	--	--	--	--
Metals	Beryllium	µg/L	T	**4.0**	--	--	--	--	--	--	--	--
Metals	Beryllium	µg/L	D	**4.0**	--	--	--	--	--	--	--	--
Metals	Cadmium	µg/L	T	**5.0**	2 U	2 U	2 U	2 U	--	--	--	--
Metals	Cadmium	µg/L	D	**5.0**	2 U	2 U	2 U	2 U	--	--	--	--
Metals	Calcium	µg/L	T	**NE**	--	--	--	--	--	--	--	--
Metals	Calcium	µg/L	D	**NE**	--	--	--	--	--	--	--	--
Metals	Chromium	µg/L	T	**100**	**5**	5 U	5 U	**8**	--	--	--	--
Metals	Chromium	µg/L	D	**100**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Metals	Cobalt	µg/L	T	**100**	--	--	--	--	--	--	--	--
Metals	Cobalt	µg/L	D	**100**	--	--	--	--	--	--	--	--
Metals	Copper	µg/L	T	**640**	--	--	--	--	--	--	--	--
Metals	Copper	µg/L	D	**640**	--	--	--	--	--	--	--	--
Metals	Iron	µg/L	T	**11,000**	**3,610**	**210**	--	**5,860**	--	--	--	--
Metals	Iron	µg/L	D	**11,000**	--	--	50 U	--	50 U	50 U	**330**	50 U
Metals	Lead	µg/L	T	**15**	20 U	20 U	20 U	20 U	--	--	--	--
Metals	Lead	µg/L	D	**15**	20 U	20 U	20 U	20 U	--	--	--	--
Metals	Magnesium	µg/L	T	**NE**	**63,500**	**9,490**	**23,900**	**16,500**	--	--	--	--
Metals	Magnesium	µg/L	D	**NE**	**62,000**	**9,430**	**22,300**	**15,200**	--	--	--	--
Metals	Manganese	µg/L	T	**2,200**	**2,710**	**4**	**8**	**124**	--	--	--	--
Metals	Manganese	µg/L	D	**2,200**	**2,600**	1 U	1 U	1 U	1 U	1 U	**18**	1 U
Metals	Mercury	µg/L	T	**0.89**	0.1 U	0.1 U	0.1 U	0.1 U	--	--	--	--
Metals	Mercury	µg/L	D	**0.89**	0.1 U	0.1 U	0.1 U	0.1 U	--	--	--	--
Metals	Nickel	µg/L	T	**100**	--	--	--	--	--	--	--	--
Metals	Nickel	µg/L	D	**100**	--	--	--	--	--	--	--	--
Metals	Potassium	µg/L	T	**NE**	--	--	--	--	--	--	--	--
Metals	Potassium	µg/L	D	**NE**	--	--	--	--	--	--	--	--
Metals	Selenium	µg/L	T	**50**	--	--	--	--	--	--	--	--
Metals	Selenium	µg/L	D	**50**	--	--	--	--	--	--	--	--
Metals	Silver	µg/L	T	**80**	3 U	3 U	3 U	3 U	--	--	--	--
Metals	Silver	µg/L	D	**80**	3 U	3 U	3 U	3 U	--	--	--	--
Metals	Sodium	µg/L	T	**NE**	--	--	--	--	--	--	--	--
Metals	Sodium	µg/L	D	**NE**	--	--	--	--	--	--	--	--
Metals	Thallium	µg/L	T	**1.0**	--	--	--	--	--	--	--	--

				Sampling Event:	2008 Q4	2008 Q4	2008 Q4	2008 Q4	2010 Q4	2010 Q4	2010 Q4	2010 Q4
				Sample ID:	LAI-5D_081203	LAI-MW-2_081203	PGG-1_081203	PGG-2_081203	LAI-1_101118	LAI-2_101118	LAI-MW-2_101118	PGG-1_101118
				Location:	LAI-5d	LAI-MW-2	PGG-1	PGG-2	LAI-1	LAI-2	LAI-MW-2	PGG-1
				Date:	12/03/08	12/03/08	12/03/08	12/03/08	11/18/10	11/18/10	11/18/10	11/18/10
Metals	Thallium	µg/L	D	**1.0**	--	--	--	--	--	--	--	--
Metals	Vanadium	µg/L	T	**80**	--	--	--	--	--	--	--	--
Metals	Vanadium	µg/L	D	**80**	--	--	--	--	--	--	--	--
Metals	Zinc	µg/L	T	**4,800**	10 U	10 U	10 U	10 U	--	--	--	--
Metals	Zinc	µg/L	D	**4,800**	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
VOCs	Benzene	µg/L	T	**2.4**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Toluene	µg/L	T	**640**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Ethylbenzene	µg/L	T	**700**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Xylene, m-,p-	µg/L	T	**290**	0.4 U	1.2 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
VOCs	Xylene, o-	µg/L	T	**440**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Total Xylenes	µg/L	T	**290**	--	--	--	--	--	--	--	--
VOCs	1,1,1,2-Tetrachloroethane	µg/L	T	**1.7**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,1,1-Trichloroethane	µg/L	T	**200**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,1,2,2-Tetrachloroethane	µg/L	T	**0.22**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	µg/L	T	**1,100**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,1,2-Trichloroethane	µg/L	T	**4.5**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,1-Dichloroethane	µg/L	T	**7.7**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,1-Dichloroethene	µg/L	T	**7.0**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,1-Dichloropropene	µg/L	T	**NE**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,2,3-Trichlorobenzene	µg/L	T	**NE**	0.5 U	1.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VOCs	1,2,3-Trichloropropane	µg/L	T	**0.50**	0.5 U	1.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VOCs	1,2,4-Trichlorobenzene	µg/L	T	**15**	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VOCs	1,2,4-Trimethylbenzene	µg/L	T	**28**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,2-Dibromo-3-Chloropropane	µg/L	T	**0.50**	0.5 U	1.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VOCs	1,2-Dibromoethane	µg/L	T	**0.20**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/L	T	**600**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,2-Dichloroethane	µg/L	T	**4.2**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,2-Dichloropropane	µg/L	T	**3.9**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,3,5-Trichlorobenzene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	1,3,5-Trimethylbenzene	µg/L	T	**80**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/L	T	**NE**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,3-Dichloropropane	µg/L	T	**NE**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/L	T	**4.8**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	2,2-Dichloropropane	µg/L	T	**NE**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	2-Butanone (MEK)	µg/L	T	**4,800**	2.5 U	7.5 U	2.5 U	2.5 U	5 U	5 U	5 U	5 U
VOCs	2-Chloroethyl vinyl ether	µg/L	T	**NE**	1 U	3 U	1 U	1 U	1 U	1 U	1 U	1 U
VOCs	2-Chlorotoluene	µg/L	T	**160**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	2-Hexanone	µg/L	T	**NE**	2.5 U	7.5 U	2.5 U	2.5 U	5 U	5 U	5 U	5 U
VOCs	4-Chlorotoluene	µg/L	T	**NE**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	4-Methyl-2-Pentanone (Methyl isobutyl ketone)	µg/L	T	**640**	2.5 U	7.5 U	2.5 U	2.5 U	5 U	5 U	5 U	5 U
VOCs	Acetic Acid, Methyl Ester	µg/L	T	**8,000**	--	--	--	--	--	--	--	--
VOCs	Acetone	µg/L	T	**7,200**	3 U	9 U	3 U	3 U	5 U	5 U	5 U	5 U
VOCs	Acrolein	µg/L	T	**5.0**	5 U	15 U	5 U	5 U	5 U	5 U	5 U	5 U
VOCs	Acrylonitrile	µg/L	T	**1.0**	1 U	3 U	1 U	1 U	1 U	1 U	1 U	1 U
VOCs	Bromobenzene	µg/L	T	**NE**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Bromochloromethane	µg/L	T	**NE**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Bromodichloromethane	µg/L	T	**1.8**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Bromoethane	µg/L	T	**NE**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Bromoform (Tribromomethane)	µg/L	T	**55**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Bromomethane	µg/L	T	**11**	0.5 U	1.5 U	0.5 U	0.5 U	1 U	1 U	1 U	1 U
VOCs	Carbon Disulfide	µg/L	T	**400**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Carbon Tetrachloride	µg/L	T	**0.54**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U

				Sampling Event:	2008 Q4	2008 Q4	2008 Q4	2008 Q4	2010 Q4	2010 Q4	2010 Q4	2010 Q4
				Sample ID:	LAI-5D_081203	LAI-MW-2_081203	PGG-1_081203	PGG-2_081203	LAI-1_101118	LAI-2_101118	LAI-MW-2_101118	PGG-1_101118
				Location:	LAI-5d	LAI-MW-2	PGG-1	PGG-2	LAI-1	LAI-2	LAI-MW-2	PGG-1
				Date:	12/03/08	12/03/08	12/03/08	12/03/08	11/18/10	11/18/10	11/18/10	11/18/10
VOCs	Chlorobenzene	µg/L	T	**100**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Chloroethane	µg/L	T	**18,000**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Chloroform	µg/L	T	**1.2**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Chloromethane	µg/L	T	**150**	0.2 U	0.6 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U
VOCs	cis-1,2-Dichloroethene	µg/L	T	**16**	0.2 U	**0.8**	**0.2**	0.2 U	**1.9**	0.2 U	**1.1**	0.2 U
VOCs	cis-1,3-Dichloropropene	µg/L	T	**0.44**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Cyclohexane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Cyclohexane, Methyl-	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Dibromochloromethane	µg/L	T	**4.5**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Dibromomethane	µg/L	T	**80**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Dichlorodifluoromethane (CFC-12)	µg/L	T	**5.7**	--	--	--	--	--	--	--	--
VOCs	Hexachlorobutadiene	µg/L	T	**0.56**	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VOCs	Isopropylbenzene (Cumene)	µg/L	T	**720**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Methyl Iodide (Iodomethane)	µg/L	T	**NE**	1 U	3 U	1 U	1 U	1 U	1 U	1 U	1 U
VOCs	Methyl t-butyl ether	µg/L	T	**24**	--	--	--	--	--	--	--	--
VOCs	Methylene Chloride	µg/L	T	**5.0**	0.5 U	**2.5**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VOCs	n-Butylbenzene	µg/L	T	**400**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	n-Propylbenzene	µg/L	T	**800**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	p-Isopropyltoluene	µg/L	T	**NE**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Sec-Butylbenzene	µg/L	T	**800**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Styrene	µg/L	T	**100**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Tert-Butylbenzene	µg/L	T	**800**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Tetrachloroethene	µg/L	T	**5.0**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Trans-1,2-Dichloroethene	µg/L	T	**100**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Trans-1,3-Dichloropropene	µg/L	T	**0.44**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Trans-1,4-Dichloro-2-butene	µg/L	T	**NE**	1 U	3 U	1 U	1 U	1 U	1 U	1 U	1 U
VOCs	Trichloroethene	µg/L	T	**1.6**	0.2 U	**28**	**0.9**	0.2 U	**21**	**1.9**	**42**	**0.5**
VOCs	Trichlorofluoromethane (CFC-11)	µg/L	T	**120**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VOCs	Vinyl Acetate	µg/L	T	**7,800**	1 U	3 U	1 U	1 U	1 U	1 U	1 U	1 U
VOCs	Vinyl Chloride	µg/L	T	**0.29**	0.2 U	0.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
PAHs	1-Methylnaphthalene	µg/L	T	**1.5**	1 U	1 U	1 U	1 U	--	--	--	--
PAHs	2-Methylnaphthalene	µg/L	T	**32**	1 U	1 U	1 U	1 U	--	--	--	--
PAHs	Acenaphthene	µg/L	T	**960**	1 U	1 U	1 U	1 U	--	--	--	--
PAHs	Acenaphthylene	µg/L	T	**NE**	1 U	1 U	1 U	1 U	--	--	--	--
PAHs	Anthracene	µg/L	T	**4,800**	1 U	1 U	1 U	1 U	--	--	--	--
PAHs	Benzo(g,h,i)perylene	µg/L	T	**NE**	1 U	1 U	1 U	1 U	--	--	--	--
PAHs	Fluoranthene	µg/L	T	**640**	1 U	1 U	1 U	1 U	--	--	--	--
PAHs	Fluorene	µg/L	T	**640**	1 U	1 U	1 U	1 U	--	--	--	--
PAHs	Naphthalene	µg/L	T	**8.9**	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
PAHs	Phenanthrene	µg/L	T	**NE**	1 U	1 U	1 U	1 U	--	--	--	--
PAHs	Pyrene	µg/L	T	**480**	1 U	1 U	1 U	1 U	--	--	--	--
PAHs	Benzo(a)pyrene	µg/L	T	**NE**	1 U	1 U	1 U	1 U	--	--	--	--
PAHs	Benzo(a)anthracene	µg/L	T	**NE**	1 U	1 U	1 U	1 U	--	--	--	--
PAHs	Benzo(b)fluoranthene	µg/L	T	**NE**	1 U	1 U	1 U	1 U	--	--	--	--
PAHs	Benzo(k)fluoranthene	µg/L	T	**NE**	1 U	1 U	1 U	1 U	--	--	--	--
PAHs	Benzofluoranthenes (Total)	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Dibenzo(a,h)anthracene	µg/L	T	**NE**	1 U	1 U	1 U	1 U	--	--	--	--
PAHs	Indeno(1,2,3-c,d)pyrene	µg/L	T	**NE**	1 U	1 U	1 U	1 U	--	--	--	--
PAHs	Chrysene	µg/L	T	**NE**	1 U	1 U	1 U	1 U	--	--	--	--
PAHs	Total cPAH TEQ (ND=0.5RL)	µg/L	T	**0.20**	0.755 U	0.755 U	0.755 U	0.755 U	--	--	--	--
PAHs	Dibenzofuran	µg/L	T	**16**	1 U	1 U	1 U	1 U	--	--	--	--
SVOCs	1,1'-Biphenyl	µg/L	T	**5.5**	--	--	--	--	--	--	--	--

				Sampling Event:	**2008 Q4**	**2008 Q4**	**2008 Q4**	**2008 Q4**	**2010 Q4**	**2010 Q4**	**2010 Q4**	**2010 Q4**
				Sample ID:	**LAI-5D_081203**	**LAI-MW-2_081203**	**PGG-1_081203**	**PGG-2_081203**	**LAI-1_101118**	**LAI-2_101118**	**LAI-MW-2_101118**	**PGG-1_101118**
				Location:	**LAI-5d**	**LAI-MW-2**	**PGG-1**	**PGG-2**	**LAI-1**	**LAI-2**	**LAI-MW-2**	**PGG-1**
				Date:	**12/03/08**	**12/03/08**	**12/03/08**	**12/03/08**	**11/18/10**	**11/18/10**	**11/18/10**	**11/18/10**
SVOCs	1,2,4,5-Tetrachlorobenzene	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	2,2'-Oxybis[1-chloropropane]	µg/L	T	**1.0**	1 U	1 U	1 U	1 U	--	--	--	--
SVOCs	2,3,4,6-Tetrachlorophenol	µg/L	T	**480**	--	--	--	--	--	--	--	--
SVOCs	2,4,5-Trichlorophenol	µg/L	T	**800**	5 U	5 U	5 U	5 U	--	--	--	--
SVOCs	2,4,6-Trichlorophenol	µg/L	T	**5.0**	5 U	5 U	5 U	5 U	--	--	--	--
SVOCs	2,4-Dichlorophenol	µg/L	T	**24**	5 U	5 U	5 U	5 U	--	--	--	--
SVOCs	2,4-Dimethylphenol	µg/L	T	**160**	1 U	1 U	1 U	1 U	--	--	--	--
SVOCs	2,4-Dinitrophenol	µg/L	T	**32**	10 U	10 U	10 U	10 U	--	--	--	--
SVOCs	2,4-Dinitrotoluene	µg/L	T	**5.0**	5 U	5 U	5 U	5 U	--	--	--	--
SVOCs	2,6-Dinitrotoluene	µg/L	T	**5.0**	5 U	5 U	5 U	5 U	--	--	--	--
SVOCs	2-Chloronaphthalene	µg/L	T	**640**	1 U	1 U	1 U	1 U	--	--	--	--
SVOCs	2-Chlorophenol	µg/L	T	**40**	1 U	1 U	1 U	1 U	--	--	--	--
SVOCs	2-methylphenol (o-Cresol)	µg/L	T	**400**	1 U	1 U	1 U	1 U	--	--	--	--
SVOCs	2-Nitroaniline	µg/L	T	**160**	5 U	5 U	5 U	5 U	--	--	--	--
SVOCs	2-Nitrophenol	µg/L	T	**NE**	5 U	5 U	5 U	5 U	--	--	--	--
SVOCs	3 & 4 Methylphenol	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	3,3'-Dichlorobenzidine	µg/L	T	**5.0**	5 U	5 U	5 U	5 U	--	--	--	--
SVOCs	3-Nitroaniline	µg/L	T	**NE**	5 U	5 U	5 U	5 U	--	--	--	--
SVOCs	4,6-Dinitro-2-Methylphenol	µg/L	T	**NE**	10 U	10 U	10 U	10 U	--	--	--	--
SVOCs	4-Bromophenyl phenyl ether	µg/L	T	**NE**	1 U	1 U	1 U	1 U	--	--	--	--
SVOCs	4-Chloro-3-Methylphenol	µg/L	T	**NE**	5 U	5 U	5 U	5 U	--	--	--	--
SVOCs	4-Chloroaniline	µg/L	T	**5.0**	5 U	5 U	5 U	5 U	--	--	--	--
SVOCs	4-Chlorophenyl-Phenylether	µg/L	T	**NE**	1 U	1 U	1 U	1 U	--	--	--	--
SVOCs	4-methylphenol (p-Cresol)	µg/L	T	**800**	1 U	1 U	1 U	1 U	--	--	--	--
SVOCs	4-Nitroaniline	µg/L	T	**NE**	5 U	5 U	5 U	5 U	--	--	--	--
SVOCs	4-Nitrophenol (p-Nitrophenol)	µg/L	T	**NE**	5 U	5 U	5 U	5 U	--	--	--	--
SVOCs	Atrazine	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	Benzaldehyde	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	Benzoic Acid	µg/L	T	**64,000**	10 U	10 U	10 U	10 U	--	--	--	--
SVOCs	Benzyl Alcohol	µg/L	T	**800**	5 U	5 U	5 U	5 U	--	--	--	--
SVOCs	Bis(2-Chloroethoxy)Methane	µg/L	T	**NE**	1 U	1 U	1 U	1 U	--	--	--	--
SVOCs	Bis(2-Chloroethyl)Ether	µg/L	T	**1.0**	1 U	1 U	1 U	1 U	--	--	--	--
SVOCs	Bis(2-chloroisopropyl) ether	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Bis(2-Ethylhexyl) Phthalate	µg/L	T	**6.0**	1 U	1 U	1 U	**40**	--	--	--	--
SVOCs	Butyl benzyl Phthalate	µg/L	T	**46**	1 U	1 U	1 U	1 U	--	--	--	--
SVOCs	Caprolactam	µg/L	T	**8,000**	--	--	--	--	--	--	--	--

				Sampling Event:	2008 Q4	2008 Q4	2008 Q4	2008 Q4	2010 Q4	2010 Q4	2010 Q4	2010 Q4
				Sample ID:	LAI-5D_081203	LAI-MW-2_081203	PGG-1_081203	PGG-2_081203	LAI-1_101118	LAI-2_101118	LAI-MW-2_101118	PGG-1_101118
				Location:	LAI-5d	LAI-MW-2	PGG-1	PGG-2	LAI-1	LAI-2	LAI-MW-2	PGG-1
				Date:	12/03/08	12/03/08	12/03/08	12/03/08	11/18/10	11/18/10	11/18/10	11/18/10
SVOCs	Carbazole	µg/L	T	**NE**	1 U	1 U	1 U	1 U	--	--	--	--
SVOCs	Di-N-Octyl Phthalate	µg/L	T	**160**	1 U	1 U	1 U	1 U	--	--	--	--
SVOCs	Dibutyl Phthalate	µg/L	T	**1,600**	1 U	1 U	1 U	1 U	--	--	--	--
SVOCs	Diethyl Phthalate	µg/L	T	**13,000**	1 U	1 U	1 U	1 U	--	--	--	--
SVOCs	Dimethyl Phthalate	µg/L	T	**NE**	1 U	1 U	1 U	1 U	--	--	--	--
SVOCs	Ethanone, 1-Phenyl- (Acetophenone)	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	Hexachlorobenzene	µg/L	T	**1.0**	1 U	1 U	1 U	1 U	--	--	--	--
SVOCs	Hexachlorocyclopentadiene	µg/L	T	**48**	5 U	5 U	5 U	5 U	--	--	--	--
SVOCs	Hexachloroethane	µg/L	T	**1.1**	1 U	1 U	1 U	1 U	--	--	--	--
SVOCs	Isophorone	µg/L	T	**46**	1 U	1 U	1 U	1 U	--	--	--	--
SVOCs	N-Nitrosodi-n-propylamine	µg/L	T	**2.0**	5 U	5 U	5 U	5 U	--	--	--	--
SVOCs	N-Nitrosodiphenylamine (as diphenylamine)	µg/L	T	**18**	1 U	1 U	1 U	1 U	--	--	--	--
SVOCs	Nitrobenzene	µg/L	T	**16**	1 U	1 U	1 U	1 U	--	--	--	--
SVOCs	Pentachlorophenol	µg/L	T	**1.0**	5 U	5 U	5 U	5 U	--	--	--	--
SVOCs	Phenol	µg/L	T	**2,400**	1 U	1 U	1 U	1 U	--	--	--	--
PCBs	PCB-Aroclor 1016	µg/L	T	**1.1**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1221	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1232	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1242	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1248	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1254	µg/L	T	**0.10**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1260	µg/L	T	**0.10**	--	--	--	--	--	--	--	--
PCBs	Total PCBs	µg/L	T	**0.44**	--	--	--	--	--	--	--	--
Conventionals	Ammonia (Total as N)	mg/L as N	--	**NE**	**0.334**	**0.01 U**	**0.01 U**	**0.012**	--	--	--	--
Conventionals	AMMONIA-NITROGEN	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Carbon	mg/L	--	**NE**	**1.5 U**	**1.5 U**	**1.59**	**1.76**	--	--	--	--
Conventionals	CHEMICAL OXYGEN DEMAND	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Chloride	mg/L	--	**NE**	**50.2**	**3.6**	**4.6**	**4.4**	**5.7**	**3.2**	**4.1**	**8.1**
Conventionals	Conductivity	mS/cm	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Dissolved Oxygen	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate-Nitrite	mg/L as N	--	**NE**	**0.01 U**	**2.55**	**4.91**	**2.91**	--	--	--	--
Conventionals	Nitrate-nitrogen	mg/L as N	--	**NE**	**0.01 U**	**2.55**	**4.91**	**2.91**	--	--	--	--
Conventionals	Nitrite	mg/L as N	--	**NE**	0.01 U	0.01 U	**0.01 U**	**0.01 U**	--	--	--	--
Conventionals	Oxidation-Reduction Potential (ORP)	mV	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	pH	SU	--	**NE**	**7.21**	**6.06**	**6.06**	**5.8**	**6.5**	**6.84**	**6.41**	**6.47**
Conventionals	Specific Conductance	umhos/cm	--	**NE**	**985**	**255**	**585**	**416**	**565**	**200**	**314**	**519**
Conventionals	Sulfate	mg/L	--	**NE**	**201**	**38.5**	**68.5**	**48.1**	**76.8**	**20**	**49.9**	**54.5**
Conventionals	Temperature	deg C	--	**NE**	**11.6**	**11.4**	**11.9**	**11.5**	**11.9**	**11.2**	**12.5**	**11.9**
Conventionals	Total Dissolved Solids	mg/L	--	**NE**	**729**	**148**	**363**	**305**	**370**	**114**	**205**	**314**
Conventionals	Total Organic Carbon	mg/L	--	**NE**	--	--	--	--	--	--	--	--

				Sampling Event:	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E
				Sample ID:	JGLX0	JGLX2	JGLX4	JGLX6	JGLX8	JGLY0	JGLY0DL	JGLY2
				Location:	LAI-1	LAI-2	LAI-3	LAI-5d	LAI-MW-1	LAI-MW-2	LAI-MW-2	LAI-MW-3
				Date:	01/15/14	01/14/14	01/13/14	01/15/14	01/13/14	01/15/14	01/15/14	01/14/14
Parameter Group:	**Parameter:**	**Unit(s):**	**Total (T) or Dissolved (D):**	**Screening Level:**								
Fuels	Gasoline	µg/L	T	**800**	--	--	--	--	--	--	--	--
Fuels	Diesel-range hydrocarbons	µg/L	T	**500**	--	--	--	--	--	--	--	--
Fuels	Lube Oil-range Hydrocarbons	µg/L	T	**500**	--	--	--	--	--	--	--	--
Metals	Aluminum	µg/L	T	**16,000**	--	--	--	--	--	--	--	--
Metals	Aluminum	µg/L	D	**16,000**	--	--	--	--	--	--	--	--
Metals	Antimony	µg/L	T	**6.0**	--	--	--	--	--	--	--	--
Metals	Antimony	µg/L	D	**6.0**	--	--	--	--	--	--	--	--
Metals	Arsenic	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
Metals	Arsenic	µg/L	D	**5.0**	--	--	--	--	--	--	--	--
Metals	Barium	µg/L	T	**2,000**	--	--	--	--	--	--	--	--
Metals	Barium	µg/L	D	**2,000**	--	--	--	--	--	--	--	--
Metals	Beryllium	µg/L	T	**4.0**	--	--	--	--	--	--	--	--
Metals	Beryllium	µg/L	D	**4.0**	--	--	--	--	--	--	--	--
Metals	Cadmium	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
Metals	Cadmium	µg/L	D	**5.0**	--	--	--	--	--	--	--	--
Metals	Calcium	µg/L	T	**NE**	--	--	--	--	--	--	--	--
Metals	Calcium	µg/L	D	**NE**	--	--	--	--	--	--	--	--
Metals	Chromium	µg/L	T	**100**	--	--	--	--	--	--	--	--
Metals	Chromium	µg/L	D	**100**	--	--	--	--	--	--	--	--
Metals	Cobalt	µg/L	T	**100**	--	--	--	--	--	--	--	--
Metals	Cobalt	µg/L	D	**100**	--	--	--	--	--	--	--	--
Metals	Copper	µg/L	T	**640**	--	--	--	--	--	--	--	--
Metals	Copper	µg/L	D	**640**	--	--	--	--	--	--	--	--
Metals	Iron	µg/L	T	**11,000**	--	--	--	--	--	--	--	--
Metals	Iron	µg/L	D	**11,000**	--	--	--	--	--	--	--	--
Metals	Lead	µg/L	T	**15**	--	--	--	--	--	--	--	--
Metals	Lead	µg/L	D	**15**	--	--	--	--	--	--	--	--
Metals	Magnesium	µg/L	T	**NE**	--	--	--	--	--	--	--	--
Metals	Magnesium	µg/L	D	**NE**	--	--	--	--	--	--	--	--
Metals	Manganese	µg/L	T	**2,200**	--	--	--	--	--	--	--	--
Metals	Manganese	µg/L	D	**2,200**	--	--	--	--	--	--	--	--
Metals	Mercury	µg/L	T	**0.89**	--	--	--	--	--	--	--	--
Metals	Mercury	µg/L	D	**0.89**	--	--	--	--	--	--	--	--
Metals	Nickel	µg/L	T	**100**	--	--	--	--	--	--	--	--
Metals	Nickel	µg/L	D	**100**	--	--	--	--	--	--	--	--
Metals	Potassium	µg/L	T	**NE**	--	--	--	--	--	--	--	--
Metals	Potassium	µg/L	D	**NE**	--	--	--	--	--	--	--	--
Metals	Selenium	µg/L	T	**50**	--	--	--	--	--	--	--	--
Metals	Selenium	µg/L	D	**50**	--	--	--	--	--	--	--	--
Metals	Silver	µg/L	T	**80**	--	--	--	--	--	--	--	--
Metals	Silver	µg/L	D	**80**	--	--	--	--	--	--	--	--
Metals	Sodium	µg/L	T	**NE**	--	--	--	--	--	--	--	--
Metals	Sodium	µg/L	D	**NE**	--	--	--	--	--	--	--	--
Metals	Thallium	µg/L	T	**1.0**	--	--	--	--	--	--	--	--

				Sampling Event:	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**
				Sample ID:	**JGLX0**	**JGLX2**	**JGLX4**	**JGLX6**	**JGLX8**	**JGLY0**	**JGLY0DL**	**JGLY2**
				Location:	**LAI-1**	**LAI-2**	**LAI-3**	**LAI-5d**	**LAI-MW-1**	**LAI-MW-2**	**LAI-MW-2**	**LAI-MW-3**
				Date:	**01/15/14**	**01/14/14**	**01/13/14**	**01/15/14**	**01/13/14**	**01/15/14**	**01/15/14**	**01/14/14**
Metals	Thallium	µg/L	D	**1.0**	--	--	--	--	--	--	--	--
Metals	Vanadium	µg/L	T	**80**	--	--	--	--	--	--	--	--
Metals	Vanadium	µg/L	D	**80**	--	--	--	--	--	--	--	--
Metals	Zinc	µg/L	T	**4,800**	--	--	--	--	--	--	--	--
Metals	Zinc	µg/L	D	**4,800**	--	--	--	--	--	--	--	--
VOCs	Benzene	µg/L	T	**2.4**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	Toluene	µg/L	T	**640**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	Ethylbenzene	µg/L	T	**700**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	Xylene, m-,p-	µg/L	T	**290**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	Xylene, o-	µg/L	T	**440**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	Total Xylenes	µg/L	T	**290**	--	--	--	--	--	--	--	--
VOCs	1,1,1,2-Tetrachloroethane	µg/L	T	**1.7**	--	--	--	--	--	--	--	--
VOCs	1,1,1-Trichloroethane	µg/L	T	**200**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	1,1,2,2-Tetrachloroethane	µg/L	T	**0.22**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	µg/L	T	**1,100**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	1,1,2-Trichloroethane	µg/L	T	**4.5**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	1,1-Dichloroethane	µg/L	T	**7.7**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	1,1-Dichloroethene	µg/L	T	**7.0**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	1,1-Dichloropropene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	1,2,3-Trichlorobenzene	µg/L	T	**NE**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	1,2,3-Trichloropropane	µg/L	T	**0.50**	--	--	--	--	--	--	--	--
VOCs	1,2,4-Trichlorobenzene	µg/L	T	**15**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	1,2,4-Trimethylbenzene	µg/L	T	**28**	--	--	--	--	--	--	--	--
VOCs	1,2-Dibromo-3-Chloropropane	µg/L	T	**0.50**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	1,2-Dibromoethane	µg/L	T	**0.20**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/L	T	**600**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	1,2-Dichloroethane	µg/L	T	**4.2**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	1,2-Dichloropropane	µg/L	T	**3.9**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	1,3,5-Trichlorobenzene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	1,3,5-Trimethylbenzene	µg/L	T	**80**	--	--	--	--	--	--	--	--
VOCs	1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/L	T	**NE**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	1,3-Dichloropropane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/L	T	**4.8**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	2,2-Dichloropropane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	2-Butanone (MEK)	µg/L	T	**4,800**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
VOCs	2-Chloroethyl vinyl ether	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	2-Chlorotoluene	µg/L	T	**160**	--	--	--	--	--	--	--	--
VOCs	2-Hexanone	µg/L	T	**NE**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
VOCs	4-Chlorotoluene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	4-Methyl-2-Pentanone (Methyl isobutyl ketone)	µg/L	T	**640**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
VOCs	Acetic Acid, Methyl Ester	µg/L	T	**8,000**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	Acetone	µg/L	T	**7,200**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
VOCs	Acrolein	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
VOCs	Acrylonitrile	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
VOCs	Bromobenzene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Bromochloromethane	µg/L	T	**NE**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	Bromodichloromethane	µg/L	T	**1.8**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	Bromoethane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Bromoform (Tribromomethane)	µg/L	T	**55**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	Bromomethane	µg/L	T	**11**	0.50 U	**0.35**	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	Carbon Disulfide	µg/L	T	**400**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	Carbon Tetrachloride	µg/L	T	**0.54**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U

				Sampling Event:	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E
				Sample ID:	JGLX0	JGLX2	JGLX4	JGLX6	JGLX8	JGLY0	JGLY0DL	JGLY2
				Location:	LAI-1	LAI-2	LAI-3	LAI-5d	LAI-MW-1	LAI-MW-2	LAI-MW-2	LAI-MW-3
				Date:	01/15/14	01/14/14	01/13/14	01/15/14	01/13/14	01/15/14	01/15/14	01/14/14
VOCs	Chlorobenzene	µg/L	T	**100**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	Chloroethane	µg/L	T	**18,000**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	Chloroform	µg/L	T	**1.2**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	Chloromethane	µg/L	T	**150**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	cis-1,2-Dichloroethene	µg/L	T	**16**	**1.3**	0.50 U	0.50 U	0.50 U	0.50 U	**0.99**	--	0.50 U
VOCs	cis-1,3-Dichloropropene	µg/L	T	**0.44**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	Cyclohexane	µg/L	T	**NE**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	Cyclohexane, Methyl-	µg/L	T	**NE**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	Dibromochloromethane	µg/L	T	**4.5**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	Dibromomethane	µg/L	T	**80**	--	--	--	--	--	--	--	--
VOCs	Dichlorodifluoromethane (CFC-12)	µg/L	T	**5.7**	0.50 U	0.50 U	0.50 U	0.50 U	**0.34**	0.50 U	--	0.50 U
VOCs	Hexachlorobutadiene	µg/L	T	**0.56**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
VOCs	Isopropylbenzene (Cumene)	µg/L	T	**720**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	Methyl Iodide (Iodomethane)	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Methyl t-butyl ether	µg/L	T	**24**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	Methylene Chloride	µg/L	T	**5.0**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	n-Butylbenzene	µg/L	T	**400**	--	--	--	--	--	--	--	--
VOCs	n-Propylbenzene	µg/L	T	**800**	--	--	--	--	--	--	--	--
VOCs	p-Isopropyltoluene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Sec-Butylbenzene	µg/L	T	**800**	--	--	--	--	--	--	--	--
VOCs	Styrene	µg/L	T	**100**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	Tert-Butylbenzene	µg/L	T	**800**	--	--	--	--	--	--	--	--
VOCs	Tetrachloroethene	µg/L	T	**5.0**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	Trans-1,2-Dichloroethene	µg/L	T	**100**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	Trans-1,3-Dichloropropene	µg/L	T	**0.44**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	Trans-1,4-Dichloro-2-butene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Trichloroethene	µg/L	T	**1.6**	**17**	**1.1**	0.50 U	0.50 U	0.50 U	--	**41**	0.50 U
VOCs	Trichlorofluoromethane (CFC-11)	µg/L	T	**120**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
VOCs	Vinyl Acetate	µg/L	T	**7,800**	--	--	--	--	--	--	--	--
VOCs	Vinyl Chloride	µg/L	T	**0.29**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U
PAHs	1-Methylnaphthalene	µg/L	T	**1.5**	--	--	--	--	--	--	--	--
PAHs	2-Methylnaphthalene	µg/L	T	**32**	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	--	0.10 U
PAHs	Acenaphthene	µg/L	T	**960**	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	--	0.10 U
PAHs	Acenaphthylene	µg/L	T	**NE**	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	--	0.10 U
PAHs	Anthracene	µg/L	T	**4,800**	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	--	0.10 U
PAHs	Benzo(g,h,i)perylene	µg/L	T	**NE**	**0.091**	**0.13**	**0.11**	0.10 U	0.10 U	0.10 U	--	0.10 U
PAHs	Fluoranthene	µg/L	T	**640**	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	--	0.10 U
PAHs	Fluorene	µg/L	T	**640**	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	--	0.10 U
PAHs	Naphthalene	µg/L	T	**8.9**	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	--	0.10 U
PAHs	Phenanthrene	µg/L	T	**NE**	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	--	0.10 U
PAHs	Pyrene	µg/L	T	**480**	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	--	0.10 U
PAHs	Benzo(a)pyrene	µg/L	T	**NE**	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	--	0.10 U
PAHs	Benzo(a)anthracene	µg/L	T	**NE**	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	--	0.10 U
PAHs	Benzo(b)fluoranthene	µg/L	T	**NE**	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	--	0.10 U
PAHs	Benzo(k)fluoranthene	µg/L	T	**NE**	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	--	0.10 U
PAHs	Benzofluoranthenes (Total)	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Dibenzo(a,h)anthracene	µg/L	T	**NE**	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	--	0.10 U
PAHs	Indeno(1,2,3-c,d)pyrene	µg/L	T	**NE**	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	--	0.10 U
PAHs	Chrysene	µg/L	T	**NE**	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	--	0.10 U
PAHs	Total cPAH TEQ (ND=0.5RL)	µg/L	T	**0.20**	0.0755 U	0.0755 U	0.0755 U	0.0755 U	0.0755 U	0.0755 U	--	0.0755 U
PAHs	Dibenzofuran	µg/L	T	**16**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	1,1'-Biphenyl	µg/L	T	**5.5**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U

				Sampling Event:	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E
				Sample ID:	JGLX0	JGLX2	JGLX4	JGLX6	JGLX8	JGLY0	JGLY0DL	JGLY2
				Location:	LAI-1	LAI-2	LAI-3	LAI-5d	LAI-MW-1	LAI-MW-2	LAI-MW-2	LAI-MW-3
				Date:	01/15/14	01/14/14	01/13/14	01/15/14	01/13/14	01/15/14	01/15/14	01/14/14
SVOCs	1,2,4,5-Tetrachlorobenzene	µg/L	T	**5.0**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	2,2'-Oxybis[1-chloropropane]	µg/L	T	**1.0**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	2,3,4,6-Tetrachlorophenol	µg/L	T	**480**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	2,4,5-Trichlorophenol	µg/L	T	**800**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	2,4,6-Trichlorophenol	µg/L	T	**5.0**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	2,4-Dichlorophenol	µg/L	T	**24**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	2,4-Dimethylphenol	µg/L	T	**160**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	2,4-Dinitrophenol	µg/L	T	**32**	10 U	10 U	10 U	10 U	10 U	10 U	--	10 U
SVOCs	2,4-Dinitrotoluene	µg/L	T	**5.0**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	2,6-Dinitrotoluene	µg/L	T	**5.0**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	2-Chloronaphthalene	µg/L	T	**640**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	2-Chlorophenol	µg/L	T	**40**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	2-methylphenol (o-Cresol)	µg/L	T	**400**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	2-Nitroaniline	µg/L	T	**160**	10 U	10 U	10 U	10 U	10 U	10 U	--	10 U
SVOCs	2-Nitrophenol	µg/L	T	**NE**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	3 & 4 Methylphenol	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	3,3'-Dichlorobenzidine	µg/L	T	**5.0**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	3-Nitroaniline	µg/L	T	**NE**	10 U	10 U	10 U	10 U	10 U	10 U	--	10 U
SVOCs	4,6-Dinitro-2-Methylphenol	µg/L	T	**NE**	10 U	10 U	10 U	10 U	10 U	10 U	--	10 U
SVOCs	4-Bromophenyl phenyl ether	µg/L	T	**NE**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	4-Chloro-3-Methylphenol	µg/L	T	**NE**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	4-Chloroaniline	µg/L	T	**5.0**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	4-Chlorophenyl-Phenylether	µg/L	T	**NE**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	4-methylphenol (p-Cresol)	µg/L	T	**800**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	4-Nitroaniline	µg/L	T	**NE**	10 U	10 U	10 U	10 U	10 U	10 U	--	10 U
SVOCs	4-Nitrophenol (p-Nitrophenol)	µg/L	T	**NE**	10 U	10 U	10 U	10 U	10 U	10 U	--	10 U
SVOCs	Atrazine	µg/L	T	**5.0**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	Benzaldehyde	µg/L	T	**800**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	Benzoic Acid	µg/L	T	**64,000**	--	--	--	--	--	--	--	--
SVOCs	Benzyl Alcohol	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	Bis(2-Chloroethoxy)Methane	µg/L	T	**NE**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	Bis(2-Chloroethyl)Ether	µg/L	T	**1.0**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	Bis(2-chloroisopropyl) ether	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Bis(2-Ethylhexyl) Phthalate	µg/L	T	**6.0**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	Butyl benzyl Phthalate	µg/L	T	**46**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	Caprolactam	µg/L	T	**8,000**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U

				Sampling Event:	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**
				Sample ID:	**JGLX0**	**JGLX2**	**JGLX4**	**JGLX6**	**JGLX8**	**JGLY0**	**JGLY0DL**	**JGLY2**
				Location:	**LAI-1**	**LAI-2**	**LAI-3**	**LAI-5d**	**LAI-MW-1**	**LAI-MW-2**	**LAI-MW-2**	**LAI-MW-3**
				Date:	**01/15/14**	**01/14/14**	**01/13/14**	**01/15/14**	**01/13/14**	**01/15/14**	**01/15/14**	**01/14/14**
SVOCs	Carbazole	µg/L	T	**NE**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	Di-N-Octyl Phthalate	µg/L	T	**160**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	Dibutyl Phthalate	µg/L	T	**1,600**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	Diethyl Phthalate	µg/L	T	**13,000**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	Dimethyl Phthalate	µg/L	T	**NE**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	Ethanone, 1-Phenyl- (Acetophenone)	µg/L	T	**800**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	Hexachlorobenzene	µg/L	T	**1.0**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	Hexachlorocyclopentadiene	µg/L	T	**48**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	Hexachloroethane	µg/L	T	**1.1**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	Isophorone	µg/L	T	**46**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	N-Nitrosodi-n-propylamine	µg/L	T	**2.0**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	N-Nitrosodiphenylamine (as diphenylamine)	µg/L	T	**18**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	Nitrobenzene	µg/L	T	**16**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
SVOCs	Pentachlorophenol	µg/L	T	**1.0**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	--	0.20 U
SVOCs	Phenol	µg/L	T	**2,400**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
PCBs	PCB-Aroclor 1016	µg/L	T	**1.1**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1221	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1232	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1242	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1248	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1254	µg/L	T	**0.10**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1260	µg/L	T	**0.10**	--	--	--	--	--	--	--	--
PCBs	Total PCBs	µg/L	T	**0.44**	--	--	--	--	--	--	--	--
Conventionals	Ammonia (Total as N)	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	AMMONIA-NITROGEN	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Carbon	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	CHEMICAL OXYGEN DEMAND	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Chloride	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Conductivity	mS/cm	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Dissolved Oxygen	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate-Nitrite	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate-nitrogen	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrite	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Oxidation-Reduction Potential (ORP)	mV	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	pH	SU	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Specific Conductance	umhos/cm	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Sulfate	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Temperature	deg C	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Total Dissolved Solids	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Total Organic Carbon	mg/L	--	**NE**	--	--	--	--	--	--	--	--

				Sampling Event:	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**
				Sample ID:	**JGLY4**	**JGLY6**	**JGLY8**	**JGLZ0**	**MJGLX0**	**MJGLX1**	**MJGLX2**	**MJGLX3**
				Location:	**LAI-MW-4**	**PGG-1**	**PGG-2**	**MW-23**	**LAI-1**	**LAI-1**	**LAI-2**	**LAI-2**
				Date:	**01/13/14**	**01/14/14**	**01/14/14**	**01/23/14**	**01/15/14**	**01/15/14**	**01/14/14**	**01/14/14**
Parameter Group:	**Parameter:**	**Unit(s):**	**Total (T) or Dissolved (D):**	**Screening Level:**								
Fuels	Gasoline	µg/L	T	**800**	--	--	--	--	--	--	--	--
Fuels	Diesel-range hydrocarbons	µg/L	T	**500**	--	--	--	--	--	--	--	--
Fuels	Lube Oil-range Hydrocarbons	µg/L	T	**500**	--	--	--	--	--	--	--	--
Metals	Aluminum	µg/L	T	**16,000**	--	--	--	--	**361**	--	200 U	--
Metals	Aluminum	µg/L	D	**16,000**	--	--	--	--	--	**265**	--	200 U
Metals	Antimony	µg/L	T	**6.0**	--	--	--	--	2.0 U	--	2.0 U	--
Metals	Antimony	µg/L	D	**6.0**	--	--	--	--	--	2.0 U	--	2.0 U
Metals	Arsenic	µg/L	T	**5.0**	--	--	--	--	1.0 U	--	**0.40**	--
Metals	Arsenic	µg/L	D	**5.0**	--	--	--	--	--	1.0 U	--	**0.50**
Metals	Barium	µg/L	T	**2,000**	--	--	--	--	**17.4**	--	**6.2**	--
Metals	Barium	µg/L	D	**2,000**	--	--	--	--	--	**16.9**	--	**5.4**
Metals	Beryllium	µg/L	T	**4.0**	--	--	--	--	1.0 U	--	1.0 U	--
Metals	Beryllium	µg/L	D	**4.0**	--	--	--	--	--	1.0 U	--	1.0 U
Metals	Cadmium	µg/L	T	**5.0**	--	--	--	--	1.0 U	--	1.0 U	--
Metals	Cadmium	µg/L	D	**5.0**	--	--	--	--	--	1.0 U	--	1.0 U
Metals	Calcium	µg/L	T	**NE**	--	--	--	--	**70,200**	--	**15,800**	--
Metals	Calcium	µg/L	D	**NE**	--	--	--	--	--	**69,900**	--	**15,400**
Metals	Chromium	µg/L	T	**100**	--	--	--	--	**1.3**	--	**12.7**	--
Metals	Chromium	µg/L	D	**100**	--	--	--	--	--	**0.99**	--	**1.0**
Metals	Cobalt	µg/L	T	**100**	--	--	--	--	1.0 U	--	**0.26**	--
Metals	Cobalt	µg/L	D	**100**	--	--	--	--	--	1.0 U	--	1.0 U
Metals	Copper	µg/L	T	**640**	--	--	--	--	2.0 U	--	2.0 U	--
Metals	Copper	µg/L	D	**640**	--	--	--	--	--	2.0 U	--	2.0 U
Metals	Iron	µg/L	T	**11,000**	--	--	--	--	**102**	--	**265**	--
Metals	Iron	µg/L	D	**11,000**	--	--	--	--	--	100 U	--	100 U
Metals	Lead	µg/L	T	**15**	--	--	--	--	**0.44**	--	**2.7**	--
Metals	Lead	µg/L	D	**15**	--	--	--	--	--	**0.23**	--	**0.098**
Metals	Magnesium	µg/L	T	**NE**	--	--	--	--	**18,600**	--	**9,340**	--
Metals	Magnesium	µg/L	D	**NE**	--	--	--	--	--	**18,400**	--	**8,960**
Metals	Manganese	µg/L	T	**2,200**	--	--	--	--	2.3	--	**12.8**	--
Metals	Manganese	µg/L	D	**2,200**	--	--	--	--	--	**0.52**	--	**2.3**
Metals	Mercury	µg/L	T	**0.89**	--	--	--	--	0.20 U	--	0.20 U	--
Metals	Mercury	µg/L	D	**0.89**	--	--	--	--	--	0.20 U	--	0.20 U
Metals	Nickel	µg/L	T	**100**	--	--	--	--	**1.5**	--	**12.1**	--
Metals	Nickel	µg/L	D	**100**	--	--	--	--	--	**1.4 J**	--	**1.8 J**
Metals	Potassium	µg/L	T	**NE**	--	--	--	--	**1270**	--	**627**	--
Metals	Potassium	µg/L	D	**NE**	--	--	--	--	--	**1,150**	--	**557**
Metals	Selenium	µg/L	T	**50**	--	--	--	--	5.0 U	--	5.0 U	--
Metals	Selenium	µg/L	D	**50**	--	--	--	--	--	5.0 U	--	5.0 U
Metals	Silver	µg/L	T	**80**	--	--	--	--	**0.15**	--	**0.10**	--
Metals	Silver	µg/L	D	**80**	--	--	--	--	--	1.0 U	--	1.0 U
Metals	Sodium	µg/L	T	**NE**	--	--	--	--	**27,600**	--	**7,290**	--
Metals	Sodium	µg/L	D	**NE**	--	--	--	--	--	**26,900**	--	**6,970**
Metals	Thallium	µg/L	T	**1.0**	--	--	--	--	1.0 U	--	1.0 U	--

				Sampling Event:	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**
				Sample ID:	**JGLY4**	**JGLY6**	**JGLY8**	**JGLZ0**	**MJGLX0**	**MJGLX1**	**MJGLX2**	**MJGLX3**
				Location:	**LAI-MW-4**	**PGG-1**	**PGG-2**	**MW-23**	**LAI-1**	**LAI-1**	**LAI-2**	**LAI-2**
				Date:	**01/13/14**	**01/14/14**	**01/14/14**	**01/23/14**	**01/15/14**	**01/15/14**	**01/14/14**	**01/14/14**
Metals	Thallium	µg/L	D	**1.0**	--	--	--	--	--	1.0 U	--	1.0 U
Metals	Vanadium	µg/L	T	**80**	--	--	--	--	5.0 U	--	5.0 U	--
Metals	Vanadium	µg/L	D	**80**	--	--	--	--	--	5.0 U	--	5.0 U
Metals	Zinc	µg/L	T	**4,800**	--	--	--	--	**9.3 J**	--	**9.0 J**	--
Metals	Zinc	µg/L	D	**4,800**	--	--	--	--	--	**5.9 J**	--	**3.9 J**
VOCs	Benzene	µg/L	T	**2.4**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	Toluene	µg/L	T	**640**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	Ethylbenzene	µg/L	T	**700**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	Xylene, m-,p-	µg/L	T	**290**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	Xylene, o-	µg/L	T	**440**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	Total Xylenes	µg/L	T	**290**	--	--	--	--	--	--	--	--
VOCs	1,1,1,2-Tetrachloroethane	µg/L	T	**1.7**	--	--	--	--	--	--	--	--
VOCs	1,1,1-Trichloroethane	µg/L	T	**200**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	1,1,2,2-Tetrachloroethane	µg/L	T	**0.22**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	µg/L	T	**1,100**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	1,1,2-Trichloroethane	µg/L	T	**4.5**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	1,1-Dichloroethane	µg/L	T	**7.7**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	1,1-Dichloroethene	µg/L	T	**7.0**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	1,1-Dichloropropene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	1,2,3-Trichlorobenzene	µg/L	T	**NE**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	1,2,3-Trichloropropane	µg/L	T	**0.50**	--	--	--	--	--	--	--	--
VOCs	1,2,4-Trichlorobenzene	µg/L	T	**15**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	1,2,4-Trimethylbenzene	µg/L	T	**28**	--	--	--	--	--	--	--	--
VOCs	1,2-Dibromo-3-Chloropropane	µg/L	T	**0.50**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	1,2-Dibromoethane	µg/L	T	**0.20**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/L	T	**600**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	1,2-Dichloroethane	µg/L	T	**4.2**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	1,2-Dichloropropane	µg/L	T	**3.9**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	1,3,5-Trichlorobenzene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	1,3,5-Trimethylbenzene	µg/L	T	**80**	--	--	--	--	--	--	--	--
VOCs	1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/L	T	**NE**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	1,3-Dichloropropane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/L	T	**4.8**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	2,2-Dichloropropane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	2-Butanone (MEK)	µg/L	T	**4,800**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
VOCs	2-Chloroethyl vinyl ether	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	2-Chlorotoluene	µg/L	T	**160**	--	--	--	--	--	--	--	--
VOCs	2-Hexanone	µg/L	T	**NE**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
VOCs	4-Chlorotoluene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	4-Methyl-2-Pentanone (Methyl isobutyl ketone)	µg/L	T	**640**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
VOCs	Acetic Acid, Methyl Ester	µg/L	T	**8,000**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	Acetone	µg/L	T	**7,200**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
VOCs	Acrolein	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
VOCs	Acrylonitrile	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
VOCs	Bromobenzene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Bromochloromethane	µg/L	T	**NE**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	Bromodichloromethane	µg/L	T	**1.8**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	Bromoethane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Bromoform (Tribromomethane)	µg/L	T	**55**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	Bromomethane	µg/L	T	**11**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	Carbon Disulfide	µg/L	T	**400**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	Carbon Tetrachloride	µg/L	T	**0.54**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--

				Sampling Event:	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**
				Sample ID:	**JGLY4**	**JGLY6**	**JGLY8**	**JGLZ0**	**MJGLX0**	**MJGLX1**	**MJGLX2**	**MJGLX3**
				Location:	**LAI-MW-4**	**PGG-1**	**PGG-2**	**MW-23**	**LAI-1**	**LAI-1**	**LAI-2**	**LAI-2**
				Date:	**01/13/14**	**01/14/14**	**01/14/14**	**01/23/14**	**01/15/14**	**01/15/14**	**01/14/14**	**01/14/14**
VOCs	Chlorobenzene	µg/L	T	**100**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	Chloroethane	µg/L	T	**18,000**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	Chloroform	µg/L	T	**1.2**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	Chloromethane	µg/L	T	**150**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	cis-1,2-Dichloroethene	µg/L	T	**16**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	cis-1,3-Dichloropropene	µg/L	T	**0.44**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	Cyclohexane	µg/L	T	**NE**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	Cyclohexane, Methyl-	µg/L	T	**NE**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	Dibromochloromethane	µg/L	T	**4.5**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	Dibromomethane	µg/L	T	**80**	--	--	--	--	--	--	--	--
VOCs	Dichlorodifluoromethane (CFC-12)	µg/L	T	**5.7**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	Hexachlorobutadiene	µg/L	T	**0.56**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
VOCs	Isopropylbenzene (Cumene)	µg/L	T	**720**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	Methyl Iodide (Iodomethane)	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Methyl t-butyl ether	µg/L	T	**24**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	Methylene Chloride	µg/L	T	**5.0**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	n-Butylbenzene	µg/L	T	**400**	--	--	--	--	--	--	--	--
VOCs	n-Propylbenzene	µg/L	T	**800**	--	--	--	--	--	--	--	--
VOCs	p-Isopropyltoluene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Sec-Butylbenzene	µg/L	T	**800**	--	--	--	--	--	--	--	--
VOCs	Styrene	µg/L	T	**100**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	Tert-Butylbenzene	µg/L	T	**800**	--	--	--	--	--	--	--	--
VOCs	Tetrachloroethene	µg/L	T	**5.0**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	Trans-1,2-Dichloroethene	µg/L	T	**100**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	Trans-1,3-Dichloropropene	µg/L	T	**0.44**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	Trans-1,4-Dichloro-2-butene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Trichloroethene	µg/L	T	**1.6**	0.50 U	**0.27 J**	0.50 U	0.50 U	--	--	--	--
VOCs	Trichlorofluoromethane (CFC-11)	µg/L	T	**120**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
VOCs	Vinyl Acetate	µg/L	T	**7,800**	--	--	--	--	--	--	--	--
VOCs	Vinyl Chloride	µg/L	T	**0.29**	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--	--
PAHs	1-Methylnaphthalene	µg/L	T	**1.5**	--	--	--	--	--	--	--	--
PAHs	2-Methylnaphthalene	µg/L	T	**32**	0.10 U	0.10 U	0.10 U	0.10 U	--	--	--	--
PAHs	Acenaphthene	µg/L	T	**960**	0.10 U	0.10 U	0.10 U	0.10 U	--	--	--	--
PAHs	Acenaphthylene	µg/L	T	**NE**	0.10 U	0.10 U	0.10 U	0.10 U	--	--	--	--
PAHs	Anthracene	µg/L	T	**4,800**	0.10 U	0.10 U	0.10 U	0.10 U	--	--	--	--
PAHs	Benzo(g,h,i)perylene	µg/L	T	**NE**	0.10 U	0.10 U	0.10 U	0.10 U	--	--	--	--
PAHs	Fluoranthene	µg/L	T	**640**	0.10 U	0.10 U	0.10 U	0.10 U	--	--	--	--
PAHs	Fluorene	µg/L	T	**640**	0.10 U	0.10 U	0.10 U	0.10 U	--	--	--	--
PAHs	Naphthalene	µg/L	T	**8.9**	0.10 U	0.10 U	0.10 U	0.10 U	--	--	--	--
PAHs	Phenanthrene	µg/L	T	**NE**	0.10 U	0.10 U	0.10 U	0.10 U	--	--	--	--
PAHs	Pyrene	µg/L	T	**480**	0.10 U	0.10 U	0.10 U	0.10 U	--	--	--	--
PAHs	Benzo(a)pyrene	µg/L	T	**NE**	0.10 U	0.10 U	0.10 U	0.10 U	--	--	--	--
PAHs	Benzo(a)anthracene	µg/L	T	**NE**	0.10 U	0.10 U	0.10 U	0.10 U	--	--	--	--
PAHs	Benzo(b)fluoranthene	µg/L	T	**NE**	0.10 U	0.10 U	0.10 U	0.10 U	--	--	--	--
PAHs	Benzo(k)fluoranthene	µg/L	T	**NE**	0.10 U	0.10 U	0.10 U	0.10 U	--	--	--	--
PAHs	Benzofluoranthenes (Total)	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Dibenzo(a,h)anthracene	µg/L	T	**NE**	0.10 U	0.10 U	0.10 U	0.10 U	--	--	--	--
PAHs	Indeno(1,2,3-c,d)pyrene	µg/L	T	**NE**	0.10 U	0.10 U	0.10 U	0.10 U	--	--	--	--
PAHs	Chrysene	µg/L	T	**NE**	0.10 U	0.10 U	0.10 U	0.10 U	--	--	--	--
PAHs	Total cPAH TEQ (ND=0.5RL)	µg/L	T	**0.20**	0.0755 U	0.0755 U	0.0755 U	0.0755 U	--	--	--	--
PAHs	Dibenzofuran	µg/L	T	**16**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	1,1'-Biphenyl	µg/L	T	**5.5**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--

				Sampling Event:	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E
				Sample ID:	**JGLY4**	**JGLY6**	**JGLY8**	**JGLZ0**	**MJGLX0**	**MJGLX1**	**MJGLX2**	**MJGLX3**
				Location:	**LAI-MW-4**	**PGG-1**	**PGG-2**	**MW-23**	**LAI-1**	**LAI-1**	**LAI-2**	**LAI-2**
				Date:	**01/13/14**	**01/14/14**	**01/14/14**	**01/23/14**	**01/15/14**	**01/15/14**	**01/14/14**	**01/14/14**
SVOCs	1,2,4,5-Tetrachlorobenzene	µg/L	T	**5.0**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	2,2'-Oxybis[1-chloropropane]	µg/L	T	**1.0**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	2,3,4,6-Tetrachlorophenol	µg/L	T	**480**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	2,4,5-Trichlorophenol	µg/L	T	**800**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	2,4,6-Trichlorophenol	µg/L	T	**5.0**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	2,4-Dichlorophenol	µg/L	T	**24**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	2,4-Dimethylphenol	µg/L	T	**160**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	2,4-Dinitrophenol	µg/L	T	**32**	10 U	10 U	10 U	10 U	--	--	--	--
SVOCs	2,4-Dinitrotoluene	µg/L	T	**5.0**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	2,6-Dinitrotoluene	µg/L	T	**5.0**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	2-Chloronaphthalene	µg/L	T	**640**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	2-Chlorophenol	µg/L	T	**40**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	2-methylphenol (o-Cresol)	µg/L	T	**400**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	2-Nitroaniline	µg/L	T	**160**	10 U	10 U	10 U	10 U	--	--	--	--
SVOCs	2-Nitrophenol	µg/L	T	**NE**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	3 & 4 Methylphenol	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	3,3'-Dichlorobenzidine	µg/L	T	**5.0**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	3-Nitroaniline	µg/L	T	**NE**	10 U	10 U	10 U	10 U	--	--	--	--
SVOCs	4,6-Dinitro-2-Methylphenol	µg/L	T	**NE**	10 U	10 U	10 U	10 U	--	--	--	--
SVOCs	4-Bromophenyl phenyl ether	µg/L	T	**NE**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	4-Chloro-3-Methylphenol	µg/L	T	**NE**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	4-Chloroaniline	µg/L	T	**5.0**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	4-Chlorophenyl-Phenylether	µg/L	T	**NE**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	4-methylphenol (p-Cresol)	µg/L	T	**800**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	4-Nitroaniline	µg/L	T	**NE**	10 U	10 U	10 U	10 U	--	--	--	--
SVOCs	4-Nitrophenol (p-Nitrophenol)	µg/L	T	**NE**	10 U	10 U	10 U	10 U	--	--	--	--
SVOCs	Atrazine	µg/L	T	**5.0**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	Benzaldehyde	µg/L	T	**800**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	Benzoic Acid	µg/L	T	**64,000**	--	--	--	--	--	--	--	--
SVOCs	Benzyl Alcohol	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	Bis(2-Chloroethoxy)Methane	µg/L	T	**NE**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	Bis(2-Chloroethyl)Ether	µg/L	T	**1.0**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	Bis(2-chloroisopropyl) ether	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Bis(2-Ethylhexyl) Phthalate	µg/L	T	**6.0**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	Butyl benzyl Phthalate	µg/L	T	**46**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	Caprolactam	µg/L	T	**8,000**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--

				Sampling Event:	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E
				Sample ID:	**JGLY4**	**JGLY6**	**JGLY8**	**JGLZ0**	**MJGLX0**	**MJGLX1**	**MJGLX2**	**MJGLX3**
				Location:	**LAI-MW-4**	**PGG-1**	**PGG-2**	**MW-23**	**LAI-1**	**LAI-1**	**LAI-2**	**LAI-2**
				Date:	**01/13/14**	**01/14/14**	**01/14/14**	**01/23/14**	**01/15/14**	**01/15/14**	**01/14/14**	**01/14/14**
SVOCs	Carbazole	µg/L	T	**NE**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	Di-N-Octyl Phthalate	µg/L	T	**160**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	Dibutyl Phthalate	µg/L	T	**1,600**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	Diethyl Phthalate	µg/L	T	**13,000**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	Dimethyl Phthalate	µg/L	T	**NE**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	Ethanone, 1-Phenyl- (Acetophenone)	µg/L	T	**800**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	Hexachlorobenzene	µg/L	T	**1.0**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	Hexachlorocyclopentadiene	µg/L	T	**48**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	Hexachloroethane	µg/L	T	**1.1**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	Isophorone	µg/L	T	**46**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	N-Nitrosodi-n-propylamine	µg/L	T	**2.0**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	N-Nitrosodiphenylamine (as diphenylamine)	µg/L	T	**18**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	Nitrobenzene	µg/L	T	**16**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
SVOCs	Pentachlorophenol	µg/L	T	**1.0**	0.20 U	0.20 U	0.20 U	0.20 U	--	--	--	--
SVOCs	Phenol	µg/L	T	**2,400**	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
PCBs	PCB-Aroclor 1016	µg/L	T	**1.1**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1221	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1232	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1242	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1248	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1254	µg/L	T	**0.10**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1260	µg/L	T	**0.10**	--	--	--	--	--	--	--	--
PCBs	Total PCBs	µg/L	T	**0.44**	--	--	--	--	--	--	--	--
Conventionals	Ammonia (Total as N)	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	AMMONIA-NITROGEN	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Carbon	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	CHEMICAL OXYGEN DEMAND	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Chloride	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Conductivity	mS/cm	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Dissolved Oxygen	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate-Nitrite	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate-nitrogen	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrite	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Oxidation-Reduction Potential (ORP)	mV	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	pH	SU	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Specific Conductance	umhos/cm	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Sulfate	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Temperature	deg C	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Total Dissolved Solids	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Total Organic Carbon	mg/L	--	**NE**	--	--	--	--	--	--	--	--

				Sampling Event:	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E
				Sample ID:	MJGLX4	MJGLX4D	MJGLX5	MJGLX5D	MJGLX6	MJGLX7	MJGLX8	MJGLX9
				Location:	LAI-3	LAI-3	LAI-3	LAI-3	LAI-5d	LAI-5d	LAI-MW-1	LAI-MW-1
				Date:	01/13/14	01/13/14	01/13/14	01/13/14	01/15/14	01/15/14	01/13/14	01/13/14
Parameter Group:	**Parameter:**	**Unit(s):**	**Total (T) or Dissolved (D):**	**Screening Level:**								
Fuels	Gasoline	µg/L	T	**800**	--	--	--	--	--	--	--	--
Fuels	Diesel-range hydrocarbons	µg/L	T	**500**	--	--	--	--	--	--	--	--
Fuels	Lube Oil-range Hydrocarbons	µg/L	T	**500**	--	--	--	--	--	--	--	--
Metals	Aluminum	µg/L	T	**16,000**	200 U	200 U	--	--	**549**	--	**251**	--
Metals	Aluminum	µg/L	D	**16,000**	--	--	200 U	200 U	--	**456**	--	200 U
Metals	Antimony	µg/L	T	**6.0**	2.0 U	2.0 U	--	--	2.0 U	--	2.0 U	--
Metals	Antimony	µg/L	D	**6.0**	--	--	2.0 U	2.0 U	--	2.0 U	--	2.0 U
Metals	Arsenic	µg/L	T	**5.0**	1.0 U	**0.26**	--	--	**0.93**	--	1.0 U	--
Metals	Arsenic	µg/L	D	**5.0**	--	--	1.0 U	1.0 U	--	**0.98**	--	1.0 U
Metals	Barium	µg/L	T	**2,000**	**3.7**	**3.7**	--	--	**73.3**	--	**7.0**	--
Metals	Barium	µg/L	D	**2,000**	--	--	**3.4**	**3.9**	--	**72.5**	--	**5.7**
Metals	Beryllium	µg/L	T	**4.0**	1.0 U	1.0 U	--	--	1.0 U	--	1.0 U	--
Metals	Beryllium	µg/L	D	**4.0**	--	--	1.0 U	1.0 U	--	1.0 U	--	1.0 U
Metals	Cadmium	µg/L	T	**5.0**	1.0 U	1.0 U	--	--	1.0 U	--	1.0 U	--
Metals	Cadmium	µg/L	D	**5.0**	--	--	1.0 U	1.0 U	--	1.0 U	--	1.0 U
Metals	Calcium	µg/L	T	**NE**	**14,900**	**14,900**	--	--	**118,000**	--	**21,400**	--
Metals	Calcium	µg/L	D	**NE**	--	--	**15,400**	**15,100**	--	**117,000**	--	**22,000**
Metals	Chromium	µg/L	T	**100**	**0.86**	**2.6**	--	--	**2.5**	--	**3.8**	--
Metals	Chromium	µg/L	D	**100**	--	--	**0.66**	**1.3**	--	**0.82**	--	**1.0**
Metals	Cobalt	µg/L	T	**100**	1.0 U	1.0 U	--	--	1.0 U	--	**0.12**	--
Metals	Cobalt	µg/L	D	**100**	--	--	1.0 U	1.0 U	--	1.0 U	--	1.0 U
Metals	Copper	µg/L	T	**640**	2.0 U	2.0 U	--	--	2.0 U	--	2.0 U	--
Metals	Copper	µg/L	D	**640**	--	--	2.0 U	2.0 U	--	2.0 U	--	2.0 U
Metals	Iron	µg/L	T	**11,000**	100 U	100 U	--	--	**2,410**	--	**293**	--
Metals	Iron	µg/L	D	**11,000**	--	--	100 U	100 U	--	**2,250**	--	100 U
Metals	Lead	µg/L	T	**15**	**0.25**	**0.27**	--	--	**0.45**	--	**0.34**	--
Metals	Lead	µg/L	D	**15**	--	--	**0.48**	**0.48**	--	**0.14**	--	**0.12**
Metals	Magnesium	µg/L	T	**NE**	**4,170**	**4,200**	--	--	**58,900**	--	**5,270**	--
Metals	Magnesium	µg/L	D	**NE**	--	--	**4,300**	**4,250**	--	**58,200**	--	**5,330**
Metals	Manganese	µg/L	T	**2,200**	**0.99**	**1.1**	--	--	**2,420**	--	**5.0**	--
Metals	Manganese	µg/L	D	**2,200**	--	--	**0.54**	**1.1**	--	**2,370**	--	**0.99**
Metals	Mercury	µg/L	T	**0.89**	**0.012**	**0.012**	--	--	0.20 U	--	0.20 U	--
Metals	Mercury	µg/L	D	**0.89**	--	--	0.20 U	0.20 U	--	0.20 U	--	0.20 U
Metals	Nickel	µg/L	T	**100**	**2.1**	**2.1**	--	--	**3.5**	--	**3.5**	--
Metals	Nickel	µg/L	D	**100**	--	--	**0.57**	**2.1**	--	**1.4 J**	--	**0.78**
Metals	Potassium	µg/L	T	**NE**	5,000 U	5,000 U	--	--	**7,360**	--	5,000 U	--
Metals	Potassium	µg/L	D	**NE**	--	--	5,000 U	5,000 U	--	**7,320**	--	**124**
Metals	Selenium	µg/L	T	**50**	5.0 U	5.0 U	--	--	**2.6**	--	5.0 U	--
Metals	Selenium	µg/L	D	**50**	--	--	5.0 U	5.0 U	--	**2.5**	--	5.0 U
Metals	Silver	µg/L	T	**80**	1.0 U	1.0 U	--	--	**0.092**	--	**0.066**	--
Metals	Silver	µg/L	D	**80**	--	--	1.0 U	1.0 U	--	1.0 U	--	1.0 U
Metals	Sodium	µg/L	T	**NE**	**7,310**	**7,170**	--	--	**15,900**	--	**9,370**	--
Metals	Sodium	µg/L	D	**NE**	--	--	**7,270**	**7,360**	--	**15,400**	--	**9,630**
Metals	Thallium	µg/L	T	**1.0**	1.0 U	1.0 U	--	--	1.0 U	--	1.0 U	--

				Sampling Event:	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**
				Sample ID:	**MJGLX4**	**MJGLX4D**	**MJGLX5**	**MJGLX5D**	**MJGLX6**	**MJGLX7**	**MJGLX8**	**MJGLX9**
				Location:	**LAI-3**	**LAI-3**	**LAI-3**	**LAI-3**	**LAI-5d**	**LAI-5d**	**LAI-MW-1**	**LAI-MW-1**
				Date:	**01/13/14**	**01/13/14**	**01/13/14**	**01/13/14**	**01/15/14**	**01/15/14**	**01/13/14**	**01/13/14**
Metals	Thallium	µg/L	D	**1.0**	--	--	1.0 U	1.0 U	--	1.0 U	--	1.0 U
Metals	Vanadium	µg/L	T	**80**	5.0 U	5.0 U	--	--	5.0 U	--	5.0 U	--
Metals	Vanadium	µg/L	D	**80**	--	--	5.0 U	5.0 U	--	5.0 U	--	5.0 U
Metals	Zinc	µg/L	T	**4,800**	**13.8 J**	**6.1**	--	--	**12.5 J**	--	**29.5 J**	--
Metals	Zinc	µg/L	D	**4,800**	--	--	**3.4 J**	**8.7**	--	**4.2 J**	--	**5.4 J**
VOCs	Benzene	µg/L	T	**2.4**	--	--	--	--	--	--	--	--
VOCs	Toluene	µg/L	T	**640**	--	--	--	--	--	--	--	--
VOCs	Ethylbenzene	µg/L	T	**700**	--	--	--	--	--	--	--	--
VOCs	Xylene, m-,p-	µg/L	T	**290**	--	--	--	--	--	--	--	--
VOCs	Xylene, o-	µg/L	T	**440**	--	--	--	--	--	--	--	--
VOCs	Total Xylenes	µg/L	T	**290**	--	--	--	--	--	--	--	--
VOCs	1,1,1,2-Tetrachloroethane	µg/L	T	**1.7**	--	--	--	--	--	--	--	--
VOCs	1,1,1-Trichloroethane	µg/L	T	**200**	--	--	--	--	--	--	--	--
VOCs	1,1,2,2-Tetrachloroethane	µg/L	T	**0.22**	--	--	--	--	--	--	--	--
VOCs	1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	µg/L	T	**1,100**	--	--	--	--	--	--	--	--
VOCs	1,1,2-Trichloroethane	µg/L	T	**4.5**	--	--	--	--	--	--	--	--
VOCs	1,1-Dichloroethane	µg/L	T	**7.7**	--	--	--	--	--	--	--	--
VOCs	1,1-Dichloroethene	µg/L	T	**7.0**	--	--	--	--	--	--	--	--
VOCs	1,1-Dichloropropene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	1,2,3-Trichlorobenzene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	1,2,3-Trichloropropane	µg/L	T	**0.50**	--	--	--	--	--	--	--	--
VOCs	1,2,4-Trichlorobenzene	µg/L	T	**15**	--	--	--	--	--	--	--	--
VOCs	1,2,4-Trimethylbenzene	µg/L	T	**28**	--	--	--	--	--	--	--	--
VOCs	1,2-Dibromo-3-Chloropropane	µg/L	T	**0.50**	--	--	--	--	--	--	--	--
VOCs	1,2-Dibromoethane	µg/L	T	**0.20**	--	--	--	--	--	--	--	--
VOCs	1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/L	T	**600**	--	--	--	--	--	--	--	--
VOCs	1,2-Dichloroethane	µg/L	T	**4.2**	--	--	--	--	--	--	--	--
VOCs	1,2-Dichloropropane	µg/L	T	**3.9**	--	--	--	--	--	--	--	--
VOCs	1,3,5-Trichlorobenzene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	1,3,5-Trimethylbenzene	µg/L	T	**80**	--	--	--	--	--	--	--	--
VOCs	1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	1,3-Dichloropropane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/L	T	**4.8**	--	--	--	--	--	--	--	--
VOCs	2,2-Dichloropropane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	2-Butanone (MEK)	µg/L	T	**4,800**	--	--	--	--	--	--	--	--
VOCs	2-Chloroethyl vinyl ether	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	2-Chlorotoluene	µg/L	T	**160**	--	--	--	--	--	--	--	--
VOCs	2-Hexanone	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	4-Chlorotoluene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	4-Methyl-2-Pentanone (Methyl isobutyl ketone)	µg/L	T	**640**	--	--	--	--	--	--	--	--
VOCs	Acetic Acid, Methyl Ester	µg/L	T	**8,000**	--	--	--	--	--	--	--	--
VOCs	Acetone	µg/L	T	**7,200**	--	--	--	--	--	--	--	--
VOCs	Acrolein	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
VOCs	Acrylonitrile	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
VOCs	Bromobenzene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Bromochloromethane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Bromodichloromethane	µg/L	T	**1.8**	--	--	--	--	--	--	--	--
VOCs	Bromoethane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Bromoform (Tribromomethane)	µg/L	T	**55**	--	--	--	--	--	--	--	--
VOCs	Bromomethane	µg/L	T	**11**	--	--	--	--	--	--	--	--
VOCs	Carbon Disulfide	µg/L	T	**400**	--	--	--	--	--	--	--	--
VOCs	Carbon Tetrachloride	µg/L	T	**0.54**	--	--	--	--	--	--	--	--

				Sampling Event:	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E
				Sample ID:	**MJGLX4**	**MJGLX4D**	**MJGLX5**	**MJGLX5D**	**MJGLX6**	**MJGLX7**	**MJGLX8**	**MJGLX9**
				Location:	**LAI-3**	**LAI-3**	**LAI-3**	**LAI-3**	**LAI-5d**	**LAI-5d**	**LAI-MW-1**	**LAI-MW-1**
				Date:	**01/13/14**	**01/13/14**	**01/13/14**	**01/13/14**	**01/15/14**	**01/15/14**	**01/13/14**	**01/13/14**
VOCs	Chlorobenzene	µg/L	T	**100**	–	–	–	–	–	–	–	–
VOCs	Chloroethane	µg/L	T	**18,000**	–	–	–	–	–	–	–	–
VOCs	Chloroform	µg/L	T	**1.2**	–	–	–	–	–	–	–	–
VOCs	Chloromethane	µg/L	T	**150**	–	–	–	–	–	–	–	–
VOCs	cis-1,2-Dichloroethene	µg/L	T	**16**	–	–	–	–	–	–	–	–
VOCs	cis-1,3-Dichloropropene	µg/L	T	**0.44**	–	–	–	–	–	–	–	–
VOCs	Cyclohexane	µg/L	T	**NE**	–	–	–	–	–	–	–	–
VOCs	Cyclohexane, Methyl-	µg/L	T	**NE**	–	–	–	–	–	–	–	–
VOCs	Dibromochloromethane	µg/L	T	**4.5**	–	–	–	–	–	–	–	–
VOCs	Dibromomethane	µg/L	T	**80**	–	–	–	–	–	–	–	–
VOCs	Dichlorodifluoromethane (CFC-12)	µg/L	T	**5.7**	–	–	–	–	–	–	–	–
VOCs	Hexachlorobutadiene	µg/L	T	**0.56**	–	–	–	–	–	–	–	–
VOCs	Isopropylbenzene (Cumene)	µg/L	T	**720**	–	–	–	–	–	–	–	–
VOCs	Methyl Iodide (Iodomethane)	µg/L	T	**NE**	–	–	–	–	–	–	–	–
VOCs	Methyl t-butyl ether	µg/L	T	**24**	–	–	–	–	–	–	–	–
VOCs	Methylene Chloride	µg/L	T	**5.0**	–	–	–	–	–	–	–	–
VOCs	n-Butylbenzene	µg/L	T	**400**	–	–	–	–	–	–	–	–
VOCs	n-Propylbenzene	µg/L	T	**800**	–	–	–	–	–	–	–	–
VOCs	p-Isopropyltoluene	µg/L	T	**NE**	–	–	–	–	–	–	–	–
VOCs	Sec-Butylbenzene	µg/L	T	**800**	–	–	–	–	–	–	–	–
VOCs	Styrene	µg/L	T	**100**	–	–	–	–	–	–	–	–
VOCs	Tert-Butylbenzene	µg/L	T	**800**	–	–	–	–	–	–	–	–
VOCs	Tetrachloroethene	µg/L	T	**5.0**	–	–	–	–	–	–	–	–
VOCs	Trans-1,2-Dichloroethene	µg/L	T	**100**	–	–	–	–	–	–	–	–
VOCs	Trans-1,3-Dichloropropene	µg/L	T	**0.44**	–	–	–	–	–	–	–	–
VOCs	Trans-1,4-Dichloro-2-butene	µg/L	T	**NE**	–	–	–	–	–	–	–	–
VOCs	Trichloroethene	µg/L	T	**1.6**	–	–	–	–	–	–	–	–
VOCs	Trichlorofluoromethane (CFC-11)	µg/L	T	**120**	–	–	–	–	–	–	–	–
VOCs	Vinyl Acetate	µg/L	T	**7,800**	–	–	–	–	–	–	–	–
VOCs	Vinyl Chloride	µg/L	T	**0.29**	–	–	–	–	–	–	–	–
PAHs	1-Methylnaphthalene	µg/L	T	**1.5**	–	–	–	–	–	–	–	–
PAHs	2-Methylnaphthalene	µg/L	T	**32**	–	–	–	–	–	–	–	–
PAHs	Acenaphthene	µg/L	T	**960**	–	–	–	–	–	–	–	–
PAHs	Acenaphthylene	µg/L	T	**NE**	–	–	–	–	–	–	–	–
PAHs	Anthracene	µg/L	T	**4,800**	–	–	–	–	–	–	–	–
PAHs	Benzo(g,h,i)perylene	µg/L	T	**NE**	–	–	–	–	–	–	–	–
PAHs	Fluoranthene	µg/L	T	**640**	–	–	–	–	–	–	–	–
PAHs	Fluorene	µg/L	T	**640**	–	–	–	–	–	–	–	–
PAHs	Naphthalene	µg/L	T	**8.9**	–	–	–	–	–	–	–	–
PAHs	Phenanthrene	µg/L	T	**NE**	–	–	–	–	–	–	–	–
PAHs	Pyrene	µg/L	T	**480**	–	–	–	–	–	–	–	–
PAHs	Benzo(a)pyrene	µg/L	T	**NE**	–	–	–	–	–	–	–	–
PAHs	Benzo(a)anthracene	µg/L	T	**NE**	–	–	–	–	–	–	–	–
PAHs	Benzo(b)fluoranthene	µg/L	T	**NE**	–	–	–	–	–	–	–	–
PAHs	Benzo(k)fluoranthene	µg/L	T	**NE**	–	–	–	–	–	–	–	–
PAHs	Benzofluoranthenes (Total)	µg/L	T	**NE**	–	–	–	–	–	–	–	–
PAHs	Dibenzo(a,h)anthracene	µg/L	T	**NE**	–	–	–	–	–	–	–	–
PAHs	Indeno(1,2,3-c,d)pyrene	µg/L	T	**NE**	–	–	–	–	–	–	–	–
PAHs	Chrysene	µg/L	T	**NE**	–	–	–	–	–	–	–	–
PAHs	Total cPAH TEQ (ND=0.5RL)	µg/L	T	**0.20**	–	–	–	–	–	–	–	–
PAHs	Dibenzofuran	µg/L	T	**16**	–	–	–	–	–	–	–	–
SVOCs	1,1'-Biphenyl	µg/L	T	**5.5**	–	–	–	–	–	–	–	–

