Westlake/Mercer Cleanup Project
Seattle, Washington
RM&R Site No. 255353

Phase 2 Closeout Report

Job No. 33759381

December 2009

Prepared for:

ConocoPhillips

ConocoPhillips Company

Prepared by:

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CONTENTS

APPENDICES (Electronic Records)

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ABBREVIATIONS AND ACRONYMS

bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
CADD	Computer-Aided Drafting Design
CDF	Controlled Density Fill
CI	City Investors
CIH	Certified Industrial Hygienist
CM	Construction Manager
COP	ConocoPhillips
COS	City of Seattle
cy	cubic yards
DPD	Department of Planning and Development (City of Seattle)
EDMS	Environmental Data Management System
HSE	Health, Safety, and Environment
JSA	Job Safety Analysis
mg/kg	milligram per kilogram
MTCA	Model Toxics Control Act
NTE	Not to Exceed
PMP	Project Management Plan
ROW	Rights of Way
S3C	Site Safety Supervisor Certification
SCB	soil cement bentonite
SDOT	Seattle Department of Transportation
SOM	Safety Operations Manager
SPU	Seattle Public Utilities
SSO	Site Safety Officer
TPH	total petroleum hydrocarbons
UST	underground storage tank
WAC	Washington Administrative Code
WMCP	Westlake/Mercer Cleanup Project

1.0 INTRODUCTION

This Closeout Report was prepared to provide a brief summary and other supporting closeout documentation on the remedial design and construction for Phase 2 of the Westlake/Mercer Cleanup Project (WMCP), covering properties located at 600 Westlake Avenue North and 965 Valley Street in Seattle, Washington.

WMCP Phase 2 was performed by ConocoPhillips as part of a voluntary cleanup under the Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA), Chapter 173-340 of the Washington Administrative Code (WAC). The primary purpose of this project was to clean up former releases of gasoline fuel (predominately an approximately 80,000-gallon gasoline spill from an underground product line in 1980 associated with the former Unocal Service Station located at 600 Westlake Avenue North) to levels that meet Ecology's MTCA Method A Cleanup Levels for total petroleum hydrocarbons (TPH) as gasoline, diesel, lube oil, and kerosene, benzene, toluene, ethylbenzene, and xylenes (BTEX), and total lead.

WMCP Phase 2 was intended to address residual petroleum hydrocarbons and associated compounds present on the ConocoPhillips property and CI Lot 14. Phase 2 remedial excavation activities to the extent practicable, consisted of removal of petroleum hydrocarbon impacted soil exceeding MTCA Method A Cleanup Levels on the City Investors property and the majority of the ConocoPhillips property. Soil was removed to a minimum approximate depth of 15 feet below ground surface (bgs), which corresponds to approximately 14 feet above City of Seattle datum.

1.1 REPORT ORGANIZATION

This Closeout Report addresses the following items:

- Summary of Events (May 2008 through August 2009)
- Organizational Structure
- Safety Program
- Confirmation Soil Sampling
- Structural – Vibration Control
- Actual Schedule of Field Activities
- Financial
- Mitigation Measures Incorporated
- Cost Saving Measures

2.0 SUMMARY OF EVENTS

Phase 2 of the WMCP was performed by URS during the period from May 2008 through August 2009. The conceptual design of Phase 2 was previously developed during conceptual design of Phase 1 in 2006. Further Phase 2 design was completed in late 2006 through 2007 by ConocoPhillips. This summary discusses the events following award of Phase 2 in May 2008. WMCP Phase 2 consisted of the following major tasks: (1) update design, contracts and permits; (2) construction and construction management; (3) remedial excavation; and (4) project close-out. Each task is briefly described below.

Update Design, Contracts and Permitting

The design for WMCP Phase 2 was updated following award in May 2008 to include a soil/cement/bentonite (SCB) gravity wall installed to an approximate depth of 20 feet bgs around the perimeter of three sides of the excavation. The purpose of the SCB gravity wall was to hold near vertical faces allowing for a stable excavation adjacent to the wall while providing a barrier to groundwater flow. The west side of the excavation along Westlake Avenue North had steel sheetpile previously installed during WMCP Phase 1. Therefore, the SCB wall was not needed to shore this portion of the site. Others changes to the design were based on City of Seattle reviewer comments during the permitting process.

URS selected Clearcreek Contractors as the general contractor for WMCP Phase 2 based on their qualifications (safety record, company financials, experience, and key staff) including experience working on Phase 1 of the WMCP. In addition, GeoCon was selected as the contractor for barrier wall construction based on their barrier wall expertise. Whiteshield and SubTerra were selected as surveying and vibration monitoring consultants, respectively, based on their experience working on Phase 1.

The permitting process for Phase 2 began in July 2008 with submittal of intake documents to City of Seattle Department of Planning and Development (DPD) and Seattle Department of Transportation (SDOT). Permit applications submitted were for street use, traffic control, shoring, and construction. The approved street use/traffic control permit was received from DPD on August 12, 2008. The approved shoring permit was received November 7, 2008, and the approved construction permit was received December 8, 2008.

In addition to City of Seattle permits, a permit application for a wastewater discharge was submitted to King County Industrial Waste on September 30, 2008. The approved discharge authorization to allow discharge of treated groundwater from excavation dewatering activities to the local combined sewer system was received on October 30, 2008. The requirements of the

discharge authorization specified effluent samples to be collected from the system and monthly reports and analytical data to be submitted to King County. In addition, copies of monthly reports were submitted to Seattle Public Utilities for billing of sewer discharge fees. On August 5, 2008, an application for a Construction Stormwater General Permit was submitted to Ecology. The approved permit was received on September 15, 2008.

Permit submittal documents and permit approvals are included in Appendix A.

Construction

Construction commenced with mobilization on December 1, 2008. Demolition of pavements, pre-trenching and utility capping activities began on December 15th to prepare for installation of the SCB barrier wall. The SCB barrier wall contractor (GeoCon) arrived on site in late January and completed the SCB barrier wall on March 13, 2009. Mass excavation to a depth of at least 15 feet below ground surface (bgs) began in early March and was completed June 30, 2009. Placement of the gravel layer on the COP lot and asphalt paving of the CI lot was completed in July 2009. Chain link fence installation around the perimeter of the COP lot was complete on August 5, 2009.

Construction schedules (baseline and as-built) for the project are included in Appendix C. The baseline schedule had the project completion at approximately 7 months, with substantial completion by the end of June 2009. The as-built schedule shows work was substantially complete on August 5, 2009. Schedule delays were primarily associated with the following causes:

- **Weather Delays:** Weather delays due to unusually severe snow and ice occurred in the month of December 2008. Normal snowfall in the Seattle area for December is 2.5". During December 2008 just over 22" of snow fell in the Seattle area. (Delay Impact: 7 calendar days)

- **Additional Catenary Supports for power poles:** During design, one catenary support was called out to be installed along Terry Avenue. It was planned that all other utility poles foundations would be supported with A-frames and counter weights. This plan was initially approved by City of Seattle DPD. Because installation of the A-frames would have required 24/7 lane closures, SDOT required that we investigate alternate methods to support 5 additional utility poles so that lane closures would not be required. The method selected to accomplish this was to install in-situ catenary supports at these 5 locations. (Delay Impact: 7 calendar days)

- **Unknown UST's:** A total of three small USTs were found during excavation of the site. In mid-January, removal of an unidentified pipe on the ConocoPhillips property led to the discovery of two previously unknown USTs in the excavation area. In early April, a third

UST was discovered in the Northeast portion of the CI property. The three tanks (2,000 gal, 4,000 gal, and 300 gal) were removed and properly disposed of by Clearcreek Contractors. (Delay Impact: 3 calendar days)

- **Additional SCB Barrier Wall:** During installation of the main SCB barrier wall, it was determined that groundwater recharge (and therefore project dewatering requirements) exceeded the design criteria specified in the project request for proposal. Therefore, installation of approximately 120 linear feet of a 4-foot wide SCB barrier wall along the east side of the ConocoPhillips property excavation area (adjacent to the West Marine parking lot) was required to provide a barrier to groundwater recharge. This additional wall improved excavation and backfill operations by significantly reducing the amount of groundwater that was required to be managed and disposed of by the contractor.(Delay Impact: 4 calendar days)

- **Lead Impacted Soil:** Confirmation sampling identified areas of elevated concentrations of lead in the soil on City Investor's property. Further testing revealed that this soil required disposal as Dangerous (Hazardous) Waste rather than solid waste (contaminated soil). While the amount of lead impacted material was small relative to the total volume of soil removed during the project, significant time was spent ensuring all administrative requirements were met (profile, establishing the generator number, proper transportation, etc.) (Delay Impact: 29 calendar days)

- **Over Excavation of Cells B3 and B14 on Lot 14:** These two cells located on City Investor's Lot 14 were originally excavated to elevation 7. At the time the cells were first excavated it was not feasible to excavate to a lower elevation without compromising the stability of the SCB gravity wall. Further excavation could not take place until surrounding soil was replaced to provide support for the SCB wall. Original confirmation sampling at elevation 7 indicated that concentrations above MTCA Method A Cleanup Levels were still present at the base on the excavation. At COP's request, URS determined that additional excavation would be possible after the site had been backfilled. Once the area had been backfilled, these cells were re-excavated to original native soil (elevations 4 [B3] and 2 [B14] feet relative to City of Seattle datum), confirmation samples were taken with results below MTCA Method A Cleanup Levels, and then the cells were backfilled. (Delay impact: 16 calendar days).