				Sampling Event:	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E
				Sample ID:	MJGLX4	MJGLX4D	MJGLX5	MJGLX5D	MJGLX6	MJGLX7	MJGLX8	MJGLX9
				Location:	LAI-3	LAI-3	LAI-3	LAI-3	LAI-5d	LAI-5d	LAI-MW-1	LAI-MW-1
				Date:	01/13/14	01/13/14	01/13/14	01/13/14	01/15/14	01/15/14	01/13/14	01/13/14
SVOCs	1,2,4,5-Tetrachlorobenzene	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	2,2'-Oxybis[1-chloropropane]	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
SVOCs	2,3,4,6-Tetrachlorophenol	µg/L	T	**480**	--	--	--	--	--	--	--	--
SVOCs	2,4,5-Trichlorophenol	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	2,4,6-Trichlorophenol	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	2,4-Dichlorophenol	µg/L	T	**24**	--	--	--	--	--	--	--	--
SVOCs	2,4-Dimethylphenol	µg/L	T	**160**	--	--	--	--	--	--	--	--
SVOCs	2,4-Dinitrophenol	µg/L	T	**32**	--	--	--	--	--	--	--	--
SVOCs	2,4-Dinitrotoluene	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	2,6-Dinitrotoluene	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	2-Chloronaphthalene	µg/L	T	**640**	--	--	--	--	--	--	--	--
SVOCs	2-Chlorophenol	µg/L	T	**40**	--	--	--	--	--	--	--	--
SVOCs	2-methylphenol (o-Cresol)	µg/L	T	**400**	--	--	--	--	--	--	--	--
SVOCs	2-Nitroaniline	µg/L	T	**160**	--	--	--	--	--	--	--	--
SVOCs	2-Nitrophenol	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	3 & 4 Methylphenol	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	3,3'-Dichlorobenzidine	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	3-Nitroaniline	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	4,6-Dinitro-2-Methylphenol	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	4-Bromophenyl phenyl ether	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	4-Chloro-3-Methylphenol	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	4-Chloroaniline	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	4-Chlorophenyl-Phenylether	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	4-methylphenol (p-Cresol)	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	4-Nitroaniline	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	4-Nitrophenol (p-Nitrophenol)	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Atrazine	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	Benzaldehyde	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	Benzoic Acid	µg/L	T	**64,000**	--	--	--	--	--	--	--	--
SVOCs	Benzyl Alcohol	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	Bis(2-Chloroethoxy)Methane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Bis(2-Chloroethyl)Ether	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
SVOCs	Bis(2-chloroisopropyl) ether	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Bis(2-Ethylhexyl) Phthalate	µg/L	T	**6.0**	--	--	--	--	--	--	--	--
SVOCs	Butyl benzyl Phthalate	µg/L	T	**46**	--	--	--	--	--	--	--	--
SVOCs	Caprolactam	µg/L	T	**8,000**	--	--	--	--	--	--	--	--

				Sampling Event:	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**
				Sample ID:	**MJGLX4**	**MJGLX4D**	**MJGLX5**	**MJGLX5D**	**MJGLX6**	**MJGLX7**	**MJGLX8**	**MJGLX9**
				Location:	**LAI-3**	**LAI-3**	**LAI-3**	**LAI-3**	**LAI-5d**	**LAI-5d**	**LAI-MW-1**	**LAI-MW-1**
				Date:	**01/13/14**	**01/13/14**	**01/13/14**	**01/13/14**	**01/15/14**	**01/15/14**	**01/13/14**	**01/13/14**
SVOCs	Carbazole	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Di-N-Octyl Phthalate	µg/L	T	**160**	--	--	--	--	--	--	--	--
SVOCs	Dibutyl Phthalate	µg/L	T	**1,600**	--	--	--	--	--	--	--	--
SVOCs	Diethyl Phthalate	µg/L	T	**13,000**	--	--	--	--	--	--	--	--
SVOCs	Dimethyl Phthalate	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Ethanone, 1-Phenyl- (Acetophenone)	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	Hexachlorobenzene	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
SVOCs	Hexachlorocyclopentadiene	µg/L	T	**48**	--	--	--	--	--	--	--	--
SVOCs	Hexachloroethane	µg/L	T	**1.1**	--	--	--	--	--	--	--	--
SVOCs	Isophorone	µg/L	T	**46**	--	--	--	--	--	--	--	--
SVOCs	N-Nitrosodi-n-propylamine	µg/L	T	**2.0**	--	--	--	--	--	--	--	--
SVOCs	N-Nitrosodiphenylamine (as diphenylamine)	µg/L	T	**18**	--	--	--	--	--	--	--	--
SVOCs	Nitrobenzene	µg/L	T	**16**	--	--	--	--	--	--	--	--
SVOCs	Pentachlorophenol	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
SVOCs	Phenol	µg/L	T	**2,400**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1016	µg/L	T	**1.1**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1221	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1232	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1242	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1248	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1254	µg/L	T	**0.10**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1260	µg/L	T	**0.10**	--	--	--	--	--	--	--	--
PCBs	Total PCBs	µg/L	T	**0.44**	--	--	--	--	--	--	--	--
Conventionals	Ammonia (Total as N)	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	AMMONIA-NITROGEN	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Carbon	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	CHEMICAL OXYGEN DEMAND	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Chloride	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Conductivity	mS/cm	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Dissolved Oxygen	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate-Nitrite	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate-nitrogen	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrite	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Oxidation-Reduction Potential (ORP)	mV	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	pH	SU	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Specific Conductance	umhos/cm	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Sulfate	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Temperature	deg C	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Total Dissolved Solids	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Total Organic Carbon	mg/L	--	**NE**	--	--	--	--	--	--	--	--

				Sampling Event:	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**
				Sample ID:	**MJGLY0**	**MJGLY1**	**MJGLY2**	**MJGLY3**	**MJGLY4**	**MJGLY5**	**MJGLY6**	**MJGLY7**
				Location:	**LAI-MW-2**	**LAI-MW-2**	**LAI-MW-3**	**LAI-MW-3**	**LAI-MW-4**	**LAI-MW-4**	**PGG-1**	**PGG-1**
				Date:	**01/15/14**	**01/15/14**	**01/14/14**	**01/14/14**	**01/13/14**	**01/13/14**	**01/14/14**	**01/14/14**
Parameter Group:	**Parameter:**	**Unit(s):**	**Total (T) or Dissolved (D):**	**Screening Level:**								
Fuels	Gasoline	µg/L	T	**800**	--	--	--	--	--	--	--	--
Fuels	Diesel-range hydrocarbons	µg/L	T	**500**	--	--	--	--	--	--	--	--
Fuels	Lube Oil-range Hydrocarbons	µg/L	T	**500**	--	--	--	--	--	--	--	--
Metals	Aluminum	µg/L	T	**16,000**	**352**	--	200 U	--	**538**	--	**218**	--
Metals	Aluminum	µg/L	D	**16,000**	--	200 U	--	200 U	--	**307**	--	200 U
Metals	Antimony	µg/L	T	**6.0**	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U	--
Metals	Antimony	µg/L	D	**6.0**	--	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U
Metals	Arsenic	µg/L	T	**5.0**	1.0 U	--	1.0 U	--	1.0 U	--	1.0 U	--
Metals	Arsenic	µg/L	D	**5.0**	--	1.0 U	--	1.0 U	--	1.0 U	--	1.0 U
Metals	Barium	µg/L	T	**2,000**	**11.7**	--	**2.3**	--	**20.7**	--	**13.7**	--
Metals	Barium	µg/L	D	**2,000**	--	**10.7**	--	**2.0**	--	**18.2**	--	**13.4**
Metals	Beryllium	µg/L	T	**4.0**	1.0 U	--	1.0 U	--	1.0 U	--	1.0 U	--
Metals	Beryllium	µg/L	D	**4.0**	--	1.0 U	--	1.0 U	--	1.0 U	--	1.0 U
Metals	Cadmium	µg/L	T	**5.0**	1.0 U	--	1.0 U	--	**0.21**	--	1.0 U	--
Metals	Cadmium	µg/L	D	**5.0**	--	1.0 U	--	1.0 U	--	1.0 U	--	1.0 U
Metals	Calcium	µg/L	T	**NE**	**39,100**	--	**8,820**	--	**77,200**	--	**54,100**	--
Metals	Calcium	µg/L	D	**NE**	--	**38,800**	--	**9,080**	--	**74,900**	--	**55,100**
Metals	Chromium	µg/L	T	**100**	**2.1**	--	**37.6**	--	**2.2**	--	**2.1**	--
Metals	Chromium	µg/L	D	**100**	--	**1.7**	--	**1.1**	--	**1.2**	--	**1.3**
Metals	Cobalt	µg/L	T	**100**	**0.11**	--	**0.36**	--	**0.46**	--	1.0 U	--
Metals	Cobalt	µg/L	D	**100**	--	1.0 U	--	1.0 U	--	1.0 U	--	1.0 U
Metals	Copper	µg/L	T	**640**	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U	--
Metals	Copper	µg/L	D	**640**	--	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U
Metals	Iron	µg/L	T	**11,000**	**329**	--	**277**	--	**349**	--	100 U	--
Metals	Iron	µg/L	D	**11,000**	--	100 U	--	100 U	--	100 U	--	100 U
Metals	Lead	µg/L	T	**15**	**0.22**	--	**0.45**	--	**0.69**	--	**0.41**	--
Metals	Lead	µg/L	D	**15**	--	**0.32**	--	**0.12**	--	**0.16**	--	**0.78**
Metals	Magnesium	µg/L	T	**NE**	**10,400**	--	**2,730**	--	**20,200**	--	**15,500**	--
Metals	Magnesium	µg/L	D	**NE**	--	**10,400**	--	**2,790**	--	**19,600**	--	**15,800**
Metals	Manganese	µg/L	T	**2,200**	**9.1**	--	**7.2**	--	**12.9**	--	**1.7**	--
Metals	Manganese	µg/L	D	**2,200**	--	**1.4**	--	**1.8**	--	**2.4**	--	**1.5**
Metals	Mercury	µg/L	T	**0.89**	0.20 U	--	0.20 U	--	0.20 U	--	0.20 U	--
Metals	Mercury	µg/L	D	**0.89**	--	0.20 U	--	0.20 U	--	0.20 U	--	0.20 U
Metals	Nickel	µg/L	T	**100**	**1.6**	--	**23.1**	--	**3.6**	--	**2.3**	--
Metals	Nickel	µg/L	D	**100**	--	**1.7 J**	--	**2.8 J**	--	**1.9 J**	--	**2.7 J**
Metals	Potassium	µg/L	T	**NE**	**677**	--	5,000 U	--	**799**	--	**745**	--
Metals	Potassium	µg/L	D	**NE**	--	**587**	--	5,000 U	--	**721**	--	**738**
Metals	Selenium	µg/L	T	**50**	5.0 U	--	5.0 U	--	5.0 U	--	5.0 U	--
Metals	Selenium	µg/L	D	**50**	--	5.0 U	--	5.0 U	--	5.0 U	--	5.0 U
Metals	Silver	µg/L	T	**80**	1.0 U	--	**0.064**	--	1.0 U	--	1.0 U	--
Metals	Silver	µg/L	D	**80**	--	**0.11**	--	1.0 U	--	1.0 U	--	**0.074**
Metals	Sodium	µg/L	T	**NE**	**14,300**	--	**4,590**	--	**24,900**	--	**22,700**	--
Metals	Sodium	µg/L	D	**NE**	--	**14,400**	--	**4,660**	--	**24,200**	--	**22,900**
Metals	Thallium	µg/L	T	**1.0**	1.0 U	--	1.0 U	--	1.0 U	--	1.0 U	--

				Sampling Event:	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E
				Sample ID:	MJGLY0	MJGLY1	MJGLY2	MJGLY3	MJGLY4	MJGLY5	MJGLY6	MJGLY7
				Location:	LAI-MW-2	LAI-MW-2	LAI-MW-3	LAI-MW-3	LAI-MW-4	LAI-MW-4	PGG-1	PGG-1
				Date:	01/15/14	01/15/14	01/14/14	01/14/14	01/13/14	01/13/14	01/14/14	01/14/14
Metals	Thallium	µg/L	D	**1.0**	--	1.0 U	--	1.0 U	--	1.0 U	--	1.0 U
Metals	Vanadium	µg/L	T	**80**	5.0 U	--	5.0 U	--	5.0 U	--	5.0 U	--
Metals	Vanadium	µg/L	D	**80**	--	5.0 U	--	5.0 U	--	5.0 U	--	5.0 U
Metals	Zinc	µg/L	T	**4,800**	**9.7 J**	--	**7.1 J**	--	**54.6 J**	--	**7.4 J**	--
Metals	Zinc	µg/L	D	**4,800**	--	**4.7 J**	--	**6.3 J**	--	**6.9 J**	--	**9.1 J**
VOCs	Benzene	µg/L	T	**2.4**	--	--	--	--	--	--	--	--
VOCs	Toluene	µg/L	T	**640**	--	--	--	--	--	--	--	--
VOCs	Ethylbenzene	µg/L	T	**700**	--	--	--	--	--	--	--	--
VOCs	Xylene, m-,p-	µg/L	T	**290**	--	--	--	--	--	--	--	--
VOCs	Xylene, o-	µg/L	T	**440**	--	--	--	--	--	--	--	--
VOCs	Total Xylenes	µg/L	T	**290**	--	--	--	--	--	--	--	--
VOCs	1,1,1,2-Tetrachloroethane	µg/L	T	**1.7**	--	--	--	--	--	--	--	--
VOCs	1,1,1-Trichloroethane	µg/L	T	**200**	--	--	--	--	--	--	--	--
VOCs	1,1,2,2-Tetrachloroethane	µg/L	T	**0.22**	--	--	--	--	--	--	--	--
VOCs	1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	µg/L	T	**1,100**	--	--	--	--	--	--	--	--
VOCs	1,1,2-Trichloroethane	µg/L	T	**4.5**	--	--	--	--	--	--	--	--
VOCs	1,1-Dichloroethane	µg/L	T	**7.7**	--	--	--	--	--	--	--	--
VOCs	1,1-Dichloroethene	µg/L	T	**7.0**	--	--	--	--	--	--	--	--
VOCs	1,1-Dichloropropene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	1,2,3-Trichlorobenzene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	1,2,3-Trichloropropane	µg/L	T	**0.50**	--	--	--	--	--	--	--	--
VOCs	1,2,4-Trichlorobenzene	µg/L	T	**15**	--	--	--	--	--	--	--	--
VOCs	1,2,4-Trimethylbenzene	µg/L	T	**28**	--	--	--	--	--	--	--	--
VOCs	1,2-Dibromo-3-Chloropropane	µg/L	T	**0.50**	--	--	--	--	--	--	--	--
VOCs	1,2-Dibromoethane	µg/L	T	**0.20**	--	--	--	--	--	--	--	--
VOCs	1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/L	T	**600**	--	--	--	--	--	--	--	--
VOCs	1,2-Dichloroethane	µg/L	T	**4.2**	--	--	--	--	--	--	--	--
VOCs	1,2-Dichloropropane	µg/L	T	**3.9**	--	--	--	--	--	--	--	--
VOCs	1,3,5-Trichlorobenzene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	1,3,5-Trimethylbenzene	µg/L	T	**80**	--	--	--	--	--	--	--	--
VOCs	1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	1,3-Dichloropropane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/L	T	**4.8**	--	--	--	--	--	--	--	--
VOCs	2,2-Dichloropropane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	2-Butanone (MEK)	µg/L	T	**4,800**	--	--	--	--	--	--	--	--
VOCs	2-Chloroethyl vinyl ether	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	2-Chlorotoluene	µg/L	T	**160**	--	--	--	--	--	--	--	--
VOCs	2-Hexanone	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	4-Chlorotoluene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	4-Methyl-2-Pentanone (Methyl isobutyl ketone)	µg/L	T	**640**	--	--	--	--	--	--	--	--
VOCs	Acetic Acid, Methyl Ester	µg/L	T	**8,000**	--	--	--	--	--	--	--	--
VOCs	Acetone	µg/L	T	**7,200**	--	--	--	--	--	--	--	--
VOCs	Acrolein	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
VOCs	Acrylonitrile	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
VOCs	Bromobenzene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Bromochloromethane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Bromodichloromethane	µg/L	T	**1.8**	--	--	--	--	--	--	--	--
VOCs	Bromoethane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Bromoform (Tribromomethane)	µg/L	T	**55**	--	--	--	--	--	--	--	--
VOCs	Bromomethane	µg/L	T	**11**	--	--	--	--	--	--	--	--
VOCs	Carbon Disulfide	µg/L	T	**400**	--	--	--	--	--	--	--	--
VOCs	Carbon Tetrachloride	µg/L	T	**0.54**	--	--	--	--	--	--	--	--

				Sampling Event:	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E
				Sample ID:	MJGLY0	MJGLY1	MJGLY2	MJGLY3	MJGLY4	MJGLY5	MJGLY6	MJGLY7
				Location:	LAI-MW-2	LAI-MW-2	LAI-MW-3	LAI-MW-3	LAI-MW-4	LAI-MW-4	PGG-1	PGG-1
				Date:	01/15/14	01/15/14	01/14/14	01/14/14	01/13/14	01/13/14	01/14/14	01/14/14
VOCs	Chlorobenzene	µg/L	T	**100**	--	--	--	--	--	--	--	--
VOCs	Chloroethane	µg/L	T	**18,000**	--	--	--	--	--	--	--	--
VOCs	Chloroform	µg/L	T	**1.2**	--	--	--	--	--	--	--	--
VOCs	Chloromethane	µg/L	T	**150**	--	--	--	--	--	--	--	--
VOCs	cis-1,2-Dichloroethene	µg/L	T	**16**	--	--	--	--	--	--	--	--
VOCs	cis-1,3-Dichloropropene	µg/L	T	**0.44**	--	--	--	--	--	--	--	--
VOCs	Cyclohexane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Cyclohexane, Methyl-	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Dibromochloromethane	µg/L	T	**4.5**	--	--	--	--	--	--	--	--
VOCs	Dibromomethane	µg/L	T	**80**	--	--	--	--	--	--	--	--
VOCs	Dichlorodifluoromethane (CFC-12)	µg/L	T	**5.7**	--	--	--	--	--	--	--	--
VOCs	Hexachlorobutadiene	µg/L	T	**0.56**	--	--	--	--	--	--	--	--
VOCs	Isopropylbenzene (Cumene)	µg/L	T	**720**	--	--	--	--	--	--	--	--
VOCs	Methyl Iodide (Iodomethane)	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Methyl t-butyl ether	µg/L	T	**24**	--	--	--	--	--	--	--	--
VOCs	Methylene Chloride	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
VOCs	n-Butylbenzene	µg/L	T	**400**	--	--	--	--	--	--	--	--
VOCs	n-Propylbenzene	µg/L	T	**800**	--	--	--	--	--	--	--	--
VOCs	p-Isopropyltoluene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Sec-Butylbenzene	µg/L	T	**800**	--	--	--	--	--	--	--	--
VOCs	Styrene	µg/L	T	**100**	--	--	--	--	--	--	--	--
VOCs	Tert-Butylbenzene	µg/L	T	**800**	--	--	--	--	--	--	--	--
VOCs	Tetrachloroethene	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
VOCs	Trans-1,2-Dichloroethene	µg/L	T	**100**	--	--	--	--	--	--	--	--
VOCs	Trans-1,3-Dichloropropene	µg/L	T	**0.44**	--	--	--	--	--	--	--	--
VOCs	Trans-1,4-Dichloro-2-butene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Trichloroethene	µg/L	T	**1.6**	--	--	--	--	--	--	--	--
VOCs	Trichlorofluoromethane (CFC-11)	µg/L	T	**120**	--	--	--	--	--	--	--	--
VOCs	Vinyl Acetate	µg/L	T	**7,800**	--	--	--	--	--	--	--	--
VOCs	Vinyl Chloride	µg/L	T	**0.29**	--	--	--	--	--	--	--	--
PAHs	1-Methylnaphthalene	µg/L	T	**1.5**	--	--	--	--	--	--	--	--
PAHs	2-Methylnaphthalene	µg/L	T	**32**	--	--	--	--	--	--	--	--
PAHs	Acenaphthene	µg/L	T	**960**	--	--	--	--	--	--	--	--
PAHs	Acenaphthylene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Anthracene	µg/L	T	**4,800**	--	--	--	--	--	--	--	--
PAHs	Benzo(g,h,i)perylene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Fluoranthene	µg/L	T	**640**	--	--	--	--	--	--	--	--
PAHs	Fluorene	µg/L	T	**640**	--	--	--	--	--	--	--	--
PAHs	Naphthalene	µg/L	T	**8.9**	--	--	--	--	--	--	--	--
PAHs	Phenanthrene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Pyrene	µg/L	T	**480**	--	--	--	--	--	--	--	--
PAHs	Benzo(a)pyrene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Benzo(a)anthracene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Benzo(b)fluoranthene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Benzo(k)fluoranthene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Benzofluoranthenes (Total)	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Dibenzo(a,h)anthracene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Indeno(1,2,3-c,d)pyrene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Chrysene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Total cPAH TEQ (ND=0.5RL)	µg/L	T	**0.20**	--	--	--	--	--	--	--	--
PAHs	Dibenzofuran	µg/L	T	**16**	--	--	--	--	--	--	--	--
SVOCs	1,1'-Biphenyl	µg/L	T	**5.5**	--	--	--	--	--	--	--	--

				Sampling Event:	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**
				Sample ID:	**MJGLY0**	**MJGLY1**	**MJGLY2**	**MJGLY3**	**MJGLY4**	**MJGLY5**	**MJGLY6**	**MJGLY7**
				Location:	**LAI-MW-2**	**LAI-MW-2**	**LAI-MW-3**	**LAI-MW-3**	**LAI-MW-4**	**LAI-MW-4**	**PGG-1**	**PGG-1**
				Date:	**01/15/14**	**01/15/14**	**01/14/14**	**01/14/14**	**01/13/14**	**01/13/14**	**01/14/14**	**01/14/14**
SVOCs	1,2,4,5-Tetrachlorobenzene	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	2,2'-Oxybis[1-chloropropane]	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
SVOCs	2,3,4,6-Tetrachlorophenol	µg/L	T	**480**	--	--	--	--	--	--	--	--
SVOCs	2,4,5-Trichlorophenol	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	2,4,6-Trichlorophenol	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	2,4-Dichlorophenol	µg/L	T	**24**	--	--	--	--	--	--	--	--
SVOCs	2,4-Dimethylphenol	µg/L	T	**160**	--	--	--	--	--	--	--	--
SVOCs	2,4-Dinitrophenol	µg/L	T	**32**	--	--	--	--	--	--	--	--
SVOCs	2,4-Dinitrotoluene	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	2,6-Dinitrotoluene	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	2-Chloronaphthalene	µg/L	T	**640**	--	--	--	--	--	--	--	--
SVOCs	2-Chlorophenol	µg/L	T	**40**	--	--	--	--	--	--	--	--
SVOCs	2-methylphenol (o-Cresol)	µg/L	T	**400**	--	--	--	--	--	--	--	--
SVOCs	2-Nitroaniline	µg/L	T	**160**	--	--	--	--	--	--	--	--
SVOCs	2-Nitrophenol	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	3 & 4 Methylphenol	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	3,3'-Dichlorobenzidine	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	3-Nitroaniline	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	4,6-Dinitro-2-Methylphenol	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	4-Bromophenyl phenyl ether	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	4-Chloro-3-Methylphenol	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	4-Chloroaniline	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	4-Chlorophenyl-Phenylether	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	4-methylphenol (p-Cresol)	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	4-Nitroaniline	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	4-Nitrophenol (p-Nitrophenol)	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Atrazine	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	Benzaldehyde	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	Benzoic Acid	µg/L	T	**64,000**	--	--	--	--	--	--	--	--
SVOCs	Benzyl Alcohol	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	Bis(2-Chloroethoxy)Methane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Bis(2-Chloroethyl)Ether	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
SVOCs	Bis(2-chloroisopropyl) ether	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Bis(2-Ethylhexyl) Phthalate	µg/L	T	**6.0**	--	--	--	--	--	--	--	--
SVOCs	Butyl benzyl Phthalate	µg/L	T	**46**	--	--	--	--	--	--	--	--
SVOCs	Caprolactam	µg/L	T	**8,000**	--	--	--	--	--	--	--	--

				Sampling Event:	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E
				Sample ID:	**MJGLY0**	**MJGLY1**	**MJGLY2**	**MJGLY3**	**MJGLY4**	**MJGLY5**	**MJGLY6**	**MJGLY7**
				Location:	**LAI-MW-2**	**LAI-MW-2**	**LAI-MW-3**	**LAI-MW-3**	**LAI-MW-4**	**LAI-MW-4**	**PGG-1**	**PGG-1**
				Date:	**01/15/14**	**01/15/14**	**01/14/14**	**01/14/14**	**01/13/14**	**01/13/14**	**01/14/14**	**01/14/14**
SVOCs	Carbazole	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Di-N-Octyl Phthalate	µg/L	T	**160**	--	--	--	--	--	--	--	--
SVOCs	Dibutyl Phthalate	µg/L	T	**1,600**	--	--	--	--	--	--	--	--
SVOCs	Diethyl Phthalate	µg/L	T	**13,000**	--	--	--	--	--	--	--	--
SVOCs	Dimethyl Phthalate	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Ethanone, 1-Phenyl- (Acetophenone)	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	Hexachlorobenzene	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
SVOCs	Hexachlorocyclopentadiene	µg/L	T	**48**	--	--	--	--	--	--	--	--
SVOCs	Hexachloroethane	µg/L	T	**1.1**	--	--	--	--	--	--	--	--
SVOCs	Isophorone	µg/L	T	**46**	--	--	--	--	--	--	--	--
SVOCs	N-Nitrosodi-n-propylamine	µg/L	T	**2.0**	--	--	--	--	--	--	--	--
SVOCs	N-Nitrosodiphenylamine (as diphenylamine)	µg/L	T	**18**	--	--	--	--	--	--	--	--
SVOCs	Nitrobenzene	µg/L	T	**16**	--	--	--	--	--	--	--	--
SVOCs	Pentachlorophenol	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
SVOCs	Phenol	µg/L	T	**2,400**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1016	µg/L	T	**1.1**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1221	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1232	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1242	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1248	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1254	µg/L	T	**0.10**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1260	µg/L	T	**0.10**	--	--	--	--	--	--	--	--
PCBs	Total PCBs	µg/L	T	**0.44**	--	--	--	--	--	--	--	--
Conventionals	Ammonia (Total as N)	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	AMMONIA-NITROGEN	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Carbon	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	CHEMICAL OXYGEN DEMAND	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Chloride	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Conductivity	mS/cm	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Dissolved Oxygen	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate-Nitrite	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate-nitrogen	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrite	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Oxidation-Reduction Potential (ORP)	mV	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	pH	SU	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Specific Conductance	umhos/cm	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Sulfate	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Temperature	deg C	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Total Dissolved Solids	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Total Organic Carbon	mg/L	--	**NE**	--	--	--	--	--	--	--	--

				Sampling Event:	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**2014_Initial_E_E**	**E_E_GW-1**	**E_E_GW-1**
				Sample ID:	**MJGLY8**	**MJGLY9**	**MJGLZ0**	**MJGLZ0D**	**MJGLZ1**	**MJGLZ1D**	**JGWE0**	**JGWE0DL**
				Location:	**PGG-2**	**PGG-2**	**MW-23**	**MW-23**	**MW-23**	**MW-23**	**LAI-1**	**LAI-1**
				Date:	**01/14/14**	**01/14/14**	**01/23/14**	**01/23/14**	**01/23/14**	**01/23/14**	**03/25/15**	**03/25/15**
Parameter Group:	**Parameter:**	**Unit(s):**	**Total (T) or Dissolved (D):**	**Screening Level:**								
Fuels	Gasoline	µg/L	T	**800**	--	--	--	--	--	--	--	--
Fuels	Diesel-range hydrocarbons	µg/L	T	**500**	--	--	--	--	--	--	--	--
Fuels	Lube Oil-range Hydrocarbons	µg/L	T	**500**	--	--	--	--	--	--	--	--
Metals	Aluminum	µg/L	T	**16,000**	200 U	--	200 U	200 U	--	--	--	--
Metals	Aluminum	µg/L	D	**16,000**	--	200 U	--	--	200 U	200 U	--	--
Metals	Antimony	µg/L	T	**6.0**	2.0 U	--	2.0 U	2.0 U	--	--	--	--
Metals	Antimony	µg/L	D	**6.0**	--	2.0 U	--	--	2.0 U	2.0 U	--	--
Metals	Arsenic	µg/L	T	**5.0**	1.0 U	--	**0.35**	**0.32**	--	--	--	--
Metals	Arsenic	µg/L	D	**5.0**	--	1.0 U	--	--	1.0 U	1.0 U	--	--
Metals	Barium	µg/L	T	**2,000**	**10.1**	--	10.0 U	10.0 U	--	--	--	--
Metals	Barium	µg/L	D	**2,000**	--	**9.6**	--	--	10.0 U	10.0 U	--	--
Metals	Beryllium	µg/L	T	**4.0**	1.0 U	--	1.0 U	1.0 U	--	--	--	--
Metals	Beryllium	µg/L	D	**4.0**	--	1.0 U	--	--	1.0 U	1.0 U	--	--
Metals	Cadmium	µg/L	T	**5.0**	1.0 U	--	1.0 U	1.0 U	--	--	--	--
Metals	Cadmium	µg/L	D	**5.0**	--	1.0 U	--	--	1.0 U	1.0 U	--	--
Metals	Calcium	µg/L	T	**NE**	**40,500**	--	**13,100**	**12,800**	--	--	--	--
Metals	Calcium	µg/L	D	**NE**	--	**40,400**	--	--	**13,100**	**12,900**	--	--
Metals	Chromium	µg/L	T	**100**	**5.9**	--	2.0 U	**2.8**	--	--	--	--
Metals	Chromium	µg/L	D	**100**	--	**1.1**	--	--	2.0 U	2.0 U	--	--
Metals	Cobalt	µg/L	T	**100**	1.0 U	--	1.0 U	1.0 U	--	--	--	--
Metals	Cobalt	µg/L	D	**100**	--	1.0 U	--	--	1.0 U	1.0 U	--	--
Metals	Copper	µg/L	T	**640**	2.0 U	--	2.0 U	2.0 U	--	--	--	--
Metals	Copper	µg/L	D	**640**	--	2.0 U	--	--	**2.1**	2.0 U	--	--
Metals	Iron	µg/L	T	**11,000**	100 U	--	**736**	**732**	--	--	--	--
Metals	Iron	µg/L	D	**11,000**	--	100 U	--	--	**381**	**367**	--	--
Metals	Lead	µg/L	T	**15**	**0.31**	--	1.0 U	1.0 U	--	--	--	--
Metals	Lead	µg/L	D	**15**	--	**0.24**	--	--	1.0 U	1.0 U	--	--
Metals	Magnesium	µg/L	T	**NE**	**11,200**	--	**4,450**	**4,340**	--	--	--	--
Metals	Magnesium	µg/L	D	**NE**	--	**11,200**	--	--	**4,550**	**4,420**	--	--
Metals	Manganese	µg/L	T	**2,200**	**2.0**	--	**12.8**	**13.7**	--	--	--	--
Metals	Manganese	µg/L	D	**2,200**	--	**1.5**	--	--	**11.4**	**11.6**	--	--
Metals	Mercury	µg/L	T	**0.89**	0.20 U	--	0.20 U	0.20 U	--	--	--	--
Metals	Mercury	µg/L	D	**0.89**	--	0.20 U	--	--	0.20 U	0.20 U	--	--
Metals	Nickel	µg/L	T	**100**	**4.6**	--	**1.8**	**2.1**	--	--	--	--
Metals	Nickel	µg/L	D	**100**	--	**2.0 J**	--	--	**1.9**	**1.9**	--	--
Metals	Potassium	µg/L	T	**NE**	**395**	--	5,000 U	5,000 U	--	--	--	--
Metals	Potassium	µg/L	D	**NE**	--	**422**	--	--	5,000 U	5,000 U	--	--
Metals	Selenium	µg/L	T	**50**	5.0 U	--	5.0 U	5.0 U	--	--	--	--
Metals	Selenium	µg/L	D	**50**	--	5.0 U	--	--	5.0 U	5.0 U	--	--
Metals	Silver	µg/L	T	**80**	**0.069**	--	1.0 U	1.0 U	--	--	--	--
Metals	Silver	µg/L	D	**80**	--	1.0 U	--	--	1.0 U	1.0 U	--	--
Metals	Sodium	µg/L	T	**NE**	**16,900**	--	**6,380**	**6,240**	--	--	--	--
Metals	Sodium	µg/L	D	**NE**	--	**16,700**	--	--	**6,460**	**6,230**	--	--
Metals	Thallium	µg/L	T	**1.0**	1.0 U	--	1.0 U	1.0 U	--	--	--	--

				Sampling Event:	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	E_E_GW-1	E_E_GW-1
				Sample ID:	MJGLY8	MJGLY9	MJGLZ0	MJGLZ0D	MJGLZ1	MJGLZ1D	JGWE0	JGWE0DL
				Location:	PGG-2	PGG-2	MW-23	MW-23	MW-23	MW-23	LAI-1	LAI-1
				Date:	01/14/14	01/14/14	01/23/14	01/23/14	01/23/14	01/23/14	03/25/15	03/25/15
Metals	Thallium	µg/L	D	**1.0**	--	1.0 U	--	--	1.0 U	1.0 U	--	--
Metals	Vanadium	µg/L	T	**80**	5.0 U	--	5.0 U	5.0 U	--	--	--	--
Metals	Vanadium	µg/L	D	**80**	--	5.0 U	--	--	5.0 U	5.0 U	--	--
Metals	Zinc	µg/L	T	**4,800**	**9.2 J**	--	**12.5**	**14.1**	--	--	--	--
Metals	Zinc	µg/L	D	**4,800**	--	**7.3 J**	--	--	**9.1**	**8.0**	--	--
VOCs	Benzene	µg/L	T	**2.4**	--	--	--	--	--	--	0.50 U	--
VOCs	Toluene	µg/L	T	**640**	--	--	--	--	--	--	0.50 U	--
VOCs	Ethylbenzene	µg/L	T	**700**	--	--	--	--	--	--	0.50 U	--
VOCs	Xylene, m-,p-	µg/L	T	**290**	--	--	--	--	--	--	0.50 U	--
VOCs	Xylene, o-	µg/L	T	**440**	--	--	--	--	--	--	0.50 U	--
VOCs	Total Xylenes	µg/L	T	**290**	--	--	--	--	--	--	--	--
VOCs	1,1,1,2-Tetrachloroethane	µg/L	T	**1.7**	--	--	--	--	--	--	--	--
VOCs	1,1,1-Trichloroethane	µg/L	T	**200**	--	--	--	--	--	--	0.50 U	--
VOCs	1,1,2,2-Tetrachloroethane	µg/L	T	**0.22**	--	--	--	--	--	--	0.50 U	--
VOCs	1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	µg/L	T	**1,100**	--	--	--	--	--	--	0.50 U	--
VOCs	1,1,2-Trichloroethane	µg/L	T	**4.5**	--	--	--	--	--	--	0.50 U	--
VOCs	1,1-Dichloroethane	µg/L	T	**7.7**	--	--	--	--	--	--	0.50 U	--
VOCs	1,1-Dichloroethene	µg/L	T	**7.0**	--	--	--	--	--	--	0.50 U	--
VOCs	1,1-Dichloropropene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	1,2,3-Trichlorobenzene	µg/L	T	**NE**	--	--	--	--	--	--	0.50 U	--
VOCs	1,2,3-Trichloropropane	µg/L	T	**0.50**	--	--	--	--	--	--	--	--
VOCs	1,2,4-Trichlorobenzene	µg/L	T	**15**	--	--	--	--	--	--	0.50 U	--
VOCs	1,2,4-Trimethylbenzene	µg/L	T	**28**	--	--	--	--	--	--	--	--
VOCs	1,2-Dibromo-3-Chloropropane	µg/L	T	**0.50**	--	--	--	--	--	--	0.50 U	--
VOCs	1,2-Dibromoethane	µg/L	T	**0.20**	--	--	--	--	--	--	0.50 U	--
VOCs	1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/L	T	**600**	--	--	--	--	--	--	0.50 U	--
VOCs	1,2-Dichloroethane	µg/L	T	**4.2**	--	--	--	--	--	--	0.50 U	--
VOCs	1,2-Dichloropropane	µg/L	T	**3.9**	--	--	--	--	--	--	0.50 U	--
VOCs	1,3,5-Trichlorobenzene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	1,3,5-Trimethylbenzene	µg/L	T	**80**	--	--	--	--	--	--	--	--
VOCs	1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/L	T	**NE**	--	--	--	--	--	--	0.50 U	--
VOCs	1,3-Dichloropropane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/L	T	**4.8**	--	--	--	--	--	--	0.50 U	--
VOCs	2,2-Dichloropropane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	2-Butanone (MEK)	µg/L	T	**4,800**	--	--	--	--	--	--	5.0 U	--
VOCs	2-Chloroethyl vinyl ether	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	2-Chlorotoluene	µg/L	T	**160**	--	--	--	--	--	--	--	--
VOCs	2-Hexanone	µg/L	T	**NE**	--	--	--	--	--	--	5.0 U	--
VOCs	4-Chlorotoluene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	4-Methyl-2-Pentanone (Methyl isobutyl ketone)	µg/L	T	**640**	--	--	--	--	--	--	5.0 U	--
VOCs	Acetic Acid, Methyl Ester	µg/L	T	**8,000**	--	--	--	--	--	--	0.50 U	--
VOCs	Acetone	µg/L	T	**7,200**	--	--	--	--	--	--	5.0 U	--
VOCs	Acrolein	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
VOCs	Acrylonitrile	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
VOCs	Bromobenzene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Bromochloromethane	µg/L	T	**NE**	--	--	--	--	--	--	0.50 U	--
VOCs	Bromodichloromethane	µg/L	T	**1.8**	--	--	--	--	--	--	0.50 U	--
VOCs	Bromoethane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Bromoform (Tribromomethane)	µg/L	T	**55**	--	--	--	--	--	--	0.50 U	--
VOCs	Bromomethane	µg/L	T	**11**	--	--	--	--	--	--	0.50 U	--
VOCs	Carbon Disulfide	µg/L	T	**400**	--	--	--	--	--	--	0.50 U	--
VOCs	Carbon Tetrachloride	µg/L	T	**0.54**	--	--	--	--	--	--	0.50 U	--

				Sampling Event:	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	E_E_GW-1	E_E_GW-1
				Sample ID:	MJGLY8	MJGLY9	MJGLZ0	MJGLZ0D	MJGLZ1	MJGLZ1D	JGWE0	JGWE0DL
				Location:	PGG-2	PGG-2	MW-23	MW-23	MW-23	MW-23	LAI-1	LAI-1
				Date:	01/14/14	01/14/14	01/23/14	01/23/14	01/23/14	01/23/14	03/25/15	03/25/15
VOCs	Chlorobenzene	µg/L	T	**100**	--	--	--	--	--	--	0.50 U	--
VOCs	Chloroethane	µg/L	T	**18,000**	--	--	--	--	--	--	0.50 U	--
VOCs	Chloroform	µg/L	T	**1.2**	--	--	--	--	--	--	0.50 U	--
VOCs	Chloromethane	µg/L	T	**150**	--	--	--	--	--	--	0.50 U	--
VOCs	cis-1,2-Dichloroethene	µg/L	T	**16**	--	--	--	--	--	--	**2.2**	--
VOCs	cis-1,3-Dichloropropene	µg/L	T	**0.44**	--	--	--	--	--	--	0.50 U	--
VOCs	Cyclohexane	µg/L	T	**NE**	--	--	--	--	--	--	0.50 U	--
VOCs	Cyclohexane, Methyl-	µg/L	T	**NE**	--	--	--	--	--	--	0.50 U	--
VOCs	Dibromochloromethane	µg/L	T	**4.5**	--	--	--	--	--	--	0.50 U	--
VOCs	Dibromomethane	µg/L	T	**80**	--	--	--	--	--	--	--	--
VOCs	Dichlorodifluoromethane (CFC-12)	µg/L	T	**5.7**	--	--	--	--	--	--	0.50 U	--
VOCs	Hexachlorobutadiene	µg/L	T	**0.56**	--	--	--	--	--	--	--	--
VOCs	Isopropylbenzene (Cumene)	µg/L	T	**720**	--	--	--	--	--	--	0.50 U	--
VOCs	Methyl Iodide (Iodomethane)	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Methyl t-butyl ether	µg/L	T	**24**	--	--	--	--	--	--	0.50 U	--
VOCs	Methylene Chloride	µg/L	T	**5.0**	--	--	--	--	--	--	0.50 U	--
VOCs	n-Butylbenzene	µg/L	T	**400**	--	--	--	--	--	--	--	--
VOCs	n-Propylbenzene	µg/L	T	**800**	--	--	--	--	--	--	--	--
VOCs	p-Isopropyltoluene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Sec-Butylbenzene	µg/L	T	**800**	--	--	--	--	--	--	--	--
VOCs	Styrene	µg/L	T	**100**	--	--	--	--	--	--	0.50 U	--
VOCs	Tert-Butylbenzene	µg/L	T	**800**	--	--	--	--	--	--	--	--
VOCs	Tetrachloroethene	µg/L	T	**5.0**	--	--	--	--	--	--	0.50 U	--
VOCs	Trans-1,2-Dichloroethene	µg/L	T	**100**	--	--	--	--	--	--	0.50 U	--
VOCs	Trans-1,3-Dichloropropene	µg/L	T	**0.44**	--	--	--	--	--	--	0.50 U	--
VOCs	Trans-1,4-Dichloro-2-butene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Trichloroethene	µg/L	T	**1.6**	--	--	--	--	--	--	--	**27**
VOCs	Trichlorofluoromethane (CFC-11)	µg/L	T	**120**	--	--	--	--	--	--	0.50 U	--
VOCs	Vinyl Acetate	µg/L	T	**7,800**	--	--	--	--	--	--	--	--
VOCs	Vinyl Chloride	µg/L	T	**0.29**	--	--	--	--	--	--	0.50 U	--
PAHs	1-Methylnaphthalene	µg/L	T	**1.5**	--	--	--	--	--	--	--	--
PAHs	2-Methylnaphthalene	µg/L	T	**32**	--	--	--	--	--	--	--	--
PAHs	Acenaphthene	µg/L	T	**960**	--	--	--	--	--	--	--	--
PAHs	Acenaphthylene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Anthracene	µg/L	T	**4,800**	--	--	--	--	--	--	--	--
PAHs	Benzo(g,h,i)perylene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Fluoranthene	µg/L	T	**640**	--	--	--	--	--	--	--	--
PAHs	Fluorene	µg/L	T	**640**	--	--	--	--	--	--	--	--
PAHs	Naphthalene	µg/L	T	**8.9**	--	--	--	--	--	--	--	--
PAHs	Phenanthrene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Pyrene	µg/L	T	**480**	--	--	--	--	--	--	--	--
PAHs	Benzo(a)pyrene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Benzo(a)anthracene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Benzo(b)fluoranthene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Benzo(k)fluoranthene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Benzofluoranthenes (Total)	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Dibenzo(a,h)anthracene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Indeno(1,2,3-c,d)pyrene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Chrysene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Total cPAH TEQ (ND=0.5RL)	µg/L	T	**0.20**	--	--	--	--	--	--	--	--
PAHs	Dibenzofuran	µg/L	T	**16**	--	--	--	--	--	--	--	--
SVOCs	1,1'-Biphenyl	µg/L	T	**5.5**	--	--	--	--	--	--	--	--

				Sampling Event:	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	E_E_GW-1	E_E_GW-1
				Sample ID:	MJGLY8	MJGLY9	MJGLZ0	MJGLZ0D	MJGLZ1	MJGLZ1D	JGWE0	JGWE0DL
				Location:	PGG-2	PGG-2	MW-23	MW-23	MW-23	MW-23	LAI-1	LAI-1
				Date:	01/14/14	01/14/14	01/23/14	01/23/14	01/23/14	01/23/14	03/25/15	03/25/15
SVOCs	1,2,4,5-Tetrachlorobenzene	µg/L	T	**5.0**	–	–	–	–	–	–	–	–
SVOCs	2,2'-Oxybis[1-chloropropane]	µg/L	T	**1.0**	–	–	–	–	–	–	–	–
SVOCs	2,3,4,6-Tetrachlorophenol	µg/L	T	**480**	–	–	–	–	–	–	–	–
SVOCs	2,4,5-Trichlorophenol	µg/L	T	**800**	–	–	–	–	–	–	–	–
SVOCs	2,4,6-Trichlorophenol	µg/L	T	**5.0**	–	–	–	–	–	–	–	–
SVOCs	2,4-Dichlorophenol	µg/L	T	**24**	–	–	–	–	–	–	–	–
SVOCs	2,4-Dimethylphenol	µg/L	T	**160**	–	–	–	–	–	–	–	–
SVOCs	2,4-Dinitrophenol	µg/L	T	**32**	–	–	–	–	–	–	–	–
SVOCs	2,4-Dinitrotoluene	µg/L	T	**5.0**	–	–	–	–	–	–	–	–
SVOCs	2,6-Dinitrotoluene	µg/L	T	**5.0**	–	–	–	–	–	–	–	–
SVOCs	2-Chloronaphthalene	µg/L	T	**640**	–	–	–	–	–	–	–	–
SVOCs	2-Chlorophenol	µg/L	T	**40**	–	–	–	–	–	–	–	–
SVOCs	2-methylphenol (o-Cresol)	µg/L	T	**400**	–	–	–	–	–	–	–	–
SVOCs	2-Nitroaniline	µg/L	T	**160**	–	–	–	–	–	–	–	–
SVOCs	2-Nitrophenol	µg/L	T	**NE**	–	–	–	–	–	–	–	–
SVOCs	3 & 4 Methylphenol	µg/L	T	**NE**	–	–	–	–	–	–	–	–
SVOCs	3,3'-Dichlorobenzidine	µg/L	T	**5.0**	–	–	–	–	–	–	–	–
SVOCs	3-Nitroaniline	µg/L	T	**NE**	–	–	–	–	–	–	–	–
SVOCs	4,6-Dinitro-2-Methylphenol	µg/L	T	**NE**	–	–	–	–	–	–	–	–
SVOCs	4-Bromophenyl phenyl ether	µg/L	T	**NE**	–	–	–	–	–	–	–	–
SVOCs	4-Chloro-3-Methylphenol	µg/L	T	**NE**	–	–	–	–	–	–	–	–
SVOCs	4-Chloroaniline	µg/L	T	**5.0**	–	–	–	–	–	–	–	–
SVOCs	4-Chlorophenyl-Phenylether	µg/L	T	**NE**	–	–	–	–	–	–	–	–
SVOCs	4-methylphenol (p-Cresol)	µg/L	T	**800**	–	–	–	–	–	–	–	–
SVOCs	4-Nitroaniline	µg/L	T	**NE**	–	–	–	–	–	–	–	–
SVOCs	4-Nitrophenol (p-Nitrophenol)	µg/L	T	**NE**	–	–	–	–	–	–	–	–
SVOCs	Atrazine	µg/L	T	**5.0**	–	–	–	–	–	–	–	–
SVOCs	Benzaldehyde	µg/L	T	**800**	–	–	–	–	–	–	–	–
SVOCs	Benzoic Acid	µg/L	T	**64,000**	–	–	–	–	–	–	–	–
SVOCs	Benzyl Alcohol	µg/L	T	**800**	–	–	–	–	–	–	–	–
SVOCs	Bis(2-Chloroethoxy)Methane	µg/L	T	**NE**	–	–	–	–	–	–	–	–
SVOCs	Bis(2-Chloroethyl)Ether	µg/L	T	**1.0**	–	–	–	–	–	–	–	–
SVOCs	Bis(2-chloroisopropyl) ether	µg/L	T	**NE**	–	–	–	–	–	–	–	–
SVOCs	Bis(2-Ethylhexyl) Phthalate	µg/L	T	**6.0**	–	–	–	–	–	–	–	–
SVOCs	Butyl benzyl Phthalate	µg/L	T	**46**	–	–	–	–	–	–	–	–
SVOCs	Caprolactam	µg/L	T	**8,000**	–	–	–	–	–	–	–	–

				Sampling Event:	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	2014_Initial_E_E	E_E_GW-1	E_E_GW-1
				Sample ID:	MJGLY8	MJGLY9	MJGLZ0	MJGLZ0D	MJGLZ1	MJGLZ1D	JGWE0	JGWE0DL
				Location:	PGG-2	PGG-2	MW-23	MW-23	MW-23	MW-23	LAI-1	LAI-1
				Date:	01/14/14	01/14/14	01/23/14	01/23/14	01/23/14	01/23/14	03/25/15	03/25/15
SVOCs	Carbazole	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Di-N-Octyl Phthalate	µg/L	T	**160**	--	--	--	--	--	--	--	--
SVOCs	Dibutyl Phthalate	µg/L	T	**1,600**	--	--	--	--	--	--	--	--
SVOCs	Diethyl Phthalate	µg/L	T	**13,000**	--	--	--	--	--	--	--	--
SVOCs	Dimethyl Phthalate	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Ethanone, 1-Phenyl- (Acetophenone)	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	Hexachlorobenzene	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
SVOCs	Hexachlorocyclopentadiene	µg/L	T	**48**	--	--	--	--	--	--	--	--
SVOCs	Hexachloroethane	µg/L	T	**1.1**	--	--	--	--	--	--	--	--
SVOCs	Isophorone	µg/L	T	**46**	--	--	--	--	--	--	--	--
SVOCs	N-Nitrosodi-n-propylamine	µg/L	T	**2.0**	--	--	--	--	--	--	--	--
SVOCs	N-Nitrosodiphenylamine (as diphenylamine)	µg/L	T	**18**	--	--	--	--	--	--	--	--
SVOCs	Nitrobenzene	µg/L	T	**16**	--	--	--	--	--	--	--	--
SVOCs	Pentachlorophenol	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
SVOCs	Phenol	µg/L	T	**2,400**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1016	µg/L	T	**1.1**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1221	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1232	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1242	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1248	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1254	µg/L	T	**0.10**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1260	µg/L	T	**0.10**	--	--	--	--	--	--	--	--
PCBs	Total PCBs	µg/L	T	**0.44**	--	--	--	--	--	--	--	--
Conventionals	Ammonia (Total as N)	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	AMMONIA-NITROGEN	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Carbon	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	CHEMICAL OXYGEN DEMAND	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Chloride	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Conductivity	mS/cm	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Dissolved Oxygen	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate-Nitrite	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate-nitrogen	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrite	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Oxidation-Reduction Potential (ORP)	mV	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	pH	SU	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Specific Conductance	umhos/cm	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Sulfate	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Temperature	deg C	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Total Dissolved Solids	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Total Organic Carbon	mg/L	--	**NE**	--	--	--	--	--	--	--	--

				Sampling Event:	**E_E_GW-1**	**E_E_GW-1**	**E_E_GW-1**	**E_E_GW-1**	**E_E_GW-1**	**E_E_GW-1**	**E_E_GW-1**	**E_E_GW-1**
				Sample ID:	**JGWE1**	**JGWE1DL**	**JGWE2**	**JGWE3**	**MJGWE2**	**MJGWE2D**	**MJGWE3**	**MJGWE4**
				Location:	**LAI-MW-2**	**LAI-MW-2**	**OLY-01**	**OLY-02**	**OLY-01**	**OLY-01**	**OLY-02**	**OLY-01**
				Date:	**03/26/15**	**03/26/15**	**03/25/15**	**03/25/15**	**03/25/15**	**03/25/15**	**03/25/15**	**03/25/15**
Parameter Group:	**Parameter:**	**Unit(s):**	**Total (T) or Dissolved (D):**	**Screening Level:**								
Fuels	Gasoline	µg/L	T	**800**	--	--	--	--	--	--	--	--
Fuels	Diesel-range hydrocarbons	µg/L	T	**500**	--	--	--	--	--	--	--	--
Fuels	Lube Oil-range Hydrocarbons	µg/L	T	**500**	--	--	--	--	--	--	--	--
Metals	Aluminum	µg/L	T	**16,000**	--	--	--	--	**348**	**415**	200 U	--
Metals	Aluminum	µg/L	D	**16,000**	--	--	--	--	--	--	--	200 U
Metals	Antimony	µg/L	T	**6.0**	--	--	--	--	2.0 U	2.0 U	2.0 U	--
Metals	Antimony	µg/L	D	**6.0**	--	--	--	--	--	--	--	2.0 U
Metals	Arsenic	µg/L	T	**5.0**	--	--	--	--	1.0 U	1.0 U	1.0 U	--
Metals	Arsenic	µg/L	D	**5.0**	--	--	--	--	--	--	--	1.0 U
Metals	Barium	µg/L	T	**2,000**	--	--	--	--	10.0 U	10.0 U	10.0 U	--
Metals	Barium	µg/L	D	**2,000**	--	--	--	--	--	--	--	10.0 U
Metals	Beryllium	µg/L	T	**4.0**	--	--	--	--	1.0 U	1.0 U	1.0 U	--
Metals	Beryllium	µg/L	D	**4.0**	--	--	--	--	--	--	--	1.0 U
Metals	Cadmium	µg/L	T	**5.0**	--	--	--	--	1.0 U	1.0 U	1.0 U	--
Metals	Cadmium	µg/L	D	**5.0**	--	--	--	--	--	--	--	1.0 U
Metals	Calcium	µg/L	T	**NE**	--	--	--	--	**11,300**	**11,200**	**23,700**	--
Metals	Calcium	µg/L	D	**NE**	--	--	--	--	--	--	--	**11,800**
Metals	Chromium	µg/L	T	**100**	--	--	--	--	**1.1**	**1.3**	**1.9**	--
Metals	Chromium	µg/L	D	**100**	--	--	--	--	--	--	--	**0.29**
Metals	Cobalt	µg/L	T	**100**	--	--	--	--	1.0 U	1.0 U	**1.4**	--
Metals	Cobalt	µg/L	D	**100**	--	--	--	--	--	--	--	**0.54**
Metals	Copper	µg/L	T	**640**	--	--	--	--	2.0 U	2.0 U	2.0 U	--
Metals	Copper	µg/L	D	**640**	--	--	--	--	--	--	--	2.0 U
Metals	Iron	µg/L	T	**11,000**	--	--	--	--	**459**	**514**	**156**	--
Metals	Iron	µg/L	D	**11,000**	--	--	--	--	--	--	--	100 U
Metals	Lead	µg/L	T	**15**	--	--	--	--	1.0 U	1.0 U	1.0 U	--
Metals	Lead	µg/L	D	**15**	--	--	--	--	--	--	--	1.0 U
Metals	Magnesium	µg/L	T	**NE**	--	--	--	--	**4,530**	**4,540**	**7,980**	--
Metals	Magnesium	µg/L	D	**NE**	--	--	--	--	--	--	--	**4,670**
Metals	Manganese	µg/L	T	**2,200**	--	--	--	--	**87.9**	**91.6**	**137**	--
Metals	Manganese	µg/L	D	**2,200**	--	--	--	--	--	--	--	**79.2**
Metals	Mercury	µg/L	T	**0.89**	--	--	--	--	0.20 U	0.20 U	0.20 U	--
Metals	Mercury	µg/L	D	**0.89**	--	--	--	--	--	--	--	0.20 U
Metals	Nickel	µg/L	T	**100**	--	--	--	--	**1.6**	**1.7**	**2.1**	--
Metals	Nickel	µg/L	D	**100**	--	--	--	--	--	--	--	**1.1**
Metals	Potassium	µg/L	T	**NE**	--	--	--	--	5,000 U	5,000 U	5,000 U	--
Metals	Potassium	µg/L	D	**NE**	--	--	--	--	--	--	--	5,000 U
Metals	Selenium	µg/L	T	**50**	--	--	--	--	5.0 U	5.0 U	5.0 U	--
Metals	Selenium	µg/L	D	**50**	--	--	--	--	--	--	--	5.0 U
Metals	Silver	µg/L	T	**80**	--	--	--	--	1.0 U	1.0 U	1.0 U	--
Metals	Silver	µg/L	D	**80**	--	--	--	--	--	--	--	1.0 U
Metals	Sodium	µg/L	T	**NE**	--	--	--	--	**5,890**	**5,940**	**11,200**	--
Metals	Sodium	µg/L	D	**NE**	--	--	--	--	--	--	--	**6,010**
Metals	Thallium	µg/L	T	**1.0**	--	--	--	--	1.0 U	1.0 U	1.0 U	--

				Sampling Event:	E_E_GW-1	E_E_GW-1	E_E_GW-1	E_E_GW-1	E_E_GW-1	E_E_GW-1	E_E_GW-1	E_E_GW-1
				Sample ID:	**JGWE1**	**JGWE1DL**	**JGWE2**	**JGWE3**	**MJGWE2**	**MJGWE2D**	**MJGWE3**	**MJGWE4**
				Location:	**LAI-MW-2**	**LAI-MW-2**	**OLY-01**	**OLY-02**	**OLY-01**	**OLY-01**	**OLY-02**	**OLY-01**
				Date:	**03/26/15**	**03/26/15**	**03/25/15**	**03/25/15**	**03/25/15**	**03/25/15**	**03/25/15**	**03/25/15**
Metals	Thallium	µg/L	D	**1.0**	--	--	--	--	--	--	--	1.0 U
Metals	Vanadium	µg/L	T	**80**	--	--	--	--	**1.3**	**1.3**	**0.55**	--
Metals	Vanadium	µg/L	D	**80**	--	--	--	--	--	--	--	**0.91**
Metals	Zinc	µg/L	T	**4,800**	--	--	--	--	**3.0**	**4.3**	**2.9**	--
Metals	Zinc	µg/L	D	**4,800**	--	--	--	--	--	--	--	**1.6**
VOCs	Benzene	µg/L	T	**2.4**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	Toluene	µg/L	T	**640**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	Ethylbenzene	µg/L	T	**700**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	Xylene, m-,p-	µg/L	T	**290**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	Xylene, o-	µg/L	T	**440**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	Total Xylenes	µg/L	T	**290**	--	--	--	--	--	--	--	--
VOCs	1,1,1,2-Tetrachloroethane	µg/L	T	**1.7**	--	--	--	--	--	--	--	--
VOCs	1,1,1-Trichloroethane	µg/L	T	**200**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	1,1,2,2-Tetrachloroethane	µg/L	T	**0.22**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	µg/L	T	**1,100**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	1,1,2-Trichloroethane	µg/L	T	**4.5**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	1,1-Dichloroethane	µg/L	T	**7.7**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	1,1-Dichloroethene	µg/L	T	**7.0**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	1,1-Dichloropropene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	1,2,3-Trichlorobenzene	µg/L	T	**NE**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	1,2,3-Trichloropropane	µg/L	T	**0.50**	--	--	--	--	--	--	--	--
VOCs	1,2,4-Trichlorobenzene	µg/L	T	**15**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	1,2,4-Trimethylbenzene	µg/L	T	**28**	--	--	--	--	--	--	--	--
VOCs	1,2-Dibromo-3-Chloropropane	µg/L	T	**0.50**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	1,2-Dibromoethane	µg/L	T	**0.20**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/L	T	**600**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	1,2-Dichloroethane	µg/L	T	**4.2**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	1,2-Dichloropropane	µg/L	T	**3.9**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	1,3,5-Trichlorobenzene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	1,3,5-Trimethylbenzene	µg/L	T	**80**	--	--	--	--	--	--	--	--
VOCs	1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/L	T	**NE**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	1,3-Dichloropropane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/L	T	**4.8**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	2,2-Dichloropropane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	2-Butanone (MEK)	µg/L	T	**4,800**	5.0 U	--	5.0 U	5.0 U	--	--	--	--
VOCs	2-Chloroethyl vinyl ether	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	2-Chlorotoluene	µg/L	T	**160**	--	--	--	--	--	--	--	--
VOCs	2-Hexanone	µg/L	T	**NE**	5.0 U	--	5.0 U	5.0 U	--	--	--	--
VOCs	4-Chlorotoluene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	4-Methyl-2-Pentanone (Methyl isobutyl ketone)	µg/L	T	**640**	5.0 U	--	5.0 U	5.0 U	--	--	--	--
VOCs	Acetic Acid, Methyl Ester	µg/L	T	**8,000**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	Acetone	µg/L	T	**7,200**	5.0 U	--	5.0 U	5.0 U	--	--	--	--
VOCs	Acrolein	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
VOCs	Acrylonitrile	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
VOCs	Bromobenzene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Bromochloromethane	µg/L	T	**NE**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	Bromodichloromethane	µg/L	T	**1.8**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	Bromoethane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Bromoform (Tribromomethane)	µg/L	T	**55**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	Bromomethane	µg/L	T	**11**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	Carbon Disulfide	µg/L	T	**400**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	Carbon Tetrachloride	µg/L	T	**0.54**	0.50 U	--	0.50 U	0.50 U	--	--	--	--

				Sampling Event:	E_E_GW-1	E_E_GW-1	E_E_GW-1	E_E_GW-1	E_E_GW-1	E_E_GW-1	E_E_GW-1	E_E_GW-1
				Sample ID:	JGWE1	JGWE1DL	JGWE2	JGWE3	MJGWE2	MJGWE2D	MJGWE3	MJGWE4
				Location:	LAI-MW-2	LAI-MW-2	OLY-01	OLY-02	OLY-01	OLY-01	OLY-02	OLY-01
				Date:	03/26/15	03/26/15	03/25/15	03/25/15	03/25/15	03/25/15	03/25/15	03/25/15
VOCs	Chlorobenzene	µg/L	T	**100**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	Chloroethane	µg/L	T	**18,000**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	Chloroform	µg/L	T	**1.2**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	Chloromethane	µg/L	T	**150**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	cis-1,2-Dichloroethene	µg/L	T	**16**	**0.80**	--	0.50 U	0.50 U	--	--	--	--
VOCs	cis-1,3-Dichloropropene	µg/L	T	**0.44**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	Cyclohexane	µg/L	T	**NE**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	Cyclohexane, Methyl-	µg/L	T	**NE**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	Dibromochloromethane	µg/L	T	**4.5**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	Dibromomethane	µg/L	T	**80**	--	--	--	--	--	--	--	--
VOCs	Dichlorodifluoromethane (CFC-12)	µg/L	T	**5.7**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	Hexachlorobutadiene	µg/L	T	**0.56**	--	--	--	--	--	--	--	--
VOCs	Isopropylbenzene (Cumene)	µg/L	T	**720**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	Methyl Iodide (Iodomethane)	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Methyl t-butyl ether	µg/L	T	**24**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	Methylene Chloride	µg/L	T	**5.0**	**0.11**	--	0.50 U	**0.13**	--	--	--	--
VOCs	n-Butylbenzene	µg/L	T	**400**	--	--	--	--	--	--	--	--
VOCs	n-Propylbenzene	µg/L	T	**800**	--	--	--	--	--	--	--	--
VOCs	p-Isopropyltoluene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Sec-Butylbenzene	µg/L	T	**800**	--	--	--	--	--	--	--	--
VOCs	Styrene	µg/L	T	**100**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	Tert-Butylbenzene	µg/L	T	**800**	--	--	--	--	--	--	--	--
VOCs	Tetrachloroethene	µg/L	T	**5.0**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	Trans-1,2-Dichloroethene	µg/L	T	**100**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	Trans-1,3-Dichloropropene	µg/L	T	**0.44**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	Trans-1,4-Dichloro-2-butene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Trichloroethene	µg/L	T	**1.6**	--	**22**	0.50 U	**2.6**	--	--	--	--
VOCs	Trichlorofluoromethane (CFC-11)	µg/L	T	**120**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
VOCs	Vinyl Acetate	µg/L	T	**7,800**	--	--	--	--	--	--	--	--
VOCs	Vinyl Chloride	µg/L	T	**0.29**	0.50 U	--	0.50 U	0.50 U	--	--	--	--
PAHs	1-Methylnaphthalene	µg/L	T	**1.5**	--	--	--	--	--	--	--	--
PAHs	2-Methylnaphthalene	µg/L	T	**32**	--	--	--	--	--	--	--	--
PAHs	Acenaphthene	µg/L	T	**960**	--	--	--	--	--	--	--	--
PAHs	Acenaphthylene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Anthracene	µg/L	T	**4,800**	--	--	--	--	--	--	--	--
PAHs	Benzo(g,h,i)perylene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Fluoranthene	µg/L	T	**640**	--	--	--	--	--	--	--	--
PAHs	Fluorene	µg/L	T	**640**	--	--	--	--	--	--	--	--
PAHs	Naphthalene	µg/L	T	**8.9**	--	--	--	--	--	--	--	--
PAHs	Phenanthrene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Pyrene	µg/L	T	**480**	--	--	--	--	--	--	--	--
PAHs	Benzo(a)pyrene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Benzo(a)anthracene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Benzo(b)fluoranthene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Benzo(k)fluoranthene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Benzofluoranthenes (Total)	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Dibenzo(a,h)anthracene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Indeno(1,2,3-c,d)pyrene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Chrysene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Total cPAH TEQ (ND=0.5RL)	µg/L	T	**0.20**	--	--	--	--	--	--	--	--
PAHs	Dibenzofuran	µg/L	T	**16**	--	--	--	--	--	--	--	--
SVOCs	1,1'-Biphenyl	µg/L	T	**5.5**	--	--	--	--	--	--	--	--

				Sampling Event:	E_E_GW-1	E_E_GW-1	E_E_GW-1	E_E_GW-1	E_E_GW-1	E_E_GW-1	E_E_GW-1	E_E_GW-1
				Sample ID:	JGWE1	JGWE1DL	JGWE2	JGWE3	MJGWE2	MJGWE2D	MJGWE3	MJGWE4
				Location:	LAI-MW-2	LAI-MW-2	OLY-01	OLY-02	OLY-01	OLY-01	OLY-02	OLY-01
				Date:	03/26/15	03/26/15	03/25/15	03/25/15	03/25/15	03/25/15	03/25/15	03/25/15
SVOCs	1,2,4,5-Tetrachlorobenzene	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	2,2'-Oxybis[1-chloropropane]	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
SVOCs	2,3,4,6-Tetrachlorophenol	µg/L	T	**480**	--	--	--	--	--	--	--	--
SVOCs	2,4,5-Trichlorophenol	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	2,4,6-Trichlorophenol	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	2,4-Dichlorophenol	µg/L	T	**24**	--	--	--	--	--	--	--	--
SVOCs	2,4-Dimethylphenol	µg/L	T	**160**	--	--	--	--	--	--	--	--
SVOCs	2,4-Dinitrophenol	µg/L	T	**32**	--	--	--	--	--	--	--	--
SVOCs	2,4-Dinitrotoluene	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	2,6-Dinitrotoluene	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	2-Chloronaphthalene	µg/L	T	**640**	--	--	--	--	--	--	--	--
SVOCs	2-Chlorophenol	µg/L	T	**40**	--	--	--	--	--	--	--	--
SVOCs	2-methylphenol (o-Cresol)	µg/L	T	**400**	--	--	--	--	--	--	--	--
SVOCs	2-Nitroaniline	µg/L	T	**160**	--	--	--	--	--	--	--	--
SVOCs	2-Nitrophenol	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	3 & 4 Methylphenol	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	3,3'-Dichlorobenzidine	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	3-Nitroaniline	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	4,6-Dinitro-2-Methylphenol	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	4-Bromophenyl phenyl ether	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	4-Chloro-3-Methylphenol	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	4-Chloroaniline	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	4-Chlorophenyl-Phenylether	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	4-methylphenol (p-Cresol)	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	4-Nitroaniline	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	4-Nitrophenol (p-Nitrophenol)	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Atrazine	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	Benzaldehyde	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	Benzoic Acid	µg/L	T	**64,000**	--	--	--	--	--	--	--	--
SVOCs	Benzyl Alcohol	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	Bis(2-Chloroethoxy)Methane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Bis(2-Chloroethyl)Ether	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
SVOCs	Bis(2-chloroisopropyl) ether	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Bis(2-Ethylhexyl) Phthalate	µg/L	T	**6.0**	--	--	--	--	--	--	--	--
SVOCs	Butyl benzyl Phthalate	µg/L	T	**46**	--	--	--	--	--	--	--	--
SVOCs	Caprolactam	µg/L	T	**8,000**	--	--	--	--	--	--	--	--

				Sampling Event:	E_E_GW-1	E_E_GW-1	E_E_GW-1	E_E_GW-1	E_E_GW-1	E_E_GW-1	E_E_GW-1	E_E_GW-1
				Sample ID:	JGWE1	JGWE1DL	JGWE2	JGWE3	MJGWE2	MJGWE2D	MJGWE3	MJGWE4
				Location:	LAI-MW-2	LAI-MW-2	OLY-01	OLY-02	OLY-01	OLY-01	OLY-02	OLY-01
				Date:	03/26/15	03/26/15	03/25/15	03/25/15	03/25/15	03/25/15	03/25/15	03/25/15
SVOCs	Carbazole	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Di-N-Octyl Phthalate	µg/L	T	**160**	--	--	--	--	--	--	--	--
SVOCs	Dibutyl Phthalate	µg/L	T	**1,600**	--	--	--	--	--	--	--	--
SVOCs	Diethyl Phthalate	µg/L	T	**13,000**	--	--	--	--	--	--	--	--
SVOCs	Dimethyl Phthalate	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Ethanone, 1-Phenyl- (Acetophenone)	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	Hexachlorobenzene	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
SVOCs	Hexachlorocyclopentadiene	µg/L	T	**48**	--	--	--	--	--	--	--	--
SVOCs	Hexachloroethane	µg/L	T	**1.1**	--	--	--	--	--	--	--	--
SVOCs	Isophorone	µg/L	T	**46**	--	--	--	--	--	--	--	--
SVOCs	N-Nitrosodi-n-propylamine	µg/L	T	**2.0**	--	--	--	--	--	--	--	--
SVOCs	N-Nitrosodiphenylamine (as diphenylamine)	µg/L	T	**18**	--	--	--	--	--	--	--	--
SVOCs	Nitrobenzene	µg/L	T	**16**	--	--	--	--	--	--	--	--
SVOCs	Pentachlorophenol	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
SVOCs	Phenol	µg/L	T	**2,400**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1016	µg/L	T	**1.1**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1221	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1232	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1242	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1248	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1254	µg/L	T	**0.10**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1260	µg/L	T	**0.10**	--	--	--	--	--	--	--	--
PCBs	Total PCBs	µg/L	T	**0.44**	--	--	--	--	--	--	--	--
Conventionals	Ammonia (Total as N)	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	AMMONIA-NITROGEN	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Carbon	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	CHEMICAL OXYGEN DEMAND	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Chloride	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Conductivity	mS/cm	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Dissolved Oxygen	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate-Nitrite	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate-nitrogen	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrite	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Oxidation-Reduction Potential (ORP)	mV	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	pH	SU	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Specific Conductance	umhos/cm	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Sulfate	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Temperature	deg C	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Total Dissolved Solids	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Total Organic Carbon	mg/L	--	**NE**	--	--	--	--	--	--	--	--

				Sampling Event:	**E_E_GW-1**	**E_E_GW-1**	**E_E_GW-2**	**E_E_GW-2**	**E_E_GW-2**	**E_E_GW-2**	**E_E_GW-3**	**E_E_GW-3**
				Sample ID:	**MJGWE4D**	**MJGWE5**	**JG5R0**	**JG5R1**	**JG5R2**	**JG5R3**	**JHAY0**	**JHAY1**
				Location:	**OLY-01**	**OLY-02**	**LAI-1**	**LAI-MW-2**	**OLY-01**	**OLY-02**	**LAI-1**	**LAI-MW-2**
				Date:	**03/25/15**	**03/25/15**	**06/24/15**	**06/24/15**	**06/24/15**	**06/24/15**	**09/23/15**	**09/23/15**
Parameter Group:	**Parameter:**	**Unit(s):**	**Total (T) or Dissolved (D):**	**Screening Level:**								
Fuels	Gasoline	µg/L	T	**800**	--	--	--	--	--	--	--	--
Fuels	Diesel-range hydrocarbons	µg/L	T	**500**	--	--	--	--	--	--	--	--
Fuels	Lube Oil-range Hydrocarbons	µg/L	T	**500**	--	--	--	--	--	--	--	--
Metals	Aluminum	µg/L	T	**16,000**	--	--	--	--	--	--	--	--
Metals	Aluminum	µg/L	D	**16,000**	200 U	200 U	--	--	--	--	--	--
Metals	Antimony	µg/L	T	**6.0**	--	--	--	--	--	--	--	--
Metals	Antimony	µg/L	D	**6.0**	2.0 U	2.0 U	--	--	--	--	--	--
Metals	Arsenic	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
Metals	Arsenic	µg/L	D	**5.0**	1.0 U	1.0 U	--	--	--	--	--	--
Metals	Barium	µg/L	T	**2,000**	--	--	--	--	--	--	--	--
Metals	Barium	µg/L	D	**2,000**	10.0 U	10.0 U	--	--	--	--	--	--
Metals	Beryllium	µg/L	T	**4.0**	--	--	--	--	--	--	--	--
Metals	Beryllium	µg/L	D	**4.0**	1.0 U	1.0 U	--	--	--	--	--	--
Metals	Cadmium	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
Metals	Cadmium	µg/L	D	**5.0**	1.0 U	1.0 U	--	--	--	--	--	--
Metals	Calcium	µg/L	T	**NE**	--	--	--	--	--	--	--	--
Metals	Calcium	µg/L	D	**NE**	**11,500**	**23,800**	--	--	--	--	--	--
Metals	Chromium	µg/L	T	**100**	--	--	--	--	--	--	--	--
Metals	Chromium	µg/L	D	**100**	**0.21**	**0.37**	--	--	--	--	--	--
Metals	Cobalt	µg/L	T	**100**	--	--	--	--	--	--	--	--
Metals	Cobalt	µg/L	D	**100**	**0.55**	**1.3**	--	--	--	--	--	--
Metals	Copper	µg/L	T	**640**	--	--	--	--	--	--	--	--
Metals	Copper	µg/L	D	**640**	2.0 U	2.0 U	--	--	--	--	--	--
Metals	Iron	µg/L	T	**11,000**	--	--	--	--	--	--	--	--
Metals	Iron	µg/L	D	**11,000**	100 U	100 U	--	--	--	--	--	--
Metals	Lead	µg/L	T	**15**	--	--	--	--	--	--	--	--
Metals	Lead	µg/L	D	**15**	1.0 U	1.0 U	--	--	--	--	--	--
Metals	Magnesium	µg/L	T	**NE**	--	--	--	--	--	--	--	--
Metals	Magnesium	µg/L	D	**NE**	**4,580**	**7,780 J**	--	--	--	--	--	--
Metals	Manganese	µg/L	T	**2,200**	--	--	--	--	--	--	--	--
Metals	Manganese	µg/L	D	**2,200**	**80.3**	**135**	--	--	--	--	--	--
Metals	Mercury	µg/L	T	**0.89**	--	--	--	--	--	--	--	--
Metals	Mercury	µg/L	D	**0.89**	0.20 U	0.20 U	--	--	--	--	--	--
Metals	Nickel	µg/L	T	**100**	--	--	--	--	--	--	--	--
Metals	Nickel	µg/L	D	**100**	**1.2**	**1.9**	--	--	--	--	--	--
Metals	Potassium	µg/L	T	**NE**	--	--	--	--	--	--	--	--
Metals	Potassium	µg/L	D	**NE**	5,000 U	5,000 U	--	--	--	--	--	--
Metals	Selenium	µg/L	T	**50**	--	--	--	--	--	--	--	--
Metals	Selenium	µg/L	D	**50**	5.0 U	5.0 U	--	--	--	--	--	--
Metals	Silver	µg/L	T	**80**	--	--	--	--	--	--	--	--
Metals	Silver	µg/L	D	**80**	1.0 U	1.0 U	--	--	--	--	--	--
Metals	Sodium	µg/L	T	**NE**	--	--	--	--	--	--	--	--
Metals	Sodium	µg/L	D	**NE**	**5,920**	**11,000**	--	--	--	--	--	--
Metals	Thallium	µg/L	T	**1.0**	--	--	--	--	--	--	--	--

				Sampling Event:	**E_E_GW-1**	**E_E_GW-1**	**E_E_GW-2**	**E_E_GW-2**	**E_E_GW-2**	**E_E_GW-2**	**E_E_GW-3**	**E_E_GW-3**
				Sample ID:	**MJGWE4D**	**MJGWE5**	**JG5R0**	**JG5R1**	**JG5R2**	**JG5R3**	**JHAY0**	**JHAY1**
				Location:	**OLY-01**	**OLY-02**	**LAI-1**	**LAI-MW-2**	**OLY-01**	**OLY-02**	**LAI-1**	**LAI-MW-2**
				Date:	**03/25/15**	**03/25/15**	**06/24/15**	**06/24/15**	**06/24/15**	**06/24/15**	**09/23/15**	**09/23/15**
Metals	Thallium	µg/L	D	**1.0**	1.0 U	1.0 U	--	--	--	--	--	--
Metals	Vanadium	µg/L	T	**80**	--	--	--	--	--	--	--	--
Metals	Vanadium	µg/L	D	**80**	**0.68**	**0.69**	--	--	--	--	--	--
Metals	Zinc	µg/L	T	**4,800**	--	--	--	--	--	--	--	--
Metals	Zinc	µg/L	D	**4,800**	**2.0**	**2.4**	--	--	--	--	--	--
VOCs	Benzene	µg/L	T	**2.4**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	Toluene	µg/L	T	**640**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	Ethylbenzene	µg/L	T	**700**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	Xylene, m-,p-	µg/L	T	**290**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	Xylene, o-	µg/L	T	**440**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	Total Xylenes	µg/L	T	**290**	--	--	--	--	--	--	--	--
VOCs	1,1,1,2-Tetrachloroethane	µg/L	T	**1.7**	--	--	--	--	--	--	--	--
VOCs	1,1,1-Trichloroethane	µg/L	T	**200**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	1,1,2,2-Tetrachloroethane	µg/L	T	**0.22**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	µg/L	T	**1,100**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	1,1,2-Trichloroethane	µg/L	T	**4.5**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	1,1-Dichloroethane	µg/L	T	**7.7**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	1,1-Dichloroethene	µg/L	T	**7.0**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	1,1-Dichloropropene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	1,2,3-Trichlorobenzene	µg/L	T	**NE**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	1,2,3-Trichloropropane	µg/L	T	**0.50**	--	--	--	--	--	--	--	--
VOCs	1,2,4-Trichlorobenzene	µg/L	T	**15**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	1,2,4-Trimethylbenzene	µg/L	T	**28**	--	--	--	--	--	--	--	--
VOCs	1,2-Dibromo-3-Chloropropane	µg/L	T	**0.50**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	1,2-Dibromoethane	µg/L	T	**0.20**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/L	T	**600**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	1,2-Dichloroethane	µg/L	T	**4.2**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	1,2-Dichloropropane	µg/L	T	**3.9**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	1,3,5-Trichlorobenzene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	1,3,5-Trimethylbenzene	µg/L	T	**80**	--	--	--	--	--	--	--	--
VOCs	1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/L	T	**NE**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	1,3-Dichloropropane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/L	T	**4.8**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	2,2-Dichloropropane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	2-Butanone (MEK)	µg/L	T	**4,800**	--	--	5 U	5 U	5 U	5 U	5.0 U	5.0 U
VOCs	2-Chloroethyl vinyl ether	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	2-Chlorotoluene	µg/L	T	**160**	--	--	--	--	--	--	--	--
VOCs	2-Hexanone	µg/L	T	**NE**	--	--	5 U	5 U	5 U	5 U	5.0 U	5.0 U
VOCs	4-Chlorotoluene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	4-Methyl-2-Pentanone (Methyl isobutyl ketone)	µg/L	T	**640**	--	--	5 U	5 U	5 U	5 U	5.0 U	5.0 U
VOCs	Acetic Acid, Methyl Ester	µg/L	T	**8,000**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	Acetone	µg/L	T	**7,200**	--	--	5 U	5 U	5 U	5 U	5.0 U	5.0 U
VOCs	Acrolein	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
VOCs	Acrylonitrile	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
VOCs	Bromobenzene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Bromochloromethane	µg/L	T	**NE**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	Bromodichloromethane	µg/L	T	**1.8**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	Bromoethane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Bromoform (Tribromomethane)	µg/L	T	**55**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	Bromomethane	µg/L	T	**11**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	Carbon Disulfide	µg/L	T	**400**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	Carbon Tetrachloride	µg/L	T	**0.54**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U

				Sampling Event:	E_E_GW-1	E_E_GW-1	E_E_GW-2	E_E_GW-2	E_E_GW-2	E_E_GW-2	E_E_GW-3	E_E_GW-3
				Sample ID:	MJGWE4D	MJGWE5	JG5R0	JG5R1	JG5R2	JG5R3	JHAY0	JHAY1
				Location:	OLY-01	OLY-02	LAI-1	LAI-MW-2	OLY-01	OLY-02	LAI-1	LAI-MW-2
				Date:	03/25/15	03/25/15	06/24/15	06/24/15	06/24/15	06/24/15	09/23/15	09/23/15
VOCs	Chlorobenzene	µg/L	T	**100**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	Chloroethane	µg/L	T	**18,000**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	Chloroform	µg/L	T	**1.2**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	Chloromethane	µg/L	T	**150**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	cis-1,2-Dichloroethene	µg/L	T	**16**	--	--	**2.2**	**1.2**	0.5 U	0.5 U	**1.6**	**0.33**
VOCs	cis-1,3-Dichloropropene	µg/L	T	**0.44**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	Cyclohexane	µg/L	T	**NE**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	Cyclohexane, Methyl-	µg/L	T	**NE**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	Dibromochloromethane	µg/L	T	**4.5**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	Dibromomethane	µg/L	T	**80**	--	--	--	--	--	--	--	--
VOCs	Dichlorodifluoromethane (CFC-12)	µg/L	T	**5.7**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	Hexachlorobutadiene	µg/L	T	**0.56**	--	--	--	--	--	--	--	--
VOCs	Isopropylbenzene (Cumene)	µg/L	T	**720**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	Methyl Iodide (Iodomethane)	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Methyl t-butyl ether	µg/L	T	**24**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	Methylene Chloride	µg/L	T	**5.0**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	n-Butylbenzene	µg/L	T	**400**	--	--	--	--	--	--	--	--
VOCs	n-Propylbenzene	µg/L	T	**800**	--	--	--	--	--	--	--	--
VOCs	p-Isopropyltoluene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Sec-Butylbenzene	µg/L	T	**800**	--	--	--	--	--	--	--	--
VOCs	Styrene	µg/L	T	**100**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	Tert-Butylbenzene	µg/L	T	**800**	--	--	--	--	--	--	--	--
VOCs	Tetrachloroethene	µg/L	T	**5.0**	--	--	**0.22**	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	Trans-1,2-Dichloroethene	µg/L	T	**100**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	Trans-1,3-Dichloropropene	µg/L	T	**0.44**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	Trans-1,4-Dichloro-2-butene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
VOCs	Trichloroethene	µg/L	T	**1.6**	--	--	**20**	**50**	0.5 U	**2.8**	**19**	**19**
VOCs	Trichlorofluoromethane (CFC-11)	µg/L	T	**120**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
VOCs	Vinyl Acetate	µg/L	T	**7,800**	--	--	--	--	--	--	--	--
VOCs	Vinyl Chloride	µg/L	T	**0.29**	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
PAHs	1-Methylnaphthalene	µg/L	T	**1.5**	--	--	--	--	--	--	--	--
PAHs	2-Methylnaphthalene	µg/L	T	**32**	--	--	--	--	--	--	--	--
PAHs	Acenaphthene	µg/L	T	**960**	--	--	--	--	--	--	--	--
PAHs	Acenaphthylene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Anthracene	µg/L	T	**4,800**	--	--	--	--	--	--	--	--
PAHs	Benzo(g,h,i)perylene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Fluoranthene	µg/L	T	**640**	--	--	--	--	--	--	--	--
PAHs	Fluorene	µg/L	T	**640**	--	--	--	--	--	--	--	--
PAHs	Naphthalene	µg/L	T	**8.9**	--	--	--	--	--	--	--	--
PAHs	Phenanthrene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Pyrene	µg/L	T	**480**	--	--	--	--	--	--	--	--
PAHs	Benzo(a)pyrene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Benzo(a)anthracene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Benzo(b)fluoranthene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Benzo(k)fluoranthene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Benzofluoranthenes (Total)	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Dibenzo(a,h)anthracene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Indeno(1,2,3-c,d)pyrene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Chrysene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PAHs	Total cPAH TEQ (ND=0.5RL)	µg/L	T	**0.20**	--	--	--	--	--	--	--	--
PAHs	Dibenzofuran	µg/L	T	**16**	--	--	--	--	--	--	--	--
SVOCs	1,1'-Biphenyl	µg/L	T	**5.5**	--	--	--	--	--	--	--	--

				Sampling Event:	E_E_GW-1	E_E_GW-1	E_E_GW-2	E_E_GW-2	E_E_GW-2	E_E_GW-2	E_E_GW-3	E_E_GW-3
				Sample ID:	MJGWE4D	MJGWE5	JG5R0	JG5R1	JG5R2	JG5R3	JHAY0	JHAY1
				Location:	OLY-01	OLY-02	LAI-1	LAI-MW-2	OLY-01	OLY-02	LAI-1	LAI-MW-2
				Date:	03/25/15	03/25/15	06/24/15	06/24/15	06/24/15	06/24/15	09/23/15	09/23/15
SVOCs	1,2,4,5-Tetrachlorobenzene	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	2,2'-Oxybis[1-chloropropane]	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
SVOCs	2,3,4,6-Tetrachlorophenol	µg/L	T	**480**	--	--	--	--	--	--	--	--
SVOCs	2,4,5-Trichlorophenol	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	2,4,6-Trichlorophenol	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	2,4-Dichlorophenol	µg/L	T	**24**	--	--	--	--	--	--	--	--
SVOCs	2,4-Dimethylphenol	µg/L	T	**160**	--	--	--	--	--	--	--	--
SVOCs	2,4-Dinitrophenol	µg/L	T	**32**	--	--	--	--	--	--	--	--
SVOCs	2,4-Dinitrotoluene	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	2,6-Dinitrotoluene	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	2-Chloronaphthalene	µg/L	T	**640**	--	--	--	--	--	--	--	--
SVOCs	2-Chlorophenol	µg/L	T	**40**	--	--	--	--	--	--	--	--
SVOCs	2-methylphenol (o-Cresol)	µg/L	T	**400**	--	--	--	--	--	--	--	--
SVOCs	2-Nitroaniline	µg/L	T	**160**	--	--	--	--	--	--	--	--
SVOCs	2-Nitrophenol	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	3 & 4 Methylphenol	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	3,3'-Dichlorobenzidine	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	3-Nitroaniline	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	4,6-Dinitro-2-Methylphenol	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	4-Bromophenyl phenyl ether	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	4-Chloro-3-Methylphenol	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	4-Chloroaniline	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	4-Chlorophenyl-Phenylether	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	4-methylphenol (p-Cresol)	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	4-Nitroaniline	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	4-Nitrophenol (p-Nitrophenol)	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Atrazine	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
SVOCs	Benzaldehyde	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	Benzoic Acid	µg/L	T	**64,000**	--	--	--	--	--	--	--	--
SVOCs	Benzyl Alcohol	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	Bis(2-Chloroethoxy)Methane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Bis(2-Chloroethyl)Ether	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
SVOCs	Bis(2-chloroisopropyl) ether	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Bis(2-Ethylhexyl) Phthalate	µg/L	T	**6.0**	--	--	--	--	--	--	--	--
SVOCs	Butyl benzyl Phthalate	µg/L	T	**46**	--	--	--	--	--	--	--	--
SVOCs	Caprolactam	µg/L	T	**8,000**	--	--	--	--	--	--	--	--

				Sampling Event:	E_E_GW-1	E_E_GW-1	E_E_GW-2	E_E_GW-2	E_E_GW-2	E_E_GW-2	E_E_GW-3	E_E_GW-3
				Sample ID:	MJGWE4D	MJGWE5	JG5R0	JG5R1	JG5R2	JG5R3	JHAY0	JHAY1
				Location:	OLY-01	OLY-02	LAI-1	LAI-MW-2	OLY-01	OLY-02	LAI-1	LAI-MW-2
				Date:	03/25/15	03/25/15	06/24/15	06/24/15	06/24/15	06/24/15	09/23/15	09/23/15
SVOCs	Carbazole	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Di-N-Octyl Phthalate	µg/L	T	**160**	--	--	--	--	--	--	--	--
SVOCs	Dibutyl Phthalate	µg/L	T	**1,600**	--	--	--	--	--	--	--	--
SVOCs	Diethyl Phthalate	µg/L	T	**13,000**	--	--	--	--	--	--	--	--
SVOCs	Dimethyl Phthalate	µg/L	T	**NE**	--	--	--	--	--	--	--	--
SVOCs	Ethanone, 1-Phenyl- (Acetophenone)	µg/L	T	**800**	--	--	--	--	--	--	--	--
SVOCs	Hexachlorobenzene	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
SVOCs	Hexachlorocyclopentadiene	µg/L	T	**48**	--	--	--	--	--	--	--	--
SVOCs	Hexachloroethane	µg/L	T	**1.1**	--	--	--	--	--	--	--	--
SVOCs	Isophorone	µg/L	T	**46**	--	--	--	--	--	--	--	--
SVOCs	N-Nitrosodi-n-propylamine	µg/L	T	**2.0**	--	--	--	--	--	--	--	--
SVOCs	N-Nitrosodiphenylamine (as diphenylamine)	µg/L	T	**18**	--	--	--	--	--	--	--	--
SVOCs	Nitrobenzene	µg/L	T	**16**	--	--	--	--	--	--	--	--
SVOCs	Pentachlorophenol	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
SVOCs	Phenol	µg/L	T	**2,400**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1016	µg/L	T	**1.1**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1221	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1232	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1242	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1248	µg/L	T	**NE**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1254	µg/L	T	**0.10**	--	--	--	--	--	--	--	--
PCBs	PCB-Aroclor 1260	µg/L	T	**0.10**	--	--	--	--	--	--	--	--
PCBs	Total PCBs	µg/L	T	**0.44**	--	--	--	--	--	--	--	--
Conventionals	Ammonia (Total as N)	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	AMMONIA-NITROGEN	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Carbon	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	CHEMICAL OXYGEN DEMAND	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Chloride	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Conductivity	mS/cm	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Dissolved Oxygen	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate-Nitrite	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrate-nitrogen	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Nitrite	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Oxidation-Reduction Potential (ORP)	mV	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	pH	SU	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Specific Conductance	umhos/cm	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Sulfate	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Temperature	deg C	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Total Dissolved Solids	mg/L	--	**NE**	--	--	--	--	--	--	--	--
Conventionals	Total Organic Carbon	mg/L	--	**NE**	--	--	--	--	--	--	--	--

				Sampling Event: Sample ID: Location: Date:	E_E_GW-3 JHAY2 OLY-01 09/23/15	E_E_GW-3 JHAY3 OLY-02 09/23/15	E_E_GW-4 JHEH0 LAI-1 12/16/15	E_E_GW-4 JHEH1 LAI-MW-2 12/16/15	E_E_GW-4 JHEH2 OLY-01 12/16/15	E_E_GW-4 JHEH3 OLY-02 12/17/15
Parameter Group:	**Parameter:**	**Unit(s):**	**Total (T) or Dissolved (D):**	**Screening Level:**						
Fuels	Gasoline	µg/L	T	**800**	--	--	--	--	--	--
Fuels	Diesel-range hydrocarbons	µg/L	T	**500**	--	--	--	--	--	--
Fuels	Lube Oil-range Hydrocarbons	µg/L	T	**500**	--	--	--	--	--	--
Metals	Aluminum	µg/L	T	**16,000**	--	--	--	--	--	--
Metals	Aluminum	µg/L	D	**16,000**	--	--	--	--	--	--
Metals	Antimony	µg/L	T	**6.0**	--	--	--	--	--	--
Metals	Antimony	µg/L	D	**6.0**	--	--	--	--	--	--
Metals	Arsenic	µg/L	T	**5.0**	--	--	--	--	--	--
Metals	Arsenic	µg/L	D	**5.0**	--	--	--	--	--	--
Metals	Barium	µg/L	T	**2,000**	--	--	--	--	--	--
Metals	Barium	µg/L	D	**2,000**	--	--	--	--	--	--
Metals	Beryllium	µg/L	T	**4.0**	--	--	--	--	--	--
Metals	Beryllium	µg/L	D	**4.0**	--	--	--	--	--	--
Metals	Cadmium	µg/L	T	**5.0**	--	--	--	--	--	--
Metals	Cadmium	µg/L	D	**5.0**	--	--	--	--	--	--
Metals	Calcium	µg/L	T	**NE**	--	--	--	--	--	--
Metals	Calcium	µg/L	D	**NE**	--	--	--	--	--	--
Metals	Chromium	µg/L	T	**100**	--	--	--	--	--	--
Metals	Chromium	µg/L	D	**100**	--	--	--	--	--	--
Metals	Cobalt	µg/L	T	**100**	--	--	--	--	--	--
Metals	Cobalt	µg/L	D	**100**	--	--	--	--	--	--
Metals	Copper	µg/L	T	**640**	--	--	--	--	--	--
Metals	Copper	µg/L	D	**640**	--	--	--	--	--	--
Metals	Iron	µg/L	T	**11,000**	--	--	--	--	--	--
Metals	Iron	µg/L	D	**11,000**	--	--	--	--	--	--
Metals	Lead	µg/L	T	**15**	--	--	--	--	--	--
Metals	Lead	µg/L	D	**15**	--	--	--	--	--	--
Metals	Magnesium	µg/L	T	**NE**	--	--	--	--	--	--
Metals	Magnesium	µg/L	D	**NE**	--	--	--	--	--	--
Metals	Manganese	µg/L	T	**2,200**	--	--	--	--	--	--
Metals	Manganese	µg/L	D	**2,200**	--	--	--	--	--	--
Metals	Mercury	µg/L	T	**0.89**	--	--	--	--	--	--
Metals	Mercury	µg/L	D	**0.89**	--	--	--	--	--	--
Metals	Nickel	µg/L	T	**100**	--	--	--	--	--	--
Metals	Nickel	µg/L	D	**100**	--	--	--	--	--	--
Metals	Potassium	µg/L	T	**NE**	--	--	--	--	--	--
Metals	Potassium	µg/L	D	**NE**	--	--	--	--	--	--
Metals	Selenium	µg/L	T	**50**	--	--	--	--	--	--
Metals	Selenium	µg/L	D	**50**	--	--	--	--	--	--
Metals	Silver	µg/L	T	**80**	--	--	--	--	--	--
Metals	Silver	µg/L	D	**80**	--	--	--	--	--	--
Metals	Sodium	µg/L	T	**NE**	--	--	--	--	--	--
Metals	Sodium	µg/L	D	**NE**	--	--	--	--	--	--
Metals	Thallium	µg/L	T	**1.0**	--	--	--	--	--	--

				Sampling Event:	E_E_GW-3	E_E_GW-3	E_E_GW-4	E_E_GW-4	E_E_GW-4	E_E_GW-4
				Sample ID:	JHAY2	JHAY3	JHEH0	JHEH1	JHEH2	JHEH3
				Location:	OLY-01	OLY-02	LAI-1	LAI-MW-2	OLY-01	OLY-02
				Date:	09/23/15	09/23/15	12/16/15	12/16/15	12/16/15	12/17/15
Metals	Thallium	µg/L	D	**1.0**	--	--	--	--	--	--
Metals	Vanadium	µg/L	T	**80**	--	--	--	--	--	--
Metals	Vanadium	µg/L	D	**80**	--	--	--	--	--	--
Metals	Zinc	µg/L	T	**4,800**	--	--	--	--	--	--
Metals	Zinc	µg/L	D	**4,800**	--	--	--	--	--	--
VOCs	Benzene	µg/L	T	**2.4**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	Toluene	µg/L	T	**640**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	Ethylbenzene	µg/L	T	**700**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	Xylene, m-,p-	µg/L	T	**290**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	Xylene, o-	µg/L	T	**440**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	Total Xylenes	µg/L	T	**290**	--	--	--	--	--	--
VOCs	1,1,1,2-Tetrachloroethane	µg/L	T	**1.7**	--	--	--	--	--	--
VOCs	1,1,1-Trichloroethane	µg/L	T	**200**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	1,1,2,2-Tetrachloroethane	µg/L	T	**0.22**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	µg/L	T	**1,100**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	1,1,2-Trichloroethane	µg/L	T	**4.5**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	1,1-Dichloroethane	µg/L	T	**7.7**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	1,1-Dichloroethene	µg/L	T	**7.0**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	1,1-Dichloropropene	µg/L	T	**NE**	--	--	--	--	--	--
VOCs	1,2,3-Trichlorobenzene	µg/L	T	**NE**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	1,2,3-Trichloropropane	µg/L	T	**0.50**	--	--	--	--	--	--
VOCs	1,2,4-Trichlorobenzene	µg/L	T	**15**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	1,2,4-Trimethylbenzene	µg/L	T	**28**	--	--	--	--	--	--
VOCs	1,2-Dibromo-3-Chloropropane	µg/L	T	**0.50**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	1,2-Dibromoethane	µg/L	T	**0.20**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/L	T	**600**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	1,2-Dichloroethane	µg/L	T	**4.2**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	1,2-Dichloropropane	µg/L	T	**3.9**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	1,3,5-Trichlorobenzene	µg/L	T	**NE**	--	--	--	--	--	--
VOCs	1,3,5-Trimethylbenzene	µg/L	T	**80**	--	--	--	--	--	--
VOCs	1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/L	T	**NE**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	1,3-Dichloropropane	µg/L	T	**NE**	--	--	--	--	--	--
VOCs	1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/L	T	**4.8**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	2,2-Dichloropropane	µg/L	T	**NE**	--	--	--	--	--	--
VOCs	2-Butanone (MEK)	µg/L	T	**4,800**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
VOCs	2-Chloroethyl vinyl ether	µg/L	T	**NE**	--	--	--	--	--	--
VOCs	2-Chlorotoluene	µg/L	T	**160**	--	--	--	--	--	--
VOCs	2-Hexanone	µg/L	T	**NE**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
VOCs	4-Chlorotoluene	µg/L	T	**NE**	--	--	--	--	--	--
VOCs	4-Methyl-2-Pentanone (Methyl isobutyl ketone)	µg/L	T	**640**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
VOCs	Acetic Acid, Methyl Ester	µg/L	T	**8,000**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	Acetone	µg/L	T	**7,200**	5.0 U	5.0 U	**8.9**	**8.6**	**8.1**	**14**
VOCs	Acrolein	µg/L	T	**5.0**	--	--	--	--	--	--
VOCs	Acrylonitrile	µg/L	T	**1.0**	--	--	--	--	--	--
VOCs	Bromobenzene	µg/L	T	**NE**	--	--	--	--	--	--
VOCs	Bromochloromethane	µg/L	T	**NE**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	Bromodichloromethane	µg/L	T	**1.8**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	Bromoethane	µg/L	T	**NE**	--	--	--	--	--	--
VOCs	Bromoform (Tribromomethane)	µg/L	T	**55**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	Bromomethane	µg/L	T	**11**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	Carbon Disulfide	µg/L	T	**400**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	Carbon Tetrachloride	µg/L	T	**0.54**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U

				Sampling Event:	**E_E_GW-3**	**E_E_GW-3**	**E_E_GW-4**	**E_E_GW-4**	**E_E_GW-4**	**E_E_GW-4**
				Sample ID:	**JHAY2**	**JHAY3**	**JHEH0**	**JHEH1**	**JHEH2**	**JHEH3**
				Location:	**OLY-01**	**OLY-02**	**LAI-1**	**LAI-MW-2**	**OLY-01**	**OLY-02**
				Date:	**09/23/15**	**09/23/15**	**12/16/15**	**12/16/15**	**12/16/15**	**12/17/15**
VOCs	Chlorobenzene	µg/L	T	**100**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	Chloroethane	µg/L	T	**18,000**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	Chloroform	µg/L	T	**1.2**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	Chloromethane	µg/L	T	**150**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	cis-1,2-Dichloroethene	µg/L	T	**16**	0.50 U	0.50 U	**1.4**	**2.1**	0.50 U	0.50 U
VOCs	cis-1,3-Dichloropropene	µg/L	T	**0.44**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	Cyclohexane	µg/L	T	**NE**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	Cyclohexane, Methyl-	µg/L	T	**NE**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	Dibromochloromethane	µg/L	T	**4.5**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	Dibromomethane	µg/L	T	**80**	--	--	--	--	--	--
VOCs	Dichlorodifluoromethane (CFC-12)	µg/L	T	**5.7**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	Hexachlorobutadiene	µg/L	T	**0.56**	--	--	--	--	--	--
VOCs	Isopropylbenzene (Cumene)	µg/L	T	**720**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	Methyl Iodide (Iodomethane)	µg/L	T	**NE**	--	--	--	--	--	--
VOCs	Methyl t-butyl ether	µg/L	T	**24**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	Methylene Chloride	µg/L	T	**5.0**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	n-Butylbenzene	µg/L	T	**400**	--	--	--	--	--	--
VOCs	n-Propylbenzene	µg/L	T	**800**	--	--	--	--	--	--
VOCs	p-Isopropyltoluene	µg/L	T	**NE**	--	--	--	--	--	--
VOCs	Sec-Butylbenzene	µg/L	T	**800**	--	--	--	--	--	--
VOCs	Styrene	µg/L	T	**100**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	Tert-Butylbenzene	µg/L	T	**800**	--	--	--	--	--	--
VOCs	Tetrachloroethene	µg/L	T	**5.0**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	Trans-1,2-Dichloroethene	µg/L	T	**100**	0.50 U	0.50 U	0.50 U	**0.12**	0.50 U	0.50 U
VOCs	Trans-1,3-Dichloropropene	µg/L	T	**0.44**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	Trans-1,4-Dichloro-2-butene	µg/L	T	**NE**	--	--	--	--	--	--
VOCs	Trichloroethene	µg/L	T	**1.6**	0.50 U	**4.5**	**21**	**43**	**0.11 J**	**6.1**
VOCs	Trichlorofluoromethane (CFC-11)	µg/L	T	**120**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VOCs	Vinyl Acetate	µg/L	T	**7,800**	--	--	--	--	--	--
VOCs	Vinyl Chloride	µg/L	T	**0.29**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
PAHs	1-Methylnaphthalene	µg/L	T	**1.5**	--	--	--	--	--	--
PAHs	2-Methylnaphthalene	µg/L	T	**32**	--	--	--	--	--	--
PAHs	Acenaphthene	µg/L	T	**960**	--	--	--	--	--	--
PAHs	Acenaphthylene	µg/L	T	**NE**	--	--	--	--	--	--
PAHs	Anthracene	µg/L	T	**4,800**	--	--	--	--	--	--
PAHs	Benzo(g,h,i)perylene	µg/L	T	**NE**	--	--	--	--	--	--
PAHs	Fluoranthene	µg/L	T	**640**	--	--	--	--	--	--
PAHs	Fluorene	µg/L	T	**640**	--	--	--	--	--	--
PAHs	Naphthalene	µg/L	T	**8.9**	--	--	--	--	--	--
PAHs	Phenanthrene	µg/L	T	**NE**	--	--	--	--	--	--
PAHs	Pyrene	µg/L	T	**480**	--	--	--	--	--	--
PAHs	Benzo(a)pyrene	µg/L	T	**NE**	--	--	--	--	--	--
PAHs	Benzo(a)anthracene	µg/L	T	**NE**	--	--	--	--	--	--
PAHs	Benzo(b)fluoranthene	µg/L	T	**NE**	--	--	--	--	--	--
PAHs	Benzo(k)fluoranthene	µg/L	T	**NE**	--	--	--	--	--	--
PAHs	Benzofluoranthenes (Total)	µg/L	T	**NE**	--	--	--	--	--	--
PAHs	Dibenzo(a,h)anthracene	µg/L	T	**NE**	--	--	--	--	--	--
PAHs	Indeno(1,2,3-c,d)pyrene	µg/L	T	**NE**	--	--	--	--	--	--
PAHs	Chrysene	µg/L	T	**NE**	--	--	--	--	--	--
PAHs	Total cPAH TEQ (ND=0.5RL)	µg/L	T	**0.20**	--	--	--	--	--	--
PAHs	Dibenzofuran	µg/L	T	**16**	--	--	--	--	--	--
SVOCs	1,1'-Biphenyl	µg/L	T	**5.5**	--	--	--	--	--	--

				Sampling Event:	**E_E_GW-3**	**E_E_GW-3**	**E_E_GW-4**	**E_E_GW-4**	**E_E_GW-4**	**E_E_GW-4**
				Sample ID:	**JHAY2**	**JHAY3**	**JHEH0**	**JHEH1**	**JHEH2**	**JHEH3**
				Location:	**OLY-01**	**OLY-02**	**LAI-1**	**LAI-MW-2**	**OLY-01**	**OLY-02**
				Date:	**09/23/15**	**09/23/15**	**12/16/15**	**12/16/15**	**12/16/15**	**12/17/15**
SVOCs	1,2,4,5-Tetrachlorobenzene	µg/L	T	**5.0**	--	--	--	--	--	--
SVOCs	2,2'-Oxybis[1-chloropropane]	µg/L	T	**1.0**	--	--	--	--	--	--
SVOCs	2,3,4,6-Tetrachlorophenol	µg/L	T	**480**	--	--	--	--	--	--
SVOCs	2,4,5-Trichlorophenol	µg/L	T	**800**	--	--	--	--	--	--
SVOCs	2,4,6-Trichlorophenol	µg/L	T	**5.0**	--	--	--	--	--	--
SVOCs	2,4-Dichlorophenol	µg/L	T	**24**	--	--	--	--	--	--
SVOCs	2,4-Dimethylphenol	µg/L	T	**160**	--	--	--	--	--	--
SVOCs	2,4-Dinitrophenol	µg/L	T	**32**	--	--	--	--	--	--
SVOCs	2,4-Dinitrotoluene	µg/L	T	**5.0**	--	--	--	--	--	--
SVOCs	2,6-Dinitrotoluene	µg/L	T	**5.0**	--	--	--	--	--	--
SVOCs	2-Chloronaphthalene	µg/L	T	**640**	--	--	--	--	--	--
SVOCs	2-Chlorophenol	µg/L	T	**40**	--	--	--	--	--	--
SVOCs	2-methylphenol (o-Cresol)	µg/L	T	**400**	--	--	--	--	--	--
SVOCs	2-Nitroaniline	µg/L	T	**160**	--	--	--	--	--	--
SVOCs	2-Nitrophenol	µg/L	T	**NE**	--	--	--	--	--	--
SVOCs	3 & 4 Methylphenol	µg/L	T	**NE**	--	--	--	--	--	--
SVOCs	3,3'-Dichlorobenzidine	µg/L	T	**5.0**	--	--	--	--	--	--
SVOCs	3-Nitroaniline	µg/L	T	**NE**	--	--	--	--	--	--
SVOCs	4,6-Dinitro-2-Methylphenol	µg/L	T	**NE**	--	--	--	--	--	--
SVOCs	4-Bromophenyl phenyl ether	µg/L	T	**NE**	--	--	--	--	--	--
SVOCs	4-Chloro-3-Methylphenol	µg/L	T	**NE**	--	--	--	--	--	--
SVOCs	4-Chloroaniline	µg/L	T	**5.0**	--	--	--	--	--	--
SVOCs	4-Chlorophenyl-Phenylether	µg/L	T	**NE**	--	--	--	--	--	--
SVOCs	4-methylphenol (p-Cresol)	µg/L	T	**800**	--	--	--	--	--	--
SVOCs	4-Nitroaniline	µg/L	T	**NE**	--	--	--	--	--	--
SVOCs	4-Nitrophenol (p-Nitrophenol)	µg/L	T	**NE**	--	--	--	--	--	--
SVOCs	Atrazine	µg/L	T	**5.0**	--	--	--	--	--	--
SVOCs	Benzaldehyde	µg/L	T	**800**	--	--	--	--	--	--
SVOCs	Benzoic Acid	µg/L	T	**64,000**	--	--	--	--	--	--
SVOCs	Benzyl Alcohol	µg/L	T	**800**	--	--	--	--	--	--
SVOCs	Bis(2-Chloroethoxy)Methane	µg/L	T	**NE**	--	--	--	--	--	--
SVOCs	Bis(2-Chloroethyl)Ether	µg/L	T	**1.0**	--	--	--	--	--	--
SVOCs	Bis(2-chloroisopropyl) ether	µg/L	T	**NE**	--	--	--	--	--	--
SVOCs	Bis(2-Ethylhexyl) Phthalate	µg/L	T	**6.0**	--	--	--	--	--	--
SVOCs	Butyl benzyl Phthalate	µg/L	T	**46**	--	--	--	--	--	--
SVOCs	Caprolactam	µg/L	T	**8,000**	--	--	--	--	--	--

				Sampling Event:	E_E_GW-3	E_E_GW-3	E_E_GW-4	E_E_GW-4	E_E_GW-4	E_E_GW-4
				Sample ID:	JHAY2	JHAY3	JHEH0	JHEH1	JHEH2	JHEH3
				Location:	OLY-01	OLY-02	LAI-1	LAI-MW-2	OLY-01	OLY-02
				Date:	09/23/15	09/23/15	12/16/15	12/16/15	12/16/15	12/17/15
SVOCs	Carbazole	µg/L	T	**NE**	--	--	--	--	--	--
SVOCs	Di-N-Octyl Phthalate	µg/L	T	**160**	--	--	--	--	--	--
SVOCs	Dibutyl Phthalate	µg/L	T	**1,600**	--	--	--	--	--	--
SVOCs	Diethyl Phthalate	µg/L	T	**13,000**	--	--	--	--	--	--
SVOCs	Dimethyl Phthalate	µg/L	T	**NE**	--	--	--	--	--	--
SVOCs	Ethanone, 1-Phenyl- (Acetophenone)	µg/L	T	**800**	--	--	--	--	--	--
SVOCs	Hexachlorobenzene	µg/L	T	**1.0**	--	--	--	--	--	--
SVOCs	Hexachlorocyclopentadiene	µg/L	T	**48**	--	--	--	--	--	--
SVOCs	Hexachloroethane	µg/L	T	**1.1**	--	--	--	--	--	--
SVOCs	Isophorone	µg/L	T	**46**	--	--	--	--	--	--
SVOCs	N-Nitrosodi-n-propylamine	µg/L	T	**2.0**	--	--	--	--	--	--
SVOCs	N-Nitrosodiphenylamine (as diphenylamine)	µg/L	T	**18**	--	--	--	--	--	--
SVOCs	Nitrobenzene	µg/L	T	**16**	--	--	--	--	--	--
SVOCs	Pentachlorophenol	µg/L	T	**1.0**	--	--	--	--	--	--
SVOCs	Phenol	µg/L	T	**2,400**	--	--	--	--	--	--
PCBs	PCB-Aroclor 1016	µg/L	T	**1.1**	--	--	--	--	--	--
PCBs	PCB-Aroclor 1221	µg/L	T	**NE**	--	--	--	--	--	--
PCBs	PCB-Aroclor 1232	µg/L	T	**NE**	--	--	--	--	--	--
PCBs	PCB-Aroclor 1242	µg/L	T	**NE**	--	--	--	--	--	--
PCBs	PCB-Aroclor 1248	µg/L	T	**NE**	--	--	--	--	--	--
PCBs	PCB-Aroclor 1254	µg/L	T	**0.10**	--	--	--	--	--	--
PCBs	PCB-Aroclor 1260	µg/L	T	**0.10**	--	--	--	--	--	--
PCBs	Total PCBs	µg/L	T	**0.44**	--	--	--	--	--	--
Conventionals	Ammonia (Total as N)	mg/L as N	--	**NE**	--	--	--	--	--	--
Conventionals	AMMONIA-NITROGEN	mg/L	--	**NE**	--	--	--	--	--	--
Conventionals	Carbon	mg/L	--	**NE**	--	--	--	--	--	--
Conventionals	CHEMICAL OXYGEN DEMAND	mg/L	--	**NE**	--	--	--	--	--	--
Conventionals	Chloride	mg/L	--	**NE**	--	--	--	--	--	--
Conventionals	Conductivity	mS/cm	--	**NE**	--	--	--	--	--	--
Conventionals	Dissolved Oxygen	mg/L	--	**NE**	--	--	--	--	--	--
Conventionals	Nitrate	mg/L as N	--	**NE**	--	--	--	--	--	--
Conventionals	Nitrate-Nitrite	mg/L as N	--	**NE**	--	--	--	--	--	--
Conventionals	Nitrate-nitrogen	mg/L as N	--	**NE**	--	--	--	--	--	--
Conventionals	Nitrite	mg/L as N	--	**NE**	--	--	--	--	--	--
Conventionals	Oxidation-Reduction Potential (ORP)	mV	--	**NE**	--	--	--	--	--	--
Conventionals	pH	SU	--	**NE**	--	--	--	--	--	--
Conventionals	Specific Conductance	umhos/cm	--	**NE**	--	--	--	--	--	--
Conventionals	Sulfate	mg/L	--	**NE**	--	--	--	--	--	--
Conventionals	Temperature	deg C	--	**NE**	--	--	--	--	--	--
Conventionals	Total Dissolved Solids	mg/L	--	**NE**	--	--	--	--	--	--
Conventionals	Total Organic Carbon	mg/L	--	**NE**	--	--	--	--	--	--

Notes:

J = analyte was positively identified and the associated numerical value is an estimated quantity.

mg/L = milligrams per liter

mS/cm = microsiemens per centimeter

µg/L = micrograms per liter

NE = not established

U = analyte not detected, laboratory reporting limit shown.

Bolding indicates analyte was detected.

Analyte was not detected in the sample; reporting limit exceeded the screening level.

Analyte concentration exceeded the screening level.

Table A-3b

Comprehensive Groundwater Data (March 2019)

Former West Olympia Landfill Site

Olympia, Washington

				Sampling Event:	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET
				Sample ID:	**LAI-1-20190320**	**DUP-1-20190320**	**LAI-2-20190321**	**LAI-3-20190322**	**LAI-5D-032819**	**LAI-MW-1-20190322**	**LAI-MW-2-20190321**	**LAI-MW-2-PDB-20190321**
				Location:	**LAI-1**	**LAI-1**	**LAI-2**	**LAI-3**	**LAI-5d**	**LAI-MW-1**	**LAI-MW-2**	**LAI-MW-2**
				Date:	**03/20/19**	**03/20/19**	**03/21/19**	**03/22/19**	**03/28/19**	**03/22/19**	**03/21/19**	**03/21/19**
Parameter Group:	**Parameter:**	**Unit(s):**	**T/D:**	**GW Screening (1/22/18):**								
WOLF_Fuels	Gasoline	µg/L	T	**800**	--	--	--	--	--	--	--	--
WOLF_Fuels	Diesel-range hydrocarbons	µg/L	T	**500**	--	--	--	--	--	--	--	--
WOLF_Fuels	Lube Oil-range Hydrocarbons	µg/L	T	**500**	--	--	--	--	--	--	--	--
WOLF_Metals	Aluminum	µg/L	T	**16000**	--	--	--	--	--	--	--	--
WOLF_Metals	Aluminum	µg/L	D	**16000**	--	--	--	--	--	--	--	--
WOLF_Metals	Antimony	µg/L	T	**6.0**	--	--	--	--	--	--	--	--
WOLF_Metals	Antimony	µg/L	D	**6.0**	--	--	--	--	--	--	--	--
WOLF_Metals	Arsenic	µg/L	T	**5.0**	--	--	--	--	--	3.3 U	3.3 U	--
WOLF_Metals	Arsenic	µg/L	D	**5.0**	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	--
WOLF_Metals	Barium	µg/L	T	**2000**	--	--	--	--	--	--	--	--
WOLF_Metals	Barium	µg/L	D	**2000**	--	--	--	--	--	--	--	--
WOLF_Metals	Beryllium	µg/L	T	**4.0**	--	--	--	--	--	--	--	--
WOLF_Metals	Beryllium	µg/L	D	**4.0**	--	--	--	--	--	--	--	--
WOLF_Metals	Cadmium	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
WOLF_Metals	Cadmium	µg/L	D	**5.0**	--	--	--	--	--	--	--	--
WOLF_Metals	Calcium	µg/L	T	**NE**	--	--	--	--	**120000**	**19000**	**61000**	--
WOLF_Metals	Calcium	µg/L	D	**NE**	--	--	--	--	--	--	--	--
WOLF_Metals	Chromium	µg/L	T	**100**	--	--	--	--	--	--	--	--
WOLF_Metals	Chromium	µg/L	D	**100**	--	--	--	--	--	--	--	--
WOLF_Metals	Cobalt	µg/L	T	**100**	--	--	--	--	--	--	--	--
WOLF_Metals	Cobalt	µg/L	D	**100**	--	--	--	--	--	--	--	--
WOLF_Metals	Copper	µg/L	T	**640**	--	--	--	--	--	--	--	--
WOLF_Metals	Copper	µg/L	D	**640**	--	--	--	--	--	--	--	--
WOLF_Metals	Iron	µg/L	T	**11000**	--	--	--	--	--	**160**	50 U	--
WOLF_Metals	Iron	µg/L	D	**11000**	56 U	56 U	56 U	56 U	**2100**	56 U	56 U	--
WOLF_Metals	Lead	µg/L	T	**15**	--	--	--	--	--	1.1 U	1.1 U	--
WOLF_Metals	Lead	µg/L	D	**15**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
WOLF_Metals	Magnesium	µg/L	T	**NE**	--	--	--	--	**64000**	**4100**	**13000**	--
WOLF_Metals	Magnesium	µg/L	D	**NE**	--	--	--	--	--	--	--	--
WOLF_Metals	Manganese	µg/L	T	**2200**	--	--	--	--	--	10 U	10 U	--
WOLF_Metals	Manganese	µg/L	D	**2200**	11 U	11 U	11 U	11 U	**2600**	11 U	11 U	--
WOLF_Metals	Mercury	µg/L	T	**0.89**	--	--	--	--	--	0.50 UJ	0.50 UJ	--
WOLF_Metals	Mercury	µg/L	D	**0.89**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--
WOLF_Metals	Nickel	µg/L	T	**100**	--	--	--	--	--	--	--	--
WOLF_Metals	Nickel	µg/L	D	**100**	--	--	--	--	--	--	--	--
WOLF_Metals	Potassium	µg/L	T	**NE**	--	--	--	--	**10000**	**1700**	**2400**	--
WOLF_Metals	Potassium	µg/L	D	**NE**	--	--	--	--	--	--	--	--
WOLF_Metals	Selenium	µg/L	T	**50**	--	--	--	--	--	--	--	--
WOLF_Metals	Selenium	µg/L	D	**50**	--	--	--	--	--	--	--	--
WOLF_Metals	Silver	µg/L	T	**80**	--	--	--	--	--	--	--	--
WOLF_Metals	Silver	µg/L	D	**80**	--	--	--	--	--	--	--	--
WOLF_Metals	Sodium	µg/L	T	**NE**	--	--	--	--	**20000**	**7000**	**15000**	--

				Sampling Event:	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET
				Sample ID:	LAI-1-20190320	DUP-1-20190320	LAI-2-20190321	LAI-3-20190322	LAI-5D-032819	LAI-MW-1-20190322	LAI-MW-2-20190321	LAI-MW-2-PDB-20190321
				Location:	LAI-1	LAI-1	LAI-2	LAI-3	LAI-5d	LAI-MW-1	LAI-MW-2	LAI-MW-2
				Date:	03/20/19	03/20/19	03/21/19	03/22/19	03/28/19	03/22/19	03/21/19	03/21/19
Parameter Group:	**Parameter:**	**Unit(s):**	**T/D:**	**GW Screening (1/22/18):**								
WOLF_Metals	Sodium	µg/L	D	**NE**	--	--	--	--	--	--	--	--
WOLF_Metals	Thallium	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
WOLF_Metals	Thallium	µg/L	D	**1.0**	--	--	--	--	--	--	--	--
WOLF_Metals	Vanadium	µg/L	T	**80**	--	--	--	--	--	--	--	--
WOLF_Metals	Vanadium	µg/L	D	**80**	--	--	--	--	--	--	--	--
WOLF_Metals	Zinc	µg/L	T	**4800**	--	--	--	--	--	--	--	--
WOLF_Metals	Zinc	µg/L	D	**4800**	--	--	--	--	--	--	--	--
WOLF_VOAs	Benzene	µg/L	T	**2.4**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Toluene	µg/L	T	**640**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
WOLF_VOAs	Ethylbenzene	µg/L	T	**700**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Xylene, m-,p-	µg/L	T	**290**	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
WOLF_VOAs	Xylene, o-	µg/L	T	**440**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,1,1,2-Tetrachloroethane	µg/L	T	**1.7**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,1,1-Trichloroethane	µg/L	T	**200**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,1,2,2-Tetrachloroethane	µg/L	T	**0.22**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	µg/L	T	**1100**	--	--	--	--	--	--	--	--
WOLF_VOAs	1,1,2-Trichloroethane	µg/L	T	**4.5**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,1-Dichloroethane	µg/L	T	**7.7**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,1-Dichloroethene	µg/L	T	**7.0**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,1-Dichloropropene	µg/L	T	**NE**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,2,3-Trichlorobenzene	µg/L	T	**NE**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,2,3-Trichloropropane	µg/L	T	**0.50**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,2,4-Trichlorobenzene	µg/L	T	**15**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,2,4-Trimethylbenzene	µg/L	T	**28**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,2-Dibromo-3-Chloropropane	µg/L	T	**0.50**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
WOLF_VOAs	1,2-Dibromoethane	µg/L	T	**0.20**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/L	T	**600**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,2-Dichloroethane	µg/L	T	**4.2**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,2-Dichloropropane	µg/L	T	**3.9**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,3,5-Trichlorobenzene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
WOLF_VOAs	1,3,5-Trimethylbenzene	µg/L	T	**80**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/L	T	**NE**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,3-Dichloropropane	µg/L	T	**NE**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/L	T	**4.8**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	2,2-Dichloropropane	µg/L	T	**NE**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	2-Butanone (MEK)	µg/L	T	**4800**	5.0 U	5.0 U	5.0 U	6.4 U	5.0 U	6.4 U	5.0 U	5.0 U
WOLF_VOAs	2-Chloroethyl vinyl ether	µg/L	T	**NE**	1.0 U	1.0 U	1.0 U	1.3 U	1.5 U	1.3 U	1.0 U	1.0 U
WOLF_VOAs	2-Chlorotoluene	µg/L	T	**160**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	2-Hexanone	µg/L	T	**NE**	2.0 U	2.0 U	2.0 U	2.0 U	2.6 U	2.0 U	2.0 U	2.0 U
WOLF_VOAs	4-Chlorotoluene	µg/L	T	**NE**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	4-Methyl-2-Pentanone (Methyl isobutyl ketone)	µg/L	T	**640**	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
WOLF_VOAs	Acetic Acid, Methyl Ester	µg/L	T	**8000**	--	--	--	--	--	--	--	--
WOLF_VOAs	Acetone	µg/L	T	**7200**	5.0 U	5.0 U	5.0 U	6.9 U	6.9 U	6.9 U	5.0 U	5.0 U

				Sampling Event:	**2019_GEO-WET**	**2019_GEO-WET**	**2019_GEO-WET**	**2019_GEO-WET**	**2019_GEO-WET**	**2019_GEO-WET**	**2019_GEO-WET**	**2019_GEO-WET**
				Sample ID:	**LAI-1-20190320**	**DUP-1-20190320**	**LAI-2-20190321**	**LAI-3-20190322**	**LAI-5D-032819**	**LAI-MW-1-20190322**	**LAI-MW-2-20190321**	**LAI-MW-2-PDB-20190321**
				Location:	**LAI-1**	**LAI-1**	**LAI-2**	**LAI-3**	**LAI-5d**	**LAI-MW-1**	**LAI-MW-2**	**LAI-MW-2**
				Date:	**03/20/19**	**03/20/19**	**03/21/19**	**03/22/19**	**03/28/19**	**03/22/19**	**03/21/19**	**03/21/19**
Parameter Group:	**Parameter:**	**Unit(s):**	**T/D:**	**GW Screening (1/22/18):**								
WOLF_VOAs	Acrolein	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
WOLF_VOAs	Acrylonitrile	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
WOLF_VOAs	Bromobenzene	µg/L	T	**NE**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Bromochloromethane	µg/L	T	**NE**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Bromodichloromethane	µg/L	T	**1.8**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Bromoethane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
WOLF_VOAs	Bromoform (Tribromomethane)	µg/L	T	**55**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
WOLF_VOAs	Bromomethane	µg/L	T	**11**	0.29 U	0.29 U	0.29 U	0.20 U	0.47 U	0.20 U	0.29 U	0.29 U
WOLF_VOAs	Carbon Disulfide	µg/L	T	**400**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Carbon Tetrachloride	µg/L	T	**0.54**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Chlorobenzene	µg/L	T	**100**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Chloroethane	µg/L	T	**18000**	1.0 U	1.0 U	1.0 U	1.3 U	1.0 U	1.3 U	1.0 U	1.0 U
WOLF_VOAs	Chloroform	µg/L	T	**1.2**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Chloromethane	µg/L	T	**150**	1.3 U	1.3 U	1.4 U	1.0 U	1.3 U	1.0 U	1.4 U	1.4 U
WOLF_VOAs	cis-1,2-Dichloroethene	µg/L	T	**16**	**1.6**	**1.5**	0.20 U	0.20 U	0.20 U	0.20 U	**0.85**	**0.80**
WOLF_VOAs	cis-1,3-Dichloropropene	µg/L	T	**0.44**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Cyclohexane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
WOLF_VOAs	Cyclohexane, Methyl-	µg/L	T	**NE**	--	--	--	--	--	--	--	--
WOLF_VOAs	Dibromochloromethane	µg/L	T	**4.5**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Dibromomethane	µg/L	T	**80**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Dichlorodifluoromethane (CFC-12)	µg/L	T	**5.7**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Hexachlorobutadiene	µg/L	T	**0.56**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
WOLF_VOAs	Isopropylbenzene (Cumene)	µg/L	T	**720**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Methyl Iodide (Iodomethane)	µg/L	T	**NE**	1.4 U	1.4 U	1.6 U	1.4 U	2.5 U	1.4 U	1.6 U	1.6 U
WOLF_VOAs	Methyl t-butyl ether	µg/L	T	**24**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Methylene Chloride	µg/L	T	**5.0**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
WOLF_VOAs	Naphthalene	µg/L	T	**8.9**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
WOLF_VOAs	n-Butylbenzene	µg/L	T	**400**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	n-Propylbenzene	µg/L	T	**800**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	p-Isopropyltoluene	µg/L	T	**NE**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Sec-Butylbenzene	µg/L	T	**800**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Styrene	µg/L	T	**100**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Tert-Butylbenzene	µg/L	T	**800**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Tetrachloroethene	µg/L	T	**5.0**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Total Xylenes	µg/L	T	**290**	--	--	--	--	--	--	--	--
WOLF_VOAs	Trans-1,2-Dichloroethene	µg/L	T	**100**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Trans-1,3-Dichloropropene	µg/L	T	**0.44**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Trans-1,4-Dichloro-2-butene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
WOLF_VOAs	Trichloroethene	µg/L	T	**1.6**	**23**	**23**	**2.6**	0.20 U	0.20 U	0.20 U	**22**	**22**
WOLF_VOAs	Trichlorofluoromethane (CFC-11)	µg/L	T	**120**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Vinyl Acetate	µg/L	T	**7800**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
WOLF_VOAs	Vinyl Chloride	µg/L	T	**0.29**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_Conven	Ammonia (Total as N)	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
WOLF_Conven	AMMONIA-NITROGEN	mg/L	--	**NE**	--	--	--	--	--	--	--	--
WOLF_Conven	Bicarbonate Ion (HCO3)	mg/L	--	**NE**	--	--	--	--	**380**	**58**	**150**	--
WOLF_Conven	Carbon	mg/L	--	**NE**	--	--	--	--	--	--	--	--
WOLF_Conven	CHEMICAL OXYGEN DEMAND	mg/L	--	**NE**	--	--	--	--	--	--	--	--
WOLF_Conven	Chloride	mg/L	--	**NE**	--	--	--	--	**34**	**2.8**	**3.8**	--

				Sampling Event:	**2019_GEO-WET**	**2019_GEO-WET**	**2019_GEO-WET**	**2019_GEO-WET**	**2019_GEO-WET**	**2019_GEO-WET**	**2019_GEO-WET**	**2019_GEO-WET**
				Sample ID:	**LAI-1-20190320**	**DUP-1-20190320**	**LAI-2-20190321**	**LAI-3-20190322**	**LAI-5D-032819**	**LAI-MW-1-20190322**	**LAI-MW-2-20190321**	**LAI-MW-2-PDB-20190321**
				Location:	**LAI-1**	**LAI-1**	**LAI-2**	**LAI-3**	**LAI-5d**	**LAI-MW-1**	**LAI-MW-2**	**LAI-MW-2**
				Date:	**03/20/19**	**03/20/19**	**03/21/19**	**03/22/19**	**03/28/19**	**03/22/19**	**03/21/19**	**03/21/19**
Parameter Group:	**Parameter:**	**Unit(s):**	**T/D:**	**GW Screening (1/22/18):**								
WOLF_Conven	Conductivity	mS/cm	--	**NE**	--	--	--	--	--	--	--	--
WOLF_Conven	Dissolved Oxygen	mg/L	--	**NE**	--	--	--	--	--	--	--	--
WOLF_Conven	Ethane	µg/L	--	**NE**	--	--	--	--	--	--	0.50 U	--
WOLF_Conven	Ethylene	µg/L	--	**NE**	--	--	--	--	--	--	0.50 U	--
WOLF_Conven	Methane	µg/L	--	**NE**	--	--	--	--	--	--	1.0 U	--
WOLF_Conven	Nitrate	mg/L as N	--	**NE**	--	--	--	--	--	--	**2.0**	--
WOLF_Conven	Nitrate-Nitrite	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
WOLF_Conven	Nitrate-nitrogen	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
WOLF_Conven	Nitrite	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
WOLF_Conven	Oxidation-Reduction Potential (ORP)	mV	--	**NE**	--	--	--	--	--	--	--	--
WOLF_Conven	pH	SU	--	**NE**	--	--	--	--	--	--	--	--
WOLF_Conven	Silicon dioxide	µg/L	--	**NE**	--	--	--	--	**53000**	**18000**	**25000**	--
WOLF_Conven	Specific Conductance	umhos/cm	--	**NE**	--	--	--	--	--	--	--	--
WOLF_Conven	Sulfate	mg/L	--	**NE**	--	--	--	--	**170**	**14**	**55**	--
WOLF_Conven	Temperature	deg C	--	**NE**	--	--	--	--	--	--	--	--
WOLF_Conven	Total Dissolved Solids	mg/L	--	**NE**	--	--	--	--	**680**	**72**	**250**	--
WOLF_Conven	Total Organic Carbon	mg/L	--	**NE**	--	--	--	--	--	--	1.0 U	--

Notes:

J = analyte was positively identified and the associated numerical value is an estimated quantity.

mg/L = milligrams per liter	µg/L = micrograms per liter
mS/cm = microsiemens per centimeter	NE = not established
Bolding indicates analyte was detected.	U = analyte not detected, laboratory reporting limit shown.

Analyte was not detected in the sample; reporting limit exceeded the screening level.

Analyte concentration exceeded the screening level.

				Sampling Event:	**2019_GEO-WET**	**2019_GEO-WET**	**2019_GEO-WET**	**2019_GEO-WET**	**2019_GEO-WET**	**2019_GEO-WET**	**2019_GEO-WET**	**2019_GEO-WET**
				Sample ID:	**LAI-MW-3-20190322**	**LAI-MW-4-20190321**	**MW-23-031919**	**OLY-1-20190321**	**OLY-2-20190321**	**OLY-2-PDB-20190321**	**PGG-1-20190320**	**PGG-2-20190321**
				Location:	**LAI-MW-3**	**LAI-MW-4**	**MW-23**	**OLY-01**	**OLY-02**	**OLY-02**	**PGG-1**	**PGG-2**
				Date:	**03/22/19**	**03/21/19**	**03/19/19**	**03/21/19**	**03/21/19**	**03/21/19**	**03/20/19**	**03/21/19**
Parameter Group:	**Parameter:**	**Unit(s):**	**T/D:**	**GW Screening (1/22/18):**								
WOLF_Fuels	Gasoline	µg/L	T	**800**	--	--	--	--	--	--	--	--
WOLF_Fuels	Diesel-range Hydrocarbons	µg/L	T	**500**	--	--	--	--	--	--	--	--
WOLF_Fuels	Lube Oil-range Hydrocarbons	µg/L	T	**500**	--	--	--	--	--	--	--	--
WOLF_Metals	Aluminum	µg/L	T	**16000**	--	--	--	--	--	--	--	--
WOLF_Metals	Aluminum	µg/L	D	**16000**	--	--	--	--	--	--	--	--
WOLF_Metals	Antimony	µg/L	T	**6.0**	--	--	--	--	--	--	--	--
WOLF_Metals	Antimony	µg/L	D	**6.0**	--	--	--	--	--	--	--	--
WOLF_Metals	Arsenic	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
WOLF_Metals	Arsenic	µg/L	D	**5.0**	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	--	3.0 U	3.0 U
WOLF_Metals	Barium	µg/L	T	**2000**	--	--	--	--	--	--	--	--
WOLF_Metals	Barium	µg/L	D	**2000**	--	--	--	--	--	--	--	--
WOLF_Metals	Beryllium	µg/L	T	**4.0**	--	--	--	--	--	--	--	--
WOLF_Metals	Beryllium	µg/L	D	**4.0**	--	--	--	--	--	--	--	--
WOLF_Metals	Cadmium	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
WOLF_Metals	Cadmium	µg/L	D	**5.0**	--	--	--	--	--	--	--	--
WOLF_Metals	Calcium	µg/L	T	**NE**	--	--	--	--	**23000**	--	--	--
WOLF_Metals	Calcium	µg/L	D	**NE**	--	--	--	--	--	--	--	--
WOLF_Metals	Chromium	µg/L	T	**100**	--	--	--	--	--	--	--	--
WOLF_Metals	Chromium	µg/L	D	**100**	--	--	--	--	--	--	--	--
WOLF_Metals	Cobalt	µg/L	T	**100**	--	--	--	--	--	--	--	--
WOLF_Metals	Cobalt	µg/L	D	**100**	--	--	--	--	--	--	--	--
WOLF_Metals	Copper	µg/L	T	**640**	--	--	--	--	--	--	--	--
WOLF_Metals	Copper	µg/L	D	**640**	--	--	--	--	--	--	--	--
WOLF_Metals	Iron	µg/L	T	**11000**	--	--	--	--	--	--	--	--
WOLF_Metals	Iron	µg/L	D	**11000**	56 U	56 U	**1900**	56 U	56 U	--	56 U	56 U
WOLF_Metals	Lead	µg/L	T	**15**	--	--	--	--	--	--	--	--
WOLF_Metals	Lead	µg/L	D	**15**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U
WOLF_Metals	Magnesium	µg/L	T	**NE**	--	--	--	--	**7200**	--	--	--
WOLF_Metals	Magnesium	µg/L	D	**NE**	--	--	--	--	--	--	--	--
WOLF_Metals	Manganese	µg/L	T	**2200**	--	--	--	--	--	--	--	--
WOLF_Metals	Manganese	µg/L	D	**2200**	11 U	11 U	**37**	11 U	11 U	--	11 U	11 U
WOLF_Metals	Mercury	µg/L	T	**0.89**	--	--	--	--	--	--	--	--
WOLF_Metals	Mercury	µg/L	D	**0.89**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U	0.50 U
WOLF_Metals	Nickel	µg/L	T	**100**	--	--	--	--	--	--	--	--
WOLF_Metals	Nickel	µg/L	D	**100**	--	--	--	--	--	--	--	--
WOLF_Metals	Potassium	µg/L	T	**NE**	--	--	--	--	**1200**	--	--	--
WOLF_Metals	Potassium	µg/L	D	**NE**	--	--	--	--	--	--	--	--
WOLF_Metals	Selenium	µg/L	T	**50**	--	--	--	--	--	--	--	--
WOLF_Metals	Selenium	µg/L	D	**50**	--	--	--	--	--	--	--	--
WOLF_Metals	Silver	µg/L	T	**80**	--	--	--	--	--	--	--	--
WOLF_Metals	Silver	µg/L	D	**80**	--	--	--	--	--	--	--	--
WOLF_Metals	Sodium	µg/L	T	**NE**	--	--	--	--	**11000**	--	--	--

				Sampling Event:	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET
				Sample ID:	LAI-MW-3-20190322	LAI-MW-4-20190321	MW-23-031919	OLY-1-20190321	OLY-2-20190321	OLY-2-PDB-20190321	PGG-1-20190320	PGG-2-20190321
				Location:	LAI-MW-3	LAI-MW-4	MW-23	OLY-01	OLY-02	OLY-02	PGG-1	PGG-2
				Date:	03/22/19	03/21/19	03/19/19	03/21/19	03/21/19	03/21/19	03/20/19	03/21/19
Parameter Group:	**Parameter:**	**Unit(s):**	**T/D:**	**GW Screening (1/22/18):**								
WOLF_Metals	Sodium	µg/L	D	**NE**	--	--	--	--	--	--	--	--
WOLF_Metals	Thallium	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
WOLF_Metals	Thallium	µg/L	D	**1.0**	--	--	--	--	--	--	--	--
WOLF_Metals	Vanadium	µg/L	T	**80**	--	--	--	--	--	--	--	--
WOLF_Metals	Vanadium	µg/L	D	**80**	--	--	--	--	--	--	--	--
WOLF_Metals	Zinc	µg/L	T	**4800**	--	--	--	--	--	--	--	--
WOLF_Metals	Zinc	µg/L	D	**4800**	--	--	--	--	--	--	--	--
WOLF_VOAs	Benzene	µg/L	T	**2.4**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Toluene	µg/L	T	**640**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
WOLF_VOAs	Ethylbenzene	µg/L	T	**700**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Xylene, m-,p-	µg/L	T	**290**	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
WOLF_VOAs	Xylene, o-	µg/L	T	**440**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,1,1,2-Tetrachloroethane	µg/L	T	**1.7**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,1,1-Trichloroethane	µg/L	T	**200**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,1,2,2-Tetrachloroethane	µg/L	T	**0.22**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	µg/L	T	**1100**	--	--	--	--	--	--	--	--
WOLF_VOAs	1,1,2-Trichloroethane	µg/L	T	**4.5**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,1-Dichloroethane	µg/L	T	**7.7**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,1-Dichloroethene	µg/L	T	**7.0**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,1-Dichloropropene	µg/L	T	**NE**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,2,3-Trichlorobenzene	µg/L	T	**NE**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,2,3-Trichloropropane	µg/L	T	**0.50**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,2,4-Trichlorobenzene	µg/L	T	**15**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,2,4-Trimethylbenzene	µg/L	T	**28**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,2-Dibromo-3-Chloropropane	µg/L	T	**0.50**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
WOLF_VOAs	1,2-Dibromoethane	µg/L	T	**0.20**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/L	T	**600**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,2-Dichloroethane	µg/L	T	**4.2**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,2-Dichloropropane	µg/L	T	**3.9**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,3,5-Trichlorobenzene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
WOLF_VOAs	1,3,5-Trimethylbenzene	µg/L	T	**80**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/L	T	**NE**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,3-Dichloropropane	µg/L	T	**NE**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/L	T	**4.8**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	2,2-Dichloropropane	µg/L	T	**NE**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	2-Butanone (MEK)	µg/L	T	**4800**	6.4 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
WOLF_VOAs	2-Chloroethyl vinyl ether	µg/L	T	**NE**	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
WOLF_VOAs	2-Chlorotoluene	µg/L	T	**160**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	2-Hexanone	µg/L	T	**NE**	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
WOLF_VOAs	4-Chlorotoluene	µg/L	T	**NE**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	4-Methyl-2-Pentanone (Methyl isobutyl ketone)	µg/L	T	**640**	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
WOLF_VOAs	Acetic Acid, Methyl Ester	µg/L	T	**8000**	--	--	--	--	--	--	--	--
WOLF_VOAs	Acetone	µg/L	T	**7200**	6.9 U	5.0 U	6.6 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

				Sampling Event:	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET
				Sample ID:	LAI-MW-3-20190322	LAI-MW-4-20190321	MW-23-031919	OLY-1-20190321	OLY-2-20190321	OLY-2-PDB-20190321	PGG-1-20190320	PGG-2-20190321
				Location:	LAI-MW-3	LAI-MW-4	MW-23	OLY-01	OLY-02	OLY-02	PGG-1	PGG-2
				Date:	03/22/19	03/21/19	03/19/19	03/21/19	03/21/19	03/21/19	03/20/19	03/21/19
Parameter Group:	**Parameter:**	**Unit(s):**	**T/D:**	**GW Screening (1/22/18):**								
WOLF_VOAs	Acrolein	µg/L	T	**5.0**	--	--	--	--	--	--	--	--
WOLF_VOAs	Acrylonitrile	µg/L	T	**1.0**	--	--	--	--	--	--	--	--
WOLF_VOAs	Bromobenzene	µg/L	T	**NE**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Bromochloromethane	µg/L	T	**NE**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Bromodichloromethane	µg/L	T	**1.8**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Bromoethane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
WOLF_VOAs	Bromoform (Tribromomethane)	µg/L	T	**55**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
WOLF_VOAs	Bromomethane	µg/L	T	**11**	0.20 U	0.29 U	0.37 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
WOLF_VOAs	Carbon Disulfide	µg/L	T	**400**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Carbon Tetrachloride	µg/L	T	**0.54**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Chlorobenzene	µg/L	T	**100**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Chloroethane	µg/L	T	**18000**	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
WOLF_VOAs	Chloroform	µg/L	T	**1.2**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Chloromethane	µg/L	T	**150**	1.0 U	1.4 U	1.3 U	1.4 U	1.4 U	1.4 U	1.3 U	1.4 U
WOLF_VOAs	cis-1,2-Dichloroethene	µg/L	T	**16**	0.20 U	**0.21**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	cis-1,3-Dichloropropene	µg/L	T	**0.44**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Cyclohexane	µg/L	T	**NE**	--	--	--	--	--	--	--	--
WOLF_VOAs	Cyclohexane, Methyl-	µg/L	T	**NE**	--	--	--	--	--	--	--	--
WOLF_VOAs	Dibromochloromethane	µg/L	T	**4.5**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Dibromomethane	µg/L	T	**80**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Dichlorodifluoromethane (CFC-12)	µg/L	T	**5.7**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Hexachlorobutadiene	µg/L	T	**0.56**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
WOLF_VOAs	Isopropylbenzene (Cumene)	µg/L	T	**720**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Methyl Iodide (Iodomethane)	µg/L	T	**NE**	1.4 U	1.6 U	1.8 U	1.6 U	1.6 U	1.6 U	1.4 U	1.6 U
WOLF_VOAs	Methyl t-butyl ether	µg/L	T	**24**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Methylene Chloride	µg/L	T	**5.0**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
WOLF_VOAs	Naphthalene	µg/L	T	**8.9**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
WOLF_VOAs	n-Butylbenzene	µg/L	T	**400**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	n-Propylbenzene	µg/L	T	**800**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	p-Isopropyltoluene	µg/L	T	**NE**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Sec-Butylbenzene	µg/L	T	**800**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Styrene	µg/L	T	**100**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Tert-Butylbenzene	µg/L	T	**800**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Tetrachloroethene	µg/L	T	**5.0**	0.20 U	**1.5**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Total Xylenes	µg/L	T	**290**	--	--	--	--	--	--	--	--
WOLF_VOAs	Trans-1,2-Dichloroethene	µg/L	T	**100**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Trans-1,3-Dichloropropene	µg/L	T	**0.44**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Trans-1,4-Dichloro-2-butene	µg/L	T	**NE**	--	--	--	--	--	--	--	--
WOLF_VOAs	Trichloroethene	µg/L	T	**1.6**	0.20 U	**0.27**	0.20 U	0.20 U	**2.8**	**1.5**	**0.29**	0.20 U
WOLF_VOAs	Trichlorofluoromethane (CFC-11)	µg/L	T	**120**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_VOAs	Vinyl Acetate	µg/L	T	**7800**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
WOLF_VOAs	Vinyl Chloride	µg/L	T	**0.29**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
WOLF_Conven	Ammonia (Total as N)	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
WOLF_Conven	AMMONIA-NITROGEN	mg/L	--	**NE**	--	--	--	--	--	--	--	--
WOLF_Conven	Bicarbonate Ion (HCO3)	mg/L	--	**NE**	--	--	--	--	**80**	--	--	--
WOLF_Conven	Carbon	mg/L	--	**NE**	--	--	--	--	--	--	--	--
WOLF_Conven	CHEMICAL OXYGEN DEMAND	mg/L	--	**NE**	--	--	--	--	--	--	--	--
WOLF_Conven	Chloride	mg/L	--	**NE**	--	--	--	--	**4.8**	--	--	--

				Sampling Event:	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET	2019_GEO-WET
				Sample ID:	LAI-MW-3-20190322	LAI-MW-4-20190321	MW-23-031919	OLY-1-20190321	OLY-2-20190321	OLY-2-PDB-20190321	PGG-1-20190320	PGG-2-20190321
				Location:	LAI-MW-3	LAI-MW-4	MW-23	OLY-01	OLY-02	OLY-02	PGG-1	PGG-2
				Date:	03/22/19	03/21/19	03/19/19	03/21/19	03/21/19	03/21/19	03/20/19	03/21/19
Parameter Group:	**Parameter:**	**Unit(s):**	**T/D:**	**GW Screening (1/22/18):**								
WOLF_Conven	Conductivity	mS/cm	--	**NE**	--	--	--	--	--	--	--	--
WOLF_Conven	Dissolved Oxygen	mg/L	--	**NE**	--	--	--	--	--	--	--	--
WOLF_Conven	Ethane	µg/L	--	**NE**	--	--	--	--	0.50 U	--	--	--
WOLF_Conven	Ethylene	µg/L	--	**NE**	--	--	--	--	0.50 U	--	--	--
WOLF_Conven	Methane	µg/L	--	**NE**	--	--	--	--	1.0 U	--	--	--
WOLF_Conven	Nitrate	mg/L as N	--	**NE**	--	--	--	--	**1.7**	--	--	--
WOLF_Conven	Nitrate-Nitrite	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
WOLF_Conven	Nitrate-nitrogen	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
WOLF_Conven	Nitrite	mg/L as N	--	**NE**	--	--	--	--	--	--	--	--
WOLF_Conven	Oxidation-Reduction Potential (ORP)	mV	--	**NE**	--	--	--	--	--	--	--	--
WOLF_Conven	pH	SU	--	**NE**	--	--	--	--	--	--	--	--
WOLF_Conven	Silicon dioxide	µg/L	--	**NE**	--	--	--	--	**29000**	--	--	--
WOLF_Conven	Specific Conductance	umhos/cm	--	**NE**	--	--	--	--	--	--	--	--
WOLF_Conven	Sulfate	mg/L	--	**NE**	--	--	--	--	**12**	--	--	--
WOLF_Conven	Temperature	deg C	--	**NE**	--	--	--	--	--	--	--	--
WOLF_Conven	Total Dissolved Solids	mg/L	--	**NE**	--	--	--	--	**120**	--	--	--
WOLF_Conven	Total Organic Carbon	mg/L	--	**NE**	--	--	--	--	1.0 U	--	--	--

Notes:

J = analyte was positively identified and the associated numerical value is an estimated quantity.

mg/L = milligrams per liter

µg/L = microgram per liter

mS/cm = microsiemens per centimeter

NE = not established

Bolding indicates analyte was detected.

U = analyte not detected, laboratory reporting limit shown.

Analyte was not detected in the sample; reporting limit exceeded the screening level.

Analyte concentration exceeded the screening level.

Table A-4

Comprehensive Soil Gas Data 2006

Former West Olympia Landfill Site

Olympia, Washington

			Location ID:	**GP-1**	**GP-2**	**GP-3**	**GP-4**	**GP-5**
			Sample ID:	**GP-1_PGG**	**GP-2_PGG**	**GP-3_PGG**	**GP-4_PGG**	**GP-5_PGG**
			Date Sampled:	**10/10/06**	**10/10/06**	**10/10/06**	**10/10/06**	**10/10/06**
			Sample Type:	**N**	**N**	**N**	**N**	**N**
Parameter	**Cas_rn**	**Soil/Vapor SLs**	**Units**					
Carbon dioxide (CO2)	124-38-9	NE	%	1	2	2	4	3
Oxygen (O2)	UNK-154	NE	%	20	20	19	17	19
Methane (CH4)		NE	%	0	0	0	0	0

Notes:

µg/m^3 = micrograms per cubic meter

N = Primary Sample

NE = not established

SLs = screening levels

Table A-5

Comprehensive Soil Gas Data 2014

Former West Olympia Landfill Site
Olympia, Washington

			Location ID:	**GP-1**	**GP-2**	**GP-3**	**GP-4**	**GP-5**	**GP-6**	**GP-7**	**GP-8**	**GP-9**	**GP-9**	**GP-10**	**GP-11**	**GP-12**	**GP-13**	**GP-14**
			Sample ID:	**14414101**	**14414102**	**14414103**	**14414104**	**14414105**	**14414106**	**14414107**	**14414108**	**14414109**	**14414115**	**14414110**	**14414111**	**14414112**	**14414113**	**14414114**
			Date Sampled:	**10/13/14**	**10/13/14**	**10/13/14**	**10/13/14**	**10/13/14**	**10/14/14**	**10/14/14**	**10/14/14**	**10/14/14**	**10/14/14**	**10/14/14**	**10/14/14**	**10/14/14**	**10/15/14**	**10/15/14**
			Sample Type:	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**	**N**	**N**	**N**
Parameter	**Cas_rn**	**Soil/Vapor SLs**	**Units**															
1,1,1-Trichloroethane	71-55-6	76200	μg/m^3	0.92 U	4.9 U	0.93 U	1.6 U	99 U	9.5 U	0.99 U	61 U	4.8 U	4.9 U	2 U	1 U	0.95 U	0.96 U	1.2 U
1,1,2,2-Tetrachloroethane	79-34-5	NE	μg/m^3	1.2 U	6.2 U	1.2 U	2.1 U	120 U	12 U	1.2 U	77 U	6 U	6.2 U	2.5 U	1.3 U	1.2 U	1.2 U	1.4 U
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	76-13-1	NE	μg/m^3	1.3 U	6.9 U	1.3 U	2.3 U	140 U	13 U	1.4 U	86 U	6.7 U	6.9 U	2.8 U	1.4 U	1.3 U	1.4 U	1.6 U
1,1,2-Trichloroethane	79-00-5	NE	μg/m^3	0.92 U	4.9 U	0.93 U	1.6 U	99 U	9.5 U	0.99 U	61 U	4.8 U	4.9 U	2 U	1 U	0.95 U	0.96 U	1.2 U
1,1-Dichloroethane	75-34-3	NE	μg/m^3	0.68 U	3.7 U	0.69 U	1.2 U	73 U	7.1 U	0.73 U	46 U	3.6 U	3.7 U	1.5 U	0.76 U	0.71 U	0.72 U	0.85 U
1,1-Dichloroethene	75-35-4	NE	μg/m^3	0.67 U	3.6 U	0.68 U	1.2 U	72 U	6.9 U	0.72 U	45 U	3.5 U	3.6 U	1.5 U	0.75 U	0.69 U	0.70 U	0.84 U
1,2,4-Trichlorobenzene	120-82-1	NE	μg/m^3	6.2 U	34 U	6.3 U	11 U	540 U	65 U	6.7 U	330 U	33 U	34 U	14 U	7 U	6.5 U	6.6 U	7.8 U
1,2,4-Trimethylbenzene	95-63-6	107	μg/m^3	0.82 U	4.4 U	0.84 U	1.5 U	89 U	8.6 U	0.89 U	55 U	4.3 U	4.4 U	**5.6**	0.93 U	**1.8**	0.87 U	**1.2**
1,2-Dibromoethane	106-93-4	NE	μg/m^3	1.3 U	7.0 U	1.3 U	2.3 U	140 U	13 U	1.4 U	86 U	6.8 U	7.0 U	2.8 U	1.4 U	1.3 U	1.4 U	1.6 U
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	NE	μg/m^3	1.0 U	5.4 U	1.0 U	1.8 U	110 U	10 U	1.1 U	68 U	5.3 U	5.4 U	2.2 U	1.1 U	1 U	1.1 U	1.3 U
1,2-Dichloroethane	107-06-2	NE	μg/m^3	0.68 U	3.7 U	0.69 U	1.2 U	73 U	7.1 U	0.73 U	46 U	3.6 U	3.7 U	1.5 U	0.76 U	0.71 U	0.72 U	0.85 U
1,2-Dichloropropane	78-87-5	NE	μg/m^3	0.78 U	4.2 U	0.79 U	1.4 U	84 U	8.1 U	0.84 U	52 U	4.1 U	4.2 U	1.7 U	0.87 U	0.81 U	0.82 U	0.98 U
1,3,5-Trimethylbenzene	108-67-8	NE	μg/m^3	0.82 U	4.4 U	0.84 U	1.5 U	89 U	8.6 U	0.89 U	55 U	4.3 U	4.4 U	**2**	0.93 U	0.86 U	0.87 U	1.0 U
1,3-Butadiene	106-99-0	NE	μg/m^3	0.37 U	2.0 U	0.38 U	0.67 U	40 U	**6.6**	**0.72**	25 U	1.9 U	2.0 U	**38**	**20**	**2.3**	**0.78**	**16**
1,3-Dichlorobenzene (m-Dichlorobenzene)	541-73-1	NE	μg/m^3	1.0 U	5.4 U	1.0 U	1.8 U	110 U	10 U	1.1 U	68 U	5.3 U	5.4 U	2.2 U	1.1 U	1 U	1.1 U	1.3 U
1,4-Dichlorobenzene (p-Dichlorobenzene)	106-46-7	7.58	μg/m^3	1.0 U	5.4 U	1.0 U	1.8 U	110 U	10 U	1.1 U	68 U	5.3 U	5.4 U	2.2 U	1.1 U	1 U	1.1 U	1.3 U
1,4-Dioxane	123-91-1	NE	μg/m^3	0.60 U	3.3 U	0.62 U	1.1 U	260 U	6.3 U	**0.73**	160 U	3.2 U	3.3 U	1.3 U	0.68 U	0.63 U	0.64 U	0.76 U
2,2,4-Trimethylpentane	540-84-1	NE	μg/m^3	3.9 U	21 U	4.0 U	7.1 U	84 U	41 U	4.2 U	52 U	20 U	21 U	8.6 U	4.4 U	4.1 U	4.1 U	4.9 U
2-Butanone (MEK)	78-93-3	76200	μg/m^3	2.5 U	13 U	**4.8**	**5.3**	210 U	26 U	**12**	130 U	**16**	**19**	**160**	**95**	**12**	**8.3**	**110**
2-Hexanone	591-78-6	NE	μg/m^3	3.4 U	18 U	3.5 U	6.2 U	300 U	36 U	3.7 U	180 U	18 U	18 U	**12**	**6.9**	3.6 U	3.6 U	**4.5**
4-Methyl-2-Pentanone (Methyl isobutyl ketone)	108-10-1	45700	μg/m^3	0.69 U	3.7 U	0.70 U	**1.7**	74 U	7.2 U	0.74 U	46 U	3.6 U	3.7 U	**14**	**6.6**	0.72 U	0.72 U	**2.6**
Acetone	67-64-1	472000	μg/m^3	**2.4**	11 U	**2.9**	**25**	430 U	**78**	**51**	270 U	**59**	**69**	**620**	**290**	**38**	**27**	**320**
Allyl Chloride (3-Chloropropene)	107-05-1	NE	μg/m^3	2.6 U	14 U	2.7 U	4.8 U	230 U	27 U	2.8 U	140 U	14 U	14 U	5.8 U	3 U	2.7 U	2.8 U	3.3 U
Benzene	71-43-2	10.7	μg/m^3	0.54 U	2.9 U	0.55 U	0.97 U	58 U	**11**	**1.8**	**56**	2.8 U	2.9 U	**46**	**16**	**11**	**4.5**	**21**
Benzene, 1-Ethyl-4-Methyl-	622-96-8	NE	μg/m^3	0.82 U	4.4 U	0.84 U	1.5 U	89 U	8.6 U	0.89 U	55 U	4.3 U	4.4 U	**6.3**	**1**	0.86 U	0.87 U	**1.3**
Benzyl chloride	100-44-7	NE	μg/m^3	0.87 U	4.7 U	0.88 U	1.6 U	94 U	9.0 U	0.94 U	58 U	4.6 U	4.7 U	1.9 U	0.98 U	0.9 U	0.92 U	1.1 U
Bromodichloromethane	75-27-4	NE	μg/m^3	1.1 U	6.1 U	1.1 U	2.0 U	120 U	12 U	1.2 U	75 U	5.9 U	6.1 U	2.5 U	1.3 U	1.2 U	1.2 U	1.4 U
Bromoform (Tribromomethane)	75-25-2	NE	μg/m^3	1.7 U	9.4 U	1.8 U	3.1 U	190 U	18 U	1.9 U	120 U	9.1 U	9.4 U	3.8 U	2 U	1.8 U	1.8 U	2.2 U
Bromomethane	74-83-9	NE	μg/m^3	3.3 U	18 U	3.3 U	5.9 U	700 U	34 U	3.5 U	440 U	17 U	18 U	7.2 U	3.7 U	3.4 U	3.4 U	4.1 U
Carbon Disulfide	75-15-0	NE	μg/m^3	2.6 U	14 U	2.7 U	4.7 U	220 U	27 U	**18**	140 U	**17**	**22**	5.8 U	**6.3**	**7.4**	**8.7**	**6.6**
Carbon Tetrachloride	56-23-5	13.9	μg/m^3	1.0 U	5.7 U	1.1 U	**2.3**	110 U	11 U	1.1 U	71 U	5.5 U	5.7 U	2.3 U	1.2 U	1.1 U	1.1 U	**2.4**
CFC-114	76-14-2	NE	μg/m^3	1.2 U	6.3 U	1.2 U	2.1 U	130 U	**150**	**48**	79 U	6.2 U	6.3 U	2.6 U	1.3 U	**19**	1.2 U	**46**
Chlorobenzene	108-90-7	NE	μg/m^3	0.77 U	4.2 U	0.79 U	1.4 U	83 U	8.0 U	0.83 U	52 U	4 U	4.2 U	1.7 U	0.87 U	0.8 U	0.81 U	0.97 U
Chloroethane	75-00-3	NE	μg/m^3	2.2 U	12 U	2.2 U	4.0 U	190 U	23 U	2.4 U	120 U	12 U	12 U	4.9 U	2.5 U	2.3 U	2.3 U	2.8 U
Chloroform	67-66-3	NE	μg/m^3	0.82 U	4.4 U	0.83 U	1.5 U	88 U	8.5 U	0.88 U	55 U	4.3 U	4.4 U	**5**	**1.7**	**2.4**	0.86 U	**3.1**
Chloromethane	74-87-3	NE	μg/m^3	1.7 U	9.3 U	1.8 U	3.1 U	370 U	18 U	1.9 U	230 U	9.1 U	9.3 U	3.8 U	2 U	1.8 U	1.8 U	2.2 U
cis-1,2-Dichloroethene	156-59-2	NE	μg/m^3	0.67 U	3.6 U	0.68 U	1.2 U	72 U	6.9 U	0.72 U	45 U	**7.8**	**7.1**	1.5 U	0.75 U	0.69 U	0.70 U	**1.6**
cis-1,3-Dichloropropene	10061-01-5	NE	μg/m^3	0.76 U	4.1 U	0.78 U	1.4 U	82 U	7.9 U	0.82 U	51 U	4 U	4.1 U	1.7 U	0.86 U	0.79 U	0.80 U	0.96 U
Cyclohexane	110-82-7	NE	μg/m^3	0.58 U	3.1 U	0.59 U	1.0 U	62 U	**59**	0.62 U	39 U	3 U	3.1 U	**30**	**30**	**1.2**	0.61 U	**12**
Dibromochloromethane	124-48-1	NE	μg/m^3	1.4 U	7.7 U	1.4 U	2.6 U	150 U	15 U	1.5 U	96 U	7.5 U	7.7 U	3.2 U	1.6 U	1.5 U	1.5 U	1.8 U
Dichlorodifluoromethane (CFC-12)	75-71-8	1520	μg/m^3	**2.2**	4.5 U	**4.1**	**2.2**	90 U	**11**	**9.4**	56 U	**26**	**33**	1.8 U	**1.8**	**14**	**3.4**	**18**
Ethanol	64-17-5	NE	μg/m^3	1.6 U	**10**	1.6 U	**10**	140 U	16 U	**32**	85 U	8.3 U	8.5 U	**20**	**8.9**	**2.4**	**2.8**	**8.4**
Ethylbenzene	100-41-4	15200	μg/m^3	0.73 U	3.9 U	0.74 U	1.3 U	78 U	7.6 U	0.78 U	49 U	3.8 U	3.9 U	**13**	**1.9**	**1.1**	0.77 U	**2.4**
Hexachlorobutadiene	87-68-3	NE	μg/m^3	9.0 U	48 U	9.1 U	16 U	770 U	93 U	9.6 U	480 U	47 U	48 U	20 U	10 U	9.3 U	9.4 U	11 U
Isopropyl Alcohol	67-63-0	NE	μg/m^3	2.1 U	11 U	2.1 U	3.7 U	180 U	22 U	**4.1**	110 U	11 U	11 U	**9.5**	**5.3**	2.2 U	2.2 U	**5.8**
Isopropylbenzene (Cumene)	98-82-8	NE	μg/m^3	0.82 U	4.4 U	0.84 U	1.5 U	89 U	8.6 U	0.89 U	55 U	4.3 U	4.4 U	1.8 U	0.93 U	**1.2**	0.87 U	1.0 U
Methyl t-butyl ether	1634-04-4	NE	μg/m^3	0.60 U	3.3 U	0.62 U	1.1 U	65 U	6.3 U	0.65 U	40 U	3.2 U	3.3 U	1.3 U	0.68 U	0.63 U	0.64 U	0.76 U
Methylene Chloride	75-09-2	NE	μg/m^3	1.2 U	6.3 U	1.2 U	2.1 U	630 U	12 U	1.2 U	390 U	6.1 U	6.3 U	2.6 U	1.3 U	1.2 U	1.2 U	1.5 U
n-Heptane	142-82-5	NE	μg/m^3	0.69 U	3.7 U	0.70 U	1.2 U	74 U	**82**	**7.6**	**6500**	**11**	**9.9**	**51**	**35**	**13**	**22**	**20**
n-Hexane	110-54-3	10700	μg/m^3	0.59 U	3.2 U	0.60 U	**1.4**	64 U	**65**	**17**	**11000**	**9.6**	**7.4**	**80**	**63**	**25**	**51**	**32**
n-Propylbenzene	103-65-1	NE	μg/m^3	0.82 U	4.4 U	0.84 U	1.5 U	89 U	8.6 U	0.89 U	55 U	4.3 U	4.4 U	**2.3**	0.93 U	**1.4**	0.87 U	1.0 U

			Location ID:	GP-1	GP-2	GP-3	GP-4	GP-5	GP-6	GP-7	GP-8	GP-9	GP-9	GP-10	GP-11	GP-12	GP-13	GP-14
			Sample ID:	14414101	14414102	14414103	14414104	14414105	14414106	14414107	14414108	14414109	14414115	14414110	14414111	14414112	14414113	14414114
			Date Sampled:	10/13/14	10/13/14	10/13/14	10/13/14	10/13/14	10/14/14	10/14/14	10/14/14	10/14/14	10/14/14	10/14/14	10/14/14	10/14/14	10/15/14	10/15/14
			Sample Type:	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Cas_rn**	**Soil/Vapor SLs**	**Units**															
1,1,1-Trichloroethane	71-55-6	76200	μg/m^3	0.92 U	4.9 U	0.93 U	1.6 U	99 U	9.5 U	0.99 U	61 U	4.8 U	4.9 U	2 U	1 U	0.95 U	0.96 U	1.2 U
Styrene	100-42-5	NE	μg/m^3	0.72 U	3.8 U	0.73 U	1.3 U	77 U	7.4 U	0.77 U	48 U	3.7 U	3.8 U	**5.2**	**0.97**	0.74 U	0.75 U	**2.1**
Tetrachloroethene	127-18-4	321	μg/m^3	1.1 U	**1500**	**20**	**430**	120 U	12 U	**37**	**360**	**1500**	**1800**	2.5 U	**3.6**	**2.9**	**98**	**270**
Tetrahydrofuran	109-99-9	NE	μg/m^3	2.5 U	13 U	2.5 U	4.5 U	53 U	26 U	2.7 U	33 U	13 U	13 U	5.4 U	2.8 U	2.6 U	2.6 U	3.1 U
Toluene	108-88-3	76200	μg/m^3	0.63 U	3.4 U	0.64 U	**6.4**	68 U	**8.6**	**1.5**	**68**	3.3 U	3.4 U	**39**	**13**	**5.1**	**3.4**	**16**
Trans-1,2-Dichloroethene	156-60-5	NE	μg/m^3	0.67 U	3.6 U	0.68 U	1.2 U	72 U	6.9 U	0.72 U	45 U	3.5 U	3.6 U	1.5 U	0.75 U	0.69 U	0.70 U	0.84 U
Trans-1,3-Dichloropropene	10061-02-6	NE	μg/m^3	0.76 U	4.1 U	0.78 U	1.4 U	82 U	7.9 U	0.82 U	51 U	4 U	4.1 U	1.7 U	0.86 U	0.79 U	0.80 U	0.96 U
Trichloroethene	79-01-6	12.3	μg/m^3	0.90 U	4.9 U	0.92 U	1.6 U	**180**	9.4 U	0.97 U	60 U	**110**	**150**	2 U	1 U	0.94 U	0.95 U	**12**
Trichlorofluoromethane (CFC-11)	75-69-4	10700	μg/m^3	**1.1**	5.1 U	**4.2**	**1.7**	100 U	9.8 U	**2.0**	63 U	**5.3**	**6.0**	2.1 U	1.1 U	**1.2**	**1.4**	**3.1**
Vinyl Chloride	75-01-4	NE	μg/m^3	0.43 U	2.3 U	0.44 U	0.78 U	46 U	**7.5**	0.46 U	29 U	2.2 U	2.3 U	0.94 U	0.48 U	0.45 U	0.45 U	0.54 U
Xylene, m-,p-	179601-23-1	1520	μg/m^3	0.73 U	3.9 U	0.74 U	**3.8**	78 U	7.6 U	0.78 U	49 U	3.8 U	3.9 U	**41**	**3.9**	**0.99**	**0.84**	**4.3**
Xylene, o-	95-47-6	1520	μg/m^3	0.73 U	3.9 U	0.74 U	1.3 U	78 U	7.6 U	0.78 U	49 U	3.8 U	3.9 U	**15**	**1.7**	0.76 U	0.77 U	**1.6**
Methane	74-82-8	NE	%	0.00017 U	0.00018 U	0.00017 U	0.00015 U	**0.51**	**3.6**	0.00018 U	**0.00069**	0.00018 U	0.00018 U	**0.0027**	**0.0011**	**0.00024**	**0.012**	**0.00089**

Notes:

μg/m^3 = micrograms per cubic meter

N = Primary Sample, FD = Field Duplicate

NE = not established

SLs = screening levels

U = analyte not detected, laboratory reporting limit shown.