The primary deliverables from the construction phase included:

- As-Built Drawings;
- Various technical submittals to City of Seattle (e.g. compaction test reports);
- Monthly treatment system discharge monitoring reports

Electronic copies of these deliverables are in Appendix D, E and F, respectively.

Additional documentation generated during the project includes:

- Site photographs
- Weekly construction meeting minutes

Electronic copies of these records are in Appendix G and H, respectively.

Remedial Excavation

The objective of WMCP Phase 2 was the removal of petroleum contaminated soil from the subject private properties. Mass excavation to a depth of at least 15 feet below ground surface (bgs) was performed between March and June 2009. A total of 67,700 tons of contaminated soil was excavated and removed for off-site disposal.

Confirmation soil sampling was conducted during excavation to document conditions at the base of the excavation and to assess whe0ther additional excavation was required to achieve cleanup levels or other project requirements. The decision to excavate additional soil or terminate the excavation was made by ConocoPhillips based on the sampling results. The confirmation soil sampling program is documented in the Final Soil Sampling Plan, and the soil sampling activities and data are summarized in Section 5. Confirmation sampling was performed across the base of the excavation area as described in Section 5 of this report.

Project Close-Out

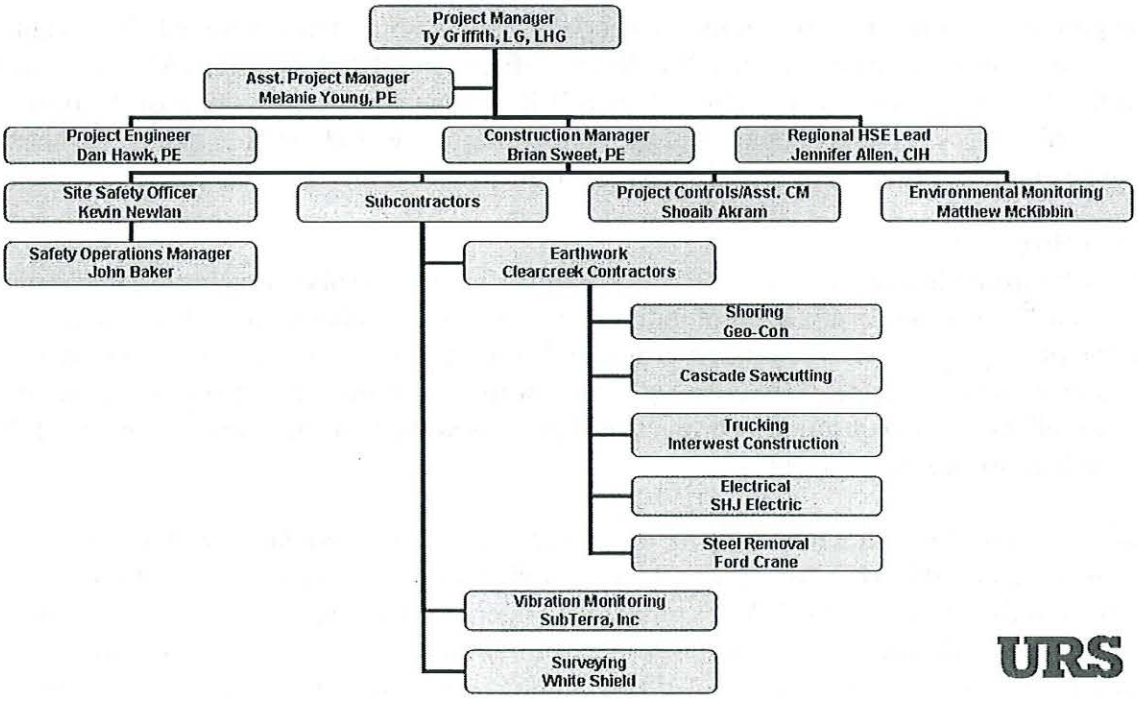
The project close-out phase included the administrative closeout of the project. Specific items include:

- Final COS inspections;
- Conduct post-construction conditions survey of surrounding buildings;
- Submit As-Built drawings to COS;
- Close-out open contracts;
- Obtain and submit final invoices from various contractors;
- Identify and disseminate lessons-learned

3.0 ORGANIZATIONAL STRUCTURE

Figure 3-1 indicates the updated project team's areas of responsibility and corresponding staff for each area. In addition to URS staff, subcontractors worked on the cleanup action, related to excavation and backfill, trucking, barrier wall installation (shoring), surveying, and vibration monitoring. In addition to the team shown on the organization chart, project partners Stantec (Environmental Monitoring), Harris & Smith (Public Relations) and Short, Cressman, and Burgess PLLC (Legal Counsel) provided specialized services on the project. These project partners reported directly to COP.

Figure 3-1
Westlake/Mercer Cleanup Project - Phase 2
Project Organization Chart



4.0 SAFETY PROGRAM

4.1 OVERVIEW

URS implemented a comprehensive safety program for the WMCP Phase 2 construction work. This program was similar to the Phase 1 safety program. During Phase 2, highly qualified project and safety personnel, some who worked on Phase 1 and some who were new to the WMCP, worked together to update and further develop the Phase 2 safety program. The program included many behavior-based safety elements, including task planning, safety observations, near miss reporting, and auditing. The program also included enhanced subcontractor pre-qualification, programmatic and site-specific safety training, detailed project start-up training, and an evaluation of the safety awareness of individuals on the project site. This effort assisted in the selection of employees and subcontractors with a higher level of safety awareness at the start of the project, which allowed the site team to develop and build an interdependent safety culture.

To maintain and continue to grow an interdependent safety culture, URS included significant safety resources to site staff including a Site Safety Officer, a Safety Operations Manager, an Air Monitoring Technician, and the presence of URS HSE Managers over the course of the project. A safety performance monitoring and documentation program was also implemented to measure compliance and to continually improve safety performance throughout the project.

Safety On-Boarding

Safety On-Boarding has two components – the prequalification of subcontractor organizations, and the qualification and certification of individuals. URS staff, subcontractor firms, and subcontractor employees were evaluated to assure that the WMCP team possessed the safety attitude and awareness necessary to create an accident free work site. We also provided layers of training for all workers to ensure that project staff possessed the tools necessary to work safely and help others work safely as well.

Prequalification of subcontractor organizations was completed in accordance with URS Safety Management Standard (SMS) 46. This included a review of the recordable incident rate, experience modification rate, OSHA or enforcement agency citations, insurance, and related information. The subcontractors Health Safety and Environment program, their training programs and documentation, as well as OSHA citations reported on the OSHA web site were reviewed. The intent is to ensure that the Company's safety performance is acceptable and that the information provided by the subcontractor is accurate. Prequalification of each individual proposed to work on the project was accomplished under the Site Safety Resourcing (SSR) program. The qualification of individuals was accomplished via a thorough assessment of the following categories: individual experience, completed training, safety attitude, and leadership

capabilities. This 15- to 30-minute interview process is scripted to standardize the process, and the individual is evaluated against standard descriptions. Personnel that demonstrate the appropriate level of safety awareness were given approval to work on the site. Periodic reviews of any given individual performance in the four categories described above were conducted at specified intervals. The SSR program also provides for training in behavior-based safety work ethics and practices. Available training levels included site orientation, Basic Safety Training for ConocoPhillips RM&R activities (a URS training program), Site-Specific Safety Training (a Health and Safety Plan Review), and/or Safety Leadership Training. Personnel determined to be highly capable and having met specific threshold criteria were certified for Site Safety Supervisor Certification (S3C).