Bolding indicates analyte was detected.

Analyte was not detected in the sample; reporting limit exceeded the screening level.

Analyte concentration exceeded the screening level.

Table A-6

Comprehensive Soil Gas Data 2016

Former West Olympia Landfill Site

Olympia, Washington

			Location ID:	**A1**	**A2**	**A3**	**A3**	**A4**	**A5**	**A6**	**A7**	**A8**	**B1**	**B2**	**B3**	**B4**
			Sample ID:	**16294242**	**16294243**	**16294244**	**16294244D**	**16294223**	**16294216**	**16294215**	**16294200**	**16284208**	**16294236**	**16294234**	**16294224**	**16294222**
			Date Sampled:	**07/17/16**	**07/17/16**	**07/17/16**	**07/17/16**	**07/17/16**	**07/17/16**	**07/17/16**	**07/17/16**	**07/16/16**	**07/17/16**	**07/17/16**	**07/17/16**	**07/17/16**
			Sample Type:	**N**	**N**	**N**	**FD**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
Parameter	**Cas_rn**	**Soil/Vapor SLs**	**Units**													
1,1,1,2-Tetrachloroethane	630-20-6	11.3	µg/m^3	**3.54**	1.42 U	1.42 U	1.42 U	1.38 U	1.37 U	1.37 U	1.37 U	1.37 U	1.39 U	1.39 U	1.38 U	1.38 U
1,1,1-Trichloroethane	71-55-6	76200	µg/m^3	43.2 U	43.2 U	43.2 U	43.2 U	42.6 U	42.4 U	42.4 U	42.3 U	42.3 U	42.7 U	42.7 U	42.6 U	42.6 U
1,2,4-Trimethylbenzene	95-63-6	107	µg/m^3	**1.88**	1.84 U	1.84 U	1.84 U	1.79 U	1.78 U	1.78 U	1.77 U	1.77 U	1.8 U	**1.98**	1.79 U	1.79 U
1,3,5-Trimethylbenzene	108-67-8	NE	µg/m^3	2.4 U	2.4 U	2.41 U	2.41 U	2.35 U	2.33 U	2.33 U	2.32 U	2.32 U	2.35 U	2.36 U	2.35 U	2.34 U
1,3-Dichlorobenzene (m-Dichlorobenzene)	541-73-1	NE	µg/m^3	1.49 U	1.49 U	1.49 U	1.49 U	1.45 U	1.44 U	1.44 U	1.43 U	1.44 U	1.46 U	1.46 U	1.45 U	1.45 U
1,4-Dichlorobenzene (p-Dichlorobenzene)	106-46-7	7.58	µg/m^3	1.49 U	1.49 U	1.5 U	1.5 U	1.46 U	1.45 U	1.45 U	1.44 U	1.44 U	1.46 U	1.46 U	1.46 U	1.46 U
2-Methylnaphthalene	91-57-6	NE	µg/m^3	1.42 U	1.42 U	1.42 U	1.42 U	1.39 U	1.38 U	1.38 U	1.37 U	1.37 U	1.39 U	1.39 U	1.39 U	1.38 U
Benzene	71-43-2	10.7	µg/m^3	31.8 U	31.8 U	31.8 U	31.8 U	31.4 U	31.3 U	31.3 U	31.2 U	31.2 U	31.5 U	31.5 U	31.4 U	31.4 U
Carbon Tetrachloride	56-23-5	13.9	µg/m^3	38.2 U	38.2 U	38.2 U	38.2 U	37.6 U	37.5 U	37.5 U	37.4 U	37.4 U	37.7 U	37.7 U	37.6 U	**546**
cis-1,2-Dichloroethene	156-59-2	NE	µg/m^3	117 U	117 U	117 U	117 U	116 U	116 U	116 U	116 U	116 U	117 U	117 U	116 U	116 U
Ethylbenzene	100-41-4	15200	µg/m^3	1.8 U	1.81 U	1.81 U	1.81 U	1.76 U	1.75 U	1.75 U	1.74 U	1.74 U	1.77 U	**11.4**	1.76 U	1.76 U
Naphthalene	91-20-3	2.45	µg/m^3	1.42 U	1.42 U	1.42 U	1.42 U	1.39 U	1.38 U	1.38 U	1.37 U	1.37 U	1.39 U	1.39 U	1.39 U	1.38 U
Octane (Dot)	111-65-9	NE	µg/m^3	3.87 U	3.88 U	3.88 U	3.88 U	3.79 U	3.77 U	3.77 U	3.75 U	3.76 U	3.81 U	3.81 U	3.79 U	3.79 U
Tetrachloroethene	127-18-4	321	µg/m^3	2.95 U	2.95 U	2.96 U	2.96 U	2.88 U	**128**	**689**	**14.9**	2.85 U	**102**	**1070**	**51.1**	**124**
Toluene	108-88-3	76200	µg/m^3	3.75 U	3.75 U	**16.0**	**16.5**	3.67 U	3.65 U	3.65 U	**8.71**	3.63 U	3.68 U	3.69 U	3.67 U	3.67 U
Trichloroethene	79-01-6	12.3	µg/m^3	14.3 U	14.3 U	14.3 U	14.3 U	14.1 U	14 U	14 U	14 U	14 U	14.1 U	14.1 U	14.1 U	14.1 U
Tridecane	629-50-5	NE	µg/m^3	1.42 U	1.42 U	1.42 U	1.42 U	1.39 U	1.38 U	**4.28**	1.37 U	1.37 U	1.39 U	1.39 U	1.39 U	1.38 U
Undecane	1120-21-4	NE	µg/m^3	**2.20**	1.42 U	1.42 U	1.42 U	1.39 U	**2.36**	**186**	1.37 U	1.37 U	1.39 U	**4.36**	**35.5**	1.38 U
Xylene, m-,p-	179601-23-1	1520	µg/m^3	1.66 U	1.67 U	1.67 U	1.67 U	1.62 U	1.61 U	1.61 U	**6.58**	1.6 U	1.63 U	**4.47**	1.62 U	1.62 U
Xylene, o-	95-47-6	1520	µg/m^3	2.25 U	2.25 U	2.25 U	2.25 U	2.19 U	2.18 U	2.18 U	**2.58**	2.17 U	2.2 U	**3.09**	2.2 U	2.19 U

			Location ID:	**B5**	**B6**	**B7**	**B8**	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**	**C8**	**D1**
			Sample ID:	**16294217**	**16294214**	**16294201**	**16284209**	**16294237**	**16294235**	**16294225**	**16294221**	**16294218**	**16294213**	**16294202**	**16284210**	**16294238**
			Date Sampled:	**07/17/16**	**07/17/16**	**07/17/16**	**07/16/16**	**07/17/16**	**07/17/16**	**07/17/16**	**07/17/16**	**07/17/16**	**07/17/16**	**07/17/16**	**07/16/16**	**07/17/16**
			Sample Type:	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
Parameter	**Cas_rn**	**Soil/Vapor SLs**	**Units**													
1,1,1,2-Tetrachloroethane	630-20-6	11.3	µg/m^3	**2.81**	**5.24**	1.37 U	1.38 U	1.39 U	1.39 U	1.38 U	1.38 U	1.38 U	1.37 U	1.37 U	1.38 U	1.39 U
1,1,1-Trichloroethane	71-55-6	76200	µg/m^3	42.4 U	42.4 U	42.3 U	42.5 U	42.7 U	42.6 U	42.6 U	42.6 U	42.5 U	42.4 U	42.3 U	42.5 U	42.7 U
1,2,4-Trimethylbenzene	95-63-6	107	µg/m^3	1.78 U	**2.04**	1.77 U	**2.04**	1.8 U	1.8 U	1.8 U	1.79 U	1.79 U	1.78 U	1.77 U	1.79 U	1.8 U
1,3,5-Trimethylbenzene	108-67-8	NE	µg/m^3	2.33 U	2.33 U	2.32 U	2.34 U	2.36 U	2.35 U	2.35 U	2.34 U	2.33 U	2.33 U	2.32 U	2.34 U	2.36 U
1,3-Dichlorobenzene (m-Dichlorobenzene)	541-73-1	NE	µg/m^3	1.44 U	1.44 U	1.43 U	1.45 U	1.46 U	1.46 U	1.45 U	1.45 U	1.44 U	1.44 U	1.43 U	1.45 U	1.46 U
1,4-Dichlorobenzene (p-Dichlorobenzene)	106-46-7	7.58	µg/m^3	1.45 U	1.45 U	1.44 U	1.45 U	1.46 U	1.46 U	1.46 U	1.46 U	1.45 U	1.45 U	1.44 U	1.45 U	1.46 U
2-Methylnaphthalene	91-57-6	NE	µg/m^3	1.38 U	1.38 U	1.37 U	1.38 U	1.39 U	1.39 U	1.39 U	1.38 U	1.38 U	1.38 U	1.37 U	1.38 U	1.39 U
Benzene	71-43-2	10.7	µg/m^3	31.3 U	31.3 U	31.2 U	31.3 U	31.5 U	31.5 U	31.4 U	31.4 U	31.3 U	31.3 U	31.2 U	31.4 U	31.5 U
Carbon Tetrachloride	56-23-5	13.9	µg/m^3	37.5 U	37.5 U	37.4 U	37.5 U	37.7 U	37.7 U	37.6 U	37.6 U	37.5 U	37.5 U	37.4 U	37.6 U	37.7 U
cis-1,2-Dichloroethene	156-59-2	NE	µg/m^3	116 U	116 U	116 U	116 U	117 U	117 U	116 U	116 U	116 U	116 U	116 U	116 U	117 U
Ethylbenzene	100-41-4	15200	µg/m^3	1.75 U	1.75 U	1.74 U	1.75 U	1.77 U	1.76 U	1.76 U	1.76 U	1.75 U	1.75 U	1.74 U	**2.09**	1.77 U
Naphthalene	91-20-3	2.45	µg/m^3	1.38 U	1.38 U	1.37 U	1.38 U	1.39 U	1.39 U	1.39 U	1.38 U	1.38 U	1.38 U	1.37 U	1.38 U	1.39 U
Octane (Dot)	111-65-9	NE	µg/m^3	3.78 U	3.77 U	3.75 U	3.78 U	3.81 U	3.8 U	3.8 U	3.79 U	3.78 U	3.77 U	3.75 U	3.78 U	3.81 U
Tetrachloroethene	127-18-4	321	µg/m^3	**15.2**	**978**	**165**	2.87 U	**557**	**54.0**	**242**	**26.0**	**4.29**	**161**	**878**	**6.07**	**751**
Toluene	108-88-3	76200	µg/m^3	3.65 U	3.65 U	3.63 U	**4.77**	3.68 U	3.68 U	3.67 U	3.67 U	3.65 U	3.65 U	**6.74**	**12.7**	3.68 U
Trichloroethene	79-01-6	12.3	µg/m^3	14 U	14 U	14 U	14 U	14.1 U	14.1 U	14.1 U	14.1 U	14 U	14 U	14 U	14 U	14.1 U
Tridecane	629-50-5	NE	µg/m^3	1.38 U	1.38 U	1.37 U	1.38 U	1.39 U	1.39 U	1.39 U	1.38 U	1.38 U	1.38 U	**4.25**	1.38 U	1.39 U
Undecane	1120-21-4	NE	µg/m^3	1.38 U	1.38 U	**4.63**	1.38 U	1.39 U	**2.22**	**9.41**	1.38 U	1.38 U	1.38 U	**2.95**	1.38 U	1.39 U
Xylene, m-,p-	179601-23-1	1520	µg/m^3	1.61 U	1.61 U	1.6 U	**3.09**	1.63 U	1.63 U	1.62 U	1.62 U	1.61 U	1.61 U	**3.49**	**2.97**	1.63 U
Xylene, o-	95-47-6	1520	µg/m^3	2.18 U	2.18 U	2.17 U	2.19 U	2.2 U	2.2 U	2.2 U	2.19 U	2.18 U	2.18 U	**2.48**	2.19 U	2.2 U

			Location ID:	D2	D3	D4	D4	D5	D6	D7	D8	E1	E2	E3	E4	E5
			Sample ID:	16294233	16294226	16294220	16294220D	16294219	16294212	16294203	16284212	16294239	16294232	16294227	16294249	16294248
			Date Sampled:	07/17/16	07/17/16	07/17/16	07/17/16	07/17/16	07/17/16	07/17/16	07/16/16	07/17/16	07/17/16	07/17/16	07/17/16	07/17/16
			Sample Type:	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Cas_rn**	**Soil/Vapor SLs**	**Units**													
1,1,1,2-Tetrachloroethane	630-20-6	11.3	µg/m^3	1.39 U	1.38 U	1.38 U	1.38 U	1.38 U	1.37 U	1.36 U	1.38 U	**3.71**	1.39 U	1.38 U	1.45 U	1.45 U
1,1,1-Trichloroethane	71-55-6	76200	µg/m^3	42.6 U	42.6 U	42.6 U	42.6 U	42.5 U	42.4 U	42.3 U	42.5 U	42.7 U	42.6 U	42.6 U	43.7 U	43.7 U
1,2,4-Trimethylbenzene	95-63-6	107	µg/m^3	1.8 U	1.8 U	1.79 U	1.79 U	1.79 U	1.78 U	1.77 U	1.79 U	**3.67**	1.8 U	1.8 U	1.88 U	1.87 U
1,3,5-Trimethylbenzene	108-67-8	NE	µg/m^3	2.35 U	2.35 U	2.34 U	2.34 U	2.34 U	2.33 U	2.32 U	2.34 U	2.36 U	2.35 U	2.35 U	2.45 U	2.45 U
1,3-Dichlorobenzene (m-Dichlorobenzene)	541-73-1	NE	µg/m^3	1.45 U	1.45 U	1.45 U	1.45 U	1.44 U	1.44 U	1.43 U	1.45 U	1.46 U	1.45 U	1.45 U	1.52 U	1.52 U
1,4-Dichlorobenzene (p-Dichlorobenzene)	106-46-7	7.58	µg/m^3	1.46 U	1.46 U	1.46 U	1.46 U	1.45 U	1.45 U	1.44 U	1.45 U	1.46 U	1.46 U	1.46 U	1.53 U	1.52 U
2-Methylnaphthalene	91-57-6	NE	µg/m^3	1.39 U	1.39 U	1.38 U	1.38 U	1.38 U	1.38 U	1.37 U	1.38 U	1.39 U	1.39 U	1.39 U	1.45 U	1.45 U
Benzene	71-43-2	10.7	µg/m^3	31.4 U	31.4 U	31.4 U	31.4 U	31.3 U	31.3 U	31.2 U	**39.9**	31.5 U	31.4 U	31.4 U	32.2 U	32.1 U
Carbon Tetrachloride	56-23-5	13.9	µg/m^3	37.7 U	37.7 U	37.6 U	37.6 U	37.5 U	37.5 U	37.4 U	37.6 U	**55.9**	37.7 U	37.7 U	38.7 U	38.6 U
cis-1,2-Dichloroethene	156-59-2	NE	µg/m^3	117 U	117 U	116 U	116 U	116 U	116 U	116 U	116 U	117 U	117 U	117 U	118 U	118 U
Ethylbenzene	100-41-4	15200	µg/m^3	1.76 U	1.76 U	1.76 U	1.76 U	**2.64**	**3.54**	1.74 U	1.76 U	1.77 U	1.76 U	1.76 U	**3.83**	1.84 U
Naphthalene	91-20-3	2.45	µg/m^3	1.39 U	1.39 U	1.38 U	1.38 U	1.38 U	1.38 U	1.37 U	1.38 U	1.39 U	1.39 U	1.39 U	1.45 U	1.45 U
Octane (Dot)	111-65-9	NE	µg/m^3	3.8 U	3.8 U	**183**	**192**	**5.29**	3.77 U	3.75 U	**6.35**	3.81 U	3.8 U	3.8 U	**21.0**	**5.25**
Tetrachloroethene	127-18-4	321	µg/m^3	**562**	**354**	**811**	**791**	**71.6**	**37.2**	**184**	**3.73**	**1390**	**525**	**50.2**	**101**	**202**
Toluene	108-88-3	76200	µg/m^3	3.68 U	3.67 U	3.67 U	3.67 U	**8.52**	3.65 U	3.63 U	**8.38**	3.69 U	3.68 U	3.67 U	**9.35**	**8.13**
Trichloroethene	79-01-6	12.3	µg/m^3	14.1 U	14.1 U	14.1 U	14.1 U	14 U	14 U	14 U	14.1 U	14.1 U	14.1 U	14.1 U	14.5 U	14.5 U
Tridecane	629-50-5	NE	µg/m^3	1.39 U	1.39 U	**13.6**	**7.85**	1.38 U	1.38 U	1.37 U	1.38 U	1.39 U	1.39 U	1.39 U	1.45 U	1.45 U
Undecane	1120-21-4	NE	µg/m^3	**5.77**	1.39 U	**61.0**	**71.6**	1.38 U	1.38 U	1.37 U	**1.38**	1.39 U	1.39 U	1.39 U	**1.63**	1.45 U
Xylene, m-,p-	179601-23-1	1520	µg/m^3	1.63 U	1.62 U	1.62 U	1.62 U	**2.21**	1.61 U	1.6 U	**2.69**	1.63 U	1.62 U	1.62 U	**3.08**	**1.95**
Xylene, o-	95-47-6	1520	µg/m^3	2.2 U	2.2 U	2.19 U	2.19 U	2.18 U	2.18 U	2.17 U	2.19 U	2.2 U	2.2 U	2.2 U	2.3 U	2.29 U

			Location ID:	**E6**	**E7**	**E8**	**F1**	**F2**	**F3**	**F4**	**F5**	**F6**	**F6**	**F7**	**F8**	**G1**
			Sample ID:	**16294211**	**16294204**	**16284211**	**16294240**	**16294231**	**16294228**	**16294247**	**16294250**	**16294210**	**16294210D**	**16294205**	**16294208**	**16294241**
			Date Sampled:	**07/17/16**	**07/17/16**	**07/16/16**	**07/17/16**	**07/17/16**	**07/17/16**	**07/17/16**	**07/17/16**	**07/17/16**	**07/17/16**	**07/17/16**	**07/17/16**	**07/17/16**
			Sample Type:	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**	**N**
Parameter	**Cas_rn**	**Soil/Vapor SLs**	**Units**													
1,1,1,2-Tetrachloroethane	630-20-6	11.3	μg/m^3	1.37 U	1.37 U	1.38 U	1.39 U	1.38 U	1.38 U	1.44 U	1.45 U	1.37 U	1.37 U	1.37 U	1.37 U	1.39 U
1,1,1-Trichloroethane	71-55-6	76200	μg/m^3	42.4 U	42.3 U	42.5 U	42.7 U	42.6 U	42.6 U	43.5 U	43.8 U	42.4 U	42.4 U	42.3 U	42.4 U	42.7 U
1,2,4-Trimethylbenzene	95-63-6	107	μg/m^3	**4.21**	1.77 U	1.79 U	1.8 U	1.8 U	1.8 U	1.86 U	**3.66**	1.78 U	1.78 U	1.77 U	1.78 U	1.8 U
1,3,5-Trimethylbenzene	108-67-8	NE	μg/m^3	2.33 U	2.32 U	2.34 U	2.36 U	2.35 U	2.35 U	2.43 U	2.46 U	2.33 U	2.33 U	2.32 U	2.33 U	2.36 U
1,3-Dichlorobenzene (m-Dichlorobenzene)	541-73-1	NE	μg/m^3	**2.57**	1.43 U	1.45 U	1.46 U	1.45 U	1.45 U	1.51 U	1.52 U	1.44 U	1.44 U	1.44 U	1.44 U	1.46 U
1,4-Dichlorobenzene (p-Dichlorobenzene)	106-46-7	7.58	μg/m^3	**90.9**	1.44 U	1.45 U	1.46 U	1.46 U	1.46 U	1.51 U	**5.03**	1.45 U	1.45 U	**2.02**	1.45 U	1.46 U
2-Methylnaphthalene	91-57-6	NE	μg/m^3	1.37 U	1.37 U	1.38 U	1.39 U	1.39 U	1.39 U	1.44 U	1.45 U	1.37 U	1.37 U	1.37 U	1.37 U	1.39 U
Benzene	71-43-2	10.7	μg/m^3	31.3 U	31.2 U	31.4 U	31.5 U	31.4 U	31.4 U	32 U	32.2 U	31.3 U	31.3 U	31.2 U	31.3 U	31.5 U
Carbon Tetrachloride	56-23-5	13.9	μg/m^3	37.5 U	37.4 U	37.6 U	37.7 U	37.7 U	37.7 U	38.5 U	38.7 U	37.5 U	37.5 U	37.4 U	37.5 U	**76.6**
cis-1,2-Dichloroethene	156-59-2	NE	μg/m^3	116 U	116 U	116 U	117 U	117 U	117 U	118 U	118 U	116 U	116 U	**443**	116 U	117 U
Ethylbenzene	100-41-4	15200	μg/m^3	**3.04**	1.74 U	1.75 U	1.77 U	1.76 U	1.76 U	1.83 U	**2.2**	1.75 U	1.75 U	1.74 U	1.74 U	1.77 U
Naphthalene	91-20-3	2.45	μg/m^3	1.37 U	1.37 U	1.38 U	1.39 U	1.39 U	1.39 U	1.44 U	1.45 U	1.37 U	1.37 U	1.37 U	1.37 U	1.39 U
Octane (Dot)	111-65-9	NE	μg/m^3	3.77 U	3.75 U	**4.85**	3.81 U	3.8 U	3.8 U	3.92 U	3.96 U	3.77 U	3.77 U	3.76 U	3.77 U	3.81 U
Tetrachloroethene	127-18-4	321	μg/m^3	**7.66**	**70.7**	**4.79**	**732**	**965**	**87.7**	**85.3**	**16.3**	**2560**	**2520**	**2860**	**138**	**248**
Toluene	108-88-3	76200	μg/m^3	3.65 U	3.63 U	**5.87**	3.69 U	3.68 U	3.67 U	3.79 U	3.83 U	3.65 U	3.65 U	3.64 U	3.64 U	3.69 U
Trichloroethene	79-01-6	12.3	μg/m^3	14 U	14 U	14 U	14.1 U	14.1 U	14.1 U	14.4 U	14.5 U	**428**	**439**	**871**	14 U	14.1 U
Tridecane	629-50-5	NE	μg/m^3	1.37 U	1.37 U	1.38 U	1.39 U	1.39 U	1.39 U	1.44 U	1.45 U	1.37 U	1.37 U	1.37 U	1.37 U	1.39 U
Undecane	1120-21-4	NE	μg/m^3	**8.04**	1.37 U	1.38 U	1.39 U	1.39 U	**3.22**	**1.88**	**30.4**	1.37 U	1.37 U	1.37 U	1.37 U	1.39 U
Xylene, m-,p-	179601-23-1	1520	μg/m^3	**2.28**	1.6 U	**2.45**	1.63 U	1.62 U	1.62 U	1.68 U	**5.00**	1.61 U	1.61 U	1.6 U	1.61 U	1.63 U
Xylene, o-	95-47-6	1520	μg/m^3	2.18 U	2.17 U	2.19 U	2.21 U	2.2 U	2.2 U	2.28 U	**2.41**	2.18 U	2.18 U	2.17 U	2.18 U	2.21 U

			Location ID:	**G2**	**G3**	**G4**	**G5**	**G6**	**G7**	**G8**	**H1**	**H1**	**H2**	**H3**	**H4**	**H5**
			Sample ID:	**16294230**	**16294229**	**16294246**	**16294245**	**16294209**	**16294206**	**16294207**	**16284200**	**16284200D**	**16284201**	**16284202**	**16284203**	**16284204**
			Date Sampled:	**07/17/16**	**07/17/16**	**07/17/16**	**07/17/16**	**07/17/16**	**07/17/16**	**07/17/16**	**07/12/16**	**07/12/16**	**07/12/16**	**07/12/16**	**07/12/16**	**07/12/16**
			Sample Type:	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**	**N**	**N**
Parameter	**Cas_rn**	**Soil/Vapor SLs**	**Units**													
1,1,1,2-Tetrachloroethane	630-20-6	11.3	µg/m^3	1.39 U	1.38 U	1.44 U	1.44 U	1.37 U	**16.3**	1.37 U	1.36 U	1.36 U	1.37 U	1.37 U	1.37 U	1.37 U
1,1,1-Trichloroethane	71-55-6	76200	µg/m^3	42.6 U	42.6 U	43.5 U	43.5 U	42.4 U	42.3 U	42.4 U	42.3 U	42.3 U	42.3 U	42.4 U	42.4 U	42.4 U
1,2,4-Trimethylbenzene	95-63-6	107	µg/m^3	1.8 U	1.8 U	1.86 U	**2.79**	1.78 U	**13.1**	1.78 U	**7.90**	**7.50**	**3.91**	1.78 U	1.78 U	1.78 U
1,3,5-Trimethylbenzene	108-67-8	NE	µg/m^3	2.35 U	2.35 U	2.43 U	2.43 U	2.33 U	**9.41**	2.33 U	**5.47**	**5.26**	**2.7**	2.33 U	2.33 U	2.33 U
1,3-Dichlorobenzene (m-Dichlorobenzene)	541-73-1	NE	µg/m^3	1.45 U	1.45 U	1.51 U	1.5 U	1.44 U	1.44 U	1.44 U	1.43 U	1.43 U	1.44 U	1.44 U	1.44 U	1.44 U
1,4-Dichlorobenzene (p-Dichlorobenzene)	106-46-7	7.58	µg/m^3	1.46 U	1.46 U	1.51 U	1.51 U	1.45 U	1.44 U	1.44 U	1.44 U	1.44 U	1.44 U	1.45 U	1.45 U	1.45 U
2-Methylnaphthalene	91-57-6	NE	µg/m^3	1.39 U	1.39 U	1.44 U	1.44 U	1.37 U	1.37 U	1.37 U	**1.4**	**1.76**	1.37 U	1.37 U	1.38 U	1.38 U
Benzene	71-43-2	10.7	µg/m^3	31.4 U	31.4 U	32 U	32 U	31.3 U	31.2 U	31.3 U	31.2 U	31.2 U	31.2 U	31.3 U	31.3 U	31.3 U
Carbon Tetrachloride	56-23-5	13.9	µg/m^3	37.7 U	37.6 U	38.4 U	38.4 U	37.5 U	37.4 U	37.4 U	37.4 U	37.4 U	37.4 U	37.5 U	37.5 U	37.5 U
cis-1,2-Dichloroethene	156-59-2	NE	µg/m^3	117 U	116 U	118 U	118 U	116 U	116 U	116 U	116 U	116 U	116 U	116 U	116 U	116 U
Ethylbenzene	100-41-4	15200	µg/m^3	1.76 U	1.76 U	1.83 U	1.83 U	**3.25**	1.74 U	1.74 U	1.74 U	1.74 U	**4.72**	1.75 U	1.75 U	1.75 U
Naphthalene	91-20-3	2.45	µg/m^3	1.39 U	1.39 U	1.44 U	1.44 U	1.37 U	1.37 U	1.37 U	**2.09**	**1.89**	**1.44**	1.37 U	1.38 U	1.38 U
Octane (Dot)	111-65-9	NE	µg/m^3	3.8 U	**16.6**	3.92 U	3.92 U	3.77 U	3.76 U	3.76 U	**6.21**	**6.56**	3.76 U	3.77 U	3.77 U	3.78 U
Tetrachloroethene	127-18-4	321	µg/m^3	**15.7**	**161**	**401**	**63.2**	**443**	**720**	**13.0**	**42.8**	**45.6**	**97.5**	**15.4**	**945**	**42.2**
Toluene	108-88-3	76200	µg/m^3	3.68 U	3.67 U	3.79 U	**11.9**	3.64 U	3.64 U	3.64 U	3.63 U	3.63 U	**6.67**	3.65 U	3.65 U	3.65 U
Trichloroethene	79-01-6	12.3	µg/m^3	14.1 U	14.1 U	14.4 U	**47.0**	14 U	14 U	14 U	14 U	14 U	14 U	14 U	14 U	14 U
Tridecane	629-50-5	NE	µg/m^3	1.39 U	1.39 U	4.50 U	1.44 U	1.37 U	1.37 U	1.37 U	1.37 U	**2.86**	1.37 U	1.37 U	1.38 U	1.38 U
Undecane	1120-21-4	NE	µg/m^3	1.39 U	1.39 U	**1.64**	1.44 U	1.37 U	**7.65**	1.37 U	**3.75**	**4.72**	**3.06**	1.37 U	1.38 U	1.38 U
Xylene, m-,p-	179601-23-1	1520	µg/m^3	1.62 U	1.62 U	1.68 U	**5.56**	**2.16**	**2.44**	1.61 U	**4.20**	**3.45**	**8.23**	**1.69**	**1.77**	1.61 U
Xylene, o-	95-47-6	1520	µg/m^3	2.2 U	2.2 U	2.28 U	**2.86**	2.18 U	**2.22**	2.18 U	2.17 U	**2.43**	**5.88**	2.18 U	2.18 U	2.18 U

			Location ID:	**H6**	**H7**	**H8**
			Sample ID:	**16284205**	**16284206**	**16284207**
			Date Sampled:	**07/12/16**	**07/12/16**	**07/12/16**
			Sample Type:	**N**	**N**	**N**
Parameter	**Cas_rn**	**Soil/Vapor SLs**	**Units**			
1,1,1,2-Tetrachloroethane	630-20-6	11.3	$\mu g/m^3$	1.38 U	1.38 U	1.39 U
1,1,1-Trichloroethane	71-55-6	76200	$\mu g/m^3$	**104**	42.5 U	42.7 U
1,2,4-Trimethylbenzene	95-63-6	107	$\mu g/m^3$	1.79 U	1.79 U	**2.99**
1,3,5-Trimethylbenzene	108-67-8	NE	$\mu g/m^3$	2.34 U	2.34 U	2.35 U
1,3-Dichlorobenzene (m-Dichlorobenzene)	541-73-1	NE	$\mu g/m^3$	1.45 U	1.45 U	1.46 U
1,4-Dichlorobenzene (p-Dichlorobenzene)	106-46-7	7.58	$\mu g/m^3$	1.45 U	1.46 U	1.46 U
2-Methylnaphthalene	91-57-6	NE	$\mu g/m^3$	1.38 U	1.38 U	1.39 U
Benzene	71-43-2	10.7	$\mu g/m^3$	31.4 U	31.4 U	**40.6**
Carbon Tetrachloride	56-23-5	13.9	$\mu g/m^3$	37.6 U	37.6 U	37.7 U
cis-1,2-Dichloroethene	156-59-2	NE	$\mu g/m^3$	116 U	116 U	117 U
Ethylbenzene	100-41-4	15200	$\mu g/m^3$	1.75 U	1.76 U	**2.11**
Naphthalene	91-20-3	2.45	$\mu g/m^3$	1.38 U	1.38 U	1.39 U
Octane (Dot)	111-65-9	NE	$\mu g/m^3$	**8.26**	3.79 U	**4.08**
Tetrachloroethene	127-18-4	321	$\mu g/m^3$	**48.4**	**427**	2.89 U
Toluene	108-88-3	76200	$\mu g/m^3$	3.66 U	3.67 U	**9.58**
Trichloroethene	79-01-6	12.3	$\mu g/m^3$	**456**	**28.2**	14.1 U
Tridecane	629-50-5	NE	$\mu g/m^3$	1.38 U	1.38 U	**40.5**
Undecane	1120-21-4	NE	$\mu g/m^3$	1.38 U	1.38 U	**11.1**
Xylene, m-,p-	179601-23-1	1520	$\mu g/m^3$	1.62 U	1.62 U	**4.86**
Xylene, o-	95-47-6	1520	$\mu g/m^3$	2.19 U	2.19 U	**3.13**

Notes:

$\mu g/m^3$ = micrograms per cubic meter

N = Primary Sample, FD = Field Duplicate

NE = not established

SLs = screening levels

U = analyte not detected, laboratory reporting limit shown.

Bolding indicates analyte was detected.

Analyte was not detected in the sample; reporting limit exceeded the screening level.

Analyte concentration exceeded the screening level.

Table A-7

Comprehensive Soil Gas Data 2018

Former West Olympia Landfill Site
Olympia, Washington

Analyte	MTCA Method B Shallow Soil Gas Screening Level	Sample Location, Lab Sample ID, Sample Date								Sample Location, Lab Sample ID, Sample Date						
		GP-1	GP-2	GP-3	GP-4	GP-5	GP-15	GP-16	GP-17	GP-18	GP-19	GP-20	GP-21	GP-22	GP-23	GP-24
		320-39906-4	320-40405-3	320-40405-2	320-39906-12	320-39906-10	320-39906-2	320-39906-7	320-39906-8	320-39906-9	320-40405-1	320-39906-15	320-39906-1	320-39906-6	320-39906-5	320-39906-3
		5/29/2018	6/18/2018	6/18/2018	5/30/2018	5/30/2018	5/29/2018	5/29/2018	5/30/2018	5/30/2018	6/18/2018	5/29/2018	5/29/2018	5/29/2018	5/29/2018	5/29/2018
Fixed Gases (%, LandTech GEM 5000 Meter)																
Carbon Dioxide	NE	2.6	2.8	3.5	3.5	3	9.7	2.6	5.7	-- (a)	-- (a)	9.3	4.4	1.4	5.3	1.3
Methane	NE	0.1	0.1	0.1	0.1	0	0.1	0.1	0.1	-- (a)	-- (a)	0	0.1	0.1	0.1	0.1
Oxygen	NE	16.4	17.8	17.6	17.8	16.9	5.3	16.6	15.5	-- (a)	-- (a)	10.3	14.8	17.7	11.6	17.9
Volatile Organic Compounds ($\mu g/m^3$; EPA TO-15)																
1,1,1,2-Tetrachloroethane	11	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U
1,3-Butadiene	2.8	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
1,4-Dichlorobenzene	7.6	**5.6**	**8.5**	**13**	**2.8**	2.4 U	**3.3**	2.4 U	2.4 U	**2.6**	2.4 U	**4.0**	2.4 U	2.4 U	2.4 U	2.4 U
Benzene	11	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
Carbon Tetrachloride	14	5.0 U	5.0 U	5.0 U	**8.6**	5.0 U	**8.7**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexane	11000	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	**3.8**	2.8 U
Tetrachloroethene	320	2.7 U	**1,000**	**22**	**470**	**30**	**570**	**1,200**	2.7 U	2.7 U	**12**	**21**	2.7 U	**21**	2.7 U	2.7 U
Trichloroethene	12	2.1 U	**21**	2.1 U	2.1 U	**210**	**92**	2.1 U	2.1 U	2.1 U	**8.3**	2.1 U	**25**	2.1 U	2.1 U	2.1 U

Notes:

[a] Fixed gases were not measured at these locations due to airflow restriction.

-- = not analyzed

CUL = cleanup level

EPA = US Environmental Protection Agency

ID = identification

$\mu g/m^3$ = micrograms per cubic meter

MTCA = Model Toxics Control Act

N/A = not applicable

NE = not established

SLs = screening levels

U = analyte not detected, laboratory reporting limit shown.

Bolding indicates analyte was detected.

Analyte concentration exceeded the screening level.

APPENDIX B

Well Logs

Landau Vapor Wells, 2018
(GP-15 through GP-24)

Soil Classification System

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

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

NOTES:

1. USCS letter symbols correspond to symbols used by the Unified Soil Classification System and ASTM classification methods. Dual letter symbols (e.g., SP-SM for sand or gravel) indicate soil with an estimated 5-15% fines. Multiple letter symbols (e.g., ML/CL) indicate borderline or multiple soil classifications.
2. Soil descriptions are based on the general approach presented in the *Standard Practice for Description and Identification of Soils (Visual-Manual Procedure)*, outlined in ASTM D 2488. Where laboratory index testing has been conducted, soil classifications are based on the *Standard Test Method for Classification of Soils for Engineering Purposes*, as outlined in ASTM D 2487.
3. Soil description terminology is based on visual estimates (in the absence of laboratory test data) of the percentages of each soil type and is defined as follows:

Primary Constituent: > 50% - "GRAVEL," "SAND," "SILT," "CLAY," etc.
Secondary Constituents: > 30% and ≤ 50% - "very gravelly," "very sandy," "very silty," etc.
> 15% and ≤ 30% - "gravelly," "sandy," "silty," etc.
Additional Constituents: > 5% and ≤ 15% - "with gravel," "with sand," "with silt," etc.
≤ 5% - "trace gravel," "trace sand," "trace silt," etc., or not noted.

LANDAU ASSOCIATES

West Olympia Commercial Property
Olympia, Washington

Soil Classification System and Key

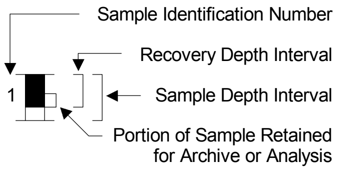
Figure
A-1
(1 of 2)

Drilling and Sampling Key

SAMPLER TYPE

Code	Description
a	3.25-inch O.D., 2.42-inch I.D. Split Spoon
b	2.00-inch O.D., 1.50-inch I.D. Split Spoon
c	Shelby Tube
d	Grab Sample
e	Single-Tube Core Barrel
f	Double-Tube Core Barrel
g	Other - See text if applicable
1	300-lb Hammer, 30-inch Drop
2	140-lb Hammer, 30-inch Drop
3	Pushed
4	Rotosonic
5	Air Rotary (Rock)
6	Wash Rotary (Rock)
7	Other - See text if applicable

SAMPLE NUMBER & INTERVAL



Field and Lab Test Data

Code	Description
PP = 1.0	Pocket Penetrometer, tsf
TV = 0.5	Torvane, tsf
PID = 100	Photoionization Detector VOC screening, ppm
W = 10	Moisture Content, %
D = 120	Dry Density, pcf
-200 = 60	Material smaller than No. 200 sieve, %
GS	Grain Size - See separate figure for data
AL	Atterberg Limits - See separate figure for data
VST	Vane Shear Test
GT	Other Geotechnical Testing
CA	Chemical Analysis

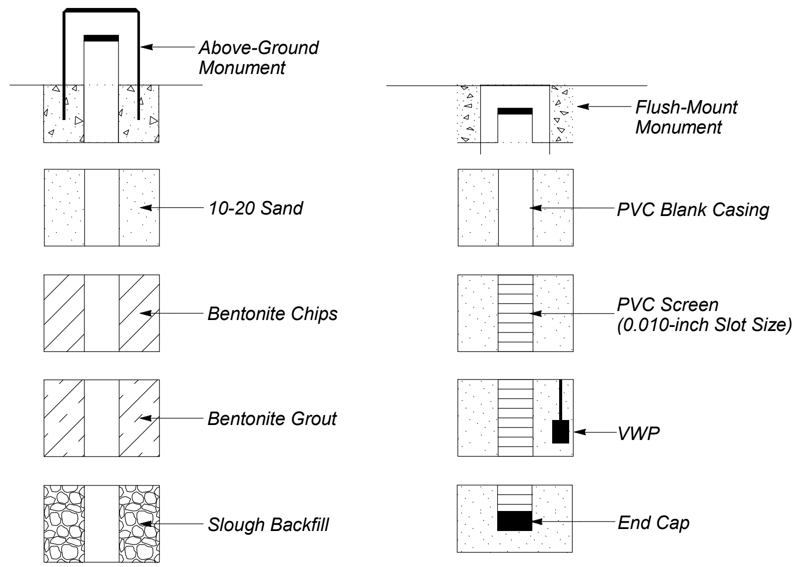
Groundwater

▽ Approximate water elevation at time of drilling (ATD).

▼ Approximate water elevation at other time(s). When multiple water levels are obtained other than ATD, only a representative range is shown. See text for additional information.

Note: Groundwater levels can fluctuate due to precipitation, seasonal conditions, and other factors.

Well Log Graphics



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West Olympia Commercial Property
Olympia, Washington

Soil Classification System and Key

Figure
A-1
(2 of 2)

GP-15

SAMPLE DATA | SOIL PROFILE | SOIL GAS/VAPOR

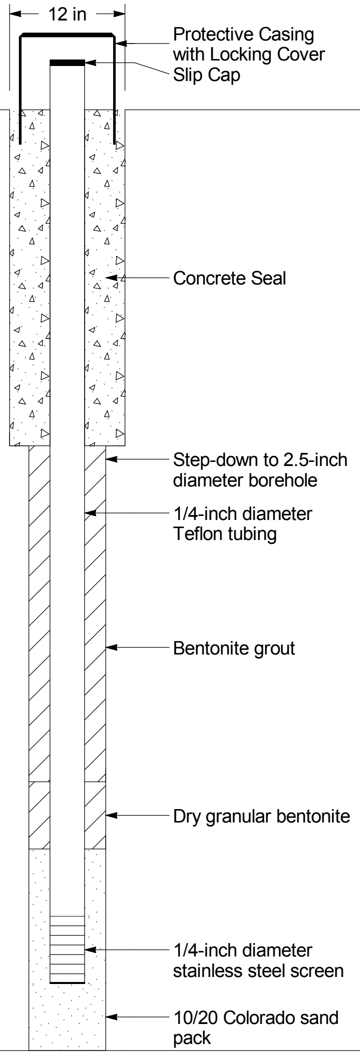
Drilling Method: Direct Push

Ground Elevation (ft): Not measured

Drilled By: ESN Northwest

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	
0						SP	Brown, gravelly, fine to coarse SAND with charred wood pieces; no odor, no sheen (loose, damp) **(LANDFILL WASTE)**
		d3					
2							
4							
		d3					
6							
8							
10							

Vapor Well/implant Detail
(ECY#: BJR599)



Boring Completed 02/01/18
Total Depth of Boring = 7.0 ft.

Vapor Well/Implant Completed 02/01/18
Total Depth of Vapor Well/Implant = 7.0 ft.

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

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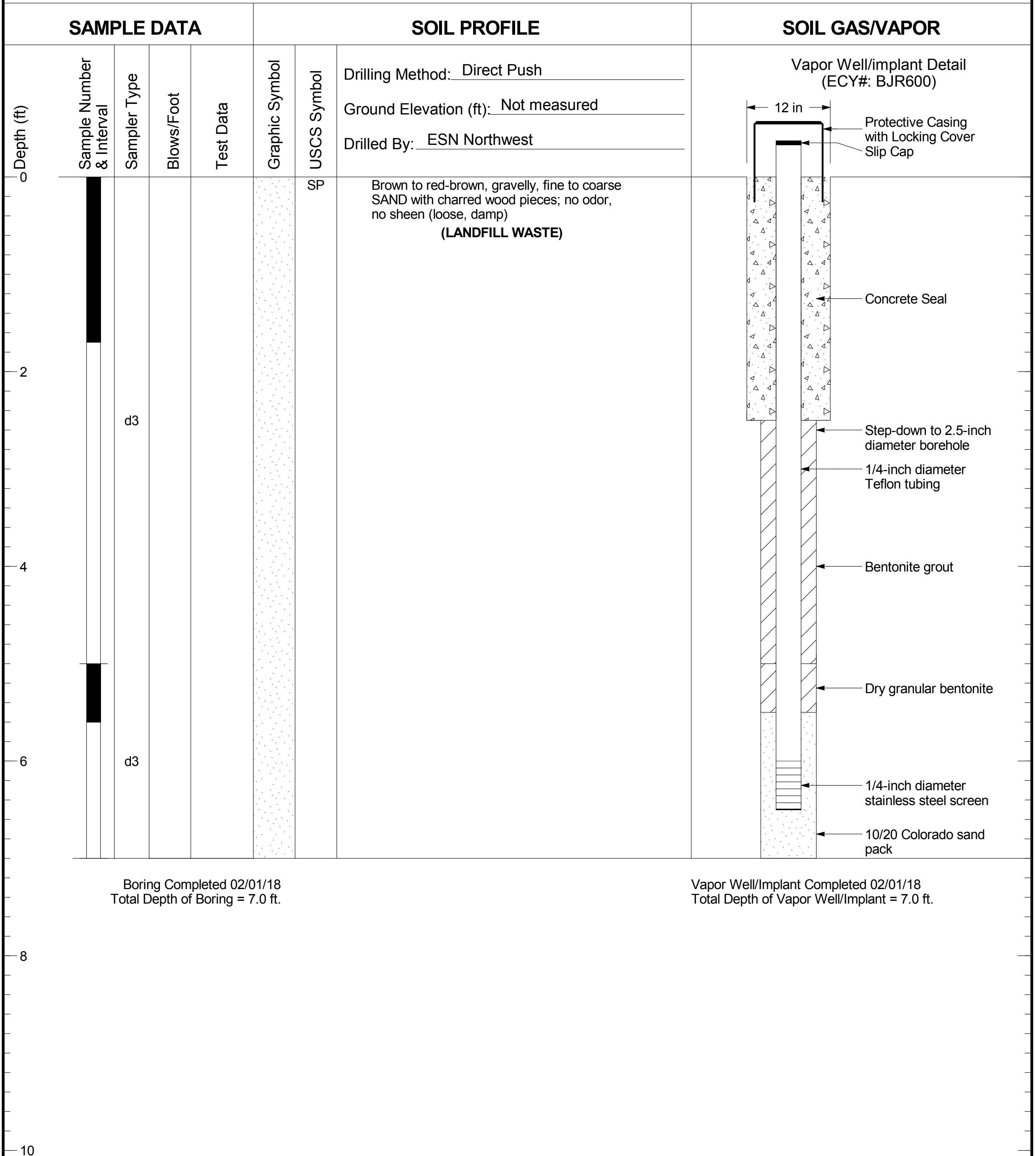
West Olympia Commercial Property
Olympia, Washington

Log of Vapor Well/Implant GP-15

Figure
A-2

GP-16



Drilling Method: Direct Push

Ground Elevation (ft): Not measured

Drilled By: ESN Northwest

Brown to red-brown, gravelly, fine to coarse SAND with charred wood pieces; no odor, no sheen (loose, damp)

(LANDFILL WASTE)

Boring Completed 02/01/18
Total Depth of Boring = 7.0 ft.

Vapor Well/Implant Completed 02/01/18
Total Depth of Vapor Well/Implant = 7.0 ft.

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

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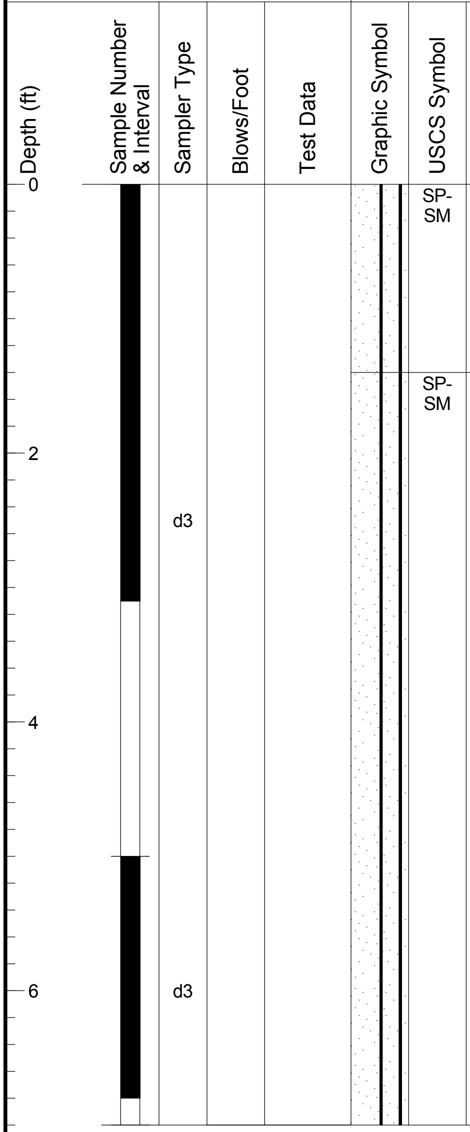
West Olympia Commercial Property
Olympia, Washington

Log of Vapor Well/Implant GP-16

Figure
A-3

GP-17

SAMPLE DATA | **SOIL PROFILE** | **SOIL GAS/VAPOR**



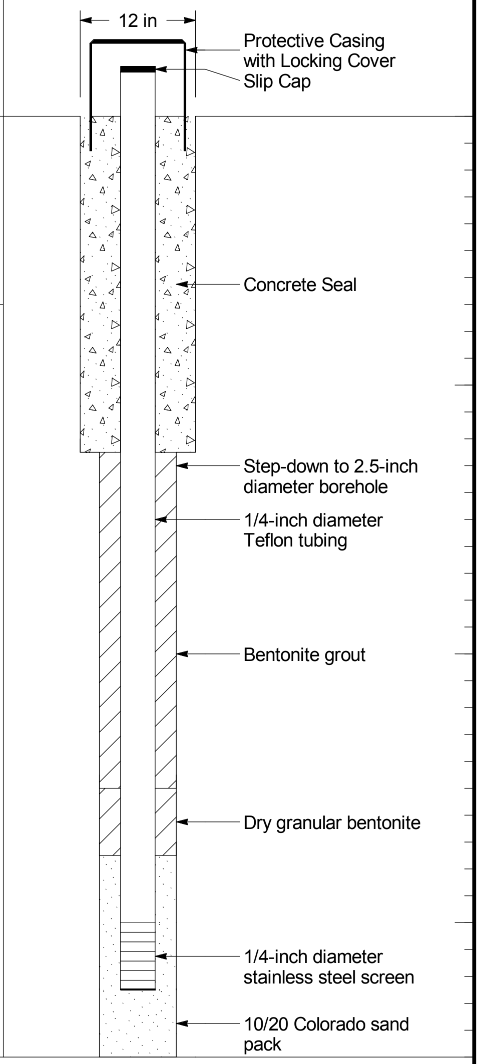
Drilling Method: Direct Push

Ground Elevation (ft): Not measured

Drilled By: ESN Northwest

USCS Symbol	Description
SP-SM	Brown, fine to coarse SAND with silt, gravel, and organics; no odor, no sheen (medium dense, damp) **(TOPSOIL)**
SP-SM	Brown, fine to coarse SAND with silt and gravel; no odor, no sheen (medium dense, damp to wet) **(RECESSIONAL OUTWASH)**

Vapor Well/implant Detail
(ECY#: BJR846)



Boring Completed 02/02/18
Total Depth of Boring = 7.0 ft.

Vapor Well/Implant Completed 02/02/18
Total Depth of Vapor Well/Implant = 7.0 ft.

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

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West Olympia Commercial
Property
Olympia, Washington

Log of Vapor Well/Implant GP-17

Figure
A-4

GP-18

SAMPLE DATA | SOIL PROFILE | SOIL GAS/VAPOR

Drilling Method: Direct Push

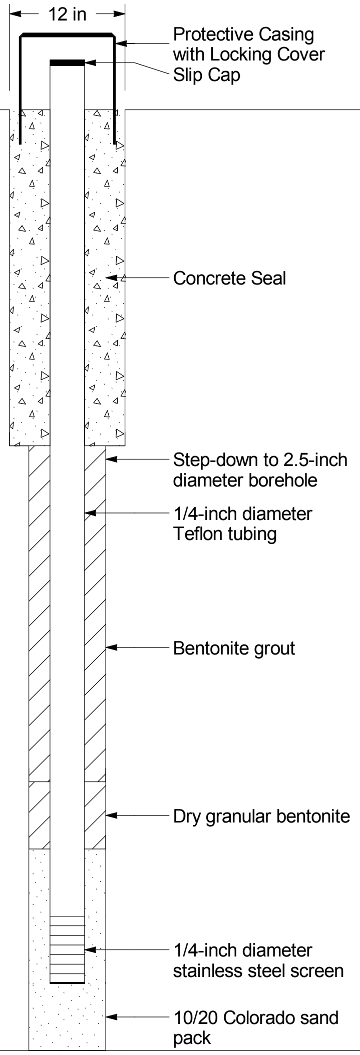
Ground Elevation (ft): Not measured

Drilled By: ESN Northwest

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	
0						SM	Gray to brown, silty, fine to coarse SAND with organics and trace gravel; no odor, no sheen (medium dense, damp) **(TOPSOIL)**
2 4 6		d3 d3				SP-SM	Gray, gravelly, fine to coarse SAND with silt; no odor, no sheen (medium dense, damp) **(RECESSIONAL OUTWASH)**
8 10							

Boring Completed 02/02/18
Total Depth of Boring = 7.0 ft.

Vapor Well/implant Detail
(ECY#: BJR847)



Vapor Well/Implant Completed 02/02/18
Total Depth of Vapor Well/Implant = 7.0 ft.

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

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West Olympia Commercial Property
Olympia, Washington

Log of Vapor Well/Implant GP-18

Figure
A-5

GP-19

SAMPLE DATA | SOIL PROFILE | SOIL GAS/VAPOR

Drilling Method: Direct Push

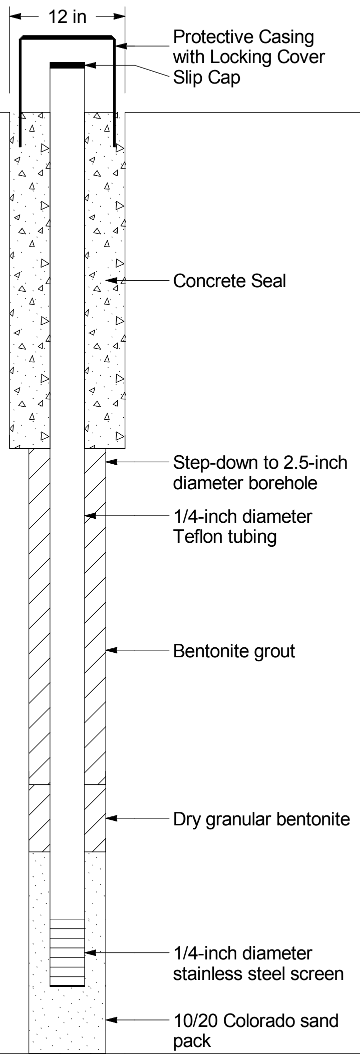
Ground Elevation (ft): Not measured

Drilled By: ESN Northwest

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Description
0		d3				GP	Dark brown, sandy, fine to coarse GRAVEL with trace silt; no odor, no sheen (loose, damp) **(LANDFILL WASTE)**
5		d3				SP-SM	Dark brown to red-brown, fine to coarse SAND with silt and gravel; no odor, no sheen (loose, damp)

Boring Completed 02/02/18
Total Depth of Boring = 7.0 ft.

Vapor Well/implant Detail
(ECY#: BJR597)



Vapor Well/Implant Completed 02/02/18
Total Depth of Vapor Well/Implant = 7.0 ft.

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

0258052.010.012 6/26/18 N:\PROJECTS\0258052.010_WOCP.GPJ VAPOR WELL/IMPLANT

LANDAU ASSOCIATES

West Olympia Commercial Property
Olympia, Washington

Log of Vapor Well/Implant GP-19

Figure
A-6

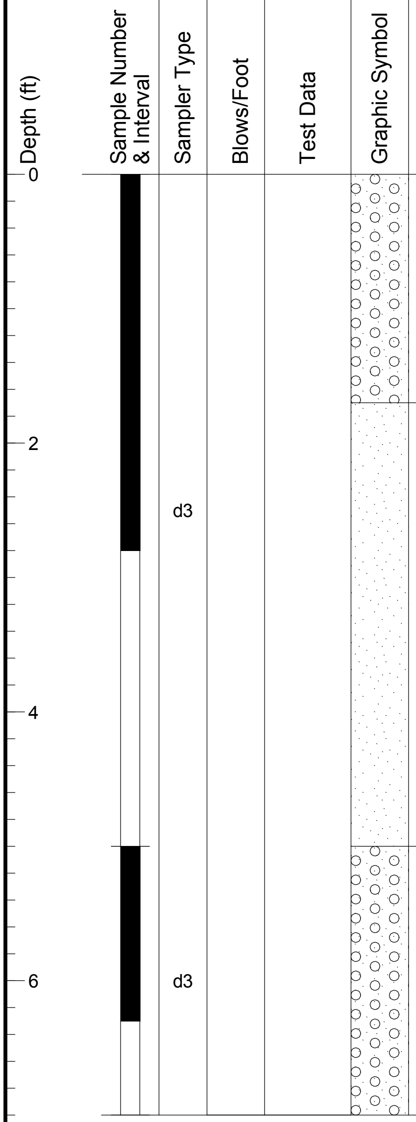
GP-20

SAMPLE DATA	SOIL PROFILE	SOIL GAS/VAPOR

Drilling Method: Direct Push

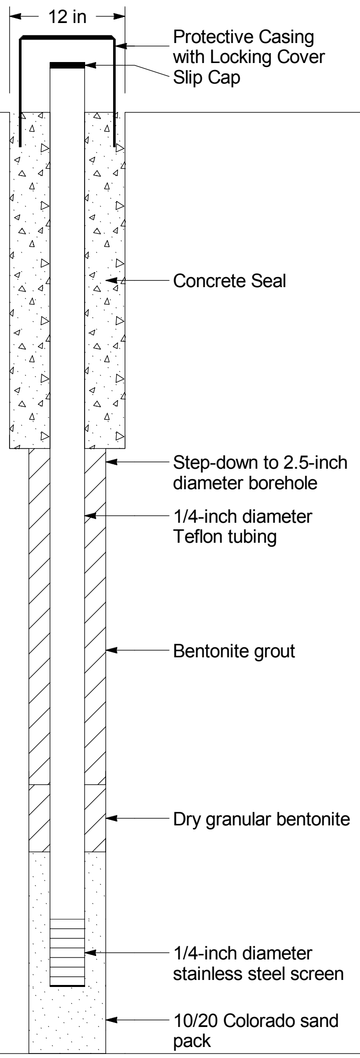
Ground Elevation (ft): Not measured

Drilled By: ESN Northwest



USCS Symbol	Description
GP	Dark brown to black, fine to coarse GRAVEL with sand and trace silt; no odor, no sheen (medium dense, wet) **(RECESSIONAL OUTWASH)** - grades to brown and damp
SP	Red-brown, fine to coarse SAND with gravel; no odor, no sheen (medium dense, damp)
GP	Brown, sandy, fine to coarse GRAVEL with trace silt; no odor, no sheen (dense, damp)

Vapor Well/implant Detail
(ECY#: BJR598)



Boring Completed 02/02/18
Total Depth of Boring = 7.0 ft.

Vapor Well/Implant Completed 02/02/18
Total Depth of Vapor Well/Implant = 7.0 ft.

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

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West Olympia Commercial Property
Olympia, Washington

Log of Vapor Well/Implant GP-20

Figure
A-7

GP-21

SAMPLE DATA | SOIL PROFILE | SOIL GAS/VAPOR

Drilling Method: Direct Push

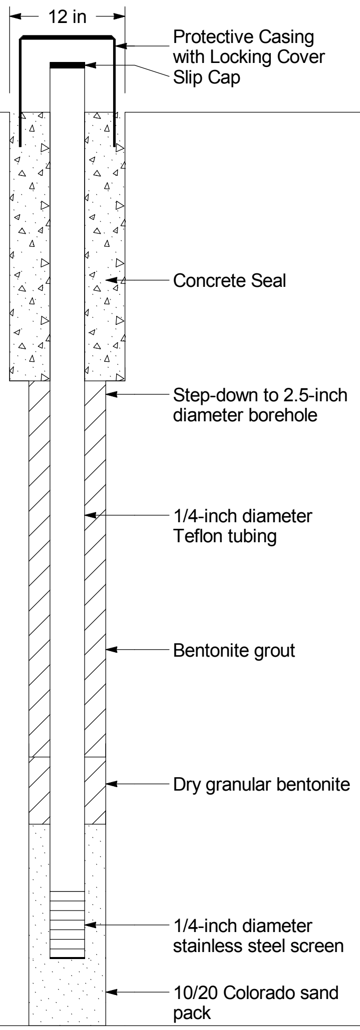
Ground Elevation (ft): Not measured

Drilled By: ESN Northwest

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	
0						SM	Red-brown, gravelly, silty, fine to coarse SAND with organics; no odor, no sheen (loose, moist) **(TOPSOIL)**
		d3				SP-SM	Red-brown, gravelly, fine to coarse SAND with silt; no odor, no sheen (medium dense, moist) **(RECESSIONAL OUTWASH)** - grades to gray and damp - grades to moist to wet
		d3				SP	Gray, gravelly, fine to coarse SAND; no odor, no sheen (dense, moist) **(GLACIAL TILL)**

Boring Completed 05/17/18
Total Depth of Boring = 6.8 ft.

Vapor Well/implant Detail
(ECY#: BJR655)



Vapor Well/Implant Completed 05/17/18
Total Depth of Vapor Well/Implant = 6.8 ft.

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

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West Olympia Commercial Property
Olympia, Washington

Log of Vapor Well/Implant GP-21

Figure A-8

GP-22

SAMPLE DATA

SOIL PROFILE

Drilling Method: Direct Push

Ground Elevation (ft): Not measured

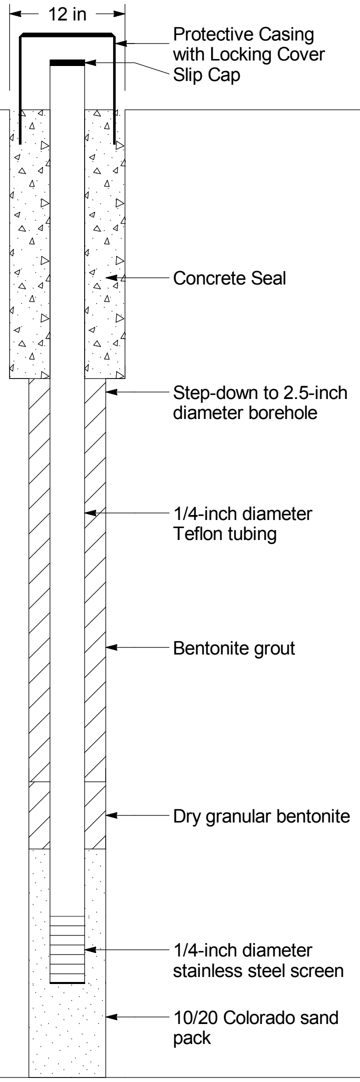
Drilled By: ESN Northwest

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Description
0						SP-SM	Brown, fine to coarse SAND with silt, gravel, and organics; no odor, no sheen (loose, moist) **(TOPSOIL)**
						SM	Gray-brown, silty, gravelly, fine to coarse SAND; no odor, no sheen (dense, moist) **(GLACIAL TILL)**
2		d3					
4							
							- grades to moist to wet for about 2 inches
6							- grades to very gravelly
		d3					
8							
10							

Boring Completed 05/17/18
Total Depth of Boring = 7.2 ft.

SOIL GAS/VAPOR

Vapor Well/implant Detail
(ECY#: BJR656)



Vapor Well/Implant Completed 05/17/18
Total Depth of Vapor Well/Implant = 7.2 ft.

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

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West Olympia Commercial Property
Olympia, Washington

Log of Vapor Well/Implant GP-22

Figure
A-9

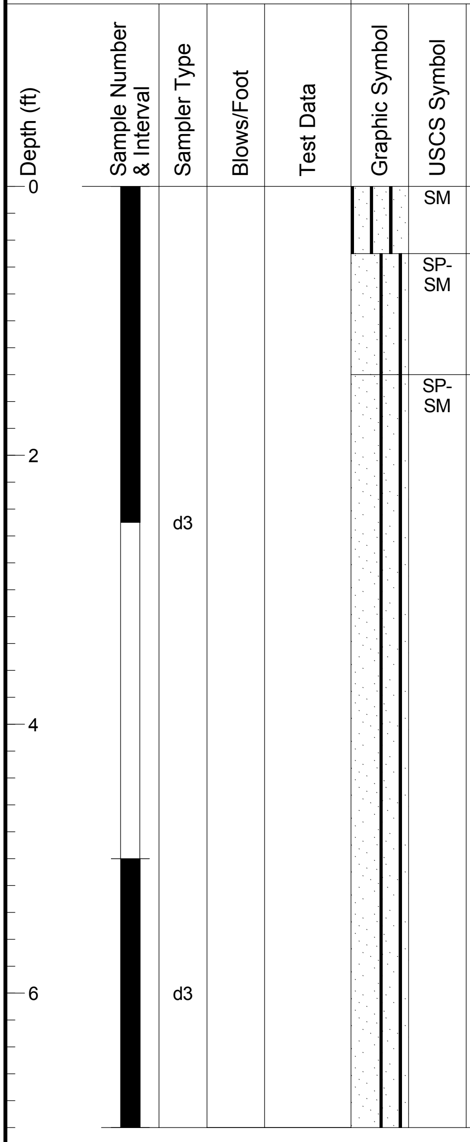
GP-23

SAMPLE DATA	SOIL PROFILE	SOIL GAS/VAPOR

Drilling Method: Direct Push

Ground Elevation (ft): Not measured

Drilled By: ESN Northwest



SM Brown, silty, fine to coarse SAND with gravel and organics; no odor, no sheen (loose, moist)

(TOPSOIL)

SP-SM Gray-brown, gravelly, fine to coarse SAND with silt; no odor, no sheen (medium dense, moist to wet)

(RECESSIONAL OUTWASH)

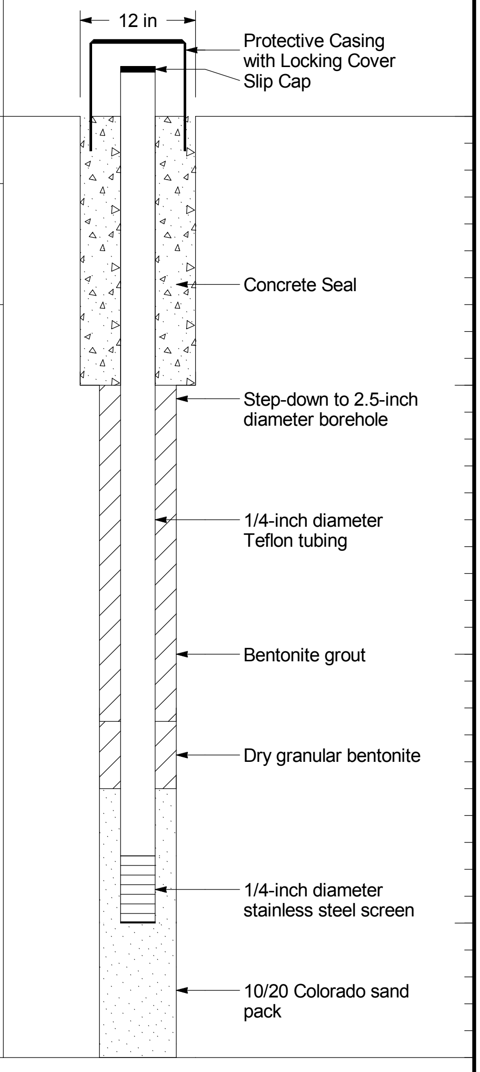
SP-SM Gray, gravelly, fine to coarse SAND with silt; no odor, no sheen (dense, moist)

(GLACIAL TILL)

- grades to very gravelly

- grades to moist to wet

Vapor Well/implant Detail
(ECY#: BJR657)



Boring Completed 05/17/18
Total Depth of Boring = 7.0 ft.

Vapor Well/Implant Completed 05/17/18
Total Depth of Vapor Well/Implant = 7.1 ft.

8

10

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

LANDAU ASSOCIATES

West Olympia Commercial Property
Olympia, Washington

Log of Vapor Well/Implant GP-23

Figure
A-10

GP-24

SAMPLE DATA | SOIL PROFILE | SOIL GAS/VAPOR

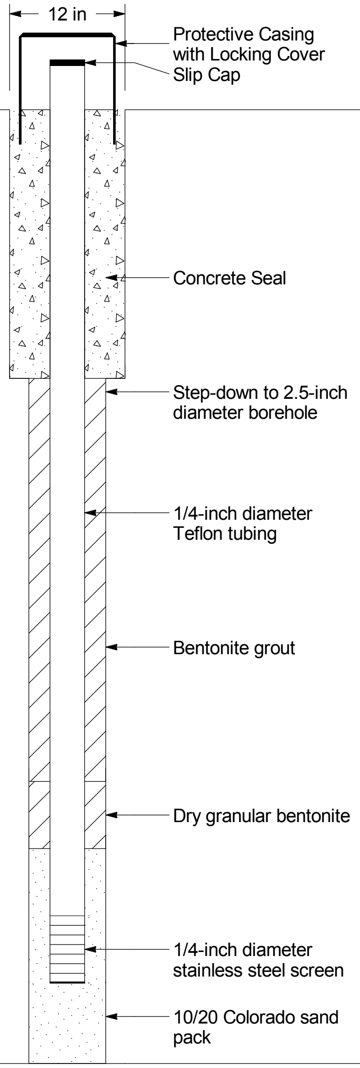
Drilling Method: Direct Push

Ground Elevation (ft): Not measured

Drilled By: ESN Northwest

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	
0						SM	Dark brown, silty, fine to coarse SAND with gravel and organics; no odor, no sheen (loose, moist) **(TOPSOIL)**
						SM	Gray-brown, silty, fine to coarse SAND with gravel; no odor, no sheen (medium dense, moist) **(RECESSIONAL OUTWASH)**
2		d3				SM	Gray, silty, gravelly, fine to coarse SAND; no odor, no sheen (dense, moist) **(GLACIAL TILL)**
6		d3					- fractured rocks in sampler

Vapor Well/implant Detail
(ECY#: BJR658)



Boring Completed 05/17/18
Total Depth of Boring = 7.1 ft.

Vapor Well/Implant Completed 05/17/18
Total Depth of Vapor Well/Implant = 7.0 ft.

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

LANDAU ASSOCIATES

West Olympia Commercial Property
Olympia, Washington

Log of Vapor Well/Implant GP-24

Figure
A-11

Ecology and Environment, Inc. Monitoring Wells, 2015
(OLY-1 and OLY-2)

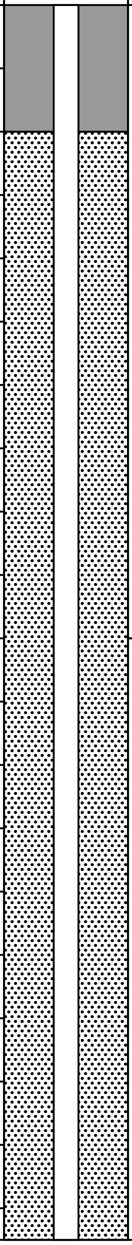
ecology and environment, inc.