Both URS and subcontractor employees received an assessment of their experience, safety attitude, awareness and training. The level of training was adjusted to the employee or subcontractors' organizational duties and site demands. URS employees generally received basic, leadership, and site-specific training and were expected to be an integral part of the safety leadership team. Subcontractors who were a long-term presence on the site were trained on par with URS employees. Subcontractors whose site presence was of a shorter duration received less training, but URS employees oversaw their activities more intensely. As with URS employees, the combined interview and test results were evaluated and to select appropriate individuals for project responsibilities. Those individuals selected to work on site were issued an Approval to Work authorization signed by the CM.

4.2 SAFETY STAFFING AND MANAGEMENT

A full time URS Site Safety Officer (SSO) reported to the Construction Manager (CM) and was present whenever work was being performed at the site. The SSO conducted orientation, prequalification and on-boarding of URS and subcontractor personnel. The SSO also prepared and investigated all incidents, near misses, hazard identification reports; directed injury management activities, maintained project records; performed and documented scheduled and random safety audits; served as a coach to site workers and management; and planned a safe approach to work, including the development, review and implementation of job safety analyses (JSAs). In addition the SSO was responsible for maintaining safety and air monitoring equipment on-site and directed environmental air monitoring activities. The SSO periodically inspected ongoing site activities, ensuring compliance with the Health and Safety Plan (HASP), and reporting any health or safety deficiencies to the PM or CM. The SSO would also stop all field activities if an imminently dangerous situation existed or if work conditions varied from the established work plan.

The Safety Operations Manager (SOM) assigned to the project reported to the SSO and CM. The role of the SOM was to ensure that all activities were properly planned, briefed, coordinated,

and conducted as described in the work plan or job safety analysis. The SOM observed construction work in progress, to coach management and craft personnel in the requirements and implementation of the safety program, particularly the Behavior-Based Safety elements. The SOM was responsible for providing site safety leadership and audit performance and demonstrated familiarity with the safety program. The SOM also oversaw tasks performed by workers and stopped activities if unsafe conditions existed. The SOM would focus on recognizing change (task, staffing, tools, conditions, evaluate personal protective equipment [PPE], and equipment). In addition, the SOM would evaluate worker pace, ability, and attitude, and report to the SSO and Construction Manager effectively participating in resolving identified safety concerns and issues.

In addition, the URS Health, Safety, and Environment (HSE) Manager was on-site frequently during project start-up and at regular intervals throughout the project. The HSE Manager was a Certified Industrial Hygienist (CIH) with experience in construction and remediation projects. The HSE Manager would frequently interface with the PM, CM and the SSO about project health and safety-related issues. The HSE Manager would also approve the HASP and any amendments to the HASP. The HSE Manager was responsible for conducting regular health and safety audits during on-going site activities, as needed or requested by the SSO. In addition, the HSE Manager would remove personnel from the project if their actions endangered their health and safety, or the health and safety of their co-workers.

4.3 PROGRAM IMPLEMENTATION

During the active construction phase of the WMCP Phase 2, our Safety Program included daily, weekly, monthly, and unscheduled activities designed to maintain a high level of safety awareness and to identify opportunities to improve our safe work practices. The principal elements of our Safety Program during construction included:

Site Control: All workers and visitors to the site were required to Sign in/Sign out of the site. Perimeter fencing or other clear demarcation of the site limits was provided and non-worker access was restricted.

Daily Tailgate Meetings w/ Daily Safety Moment: The SSO, CM, Site Superintendents, or other designated personnel presented daily site safety briefings (i.e., daily tailgate meetings) to all personnel working that day. The purpose of the briefings is to assist personnel in safely conducting the scheduled work activities by identifying potential hazards and determining the corrective actions.

Daily JSA; Contractor JSA/ JSA Development & Review: All work performed had a written Job Safety Analysis (JSA). JSAs were reviewed daily when a given task was scheduled to be performed. In the event that a task or conditions changed, the JSA was revised, approved, and then reviewed by the work crew prior to continuing the task.

Safety Reporting: All Near Miss, Incident, and Safety Observations were documented and electronic copies of these reports or data are included in Appendix I. The results were reviewed and changes to the site safety program were made as appropriate. Lessons learned regarding the nature, hazard, root cause, and any corrective actions were discussed with project personnel during the daily site safety briefings to prevent future occurrences. The specific nature of the hazard was compiled and tabulated to generate monthly Safety Reports. Pertinent Near Misses and Incidents from other sites were also discussed and specific corrective actions were instituted.

During Phase 2, two significant near-misses and one OSHA Reportable injury occurred. Stop works and high level incident reviews (Why Tree Analyses) were performed for each instance. Root-cause and lessons learned summaries were provided to the work crew, the construction management team, URS senior management, and ConocoPhillips management.

Daily Written Safety Observations Level I: This straightforward Behavior-Based Safety checklist was completed daily by selected crew members. Electronic copies of these reports are included in Appendix I. These Level I observations developed and reinforced the Behavior-Based Safety concept of looking out for co-workers through peer to peer constructive feedback.

Daily Written Inspections or Permits by Crew Members: Inspections and permits included motor vehicles, heavy equipment, weekly trenching and excavation authorization, daily trenching and excavation inspection, hot work permits, confined space permits and other similar equipment/activities.

Written Safety Observations Level II: This detailed, higher level Behavior-Based Safety checklist was completed approximately monthly by one or more of the construction management staff. Electronic copies of these reports are included in Appendix I.

Weekly Safety Management Meeting w/ Subs: Review of Safety Reporting, upcoming site activities, as well as a discussion of way to improve project safety.

Documentation: Documentation that was collected included safety training records, medical surveillance, medical data sheets, contractual training, client required safety video library, drug-free workplace/random testing, safety reporting, on-boarding and pre-qualification, audits, equipment certifications, inspections, meeting minutes, tailgate topics, and near miss/incident reporting.

5.0 CONFIRMATION SOIL SAMPLING

The soil sampling program performed during Phase 2 remedial excavation activities was intended to confirm whether petroleum hydrocarbon impacts exceeding MTCA Method A Cleanup Levels remain in soils at the floor of the excavation. The soil sampling excavation areas are as designated in the Soil Sampling Plan (URS 2009 and included in Appendix J)). Modifications to the soil sampling plan figure after the final plan was prepared, due to installation of a 4-foot wide SCB gravity wall along the West Marine parking lot, are documented in the As-Built Soil Sampling Locations drawing in Appendix D.

A sampling grid was established across the site for the purposes of collecting confirmation samples at the base of the excavation. One confirmation sample was collected from each cell target excavation depth of 15 feet bgs to assess concentrations at the floor of the excavation. If petroleum hydrocarbon impacts in soils were detected in concentrations exceeding MTCA Method A Cleanup Levels at 15 feet bgs the ConocoPhillips Site Manager was notified. On a cell by cell basis, ConocoPhillips evaluated the data and assessed whether or not site conditions and/or project objectives required additional excavation. If requested by ConocoPhillips, the excavation continued down until residual concentrations were below MTCA Method A Cleanup Levels or as far as reasonably practicable depending on the accessibility of the contamination and other actual conditions in the field.

Analytical results from confirmation soil sampling are included in Appendix J.

6.0 STRUCTURAL—VIBRATION CONTROL

URS conducted the Post-Construction Conditions Survey of the buildings surrounding the WMCP Phase 2 site including:

- A visual inspection of the exterior of the five buildings in the vicinity of the WMCP site, and
- Inspection and documentation of areas noted to be previously damaged at the time of the pre-construction existing conditions survey in order to document the post-construction conditions.

The Pre-Construction and Post-Construction Conditions Survey Reports are included in Appendix K.

7.0 ACTUAL SCHEDULE OF FIELD ACTIVITIES

Construction work began on the ConocoPhillips property on December 1, 2008.

Ongoing daily support activities for the duration of the project included:

- Construction Management
- Site Safety
- Vibration monitoring
- Erosion Control
- Air monitoring
- Surveying

Major monthly work activities included:

- December 2008: Mobilization, site demolition, pre-trenching and utility capping (locate and isolate utilities on project perimeter for SCB wall installation)

- January 2009: Continued site demolition, pre-trenching, mobilize SCB wall subcontractor, and UST removal.

- February 2009: Continued site demolition, SCB wall installation, preparation for mass excavation.

- March 2009: Complete SCB wall installation, mass excavation, confirmation sampling.

- April 2009: Mass excavation, confirmation sampling, begin backfill, dewatering.

- May 2009: Mass excavation, over excavation, backfill, and dewatering.

- June 2009: Complete mass excavation and over excavation, slot cut excavation against Phase 1 sheet pile wall, restoration of Westlake sidewalk, storm water retention system installation (CI Lot 14), and final grading for asphalt paving.

- July 2009: Backfill & grade COP property, asphalt paving Lot 14, sidewalk restoration Valley Street and Mercer Street, storm water system installation (COP property), permanent fence installation, and demobilization.

- August 2009: Permanent fence installation, final demobilization.

The baseline and as-built project schedules are included in Appendix C.

8.0 FINANCIAL

Weekly cost and schedule reports were used during this project as a tool for keeping track of the budget and informing ConocoPhillips of any changes, particularly to the estimate at completion, or total expected costs to complete the project. The cost and schedule report was prepared by the project CM and included weekly and cumulative summaries of planned work, actual work accomplished, earned value, project costs, and project budget.

URS' Not to Exceed (NTE) proposal to execute the scope of work described in the RFP for Phase 2 of the WMCP was $7,527,312 (plus applicable Washington State sales tax). Consistent with URS' commitment to provide ConocoPhillips with the highest value and service, URS provided an evaluation of potential efficiencies and cost savings that could potentially be implemented during the project. URS estimated that the specified Scope of Work could potentially be completed for up to 20% less that budget (total cost of $6,021,850 plus tax) through the implementation of management, design, and construction efficiencies. URS agreed that if the work could be performed for less than the NTE budget, any savings would be passed on to ConocoPhillips. This was the basis for the "Plan Cost" budget goal for the project.

There were both requested and required changes to the project that resulted in approved increases to the NTE budget for the project (UST removal and disposal, installation of a 4-foot wide cutoff wall, over excavation and re-engineering of a portion of the gravity wall, application of MicroBlaze to selected areas prior to backfilling, and over-excavation of approximately 40% of the site). These additional costs totaled $1,240,221 raising the NTE to $8,767,533 and the Plan Cost to $7,262,071.

While some portions of the project were more difficult to complete than anticipated, opportunities to reduce the overall cost of the project were identified and pursued throughout the life of the project resulting in a final project cost of approximately $7,500,000. The final cost was 14% less than the final NTE projected cost due to aggressive schedule and cost management. Costs saving measures implemented during the project are summarized in Section 10 of this report.

9.0 MITIGATION MEASURES INCORPORATED

To minimize financial and potential legal impacts to ConocoPhillips, mitigation efforts were incorporated into the project during the settlement negotiation and planning phases including:

- Completing the project in Phases in order to complete Westlake Rights-of-Way (ROW) work while minimizing impacts to the City's Streetcar construction schedule, and
- Establishing predetermined clean-up targets to minimize impacts to the project schedule due to multi-party decision making.

Requirements imposed on the project by the terms of the settlement agreement were incorporated into the competitively bid Scope of Work for Phase 2 including:

- The aerial extent of excavation extending to the property lines
- A target excavation depth of elevation 14 (City of Seattle Datum) with provisions for over-excavation at the direction of ConocoPhillips
- Perimeter shoring to protect surrounding ROWs
- Installation of perimeter hydraulic controls to prevent re-contamination of the private properties

The construction elements selected to meet the requirements of the project were designed to mitigate the potential for subsurface and logistical complications to negatively impact project cost and/or schedule including:

- Use of slurry trench and soil/cement/bentonite wall for perimeter shoring and hydraulic control. This approach minimized known shoring difficulties associated with buried wood debris, safety concerns associated with overhead power lines, as well as other logistical concerns

- Cooperative planning with the City of Seattle to minimize impacts to pedestrian and motor vehicle ROWs while accommodating the needs of the project

- Procuring a local borrow source for common backfill reducing material costs and expediting the schedule through reduced haul distances

- Restoration of the ConocoPhillips property was completed with a layer of crushed rock to create a permeable surface. This approach was less expensive than paving and eliminated the need for stormwater detention infrastructure.

10.0 COST SAVING MEASURES

While unpredictable subsurface conditions and a deeper than predicted extent of contamination resulted in increases to the project scope (and therefore the budgeted cost of the project), actions by URS and the ConocoPhillips management team resulted in several cost containment and cost saving successes during the project.

- Installation of a soil/cement/bentonite shoring wall allowed for better control over project schedule and a smooth integration of shoring activities and site excavation work.

- Using borrow material from a nearby concurrent construction site allowed for savings on material costs and schedule efficiencies. Estimated savings to the project are approximately $300,000.

- Worked with subcontractors to minimize the rotation of work crews to maximize efficiency and improve safety (a recognized efficiency).

- Worked cooperatively with the City of Seattle, City Investors, and other stakeholders throughout the project to minimize demands and eliminate potential delay claims (a recognized efficiency).

The actions described above as well as proactive safety management, thorough project planning, active project management, and close coordination between URS and ConocoPhillips allowed for **overall project savings of approximately $1.2 million as compared to the final NTE project budget (14% under budget)**.

11.0 REFERENCES

URS Corporation, 2009, Soil Sampling Plan, Phase 2 Westlake/Mercer Cleanup Project Seattle, Washington.

LEGEND

- STORM DRAIN MAINTENANCE HOLE
- CATCH BASIN
- GATE POST
- AC ASPHALT CONCRETE
- WATER METER
- FIRE HYDRANT
- PEDESTRIAN BUTTON PEDESTAL
- UTILITY POLE W/LIGHT
- POWER POLE
- METAL TROLLEY POLE
- LIGHT POLE
- GUY POLE
- GUY ANCHOR
- TRAFFIC SIGNAL POLE
- JUNCTION BOX
- SHEET PILE WALL
- SUBSURFACE SOIL CEMENT (GRAVITY WALL

SCALE: 1" = 20'

CONTOUR INTERVAL = 1'

N

REVISIONS

NO.	DATE	DESCRIPTION	BY
1	8/24/09	ADD FIELD SURVEY DATA	STH

8/28/09

SHEET TITLE: AS-BUILT TOPOGRAPHIC SURVEY
PHASE 2 - WESTLAKE/MERCER CLEANUP PROJECT

CLIENT: URS CONCOCO PHILLIPS

WHITE SHIELD, INC
23412 68TH AVE S
KENT, WA 98032
PHONE 253.867.6070
FAX 253.867.6075

DRAWN BY: STH
CHECKED BY: DWA
SCALE: 1" = 20'
DATE: 8/28/09
JOB NO: 208-057-01
DRAWING NAME: 208057AB-2.DWG

1 OF 1

NO.	DATE	BY	REVISION DESCRIPTION
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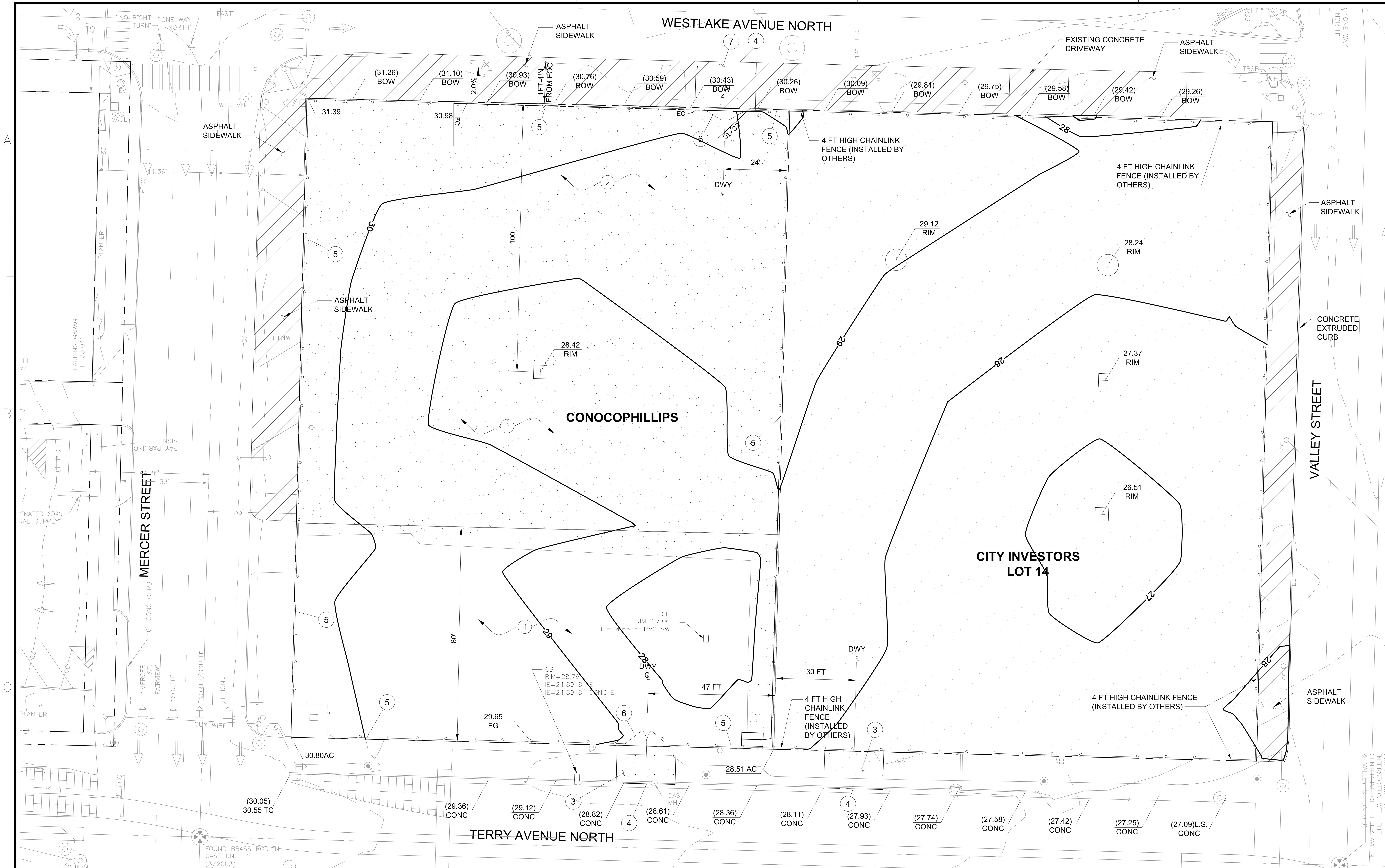