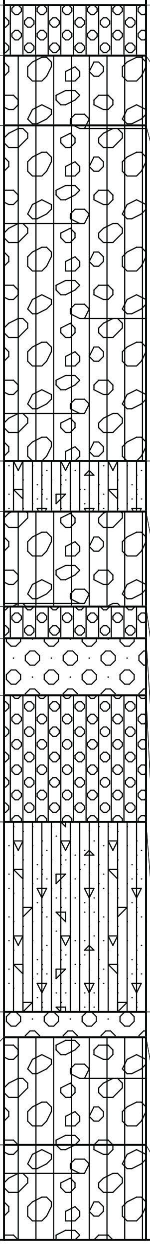
Monitoring Well: OLY-01

Project West Olympia Landfill
Company E&E
Log By J Fetters

Location Olympia, Washington
Project No. 1004530.0005.006.01
Date Drilled 3/17/2015
Drilling Company Holt
Total Hole Depth 90 ft
Diameter 2 in
Driller Brian
Method Sonic
Rig / Core Type TSi 150CC
Screen Dia 2 in
Length 20 ft
Screen Intrvl 70 ft - 90 ft

Surface Elev. 189.78 ft
TOC Elev. 189.78 ft
Latitude 47.039403
Longitude -122.946186
Filter Pack Material 10/20 CSS Sand
Filter Pack Interval 68 ft - 90 ft
Seal Material bentonite pellets
Seal Interval 2 ft - 68 ft
WL Initial 69.70 ft
WL Static 69.32 ft
Slot Size 0.02 in
Casing Dia 2 in
Length 20 ft
Type Sched. 40 PVC



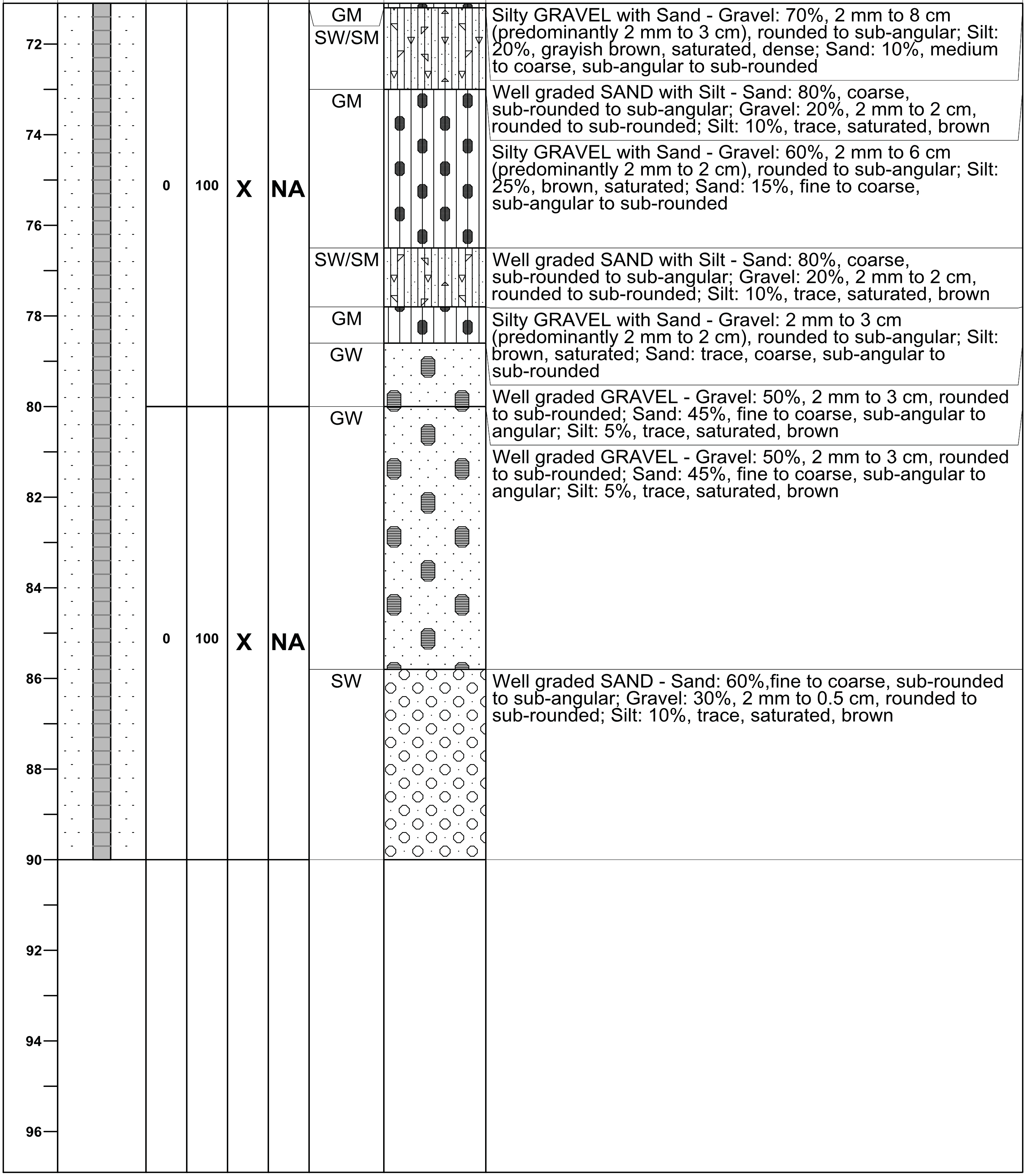


Depth (ft)	Well Completion	PID (ppm)	Rec %	Core Sample	Lab Sample	USCS Class.	Graphic Log	Description (Color, texture, structure)
0		0	100	X	NA	SM		Silty SAND with Gravel - Silt: brown, damp, high organics; Gravel: 2 mm to 0.5 cm, rounded; Sand: trace, angular
						GW/GM		Well graded GRAVEL with silt - Gravel: 2 mm to 3 cm, rounded to sub-rounded; Sand: medium to fine (predominantly fine), angular; Silt: grayish brown, moist, soft
2 4 6						GW/GM		Well graded GRAVEL with silt - Gravel: 50%, 2 mm to 5 cm, rounded to sub rounded, felsic; Sand: 40%, coarse to fine (predominantly coarse), angular; Silt: 10%, grayish brown, moist, increased gravel with depth to 60%
						SW/SM		Well graded SAND with Silt - Sand: fine, angular; Silt light grayish brown, soft; Gravel: trace (<10%), 2mm to 3cm, rounded to sub rounded
8						GW/GM		Well graded GRAVEL with silt - Gravel: 50%, 2 mm to 5 cm, rounded to sub-rounded, felsic; Sand: 40%, coarse to fine, (predominantly coarse), angular; Silt: 10%, grayish brown, moist, increased gravel with depth to 60%
						SM		Silty SAND - Sand: fine to medium (predominantly fine), angular; Silt: grayish brown to light yellowish brown; Gravel: trace
10		0	100	X	NA	SW		Well graded SAND with Gravel - Sand: 60%, medium to fine (predominantly fine), angular to sub-angular, moist; Gravel: 2 mm to 3 cm, rounded to sub-angular
12						SM		Silty SAND with Gravel - Sand: fine, angular; Gravel: 20%, 2 mm to 4 cm, rounded to sub-rounded; Silt: 40%, grayish brown, moist, trace clay, firm
14						SW/SM		Well graded SAND with Silt - Sand: 60%, fine, angular; Gravel: 20% 2 mm to 5 cm, rounded to sub-rounded; Silt: moist, brown, 20%
16						SW		Well graded SAND - Sand: 85%, medium, angular; Gravel: 15%, 2 mm to 0.5 cm
						GW/GM		Well graded GRAVEL with Silt - Gravel: 2mm to 4 cm, rounded to sub-rounded; Sand: fine to medium, angular; Silt: trace, 15%, moist, brownish gray
18						GW/GM		Well graded GRAVEL with Silt - Gravel: 2 mm to 3 cm, rounded to sub-rounded; Silt: moist, brownish gray; Sand: trace (<10%), fine to medium, angular

Depth (ft)	Well Completion	PID (ppm)	Rec %	Core Sample	Lab Sample	USCS Class.	Graphic Log	Description (Color, texture, structure)
20						GW/GM		Well graded GRAVEL with Silt - Gravel: 2 mm to 3 cm, rounded to sub-rounded; Silt: moist, brownish gray; Sand: trace (<10%), fine to medium, angular
22						SW		Well graded SAND - Sand: fine to medium, angular to sub-angular, loose; Silt: trace, < 15%, moist, brownish gray
24		0	100	X	NA	SW		Well graded SAND - Sand: medium with trace coarse, moist brownish gray, no silt; Gravel: trace, 2 mm to 0.5 cm, rounded to sub-rounded
26						GM		Silty GRAVEL with Sand - Gravel: 2 mm to 2cm, rounded to sub-rounded; Sand: fine, angular; Silt: grayish brown, moist, dense
						SP		Poorly graded SAND - Sand: fine, angular, trace silt
28						GM		Silty GRAVEL with Sand - Gravel: 2 mm to 2cm, rounded to sub-rounded; Sand: fine, angular; Silt: grayish brown, moist, dense
						SP		Poorly graded SAND - Sand: medium, angular, trace silt
						SW/SM		Well graded SAND with Silt - Sand: 60%, medium to fine, angular; Gravel: 2 mm to 3 cm, rounded to sub-angular; Silt: moist, grayish brown, dense
30						SW		Well graded SAND - Sand: medium to coarse, sub-rounded to sub-angular; Gravel: 20%, 2 mm to 4 cm (predominantly <0.5 cm), no silt
32						SW		Well graded SAND - Sand: medium to coarse, sub-rounded to sub-angular; Gravel: trace, 2 mm to 4 cm, rounded; Silt: moist, grayish brown
						SW		Well graded SAND - Sand: medium to coarse, sub-rounded to sub-angular; Gravel: 20%, 2 mm to 4 cm (predominantly <0.5 cm), no silt
34						SW		Well graded SAND - medium to coarse, angular to sub-angular; Silt: trace, brown, moist
		0	100	X	NA	SW		Well graded SAND - Sand: medium to coarse, sub-rounded to sub-angular; Gravel: trace, 2 mm to 4 cm, rounded; Silt: moist, grayish brown
36 38						GW/GM		Well graded GRAVEL with Silt - Gravel: 60%, 2 mm to 4 cm (predominately 2mm to 0.5 cm), rounded to sub-rounded; Sand: 20% fine to coarse (predominately coarse); Silt: 20%, moist, brown
40 42						GW/GM		Well graded GRAVEL with Silt - Gravel: 50%, 2 mm to 4 cm (predominately 2 mm to 1cm), rounded to sub-rounded; Sand: 25% fine to coarse (predominately coarse); Silt: 25%, moist, grayish brown
44		0	100	X	NA	SW		Well graded SAND - Sand: 80%, medium to coarse, sub-rounded to sub-angular; Silt: 15%, moist, grayish brown;, Gravel: 5%, rounded to sub-rounded, 2 mm to 1 cm
						GW/GM		Well graded GRAVEL with Silt - Gravel: 2 mm to 5 cm

Depth (ft)	Well Completion	PID (ppm)	Rec %	Core Sample	Lab Sample	USCS Class.	Graphic Log	Description (Color, texture, structure)
46 48						GW/GM		Well graded GRAVEL with Silt - Gravel: 2 mm to 5 cm (increased size with depth), rounded to sub-rounded; Sand: moist, medium to coarse; Silt: moist, grayish brown
50 52		0	100	X	NA	GW/GM		Well graded GRAVEL with Silt - Gravel: 75%, 2 mm to 2 cm, rounded to sub-rounded; Sand: 15%, coarse, sub-rounded to sub-angular; Silt: moist, grayish brown
54						GW/GM		Well graded GRAVEL with Silt - Gravel: 60%, 2 mm to 6 cm, rounded to sub-rounded; Sand: 20%, fine to coarse, sub-rounded to sub-angular; Silt: 20 %moist, grayish brown
56						GW/GM		Well graded GRAVEL with Silt - Gravel: 60%, 2 mm to 6 cm, rounded to sub-rounded; Sand: 25%, fine to coarse, sub-rounded to sub-angular; Silt: 15 %, moist, grayish brown
58						GM		Silty GRAVEL with Sand - Gravel: 70%, 2 mm to 4 cm, rounded to sub-angular; Silt: light grayish brown, dry, dense; Sand: trace, fine
60 62		0	100	X	NA	GM		Silty GRAVEL with Sand - Gravel: 70%, 2 mm to 8 cm (predominantly 2 mm to 3 cm), rounded to sub-angular; Silt: 20%, grayish brown, moist, dense; Sand: 10%, medium to coarse, sub-angular to sub-rounded
64						GM		Silty GRAVEL with Sand - Gravel: 65%, 2 mm to 8 cm (predominantly 2 mm to 3 cm), rounded to sub-angular; Silt: 20%, grayish brown, moist, dense; Sand: 15%, medium to coarse, sub-angular to sub-rounded
66 68						GM		Silty GRAVEL with Sand - Gravel: 70%, 2 mm to 8 cm (predominantly 2 mm to 3 cm), rounded to sub-angular; Silt: 20%, grayish brown, decreased moisture, dense; Sand: 10%, medium to coarse, sub-angular to sub-rounded
70						GM		Silty GRAVEL with Sand - Gravel: 70%, 2 mm to 8 cm (predominantly 2 mm to 3 cm), rounded to sub-angular; Silt:

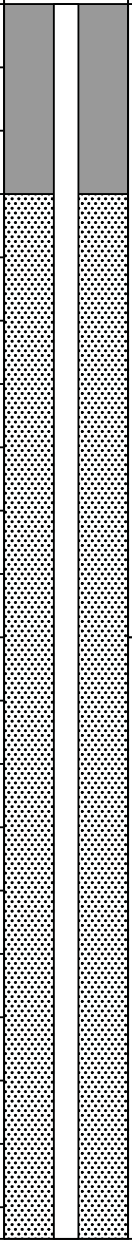
Monitoring Well: OLY-01

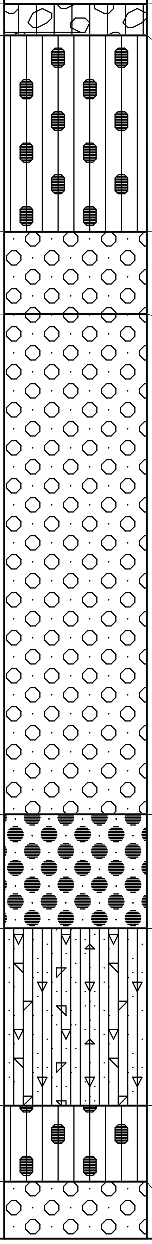


Depth (ft)	Well Completion	PID (ppm)	Rec %	Core Sample	Lab Sample	USCS Class.	Graphic Log	Description (Color, texture, structure)
		0	100	X	NA	GM SW/SM		Silty GRAVEL with Sand - Gravel: 70%, 2 mm to 8 cm (predominantly 2 mm to 3 cm), rounded to sub-angular; Silt: 20%, grayish brown, saturated, dense; Sand: 10%, medium to coarse, sub-angular to sub-rounded
						GM		Well graded SAND with Silt - Sand: 80%, coarse, sub-rounded to sub-angular; Gravel: 20%, 2 mm to 2 cm, rounded to sub-rounded; Silt: 10%, trace, saturated, brown Silty GRAVEL with Sand - Gravel: 60%, 2 mm to 6 cm (predominantly 2 mm to 2 cm), rounded to sub-angular; Silt: 25%, brown, saturated; Sand: 15%, fine to coarse, sub-angular to sub-rounded
						SW/SM		Well graded SAND with Silt - Sand: 80%, coarse, sub-rounded to sub-angular; Gravel: 20%, 2 mm to 2 cm, rounded to sub-rounded; Silt: 10%, trace, saturated, brown
						GM		Silty GRAVEL with Sand - Gravel: 2 mm to 3 cm (predominantly 2 mm to 2 cm), rounded to sub-angular; Silt: brown, saturated; Sand: trace, coarse, sub-angular to sub-rounded
						GW		Well graded GRAVEL - Gravel: 50%, 2 mm to 3 cm, rounded to sub-rounded; Sand: 45%, fine to coarse, sub-angular to angular; Silt: 5%, trace, saturated, brown
		0	100	X	NA	GW		Well graded GRAVEL - Gravel: 50%, 2 mm to 3 cm, rounded to sub-rounded; Sand: 45%, fine to coarse, sub-angular to angular; Silt: 5%, trace, saturated, brown
						SW		Well graded SAND - Sand: 60%,fine to coarse, sub-rounded to sub-angular; Gravel: 30%, 2 mm to 0.5 cm, rounded to sub-rounded; Silt: 10%, trace, saturated, brown

Monitoring Well: OLY-02

Project West Olympia Landfill
Company E&E
Log By J Fetters
Location Olympia, Washington
Project No. 1004530.0005.006.01
Date Drilled 3/18/2015
Screen Dia 2 in
Drilling Company Holt
Total Hole Depth 75 ft
Diameter 2 in
Length 20 ft
Driller Brian
Method Sonic
Rig / Core Type TSi 150CC
Screen Intrvl 55 ft - 75 ft
Surface Elev. 174.18 ft
Filter Pack Material 10/20 CSS Sand
WL Initial 54.87 ft
Slot Size 0.02 in
TOC Elev. 174.18 ft
Filter Pack Interval 53 ft - 75 ft
WL Static 53.98 ft
Casing Dia 2 in
Latitude 47.040044
Seal Material bentonite pellets
Length 20 ft
Longitude -122.944408
Seal Interval 3 ft - 53 ft
Type Sched. 40 PVC

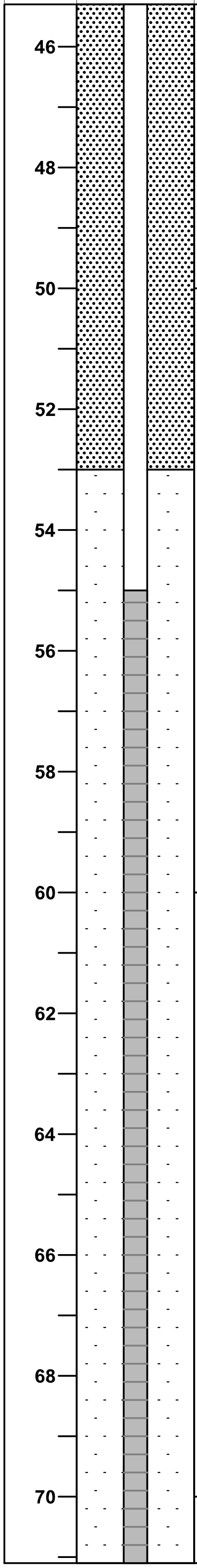




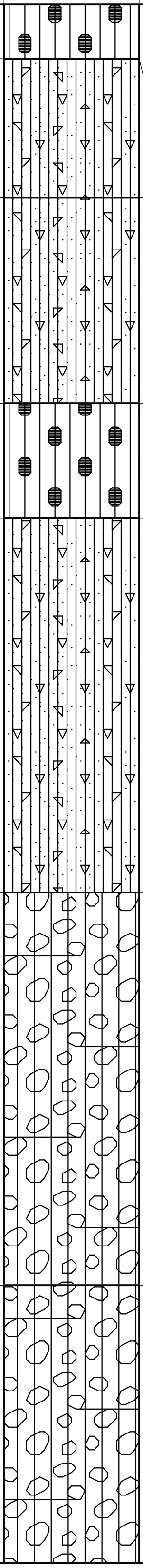
Depth (ft)	Well Completion	PID (ppm)	Rec %	Core Sample	Lab Sample	USCS Class.	Graphic Log	Description (Color, texture, structure)
0						GW/GM		Well graded GRAVEL with Silt - Gravel: road bed
2						GM		Silty GRAVEL - Gravel: 60%, 2 mm to 1cm, rounded to sub-angular; Sand: 20%, fine to coarse, angular to sub-angular; Silt: trace, brown, moist
4						SW		Well graded SAND - Sand: 70%, medium to fine, trace coarse angular to sub-angular; Gravel: 20%, 2 mm to 1 cm, rounded to sub-angular; Silt: 10%, brown, moist
6 8 10 12		0	100	X	NA	SW		Well graded SAND - Sand: 60%, medium to fine, trace coarse angular to sub-angular; Gravel: 20%, 2 mm to 1 cm, rounded to sub-angular; Silt: 20%, brown, moist
14						SP		Well graded SAND - Sand: fine, angular to sub-angular; Silt: trace, moist brown
16		0	100	X	NA	SW/SM		Well graded SAND with Silt - Sand: medium to coarse with trace fine, angular to sub-angular; Gravel: 2 mm to 4 cm (predominantly < 1 cm), rounded to sub-rounded; Silt: 15%, moist, brown
18						GM		Silty GRAVEL - Gravel: 70%, rounded to sub-rounded, 2 mm to 3 cm (predominantly <0.5 cm); Silt: 20%, brown, moist; Sand: trace, coarse, angular to sub-angular
						SW		Well graded SAND with Silt - Sand: medium to coarse with

Monitoring Well: OLY-02

Depth (ft)	Well Completion	PID (ppm)	Rec %	Core Sample	Lab Sample	USCS Class.	Graphic Log	Description (Color, texture, structure)
						SW		Well graded SAND with Silt - Sand: medium to coarse with trace fine, angular to sub-angular; Gravel: 2 mm to 8 cm (predominantly < 1 cm), rounded to sub-rounded; Silt: 15%, moist, brown, Approx. 1" lenses of burnt wood at 18.9' bgs
20		0	100	X	NA	SW/SM		Well graded SAND with Silt - Sand: 60%, medium to coarse, sub-angular to sub-rounded; Gravel: 30%, 2 mm to 5 cm (predominantly < 2 cm), rounded to sub-rounded; Silt: 10%, moist, grayish brown
						GM		Silty GRAVEL - Gravel: 60%, sub-rounded to sub-angular, 2 mm to 6 cm (predominantly < 2 cm); Silt: 20%, grayish brown, moist; Sand: 20%, medium to coarse, angular to sub-angular
30		0	100	X	NA	SW/SM		Well graded SAND with Silt - Sand: 50%, fine to coarse (predominantly coarse), sub-angular to angular; Gravel: 30%, 3 cm to 2 mm (predominantly < 1cm), rounded to sub-rounded; Silt: 20%, moist, light brown/tan
						GM		Silty GRAVEL - Gravel: 80%, rounded, 3 mm to 1.5 cm (predominantly < 0.5 cm); Silt: 20%, tan/light brown, moist
						SW/SM		Well graded SAND with Silt - Sand: 50%, fine to coarse (predominantly coarse), sub-angular to angular; Gravel: 30%, 2 mm to 3 cm (predominantly < 1cm), rounded to sub-rounded; Silt: 20%, moist, light brown/tan
						GM		Silty GRAVEL - Gravel: 75%, rounded, 2 mm to 2 cm (predominantly < 1cm); Silt: 25%, grayish brown, moist; Sand: trace medium, angular to sub-angular
40		0	100	X	NA			



PID (ppm)	Rec %	Core Sample	Lab Sample	USCS Class.	Description (Color, texture, structure)
				GM	Silty GRAVEL - Gravel: 75%, rounded, 2 mm to 2 cm (predominantly < 1cm); Silt: 25%, grayish brown, moist; Sand: trace medium, angular to sub-angular
				SW/SM	Well graded SAND with Silt - Sand: 50%, fine to coarse, sub-angular to angular; Gravel: 30%, 2 mm to 2 cm (predominantly < 1cm), rounded to sub-rounded; Silt: 20%, moist, brown
				SW/SM	Well graded SAND with Silt - Sand: 70%, fine to coarse, sub-angular to angular; Gravel: 25%, 2 mm to 2 cm (predominantly < 1cm), rounded to sub-rounded; Silt: trace, 5%, moist, brown
				GM	Silty GRAVEL - Gravel: 75%, rounded, 2 mm to 2 cm (predominantly < 1cm); Silt: 25%, grayish brown, moist; Sand: trace medium, angular to sub-angular
0	100	X	NA	SW/SM	Well graded SAND with Silt - Sand: 50%, fine to coarse, sub-angular to angular; Gravel: 30%, 2 mm to 2 cm (predominantly < 1cm), rounded to sub-rounded; Silt: 20%, moist, brown
0	100	X	NA	GW/GM	Well graded GRAVEL with Silt - Gravel: 90%, 2 mm to 3 cm, rounded to sub-rounded; Sand: 5%, fine to coarse, sub-angular to angular; Silt: 5%, saturated, light brown
				GW/GM	Well graded GRAVEL with Silt - Gravel: 80%, 2 mm to 3 cm, rounded to sub-rounded (increased rounding with depth); Sand: 10%, fine to coarse, sub-angular to angular; Silt: 10%, saturated, light brown



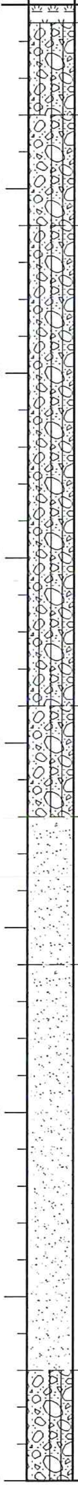
ecology and environment, inc.

Monitoring Well: OLY-02

Depth (ft)	Well Completion	PID (ppm)	Rec %	Core Sample	Lab Sample	USCS Class.	Graphic Log	Description (Color, texture, structure)
72						GW/GM		Well graded GRAVEL with Silt - Gravel: 80%, 2 mm to 3 cm, rounded to sub-rounded (increased rounding with depth); Sand: 10%, fine to coarse, sub-angular to angular; Silt: 10%, saturated, light brown
74 76 78 80		0	100	X	NA	SW		Well graded SAND - Sand: 50%, medium to fine, trace coarse, angular to sub-angular; Gravel: 40%, 2 mm to 1 cm, rounded to sub-angular; Silt: 10%, brown, moist
82 84 86 88 90 92 94 96								

GeoDesign Well Log Well Log, 2013
(MW-23)

DEPTH FEET	MATERIAL DESCRIPTION	ELEVATION DEPTH	TESTING	SAMPLE	▲ BLOW COUNT ● MOISTURE CONTENT % ▥ RQD% ▨ CORE REC% 0 50 100	INSTALLATION AND COMMENTS
0	BARK DUST.					(Based on visual observation of disturbed rotary cuttings.)
	Brown-gray, silty GRAVEL with sand (GM); moist - **FILL.**	0.5				
	Light brown-gray GRAVEL with sand and silt (GW-GM); dry, fine to coarse.	3.0				
5				☒		
	Gray-brown, silty GRAVEL with sand (GM); dry, fine to medium.	6.0				
10				☒		
15	becomes brown, with cobbles; fine to coarse at 15.0 feet			☒		
	Brown-gray GRAVEL with cobbles, silt, and sand (GW-GM); dry, fine to coarse.	19.0				Possible boulders at 19.0 feet.
20				☒		
	Brown-gray SAND (SP), minor gravel, trace silt; dry, fine.	22.0				Possible transition from till to outwash at 23.0 feet.
25				☒		
	Brown-gray SAND with gravel (SW), trace silt; dry, fine to coarse.	26.0				
30				☒		
35				☒		
	Brown-gray GRAVEL with silt (GP-GM), some sand; dry, fine to medium.	37.0				
40				☒	0 50 100	



DRILLED BY: Tacoma Drilling & Pump

LOGGED BY: EAH

COMPLETED: 12/01/12

BORING METHOD: air rotary (see report text)

BORING BIT DIAMETER: 10-inch/6-inch

GEODESIGN INC

15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

OLYORTHO-1-06

JANUARY 2013

BORING MW-1 (MW-23)

OLYMPIA ORTHOPAEDICS MEDICAL BUILDING
OLYMPIA, WA

FIGURE B-1

BORING LOG OLYORTHO-1-06-MW1.GPJ GEODESIGN.GDT PRINT DATE: 1/8/13:AMD:KT

DEPTH FEET	MATERIAL DESCRIPTION	ELEVATION DEPTH	TESTING	SAMPLE	▲ BLOW COUNT ● MOISTURE CONTENT % ▥ RQD% ▨ CORE REC% 0 50 100	INSTALLATION AND COMMENTS
40	(continued from previous page)			☒		
45				☒		
50				☒		
	Brown SAND with gravel (SW), trace silt; dry, fine to coarse.	53.0				
55				☒		
	Brown-gray GRAVEL with cobbles and sand (GW), trace silt; dry, fine to coarse.	57.0				
60				☒		
65				☒		
	Brown-gray GRAVEL with sand (GP), trace silt; dry, fine to medium.	67.0				
70				☒		
75	becomes moist at 74.5 feet			☒		▽ 75.0 feet, after drilling
	Brown-gray SAND with gravel (SW), trace	79.0				
80				☒	0 50 100	

DRILLED BY: Tacoma Drilling & Pump LOGGED BY: EAH COMPLETED: 12/01/12

BORING METHOD: air rotary (see report text) BORING BIT DIAMETER: 10-inch/6-inch

GEODESIGN INC

15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

OLYORTHO-1-06

JANUARY 2013

BORING MW-1 (MW-23)
(continued)

OLYMPIA ORTHOPAEDICS MEDICAL BUILDING
OLYMPIA, WA

FIGURE B-1

DEPTH FEET	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION DEPTH	TESTING	SAMPLE	▲ BLOW COUNT ● MOISTURE CONTENT % ▥ RQD% ▨ CORE REC% 0 50 100	INSTALLATION AND COMMENTS
80		silt; moist, fine to coarse.			☒		
85					☒		
		Brown, silty SAND (SM), minor gravel; wet, fine to medium.	88.0				
90					☒		Driller comment: wet conditions encountered at 89.0 feet.
		Light brown GRAVEL with sand (GP), trace silt; wet, fine to medium.	92.0				
95					☒		
100		becomes brown, minor sand, without silt at 100.0 feet becomes light brown, trace silt at 101.0 feet			☒		
105		becomes gray-brown, without silt at 105.0 feet			☒		
		Blue-gray CLAY (CL), some silt; dry.	108.0				
110					☒		
		Exploration completed at a depth of 111.0 feet.	111.0				Monitoring well installed. Surface elevation was not measured at the time of exploration.
115							
120						0 50 100	

DRILLED BY: Tacoma Drilling & Pump LOGGED BY: EAH COMPLETED: 12/01/12

BORING METHOD: air rotary (see report text) BORING BIT DIAMETER: 10-inch/6-inch

GEODESIGN INC

15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

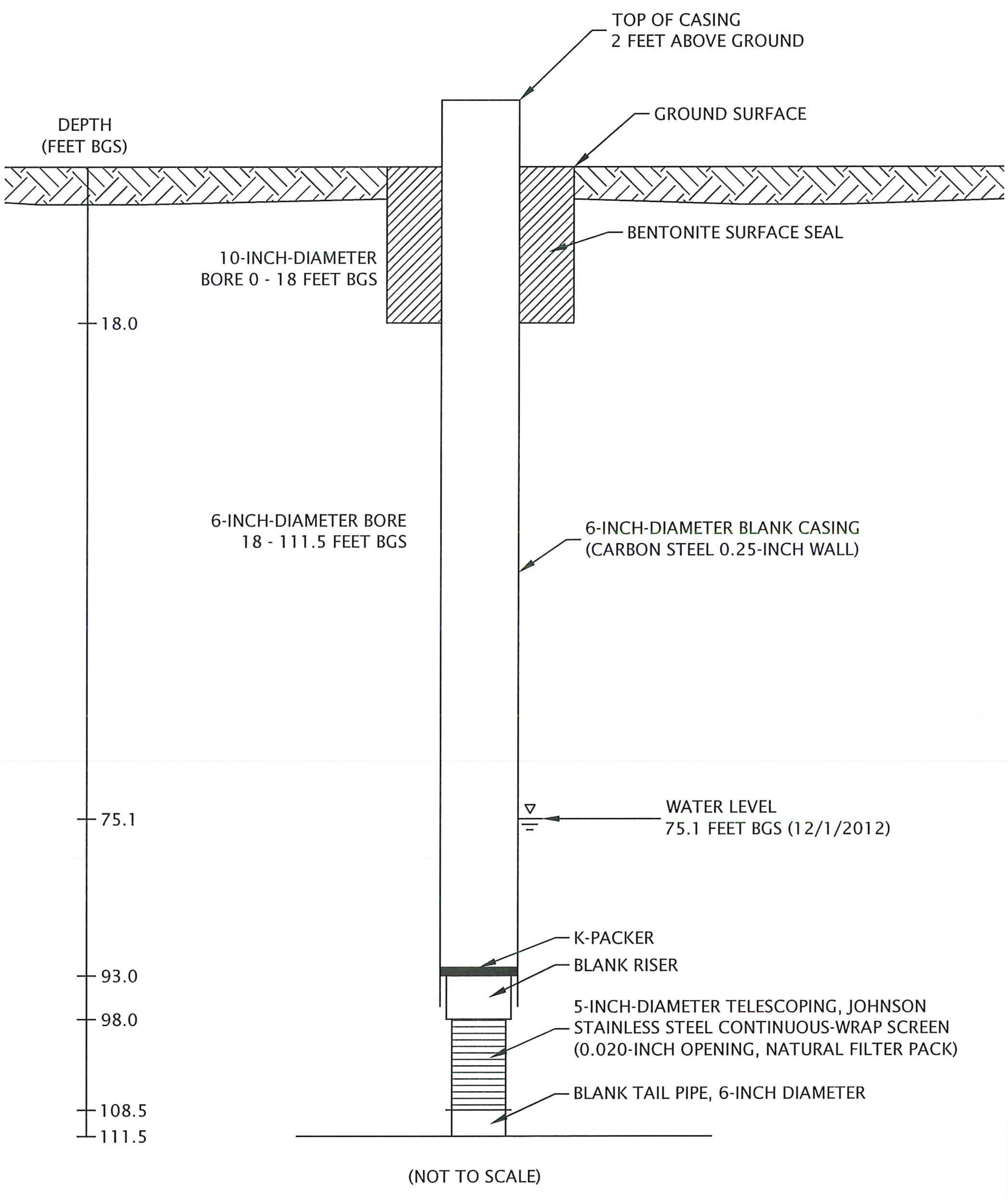
OLYORTHO-1-06

JANUARY 2013

BORING MW-1 **(MW-23)**
(continued)

OLYMPIA ORTHOPAEDICS MEDICAL BUILDING
OLYMPIA, WA

FIGURE B-1



(NOT TO SCALE)

NOTE:

BGS = BELOW GROUND SURFACE

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File Name: J:\M-R\OlyOrtho\OlyOrtho-1\OlyOrtho-1-06\Figures\CAD\OlyOrtho-1-06-det01.dwg | Layout: FIGURE B-2

GEODESIGN INC
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Off 503.968.8787 Fax 503.968.3068

OLYORTHO-1-06

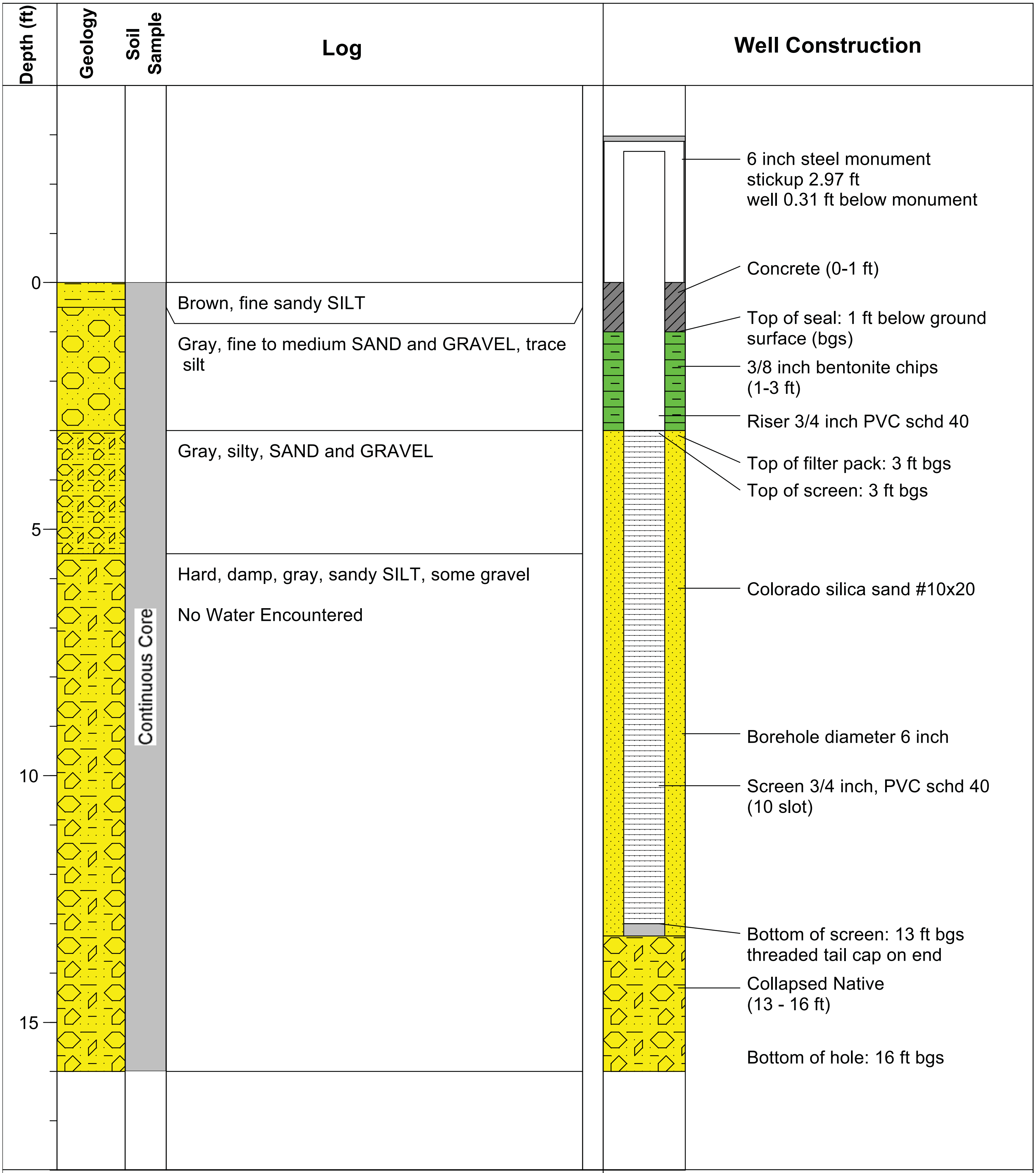
JANUARY 2013

MONITORING WELL SCHEMATIC (MW-23)

OLYMPIA ORTHOPAEDICS MEDICAL BUILDING
OLYMPIA, WA

FIGURE B-2

PGG Gas Probes and Monitoring Wells, 2006
(GP-1 through GP- 5 and PGG-1 through PGG-2)



Brown, fine sandy SILT

Gray, fine to medium SAND and GRAVEL, trace silt

Gray, silty, SAND and GRAVEL

Hard, damp, gray, sandy SILT, some gravel

No Water Encountered

6 inch steel monument
stickup 2.97 ft
well 0.31 ft below monument

Concrete (0-1 ft)

Top of seal: 1 ft below ground surface (bgs)

3/8 inch bentonite chips (1-3 ft)

Riser 3/4 inch PVC schd 40

Top of filter pack: 3 ft bgs

Top of screen: 3 ft bgs

Colorado silica sand #10x20

Borehole diameter 6 inch

Screen 3/4 inch, PVC schd 40 (10 slot)

Bottom of screen: 13 ft bgs
threaded tail cap on end

Collapsed Native (13 - 16 ft)

Bottom of hole: 16 ft bgs

Project Name: West Olympia Landfill
Drilling Method: Sonic
Driller: Dave Donaly
Firm: Prosonic Corporation
Consulting Firm: PGG
Logged by: Dawn Chapel
Location: West Olympia Landfill

Well Name: GP-1
UWID: APN850
Top of Casing: 175.13
Datum: NGVD29
Installed: 6/19/06

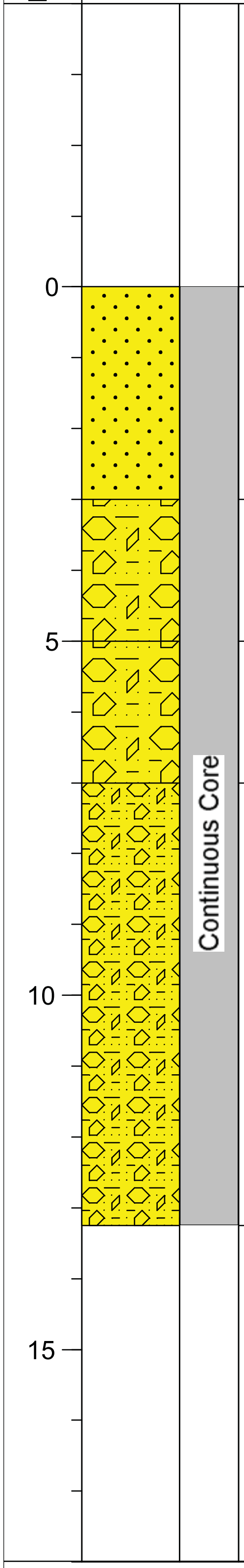
GEOLOGIC LOG AND AS-BUILT FOR GAS PROBE GP-1

West Olympia Landfill
JS0608, GP-1.ldf, 11/2006

PGG

Depth (ft) **Geology** **Soil Sample**

Log



Brown, fine SAND, trace silt

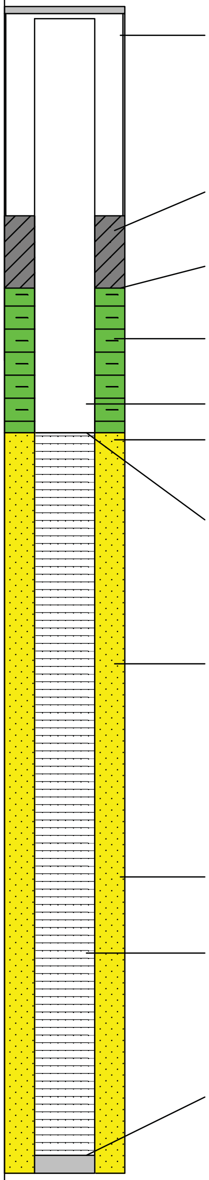
Damp, brown-orange, sandy SILT, some clay and gravel (weathered till)

Damp, brown, sandy SILT, some gravel

Hard, damp, brown, very silty SAND and GRAVEL

No Water Encountered

Well Construction



6 inch steel monument
stickup 2.9 ft
well 0.17 ft below monument

Concrete (0-1 ft)

Top of seal: 1 ft below ground surface (bgs)

3/8 inch bentonite chips (1-3 ft)

Riser 3/4 inch PVC schd 40

Top of filter pack: 3 ft bgs

Top of screen: 3 ft bgs

Colorado silica sand #10x20

Borehole diameter 6 inch

Screen 3/4 inch, PVC schd 40 (10 slot)

Bottom of screen: 13 ft bgs
threaded tail cap on end

Bottom of hole: 13 ft bgs

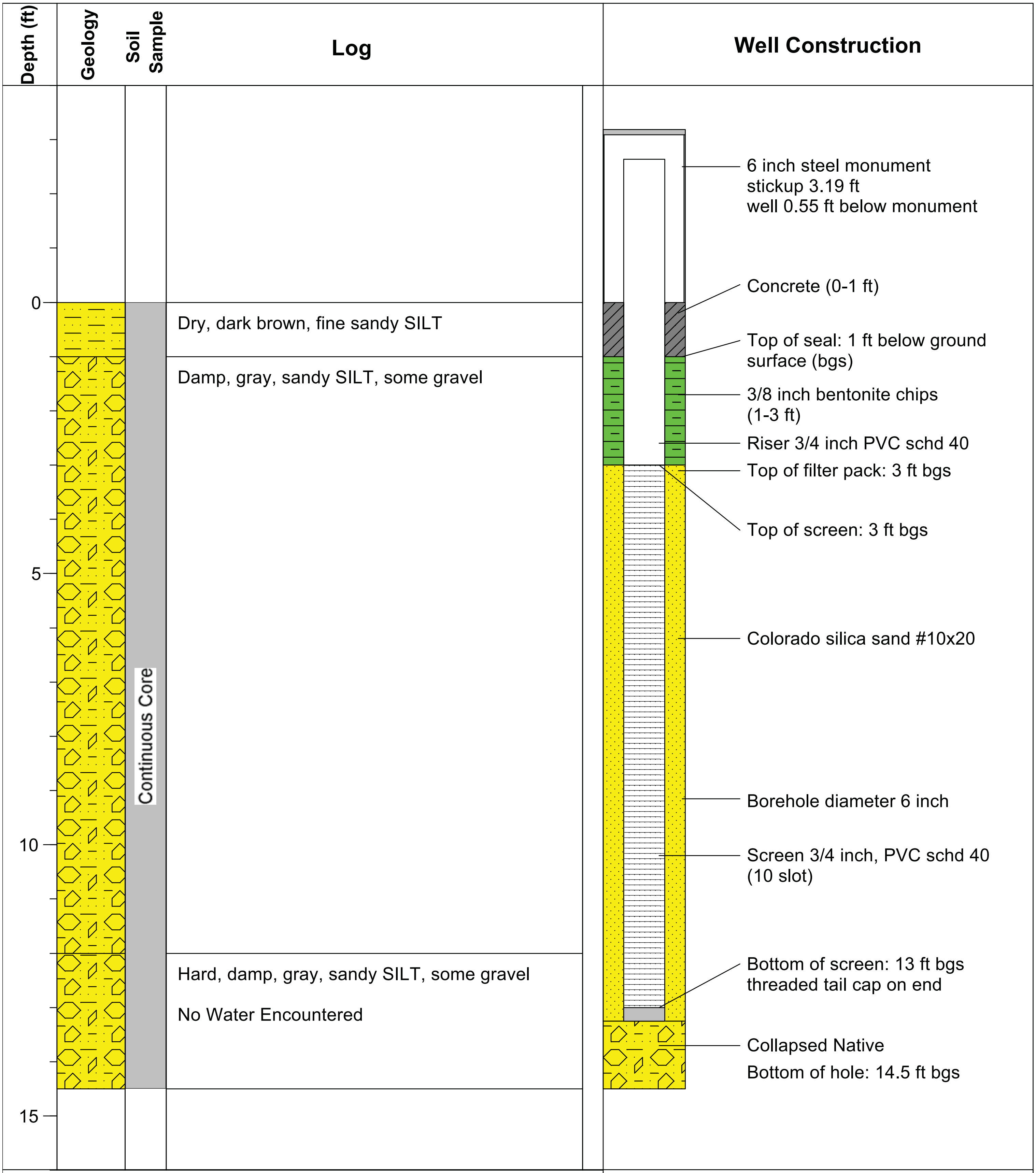
Project Name: West Olympia Landfill
Drilling Method: Sonic
Driller: Dave Donaly
Firm: Prosonic Corporation
Consulting Firm: PGG
Logged by: Dawn Chapel
Location: West Olympia Landfill

Well Name: GP-2
UWID: ALJ755
Top of Casing: 169.54
Datum: NGVD29
Installed: 6/21/06

GEOLOGIC LOG AND AS-BUILT FOR GAS PROBE GP-2

West Olympia Landfill
JS0608, GP-2.ldf, 11/2006

PgG



Dry, dark brown, fine sandy SILT

Damp, gray, sandy SILT, some gravel

Hard, damp, gray, sandy SILT, some gravel

No Water Encountered

6 inch steel monument
stickup 3.19 ft
well 0.55 ft below monument

Concrete (0-1 ft)

Top of seal: 1 ft below ground surface (bgs)

3/8 inch bentonite chips (1-3 ft)

Riser 3/4 inch PVC schd 40

Top of filter pack: 3 ft bgs

Top of screen: 3 ft bgs

Colorado silica sand #10x20

Borehole diameter 6 inch

Screen 3/4 inch, PVC schd 40 (10 slot)

Bottom of screen: 13 ft bgs
threaded tail cap on end

Collapsed Native

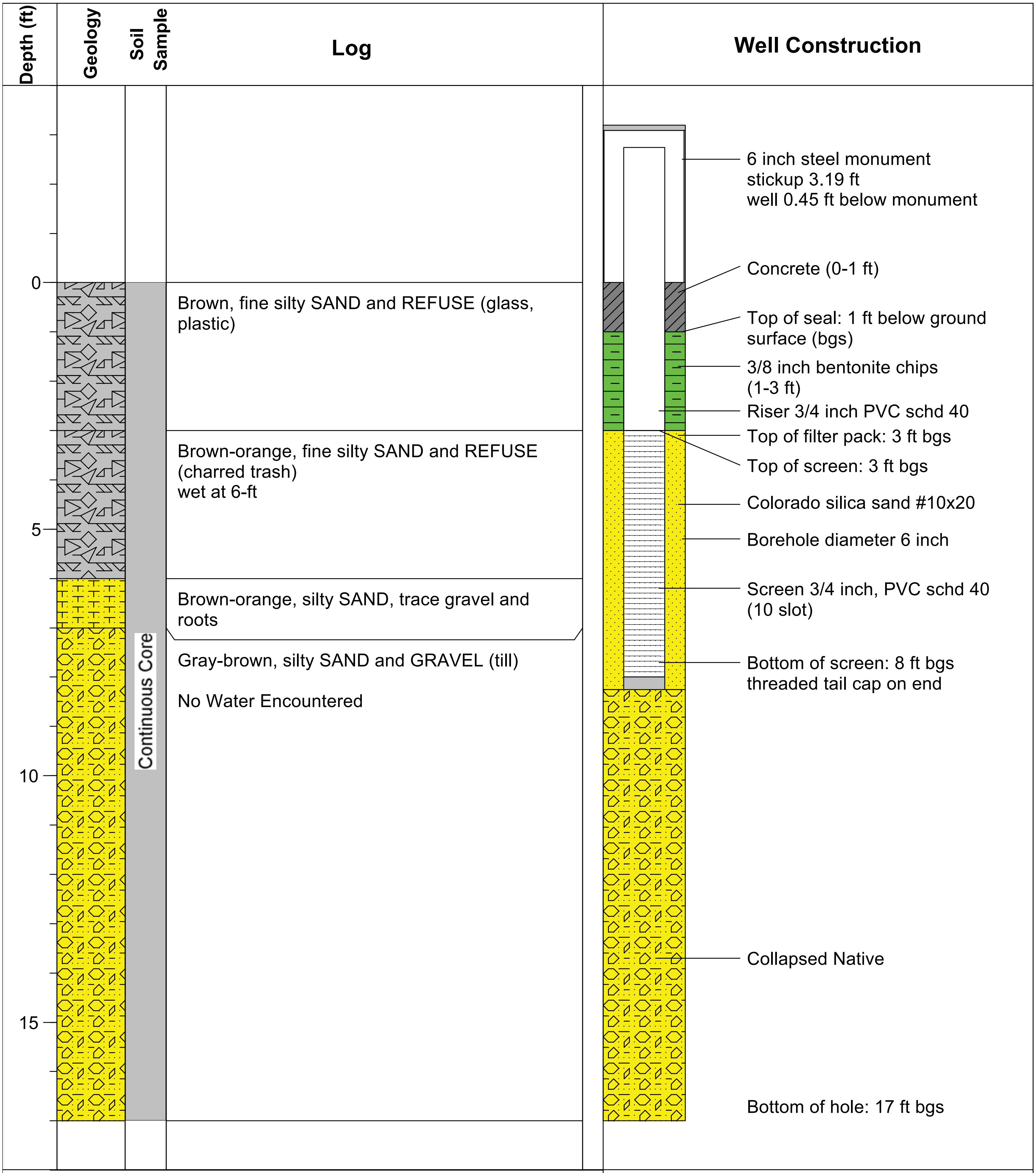
Bottom of hole: 14.5 ft bgs

Project Name: West Olympia Landfill
Drilling Method: Sonic
Driller: Dave Donaly
Firm: Prosonic Corporation
Consulting Firm: PGG
Logged by: Dawn Chapel
Location: West Olympia Landfill

Well Name: GP-3
UWID: APN794
Top of Casing: 179.65
Datum: NGVD29
Installed: 6/19/06

GEOLOGIC LOG AND AS-BUILT FOR GAS PROBE GP-3

West Olympia Landfill
JS0608, GP-3.ldf, 11/2006



Brown, fine silty SAND and REFUSE (glass, plastic)

Brown-orange, fine silty SAND and REFUSE (charred trash)
wet at 6-ft

Brown-orange, silty SAND, trace gravel and roots

Gray-brown, silty SAND and GRAVEL (till)

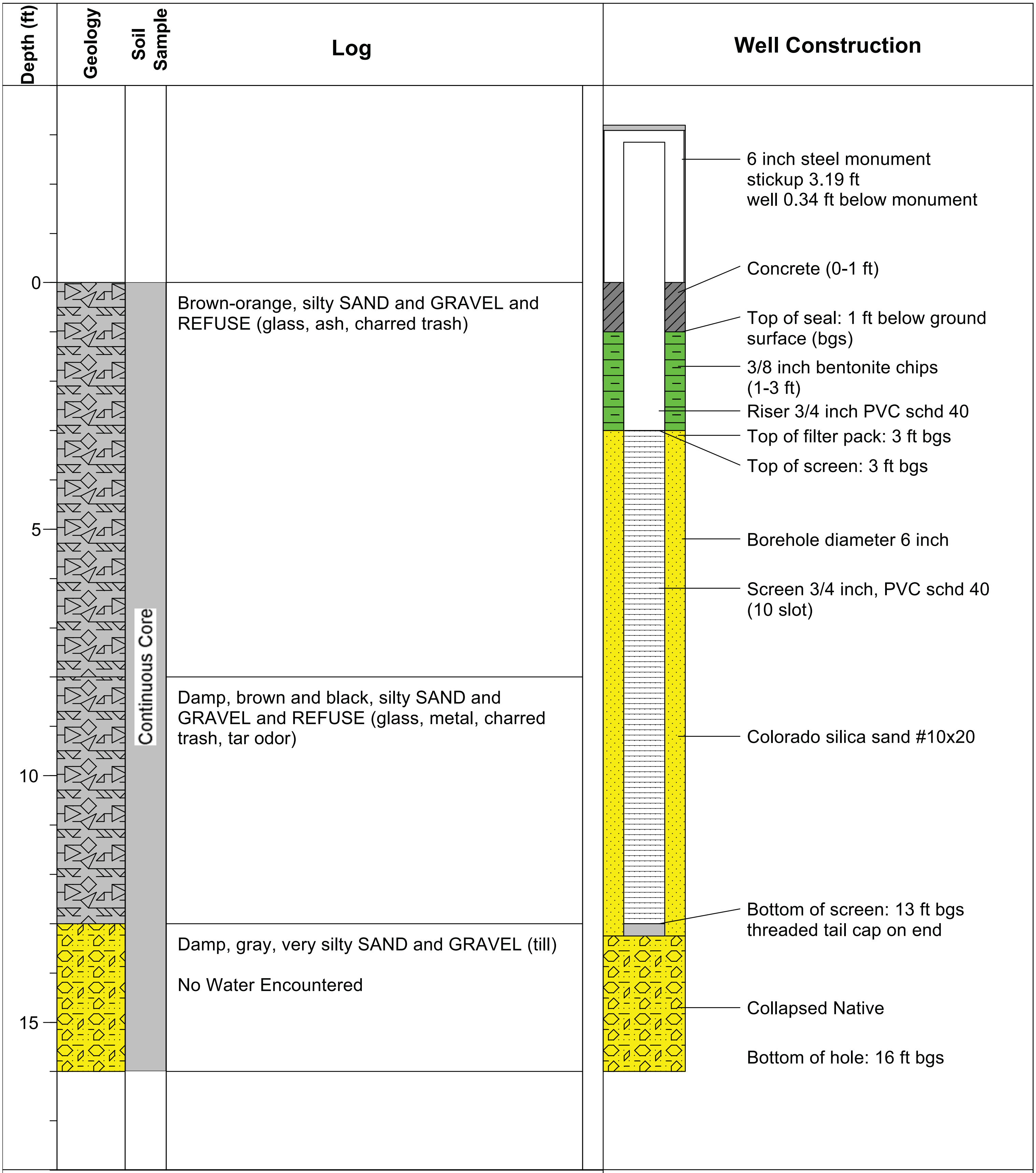
No Water Encountered

Project Name: West Olympia Landfill
Drilling Method: Sonic
Driller: Dave Donaly
Firm: Prosonic Corporation
Consulting Firm: PGG
Logged by: Dawn Chapel
Location: West Olympia Landfill

Well Name: GP-4
UWID: APN849
Top of Casing: 180.06
Datum: NGVD29
Installed: 6/20/06

GEOLOGIC LOG AND AS-BUILT FOR GAS PROBE GP-4

West Olympia Landfill
JS0608, GP-4.ldf, 11/2006



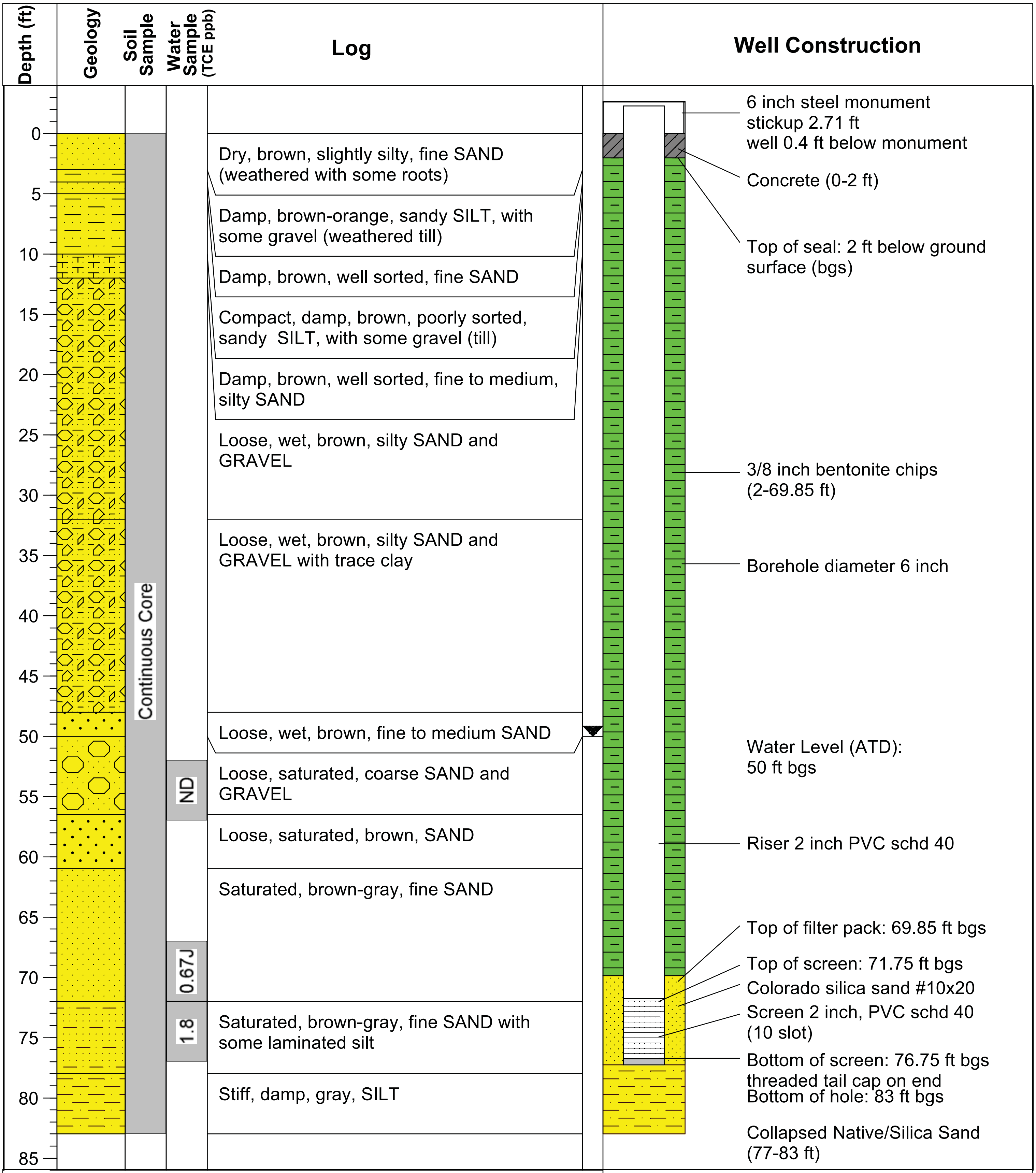
Project Name: West Olympia Landfill
Drilling Method: Sonic
Driller: Dave Donaly
Firm: Prosonic Corporation
Consulting Firm: PGG
Logged by: Dawn Chapel
Location: West Olympia Landfill

Well Name: GP-5
UWID: APN848
Top of Casing: 169.43
Datum: NGVD29
Installed: 6/20/06

GEOLOGIC LOG AND AS-BUILT
FOR GAS PROBE GP-5

West Olympia Landfill
JS0608, GP-5.ldf, 11/2006

PGG



Log

Dry, brown, slightly silty, fine SAND (weathered with some roots)

Damp, brown-orange, sandy SILT, with some gravel (weathered till)

Damp, brown, well sorted, fine SAND

Compact, damp, brown, poorly sorted, sandy SILT, with some gravel (till)

Damp, brown, well sorted, fine to medium, silty SAND

Loose, wet, brown, silty SAND and GRAVEL

Loose, wet, brown, silty SAND and GRAVEL with trace clay

Loose, wet, brown, fine to medium SAND

Loose, saturated, coarse SAND and GRAVEL

Loose, saturated, brown, SAND

Saturated, brown-gray, fine SAND

Saturated, brown-gray, fine SAND with some laminated silt

Stiff, damp, gray, SILT

Well Construction

6 inch steel monument
stickup 2.71 ft
well 0.4 ft below monument

Concrete (0-2 ft)

Top of seal: 2 ft below ground surface (bgs)

3/8 inch bentonite chips (2-69.85 ft)

Borehole diameter 6 inch

Water Level (ATD):
50 ft bgs

Riser 2 inch PVC schd 40

Top of filter pack: 69.85 ft bgs

Top of screen: 71.75 ft bgs

Colorado silica sand #10x20

Screen 2 inch, PVC schd 40 (10 slot)

Bottom of screen: 76.75 ft bgs
threaded tail cap on end

Bottom of hole: 83 ft bgs

Collapsed Native/Silica Sand (77-83 ft)

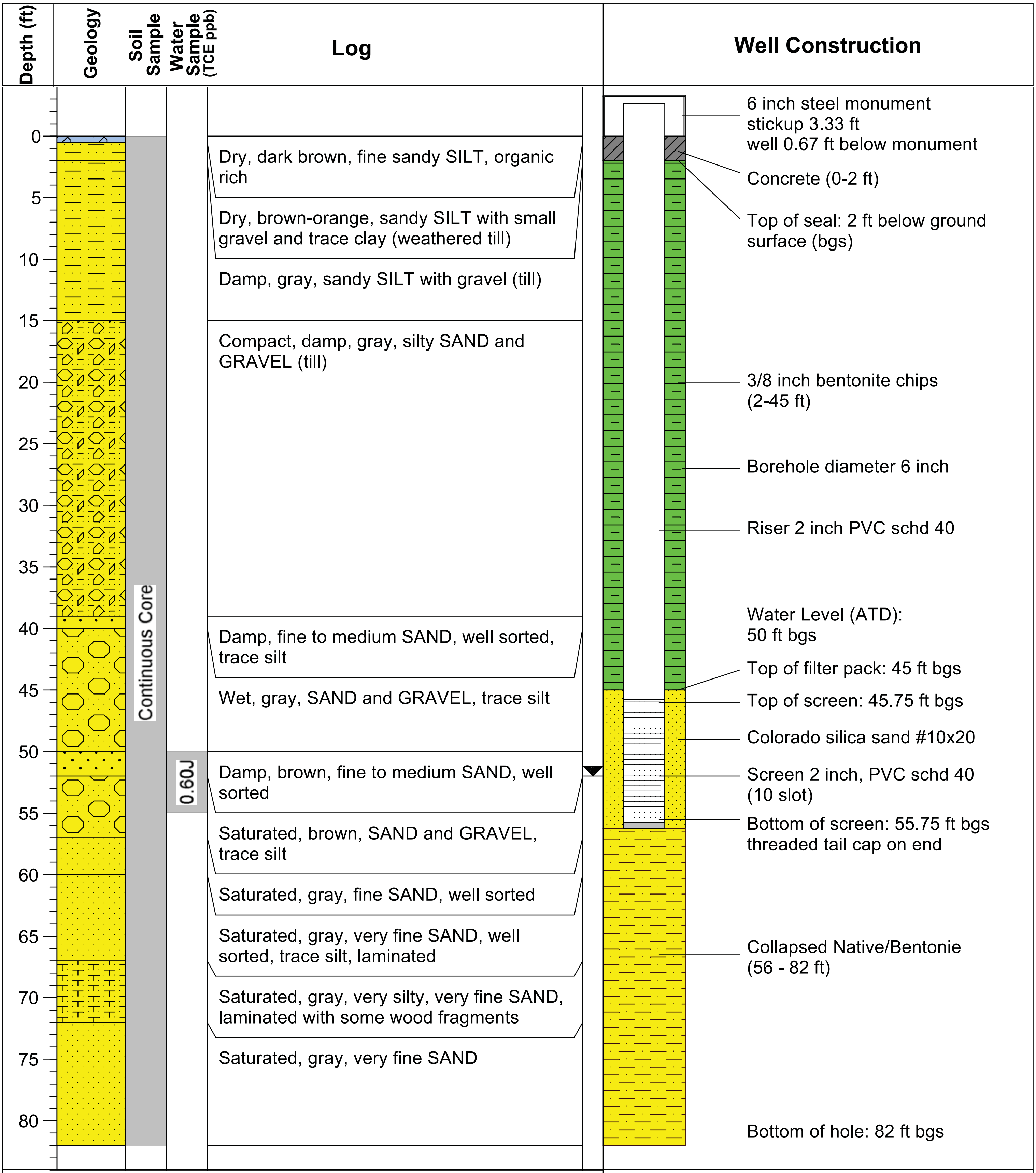
Project Name: West Olympia Landfill
Drilling Method: Sonic
Driller: Eric West
Firm: Prosonic Corporation
Consulting Firm: PGG
Logged by: Dawn Chapel
Location: West Olympia Landfill

Well Name: PGG-1
UWID: ALJ756
MP Elevation: 169.54
Datum: NGVD29
Installed: 6/21/06

GEOLOGIC LOG AND AS-BUILT FOR MONITORING WELL PGG-1

West Olympia Landfill
JS0608, PGG-1.ldf, 11/2006

PgG



Dry, dark brown, fine sandy SILT, organic rich

Dry, brown-orange, sandy SILT with small gravel and trace clay (weathered till)

Damp, gray, sandy SILT with gravel (till)

Compact, damp, gray, silty SAND and GRAVEL (till)

Damp, fine to medium SAND, well sorted, trace silt

Wet, gray, SAND and GRAVEL, trace silt

Damp, brown, fine to medium SAND, well sorted

Saturated, brown, SAND and GRAVEL, trace silt

Saturated, gray, fine SAND, well sorted

Saturated, gray, very fine SAND, well sorted, trace silt, laminated

Saturated, gray, very silty, very fine SAND, laminated with some wood fragments

Saturated, gray, very fine SAND

6 inch steel monument
stickup 3.33 ft
well 0.67 ft below monument

Concrete (0-2 ft)

Top of seal: 2 ft below ground surface (bgs)

3/8 inch bentonite chips (2-45 ft)

Borehole diameter 6 inch

Riser 2 inch PVC schd 40

Water Level (ATD):
50 ft bgs

Top of filter pack: 45 ft bgs

Top of screen: 45.75 ft bgs

Colorado silica sand #10x20

Screen 2 inch, PVC schd 40 (10 slot)

Bottom of screen: 55.75 ft bgs
threaded tail cap on end

Collapsed Native/Bentonie (56 - 82 ft)

Bottom of hole: 82 ft bgs

Project Name: West Olympia Landfill
Drilling Method: Sonic
Driller: Eric West
Firm: Prosonic Corporation
Consulting Firm: PGG
Logged by: Dawn Chapel
Location: West Olympia Landfill

Well Name: PGG-2
UWID: APN757
MP Elevation: 169.50
Datum: NGVD29
Installed: 6/20/06

GEOLOGIC LOG AND AS-BUILT FOR MONITORING WELL PGG-2

West Olympia Landfill
JS0608, PGG-1.ldf, 11/2006

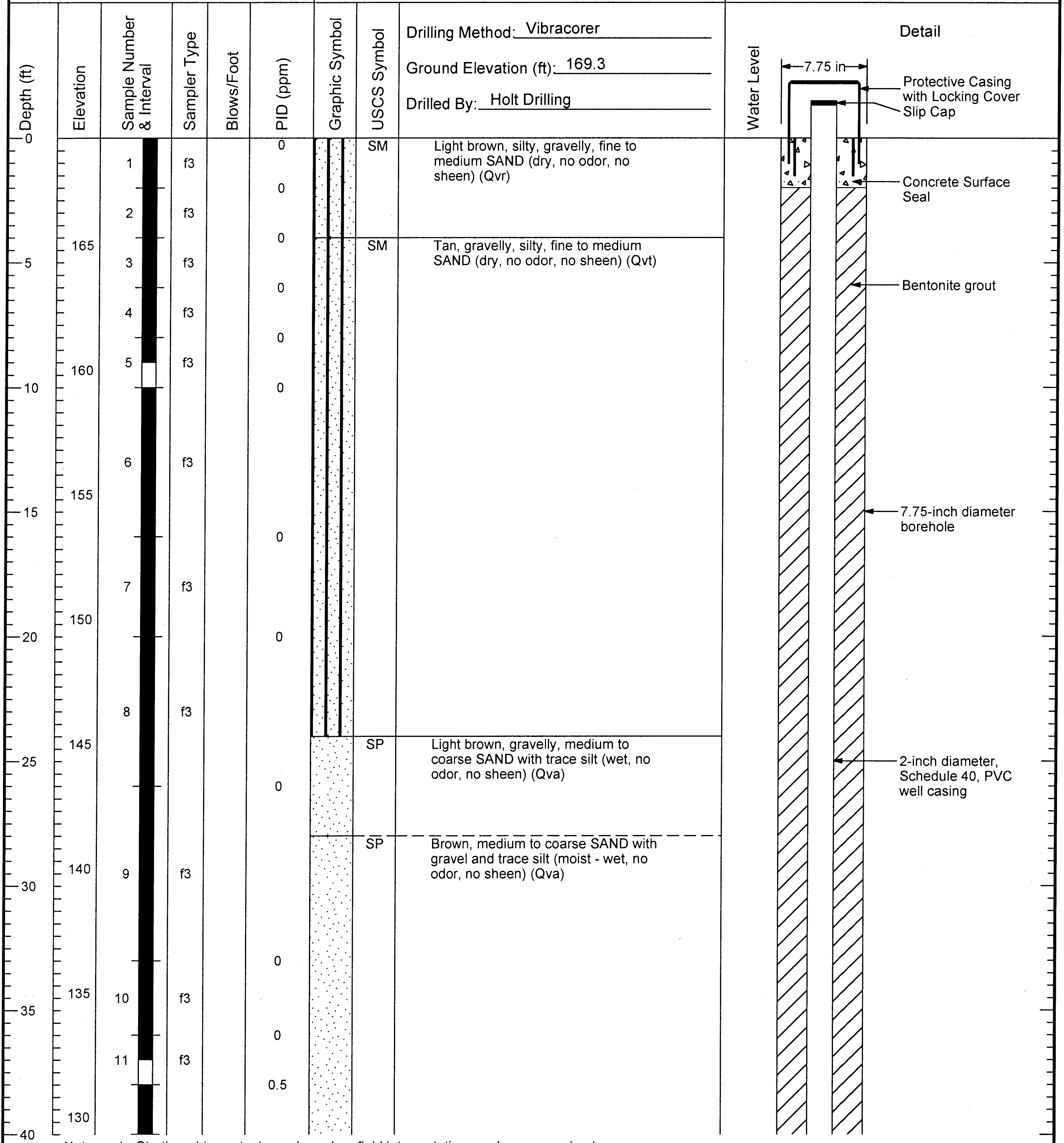
PGG

Landau Monitoring Well, 2005
(LAI-5d)

LAI-5d

SAMPLE DATA | SOIL PROFILE | GROUNDWATER

Drilling Method: Vibracorer
Ground Elevation (ft): 169.3
Drilled By: Holt Drilling



SM — Light brown, silty, gravelly, fine to medium SAND (dry, no odor, no sheen) (Qvr)

SM — Tan, gravelly, silty, fine to medium SAND (dry, no odor, no sheen) (Qvt)

SP — Light brown, gravelly, medium to coarse SAND with trace silt (wet, no odor, no sheen) (Qva)

SP — Brown, medium to coarse SAND with gravel and trace silt (moist - wet, no odor, no sheen) (Qva)

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

LANDAU ASSOCIATES

West Olympia Land Fill
Olympia, Washington

Log of LAI-5d

Figure
A-2
(1 of 4)

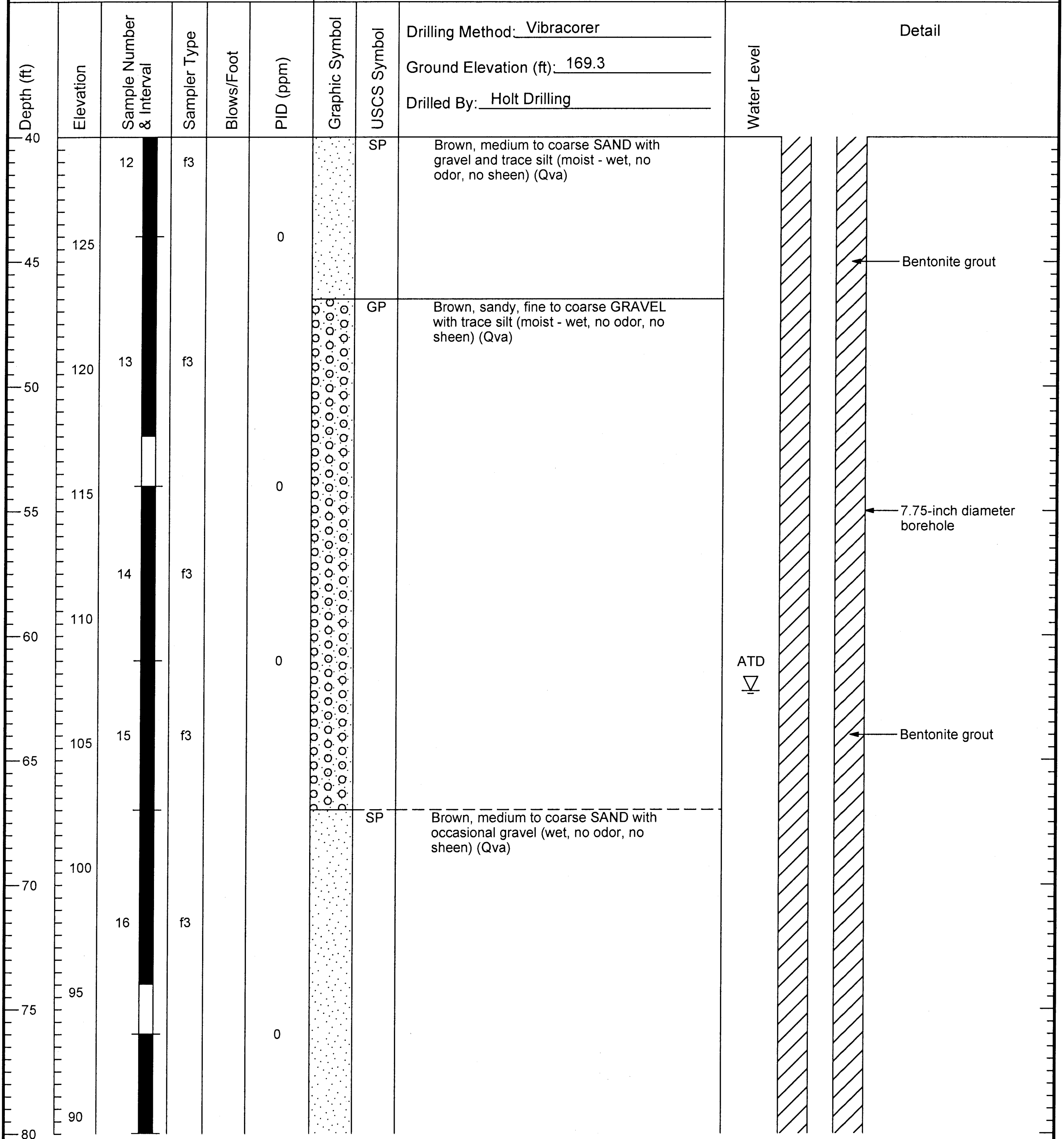
LAI-5d

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Drilling Method: Vibracorer

Ground Elevation (ft): 169.3

Drilled By: Holt Drilling



Brown, medium to coarse SAND with gravel and trace silt (moist - wet, no odor, no sheen) (Qva)

Brown, sandy, fine to coarse GRAVEL with trace silt (moist - wet, no odor, no sheen) (Qva)

Brown, medium to coarse SAND with occasional gravel (wet, no odor, no sheen) (Qva)

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

LANDAU ASSOCIATES

West Olympia Land Fill
Olympia, Washington

Log of LAI-5d

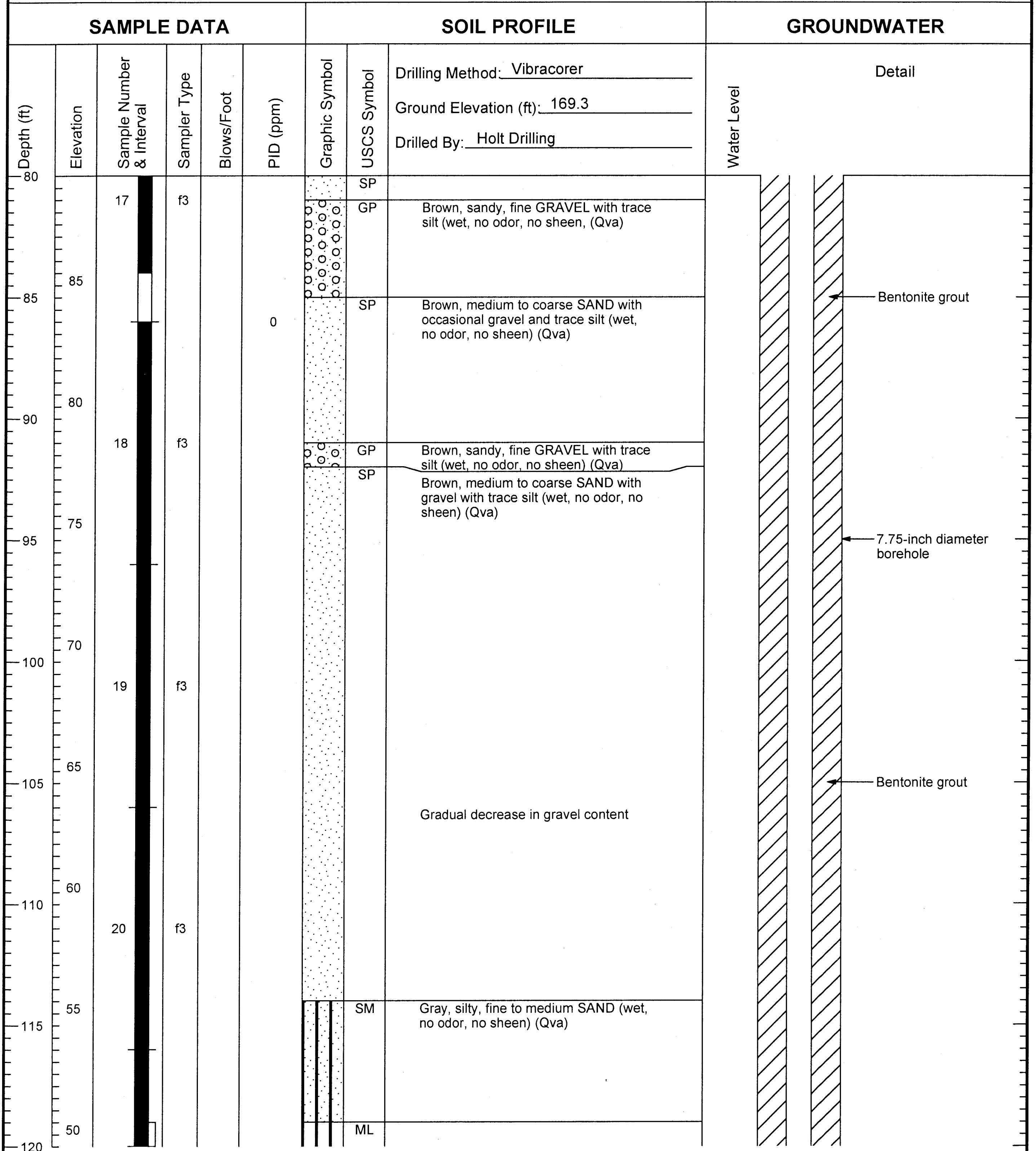
Figure
A-2
(2 of 4)

LAI-5d

Drilling Method: Vibracorer

Ground Elevation (ft): 169.3

Drilled By: Holt Drilling



Brown, sandy, fine GRAVEL with trace silt (wet, no odor, no sheen, (Qva)

Brown, medium to coarse SAND with occasional gravel and trace silt (wet, no odor, no sheen) (Qva)

Brown, sandy, fine GRAVEL with trace silt (wet, no odor, no sheen) (Qva)

Brown, medium to coarse SAND with gravel with trace silt (wet, no odor, no sheen) (Qva)

Gradual decrease in gravel content

Gray, silty, fine to medium SAND (wet, no odor, no sheen) (Qva)

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

LANDAU ASSOCIATES

West Olympia Land Fill
Olympia, Washington

Log of LAI-5d

Figure

A-2

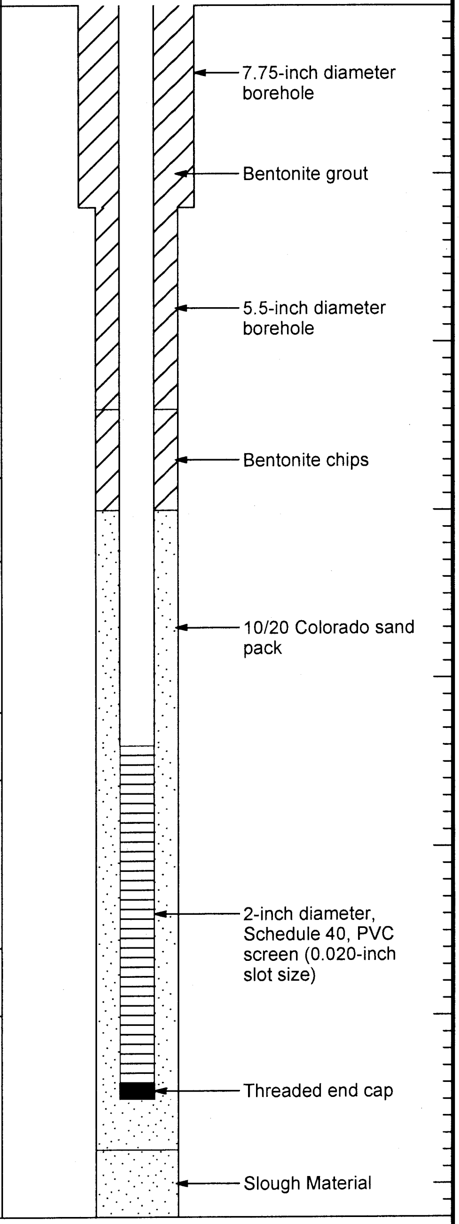
(3 of 4)

LAI-5d

SAMPLE DATA						SOIL PROFILE			GROUNDWATER	
Depth (ft)	Elevation	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Vibracorer Ground Elevation (ft): 169.3 Drilled By: Holt Drilling	Water Level	Detail

Depth (ft)	Elevation	Sample Number & Interval	Sampler Type	PID (ppm)
120		21	f3	
	45			0
125		22	f3	
				0
	40			
130		23	f3	
	35			
135				
				0
	30			
140		24	f3	
	25			
145				
	20			
150		25	f3	
	15			
155				
160				

USCS Symbol	Description
ML	Gray, sandy SILT (moist, no odor, no sheen) (Qf)
ML	Gray, clayey SILT with sand (moist, no odor, no sheen) (Qf)
SM	Gray, silty fine to medium SAND with gravel (moist, no odor, no sheen) (Qf)
SP	Gray, fine to medium SAND with gravel and trace silt (wet, no odor, no sheen) (Qf)
SP/SM	Gray, fine to medium SAND with silt (wet, no odor, no sheen) (Qc)
SP	Gray, fine to medium SAND with occasional gravel and trace silt (wet, no odor, no sheen) (Qc)
SP-SM	Gray, fine to medium SAND with silt (wet, no odor, no sheen) (Qc)
SP-SM	Gray, fine to medium SAND with gravel and trace silt (wet, no odor, no sheen) (Qc)



Boring Completed 09/23/05
Total Depth of Boring = 156.0 ft.

Elevation at Top of Casing = 172.30 ft.

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

LANDAU ASSOCIATES

West Olympia Land Fill Olympia, Washington	Log of LAI-5d	Figure A-2 (4 of 4)

Landau Monitoring Wells, 2004
(LAI-MW-1 through LAI-MW-4)

LAI-MW-1

SAMPLE DATA

SOIL PROFILE

Drilling Method: Hollow-stem Auger

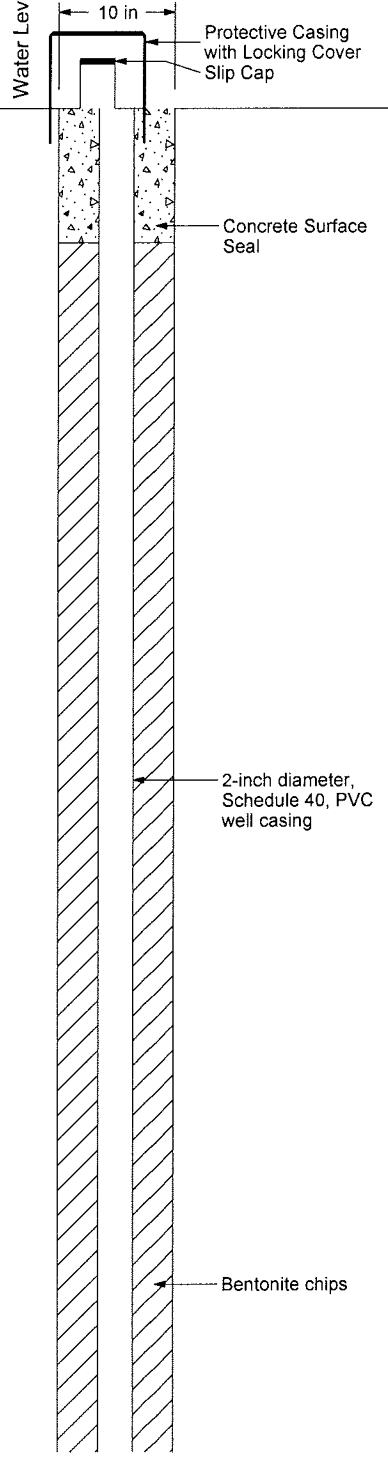
Ground Elevation (ft):

Drilled By: Cascade Drilling Inc.

GROUNDWATER

Depth (ft)	Elevation	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Description	Water Level
0							SM	Brown, silty, fine to medium SAND with gravel (very dense, damp) (no odor, no sheen)	
2									
4									
		S-1	a1	50/ 5"					
6									
8									
10		S-2	a1	50/ 6"				Color changes to gray	
12									
14									
		S-3	a1	50/ 5"					
16									
							SP- SM	Gray, fine to medium SAND with silt and gravel (very dense, moist) (no odor, no sheen)	
18									
20									

Detail



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

LANDAU ASSOCIATES

West Olympia Land Fill
Olympia, Washington

Log of LAI-MW-1

Figure
A-2
(1 of 3)

LAI-MW-1

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

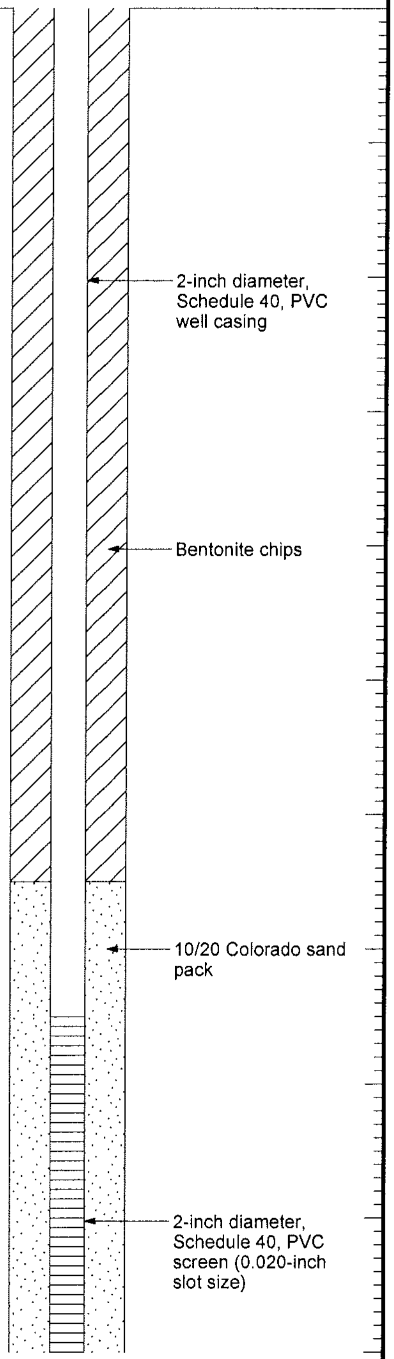
Drilling Method: Hollow-stem Auger

Ground Elevation (ft):

Drilled By: Cascade Drilling Inc.

Depth (ft)	Elevation	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	
20		S-4	a1				SP-SM	Gray, fine to medium SAND with silt and gravel (very dense, moist) (no odor, no sheen)
		S-5	a1	50/ 5"				Increase gravel content
		S-6	a1	50/ 5"				
							GP-GM	Gray, sandy, fine to coarse GRAVEL with silt (very dense, moist to wet)(no odor, no sheen)
		S-7	a1	50/ 5"				
							SP	Gray, gravelly, fine to medium SAND, trace silt (very dense, moist to wet)(no odor, no sheen)
40								

Water Level | Detail



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

LANDAU ASSOCIATES

West Olympia Land Fill
Olympia, Washington

Log of LAI-MW-1

Figure
A-2
(2 of 3)

LAI-MW-1

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Drilling Method: Hollow-stem Auger

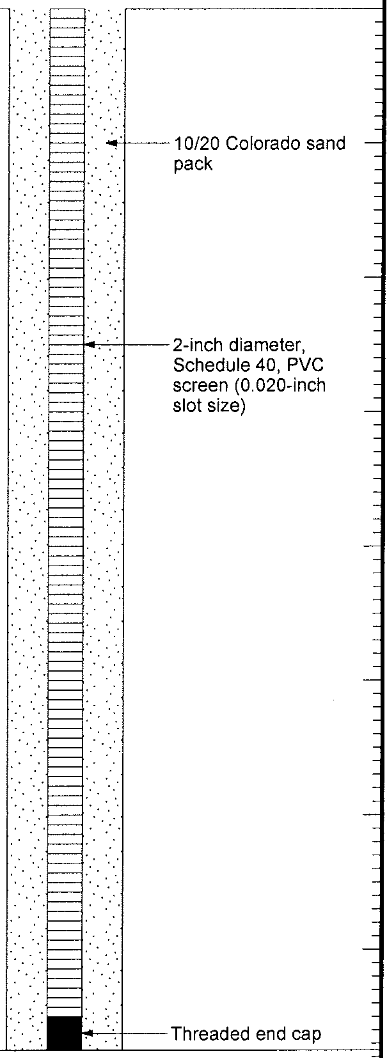
Ground Elevation (ft):

Drilled By: Cascade Drilling Inc.

Depth (ft): 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60

Elevation	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	USCS Symbol	Description	Water Level
	S-8	a1	50/ 5"		SP	Gray, gravelly, fine to medium SAND, trace silt (very dense, moist to wet)(no odor, no sheen)	
	S-9	a1	50/ 5"			Decrease gravel content	
							∇ ATD
					SP-SM	Gray, fine to medium SAND with silt (very dense, moist to wet)(no odor, no sheen)	
	S-10	a1	50/ 5"				
					SP	Gray, fine to medium SAND, trace silt (very dense, wet)(no odor, no sheen)	
	S-11	a1	50/ 5"				

Detail



Boring Completed 06/07/04
Total Depth of Boring = 55.5 ft.

Elevation at Top of Protective Casing = 163.82 ft.
Elevation at Top of Casing = 163.35 ft.

Notes:
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2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

LANDAU ASSOCIATES

West Olympia Land Fill
Olympia, Washington

Log of LAI-MW-1

Figure
A-2
(3 of 3)

LAI-MW-2

SAMPLE DATA

SOIL PROFILE

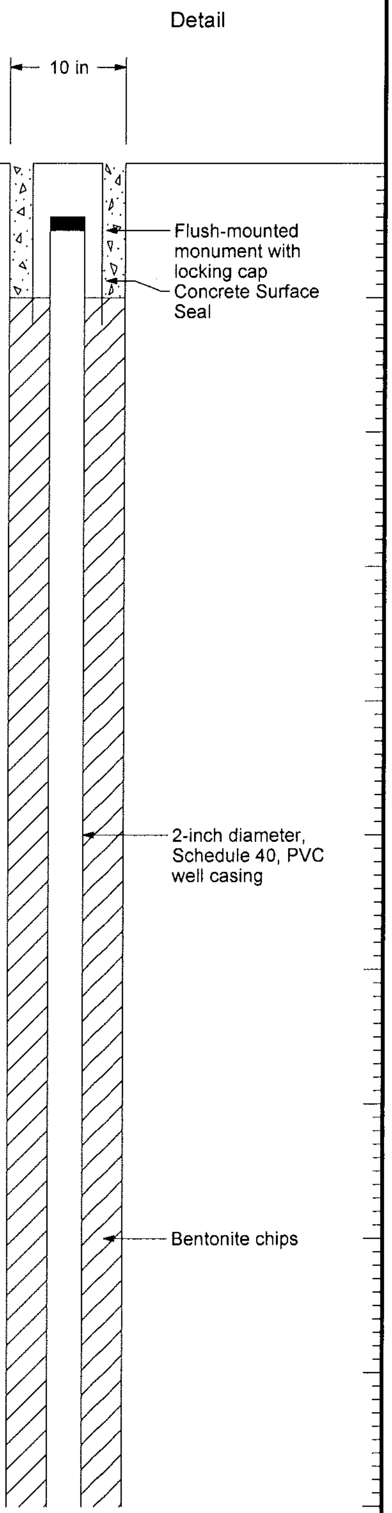
Drilling Method: Hollow-stem Auger

Ground Elevation (ft):

Drilled By: Cascade Drilling Inc.

GROUNDWATER

Depth (ft)	Elevation	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Description	Water Level
0							SM	Brown, silty, fine to medium SAND with gravel (very dense, damp)(no odor, no sheen)	
2									
4									
		S-1	a1	50/ 5"					
6									
8									
10									
		S-2	a1	50/ 5"					
12									
14									
		S-3	a1	50/ 5"					
16									
							SP	Gray, fine to medium SAND, trace silt (very dense, wet)(no odor, no sheen)	
18									
20									



Notes:
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2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

LANDAU ASSOCIATES

West Olympia Land Fill Olympia, Washington	Log of LAI-MW-2	Figure A-3 (1 of 4)

LAI-MW-2

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

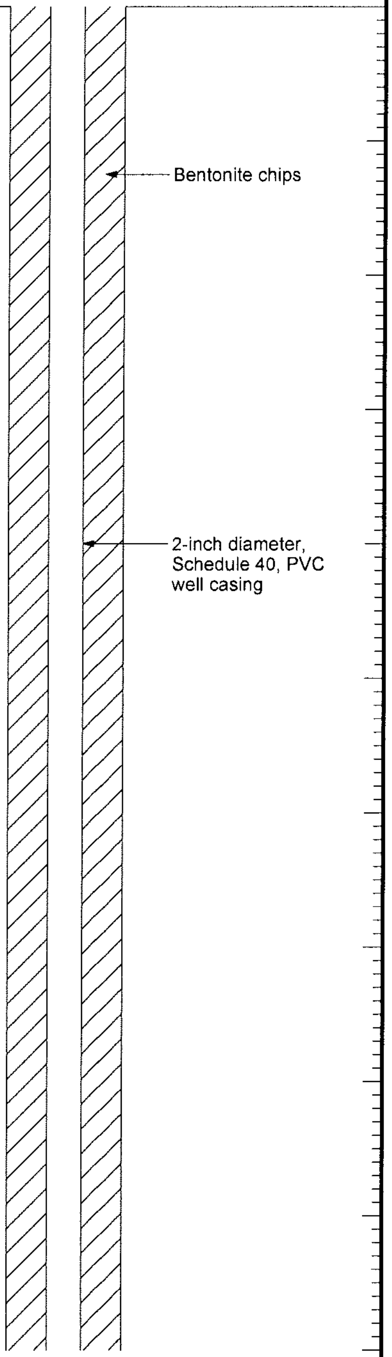
Drilling Method: Hollow-stem Auger

Ground Elevation (ft):

Drilled By: Cascade Drilling Inc.

Depth (ft)	Elevation	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	USCS Symbol	Description
20		S-4	a1	50/ 5"		SP	Gray, fine to medium SAND, trace silt (very dense, wet)(no odor, no sheen)
						SP-SM	Gray, fine to medium SAND with silt and gravel (very dense, wet)(no odor, no sheen)
		S-5	a1	50/ 6"			
						GM	Gray, silty, fine GRAVEL with sand (very dense, moist to wet)(no odor, no sheen)
30		S-6	a1	50/ 5"			
						GP-GM	Gray, sandy, fine GRAVEL with silt (very dense, moist to wet)(no odor, no sheen)
		S-7	a1	50/ 5"			
40							

Water Level | Detail



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

820001. 7/27/04 \EDMDATA\GINT\GINT6\PROJECTS\820001.GPJ WELL LOG W/ ELEVATION

LANDAU ASSOCIATES

West Olympia Land Fill
Olympia, Washington

Log of LAI-MW-2

Figure
A-3
(2 of 4)

LAI-MW-2

SAMPLE DATA

Depth (ft): 40 · 42 · 44 · 46 · 48 · 50 · 52 · 54 · 56 · 58 · 60

Elevation	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)
	S-8	a1	50/ 5"	
	S-9	a1	50/ 5"	
	S-10	a1	50/ 5"	
	S-11	a1	50/ 6"	

SOIL PROFILE

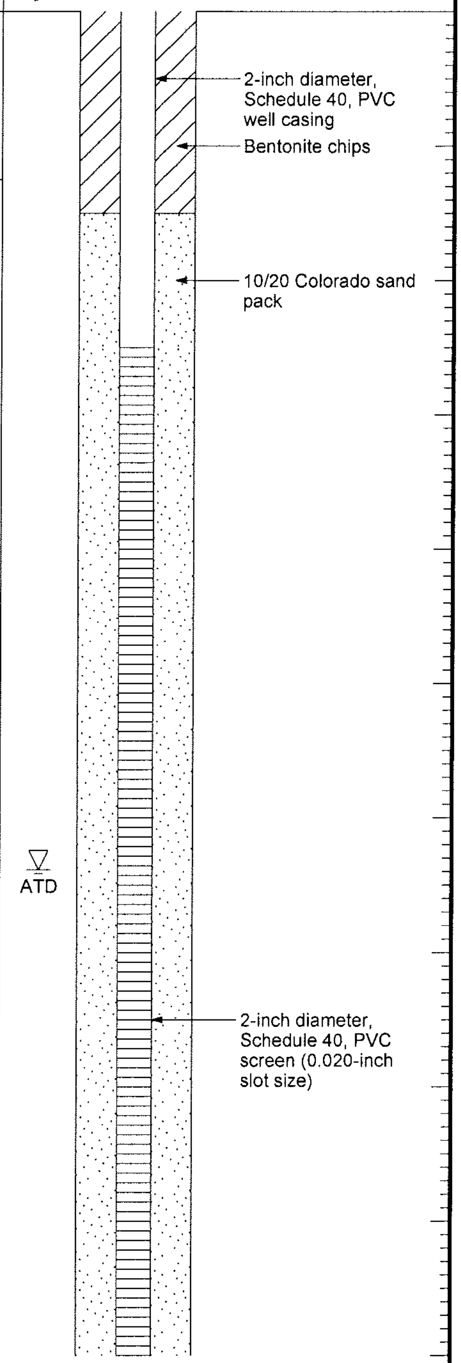
Drilling Method: Hollow-stem Auger

Ground Elevation (ft):

Drilled By: Cascade Drilling Inc.

USCS Symbol	Description
GP-GM	Gray, sandy, fine GRAVEL with silt (very dense, moist to wet)(no odor, no sheen)
SP	Gray, fine to medium SAND with gravel (very dense, moist to wet)(no odor, no sheen)
GP-GM	Brown, sandy, coarse GRAVEL with silt (very dense, wet)(no odor, no sheen)
GP	Brown, sandy, fine to coarse GRAVEL, trace silt (very dense, wet)(no odor, no sheen)

GROUNDWATER



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

LANDAU ASSOCIATES

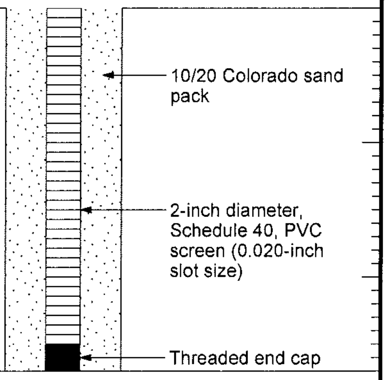
West Olympia Land Fill
Olympia, Washington

Log of LAI-MW-2

LAI-MW-2

SAMPLE DATA						SOIL PROFILE			GROUNDWATER
Depth (ft)	Elevation	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): Drilled By: Cascade Drilling Inc.	Water Level
60		S-12	a1	50/ 5"			GP	Brown, sandy, fine to coarse GRAVEL, trace silt (very dense, wet)(no odor, no sheen)	
62									
64									
		S-13	a1	50/ 4"					
66									
68									
70									
72									
74									
76									
78									
80									

Detail



Boring Completed 06/07/04
Total Depth of Boring = 65.4 ft.

Elevation at Top of Protective Casing = 170.70 ft.
Elevation at Top of Casing = 170.32 ft.

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

LAI-MW-3

SAMPLE DATA

SOIL PROFILE

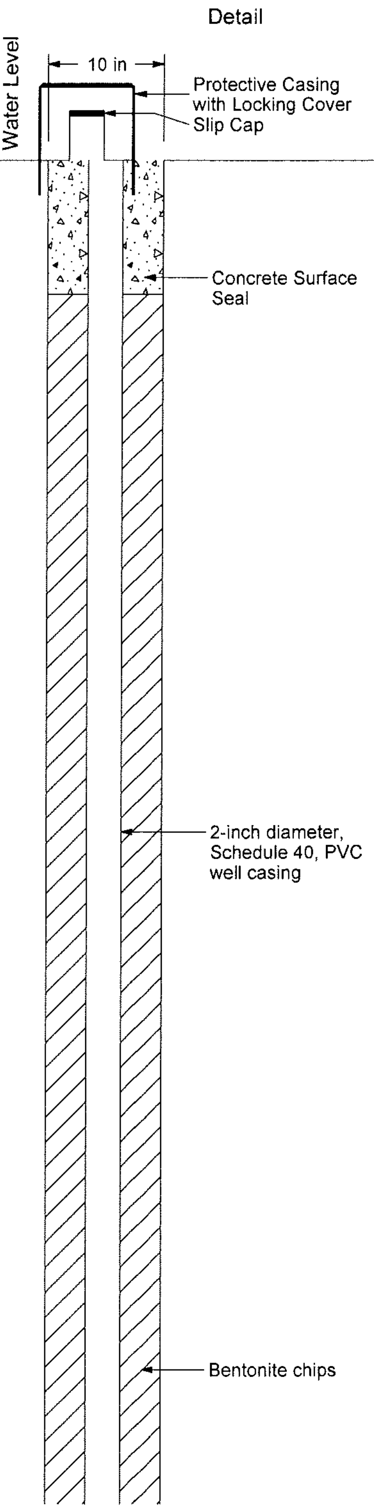
Drilling Method: Hollow-stem Auger

Ground Elevation (ft):

Drilled By: Cascade Drilling Inc.

GROUNDWATER

Depth (ft)	Elevation	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	USCS Symbol		Water Level
0						SM	Brown, very silty, fine to medium SAND with gravel (very dense, damp)(no odor, no sheen)	
2								
4								
6		S-1	a2	100/ 6"	0.0			
8								
10		S-2	a2	100/ 6"	0.0			
12								
14								
16		S-3	a2	100/ 6"	0.0			
18								
20								



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

820001. 7/27/04 \EDMDATA\GINT\GINT6\PROJECTS\820001.GPJ WELL LOG W/ ELEVATION

LANDAU ASSOCIATES

West Olympia Land Fill
Olympia, Washington

Log of LAI-MW-3

Figure
A-4
(1 of 4)

LAI-MW-3

SAMPLE DATA / SOIL PROFILE / GROUNDWATER

Drilling Method: Hollow-stem Auger

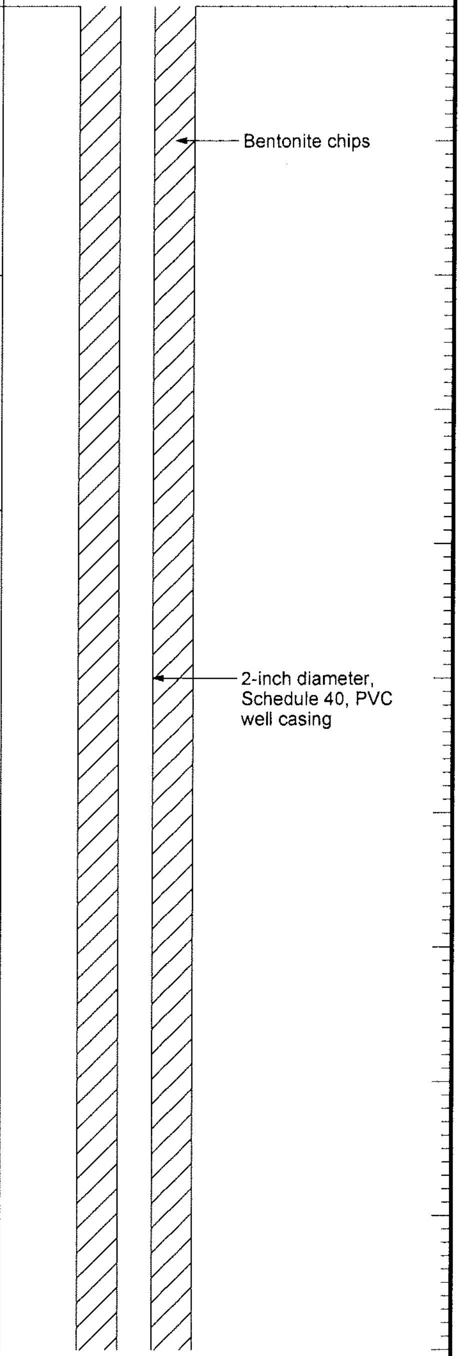
Ground Elevation (ft):

Drilled By: Cascade Drilling Inc.

Depth (ft)	Elevation	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	USCS Symbol	Description
20		S-4	a2	50/ 4"	0.0	SM	Brown, silty, fine to medium SAND (very dense, damp to moist)(no odor, no sheen)
24		S-5	a2	100/ 6"	0.0	SP-SM	Brown, gravelly, fine to medium SAND with silt (very dense, moist to wet)(no odor, no sheen)
28		S-6	a2	100/ 6"	0.0	GP	Brown, sandy, fine to coarse GRAVEL, trace silt (very dense, moist)
		S-7	a2	100/ 3"	0.0		

Water Level

Detail



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

LAI-MW-3

SAMPLE DATA

Elevation	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)
	S-8	a2	100/ 6"	0.0
	S-9	a2	100/ 6"	0.0
	S-10	a2	50/ 2"	0.0
	S-11	a2	100/ 6"	0.0

SOIL PROFILE

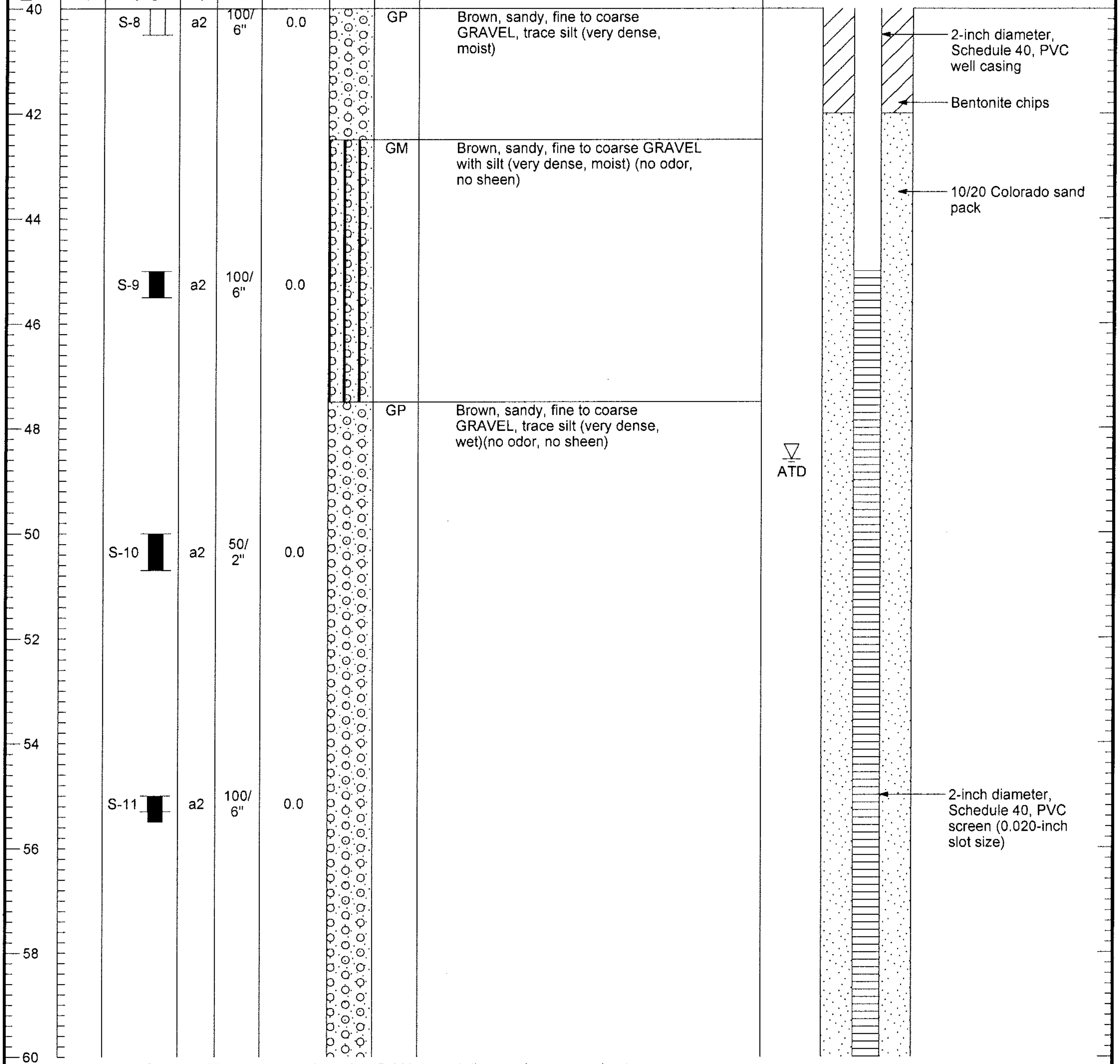
Drilling Method: Hollow-stem Auger

Ground Elevation (ft):

Drilled By: Cascade Drilling Inc.

USCS Symbol	Description
GP	Brown, sandy, fine to coarse GRAVEL, trace silt (very dense, moist)
GM	Brown, sandy, fine to coarse GRAVEL with silt (very dense, moist) (no odor, no sheen)
GP	Brown, sandy, fine to coarse GRAVEL, trace silt (very dense, wet)(no odor, no sheen)

GROUNDWATER



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

LAI-MW-3

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Drilling Method: Hollow-stem Auger

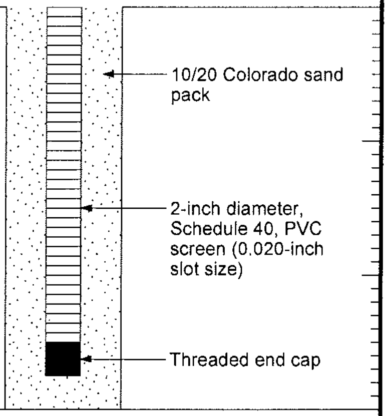
Ground Elevation (ft):

Drilled By: Cascade Drilling Inc.

Depth (ft)	Elevation	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	
60		S-12	a2	50/ 5"	0.0		GP	Brown, sandy, fine to coarse GRAVEL, trace silt (very dense, wet)(no odor, no sheen)
		S-13	a2	50/ 6"	0.0			

Water Level

Detail



Boring Completed 06/08/04
Total Depth of Boring = 66.0 ft.

Elevation at Top of Protective Casing = 172.50 ft.
Elevation at Top of Casing = 171.98 ft.

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

LAI-MW-4

SAMPLE DATA

Depth (ft)	Elevation	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)
		S-1	a2	4	
		S-2	a2	100/ 6"	
		S-3	a2	100/ 6"	

SOIL PROFILE

Drilling Method: Hollow-stem Auger

Ground Elevation (ft):

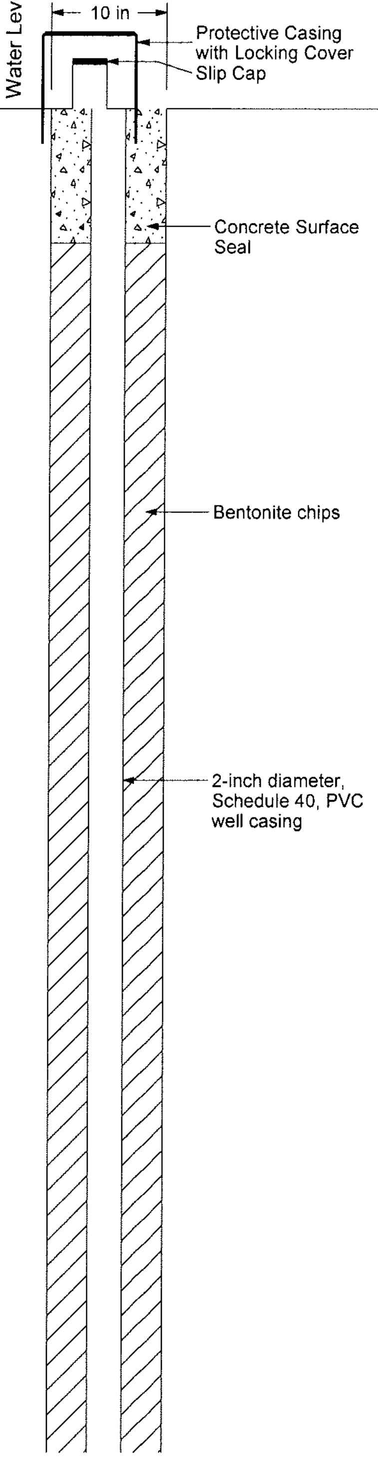
Drilled By: Cascade Drilling Inc.

Graphic Symbol	USCS Symbol	
	SM	Dark brown, very silty, fine to medium SAND with gravel and ocassional glass debris from 0 to 5 ft (very loose to loose, damp)(no odor, no sheen)

GROUNDWATER

Water Level

Detail



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

820001. 7/27/04 \\EDMDATA\GINT\GINT6\PROJECTS\820001.GPJ WELL LOG W/ ELEVATION

LANDAU ASSOCIATES

West Olympia Land Fill
Olympia, Washington

Log of LAI-MW-4

Figure
A-5
(1 of 4)

LAI-MW-4

SAMPLE DATA

SOIL PROFILE

GROUNDWATER

Drilling Method: Hollow-stem Auger

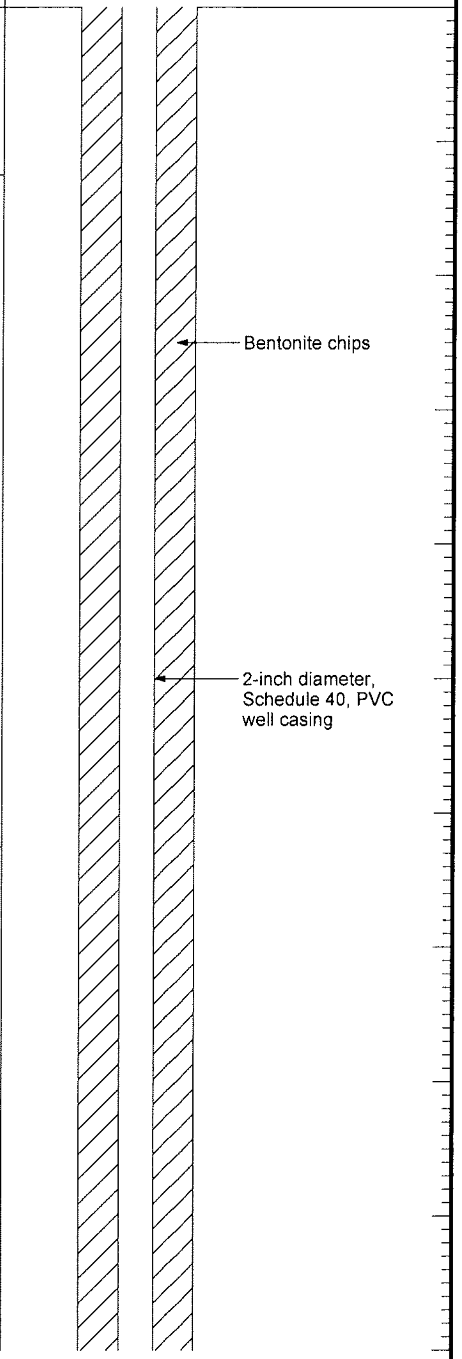
Ground Elevation (ft):

Drilled By: Cascade Drilling Inc.

Depth (ft)	Elevation	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	
20		S-4	a2	100/ 6"			SM	Gray, silty, fine to medium SAND with gravel (very dense, moist to wet) (no odor, no sheen)
22							GM	Brown, silty, fine to coarse GRAVEL with sand (very dense, moist to wet) (no odor, no sheen)
24								
		S-5	a2	100/ 5"				
26								
28								
30		S-6	a2	100/ 5"				
32							GP-GM	Brown, sandy, fine to coarse GRAVEL with silt (very dense, wet) (no odor, no sheen)
34								
		S-7	a2	100/ 5"				
36								
38								
40								

Water Level

Detail



Notes:
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2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

LANDAU ASSOCIATES

West Olympia Land Fill
Olympia, Washington

Log of LAI-MW-4

Figure
A-5
(2 of 4)

LAI-MW-4

SAMPLE DATA | SOIL PROFILE | GROUNDWATER

Drilling Method: Hollow-stem Auger

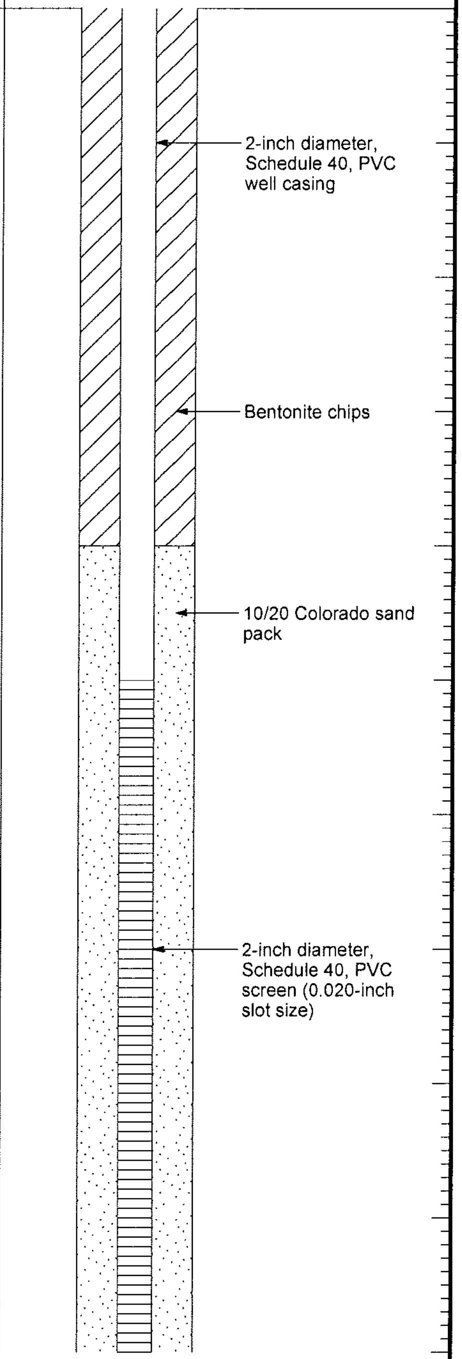
Ground Elevation (ft):

Drilled By: Cascade Drilling Inc.

Depth (ft)	Elevation	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	USCS Symbol	Soil Profile
40		S-8	a2	100/ 5"		GP-GM	Brown, sandy, fine to coarse GRAVEL with silt (very dense, wet) (no odor, no sheen)
		S-9	a2	100/ 5"			
50		S-10	a2	100/ 6"			
		S-11	a2	100/ 5"			Brown, sandy, fine GRAVEL with silt (very dense, wet) (no odor, no sheen)
58						SP	Brown, gravelly, fine to medium SAND, trace silt (very dense, wet) (no odor, no sheen)
60							

Water Level

Detail



Notes:
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2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

LANDAU ASSOCIATES

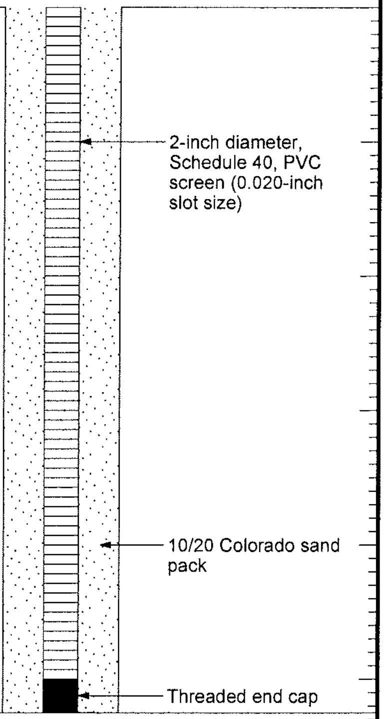
West Olympia Land Fill
Olympia, Washington

Log of LAI-MW-4

LAI-MW-4

SAMPLE DATA						SOIL PROFILE			GROUNDWATER
Depth (ft)	Elevation	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): Drilled By: Cascade Drilling Inc.	Water Level
60		S-12	a2	100/ 5"			SP	Brown, gravelly, fine to medium SAND, trace silt (very dense, wet) (no odor, no sheen)	
62									▽ ATD
							SM	Brown, fine to medium SAND with silt (very dense, wet)(no odor, no sheen)	
64									
		S-13	a2	100/ 5"					
66									
68									
70		S-14	a2	100/ 5"					
72									
74									
76									
78									
80									

Detail



Boring Completed 06/09/04
Total Depth of Boring = 70.5 ft.

Elevation at Top of Protective Casing = 172.98 ft.
Elevation at Top of Casing = 172.27 ft.

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

LANDAU ASSOCIATES

West Olympia Land Fill
Olympia, Washington

Log of LAI-MW-4

Figure
A-5
(4 of 4)

Landau Soil Borings and Test Pits, 2000
(LAI-1 through LAI-19 and TP-1 through TP-14)

Soil Classification System

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

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

Notes: 1. USCS letter symbols correspond to the symbols used by the Unified Soil Classification System and ASTM classification methods. Dual letter symbols (e.g., SP-SM) for a sand or gravel indicate a soil with an estimated 5-15% fines. Multiple letter symbols (e.g., ML/CL) indicate borderline or multiple soil classifications.

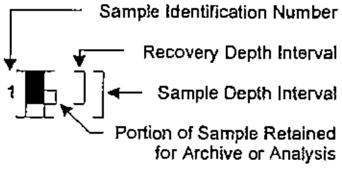
2. Soil descriptions are based on the general approach presented in the *Standard Practice for Description and Identification of Soils (Visual-Manual Procedure)*, as outlined in ASTM D 2488. Where laboratory index testing has been conducted, soil classifications are based on the *Standard Test Method for Classification of Soils for Engineering Purposes*, as outlined in ASTM D 2487.

3. Soil description terminology is based on visual estimates (in the absence of laboratory test data) of the percentages of each soil type and is defined as follows:

Primary Constituent:	> 50% - "GRAVEL," "SAND," "SILT," "CLAY," etc.
Secondary Constituents:	> 30% and ≤ 50% - "very gravelly," "very sandy," "very silty," etc.
	> 15% and ≤ 30% - "gravelly," "sandy," "silty," etc.
Additional Constituents:	> 5% and ≤ 15% - "with gravel," "with sand," "with silt," etc.
	≤ 5% - "trace gravel," "trace sand," "trace silt," etc., or not noted.

Drilling and Sampling Key

SAMPLE NUMBER & INTERVAL



SAMPLER TYPE

Code	Description
a	3.25-inch O.D., 2.42-inch I.D. Split Spoon
b	2.00-inch O.D., 1.50-inch I.D. Split Spoon
c	Shelby Tube
d	Grab Sample
e	Other - See text if applicable
1	300-lb Hammer, 30-inch Drop
2	140-lb Hammer, 30-inch Drop
3	Pushed
4	Other - See text if applicable

Groundwater

▽ ATD Approximate water elevation at time of drilling (ATD) or on date noted. Groundwater levels can fluctuate due to precipitation, seasonal conditions, and other factors.

Field and Lab Test Data

Code	Description
PP = 1.0	Pocket Penetrometer, tsf
TV = 0.5	Torvane, tsf
PID = 100	Photoionization Detector VOC screening, ppm
W = 10	Moisture Content, %
D = 120	Dry Density, pcf
-200 = 60	Material smaller than No. 200 sieve, %
GS	Grain Size - See separate figure for data
AL	Atterberg Limits - See separate figure for data
GT	Other Geotechnical Testing
CA	Chemical Analysis

469016.31 11/10/00 S:\MODELING\GINTW\PROJECTS\469016.GPJ SOIL CLASS SHEET

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Soil Classification System and Key

Figure
A-1

LAI-1

SAMPLE DATA

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data
0				
	S-1	b2	68/ 10"	
5	S-2	b2	50/ 6"	
10	S-3	b2	50/ 5"	
15	S-4	b2	50/ 5"	W = 7 -200 = 17
20	S-5	b2	50/ 4"	
25	S-6	b2	50/ 4"	W = 6 -200 = 3
30	S-7	b2	50/ 6"	
35	S-8	b2	50/ 6"	
40			50/ 4"	

SOIL PROFILE

Drilling Method: Hollow-stem Auger

Ground Elevation (ft): 171

Drilled By: Cascade Drilling

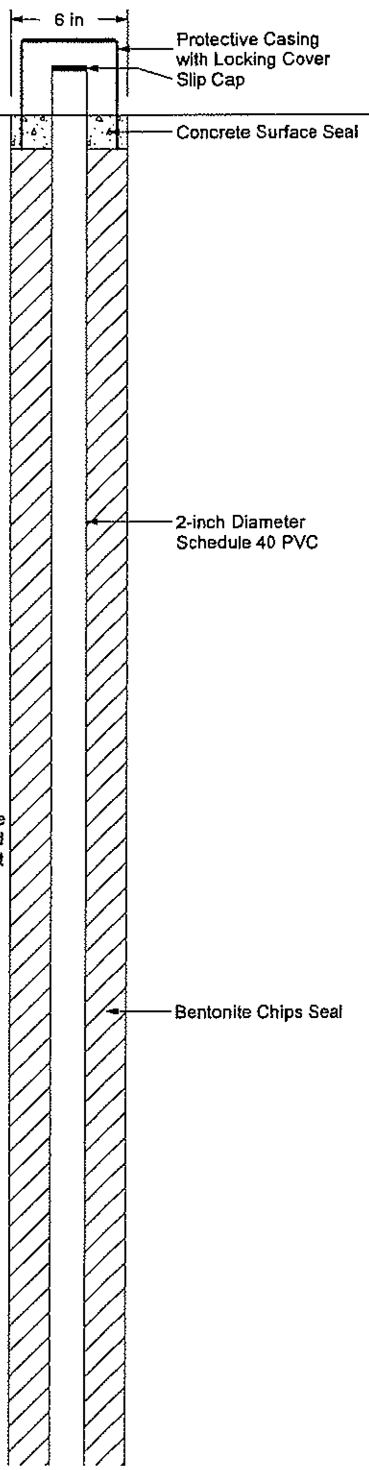
USCS Symbol	
PT	Brown, silty PEAT with fine gravel (loose, dry)(topsoil)
ML	Tan to brown-gray mottled with orange, SILT with sand to sandy SILT, trace fine gravel (hard, moist)(native)
ML	Light gray, sandy SILT, to very sandy SILT, trace gravel (hard, damp to moist)(native)
	Increase in sand and gravel content
SM	Light gray to gray, with orange mottling, silty, fine to coarse SAND with gravel (very dense, moist to near wet)(native)
	Increase in gravel content
GP	Light gray to gray, very sandy, fine to coarse GRAVEL, trace silt (very dense, moist to wet)(native)
SP	Light gray to gray, medium to coarse SAND with gravel, trace silt (very dense, moist to wet)(native)
GP	Light gray to gray, very sandy fine to coarse GRAVEL, trace silt (very dense, moist to wet)(native)

GROUNDWATER

Water Level

Possible perched water at 20.3'

Well Detail



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

469016.31 11/9/00 S:\MODELING\GINTW\PROJECTS\469016.GPJ WELL LOG

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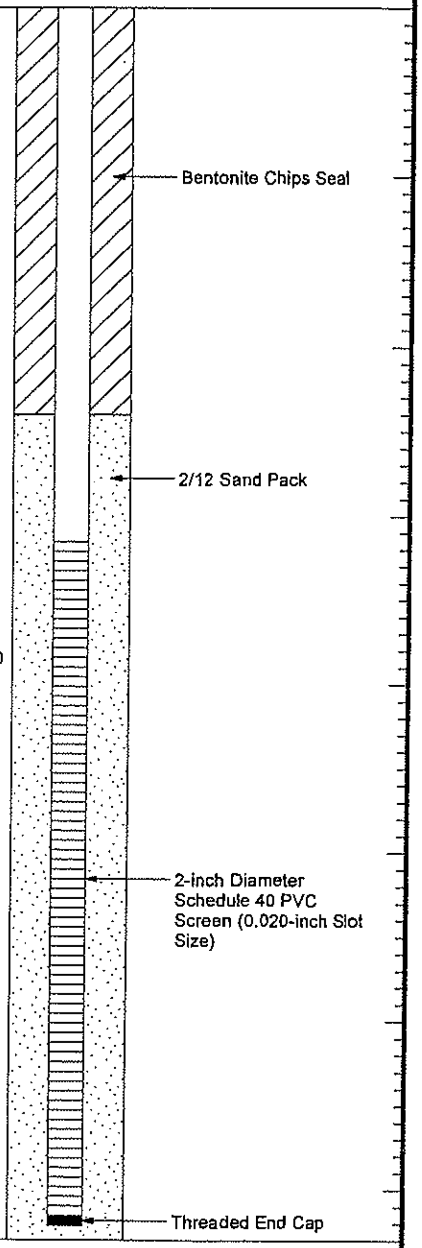
Log of Boring and Well LAI-1

Figure
A-2
(1 of 2)

LAI-1

SAMPLE DATA					SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): 171 Drilled By: Cascade Drilling	Water Level
40	S-9	b2				GP-GM	Light gray to gray, very sandy fine to coarse GRAVEL with silt (very dense, moist to wet)(native)	
45	S-10	b2	50/ 6"					
						SP-SM	Dark gray, fine to medium SAND with silt, trace gravel (very dense, moist)(native)	
50	S-11	b2	80/ 7"					
						GP-GM	Gray, sandy, fine to coarse GRAVEL with silt (very dense, wet)(native)	
55	S-12	b2	50/ 5"					
						SP	Medium gray, gravelly, medium to coarse SAND, trace silt (very dense, wet)(native)	∇ 7/24/00
60	S-13	b2	72	-200 = 1 W = 15 GS				
						GP/SP	Medium gray, very sandy, fine to medium GRAVEL, to very gravelly, medium to coarse SAND, trace silt (very dense, wet)(native)	
65	S-14	b2	50/ 6"					
70								
75								
80								

Well Detail



Boring Completed 07/20/00
Total Depth of Boring = 76.5 ft.

Well Completed 07/20/00
Elevation at Top of Well Casing = 173.40 ft.
Total Depth of Well = 76.1 ft.

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

LAI-2

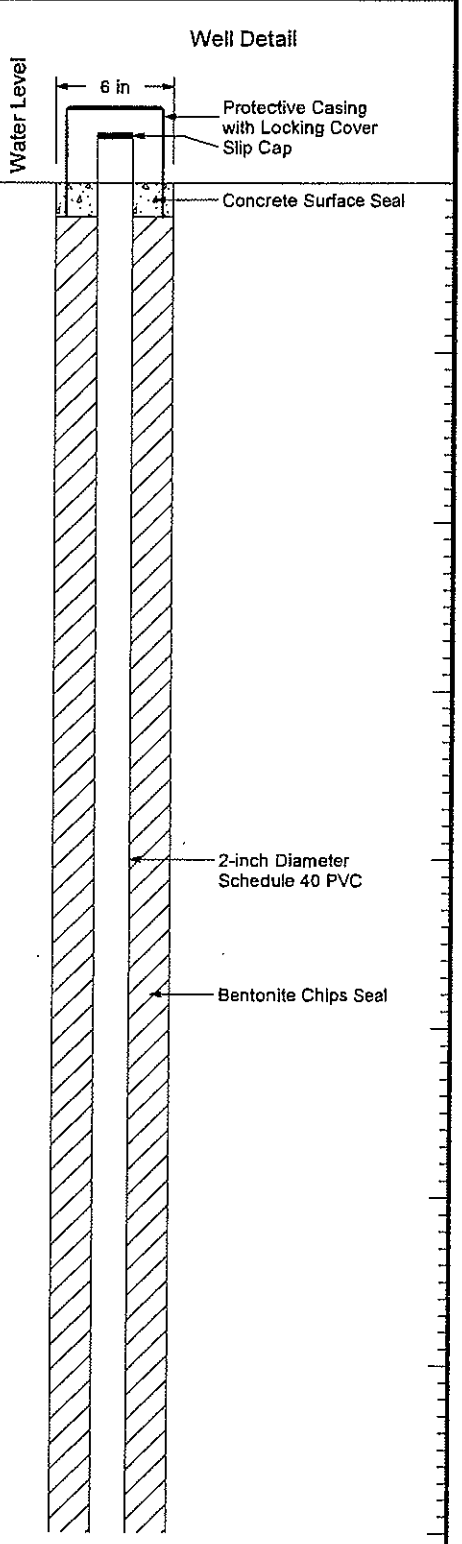
SAMPLE DATA					SOIL PROFILE	
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	USCS Symbol	
0					OL	Brown, organic SILT with gravel (loose, dry)(fill)
					ML	Brown to light gray, sandy SILT, trace gravel (hard, dry)(native)
	S-1	b2	50/ 4"			
					SM	Gray-brown, gravelly, silty, fine to medium SAND (very dense, damp to moist)(native)
5	S-2	b2	50/ 6"	-200 = 17 W = 8 GS		
10	S-3	b2	50/ 3"			
15	S-4	b2	50/ 6"			
						Decrease in gravel and silt content
20	S-5	b2	50/ 6"			
					SM	Brown-black, silty, fine to coarse SAND with gravel (very dense, moist to wet)(native)
					GP-GM	Gray-brown, very sandy, fine to coarse GRAVEL with silt (very dense, wet)(native)
25	S-6	b2	50/ 6"			
30	S-7	b2	50/ 4"			
35	S-8	b2	50/ 6"			
40			50/ 5"			

Drilling Method: Hollow-stem Auger

Ground Elevation (ft): 166.5

Drilled By: Cascade Drilling

GROUNDWATER



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

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Log of Boring and Well LAI-2

Figure
A-3
(1 of 2)

LAI-2

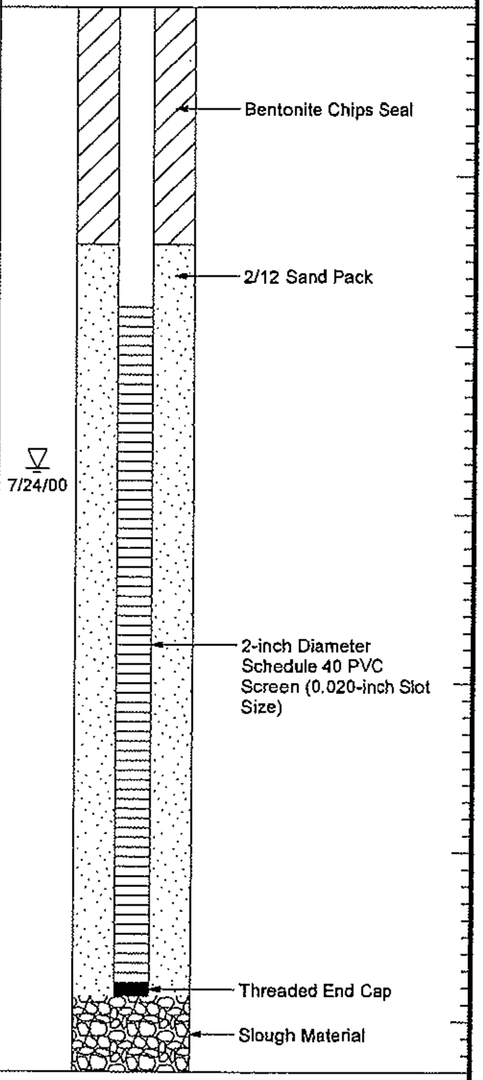
Drilling Method: Hollow-stem Auger

Ground Elevation (ft): 166.5

Drilled By: Cascade Drilling

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	USCS Symbol	Soil Profile
40	S-9	b2			GP-GM	Gray-brown, very sandy, fine to coarse GRAVEL with silt (very dense, wet)(native)
45	S-10	b2	50/ 6"		SP	Dark gray-brown, fine to medium SAND, trace silt (very dense, moist to wet)(native)
					SP	Brown, fine to coarse SAND with gravel, trace silt (very dense, wet)(native)
50	S-11	b2	50/ 3"			
55	S-12	b2	50/ 5"			
60	S-13	b2	95/ 10"		GP	Dark gray-brown, sandy, fine to coarse GRAVEL, trace silt (very dense, wet)(native)
65	S-14	b2	50/ 5"			
					SP	Dark gray-brown SAND, trace silt (very dense, wet)(native)
70						
75						
80						

GROUNDWATER



Boring Completed 07/20/00
Total Depth of Boring = 71.5 ft.

Well Completed 07/20/00
Elevation at Top of Well Casing = 169.10 ft.
Total Depth of Well = 69.3 ft.

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

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Log of Boring and Well LAI-2

Figure A-3 (2 of 2)

LAI-3

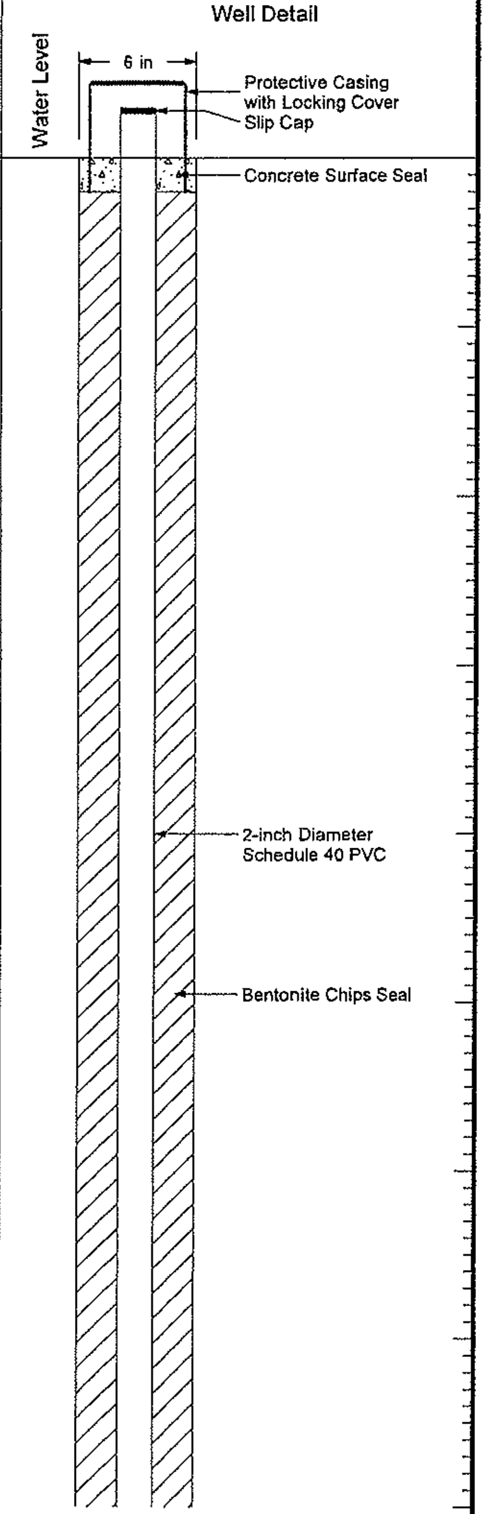
Drilling Method: Hollow-stem Auger

Ground Elevation (ft): 176

Drilled By: Cascade Drilling

SAMPLE DATA					SOIL PROFILE	
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	USCS Symbol	
0					GP	Brown, very sandy, fine to coarse GRAVEL (loose, damp)(fill)
					OL	Brown organic SILT with sand and fine gravel (stiff, damp)(fill)
	S-1	b2	13			
5	S-2	b2	3		DB	Orange-brown DEBRIS with glass and metal fragments (loose, damp)(waste fill)
10	S-3	b2	6			
						Decrease in debris content, silt with ash at base
15	S-4	b2	68/ 11"	W = 12 -200 = 8	ML	Gray with orange mottled SILT, with gravel (hard, damp)(fill?)
					SM	Gray-brown, silty, fine to coarse SAND with gravel (very dense, moist)(native)
20	S-5	b2	50/ 4"			
25	S-6	b2	50/ 5"			Decrease in silt content
					SP- SM	Brown-gray, very gravelly fine to coarse SAND, with silt (very dense to dense, moist)(native)
30	S-7	b2	50/ 6"			
35	S-8	b2	45			Decrease in silt content
40			50/ 5"			

GROUNDWATER



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

469016.31 11/9/00 S:\MODELING\GINTW\PROJECTS\469016.GPJ WELL LOG

LAI-3

SAMPLE DATA

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data
40	S-9	b2		
45	S-10	b2	85/ 9"	
50	S-11	b2	65/ 11"	
55	S-12	b2	50/ 6"	
60	S-13	b2	55	
65	S-14	b2	46	W = 31 -200 = 11

SOIL PROFILE

Drilling Method: Hollow-stem Auger

Ground Elevation (ft): 176

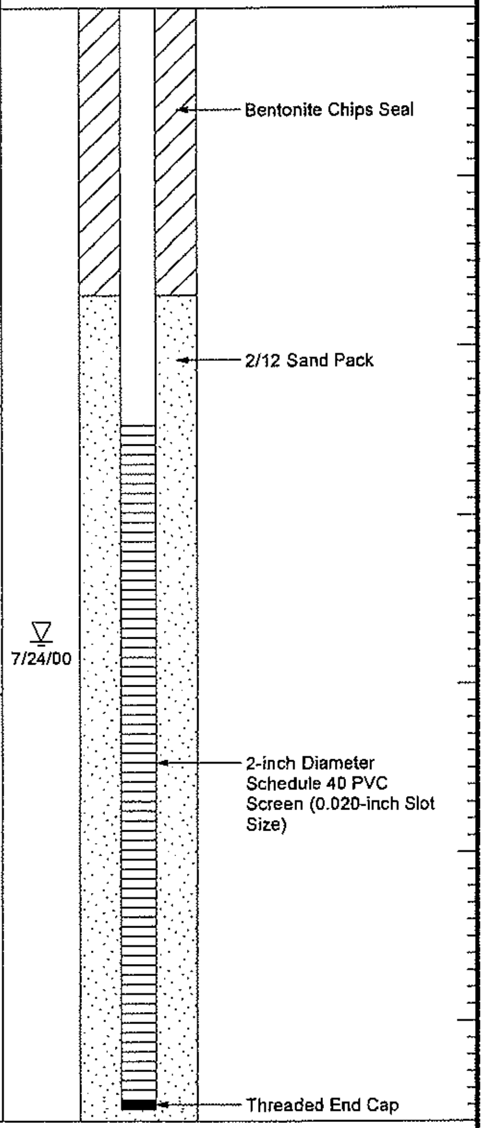
Drilled By: Cascade Drilling

USCS Symbol	Description
SP-SM	Gray-brown to gray, very gravelly, fine to coarse SAND with silt (very dense, damp)(native)
SP-SM	Brown-gray, very gravelly, medium to coarse SAND with silt (very dense, moist to wet)(native)
GP	Light brown to black, fine to coarse GRAVEL with sand, trace silt (very dense, wet)(native)
SP-SM	Gray-brown, fine to medium SAND with silt, to silty, fine to medium SAND (very dense, wet)(native) with moist silt lenses at top of unit

GROUNDWATER

Water Level

Well Detail



Boring Completed 07/19/00
Total Depth of Boring = 73.0 ft.

Well Completed 07/19/00
Elevation at Top of Well Casing = 178.70 ft.
Total Depth of Well = 72.7 ft.

Depth (ft): 70 75 80

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

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Log of Boring and Well LAI-3

Figure
A-4
(2 of 2)

LAI-4

SAMPLE DATA					SOIL PROFILE		GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): 174 Drilled By: Cascade Drilling	Water Level
0					SM	Dark brown, silty, fine to coarse SAND with occasional gravel, trace debris (glass and metal)(medium dense to dense, dry)(fill)	Groundwater not encountered.
	1	a2	77				
5	2	a2	31				
					DB	Dark red-brown, organic DEBRIS (burnt wood) with sand and silt (medium dense, dry)(waste fill)	
	3	a2	70				
					SM	Gray mottled with tan, silty fine SAND, trace gravel (very dense, damp to moist)(native)	
10	4	a2	100/ 4"	-200 = 23 W = 11 GS			
						Increase in sand and gravel content	
15	5	a2	100/ 5"				

Detail

6 in

Boring Completed 09/07/00
Total Depth of Boring = 15.5 ft.

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

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Log of Boring and LAI-4

Figure
A-5

LAI-5

SAMPLE DATA

SOIL PROFILE

Drilling Method: Hollow-stem Auger

Ground Elevation (ft): 179

Drilled By: Cascade Drilling

GROUNDWATER

Detail

6 in

Water Level

Groundwater not encountered.

Sample Number & Interval	Sampler Type	Blows/Foot	Test Data
1	a2	80/ 6"	
2	a2	26	
3	a2	72/ 9"	
4	a2	50/ 5"	-200 = 8 W = 11 GS
5	a2	44	
6	b2	82	
7	b2	50/ 6"	
8	b2	50/ 2"	
9	a2	100/ 5"	

Depth (ft): 0, 5, 10, 15, 20, 25, 30, 35, 40

USCS Symbol	Description
SM	Dark brown, silty, fine to coarse SAND with occasional gravel and wood debris (loose to very dense, damp)(fill)
DB	Red-brown DEBRIS including partly burnt wood, glass and metal with silt and sand (medium dense to very dense, damp)(waste fill)
SM	Gray mottled with tan, silty, fine to medium SAND with gravel and occasional sand layer (very dense, damp to moist)(native)

Boring Completed 09/07/00
Total Depth of Boring = 26.0 ft.

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

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Log of Boring and LAI-5

Figure
A-6

LAI-6

SAMPLE DATA

SOIL PROFILE

Drilling Method: Hollow-stem Auger

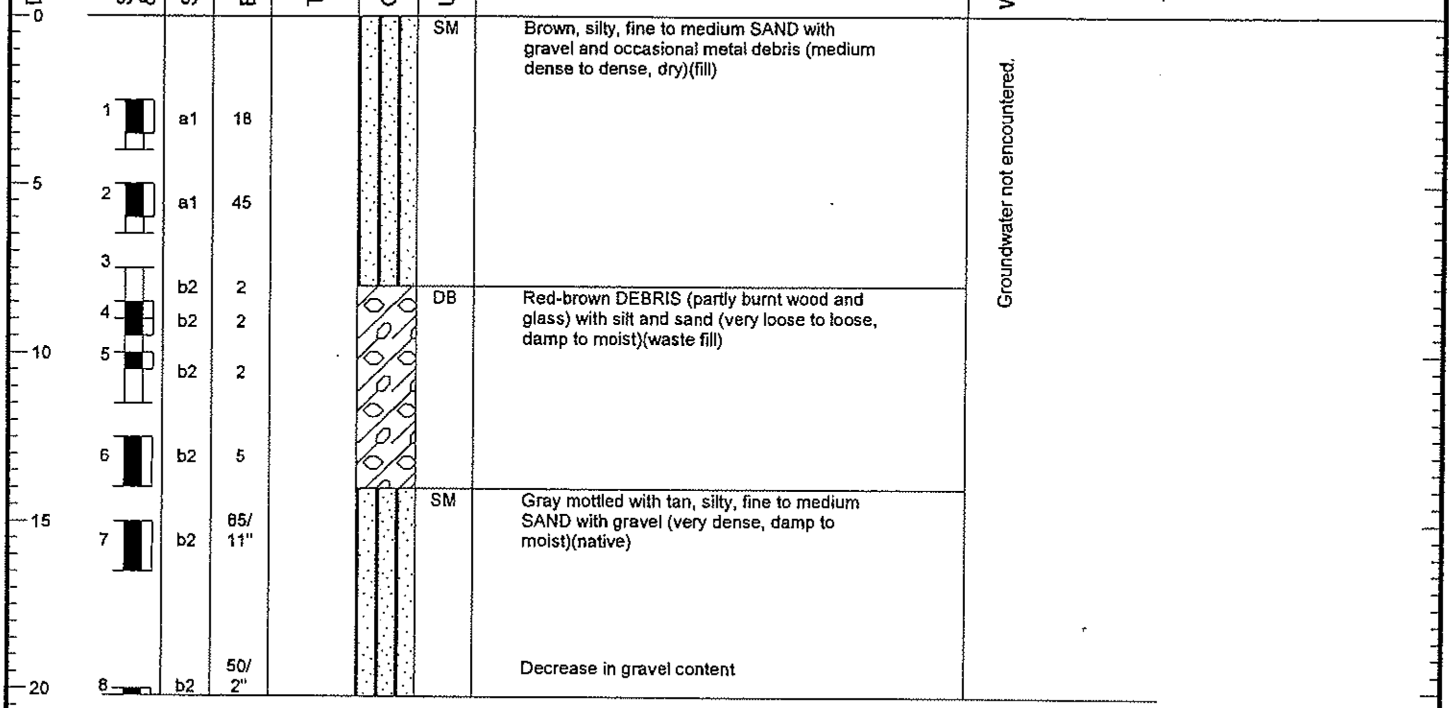
Ground Elevation (ft): 172

Drilled By: Cascade Drilling

GROUNDWATER

Detail

6 in



Sample Number & Interval	Sampler Type	Blows/Foot	Test Data
1	a1	18	
2	a1	45	
3	b2	2	
4	b2	2	
5	b2	2	
6	b2	5	
7	b2	65/ 11"	
8	b2	50/ 2"	

USCS Symbol	
SM	Brown, silty, fine to medium SAND with gravel and occasional metal debris (medium dense to dense, dry)(fill)
DB	Red-brown DEBRIS (partly burnt wood and glass) with silt and sand (very loose to loose, damp to moist)(waste fill)
SM	Gray mottled with tan, silty, fine to medium SAND with gravel (very dense, damp to moist)(native)
	Decrease in gravel content

Water Level: Groundwater not encountered.

Boring Completed 09/06/00
Total Depth of Boring = 20.2 ft.

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

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Log of Boring and LAI-6

Figure
A-7

LAI-7

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Drilling Method: Hollow-stem Auger

Ground Elevation (ft): 181

Drilled By: Cascade Drilling

Detail

← 6 in →

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Description	Water Level
0						DB	Red-brown, silty, DEBRIS (plastic, glass, metal and ash)(very loose to very dense, damp)(waste fill)	Groundwater not encountered.
	1	a1	50/ 5"					
5	2	a1	50/ 5"					
	3	a1	13					
							Increase in quantity of glass and ash	
10	4	a1	51				Becomes moist	
	5	b2	3				Becomes very loose	
15	6	b2	9					
						SM	Tan, silty, fine to medium SAND, with gravel (loose to medium dense, moist) (native)	
	7	b2	50/ 5"			SM	Gray, silty, fine to medium SAND with gravel (very dense, moist)(native)	
20								
25	8	b2	50/ 5"					

Boring Completed 09/07/00
Total Depth of Boring = 25.5 ft.

30

35

40

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
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3. Refer to Soil Classification System and Key figure for explanation of graphics and symbols.

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Log of Boring and LAI-7

Figure
A-8

LAI-8

SAMPLE DATA					SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): 175 Drilled By: Cascade Drilling	Water Level
0						SM	Brown, silty, medium SAND with gravel (very loose, damp)(fill)	Groundwater not encountered.
	1	a1	7			DB	Red-brown, organic DEBRIS (ash, partly burnt wood, glass and metal) with silt and sand (loose to medium dense, damp to moist)(waste fill)	
5	2	a1	11					
	3	a1	10					
10	4	a1	9					
	5	a1	17				Increase in silt content Increase in sand content	
15	6	b2	45					
						SM	Gray, silty, fine to coarse SAND with gravel (dense to very dense, damp)(native)	
20	7	b2	50/ 4"					
25								
30								
35								
40								

Detail

6 in

Boring Completed 09/07/00
Total Depth of Boring = 20.9 ft.

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

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Log of Boring and LAI-8

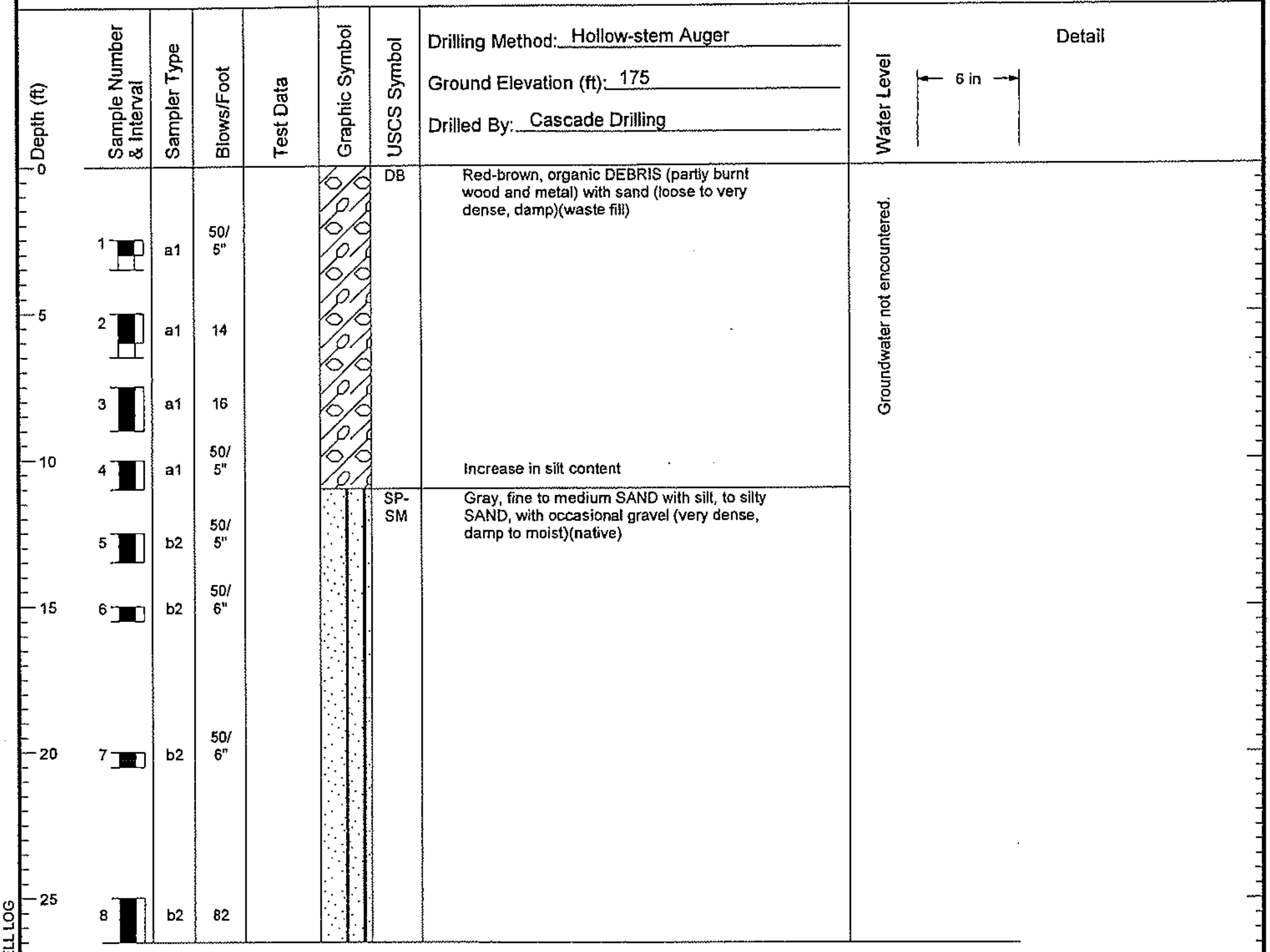
Figure
A-9

LAI-9

Drilling Method: Hollow-stem Auger

Ground Elevation (ft): 175

Drilled By: Cascade Drilling



SAMPLE DATA

Sample Number & Interval	Sampler Type	Blows/Foot	Test Data
1	a1	50/ 5"	
2	a1	14	
3	a1	16	
4	a1	50/ 5"	
5	b2	50/ 5"	
6	b2	50/ 6"	
7	b2	50/ 6"	
8	b2	82	

SOIL PROFILE

USCS Symbol	Description
DB	Red-brown, organic DEBRIS (partly burnt wood and metal) with sand (loose to very dense, damp)(waste fill) Increase in silt content
SP-SM	Gray, fine to medium SAND with silt, to silty SAND, with occasional gravel (very dense, damp to moist)(native)

GROUNDWATER

Groundwater not encountered.

Boring Completed 09/06/00
Total Depth of Boring = 26.5 ft.

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

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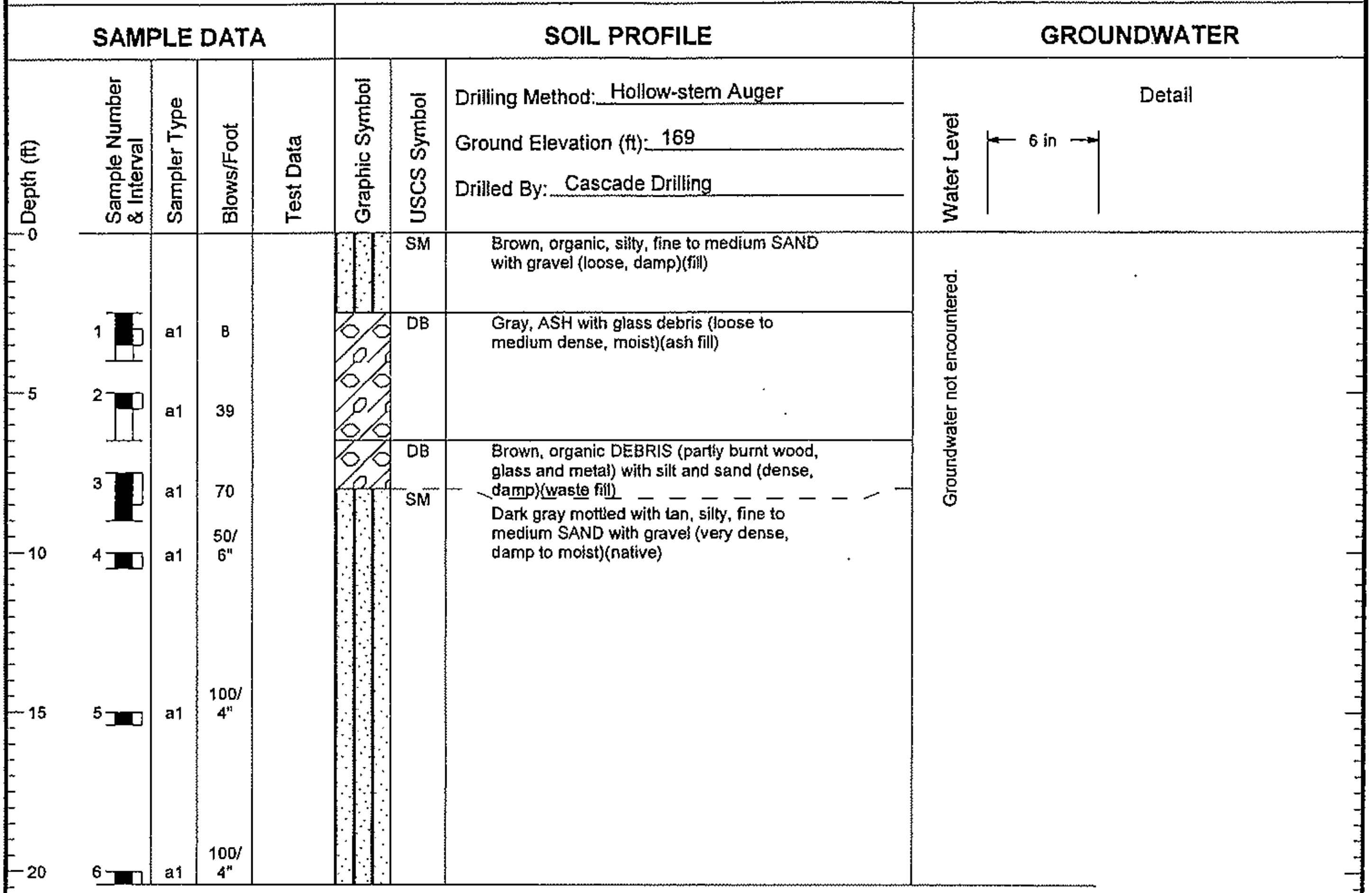
Log of Boring and LAI-9

Figure
A-10

LAI-10



Drilling Method: Hollow-stem Auger

Ground Elevation (ft): 169

Drilled By: Cascade Drilling

Sample Number & Interval	Sampler Type	Blows/Foot	Test Data
1	a1	8	
2	a1	39	
3	a1	70	
4	a1	50/ 6"	
5	a1	100/ 4"	
6	a1	100/ 4"	

USCS Symbol	Description
SM	Brown, organic, silty, fine to medium SAND with gravel (loose, damp)(fill)
DB	Gray, ASH with glass debris (loose to medium dense, moist)(ash fill)
DB	Brown, organic DEBRIS (partly burnt wood, glass and metal) with silt and sand (dense, damp)(waste fill)
SM	Dark gray mottled with tan, silty, fine to medium SAND with gravel (very dense, damp to moist)(native)

Groundwater not encountered.

Boring Completed 09/07/00
Total Depth of Boring = 20.4 ft.

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

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Log of Boring and LAI-10

Figure
A-11

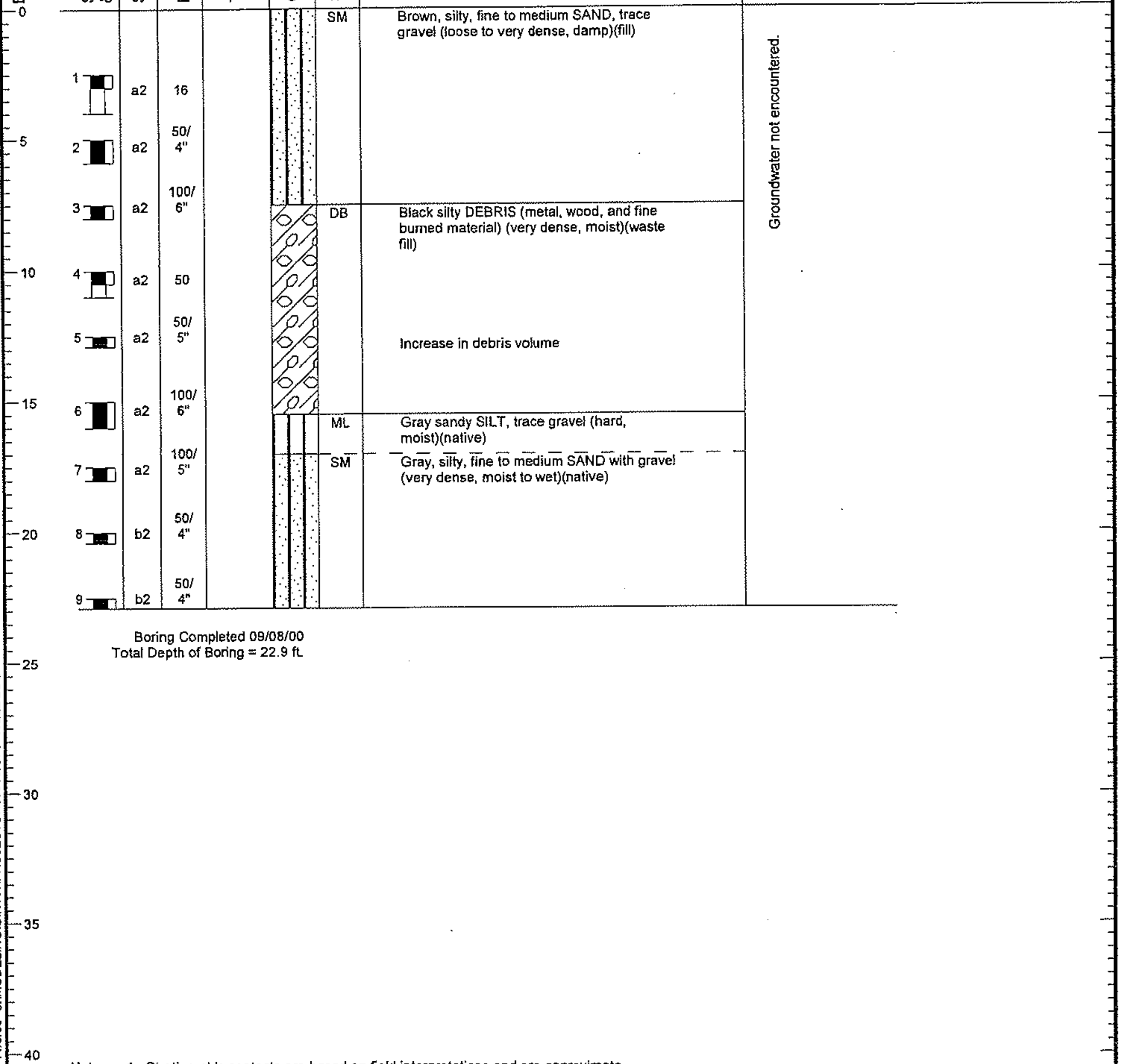
LAI-11

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Drilling Method: Hollow-stem Auger

Ground Elevation (ft): 176

Drilled By: Cascade Drilling



Sample Number & Interval	Sampler Type	Blows/Foot	Test Data
1	a2	16	
2	a2	50/ 4"	
3	a2	100/ 6"	
4	a2	50	
5	a2	50/ 5"	
6	a2	100/ 6"	
7	a2	100/ 5"	
8	b2	50/ 4"	
9	b2	50/ 4"	

USCS Symbol	Description
SM	Brown, silty, fine to medium SAND, trace gravel (loose to very dense, damp)(fill)
DB	Black silty DEBRIS (metal, wood, and fine burned material) (very dense, moist)(waste fill) Increase in debris volume
ML	Gray sandy SILT, trace gravel (hard, moist)(native)
SM	Gray, silty, fine to medium SAND with gravel (very dense, moist to wet)(native)

Groundwater not encountered.

Boring Completed 09/08/00
Total Depth of Boring = 22.9 ft.

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

Landau Associates

Home Depot
Olympia, WA

Log of Boring and LAI-11

Figure
A-12

LAI-12

SAMPLE DATA · SOIL PROFILE · GROUNDWATER

Drilling Method: Hollow-stem Auger

Ground Elevation (ft): 167

Drilled By: Cascade Drilling

Detail

6 in

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	USCS Symbol	Description	Water Level
0					DB	Tan ASH with occasional gravel (loose, dry)(ash fill)	Groundwater not encountered.
	1	b2	8		DB	Black, organic DEBRIS (glass and metal) with sand and silt (very loose, damp)(waste fill)	
5	2	b2	2		DB	Tan ASH (very loose, moist)(ash fill)	
	3	b2	3		DB	Black, silty DEBRIS (partly burnt wood, glass and metal) with sand and trace gravel (very loose to very dense, damp)(waste fill)	
10	4	b2	5				
	5	b2	51				
15	6	b2	81		SP-SM	Gray mottled with tan, fine to medium SAND with silt and gravel, with silty sand layers (very dense, damp)(native)	
20	7	b2	50/ 4.5"				
25	8	b2	50/ 5"				

Boring Completed 09/06/00
Total Depth of Boring = 25.5 ft.