AS-BUILT

NAME OR INITIALS AND DATE	INITIALS AND DATE
DESIGNED	REVIEWED: DES. CONST.
CHECKED	SDOT PROJ. MGR.
DRAWN	RECEIVED
CHECKED	REVISED AS BUILT

ALL WORK DONE IN ACCORDANCE WITH THE CITY OF SEATTLE STANDARD PLANS AND SPECIFICATIONS AND OTHER DOCUMENTS CALLED FOR IN SECTION 0-02.3 OF THE PROJECT MANUAL.

KEY NOTES

1. ASPHALT PAVEMENT.
2. COP LOT GRAVEL SURFACING.
3. 22 FT WIDE ASPHALT DRIVEWAY FROM EDGE OF CONCRETE SLAB IN TERRY AVENUE NORTH.
4. GRADE MATCHED TO EXISTING PAVEMENT
5. CHAIN LINK FENCE (6FT HIGH, ALONG PROPERTY LINE) EXCEPT AS SHOWN.
6. 16 FT WIDE CHAIN LINK SWING GATE
7. ASPHALT SIDEWALK CONSTRUCTED PER C.O.S. STD. PLAN NO. 420

LEGEND

- 28.29 AC — SPOT ELEVATION
- (28.29) — EXISTING ELEVATION
- ASPHALT
- 1 1/4 IN GRAVEL SURFACING
- ASPHALT SIDEWALK
- CHAIN LINK FENCING
- SWING GATE
- 30 — FINISHED CONTOUR
- 30 — ORIGINAL CONTOUR

PHASE 2 - WESTLAKE/MERCER CLEANUP PROJECT
SEATTLE, WASHINGTON

FINAL SITE GRADING AND PAVING PLAN

DESIGNED: DJG
DRAWN: AB
CHECKED: PGN
PROJECT ENGINEER: DJG
APPROVED BY: PGN
DATE: 12/21/06

URS

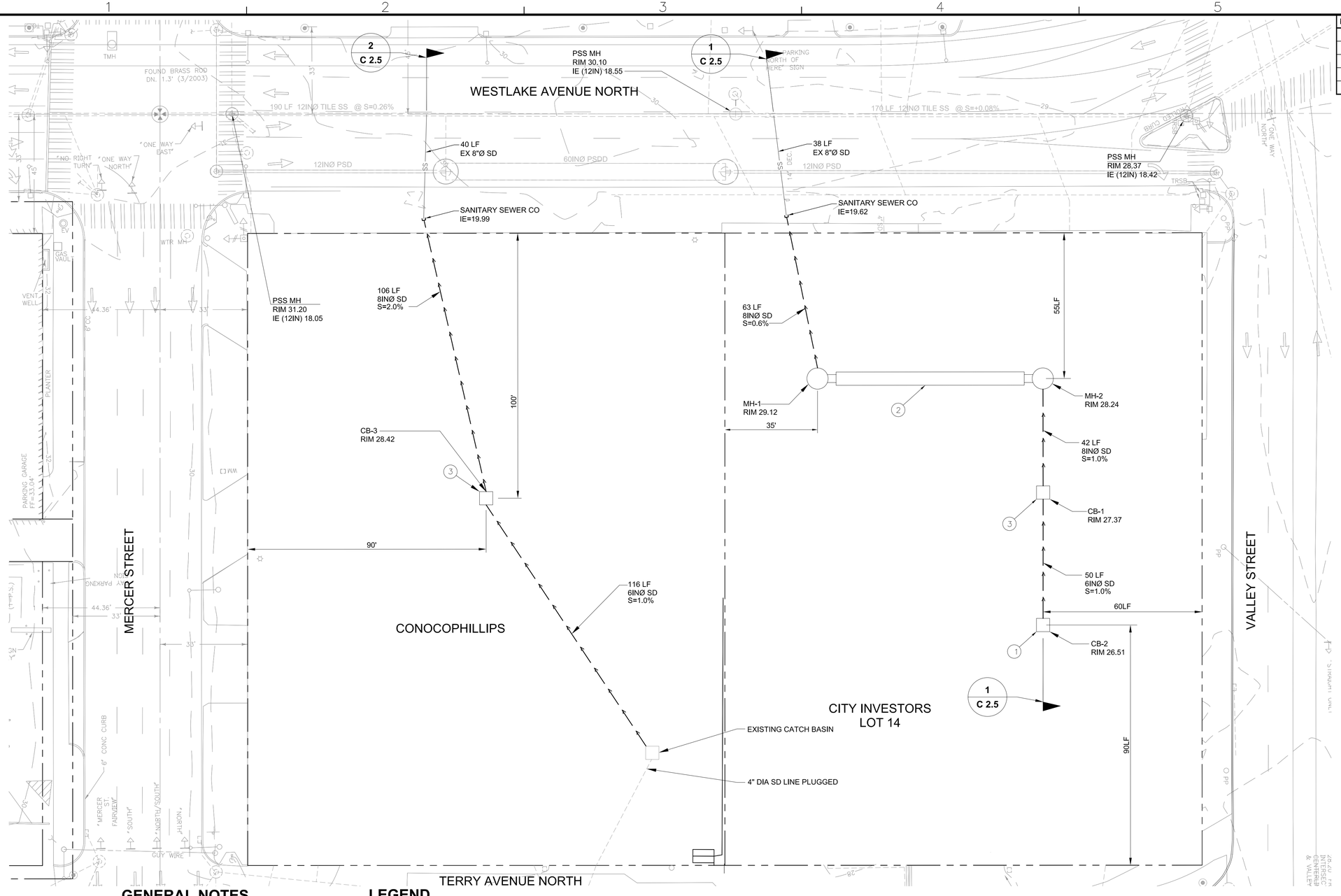
SIZE: D
PLATE: C 2.2
SHEET: 2 OF 9

\\seagis\cadgis\geo\Westlake COP\SubTasks\Phase 2 - 2008\as-builts 9-09\C2-2.dwg Dec 18, 2009 - 10:25am

NO.	DATE	BY	REVISION DESCRIPTION
	12/09		AS BUILT

NOTES

1. CONTRACTOR VERIFIED CONDITION AND DEPTH OF EXISTING CATCH BASIN.



GENERAL NOTES

1. CB TYPE 241.
2. STORMWATER DETENTION SYSTEM
3. CB TYPE 240B.

LEGEND

- STORMWATER PIPELINE
- CATCH BASIN
- STORM DRAIN MANHOLE, 54IN DIA, TYPE 201B

AS-BUILT

NAME OR INITIALS AND DATE	INITIALS AND DATE
DESIGNED CHECKED	REVIEWED: DES. CONST. SDOT PROJ. MGR.
DRAWN CHECKED	RECEIVED
	REVISED AS BUILT

ALL WORK DONE IN ACCORDANCE WITH THE CITY OF SEATTLE STANDARD PLANS AND SPECIFICATIONS AND OTHER DOCUMENTS CALLED FOR IN SECTION 0-02.3 OF THE PROJECT MANUAL.