30

35

40

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

469016.31 11/9/00 S:\MODELING\GINTW\PROJECTS\469016.GPJ WELL LOG

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Log of Boring and LAI-12

Figure
A-13

LAI-13

Drilling Method: Hollow-stem Auger

Ground Elevation (ft): 176

Drilled By: Cascade Drilling

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	USCS Symbol	SOIL PROFILE	GROUNDWATER
0					DB	Red-brown, organic DEBRIS (partly burnt glass, metal and wood) with sand and silt (very loose to loose, moist)(waste fill)	Groundwater not encountered.
	1	a1	8				
5	2	a1	10	-200 = 10 W = 20 GS			
	3	a1	10				
10	4	b2	1				
	5	b2	2				
15	6	b2	33		SM	Gray, silty, fine to medium SAND with layers of coarser wet sand (dense to very dense, moist to wet)(native)	
20	7	b2	64				
25	8	b2	90				

Water Level Detail: 6 in

Boring Completed 09/06/00
Total Depth of Boring = 26.5 ft.

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

LAI-14

SAMPLE DATA

Sample Number & Interval	Sampler Type	Blows/Foot	Test Data
1	a2	100/ 4"	
2	a2	80/ 6"	
3	a2	22	
4	a2	40	
5	a2	50/ 6"	
6	b2	57	
7	b2	99/ 11"	-200 = 11 W = 7 GS
8	b2	50/ 5"	

SOIL PROFILE

Drilling Method: Hollow-stem Auger

Ground Elevation (ft): 176

Drilled By: Cascade Drilling

USCS Symbol	Description
SM	Brown, silty, fine to medium SAND with occasional gravel (medium dense, damp)(fill)
DB	Black, organic, sandy DEBRIS (partly burnt wood, glass, metal and occasional bricks)(loose to very dense, moist to wet)(waste fill)
SP-SM	Gray, gravelly, fine to medium SAND with silt (very dense, moist to wet)(native) Decrease in silt content

GROUNDWATER

Water Level

Detail

6 in

Groundwater not encountered.

Depth (ft): 0, 5, 10, 15, 20, 25, 30, 35, 40

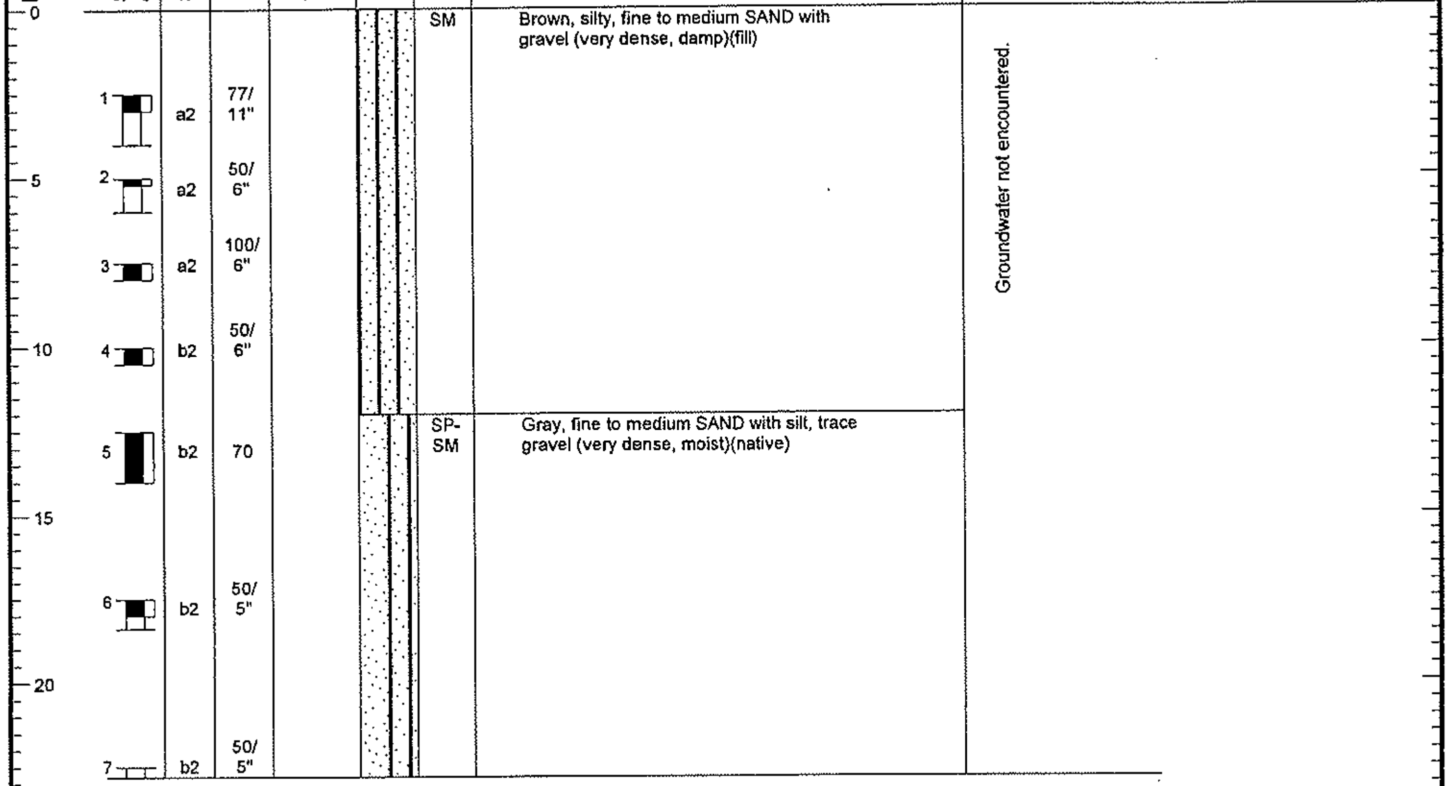
Boring Completed 09/08/00
Total Depth of Boring = 26.0 ft.

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

LAI-15

SAMPLE DATA				SOIL PROFILE			GROUNDWATER

Drilling Method: Hollow-stem Auger
Ground Elevation (ft): 168
Drilled By: Cascade Drilling



Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	USCS Symbol	Description	Water Level
				SM	Brown, silty, fine to medium SAND with gravel (very dense, damp)(fill)	Groundwater not encountered.
1	a2	77/ 11"				
2	a2	50/ 6"				
3	a2	100/ 6"				
4	b2	50/ 6"				
				SP-SM	Gray, fine to medium SAND with silt, trace gravel (very dense, moist)(native)	
5	b2	70				
6	b2	50/ 5"				
7	b2	50/ 5"				

Boring Completed 09/08/00
Total Depth of Boring = 22.8 ft.

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

469016.31 11/9/00 S:\MODELING\GINTW\PROJECTS\469016.GPJ WELL LOG

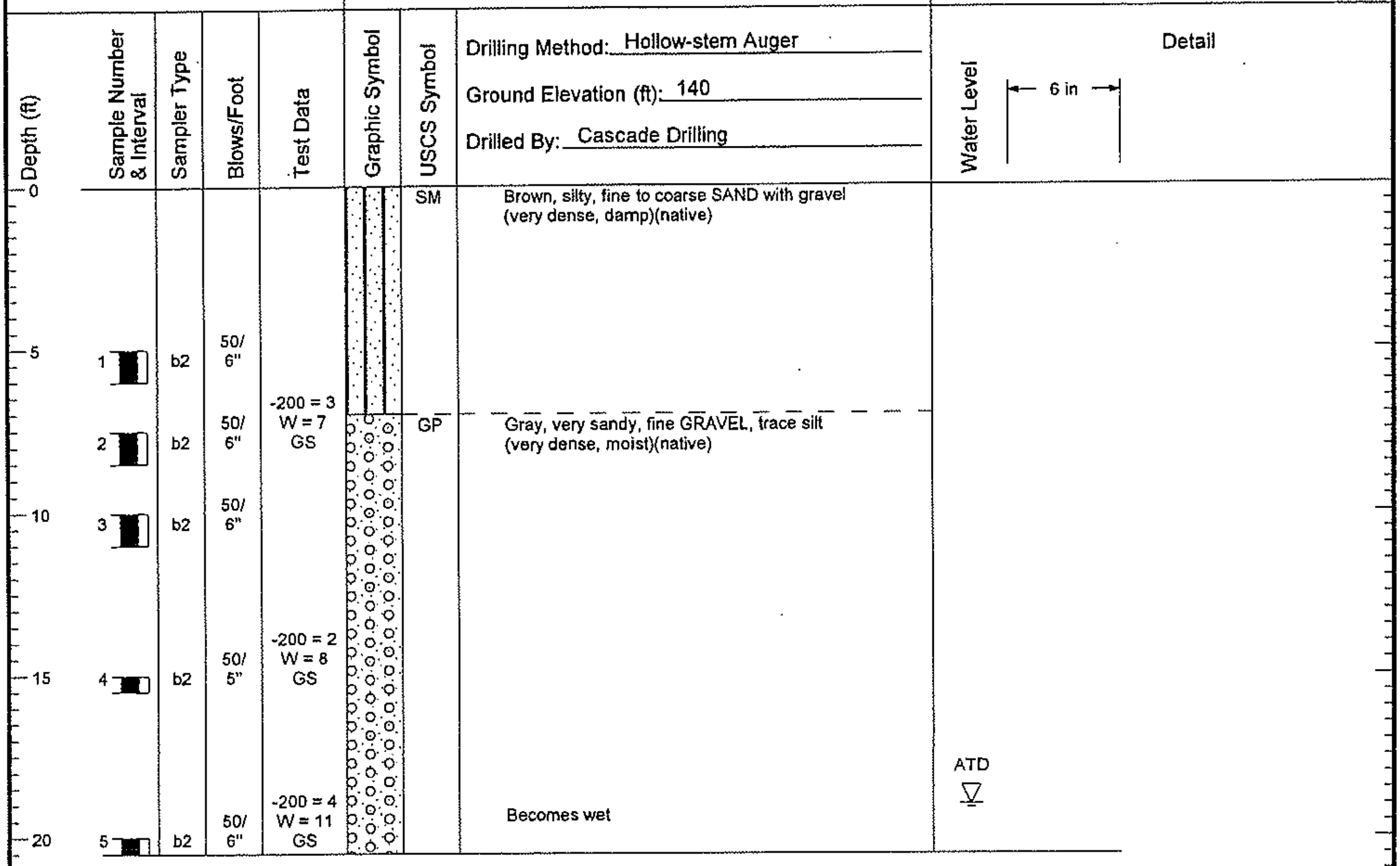
Landau Associates

Home Depot Olympia, WA	Log of Boring and LAI-15	Figure A-16

LAI-16

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Drilling Method: Hollow-stem Auger
Ground Elevation (ft): 140
Drilled By: Cascade Drilling



Sample Number & Interval	Sampler Type	Blows/Foot	Test Data
1	b2	50/ 6"	
2	b2	50/ 6"	-200 = 3 W = 7 GS
3	b2	50/ 6"	
4	b2	50/ 5"	-200 = 2 W = 8 GS
5	b2	50/ 6"	-200 = 4 W = 11 GS

USCS Symbol	Description
SM	Brown, silty, fine to coarse SAND with gravel (very dense, damp)(native)
GP	Gray, very sandy, fine GRAVEL, trace silt (very dense, moist)(native)
	Becomes wet

Boring Completed 09/11/00
Total Depth of Boring = 20.5 ft.

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

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Olympia, WA

Log of Boring and LAI-16

Figure
A-17

LAI-17

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): 176 Drilled By: Cascade Drilling	Water Level	Detail 6 in
0						DB	Tan ASH with occasional glass fragments (very loose to very dense, moist)(ash fill)	Groundwater not encountered.	
	1	a1	4						
5	2	a1	50/ 6"						
						DB	Dark brown, silty DEBRIS (partly burnt wood, glass and metal) with sand and occasional gravel (medium dense to very dense, damp)(waste fill)		
	3	a1	36						
10	4	a1	100/ 5"			SP-SM	Gray mottled with tan, fine to medium SAND with silt and gravel (very dense, damp to moist)(native)		
	5	a1	65/ 6"						
15	6	a1	100/ 4"						
	7	a1	100/ 6"						

Boring Completed 09/06/00
Total Depth of Boring = 16.6 ft.

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

469016.31 11/9/00 S:\MODELING\GINTW\PROJECTS\469016.GPJ WELL LOG

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Log of Boring and LAI-17

Figure
A-18

LAI-18

SAMPLE DATA

SOIL PROFILE

Drilling Method: Hollow-stem Auger

Ground Elevation (ft): 170

Drilled By: Cascade Drilling

GROUNDWATER

Water Level

Detail

6 in

Groundwater not encountered.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	
0						SM	Brown, silty, fine to medium SAND with occasional gravel (medium dense, damp)(fill)
	1	b2	18				
5	2	b2	14			DB	Dark brown, silty DEBRIS (partly burnt paper, wood, glass and metal) with sand (loose to dense, damp)(waste fill)
	3	a2	24				
10	4	a2	48				
	5	b2	53			SM	Gray, very silty, fine to medium SAND and occasional gravel with layers of coarser wet sand (very dense, moist to wet)(native)
15	6	b2	50/ 5"				
				-200 = 54		ML	Increase in silt content to very sandy SILT (hard, moist)
20	7	b2	80	W = 9 -200 = 54			
25							
30							
35							
40							

Boring Completed 09/11/00
Total Depth of Boring = 21.5 ft.

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

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Olympia, WA

Log of Boring and LAI-18

Figure
A-19

LAI-19

SAMPLE DATA

Sample Number & Interval	Sampler Type	Blows/Foot	Test Data
1	a2	50/ 6"	
2	a2	50/ 5"	
3	a2	61	
4	a2	50/ 6"	
5	a2	50/ 6"	
6	a2	50/ 6"	
7	a2	50/ 3"	
8	a2	50/ 3"	

Depth (ft): 0, 5, 10, 15, 20, 25, 30, 35, 40

SOIL PROFILE

Drilling Method: Hollow-stem Auger

Ground Elevation (ft): 178

Drilled By: Cascade Drilling

USCS Symbol	
GM	Brown, silty, fine GRAVEL (medium dense, wet)(fill)
DB	Black, silty DEBRIS (partly burnt glass, metal and paper) with sand (medium dense to very dense, wet)(waste fill)
SM	Gray, silty, fine to medium SAND with gravel and layers of coarser wet sand (very dense, damp to wet)(native)

GROUNDWATER

Water Level

Detail

6 in

Groundwater not encountered.

Boring Completed 09/08/00
Total Depth of Boring = 25.3 ft.

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

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Log of Boring and LAI-19

Figure
A-20

TP-1

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Test Data	Graphic Symbol	USCS Symbol	Excavation Method: Rubber-tired Backhoe Ground Elevation (ft): 170 Excavated By: CEcon Corp	
0					DB	Brown, silty, DEBRIS (cassette tape, film, glass and plastic) with sand and gravel (loose, damp)(waste fill)	Groundwater not encountered.

Depth (ft): 0, 5, 10, 15, 20

Test Pit Completed 09/12/00
Total Depth of Test Pit = 14.0 ft.

TP-2

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)			Test Data	Graphic Symbol	USCS Symbol	Excavation Method: Rubber-tired Backhoe Ground Elevation (ft): 160 Excavated By: CEcon Corp	
0	1 2	d d			DB	Brown, silty, DEBRIS (construction debris, glass and wood) with sand (loose, damp)(waste fill)	Groundwater not encountered.
					SM	Gray mottled with red-brown, silty, fine to medium SAND with gravel (very dense,. moist)(native)	

Depth (ft): 0, 5, 10, 15, 20

Test Pit Completed 09/12/00
Total Depth of Test Pit = 4.5 ft.

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

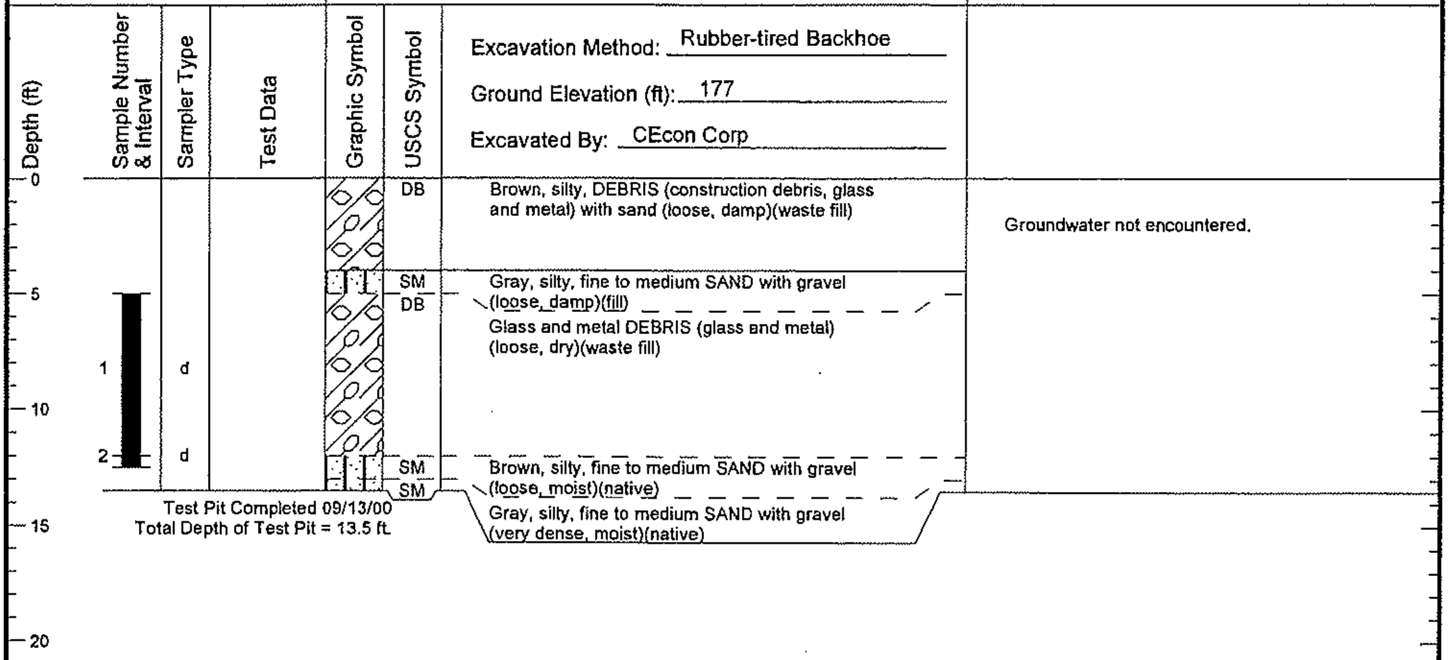
Landau Associates

Home Depot
Olympia, WA

Log of Test Pits

Figure
A-21

TP-3

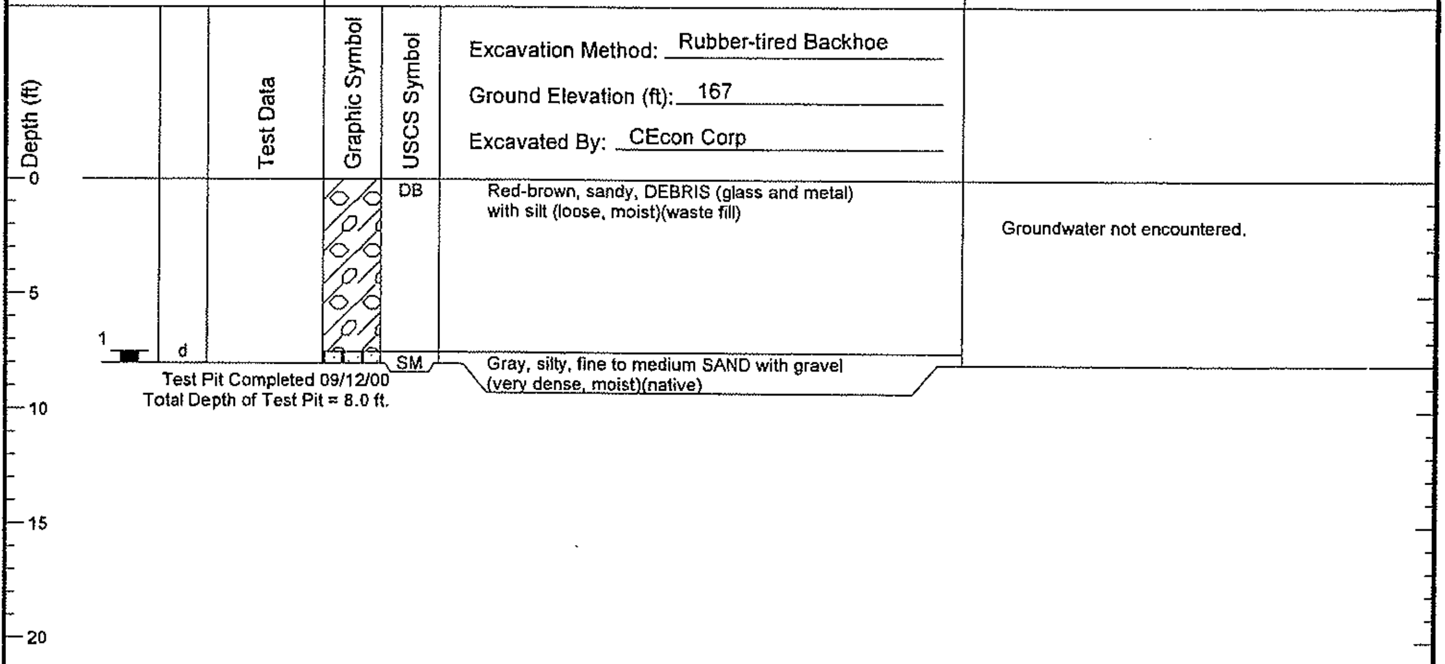


SAMPLE DATA	SOIL PROFILE	GROUNDWATER
	Excavation Method: Rubber-tired Backhoe Ground Elevation (ft): 177 Excavated By: CEcon Corp	

USCS Symbol	Description	Groundwater
DB	Brown, silty, DEBRIS (construction debris, glass and metal) with sand (loose, damp)(waste fill)	Groundwater not encountered.
SM	Gray, silty, fine to medium SAND with gravel (loose, damp)(fill)	
DB	Glass and metal DEBRIS (glass and metal) (loose, dry)(waste fill)	
SM	Brown, silty, fine to medium SAND with gravel (loose, moist)(native)	
SM	Gray, silty, fine to medium SAND with gravel (very dense, moist)(native)	

Test Pit Completed 09/13/00
Total Depth of Test Pit = 13.5 ft.

TP-4



SAMPLE DATA	SOIL PROFILE	GROUNDWATER
	Excavation Method: Rubber-tired Backhoe Ground Elevation (ft): 167 Excavated By: CEcon Corp	

USCS Symbol	Description	Groundwater
DB	Red-brown, sandy, DEBRIS (glass and metal) with silt (loose, moist)(waste fill)	Groundwater not encountered.
SM	Gray, silty, fine to medium SAND with gravel (very dense, moist)(native)	

Test Pit Completed 09/12/00
Total Depth of Test Pit = 8.0 ft.

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

469016.10 11/9/00 S:\MODELING\GINTW\PROJECTS\469022.GPJ TEST PIT LOG

Landau Associates

Home Depot
Olympia, WA

Log of Test Pits

Figure
A-22

TP-5

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Excavation Method: Rubber-tired Backhoe

Ground Elevation (ft): 175

Excavated By: CEcon Corp

Depth (ft)	Sample Number & Interval	Sampler Type	Test Data	USCS Symbol		Groundwater
0				DB	Brown, sandy, DEBRIS (glass and metal) with silt (loose, damp)(waste fill)	Groundwater not encountered.
					Increasing amount of glass and metal	
5						
	1	d				
10						
	2	d		SM	Mottled red-brown, silty, fine to medium SAND with gravel (very dense, moist)(native)	
	3	d		SM	Gray mottled with red-brown, silty, fine to medium SAND with gravel (very dense, moist)(native)	
15						
20						

Test Pit Completed 09/13/00
Total Depth of Tast Pit = 12.5 ft.

TP-6

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Excavation Method: Rubber-tired Backhoe

Ground Elevation (ft): 173

Excavated By: CEcon Corp

Depth (ft)			Test Data	USCS Symbol		Groundwater
0				SM	Brown, silty, fine to medium SAND with gravel, trace pipe and glass (loose, damp) (fill)	Groundwater not encountered.
				GP	Gray, sandy, fine GRAVEL (loose, damp)(fill)	
5				DB	Brown, silty, DEBRIS (glass, metal and wood)(loose, damp)(waste fill)	
	1	d				
10						
	2	d		SM	Gray to mottled reddish-brown, silty, fine to medium SAND with gravel (very dense, moist)(native)	
15						
20						

Test Pit Completed 09/13/00
Total Depth of Test Pit = 13.5 ft.

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

TP-7

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Test Data	Graphic Symbol	USCS Symbol	Excavation Method: Rubber-tired Backhoe Ground Elevation (ft): 176 Excavated By: CEcon Corp	
0					DB	Brown, sandy, DEBRIS (metal pipe, organic material) with silt (loose, damp)(waste fill)	Groundwater not encountered.
5					ML	Brown SILT (medium stiff, wet)(fill)	
					GP	Gray, sandy, fine GRAVEL (medium dense, wet)(fill)	
10	1	d			DB	Brown, DEBRIS (metal, paper and glass)(loose, wet)(waste fill)	

Test Pit Completed 09/12/00
Total Depth of Test Pit = 13.0 ft.

15

20

TP-8

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)			Test Data	Graphic Symbol	USCS Symbol	Excavation Method: Rubber-tired Backhoe Ground Elevation (ft): 179 Excavated By: CEcon Corp	
0					SM	Brown to gray, silty, fine to medium SAND with gravel (loose, damp)(fill)	Groundwater not encountered.
5	1	d			DB	Brown, DEBRIS (partly burnt wood, glass and metal)(loose, moist)(waste fill)	
10						General caving observed	

Test Pit Completed 09/12/00
Total Depth of Test Pit = 12.0 ft.

15

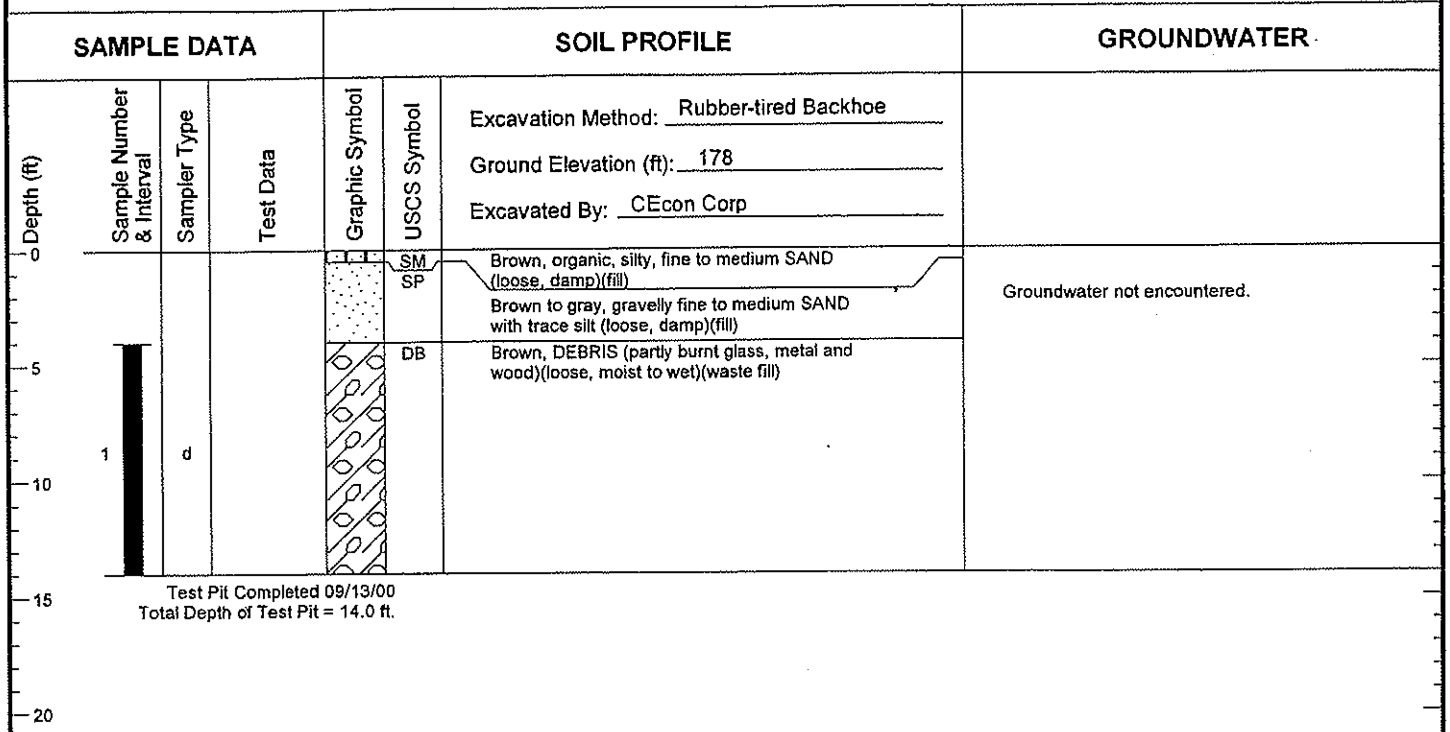
20

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

469016.10 11/9/00 S:\MODELING\GINT\PROJECTS\469022.GPJ TEST PIT LOG

Landau Associates	Home Depot Olympia, WA	Log of Test Pits	Figure A-24

TP-9



Excavation Method: Rubber-tired Backhoe

Ground Elevation (ft): 178

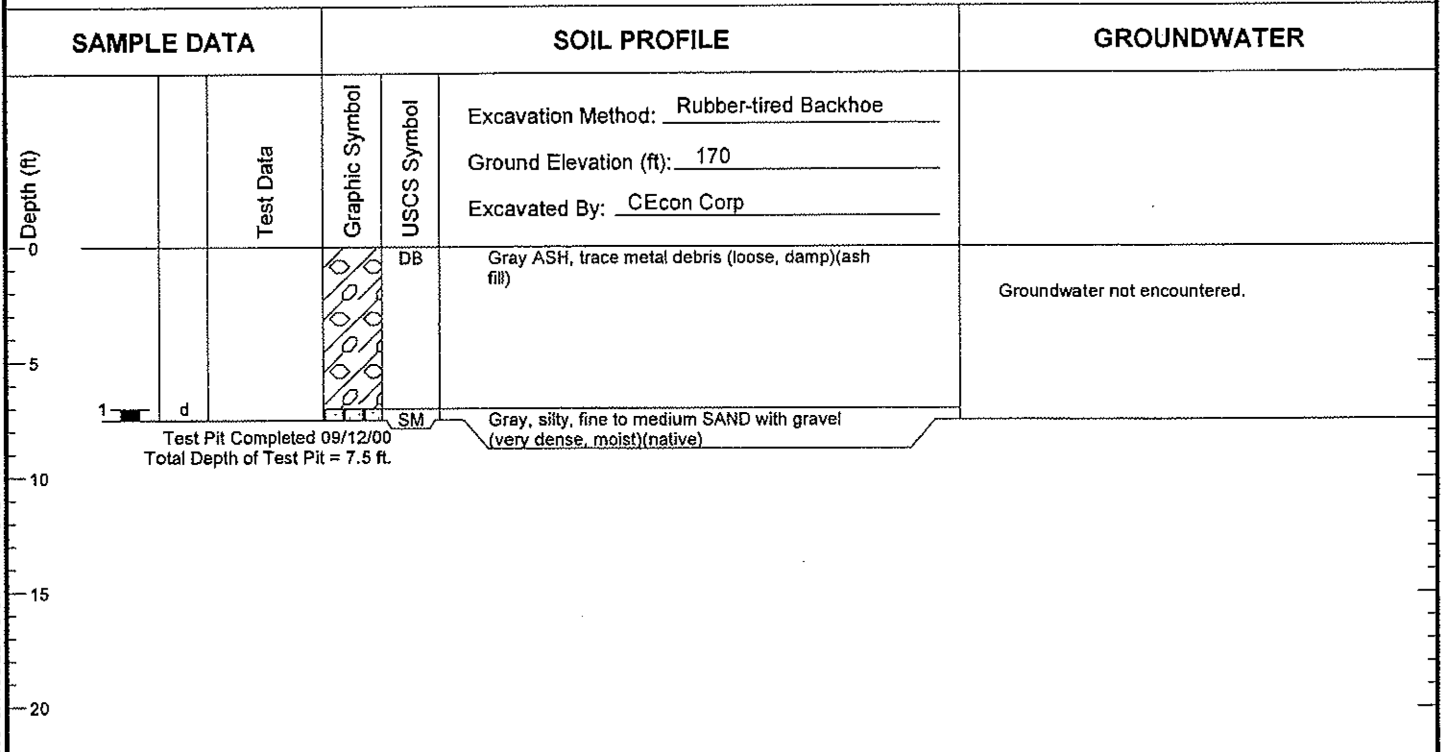
Excavated By: CEcon Corp

USCS Symbol	Description
SM	Brown, organic, silty, fine to medium SAND (loose, damp)(fill)
SP	Brown to gray, gravelly fine to medium SAND with trace silt (loose, damp)(fill)
DB	Brown, DEBRIS (partly burnt glass, metal and wood)(loose, moist to wet)(waste fill)

Groundwater not encountered.

Test Pit Completed 09/13/00
Total Depth of Test Pit = 14.0 ft.

TP-10



Excavation Method: Rubber-tired Backhoe

Ground Elevation (ft): 170

Excavated By: CEcon Corp

USCS Symbol	Description
DB	Gray ASH, trace metal debris (loose, damp)(ash fill)
SM	Gray, silty, fine to medium SAND with gravel (very dense, moist)(native)

Groundwater not encountered.

Test Pit Completed 09/12/00
Total Depth of Test Pit = 7.5 ft.

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

Landau Associates

Home Depot
Olympia, WA

Log of Test Pits

Figure
A-25

TP-11

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Test Data	Graphic Symbol	USCS Symbol	Excavation Method: Rubber-tired Backhoe Ground Elevation (ft): 172 Excavated By: CEcon Corp	
0					DB	Brown DEBRIS (partly burnt wood, glass, porcelain and metal)(loose, damp)(waste fill)	Groundwater not encountered.
5	1	d					
	2	d			SM	Gray mottled with yellow-orange, silty, fine to medium SAND with gravel (very dense, damp to moist)(native)	
10							
15							
20							

Test Pit Completed 09/12/00
Total Depth of Test Pit = 9.5 ft.

TP-12

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)			Test Data	Graphic Symbol	USCS Symbol	Excavation Method: Rubber-tired Backhoe Ground Elevation (ft): 165 Excavated By: CEcon Corp	
0	1	d	W = 59 -200 = 93		DB	Gray ASH (loose, wet)(ash fill)	Groundwater not encountered.
	2	d			SM	Gray mottled with yellow-orange, silty, fine to medium SAND with gravel (dense, damp)(native)	
5					SP-SM	Gray, gravelly, fine to medium SAND, with silt (very dense, damp)(native)	
10							
15							
20							

Test Pit Completed 09/12/00
Total Depth of Test Pit = 4.5 ft.

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

469016.10 11/9/00 S:\MODELING\GINT\WPROJECTS\469022.GPJ TEST PIT LOG

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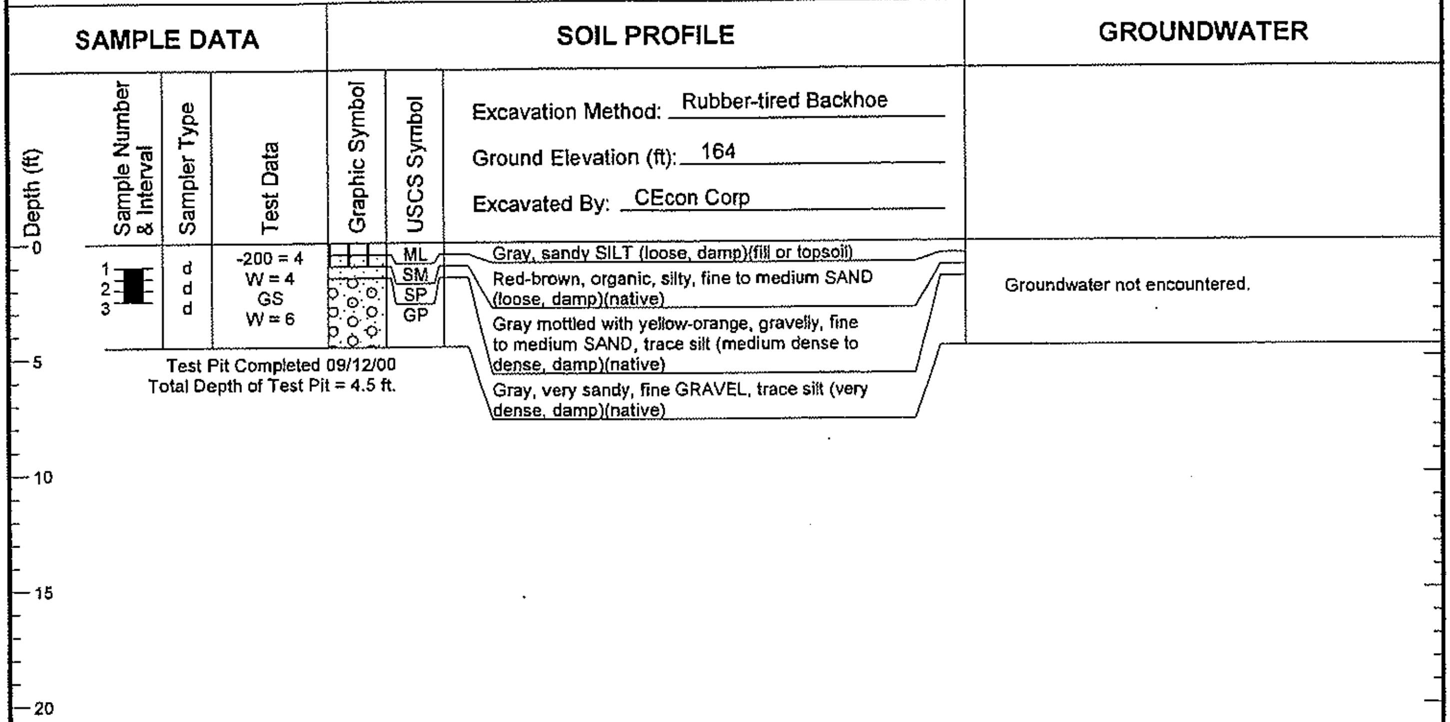
Home Depot
Olympia, WA

Log of Test Pits

Figure
A-26

TP-13



Excavation Method: Rubber-tired Backhoe

Ground Elevation (ft): 164

Excavated By: CEcon Corp

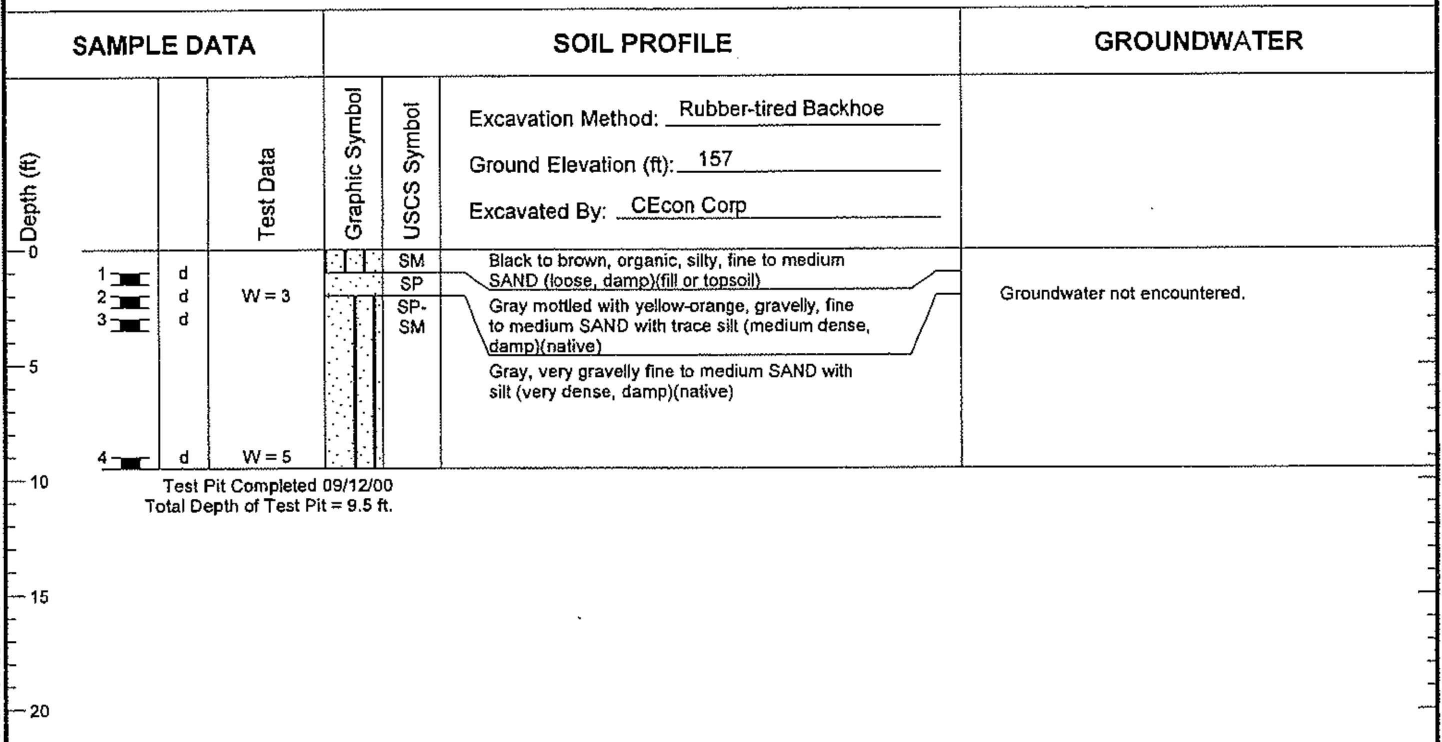
Sample Number & Interval	Sampler Type	Test Data
1	d	-200 = 4
2	d	W = 4 GS
3	d	W = 6

USCS Symbol	Soil Description
ML	Gray, sandy SILT (loose, damp)(fill or topsoil)
SM	Red-brown, organic, silty, fine to medium SAND (loose, damp)(native)
SP	Gray mottled with yellow-orange, gravelly, fine to medium SAND, trace silt (medium dense to dense, damp)(native)
GP	Gray, very sandy, fine GRAVEL, trace silt (very dense, damp)(native)

Groundwater not encountered.

Test Pit Completed 09/12/00
Total Depth of Test Pit = 4.5 ft.

TP-14



Excavation Method: Rubber-tired Backhoe

Ground Elevation (ft): 157

Excavated By: CEcon Corp

Sample		Test Data
1	d	
2	d	W = 3
3	d	
4	d	W = 5

USCS Symbol	Soil Description
SM	Black to brown, organic, silty, fine to medium SAND (loose, damp)(fill or topsoil)
SP	Gray mottled with yellow-orange, gravelly, fine to medium SAND with trace silt (medium dense, damp)(native)
SP-SM	Gray, very gravelly fine to medium SAND with silt (very dense, damp)(native)

Groundwater not encountered.

Test Pit Completed 09/12/00
Total Depth of Test Pit = 9.5 ft.

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

Landau Associates	Home Depot Olympia, WA	Log of Test Pits	Figure A-27

Hart Crowser Test Pits, 1986
(HC-1 through HC-6A)

LOG OF TEST PIT HC-1

JOB NUMBER J-1745-00
29 MAY 1986

DEPTH IN FEET	MATERIAL DESCRIPTION
0 to 2	Loose, brown, slightly gravelly, silty, fine SAND with some roots
2 to 9	Very dense, poorly cemented, gray, silty, very gravelly, fine to coarse SAND (till material)

Comments: Gas probe installed in test pit. Probe screened from depth 4 feet to 9 feet. No water encountered in pit. Bag samples obtained at depth 4 feet and at depth 8 feet.

LOG OF TEST PIT HC-2

JOB NUMBER J-1745-00
29 MAY 1986

DEPTH IN FEET	MATERIAL DESCRIPTION
0 to 2	Loose, brown, slightly gravelly, silty, fine SAND with some roots
2 to 9.5	Burned REFUSE (ashes, glass, and rusted metal) with silty sand. Very little organic matter

Comments: Gas probe installed in test pit. Probe screened from depth 4.5 feet to 9.5 feet. Refuse material was not penetrated. No water encountered in pit. MSA 361 indicated methane concentration less than 1% of lower explosive limit.

LOG OF TEST PIT HC-3

JOB NUMBER J-1745-00
29 MAY 1986

DEPTH IN FEET	MATERIAL DESCRIPTION
0 to 2	Loose, brown, slightly gravelly, silty, fine to medium SAND with some roots
2 to 5	Very dense, poorly cemented, gray, silty, very gravelly, fine to coarse SAND (till material)
5 to 9.5	Dense, gray, slightly silty SAND (no gravel, clean and uniform)

Comments: Gas probe installed in test pit. Probe screened from depth 4.5 feet to 9.5 feet. No water encountered in pit. Bag samples obtained at depth 4 feet and at depth 8 feet.

LOG OF TEST PIT HC-4

JOB NUMBER J-1745-00
29 MAY 1986

DEPTH IN FEET	MATERIAL DESCRIPTION
0 to 2	Loose, brown, slightly gravelly, silty, fine to medium SAND with some roots
2 to 8	Very dense, well cemented, gray, silty, very gravelly, fine to coarse SAND (till material)

Comments: Gas probe installed in test pit. Probe screened from depth 3 feet to 8 feet. No water encountered in pit. Bag sample obtained at depth 6 feet. Very difficult to dig.

LOG OF TEST PIT HC-5

JOB NUMBER J-1745-00
29 MAY 1986

DEPTH IN FEET	MATERIAL DESCRIPTION
0 to 1	Loose, brown, silty, fine to medium SAND with some roots and gravel
2 to 5	Very dense, well cemented, gray, gravelly, very silty, fine to medium SAND (till material)

Comments: No water encountered in pit. Very difficult to dig. Bag sample obtained at depth 4 feet.

LOG OF TEST PIT HC-6

JOB NUMBER J-1745-00
29 MAY 1986

DEPTH IN FEET	MATERIAL DESCRIPTION
0 to 1	Burned REFUSE (ashes, glass, and rusted metal), with silty sand. Very little organic matter
1 to 3	Loose, brown, slightly gravelly, silty, fine to medium SAND
3 to 6	Very dense, gray, silty, very gravelly, fine to coarse SAND (till material)

Comments: No water encountered in pit.

LOG OF TEST PIT HC-6A

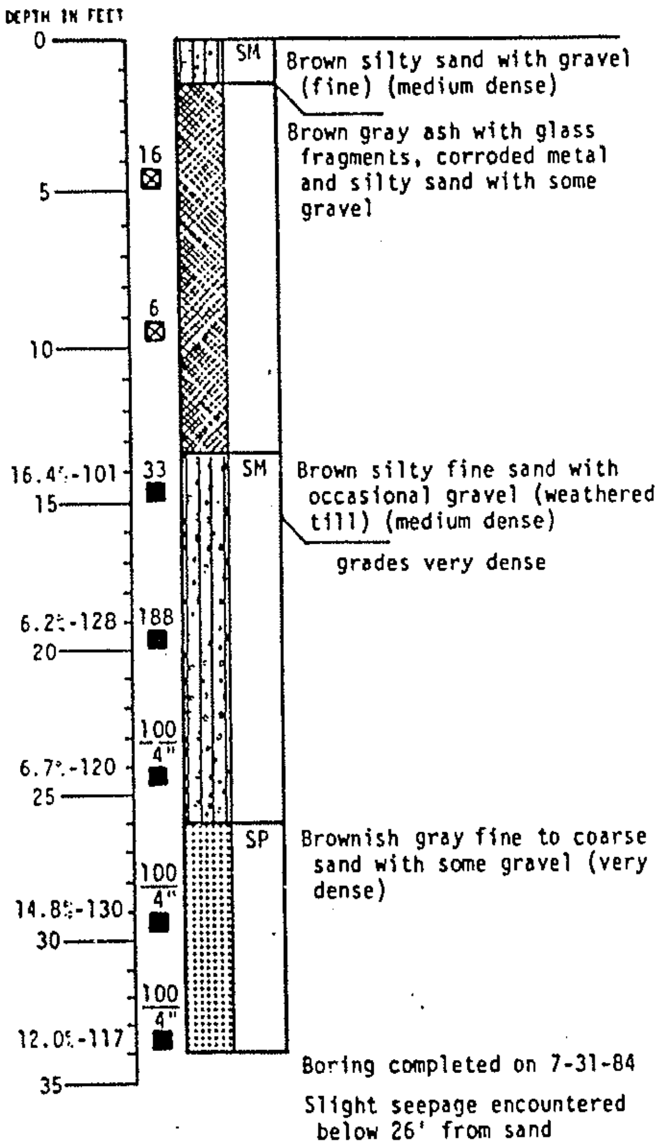
JOB NUMBER J-1745-00
29 MAY 1986

DEPTH IN FEET	MATERIAL DESCRIPTION
0 to 1	Loose, brown, slightly gravelly, silty, fine to medium SAND with some roots
2 to 4	Very dense, well cemented, gray, gravelly, very silty, fine to medium SAND (till material)

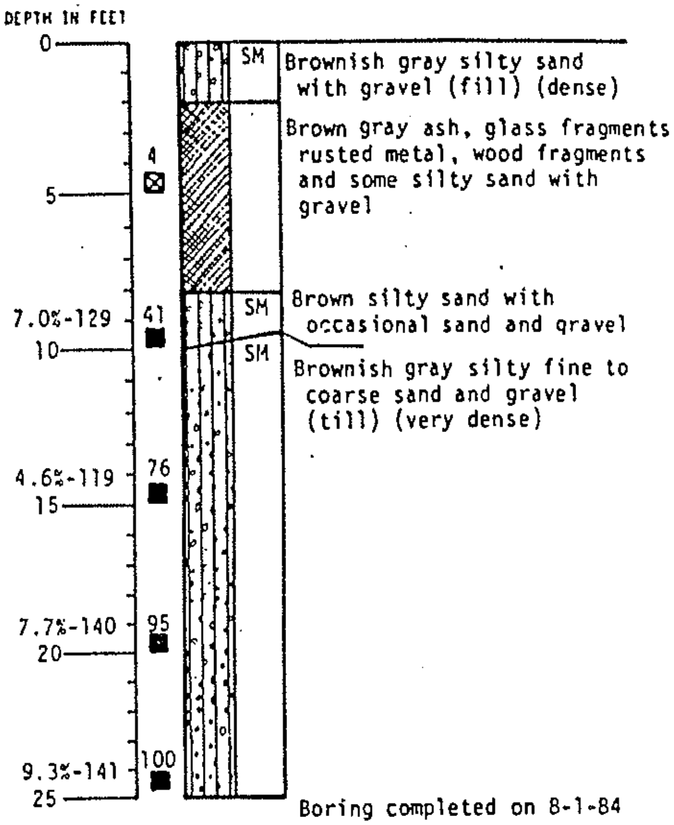
Comments: No water encountered in pit. No refuse encountered in pit.

Dames and Moore Soil Borings, Test Pits, and Monitoring Wells, 1984
(B-1 through B-5, TP-1 through TP-13 and
1/1 through 5/5, and MW-1 through MW-3)

Boring B-1



Boring B-2



Key:

MOISTURE CONTENT → 16.4%-101 ← DRY DENSITY IN PCF

BLOWS REQUIRED TO DRIVE DAMES & MOORE SAMPLER ONE FOOT WITH A HAMMER WEIGHT OF LBS. AND A STROKE OF INCHES.

33 ■ INDICATES DEPTH AT WHICH UNDISTURBED DAMES & MOORE SAMPLE WAS EXTRACTED.

☒ INDICATES DEPTH AT WHICH DISTURBED DAMES & MOORE SAMPLE WAS EXTRACTED.

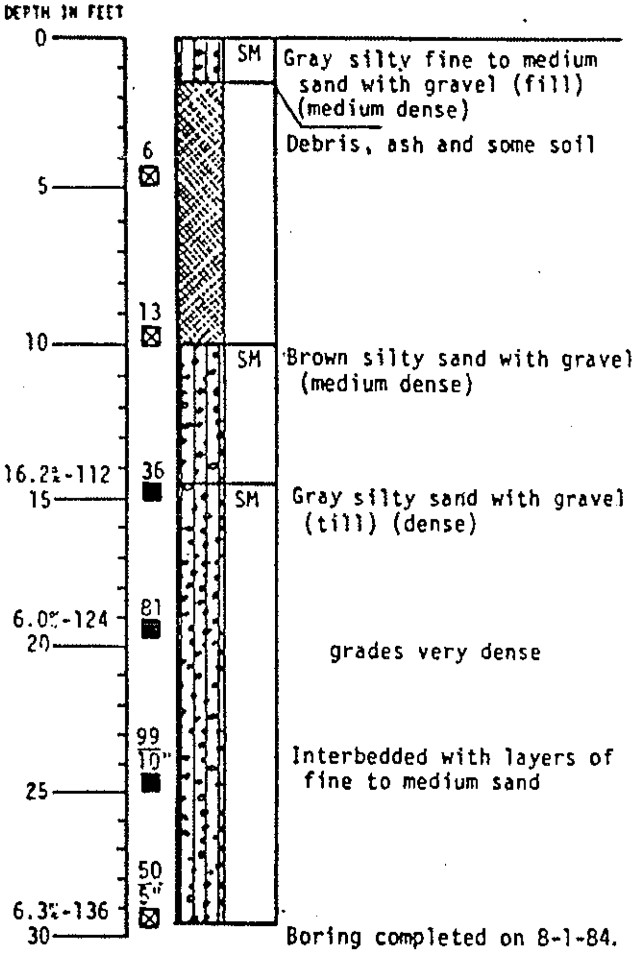
Note:

THE DISCUSSION IN THE TEXT OF THIS REPORT IS NECESSARY FOR A PROPER UNDERSTANDING OF THE NATURE OF THE SUBSURFACE MATERIAL.

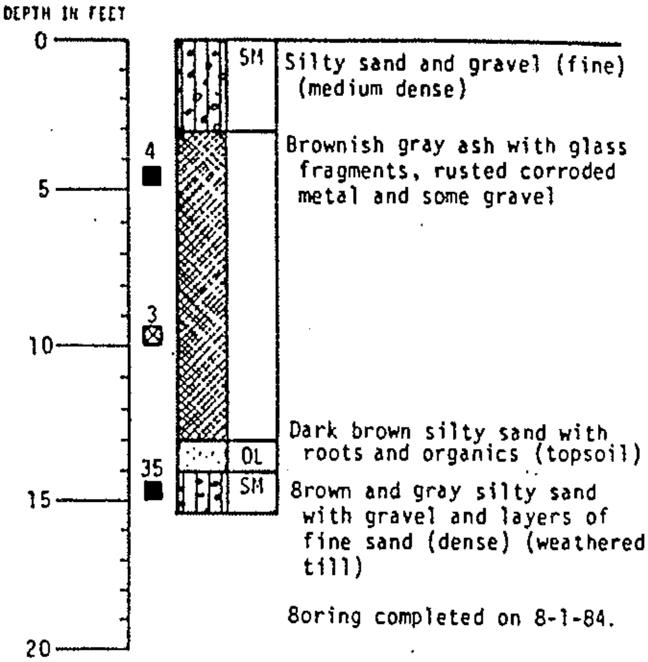
LOG OF BORINGS

Dames & Moore

Boring B-3



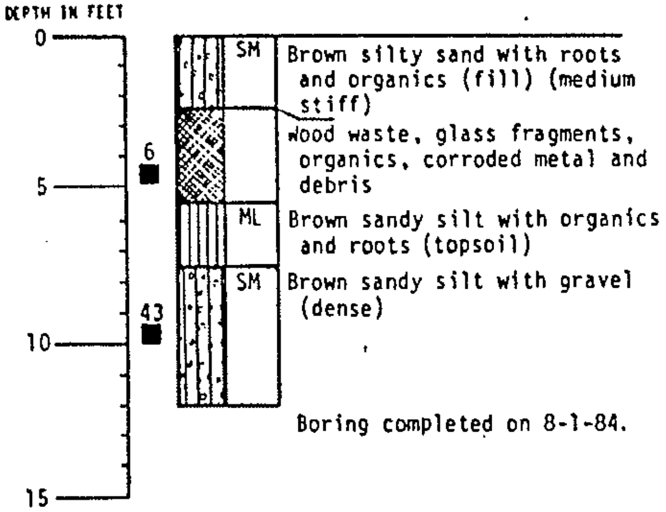
Boring B-4



LOG OF BORINGS

Dames & Moore

Boring B-5



Brown silty sand with roots and organics (fill) (medium stiff)

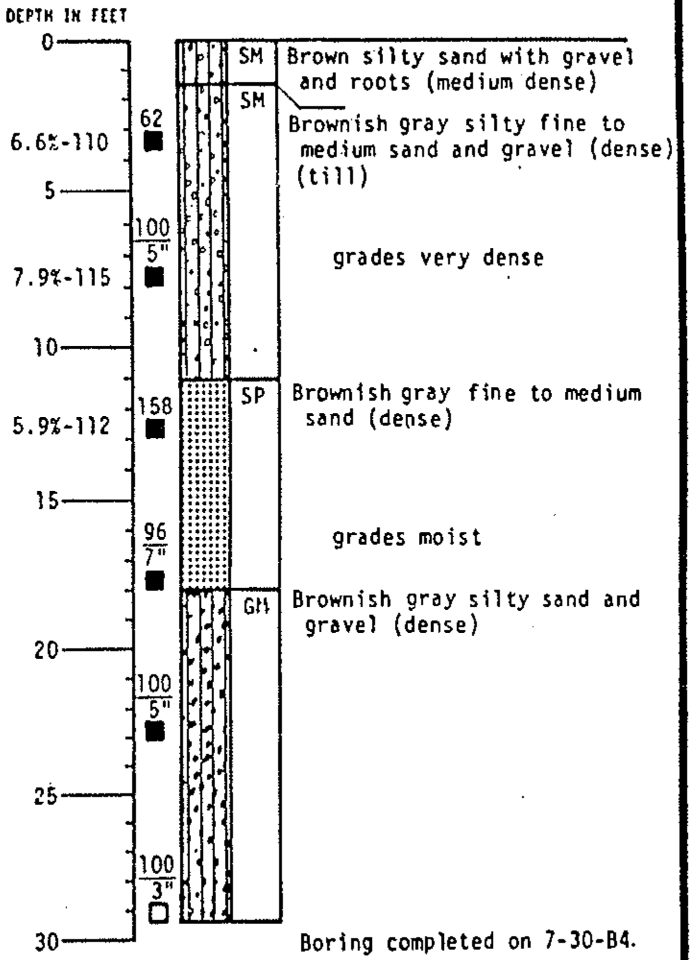
Wood waste, glass fragments, organics, corroded metal and debris

Brown sandy silt with organics and roots (topsoil)

Brown sandy silt with gravel (dense)

Boring completed on 8-1-84.

Boring MW-1



Brown silty sand with gravel and roots (medium dense)

Brownish gray silty fine to medium sand and gravel (dense) (till)

grades very dense

Brownish gray fine to medium sand (dense)

grades moist

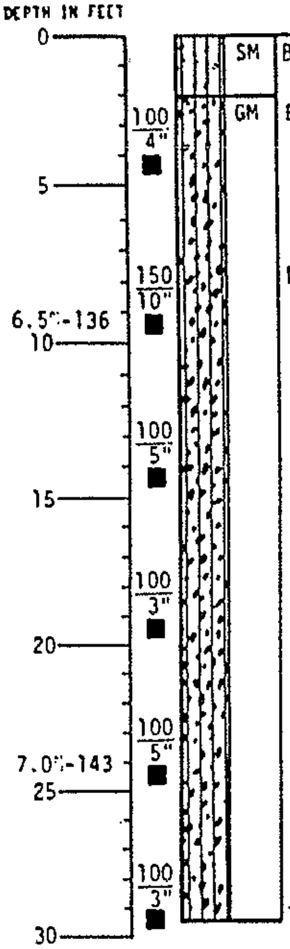
Brownish gray silty sand and gravel (dense)

Boring completed on 7-30-84.

2"ϕ piezometer installed to a depth of 29'. Bentonite seal placed at 10 feet from surface.

LOG OF BORINGS

Boring MW-2



Brown silty fine to medium sand with gravel (dense)

Brownish gray silty fine to medium sand and gravel with cobbles (dense)

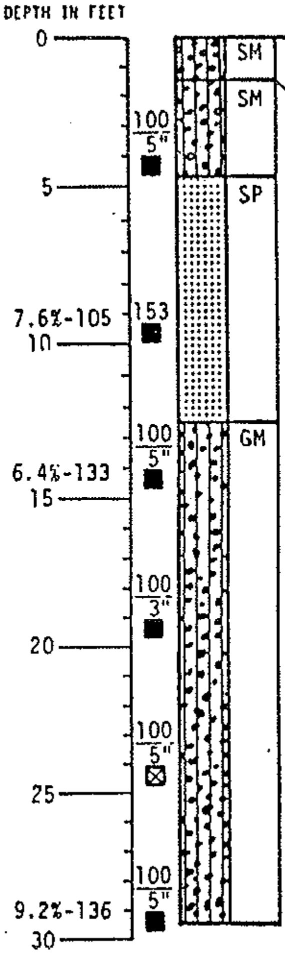
grades wet

Layers of fine to medium sand (moist)

Boring completed on 7-31-84.

Piezometer installed to a depth of 29 feet. Bentonite seal placed at 5 feet from surface.

Boring MW-3



Brown silty sand with roots and gravel (topsoil)

Brownish grey silty sand with gravel

Gray fine to medium sand (dense)

Gray silty fine to medium sandy gravel, occasional cobbles (dense)

grades moist

Boring completed on 7-31-84.

2"ø piezometer installed to a depth of 29'. Bentonite seal installed at 5 feet from surface.

LOG OF BORINGS

Dames & Moore

TABLE B-1

LANDFILL TEST PIT DATA

Test Pit Number	Thickness of Waste	Samples Taken (Feet)	Depth in Feet	Description of Soil Below Landfill
1/1	0	1.5,4.5, 8.0	0-6	Brown fine sandy silt with occasional gravel and roots (loose)
			6-10.5	Gray silty fine to coarse sand and gravel, well cemented (till) (very dense)
1/2	>10	1.5,4.5, 8.0		(a)
1/3	>10	1.5,4.5, 8.0		(a)
1/4	0	1.0,3.5	0-0.5	Brown silty fine sand to fine sandy silt with occasional gravel (medium dense)
			0.5-5	Gray silty fine to coarse sand and gravel, well commented (till) (very dense)
1/5	0	1.0,3.5	0-2	Brown fine sandy silt to silty fine sand with occasional gravel and cobbles (medium dense)
			2-5	Gray silty fine to coarse sand and gravel, well cemented (till) (very dense)
2/1	5	1.5,4.5, 8.0	5-9.5	Gray and brown mottled fine sandy silt with occasional gravel (med. stiff)
			9.5-10	Gray silty fine to coarse sand and gravel (till) (very dense)
2/2 & 2/2A	13	1.5,4.5 8.0	13-15	Gray silty fine to coarse sand and gravel (till) (very dense)
2/3 & 2/3A	>15	1.5,4.5 8.0		(a)
2/4	>10	1.5,4.5 8.0		(a)
2/5	1.5	1,3	1.5-5	Gray silty fine to coarse sand and gravel (till) (very dense)

TABLE B-1 (continued)

Test Pit Number	Thickness of Waste	Samples Taken (Feet)	Depth in Feet	Description of Soil Below Landfill
3/1	6	1.5,4.5 8.0	6-10	Gray silty fine to coarse sand and gravel (till) (very dense)
3/2 & 3/2A	11.5	1.5,4.5 8.0	11.5-12.5	Gray silty fine to coarse sand and gravel (till) (very dense)
3/3 & 3/3A	14.0	1.5,4.5 8.0	14-15	Gray silty fine to coarse sand and gravel (till) (very dense)
3/4 & 3/4A	14.0	1.5,4.5 8.0	14-15	Gray silty fine to coarse sand and gravel (till) (very dense)
3/5	>10	1.5,4.5 8.0		(a)
4/1	6	1.5,4.5 8.0	6-10	Gray silty fine to coarse sand and gravel (till) (very dense)
4/2	10	1.5,4.5 8.0	10-10.5	Gray silty fine to coarse sand and gravel (till) (very dense)
4/3	>10	1.5,4.5 8.0		(a)
4/4	>10	1.5,4.5 8.0		(a)
4/5	>10	1.5,4.5 8.0		(a)
5/0 & 5/0A	11	1.5,4.5 8.0		(a)
5/2	>10	1.5,4.5 8.0		(a)
5/3	>10	1.5,4.5 8.0		-
5/4	>10	1.5,4.5 8.0		-
5/5	0	1,4	0-2	Light brown silty fine sand (medium dense)
			2-6	Gray silty fine to coarse sand and gravel (till) (very dense)

(a) Test Pit did not penetrate landfill.

Depth in Feet	Symbol	Descrition
		TEST PIT 1
0' - 1½'	ML SM	Brown fine sandy silt with gravel and occasional cobbles and roots (loose)
1½' - 7½'	SM	Gray silty fine to coarse sand with gravel, well cemented (till) (very dense)
		Disturbed sample taken at 4' Test pit completed on 07-25-84 No ground water encountered
		TEST PIT 2
0' - 1½'	ML SM	Brown fine sandy silt with gravel, cobbles and roots (loose)
1½' - 6½'	SM	Gray silty fine to coarse sand with gravel, very cemented (till) (very dense)
		Test pit completed on 07-25-84 No ground water encountered
		TEST PIT 3
0' - 2½'	ML	Brown fine sandy silt with occasional gravel, cobbles and roots
2½' - 6'	SM	Gray silty fine to coarse sand and gravel, well cemented (very dense)
		Test pit completed on 07-25-84 No ground water encountered

Log of Test Pits

Depth in Feet	Symbol	Description
		<u>TEST PIT 4</u>
0' - 1½'	ML/SM	Brown fine sandy silt with occasional gravel, cobbles and roots (loose)
1½' - 6'	SM	Gray silty fine to coarse sand and gravel, well cemented (till) (very dense)
		Disturbed sample taken at 1½' Test pit complted on 07-25-84 No ground water encountered
		<u>TEST PIT 5</u>
0' - 1½'	ML/SM	Brown fine sandy silt with gravel and occasional cobble and roots (loose)
1½' - 6½'	SM	Gray silty fine to coarse sand and gravel, well cemented (till) (very dense)
		Disturbed sample taken at 2' Test pit complted on 07-25-84 No ground water encountered
		<u>TEST PIT 6</u>
0' - 1½'	ML	Brown fine sandy silt with gravel and occasional cobbles and roots (loose)
1½' - 5'	SM	Gray silty fine to coarse sand and gravel, well cemented (till) (very dense)
		Distrubed sample taken at 2' Test pit completed on 07-25-84 No ground water encountered

Log of Test Pits

Depth in Feet	Symbol	Description
		TEST PIT 7
0' - 1½'	ML/SM	Brown fine sandy silt with occasional gravel and cobbles and roots (loose)
1½' - 6'	SW	Brown silty fine to coarse sand and gravel with cobbles (medium dense)
6' - 10½'	SM/SW	Gray silty fine to coarse sand and gravel, well cemented
		Disturbed samples taken at ½ and 10' Test pit completed on 07-25-84 No ground water encountered
		TEST PIT 8
0' - 1½'	ML/SM	Brown fine sandy silt with occasional gravel and cobbles with root fragments (loose)
1½' - 10½'	SW	Brown and gray layered slightly silty fine to coarse sand and gravel (dense)
		Disturbed sample taken at 6' Test pit completed on 07-25-84 No ground water encountered
		TEST PIT 9
0' - 1½'	ML	Brown fine sandy silt with roots and some gravel (loose)
1½' - 10'	SW	Brown to gray fine to coarse sand and gravel with trace silt (dense)
		Disturbed samples taken at 1, 6 and 9' Test pit completed on 07-25-84 No ground water encountered

Log of Test Pits

Depth in Feet	Symbol	Description
		TEST PIT 10
0' - 2'	ML	Brown fine sandy silt with occasional fine to coarse gravel, cobbles and roots (loose)
2' - 11'	SP	Gray fine to medium sand (dense)
		Disturbed sample taken at 8' Test pit completed on 07-25-84 No ground water encountered
		TEST PIT 11
0' - 1½'	ML/SM	Brown silty fine sand with gravel, cobbles and occasional roots (loose)
1½' - 6'	SM	Gray slightly silty fine to coarse sand and gravel, well cemented (till) (very dense)
		Test pit completed on 07-25-84 No ground water encountered
		TEST PIT 12
0' - 1'	SM/ML	Brown fine sandy silt with fine to coarse gravel and roots (loose)
1' - 4'	SM	Gray slightly silty fine to coarse sand and gravel, well cemented (till) (very dense)
4' - 11'	SP	Gray fine to medium sand with occasional coarse sand (very dense)
		Disturbed samples taken at 3 and 10' Test pit completed on 07-25-84 No ground water encountered

Log of Test Pits

epth in Feet	Symbol	Description
		TEST PIT 13
0' - 2½'	ML SM	Brown fine sand with coase sandy gravel and occasional cobbles and roots (loose)
2½' - 7'	SP	Gray slightly silty fine to medium sand (dense)
7' - 11'	SM	Gray slightly silty fine to coarse sand and gravel, well cemented, (till) (very dense)

Test Pit completed on 07-25-84
No ground water encountered

Log of Test Pits

APPENDIX C
Water Levels

Table C-1

Water Levels

Former West Olympia Landfill Site
Olympia, Washington

Well	Aquifer	Date	Top of Casing Elevation (ft) (a)	Depth to Groundwater (ft)		Groundwater Elevation (ft)
LAI-1	Upper (Qga)	6/18/2004	173.35	58.42	(b)	114.93
LAI-1	Upper (Qga)	3/3/2005	173.35	57.95	(b)	115.40
LAI-1	Upper (Qga)	7/11/2006	173.35	59.07	(c)	114.28
LAI-1	Upper (Qga)	10/24/2006	173.35	61.90	(c)	111.45
LAI-1	Upper (Qga)	10/13/2008	173.35	61.87	(d)	111.48
LAI-1	Upper (Qga)	12/3/2008	173.35	60.62	(e)	112.73
LAI-1	Upper (Qga)	2/26/2009	173.35	56.74	(d)	116.61
LAI-1	Upper (Qga)	11/18/2010	173.35	59.08	(f)	114.27
LAI-1	Upper (Qga)	1/15/2014	173.35	59.32	(g)	114.03
LAI-1	Upper (Qga)	3/25/2015	173.35	53.13	(g)	120.22
LAI-1	Upper (Qga)	6/24/2015	173.35	59.01	(g)	114.34
LAI-1	Upper (Qga)	9/23/2015	173.35	59.94	(g)	113.41
LAI-1	Upper (Qga)	12/16/2015	173.35	54.72	(g)	118.63
LAI-1	Upper (Qga)	3/29/2018	173.35	52.00	(h)	121.35
LAI-1	Upper (Qga)	3/7/2019	173.35	52.69	(h)	120.66
LAI-2	Upper (Qga)	6/18/2004	169.07	59.44	(b)	109.63
LAI-2	Upper (Qga)	3/3/2005	169.07	53.52	(b)	115.55
LAI-2	Upper (Qga)	10/24/2006	169.07	57.95	(c)	111.12
LAI-2	Upper (Qga)	10/13/2008	169.07	57.61	(d)	111.46
LAI-2	Upper (Qga)	12/3/2008	169.07	51.82	(e)	117.25
LAI-2	Upper (Qga)	2/26/2009	169.07	51.90	(d)	117.17
LAI-2	Upper (Qga)	11/18/2010	169.07	54.13	(f)	114.94
LAI-2	Upper (Qga)	1/14/2014	169.07	54.27	(g)	114.80
LAI-2	Upper (Qga)	3/29/2018	169.07	47.37	(h)	121.70
LAI-2	Upper (Qga)	3/7/2019	169.07	48.02	(h)	121.05
LAI-3	Upper (Qga)	6/18/2004	178.52	58.22	(b)	120.30
LAI-3	Upper (Qga)	3/3/2005	178.52	56.27	(b)	122.25
LAI-3	Upper (Qga)	10/13/2008	178.52	61.99	(d)	116.53
LAI-3	Upper (Qga)	2/26/2009	178.52	54.73	(d)	123.79
LAI-3	Upper (Qga)	1/13/2014	178.52	58.32	(g)	120.20
LAI-3	Upper (Qga)	3/29/2018	178.52	51.92	(h)	126.60
LAI-3	Upper (Qga)	3/7/2019	178.52	51.04	(h)	127.48
LAI-5d	Lower (Qpg)	7/11/2006	172.07	58.80	(c)	113.27
LAI-5d	Lower (Qpg)	10/24/2006	172.07	62.79	(c)	109.28
LAI-5d	Lower (Qpg)	10/13/2008	172.07	62.45	(d)	109.62
LAI-5d	Lower (Qpg)	12/3/2008	172.07	60.75	(e)	111.32
LAI-5d	Lower (Qpg)	2/26/2009	172.07	56.92	(d)	115.15
LAI-5d	Lower (Qpg)	1/15/2014	172.07	59.37	(g)	112.70
LAI-5d	Lower (Qpg)	3/29/2018	172.07	52.11	(h)	119.96
LAI-5d	Lower (Qpg)	3/7/2019	172.07	53.42	(h)	118.65
LAI-MW-1	Upper (Qga)	6/18/2004	163.21	48.51	(b)	114.70
LAI-MW-1	Upper (Qga)	3/3/2005	163.21	45.67	(b)	117.54
LAI-MW-1	Upper (Qga)	10/13/2008	163.21	50.32	(d)	112.89
LAI-MW-1	Upper (Qga)	2/26/2009	163.21	41.57	(d)	121.64
LAI-MW-1	Upper (Qga)	1/13/2014	163.21	44.67	(g)	118.54

Well	Aquifer	Date	Top of Casing Elevation (ft) (a)	Depth to Groundwater (ft)		Groundwater Elevation (ft)
LAI-MW-1	Upper (Qga)	3/29/2018	163.21	37.29	(h)	125.92
LAI-MW-1	Upper (Qga)	3/7/2019	163.21	36.54	(h)	126.67
LAI-MW-2	Upper (Qga)	6/18/2004	170.23	54.55	(b)	115.68
LAI-MW-2	Upper (Qga)	3/3/2005	170.23	53.57	(b)	116.66
LAI-MW-2	Upper (Qga)	7/11/2006	170.23	55.01	(c)	115.22
LAI-MW-2	Upper (Qga)	10/24/2006	170.23	57.82	(c)	112.41
LAI-MW-2	Upper (Qga)	10/13/2008	170.23	57.60	(d)	112.63
LAI-MW-2	Upper (Qga)	12/3/2008	170.23	56.43	(e)	113.80
LAI-MW-2	Upper (Qga)	2/26/2009	170.23	51.86	(d)	118.37
LAI-MW-2	Upper (Qga)	11/18/2010	170.23	55.00	(f)	115.23
LAI-MW-2	Upper (Qga)	1/15/2014	170.23	54.83	(g)	115.40
LAI-MW-2	Upper (Qga)	3/26/2015	170.23	45.21	(g)	125.02
LAI-MW-2	Upper (Qga)	6/24/2015	170.23	54.97	(g)	115.26
LAI-MW-2	Upper (Qga)	9/23/2015	170.23	62.14	(g)	108.09
LAI-MW-2	Upper (Qga)	12/16/2015	170.23	50.29	(g)	119.94
LAI-MW-2	Upper (Qga)	3/29/2018	170.23	47.20	(h)	123.03
LAI-MW-2	Upper (Qga)	3/7/2019	170.23	47.86	(h)	122.37
LAI-MW-3	Upper (Qga)	6/18/2004	171.89	51.85	(b)	120.04
LAI-MW-3	Upper (Qga)	3/3/2005	171.89	50.01	(b)	121.88
LAI-MW-3	Upper (Qga)	10/13/2008	171.89	55.27	(d)	116.62
LAI-MW-3	Upper (Qga)	2/26/2009	171.89	48.18	(d)	123.71
LAI-MW-3	Upper (Qga)	1/15/2014	171.89	51.25	(g)	120.64
LAI-MW-3	Upper (Qga)	3/29/2018	171.89	45.31	(h)	126.58
LAI-MW-3	Upper (Qga)	3/7/2019	171.89	44.65	(h)	127.24
LAI-MW-4	Upper (Qga)	6/18/2004	172.21	57.29	(b)	114.92
LAI-MW-4	Upper (Qga)	3/3/2005	172.21	55.85	(b)	116.36
LAI-MW-4	Upper (Qga)	10/13/2008	172.21	60.67	(d)	111.54
LAI-MW-4	Upper (Qga)	2/26/2009	172.21	53.19	(d)	119.02
LAI-MW-4	Upper (Qga)	1/13/2014	172.21	56.59	(g)	115.62
LAI-MW-4	Upper (Qga)	3/29/2018	172.21	48.57	(h)	123.64
LAI-MW-4	Upper (Qga)	3/7/2019	172.21	48.46	(h)	123.75
MW-23	Upper (Qga)	1/23/2014	188.79	?	(g)	--
MW-23	Upper (Qga)	3/29/2018	188.79	71.30	(h)	117.49
MW-23	Upper (Qga)	3/7/2019	188.79	72.90	(h)	115.89
PGG-1	Upper (Qga)	7/11/2006	169.54	54.51	(c)	115.03
PGG-1	Upper (Qga)	10/24/2006	169.54	57.59	(c)	111.95
PGG-1	Upper (Qga)	10/13/2008	169.54	57.36	(d)	112.18
PGG-1	Upper (Qga)	12/3/2008	169.54	56.09	(e)	113.45
PGG-1	Upper (Qga)	2/26/2009	169.54	51.85	(d)	117.69
PGG-1	Upper (Qga)	11/18/2010	169.54	54.54	(f)	115.00
PGG-1	Upper (Qga)	1/14/2014	169.54	53.36	(g)	116.18
PGG-1	Upper (Qga)	3/29/2018	169.54	45.49	(h)	124.05
PGG-1	Upper (Qga)	3/7/2019	169.54	47.80	(h)	121.74
PGG-2	Upper (Qga)	7/11/2006	169.50	53.88	(c)	115.62
PGG-2	Upper (Qga)	10/13/2008	169.50	56.90	(d)	112.60
PGG-2	Upper (Qga)	12/3/2008	169.50	55.49	(e)	114.01
PGG-2	Upper (Qga)	2/26/2009	169.50	50.93	(d)	118.57
PGG-2	Upper (Qga)	1/14/2014	169.50	54.19	(g)	115.31
PGG-2	Upper (Qga)	3/29/2018	169.50	45.49	(h)	124.01
PGG-2	Upper (Qga)	3/7/2019	169.50	46.72	(h)	122.78
OLY-1	Upper (Qga)	3/25/2015	186.38	69.08	(g)	117.30

Well	Aquifer	Date	Top of Casing Elevation (ft) (a)	Depth to Groundwater (ft)		Groundwater Elevation (ft)
OLY-1	Upper (Qga)	6/24/2015	186.38	75.73	(g)	110.65
OLY-1	Upper (Qga)	9/23/2015	186.38	79.78	(g)	106.60
OLY-1	Upper (Qga)	12/16/2015	186.38	70.78	(g)	115.60
OLY-1	Upper (Qga)	3/29/2018	186.38	67.75	(h)	118.63
OLY-1	Upper (Qga)	3/7/2019	186.38	69.24	(h)	117.14
OLY-2	Upper (Qga)	3/25/2015	170.78	53.72	(g)	117.06
OLY-2	Upper (Qga)	6/24/2015	170.78	60.33	(g)	110.45
OLY-2	Upper (Qga)	9/23/2015	170.78	64.26	(g)	106.52
OLY-2	Upper (Qga)	12/17/2015	170.78	54.83	(g)	115.95
OLY-2	Upper (Qga)	3/29/2018	170.78	52.46	(h)	118.32
OLY-2	Upper (Qga)	3/7/2019	170.78	54.50	(h)	116.28

Notes:

(a) Top of casing elevation is relative to vertical datum NGVD29. Source of TOC elevations was from PGG 2006 Report for all wells except Oly-1 and Oly-2 which were surveyed by the City of Olympia's surveyor and converted from NAVD88 to NGVD29.

Depth to Water Sources:

(b) LAI. 2005. Groundwater Monitoring Data—March 2005 Sampling Event, Former West Olympia Landfill Property, Olympia, Washington. Landau Associates, Inc. April 4.

(c) PGG. 2006. Technical Memorandum: West Olympia Landfill Groundwater Investigation (Interim Report). Pacific Groundwater Group. December 8.

(d) TCEH. 2009. Ground Water Level Measurement Project: West Olympia Landfill Exxon Site Shopfast. Thurston County Environmental Health. April 7.

(e) PGG. 2009. West Olympia Landfill Groundwater Sampling, Fourth Quarter, 20018 (2008 Q4). Pacific Groundwater Group. February 3.

(f) PGG. 2010. West Olympia Landfill Groundwater Sampling, Fourth Quarter, 2010 (2010 Q4). Pacific Groundwater Group. December 21.

(g) Ecology and Environment. 2017. West Olympia Landfill Site Targeted Brownfields Assessment, Olympia, Washington. Ecology and Environment, Inc. June.

(h) Collected for this report by Landau Associates, Inc. (2018 data) or GeoEngineers (2019 data).

ft = feet

APPENDIX D
Terrestrial Ecological Evaluation (TEE)

APPENDIX D
TERRESTRIAL ECOLOGICAL EVALUATION

1.0 TERRESTRIAL ECOLOGICAL EVALUATION

A terrestrial ecological evaluation (TEE) was conducted for the West Olympia Landfill Site (Site) consistent with Washington Administrative Code (WAC) 173-340-7490. The purpose of the TEE is to evaluate whether hazardous substances detected in soil at a site pose a threat to terrestrial receptors (plants, soil biota, and wildlife). The steps followed are described in the following sections.

1.1. TEE Exclusions

WAC 173-340-7491(1) outlines four criteria for determining that no further evaluation is required. A TEE is not required if a site meets any of these criteria:

- "All soil contaminated with hazardous substances, is, or will be, located below the point of compliance." The standard point of compliance is 15 feet and the conditional point of compliance is 6 feet. The Site does not meet this criterion because contaminants have been detected in soil within the upper 6- and 15-feet.
- "All soil contaminated with hazardous substances is, or will be, covered by buildings, paved roads, pavement, or other physical barriers that will prevent plants or wildlife from being exposed to the soil contamination." The Site is not covered; there are no barriers preventing terrestrial receptors from contacting contaminated soil. The Site does not currently meet this criterion.
- "There is less than 0.25 acres of contiguous undeveloped land on the site or within 500 feet of any area of the site." The 0.25 acres criterion is applicable to sites where PCBs have been detected such as the Site. The Site does not meet this criterion because the Site includes approximately 12 acres of undeveloped land.
- "Concentrations of hazardous substances in soil do not exceed natural background levels." The Site does not meet this criterion as chromium and lead are detected in soil at concentrations greater than respective background levels and organic compounds, which do not have natural background levels, were also detected in soil.

The Site does not qualify for a TEE exclusion.

1.2. Simplified or Site-Specific TEE Determination

A simplified or site-specific TEE is required for sites that do not qualify for a TEE exclusion. A site-specific TEE is required if a site meets any of the four criteria outlined in WAC 173-340-7491(2):

- "The site is located on, or directly adjacent to, an area where management or land use plans will maintain or restore native or semi-native vegetation." The Site does not meet this criterion.
- "The site is used by a threatened or endangered species, wildlife species classified as priority species or species of concern, or plants classified as endangered, threatened, or sensitive." The Site does not meet this criterion. Three Washington Department of Fish and Wildlife (WDFW) priority species (Big Brown Bat – *Eptesicus fuscus*; Little Brown Bat – *Myotis lucifugus*; and Yuma myotis – *Myotis*

yumanensis) have been observed in the Olympia area (see Attachment A); however, these species are not expected to live, feed, or breed at the site.

- "The site is located on a property that contains at least ten acres of native vegetation within 500 feet of the site, not including vegetation beyond the property boundaries." The Site does not meet this criterion.
- "The department determines that the site may present a risk to significant wildlife populations." Ecology has not determined that the Site may present a risk to significant wildlife populations.

The Site qualifies for a simplified TEE because none of the four criteria above were met.

1.3. Simplified TEE

WAC 173-340-7492 outlines the process for completing a simplified TEE focused on ecological exposure, exposure pathways, and contaminants detected in soil. The screening steps in WAC 173-340-7492(2) identify conditions where the simplified TEE may be ended if the conditions are met.

- **Exposure Analysis**: "The total area of soil contamination at the site is not more than 350 square feet." The Site, which is approximately 12 acres, does not meet this criterion.
- **Exposure Analysis**: "Land use at the site and surrounding area makes substantial wildlife exposure unlikely." The Site does not meet this criterion. This determination was made following completion of Model Toxics Control Act (MTCA) Table 749-1 (Simplified Terrestrial Ecological Evaluation – Exposure Analysis Procedure; Attachment B).
- **Pathways Analysis**: "The evaluation may be ended if there are no potential exposure pathways from soil contamination to soil biota, plants, or wildlife." As noted previously, there are no barriers preventing terrestrial receptors from contacting contaminated soil. The Site does not meet this criterion.
- **Contaminants Analysis**: "The evaluation may be ended if contaminants included in Table 749-2 have not been detected in soil samples obtained within the conditional or standard points of compliance at concentrations greater than the soil concentrations in Table 749-2." The Site does not meet this criterion.

The Site does not meet any of the criteria for ending the simplified TEE. Therefore, the soil concentrations in MTCA Table 749-2 for unrestricted land use were used to develop soil screening levels for the site (see Table 3-1).

ATTACHMENT A

Priority Habitats and Sensitive Species

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE
PRIORITY HABITATS AND SPECIES REPORT

SOURCE DATASET: PHSPlusPublic
REPORT DATE: 04/23/2018 12.22

Query ID: P180423122202

Common Name Scientific Name Notes	Site Name Source Dataset Source Record Source Date	Priority Area Occurrence Type More Information (URL) Mgmt Recommendations	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Big brown bat Eptesicus fuscus	WS_OccurPoint 131101 August 11, 2013	Communal Roost Biotic detection http://wdfw.wa.gov/publications/pub.php?	GPS	N/A N/A PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points
Big brown bat Eptesicus fuscus	WS_OccurPoint 131092 August 02, 2013	Communal Roost Biotic detection http://wdfw.wa.gov/publications/pub.php?	GPS	N/A N/A PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points
Big brown bat Eptesicus fuscus	WS_OccurPoint 143891 July 30, 2017	Communal Roost Biotic detection http://wdfw.wa.gov/publications/pub.php?	GPS	N/A N/A PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points
Big brown bat Eptesicus fuscus	WS_OccurPoint 131077 August 04, 2012	Communal Roost Biotic detection http://wdfw.wa.gov/publications/pub.php?	GPS	N/A N/A PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points
Little Brown Bat Myotis lucifugus	WS_OccurPoint 141078 June 04, 2004	Communal Roost Biotic detection http://wdfw.wa.gov/publications/pub.php?	GPS	N/A N/A PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points
Little Brown Bat Myotis lucifugus	WS_OccurPoint 107426 June 21, 2006	Communal Roost Biotic detection http://wdfw.wa.gov/publications/pub.php?	GPS	N/A N/A PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points
Little Brown Bat Myotis lucifugus	WS_OccurPoint 145126 June 22, 2017	Communal Roost Biotic detection http://wdfw.wa.gov/publications/pub.php?	GPS	N/A N/A PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points

Common Name Scientific Name Notes	Site Name Source Dataset Source Record Source Date	Priority Area Occurrence Type More Information (URL) Mgmt Recommendations	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Little Brown Bat Myotis lucifugus	WS_OccurPoint 141075 June 01, 2004	Communal Roost Biotic detection http://wdfw.wa.gov/publications/pub.php?	GPS	N/A N/A PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points
Little Brown Bat Myotis lucifugus	WS_OccurPoint 131085 July 30, 2013	Communal Roost Biotic detection http://wdfw.wa.gov/publications/pub.php?	GPS	N/A N/A PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points
Little Brown Bat Myotis lucifugus	WS_OccurPoint 110004 May 14, 2007	Communal Roost Biotic detection http://wdfw.wa.gov/publications/pub.php?	GPS	N/A N/A PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points
Yuma myotis Myotis yumanensis	WS_OccurPoint 131090 August 09, 2013	Communal Roost Biotic detection http://wdfw.wa.gov/publications/pub.php?	GPS	N/A N/A PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points
Yuma myotis Myotis yumanensis	WS_OccurPoint 141080 July 01, 2015	Communal Roost Biotic detection http://wdfw.wa.gov/publications/pub.php?	GPS	N/A N/A PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points
Yuma myotis Myotis yumanensis	WS_OccurPoint 107427 June 21, 2006	Communal Roost Biotic detection http://wdfw.wa.gov/publications/pub.php?	GPS	N/A N/A PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points
Yuma myotis Myotis yumanensis	WS_OccurPoint 131091 August 02, 2013	Communal Roost Biotic detection http://wdfw.wa.gov/publications/pub.php?	GPS	N/A N/A PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points
Yuma myotis Myotis yumanensis	WS_OccurPoint 145127 June 22, 2017	Communal Roost Biotic detection http://wdfw.wa.gov/publications/pub.php?	GPS	N/A N/A PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points

Common Name Scientific Name Notes	Site Name Source Dataset Source Record Source Date	Priority Area Occurrence Type More Information (URL) Mgmt Recommendations	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Yuma myotis Myotis yumanensis	WS_OccurPoint 144587 May 03, 2017	Communal Roost Biotic detection http://wdfw.wa.gov/publications/pub.php?	GPS	N/A N/A PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points
Yuma myotis Myotis yumanensis	WS_OccurPoint 131099 August 07, 2013	Communal Roost Biotic detection http://wdfw.wa.gov/publications/pub.php?	GPS	N/A N/A PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points
Yuma myotis Myotis yumanensis	WS_OccurPoint 131086 July 30, 2013	Communal Roost Biotic detection http://wdfw.wa.gov/publications/pub.php?	GPS	N/A N/A PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points

WDFW Test Map

April 23, 2018

☐ PHS Report Clip Area

● PT

— LN

POLY

▨ AS MAPPED

☐ SECTION

☐ QTR-TWP

☐ TOWNSHIP

1:19,842

0 0.15 0.3 0.6 mi

0 0.275 0.55 1.1 km

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

ATTACHMENT B

Table 749-1

Washington State Department of Ecology
Toxics Cleanup Program

Table 749-1 (Former West Olympia Landfill)

Simplified Terrestrial Ecological Evaluation-Exposure Analysis Procedure

Estimate the area of contiguous (connected) undeveloped land on the site or within 500 feet of any area of the site to the nearest 1/2 acre (1/4 acre if the area is less than 0.5 acre).	
1) From the table below, find the number of points corresponding to the area and enter this number in the field to the right.	
Area (acres) Points 0.25 or less 4 0.5 5 1.0 6 1.5 7 2.0 8 2.5 9 3.0 10 3.5 11 4.0 or more 12	12
2) Is this an industrial or commercial property? If yes, enter a score of 3. If no, enter a score of 1	1
3)[a] Enter a score in the box to the right for the habitat quality of the site, using the following rating system[b]. High=1, Intermediate=2, Low=3	3
4) Is the undeveloped land likely to attract wildlife? If yes, enter a score of 1 in the box to the right. If no, enter a score of 2.[c]	1
5) Are there any of the following soil contaminants present: Chlorinated dioxins/furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, pentachlorobenzene? If yes, enter a score of 1 in the box to the right. If no, enter a score of 4.	1
6) Add the numbers in the boxes on lines 2-5 and enter this number in the box to the right. If this number is larger than the number in the box on line 1, the simplified evaluation may be ended.	6

Notes for Table 749-1

[a] It is expected that this habitat evaluation will be undertaken by an experienced field biologist. If this is not the case, enter a conservative score of (1) for questions 3 and 4.

[b] **Habitat rating system.** Rate the quality of the habitat as high, intermediate or low based on your professional judgment as a field biologist. The following are suggested factors to consider in making this evaluation:

> **Low:** Early successional vegetative stands; vegetation predominantly noxious, nonnative, exotic plant species or weeds. Areas severely disturbed by human activity, including intensively cultivated croplands. Areas isolated from other habitat used by wildlife.

High: Area is ecologically significant for one or more of the following reasons: Late-successional native plant communities present; relatively high species diversity; used by an uncommon or rare species; priority habitat (as defined by the Washington Department of fish and Wildlife); part of a larger area of habitat where size or fragmentation may be important for the retention of some species.

Intermediate: Area does not rate as either high or low.

[c] Indicate "yes" if the area attracts wildlife or is likely to do so. Examples: Birds frequently visit the area to feed; evidence of high use b mammals (tracks, scat, etc.); habitat "island" in an industrial area; unusual features of an area that make it important for feeding animals; heavy use during seasonal migrations.

[Area Calculation Aid] [Aerial Photo with Area Designations] [TEE Table 749-1] [Index of Tables]

[Exclusions Main] [TEE Definitions] [Simplified or Site-Specific?] [Simplified Ecological Evaluation] [Site-Specific Ecological Evaluation] [WAC 173-340-7493]

[TEE Home]

APPENDIX E
Environmental Chemistry

APPENDIX E
ENVIRONMENTAL CHEMISTRY

1.0 IHS FATE AND TRANSPORT AT THE WOLF SITE

This appendix describes the fate and transport of the indicator hazardous substances (IHSs) at the West Olympia Landfill Site (Site) to evaluate the potential for contaminant migration, and the pathways and contaminant-specific properties that will need to be addressed by the remedies evaluated in the Feasibility Study (FS) for Site cleanup.

Based on the Remedial Investigation (RI) findings, the source of the IHSs detected in soil, groundwater and soil gas at the Site is waste material from undocumented sources that was placed at the former landfill property during historical dumping and landfill operations from prior to 1939 (before the City acquired the property) to the late 1960s. The contaminants identified as the IHSs for the Site as a result of the fill and waste material placed on the former landfill property are as the follows:

- Metals (chromium and lead); and
- Volatile organic compounds (VOCs; 1,4-dichlorobenzene, tetrachloroethene [PCE], and trichloroethene [TCE]).

1.1. Environmental Chemistry of the IHSs

This section generally describes the environmental chemistry for the identified IHSs at the Site which form the basis of the fate and transport of the IHSs, as discussed below.

1.1.1. Metals (Chromium and Lead)

Chromium and lead are naturally occurring, and persistent metals present in soil that are not naturally degraded. The mobility of chromium in soil is dependent on the speciation of the chromium present, which is a function of redox potential and the pH of the soil. In most soil, chromium will be present in the chromium (III) (+3) oxidation state. Under reducing conditions, chromium (III) is present and has low solubility and low reactivity resulting in low mobility in the environment. Under oxidizing conditions, chromium (VI) (+6) may be present in soil. Mobility studies have found that chromium forms insoluble complexes resulting in minimal leaching from the soil (ATSDR 2018).

Lead bonds with a wide variety of other elements producing inorganic and organic compounds. Lead exists in the environment in three oxidation states that include +4 (tetravalent lead), +2 (divalent lead) and 0 (elemental lead). Of these, the +2-oxidation state is most common. Lead is unlikely to change oxidation state in response to typical environmental redox conditions and is considered to have low to very low solubility or to be insoluble. Materials onto/into which lead sorbs (adsorb/absorb) include soil and organic matter. Aluminum, iron, and manganese oxides and hydroxides are examples of materials that are widely distributed in soils onto which lead readily sorbs. In general, the solubility of lead increases with a decrease in pH. Lead is considered to have low solubility at a pH of 8, becomes more soluble as the pH decreases to 5, and the solubility substantially increases between pH 5 and 3.3 (ASTDR 2018).

Based on the RI data, concentrations of chromium and lead greater than the screening levels (SLs) are not generally present in groundwater indicating that conditions at the Site are not favorable for the leaching of these contaminants of concern (COCs) from soil to groundwater.

1.1.2. Volatile Organic Compounds (1,4-dichlorobenzene, PCE, and TCE)

Of the three VOCs identified as IHSs at the Site, TCE is the most volatile. TCE is highly volatile with a vapor pressure (VP) of 74 mm Hg at 25 degrees Celsius (°C). The high volatility is the predominant chemical property in the partitioning and environmental transport of TCE. TCE is moderately soluble in water with a solubility of 1,100 milligrams per liter (mg/L) at 25 °C and the Henry's law constant for TCE indicates that TCE readily partitions from water to air. The measured soil partitioning coefficients (KOC = 94 liters per kilogram [L/kg]) for TCE indicates that TCE readily partitions from soil to water.

The vapor pressures, solubilities, Henry's law constants and soil partitioning coefficients of PCE and 1,4-dichlorobenzene are shown in the table below as compared to the values discussed for TCE. The vapor pressure values were obtained from the National Institute of Health's PubChem Database, while the values for remaining parameters were obtained from Washington State Department of Ecology's (Ecology's) Cleanup Levels and Risk Calculation [CLARC] data tables from August 2015.

Chemical Name	Vapor Pressure (mm Hg at 25°C)	Aqueous Solubility (mg/L)	Henry's Law Constant (unitless)	Soil Organic Carbon-water Partitioning Coefficient (mg/L)
TCE	74	1,100	0.422	94
PCE	18.5	200	0.754	280
1,4-dichlorobenzene	1.74	73.8	0.0966	616

1.2. Environmental Transport

1.2.1. Soil and Waste

The waste and undocumented fill soil placed at the Site prior to the late 1960s have been identified as the primary sources of contamination at the Site. The waste and fill soil are exposed at the ground surface on portions of the former landfill property and therefore are exposed to mechanisms that can cause physical transport including human activities (walking, driving, excavation), animal activities (burrowing), wind (windborne dust), and water (precipitation runoff).

1.2.2. Groundwater

The environmental chemistry described in the previous section affects the transport of TCE in groundwater. At the Site, TCE-containing waste was likely released in liquid (solvent) form as part of the historical dump and landfilling activities. Liquid in the unsaturated zone will migrate vertically downward under gravity until it is stopped by a less permeable confining layer (like the consolidated silt and clay Qgt unit at the Site). Additionally, some liquid becomes entrained in soil pore spaces and is left behind in the unsaturated zone. Over time, through contact with precipitation infiltration and/or shallow perched groundwater, the TCE in the form of non-aqueous phase liquid (NAPL) at the Site has likely become dissolved phase in groundwater, which is likely why TCE has primarily been detected in groundwater and is not considered an IHS for soil.

Advection by precipitation infiltration combined with groundwater bulk flow is the primary transport process for TCE in solution (dissolved phase TCE). To a lesser degree, dispersion, diffusion, and mixing (if present) will also affect TCE distribution and transport in groundwater. Other transport mechanisms for TCE in groundwater include solute transport in the unconfined Qgo aquifer, solute diffusion through the Qgt aquitard, and solute transport through the confined Qga aquifer. As shown on Figure 5-1, infiltration and leaching (through contact with shallow groundwater) result in potential secondary pathways for TCE transport as follows:

1. Shallow groundwater rises, or precipitation infiltration contacts the fill and/or waste layers where residual TCE source(s) may exist, and dissolved phase TCE is transported to the unconfined and discontinuous Qgo aquifer;
2. Dissolved phase TCE in the Qgo aquifer may diffuse through the Qgt aquitard in locations where it is thin, or seams of higher permeability sands and gravels create preferential pathways and enters the confined Qga aquifer; and finally
3. TCE is transported through the Qga aquifer predominantly via advection.

Site data from wells LAI-1, LAI-2, LAI-MW-2, and PGG-1 show that TCE is present in the Qga aquifer in the northwest corner of the Site; the groundwater data from well OLY-1 also suggest that TCE has been transported through advection to downgradient locations.

1.2.3. Soil Gas

Organic contaminants can volatilize directly from soil and groundwater. The equilibrium relationship between the concentration of a VOC in soil gas that is in contact with groundwater containing the same compound in the dissolved (aqueous) phase is described by Henry's Law. Henry's Law states that the concentration of an organic compound in soil gas is proportional to the compound's dissolved concentration in groundwater. Soil VOC data can be useful to characterize the nature and extent of subsurface VOC sources. However, Ecology, the United States Environmental Protection Agency [EPA] and California EPA/Department of Toxic Substances Control [Cal-EPA/DTSC]) do not recommend using soil data to estimate the potential for vapor intrusion because of the uncertainty in the relationship between VOCs in soil and in soil gas (Ecology 2016, EPA 2015, Cal-EPA/DTSC 2011).

Soil gas sampling results for the Site are presented in Section 4.4. The results suggest that some of the IHS concentrations (i.e. 1,4-dichlorobenzene, PCE, and TCE) in the waste, soil and/or groundwater are sufficient based on volatility to allow transport to soil gas at concentrations greater than Model Toxics Control Act (MTCA) Method B soil gas screening levels under equilibrium conditions.

1.2.3.1. Soil Gas Sources

If the source for the soil gas is in the vadose zone (i.e., waste or soil contamination), soil gas can migrate radially in all directions via diffusion (i.e., upward toward the atmosphere, laterally outward, and downward toward the water table). If the soil gas source is the upper-most zone of groundwater, the vapors have the potential to migrate upward toward the atmosphere via diffusion. If the VOCs in groundwater are not present in the upper-most zone, vapor migration will be impeded by the shallower groundwater. Soil gas in the vadose zone can also be impeded by high soil moisture, low-permeability (generally fine-grained) soil, and biodegradation.

1.2.3.2. Soil Gas Transport

Soil gas transport in the subsurface is via diffusion and advection. Diffusion affects the distribution of soil gas when there are spatial differences in chemical concentrations in the soil gas. The net direction of diffusive transport is toward the lower chemical concentrations.

Advection occurs in the vadose zone when there is bulk movement of soil gas induced by spatial differences in soil gas pressure. The direction of advective vapor transport is always toward the direction of lower air pressure. Advection is generally expected to occur near buildings because the temperature difference between the building interior and the subsurface, and the operation of heating, ventilation, and air conditioning (HVAC) units in the building, can create driving forces for soil gas entry. Advection may also occur near the ground surface due to fluctuations in barometric pressure. This can occur at landfills when methane generation from anaerobic degradation of organic material is sufficiently high.

Vapor migration via advection and diffusion is often along preferential subsurface pathways such as utility corridors or more porous zones of soil, or beneath surface barriers that limit the direction of soil gas migrations (e.g., asphalt).

1.2.4. Landfill Gas Production

Landfill gas is generated during the natural decomposition of buried refuse and wood waste at the Site. Landfill gas is composed primarily of methane and carbon dioxide, but also contains water vapor, odorous compounds, and typically trace levels of VOCs. When generated, landfill gas slowly migrates through the subsurface, ultimately venting to the atmosphere unless it encounters confining or impermeable barriers. Because the waste has been buried at the Site since the late 1960s, it is likely that decomposition is mostly complete, and ongoing landfill gas generation is limited. Additionally, the practice of waste burning has been reported at this landfill, which would have greatly decreased the methane-generating capacity of the waste. However, even small amounts of landfill gas must be provided a ventilation pathway so that it does not accumulate to concentrations that could cause safety or health risks.

The current production of landfill gas was estimated using EPA's LandGEM spreadsheet model—the industry standard approach for estimating landfill gas emissions for regulatory compliance, and a tool for landfill gas control system design. The estimate is based on the waste age, type, quantity of buried waste, and the subsurface environment. The landfill gas generation modeling report is included as Appendix G, and is discussed below.

LandGEM estimates the overall flow rate of landfill gas from a municipal solid waste landfill based on user input regarding the amount of waste buried, the year of burial, and other parameters developed by the EPA based on landfills across the United States. Emissions factors used in the model are from the Compilation of Air Pollutant Emission Factors (AP-42). The model allows variation of parameters affecting the overall landfill gas production capacity of the waste (given infinite time), and the rate at which the landfill gas is released, which typically varies based on moisture content of the waste. Each of these variable parameters are constrained in the model to typically observed ranges.

Based on data available from previous soil gas investigations, approximately 160,000 cubic yards (yd^3) of waste was buried at the Site between 1950 and 1968. The model assumes a constant rate of waste burial. The quantity of waste buried at the Site is relatively small in comparison to modern landfills, and additionally, because the waste is relatively old, it has likely already exhausted most of the original landfill gas producing potential. As shown graphically in Appendix G on Figure G-1, the modeled landfill gas production rate estimates indicate an approximate average total landfill gas generation rate of approximately 7.2 cubic feet per minute (cfm) for year 2018. This estimated rate of landfill gas production rate is low, as expected, and appears to be consistent with the low levels of methane detected at the Site.

1.2.5. Vapor Intrusion Assessment

In addition to landfill gas and its typical constituents, some VOCs may be present in the subsurface due to releases or disposal of associated waste. As discussed in Section 4.4, soil gas characterization has been conducted to evaluate the concentrations of VOCs present throughout the Site. The landfill gas control system that is anticipated to be a part of any proposed Site development plan, as warranted, will be designed to address these VOCs by providing capture, treatment if necessary, and ventilation of these gasses.

APPENDIX F
Site Photographs

Photograph 1. Southeast entrance to the site.

Photograph 2. Typical vegetation in the southeast portion of the site.

Photograph 3. Forested habitat in the north side of the site. The understory is dominated by Himalayan blackberry.

Photograph 4. Forested area towards the center of the property. Understory is dominated by Himalayan blackberry. Chunks of concrete can be observed towards the bottom of the photograph.

Site Photographs

West Olympia Landfill Site
Olympia, WA

GeoEngineers

Appendix F

Photograph 5. Forested area towards the center of the property. Understory is dominated by Himalayan blackberry. Chunks of concrete can be observed.

Photograph 6. Forested area towards the center of the property. Understory is dominated by Himalayan blackberry.

Photograph 7. Forested area towards the center of the property. Chunks of concrete can be observed towards the bottom of the photograph.

Photograph 8. Forested area towards the center of the property. Understory is dominated by Himalayan blackberry. Forested canopy includes Douglas fir and red alder.

Site Photographs

West Olympia Landfill Site
Olympia, WA

GEOENGINEERS

Appendix F

Photograph 9. Western area of the property dominated by deciduous canopy with Himalayan blackberry and grasses in the understory.

Photograph 10. Western area of the property dominated by deciduous canopy with Himalayan blackberry and grasses in the understory.

Photograph 11. Western area of the property dominated by deciduous canopy with Himalayan blackberry and grasses in the understory.

Photograph 12. Western area of the property dominated by deciduous canopy with Himalayan blackberry and grasses in the understory.

Site Photographs

West Olympia Landfill Site
Olympia, WA

GeoEngineers

Appendix F

Photograph 13. Southwest area of the property in a disturbed open area. Vegetation is dominated by Himalayan blackberry and grasses.

Photograph 14. Southwest area of the property in a disturbed open area. Vegetation is dominated by Himalayan blackberry and grasses.

Photograph 15. Southwest area of the property in a disturbed open area. Vegetation is dominated by Himalayan blackberry and grasses.

Photograph 16. Southwest area of the property in a disturbed open area. Vegetation is dominated by Himalayan blackberry and grasses.

Site Photographs

West Olympia Landfill Site
Olympia, WA

GeoEngineers

Appendix F

Photograph 17. Photograph location is towards the center of the property in previously disturbed areas. Dominant vegetation consists of Himalayan blackberry and grasses.

Photograph 18. Photograph location is towards the center of the property in previously disturbed areas. Dominant vegetation consists of Himalayan blackberry and grasses.

Photograph 19. Photograph location is towards the center of the property in previously disturbed areas. Dominant vegetation consists of Himalayan blackberry and grasses.

Photograph 20. Photograph location is towards the center of the property in previously disturbed areas. Dominant vegetation consists of Himalayan blackberry and grasses.

Site Photographs

West Olympia Landfill Site
Olympia, WA

GEOENGINEERS

Appendix F

Photograph 21. Photograph location is towards the center of the property in previously disturbed areas. Dominant vegetation consists of Himalayan blackberry and grasses.

Photograph 22. Photograph location is towards the center of the property in previously disturbed areas. Dominant vegetation consists of Himalayan blackberry and grasses.

Photograph 23. Photograph location is towards the center of the property in previously disturbed areas. Dominant vegetation consists of Himalayan blackberry and grasses.

Photograph 24. Photograph location is towards the center of the property in previously disturbed areas. Dominant vegetation consists of Himalayan blackberry and grasses.

Site Photographs

West Olympia Landfill Site
Olympia, WA

GEOENGINEERS

Appendix F

Photograph 25. Potential wetland area dominated by reed canarygrass. Area is located in the south end of the property.

Photograph 26 . Potential wetland area dominated by reed canarygrass. Area is located in the south end of the property.

Photograph 27. Forested area in the south end of the property. Canopy consisted of Douglas fir and black cottonwood.

Photograph 28. Forested area in the south end of the property. Vegetation dominated by Douglas fir, black cottonwood, bracken fern, beaked hazelnut and salal with some scotch broom.

Site Photographs

West Olympia Landfill Site
Olympia, WA

GeoEngineers

Appendix F

Photograph 29. Forested area in the south end of the property. Vegetation dominated by Douglas fir, black cottonwood, bracken fern, beaked hazelnut and salal with some Pacific madrone and scotch broom.

Photograph 30. From the south edge of the site looking southeast at scotch broom and a grass field.

Photograph 31. Forested area in the south end of the property. Vegetation dominated by Douglas fir, black cottonwood, bracken fern, beaked hazelnut and salal with some scotch broom.

Photograph 32. Northwest forested edge of the site. Bigleaf maple forested canopy with Himalayan blackberry in the understory.

Site Photographs

West Olympia Landfill Site
Olympia, WA

GeoEngineers

Appendix F

Photograph 33. Northwest forested edge of the site. Bigleaf maple forested canopy with Himalayan blackberry in the understory. This area borders a mobile home park.

Photograph 34. Northwest forested edge of the site. Bigleaf maple forested canopy with Himalayan blackberry in the understory. This area borders a mobile home park.

Photograph 35. Forested areas near the northeast side of the property. Dominated by a mixed deciduous and coniferous forested community with Himalayan blackberry, beaked hazelnut, and grasses in the understory.

Photograph 36. Forested area near the northeast side of the property with an understory dominated by grasses.

Site Photographs

West Olympia Landfill Site
Olympia, WA

GEOENGINEERS

Appendix F

Photograph 37. Northeastern edge of the site, dominated by forested canopy of black cottonwood with Himalayan blackberry and grasses in the understory.

Photograph 38. North edge of the site adjacent to the mobile home community. A mowed grass area separates the mobile homes from the site.

Photograph 39. North edge of the site, dominated by grasses and Himalayan blackberry.

Photograph 40. North edge of the site, dominated by grasses and Himalayan blackberry.

Site Photographs

West Olympia Landfill Site
Olympia, WA

GEOENGINEERS

Appendix F

APPENDIX G
LandGEM Landfill Gas Generation Modeling Report

LandGEM

Landfill Gas Emissions Model

Version 3.02

U.S. Environmental Protection Agency
Office of Research and Development
National Risk Management Research Laboratory (NRMRL)
and
Clean Air Technology Center (CATC)
Research Triangle Park, North Carolina

May 2005

Summary Report

Landfill Name or Identifier: West Olympia Landfill

Date: Wednesday, May 30, 2018

Description/Comments:

About LandGEM:

First-Order Decomposition Rate Equation:

$$Q_{CH_4} = \sum_{i=1}^{n}\sum_{j=0.1}^{1} kL_o\left(\frac{M_i}{10}\right)e^{-kt_{ij}}$$

Where,
Q_{CH4} = annual methane generation in the year of the calculation (*m^3/year*)
i = 1-year time increment
n = (year of the calculation) - (initial year of waste acceptance)
j = 0.1-year time increment
k = methane generation rate (*$year^{-1}$*)
L_o = potential methane generation capacity (*m^3/Mg*)
M_i = mass of waste accepted in the i^{th} year (*Mg*)
t_{ij} = age of the j^{th} section of waste mass M_i accepted in the i^{th} year (*decimal years*, e.g., 3.2 years)

LandGEM is based on a first-order decomposition rate equation for quantifying emissions from the decomposition of landfilled waste in municipal solid waste (MSW) landfills. The software provides a relatively simple approach to estimating landfill gas emissions. Model defaults are based on empirical data from U.S. landfills. Field test data can also be used in place of model defaults when available. Further guidance on EPA test methods, Clean Air Act (CAA) regulations, and other guidance regarding landfill gas emissions and control technology requirements can be found at http://www.epa.gov/ttnatw01/landfill/landflpg.html.

LandGEM is considered a screening tool — the better the input data, the better the estimates. Often, there are limitations with the available data regarding waste quantity and composition, variation in design and operating practices over time, and changes occurring over time that impact the emissions potential. Changes to landfill operation, such as operating under wet conditions through leachate recirculation or other liquid additions, will result in generating more gas at a faster rate. Defaults for estimating emissions for this type of operation are being developed to include in LandGEM along with defaults for convential landfills (no leachate or liquid additions) for developing emission inventories and determining CAA applicability. Refer to the Web site identified above for future updates.

Input Review

LANDFILL CHARACTERISTICS

Landfill Open Year	**1950**	
Landfill Closure Year (with 80-year limit)	**1968**	
Actual Closure Year (without limit)	***1968***	
Have Model Calculate Closure Year?	**Yes**	
Waste Design Capacity	**120,000**	*short tons*

MODEL PARAMETERS

Methane Generation Rate, k	**0.040**	*year* $^{-1}$
Potential Methane Generation Capacity, L_o	**100**	*m* ^{3} */Mg*
NMOC Concentration	**2,400**	*ppmv as hexane*
Methane Content	**40**	*% by volume*

GASES / POLLUTANTS SELECTED

Gas / Pollutant #1:	**Total landfill gas**
Gas / Pollutant #2:	**Methane**
Gas / Pollutant #3:	**Carbon dioxide**
Gas / Pollutant #4:	**NMOC**

WASTE ACCEPTANCE RATES

Year	**Waste Accepted**		**Waste-In-Place**	
	(Mg/year)	***(short tons/year)***	***(Mg)***	***(short tons)***
1950	5,789	6,368	0	0
1951	5,789	6,368	5,789	6,368
1952	5,789	6,368	11,578	12,736
1953	5,789	6,368	17,367	19,104
1954	5,789	6,368	23,156	25,472
1955	5,789	6,368	28,945	31,840
1956	5,789	6,368	34,735	38,208
1957	5,789	6,368	40,524	44,576
1958	5,789	6,368	46,313	50,944
1959	5,789	6,368	52,102	57,312
1960	5,789	6,368	57,891	63,680
1961	5,789	6,368	63,680	70,048
1962	5,789	6,368	69,469	76,416
1963	5,789	6,368	75,258	82,784
1964	5,789	6,368	81,047	89,152
1965	5,789	6,368	86,836	95,520
1966	5,789	6,368	92,625	101,888
1967	5,789	6,368	98,415	108,256
1968	4,887	5,376	104,204	114,624
1969	0	0	109,091	120,000
1970	0	0	109,091	120,000
1971	0	0	109,091	120,000
1972	0	0	109,091	120,000
1973	0	0	109,091	120,000
1974	0	0	109,091	120,000
1975	0	0	109,091	120,000
1976	0	0	109,091	120,000
1977	0	0	109,091	120,000
1978	0	0	109,091	120,000
1979	0	0	109,091	120,000
1980	0	0	109,091	120,000
1981	0	0	109,091	120,000
1982	0	0	109,091	120,000
1983	0	0	109,091	120,000
1984	0	0	109,091	120,000
1985	0	0	109,091	120,000
1986	0	0	109,091	120,000
1987	0	0	109,091	120,000
1988	0	0	109,091	120,000
1989	0	0	109,091	120,000

WASTE ACCEPTANCE RATES (Continued)

Year	**Waste Accepted**		**Waste-In-Place**	
	(Mg/year)	***(short tons/year)***	***(Mg)***	***(short tons)***
1990	0	0	109,091	120,000
1991	0	0	109,091	120,000
1992	0	0	109,091	120,000
1993	0	0	109,091	120,000
1994	0	0	109,091	120,000
1995	0	0	109,091	120,000
1996	0	0	109,091	120,000
1997	0	0	109,091	120,000
1998	0	0	109,091	120,000
1999	0	0	109,091	120,000
2000	0	0	109,091	120,000
2001	0	0	109,091	120,000
2002	0	0	109,091	120,000
2003	0	0	109,091	120,000
2004	0	0	109,091	120,000
2005	0	0	109,091	120,000
2006	0	0	109,091	120,000
2007	0	0	109,091	120,000
2008	0	0	109,091	120,000
2009	0	0	109,091	120,000
2010	0	0	109,091	120,000
2011	0	0	109,091	120,000
2012	0	0	109,091	120,000
2013	0	0	109,091	120,000
2014	0	0	109,091	120,000
2015	0	0	109,091	120,000
2016	0	0	109,091	120,000
2017	0	0	109,091	120,000
2018	0	0	109,091	120,000
2019	0	0	109,091	120,000
2020	0	0	109,091	120,000
2021	0	0	109,091	120,000
2022	0	0	109,091	120,000
2023	0	0	109,091	120,000
2024	0	0	109,091	120,000
2025	0	0	109,091	120,000
2026	0	0	109,091	120,000
2027	0	0	109,091	120,000
2028	0	0	109,091	120,000
2029	0	0	109,091	120,000

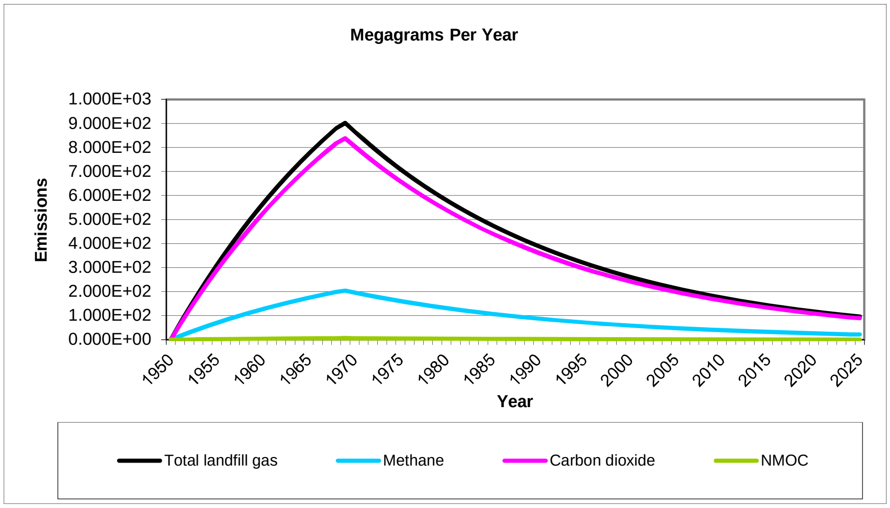
Pollutant Parameters

	Gas / Pollutant Default Parameters:			User-specified Pollutant Parameters:	
	Compound	Concentration (*ppmv*)	Molecular Weight	Concentration (*ppmv*)	Molecular Weight
Gases	Total landfill gas		0.00		
	Methane		16.04		
	Carbon dioxide		44.01		
	NMOC	4,000	86.18		
Pollutants	1,1,1-Trichloroethane (methyl chloroform) - HAP	0.48	133.41		
	1,1,2,2-Tetrachloroethane - HAP/VOC	1.1	167.85		
	1,1-Dichloroethane (ethylidene dichloride) - HAP/VOC	2.4	98.97		
	1,1-Dichloroethene (vinylidene chloride) - HAP/VOC	0.20	96.94		
	1,2-Dichloroethane (ethylene dichloride) - HAP/VOC	0.41	98.96		
	1,2-Dichloropropane (propylene dichloride) - HAP/VOC	0.18	112.99		
	2-Propanol (isopropyl alcohol) - VOC	50	60.11		
	Acetone	7.0	58.08		
	Acrylonitrile - HAP/VOC	6.3	53.06		
	Benzene - No or Unknown Co-disposal - HAP/VOC	1.9	78.11		
	Benzene - Co-disposal - HAP/VOC	11	78.11		
	Bromodichloromethane - VOC	3.1	163.83		
	Butane - VOC	5.0	58.12		
	Carbon disulfide - HAP/VOC	0.58	76.13		
	Carbon monoxide	140	28.01		
	Carbon tetrachloride - HAP/VOC	4.0E-03	153.84		
	Carbonyl sulfide - HAP/VOC	0.49	60.07		
	Chlorobenzene - HAP/VOC	0.25	112.56		
	Chlorodifluoromethane	1.3	86.47		
	Chloroethane (ethyl chloride) - HAP/VOC	1.3	64.52		
	Chloroform - HAP/VOC	0.03	119.39		
	Chloromethane - VOC	1.2	50.49		
	Dichlorobenzene - (HAP for para isomer/VOC)	0.21	147		
	Dichlorodifluoromethane	16	120.91		
	Dichlorofluoromethane - VOC	2.6	102.92		
	Dichloromethane (methylene chloride) - HAP	14	84.94		
	Dimethyl sulfide (methyl sulfide) - VOC	7.8	62.13		
	Ethane	890	30.07		
	Ethanol - VOC	27	46.08		

Pollutant Parameters (Continued)

	Gas / Pollutant Default Parameters:			User-specified Pollutant Parameters:	
	Compound	Concentration (*ppmv*)	Molecular Weight	Concentration (*ppmv*)	Molecular Weight
Pollutants	Ethyl mercaptan (ethanethiol) - VOC	2.3	62.13		
	Ethylbenzene - HAP/VOC	4.6	106.16		
	Ethylene dibromide - HAP/VOC	1.0E-03	187.88		
	Fluorotrichloromethane - VOC	0.76	137.38		
	Hexane - HAP/VOC	6.6	86.18		
	Hydrogen sulfide	36	34.08		
	Mercury (total) - HAP	2.9E-04	200.61		
	Methyl ethyl ketone - HAP/VOC	7.1	72.11		
	Methyl isobutyl ketone - HAP/VOC	1.9	100.16		
	Methyl mercaptan - VOC	2.5	48.11		
	Pentane - VOC	3.3	72.15		
	Perchloroethylene (tetrachloroethylene) - HAP	3.7	165.83		
	Propane - VOC	11	44.09		
	t-1,2-Dichloroethene - VOC	2.8	96.94		
	Toluene - No or Unknown Co-disposal - HAP/VOC	39	92.13		
	Toluene - Co-disposal - HAP/VOC	170	92.13		
	Trichloroethylene (trichloroethene) - HAP/VOC	2.8	131.40		
	Vinyl chloride - HAP/VOC	7.3	62.50		
	Xylenes - HAP/VOC	12	106.16		

Graphs


Megagrams Per Year
Emissions
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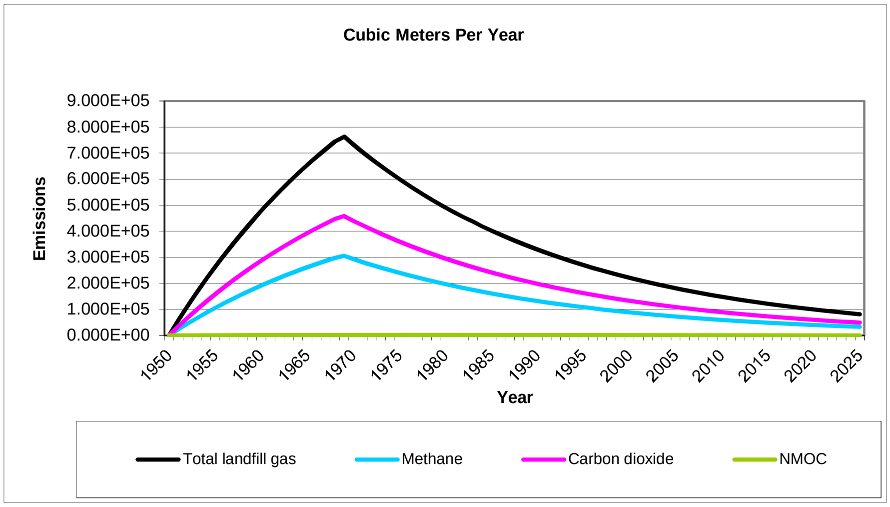
9.000E+02
8.000E+02
7.000E+02
6.000E+02
5.000E+02
4.000E+02
3.000E+02
2.000E+02
1.000E+02
0.000E+00
1950
1955
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
2025
Year
Total landfill gas
Methane
Carbon dioxide
NMOC


Cubic Meters Per Year
Emissions
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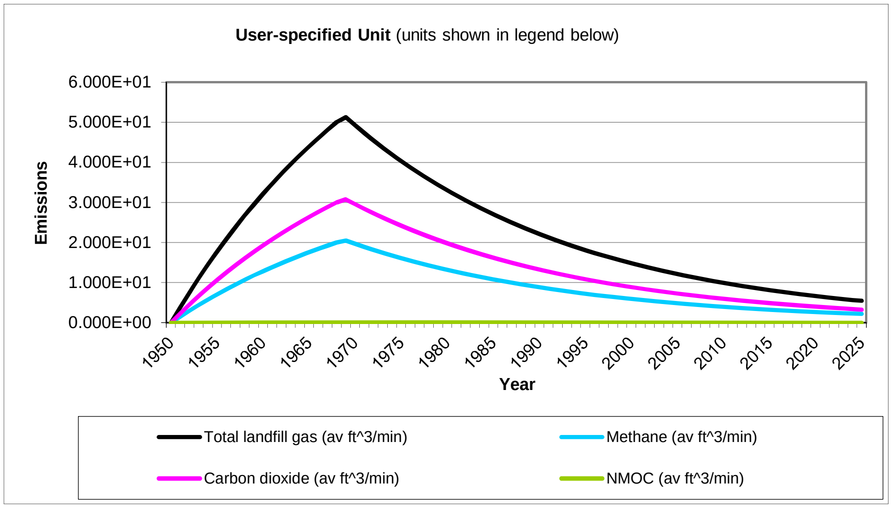
8.000E+05
7.000E+05
6.000E+05
5.000E+05
4.000E+05
3.000E+05
2.000E+05
1.000E+05
0.000E+00
1950
1955
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
2025
Year
Total landfill gas
Methane
Carbon dioxide
NMOC


User-specified Unit (units shown in legend below)
Emissions
6.000E+01
5.000E+01
4.000E+01
3.000E+01
2.000E+01
1.000E+01
0.000E+00
1950
1955
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
2025
Year
Total landfill gas (av ft^3/min)
Methane (av ft^3/min)
Carbon dioxide (av ft^3/min)
NMOC (av ft^3/min)

Results

Year	Total landfill gas			Methane		
	(Mg/year)	***(m^3/year)***	***(av ft^3/min)***	***(Mg/year)***	***(m^3/year)***	***(av ft^3/min)***
1950	0	0	0	0	0	0
1951	6.722E+01	5.686E+04	3.821E+00	1.517E+01	2.274E+04	1.528E+00
1952	1.318E+02	1.115E+05	7.491E+00	2.975E+01	4.460E+04	2.997E+00
1953	1.938E+02	1.640E+05	1.102E+01	4.376E+01	6.559E+04	4.407E+00
1954	2.535E+02	2.144E+05	1.441E+01	5.722E+01	8.577E+04	5.763E+00
1955	3.107E+02	2.629E+05	1.766E+01	7.015E+01	1.051E+05	7.065E+00
1956	3.658E+02	3.094E+05	2.079E+01	8.257E+01	1.238E+05	8.316E+00
1957	4.186E+02	3.542E+05	2.380E+01	9.451E+01	1.417E+05	9.518E+00
1958	4.695E+02	3.971E+05	2.668E+01	1.060E+02	1.589E+05	1.067E+01
1959	5.183E+02	4.384E+05	2.946E+01	1.170E+02	1.754E+05	1.178E+01
1960	5.652E+02	4.781E+05	3.212E+01	1.276E+02	1.912E+05	1.285E+01
1961	6.102E+02	5.162E+05	3.468E+01	1.378E+02	2.065E+05	1.387E+01
1962	6.535E+02	5.528E+05	3.714E+01	1.475E+02	2.211E+05	1.486E+01
1963	6.951E+02	5.880E+05	3.951E+01	1.569E+02	2.352E+05	1.580E+01
1964	7.351E+02	6.218E+05	4.178E+01	1.659E+02	2.487E+05	1.671E+01
1965	7.735E+02	6.543E+05	4.396E+01	1.746E+02	2.617E+05	1.758E+01
1966	8.103E+02	6.855E+05	4.606E+01	1.829E+02	2.742E+05	1.842E+01
1967	8.458E+02	7.155E+05	4.807E+01	1.909E+02	2.862E+05	1.923E+01
1968	8.798E+02	7.443E+05	5.001E+01	1.986E+02	2.977E+05	2.000E+01
1969	9.021E+02	7.631E+05	5.127E+01	2.036E+02	3.052E+05	2.051E+01
1970	8.667E+02	7.332E+05	4.926E+01	1.957E+02	2.933E+05	1.971E+01
1971	8.327E+02	7.044E+05	4.733E+01	1.880E+02	2.818E+05	1.893E+01
1972	8.001E+02	6.768E+05	4.548E+01	1.806E+02	2.707E+05	1.819E+01
1973	7.687E+02	6.503E+05	4.369E+01	1.735E+02	2.601E+05	1.748E+01
1974	7.386E+02	6.248E+05	4.198E+01	1.667E+02	2.499E+05	1.679E+01
1975	7.096E+02	6.003E+05	4.033E+01	1.602E+02	2.401E+05	1.613E+01
1976	6.818E+02	5.768E+05	3.875E+01	1.539E+02	2.307E+05	1.550E+01
1977	6.550E+02	5.541E+05	3.723E+01	1.479E+02	2.217E+05	1.489E+01
1978	6.294E+02	5.324E+05	3.577E+01	1.421E+02	2.130E+05	1.431E+01
1979	6.047E+02	5.115E+05	3.437E+01	1.365E+02	2.046E+05	1.375E+01
1980	5.810E+02	4.915E+05	3.302E+01	1.312E+02	1.966E+05	1.321E+01
1981	5.582E+02	4.722E+05	3.173E+01	1.260E+02	1.889E+05	1.269E+01
1982	5.363E+02	4.537E+05	3.048E+01	1.211E+02	1.815E+05	1.219E+01
1983	5.153E+02	4.359E+05	2.929E+01	1.163E+02	1.744E+05	1.172E+01
1984	4.951E+02	4.188E+05	2.814E+01	1.118E+02	1.675E+05	1.126E+01
1985	4.757E+02	4.024E+05	2.704E+01	1.074E+02	1.610E+05	1.081E+01
1986	4.570E+02	3.866E+05	2.598E+01	1.032E+02	1.546E+05	1.039E+01
1987	4.391E+02	3.714E+05	2.496E+01	9.912E+01	1.486E+05	9.983E+00
1988	4.219E+02	3.569E+05	2.398E+01	9.524E+01	1.428E+05	9.592E+00
1989	4.053E+02	3.429E+05	2.304E+01	9.150E+01	1.372E+05	9.215E+00
1990	3.894E+02	3.294E+05	2.214E+01	8.792E+01	1.318E+05	8.854E+00
1991	3.742E+02	3.165E+05	2.127E+01	8.447E+01	1.266E+05	8.507E+00
1992	3.595E+02	3.041E+05	2.043E+01	8.116E+01	1.216E+05	8.173E+00
1993	3.454E+02	2.922E+05	1.963E+01	7.797E+01	1.169E+05	7.853E+00
1994	3.319E+02	2.807E+05	1.886E+01	7.492E+01	1.123E+05	7.545E+00
1995	3.188E+02	2.697E+05	1.812E+01	7.198E+01	1.079E+05	7.249E+00
1996	3.063E+02	2.592E+05	1.741E+01	6.916E+01	1.037E+05	6.965E+00
1997	2.943E+02	2.490E+05	1.673E+01	6.645E+01	9.960E+04	6.692E+00
1998	2.828E+02	2.392E+05	1.607E+01	6.384E+01	9.569E+04	6.429E+00
1999	2.717E+02	2.298E+05	1.544E+01	6.134E+01	9.194E+04	6.177E+00

Results (Continued)

Year	**Total landfill gas**			**Methane**		
	(Mg/year)	***(m^3/year)***	***(av ft^3/min)***	***(Mg/year)***	***(m^3/year)***	***(av ft^3/min)***
2000	2.610E+02	2.208E+05	1.484E+01	5.893E+01	8.833E+04	5.935E+00
2001	2.508E+02	2.122E+05	1.426E+01	5.662E+01	8.487E+04	5.702E+00
2002	2.410E+02	2.039E+05	1.370E+01	5.440E+01	8.154E+04	5.479E+00
2003	2.315E+02	1.959E+05	1.316E+01	5.227E+01	7.834E+04	5.264E+00
2004	2.225E+02	1.882E+05	1.264E+01	5.022E+01	7.527E+04	5.058E+00
2005	2.137E+02	1.808E+05	1.215E+01	4.825E+01	7.232E+04	4.859E+00
2006	2.053E+02	1.737E+05	1.167E+01	4.636E+01	6.949E+04	4.669E+00
2007	1.973E+02	1.669E+05	1.121E+01	4.454E+01	6.676E+04	4.486E+00
2008	1.896E+02	1.604E+05	1.077E+01	4.279E+01	6.414E+04	4.310E+00
2009	1.821E+02	1.541E+05	1.035E+01	4.112E+01	6.163E+04	4.141E+00
2010	1.750E+02	1.480E+05	9.946E+00	3.950E+01	5.921E+04	3.978E+00
2011	1.681E+02	1.422E+05	9.556E+00	3.795E+01	5.689E+04	3.822E+00
2012	1.615E+02	1.366E+05	9.181E+00	3.647E+01	5.466E+04	3.673E+00
2013	1.552E+02	1.313E+05	8.821E+00	3.504E+01	5.252E+04	3.529E+00
2014	1.491E+02	1.261E+05	8.475E+00	3.366E+01	5.046E+04	3.390E+00
2015	1.433E+02	1.212E+05	8.143E+00	3.234E+01	4.848E+04	3.257E+00
2016	1.376E+02	1.164E+05	7.824E+00	3.107E+01	4.658E+04	3.130E+00
2017	1.323E+02	1.119E+05	7.517E+00	2.986E+01	4.475E+04	3.007E+00
2018	1.271E+02	1.075E+05	7.222E+00	2.869E+01	4.300E+04	2.889E+00
2019	1.221E+02	1.033E+05	6.939E+00	2.756E+01	4.131E+04	2.776E+00
2020	1.173E+02	9.923E+04	6.667E+00	2.648E+01	3.969E+04	2.667E+00
2021	1.127E+02	9.534E+04	6.406E+00	2.544E+01	3.813E+04	2.562E+00
2022	1.083E+02	9.160E+04	6.154E+00	2.444E+01	3.664E+04	2.462E+00
2023	1.040E+02	8.801E+04	5.913E+00	2.349E+01	3.520E+04	2.365E+00
2024	9.995E+01	8.456E+04	5.681E+00	2.256E+01	3.382E+04	2.273E+00
2025	9.603E+01	8.124E+04	5.459E+00	2.168E+01	3.250E+04	2.183E+00
2026	9.227E+01	7.805E+04	5.244E+00	2.083E+01	3.122E+04	2.098E+00
2027	8.865E+01	7.499E+04	5.039E+00	2.001E+01	3.000E+04	2.016E+00
2028	8.518E+01	7.205E+04	4.841E+00	1.923E+01	2.882E+04	1.937E+00
2029	8.184E+01	6.923E+04	4.651E+00	1.847E+01	2.769E+04	1.861E+00
2030	7.863E+01	6.651E+04	4.469E+00	1.775E+01	2.661E+04	1.788E+00
2031	7.554E+01	6.391E+04	4.294E+00	1.705E+01	2.556E+04	1.718E+00
2032	7.258E+01	6.140E+04	4.125E+00	1.639E+01	2.456E+04	1.650E+00
2033	6.974E+01	5.899E+04	3.964E+00	1.574E+01	2.360E+04	1.585E+00
2034	6.700E+01	5.668E+04	3.808E+00	1.513E+01	2.267E+04	1.523E+00
2035	6.437E+01	5.446E+04	3.659E+00	1.453E+01	2.178E+04	1.464E+00
2036	6.185E+01	5.232E+04	3.515E+00	1.396E+01	2.093E+04	1.406E+00
2037	5.942E+01	5.027E+04	3.378E+00	1.342E+01	2.011E+04	1.351E+00
2038	5.709E+01	4.830E+04	3.245E+00	1.289E+01	1.932E+04	1.298E+00
2039	5.486E+01	4.641E+04	3.118E+00	1.238E+01	1.856E+04	1.247E+00
2040	5.270E+01	4.459E+04	2.996E+00	1.190E+01	1.783E+04	1.198E+00
2041	5.064E+01	4.284E+04	2.878E+00	1.143E+01	1.713E+04	1.151E+00
2042	4.865E+01	4.116E+04	2.765E+00	1.098E+01	1.646E+04	1.106E+00
2043	4.675E+01	3.954E+04	2.657E+00	1.055E+01	1.582E+04	1.063E+00
2044	4.491E+01	3.799E+04	2.553E+00	1.014E+01	1.520E+04	1.021E+00
2045	4.315E+01	3.650E+04	2.453E+00	9.741E+00	1.460E+04	9.811E-01
2046	4.146E+01	3.507E+04	2.356E+00	9.359E+00	1.403E+04	9.426E-01
2047	3.983E+01	3.370E+04	2.264E+00	8.992E+00	1.348E+04	9.056E-01
2048	3.827E+01	3.238E+04	2.175E+00	8.640E+00	1.295E+04	8.701E-01
2049	3.677E+01	3.111E+04	2.090E+00	8.301E+00	1.244E+04	8.360E-01
2050	3.533E+01	2.989E+04	2.008E+00	7.976E+00	1.195E+04	8.032E-01

Results (Continued)

Year	Total landfill gas			Methane		
	(Mg/year)	***(m^3/year)***	***(av ft^3/min)***	***(Mg/year)***	***(m^3/year)***	***(av ft^3/min)***
2051	3.394E+01	2.871E+04	1.929E+00	7.663E+00	1.149E+04	7.717E-01
2052	3.261E+01	2.759E+04	1.854E+00	7.362E+00	1.104E+04	7.415E-01
2053	3.133E+01	2.651E+04	1.781E+00	7.074E+00	1.060E+04	7.124E-01
2054	3.011E+01	2.547E+04	1.711E+00	6.796E+00	1.019E+04	6.845E-01
2055	2.893E+01	2.447E+04	1.644E+00	6.530E+00	9.788E+03	6.576E-01
2056	2.779E+01	2.351E+04	1.580E+00	6.274E+00	9.404E+03	6.318E-01
2057	2.670E+01	2.259E+04	1.518E+00	6.028E+00	9.035E+03	6.071E-01
2058	2.565E+01	2.170E+04	1.458E+00	5.791E+00	8.681E+03	5.833E-01
2059	2.465E+01	2.085E+04	1.401E+00	5.564E+00	8.340E+03	5.604E-01
2060	2.368E+01	2.003E+04	1.346E+00	5.346E+00	8.013E+03	5.384E-01
2061	2.275E+01	1.925E+04	1.293E+00	5.137E+00	7.699E+03	5.173E-01
2062	2.186E+01	1.849E+04	1.243E+00	4.935E+00	7.397E+03	4.970E-01
2063	2.100E+01	1.777E+04	1.194E+00	4.742E+00	7.107E+03	4.775E-01
2064	2.018E+01	1.707E+04	1.147E+00	4.556E+00	6.829E+03	4.588E-01
2065	1.939E+01	1.640E+04	1.102E+00	4.377E+00	6.561E+03	4.408E-01
2066	1.863E+01	1.576E+04	1.059E+00	4.205E+00	6.304E+03	4.235E-01
2067	1.790E+01	1.514E+04	1.017E+00	4.041E+00	6.056E+03	4.069E-01
2068	1.720E+01	1.455E+04	9.774E-01	3.882E+00	5.819E+03	3.910E-01
2069	1.652E+01	1.398E+04	9.391E-01	3.730E+00	5.591E+03	3.756E-01
2070	1.587E+01	1.343E+04	9.023E-01	3.584E+00	5.372E+03	3.609E-01
2071	1.525E+01	1.290E+04	8.669E-01	3.443E+00	5.161E+03	3.468E-01
2072	1.465E+01	1.240E+04	8.329E-01	3.308E+00	4.959E+03	3.332E-01
2073	1.408E+01	1.191E+04	8.003E-01	3.178E+00	4.764E+03	3.201E-01
2074	1.353E+01	1.144E+04	7.689E-01	3.054E+00	4.577E+03	3.076E-01
2075	1.300E+01	1.099E+04	7.387E-01	2.934E+00	4.398E+03	2.955E-01
2076	1.249E+01	1.056E+04	7.098E-01	2.819E+00	4.225E+03	2.839E-01
2077	1.200E+01	1.015E+04	6.819E-01	2.708E+00	4.060E+03	2.728E-01
2078	1.153E+01	9.751E+03	6.552E-01	2.602E+00	3.901E+03	2.621E-01
2079	1.108E+01	9.369E+03	6.295E-01	2.500E+00	3.748E+03	2.518E-01
2080	1.064E+01	9.002E+03	6.048E-01	2.402E+00	3.601E+03	2.419E-01
2081	1.022E+01	8.649E+03	5.811E-01	2.308E+00	3.459E+03	2.324E-01
2082	9.823E+00	8.310E+03	5.583E-01	2.217E+00	3.324E+03	2.233E-01
2083	9.438E+00	7.984E+03	5.364E-01	2.131E+00	3.194E+03	2.146E-01
2084	9.068E+00	7.671E+03	5.154E-01	2.047E+00	3.068E+03	2.062E-01
2085	8.712E+00	7.370E+03	4.952E-01	1.967E+00	2.948E+03	1.981E-01
2086	8.370E+00	7.081E+03	4.758E-01	1.890E+00	2.832E+03	1.903E-01
2087	8.042E+00	6.803E+03	4.571E-01	1.816E+00	2.721E+03	1.828E-01
2088	7.727E+00	6.537E+03	4.392E-01	1.744E+00	2.615E+03	1.757E-01
2089	7.424E+00	6.280E+03	4.220E-01	1.676E+00	2.512E+03	1.688E-01
2090	7.133E+00	6.034E+03	4.054E-01	1.610E+00	2.414E+03	1.622E-01

Results (Continued)

Year	Carbon dioxide			NMOC		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
1950	0	0	0	0	0	0
1951	6.245E+01	3.412E+04	2.292E+00	4.892E-01	1.365E+02	9.169E-03
1952	1.225E+02	6.690E+04	4.495E+00	9.592E-01	2.676E+02	1.798E-02
1953	1.801E+02	9.839E+04	6.611E+00	1.411E+00	3.936E+02	2.644E-02
1954	2.355E+02	1.286E+05	8.644E+00	1.845E+00	5.146E+02	3.458E-02
1955	2.887E+02	1.577E+05	1.060E+01	2.261E+00	6.309E+02	4.239E-02
1956	3.398E+02	1.857E+05	1.247E+01	2.662E+00	7.426E+02	4.990E-02
1957	3.890E+02	2.125E+05	1.428E+01	3.047E+00	8.500E+02	5.711E-02
1958	4.362E+02	2.383E+05	1.601E+01	3.416E+00	9.531E+02	6.404E-02
1959	4.815E+02	2.631E+05	1.767E+01	3.772E+00	1.052E+03	7.070E-02
1960	5.251E+02	2.869E+05	1.927E+01	4.113E+00	1.147E+03	7.710E-02
1961	5.670E+02	3.097E+05	2.081E+01	4.441E+00	1.239E+03	8.324E-02
1962	6.072E+02	3.317E+05	2.229E+01	4.756E+00	1.327E+03	8.915E-02
1963	6.458E+02	3.528E+05	2.371E+01	5.059E+00	1.411E+03	9.482E-02
1964	6.829E+02	3.731E+05	2.507E+01	5.349E+00	1.492E+03	1.003E-01
1965	7.186E+02	3.926E+05	2.638E+01	5.629E+00	1.570E+03	1.055E-01
1966	7.529E+02	4.113E+05	2.764E+01	5.897E+00	1.645E+03	1.105E-01
1967	7.858E+02	4.293E+05	2.884E+01	6.155E+00	1.717E+03	1.154E-01
1968	8.175E+02	4.466E+05	3.001E+01	6.403E+00	1.786E+03	1.200E-01
1969	8.381E+02	4.579E+05	3.076E+01	6.565E+00	1.831E+03	1.231E-01
1970	8.053E+02	4.399E+05	2.956E+01	6.307E+00	1.760E+03	1.182E-01
1971	7.737E+02	4.227E+05	2.840E+01	6.060E+00	1.691E+03	1.136E-01
1972	7.434E+02	4.061E+05	2.729E+01	5.823E+00	1.624E+03	1.091E-01
1973	7.142E+02	3.902E+05	2.622E+01	5.594E+00	1.561E+03	1.049E-01
1974	6.862E+02	3.749E+05	2.519E+01	5.375E+00	1.499E+03	1.008E-01
1975	6.593E+02	3.602E+05	2.420E+01	5.164E+00	1.441E+03	9.680E-02
1976	6.334E+02	3.461E+05	2.325E+01	4.962E+00	1.384E+03	9.300E-02
1977	6.086E+02	3.325E+05	2.234E+01	4.767E+00	1.330E+03	8.936E-02
1978	5.847E+02	3.194E+05	2.146E+01	4.580E+00	1.278E+03	8.585E-02
1979	5.618E+02	3.069E+05	2.062E+01	4.401E+00	1.228E+03	8.249E-02
1980	5.398E+02	2.949E+05	1.981E+01	4.228E+00	1.180E+03	7.925E-02
1981	5.186E+02	2.833E+05	1.904E+01	4.062E+00	1.133E+03	7.615E-02
1982	4.983E+02	2.722E+05	1.829E+01	3.903E+00	1.089E+03	7.316E-02
1983	4.787E+02	2.615E+05	1.757E+01	3.750E+00	1.046E+03	7.029E-02
1984	4.600E+02	2.513E+05	1.688E+01	3.603E+00	1.005E+03	6.753E-02
1985	4.419E+02	2.414E+05	1.622E+01	3.462E+00	9.657E+02	6.489E-02
1986	4.246E+02	2.320E+05	1.559E+01	3.326E+00	9.279E+02	6.234E-02
1987	4.080E+02	2.229E+05	1.497E+01	3.195E+00	8.915E+02	5.990E-02
1988	3.920E+02	2.141E+05	1.439E+01	3.070E+00	8.565E+02	5.755E-02
1989	3.766E+02	2.057E+05	1.382E+01	2.950E+00	8.229E+02	5.529E-02
1990	3.618E+02	1.977E+05	1.328E+01	2.834E+00	7.907E+02	5.312E-02
1991	3.476E+02	1.899E+05	1.276E+01	2.723E+00	7.597E+02	5.104E-02
1992	3.340E+02	1.825E+05	1.226E+01	2.616E+00	7.299E+02	4.904E-02
1993	3.209E+02	1.753E+05	1.178E+01	2.514E+00	7.013E+02	4.712E-02
1994	3.083E+02	1.684E+05	1.132E+01	2.415E+00	6.738E+02	4.527E-02
1995	2.962E+02	1.618E+05	1.087E+01	2.320E+00	6.473E+02	4.349E-02
1996	2.846E+02	1.555E+05	1.045E+01	2.229E+00	6.220E+02	4.179E-02
1997	2.735E+02	1.494E+05	1.004E+01	2.142E+00	5.976E+02	4.015E-02
1998	2.627E+02	1.435E+05	9.644E+00	2.058E+00	5.741E+02	3.858E-02
1999	2.524E+02	1.379E+05	9.266E+00	1.977E+00	5.516E+02	3.706E-02

Results (Continued)

Year	Carbon dioxide			NMOC		
	(Mg/year)	(m^3/year)	*(av ft^3/min)*	*(Mg/year)*	(m^3/year)	*(av ft^3/min)*
2000	2.425E+02	1.325E+05	8.903E+00	1.900E+00	5.300E+02	3.561E-02
2001	2.330E+02	1.273E+05	8.554E+00	1.825E+00	5.092E+02	3.421E-02
2002	2.239E+02	1.223E+05	8.218E+00	1.754E+00	4.893E+02	3.287E-02
2003	2.151E+02	1.175E+05	7.896E+00	1.685E+00	4.701E+02	3.158E-02
2004	2.067E+02	1.129E+05	7.586E+00	1.619E+00	4.516E+02	3.035E-02
2005	1.986E+02	1.085E+05	7.289E+00	1.555E+00	4.339E+02	2.916E-02
2006	1.908E+02	1.042E+05	7.003E+00	1.494E+00	4.169E+02	2.801E-02
2007	1.833E+02	1.001E+05	6.728E+00	1.436E+00	4.006E+02	2.691E-02
2008	1.761E+02	9.621E+04	6.465E+00	1.380E+00	3.849E+02	2.586E-02
2009	1.692E+02	9.244E+04	6.211E+00	1.325E+00	3.698E+02	2.484E-02
2010	1.626E+02	8.882E+04	5.968E+00	1.273E+00	3.553E+02	2.387E-02
2011	1.562E+02	8.533E+04	5.734E+00	1.224E+00	3.413E+02	2.293E-02
2012	1.501E+02	8.199E+04	5.509E+00	1.176E+00	3.280E+02	2.204E-02
2013	1.442E+02	7.877E+04	5.293E+00	1.129E+00	3.151E+02	2.117E-02
2014	1.385E+02	7.569E+04	5.085E+00	1.085E+00	3.027E+02	2.034E-02
2015	1.331E+02	7.272E+04	4.886E+00	1.043E+00	2.909E+02	1.954E-02
2016	1.279E+02	6.987E+04	4.694E+00	1.002E+00	2.795E+02	1.878E-02
2017	1.229E+02	6.713E+04	4.510E+00	9.625E-01	2.685E+02	1.804E-02
2018	1.181E+02	6.449E+04	4.333E+00	9.247E-01	2.580E+02	1.733E-02
2019	1.134E+02	6.197E+04	4.163E+00	8.885E-01	2.479E+02	1.665E-02
2020	1.090E+02	5.954E+04	4.000E+00	8.536E-01	2.381E+02	1.600E-02
2021	1.047E+02	5.720E+04	3.843E+00	8.202E-01	2.288E+02	1.537E-02
2022	1.006E+02	5.496E+04	3.693E+00	7.880E-01	2.198E+02	1.477E-02
2023	9.666E+01	5.280E+04	3.548E+00	7.571E-01	2.112E+02	1.419E-02
2024	9.287E+01	5.073E+04	3.409E+00	7.274E-01	2.029E+02	1.364E-02
2025	8.923E+01	4.874E+04	3.275E+00	6.989E-01	1.950E+02	1.310E-02
2026	8.573E+01	4.683E+04	3.147E+00	6.715E-01	1.873E+02	1.259E-02
2027	8.237E+01	4.500E+04	3.023E+00	6.452E-01	1.800E+02	1.209E-02
2028	7.914E+01	4.323E+04	2.905E+00	6.199E-01	1.729E+02	1.162E-02
2029	7.603E+01	4.154E+04	2.791E+00	5.956E-01	1.661E+02	1.116E-02
2030	7.305E+01	3.991E+04	2.681E+00	5.722E-01	1.596E+02	1.073E-02
2031	7.019E+01	3.834E+04	2.576E+00	5.498E-01	1.534E+02	1.031E-02
2032	6.744E+01	3.684E+04	2.475E+00	5.282E-01	1.474E+02	9.901E-03
2033	6.479E+01	3.540E+04	2.378E+00	5.075E-01	1.416E+02	9.513E-03
2034	6.225E+01	3.401E+04	2.285E+00	4.876E-01	1.360E+02	9.140E-03
2035	5.981E+01	3.267E+04	2.195E+00	4.685E-01	1.307E+02	8.781E-03
2036	5.746E+01	3.139E+04	2.109E+00	4.501E-01	1.256E+02	8.437E-03
2037	5.521E+01	3.016E+04	2.027E+00	4.325E-01	1.206E+02	8.106E-03
2038	5.305E+01	2.898E+04	1.947E+00	4.155E-01	1.159E+02	7.788E-03
2039	5.097E+01	2.784E+04	1.871E+00	3.992E-01	1.114E+02	7.483E-03
2040	4.897E+01	2.675E+04	1.797E+00	3.836E-01	1.070E+02	7.190E-03
2041	4.705E+01	2.570E+04	1.727E+00	3.685E-01	1.028E+02	6.908E-03
2042	4.520E+01	2.469E+04	1.659E+00	3.541E-01	9.878E+01	6.637E-03
2043	4.343E+01	2.373E+04	1.594E+00	3.402E-01	9.491E+01	6.377E-03
2044	4.173E+01	2.280E+04	1.532E+00	3.268E-01	9.118E+01	6.127E-03
2045	4.009E+01	2.190E+04	1.472E+00	3.140E-01	8.761E+01	5.886E-03
2046	3.852E+01	2.104E+04	1.414E+00	3.017E-01	8.417E+01	5.656E-03
2047	3.701E+01	2.022E+04	1.358E+00	2.899E-01	8.087E+01	5.434E-03
2048	3.556E+01	1.943E+04	1.305E+00	2.785E-01	7.770E+01	5.221E-03
2049	3.416E+01	1.866E+04	1.254E+00	2.676E-01	7.466E+01	5.016E-03
2050	3.282E+01	1.793E+04	1.205E+00	2.571E-01	7.173E+01	4.819E-03

Results (Continued)

Year	Carbon dioxide			NMOC		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2051	3.154E+01	1.723E+04	1.158E+00	2.470E-01	6.892E+01	4.630E-03
2052	3.030E+01	1.655E+04	1.112E+00	2.373E-01	6.621E+01	4.449E-03
2053	2.911E+01	1.590E+04	1.069E+00	2.280E-01	6.362E+01	4.274E-03
2054	2.797E+01	1.528E+04	1.027E+00	2.191E-01	6.112E+01	4.107E-03
2055	2.687E+01	1.468E+04	9.864E-01	2.105E-01	5.873E+01	3.946E-03
2056	2.582E+01	1.411E+04	9.478E-01	2.022E-01	5.642E+01	3.791E-03
2057	2.481E+01	1.355E+04	9.106E-01	1.943E-01	5.421E+01	3.642E-03
2058	2.384E+01	1.302E+04	8.749E-01	1.867E-01	5.209E+01	3.500E-03
2059	2.290E+01	1.251E+04	8.406E-01	1.794E-01	5.004E+01	3.362E-03
2060	2.200E+01	1.202E+04	8.076E-01	1.723E-01	4.808E+01	3.231E-03
2061	2.114E+01	1.155E+04	7.760E-01	1.656E-01	4.620E+01	3.104E-03
2062	2.031E+01	1.110E+04	7.455E-01	1.591E-01	4.438E+01	2.982E-03
2063	1.951E+01	1.066E+04	7.163E-01	1.529E-01	4.264E+01	2.865E-03
2064	1.875E+01	1.024E+04	6.882E-01	1.469E-01	4.097E+01	2.753E-03
2065	1.801E+01	9.841E+03	6.612E-01	1.411E-01	3.937E+01	2.645E-03
2066	1.731E+01	9.455E+03	6.353E-01	1.356E-01	3.782E+01	2.541E-03
2067	1.663E+01	9.085E+03	6.104E-01	1.303E-01	3.634E+01	2.442E-03
2068	1.598E+01	8.728E+03	5.865E-01	1.251E-01	3.491E+01	2.346E-03
2069	1.535E+01	8.386E+03	5.635E-01	1.202E-01	3.354E+01	2.254E-03
2070	1.475E+01	8.057E+03	5.414E-01	1.155E-01	3.223E+01	2.165E-03
2071	1.417E+01	7.741E+03	5.201E-01	1.110E-01	3.097E+01	2.081E-03
2072	1.362E+01	7.438E+03	4.997E-01	1.066E-01	2.975E+01	1.999E-03
2073	1.308E+01	7.146E+03	4.802E-01	1.025E-01	2.858E+01	1.921E-03
2074	1.257E+01	6.866E+03	4.613E-01	9.844E-02	2.746E+01	1.845E-03
2075	1.208E+01	6.597E+03	4.432E-01	9.458E-02	2.639E+01	1.773E-03
2076	1.160E+01	6.338E+03	4.259E-01	9.088E-02	2.535E+01	1.703E-03
2077	1.115E+01	6.090E+03	4.092E-01	8.731E-02	2.436E+01	1.637E-03
2078	1.071E+01	5.851E+03	3.931E-01	8.389E-02	2.340E+01	1.572E-03
2079	1.029E+01	5.621E+03	3.777E-01	8.060E-02	2.249E+01	1.511E-03
2080	9.887E+00	5.401E+03	3.629E-01	7.744E-02	2.160E+01	1.452E-03
2081	9.499E+00	5.189E+03	3.487E-01	7.440E-02	2.076E+01	1.395E-03
2082	9.126E+00	4.986E+03	3.350E-01	7.149E-02	1.994E+01	1.340E-03
2083	8.769E+00	4.790E+03	3.219E-01	6.868E-02	1.916E+01	1.287E-03
2084	8.425E+00	4.602E+03	3.092E-01	6.599E-02	1.841E+01	1.237E-03
2085	8.094E+00	4.422E+03	2.971E-01	6.340E-02	1.769E+01	1.188E-03
2086	7.777E+00	4.249E+03	2.855E-01	6.092E-02	1.699E+01	1.142E-03
2087	7.472E+00	4.082E+03	2.743E-01	5.853E-02	1.633E+01	1.097E-03
2088	7.179E+00	3.922E+03	2.635E-01	5.623E-02	1.569E+01	1.054E-03
2089	6.898E+00	3.768E+03	2.532E-01	5.403E-02	1.507E+01	1.013E-03
2090	6.627E+00	3.620E+03	2.433E-01	5.191E-02	1.448E+01	9.730E-04

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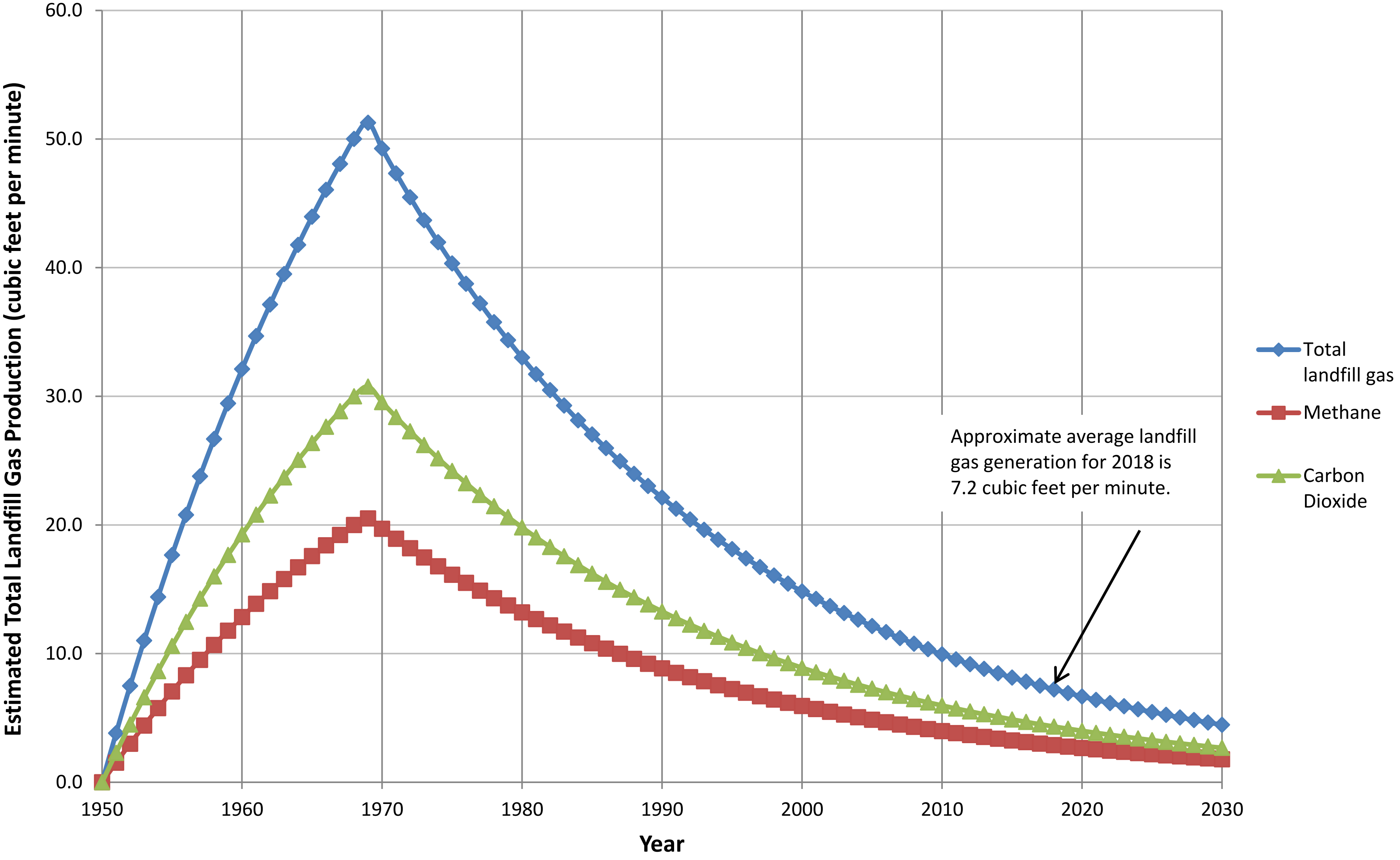

Approximate average landfill gas generation for 2018 is 7.2 cubic feet per minute.

LANDAU ASSOCIATES

West Olympia Landfill
Olympia, Washington

Landfill Gas Generation Estimate
Former West Olympia Landfill

Figure
G-1