PHASE 2 - WESTLAKE/MERCER CLEANUP PROJECT
SEATTLE, WASHINGTON

STORM DRAINAGE PLAN

DESIGNED: AH
DRAWN: AH
CHECKED: PGN
PROJECT ENGINEER: DJG
APPROVED BY: PGN
DATE: 12/21/06

URS

SIZE: D
PLATE: C 2.3
SHEET: 3 OF 9

NO.	DATE	BY	REVISION DESCRIPTION
	12/09		AS BUILT

WESTLAKE AVENUE NORTH

12IN PSD

60IN PSDD

6IN SD STUB CAPPED

12" SANITARY VENT, CAPPED

WATER STUBS CAPPED 5FT FROM PROPERTY LINE & LOCATION MARKED

SVE PIPE LOCATION W/ PVC PIPE MARKERS, SEE 1/C2.4 & NOTE 4

5FT MIN (TYP)

WATER STUBS CAPPED 5FT FROM PROPERTY LINE & LOCATION MARKED

4INØ SD CAPPED & LOCATION MARKED

1IN WATER STUBS CAPPED & LOCATION MARKED

8IN TEE

6" SD CAPPED

EXISTING FIRE HYDRANT

ABANDONED GAS

CONOCOPHILLIPS

CITY INVESTORS LOT 14

MERCER STREET

VALLEY STREET

TYP

WATER STUB CAPPED & LOCATION MARKED

(TCD) TELEPHONE CONDUIT CAPPED @ PROPERTY LINE & LOCATION MARKED

2IN GAS STUBS CAPPED @ PROPERTY LINE & LOCATION MARKED (TYP)

WATER METER BOX 3/4" FAUCET & 2 1/2" FIRE HOSE FAUCET

DETECTOR CHECK IN METER BOX

2" SHUT-OFF VALVE IN METER BOX

2" COPPER WATER

WATER METER

EXISTING WATER SERVICE WATER METER & BOX

TERRY AVENUE NORTH

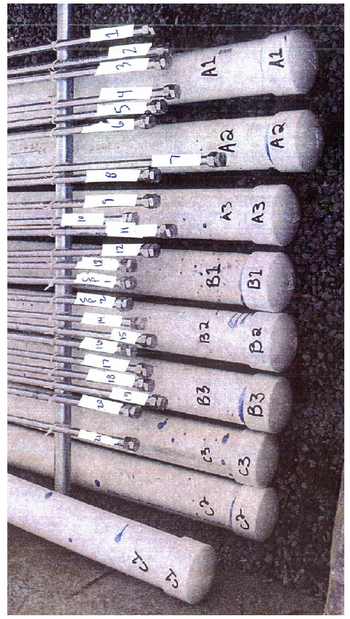
EXISTING 8" SD REMAINS IN SERVICE

4"Ø SD CAPPED @ PROPERTY LINE & LOCATION MARKED

GAS STUBS CAPPED & LOCATION MARKED (TYP.)

GAS STUBS CAPPED & LOCATION MARKED (TYP.)

EXISTING SS STUB CAPPED & LOCATION MARKED



EXISTING SVE PIPING 1 / C2.4

0 20 40

SCALE IN FEET

AS-BUILT

NAME OR INITIALS AND DATE	INITIALS AND DATE
DESIGNED	REVIEWED:
CHECKED	DES. CONST.
	SDOT PROJ. MGR.
DRAWN	RECEIVED
CHECKED	REVISED AS BUILT

ALL WORK DONE IN ACCORDANCE WITH THE CITY OF SEATTLE STANDARD PLANS AND SPECIFICATIONS AND OTHER DOCUMENTS CALLED FOR IN SECTION 0-02.3 OF THE PROJECT MANUAL.

DEMOLITION LEGEND

ABANONDED	EXISTING GAS LINE ALREADY ABANDONED
	LIMITS OF EXCAVATION
	SHORING
■	UTILITY CAP/PLUG

KEY NOTES

1. END OF EXISTING SERVICES LOCATED IN VALVE BOX & LID PER C.O.S. STANDARD PLAN #315a.
2. END OF EXISTING SS OR SD CAPPED/PLUGGED PER C.O.S. STANDARD SPECS NO. 7-02.3(5) & 2-02.3(5).
3. CONSTRUCTED TEMPORARY 6 FT WIDE ASPHALT SIDEWALK.
4. EXISTING STAINLESS STEEL AND PVC REMEDIATION PIPING EXTENDED INTO PRIVATE PROPERTY

PHASE 2 - WESTLAKE/MERCER CLEANUP PROJECT
SEATTLE, WASHINGTON

ROW UTILITY TERMINATION PLAN
WESTLAKE AVENUE NORTH

DESIGNED: DJG	URS	SIZE: D	PLATE: C 2.4
DRAWN: AH			
CHECKED: PGN		SHEET: 4 OF 9	
PROJECT ENGINEER: DJG			
APPROVED BY: PGN			
DATE: 06/08			

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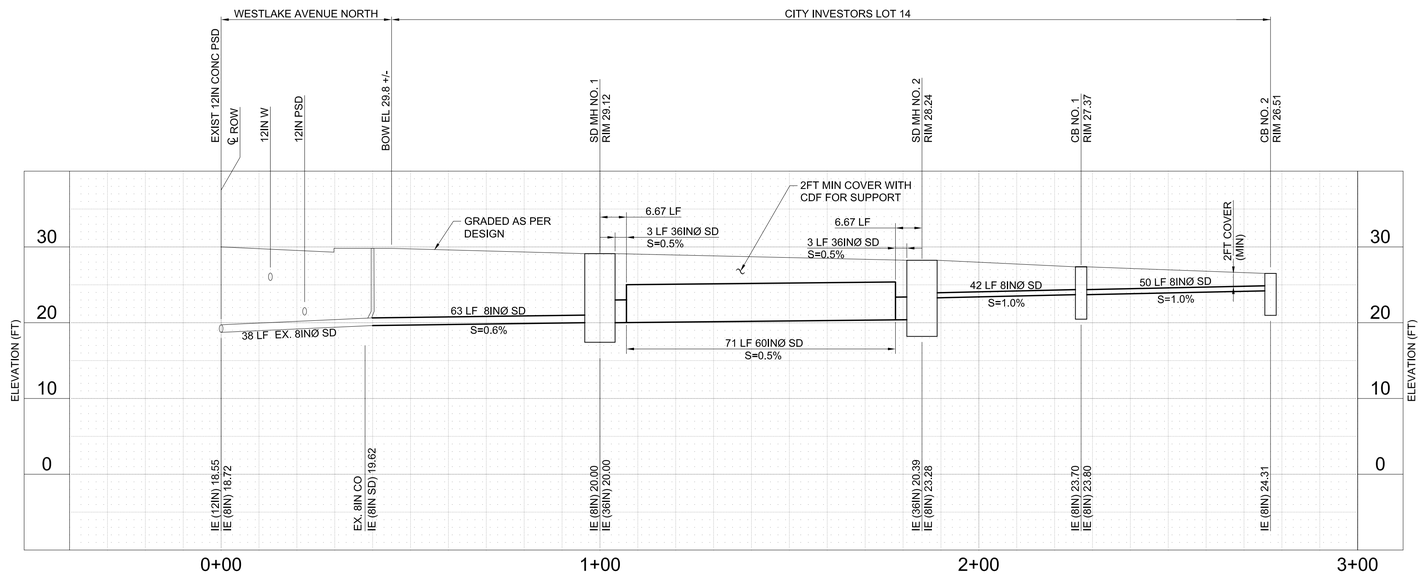
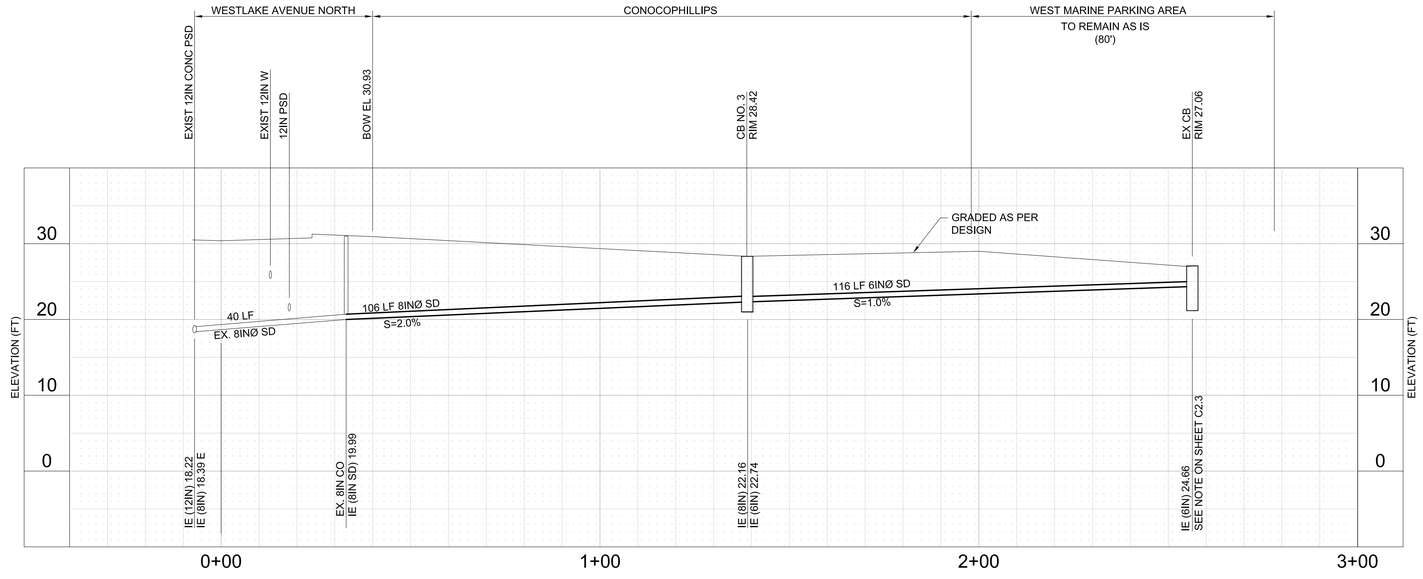
NO.	DATE	BY	REVISION DESCRIPTION
	12/09		AS BUILT



STORM DRAIN AT CITY INVESTORS LOT 14

PROFILE 1

SCALE: 1IN = 20FT HOR, 1IN = 10FT VERT C 2.3



STORM DRAIN AT CONCOCOPHILLIPS LOT

PROFILE 2

SCALE: 1IN = 20FT HOR, 1IN = 10FT VERT C 2.3

AS-BUILT

NAME OR INITIALS AND DATE	INITIALS AND DATE
DESIGNED	REVIEWED:
CHECKED	DES. CONST.
	SDOT PROJ. MGR.
DRAWN	RECEIVED
CHECKED	REVISED AS BUILT

ALL WORK DONE IN ACCORDANCE WITH THE CITY OF SEATTLE STANDARD PLANS AND SPECIFICATIONS AND OTHER DOCUMENTS CALLED FOR IN SECTION 0-02.3 OF THE PROJECT MANUAL.

PHASE 2 - WESTLAKE/MERCER CLEANUP PROJECT
SEATTLE, WASHINGTON

STORM DRAIN PROFILES

DESIGNED: DJG
DRAWN: EM
CHECKED: PGN
PROJECT ENGINEER: DJG
APPROVED BY: PGN
DATE: 12/21/06

URS

SIZE: D | PLATE: C 2.5

SHEET: 5 OF 9

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NO.	DATE	BY	REVISION DESCRIPTION
	12/09		AS BUILT

VALLEY STREET

POWER POLE DESIGNATED FOR A-FRAME SUPPORT

FIRE HYDRANT SUPPORT SHORING

12 FT THICK SOIL/ CEMENT/BENTONITE GRAVITY WALL, TYP. FOR AS-BUILT PROFILE OF GRAVITY WALL, SEE SHEETS CS 3.4 AND CS 3.5

POWER POLE DESIGNATED FOR A-FRAME SUPPORT

CATENARY SUPPORT SHORING, SEE NOTE 1 & 1/CS 3.2

2 CS 3.3

1 CS 3.3

CATENARY SUPPORT SHORING, SEE NOTE 1 & 1/CS 3.2

CATENARY POLE DESIGNATED FOR SUPPORT

5 FT

12 FT

15 FT

CITY INVESTOR'S LOT 14

EXISTING SHEET PILE, SEE NOTE 2

SLOT-CUT EXCAVATION W/ TRENCH BOXES, MAX. 4 FT WIDE TO DEPTH OF 15 FT

5 FT

WESTLAKE AVENUE NORTH

EXTENTS OF EXISTING SHEET PILE WALL

EC/EC

4 FT MAX.

EC

TYPICAL SLOT-CUT OPERATION

4 FT MAX.

13 PS

9 PS

TERRY AVENUE NORTH

4 FT

CONOCOPHILLIPS

4 FT THICK SOIL/ CEMENT/BENTONITE GRAVITY WALL

EXISTING ASPHALT

EC

POWER POLE SUPPORT SHORING, SEE NOTE 1 & 1/CS 3.2

12 FT THICK SOIL/ CEMENT/BENTONITE GRAVITY WALL, TYP. FOR AS-BUILT PROFILE OF GRAVITY WALL, SEE SHEETS CS 3.4 AND CS 3.5

POWER POLE SUPPORT SHORING, SEE NOTE 1 & 1/CS 3.2

EX. SIGN POST DESIGNATED FOR A-FRAME SUPPORT

12 FT

5 FT

12 FT

POWER POLE DESIGNATED FOR SUPPORT

POWER POLE DESIGNATED FOR SUPPORT

MERCER STREET

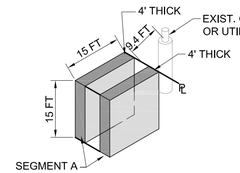
0 10 20 40

SCALE IN FEET

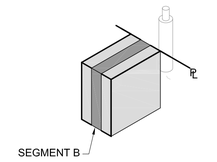
N

NOTES

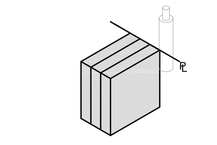
1. THREE 15-FEET LONG BY 4-FEET WIDE CDF PANELS, INSTALLED TO A MINIMUM DEPTH OF 15 FEET. KING COUNTY METRO TRANSIT DIVISION WAS NOTIFIED AT PHONE NUMBER 206-263-4607 A MINIMUM OF 14 DAYS PRIOR TO COMMENCING INSTALLATION OF CATENARY OR POWER POLE SUPPORT SHORING.
2. EXISTING SHEET PILE INSTALLED ALONG EAST SIDE OF WESTLAKE AVENUE NORTH USED TO SUPPORT EXCAVATION IN CANTILEVER MODE FOR EXCAVATIONS TO DEPTH OF 6 FEET. SEE PHASE 1 STREET USE PERMIT (PERMIT NO. 35267) FOR EXISTING SHEET PILE DESIGN.



STEP 1. SEGMENT A EXCAVATED AND BACKFILLED WITH CONTROLLED DENSITY FILL (CDF).



STEP 2. CDF CURED TO MINIMUM UNCONFINED COMPRESSIVE STRENGTH OF 20 PSI. AFTER PROPER CURE, INTERMEDIATE SEGMENT B TRENCH EXCAVATED, BACKFILLED AND CURED AS FOR SEGMENT A.



STEP 3. CURED TO NEW UNCONFINED COMPRESSIVE STRENGTH OF 20 PSI.

CATENARY OR UTILITY POLE SUPPORT SEQUENCING DETAIL

1
CS 3.2

LEGEND

- PROPERTY LINE
- GRAVITY WALL
- SLOT-CUT EXCAVATION
- CATENARY POLE (STREETCAR)
- EXISTING SHEET PILE, SEE NOTE 2
- CATENARY/UTILITY POLE SUPPORT SHORING (CDF PANEL)

AS-BUILT

NAME OR INITIALS AND DATE	INITIALS AND DATE
DESIGNED	REVIEWED:
CHECKED	DES. CONST.
	SDOT PROJ. MGR.
DRAWN	RECEIVED
CHECKED	REVISED AS BUILT

ALL WORK DONE IN ACCORDANCE WITH THE CITY OF SEATTLE STANDARD PLANS AND SPECIFICATIONS AND OTHER DOCUMENTS CALLED FOR IN SECTION 0-02.3 OF THE PROJECT MANUAL.

PHASE 2 - WESTLAKE/MERCER CLEANUP PROJECT
SEATTLE, WASHINGTON

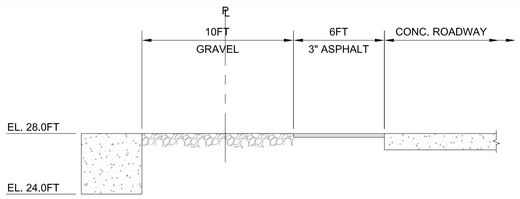
SOIL CEMENT WALL SHORING PLAN

DESIGNED: TJ
DRAWN: EDM
CHECKED: DG
PROJECT ENGINEER: DH
APPROVED BY: PGN
DATE: 06/08

URS

SIZE D | PLATE: CS 3.2

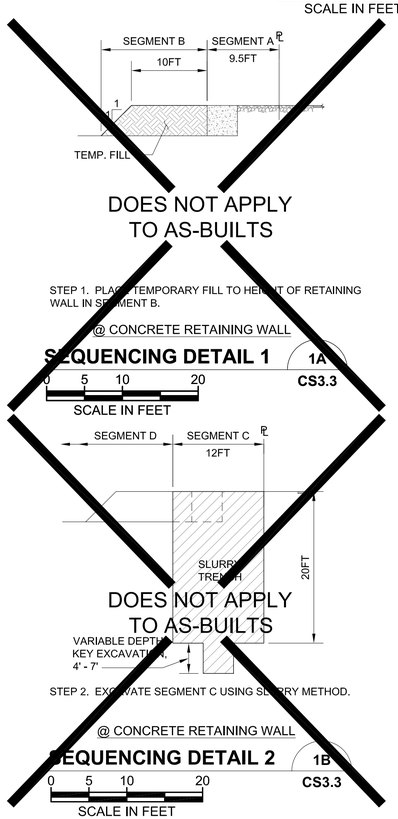
SHEET: 6 OF 9



@ CONCRETE RETAINING WALL

PRECONSTRUCTION CONDITIONS 1

0 2.5 5 10 SCALE IN FEET CS3.2



STEP 1. PLACE TEMPORARY FILL TO HEIGHT OF RETAINING WALL IN SEGMENT B.

@ CONCRETE RETAINING WALL

SEQUENCING DETAIL 1 1A

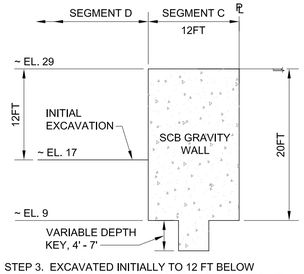
0 5 10 20 SCALE IN FEET CS3.3

STEP 2. EXCAVATE SEGMENT C USING SLURRY METHOD.

@ CONCRETE RETAINING WALL

SEQUENCING DETAIL 2 1B

0 5 10 20 SCALE IN FEET CS3.3

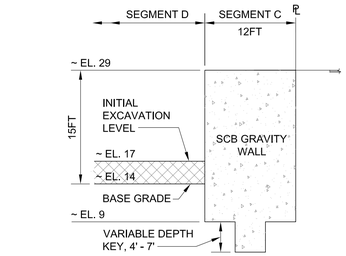


STEP 3. EXCAVATED INITIALLY TO 12 FT BELOW EXISTING GRADE (BOTTOM OF INITIAL EXCAVATION EL. APPROX. 17 FT)

@ CONCRETE RETAINING WALL

SEQUENCING DETAIL 3 1C

0 5 10 20 SCALE IN FEET CS3.3

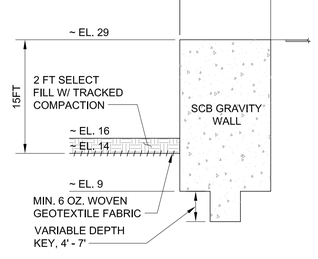


STEP 4. SLOT-CUT 3 FT BELOW INITIAL EXCAVATION TO EL. 14 FT. EXCAVATED AND BACKFILLED IN ALTERNATING PATTERN. OBTAINED CONFIRMATION SAMPLES FOR ANALYTICAL TESTING.

@ CONCRETE RETAINING WALL

SEQUENCING DETAIL 4 1D

0 5 10 20 SCALE IN FEET CS3.3

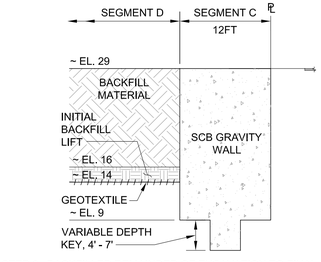


STEP 5. AFTER ANALYTICAL RESULTS SHOWED BASE MATERIAL WAS ACCEPTABLE, GEOTEXTILE AND 2 FT OF SELECT FILL WAS PLACED & COMPACTED WITH 4 PASSES OF VIBRATING ROLLER.

@ CONCRETE RETAINING WALL

SEQUENCING DETAIL 5 1E

0 5 10 20 SCALE IN FEET CS3.3

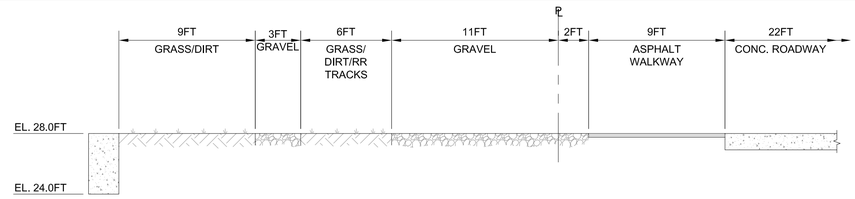


STEP 6. BACKFILLED REMAINDER OF EXCAVATION TO FINAL GRADE WITH GENERAL OR SELECT FILL.

@ CONCRETE RETAINING WALL

SEQUENCING DETAIL 6 1F

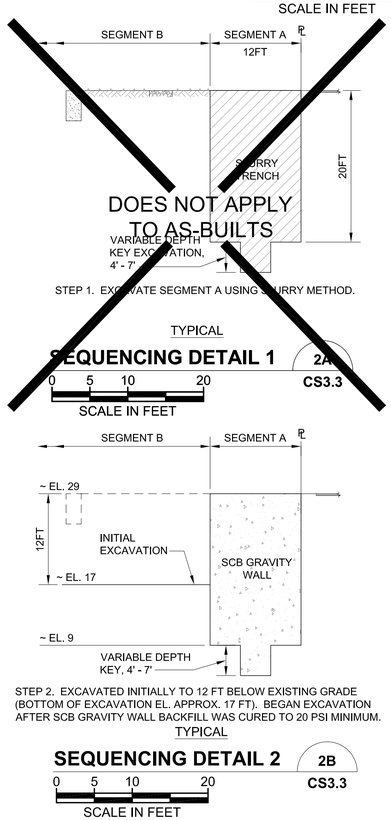
0 5 10 20 SCALE IN FEET CS3.3



TYPICAL

PRECONSTRUCTION CONDITIONS 2

0 2.5 5 10 SCALE IN FEET CS3.2

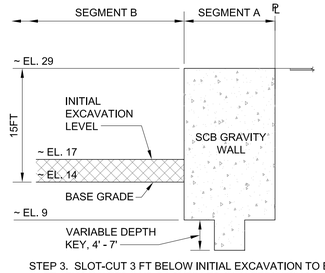


STEP 1. EXCAVATE SEGMENT A USING SLURRY METHOD.

TYPICAL

SEQUENCING DETAIL 1 2A

0 5 10 20 SCALE IN FEET CS3.3



STEP 2. EXCAVATED INITIALLY TO 12 FT BELOW EXISTING GRADE (BOTTOM OF EXCAVATION EL. APPROX. 17 FT). BEGAN EXCAVATION AFTER SCB GRAVITY WALL BACKFILL WAS CURED TO 20 PSI MINIMUM.

TYPICAL

SEQUENCING DETAIL 2 2B

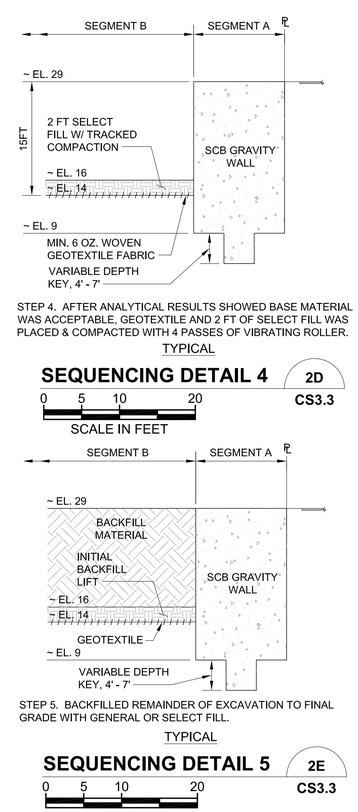
0 5 10 20 SCALE IN FEET CS3.3

STEP 3. SLOT-CUT 3 FT BELOW INITIAL EXCAVATION TO EL. 14 FT. EXCAVATED AND BACKFILLED IN ALTERNATING PATTERN.

TYPICAL

SEQUENCING DETAIL 3 2C

0 5 10 20 SCALE IN FEET CS3.3



STEP 4. AFTER ANALYTICAL RESULTS SHOWED BASE MATERIAL WAS ACCEPTABLE, GEOTEXTILE AND 2 FT OF SELECT FILL WAS PLACED & COMPACTED WITH 4 PASSES OF VIBRATING ROLLER.

TYPICAL

SEQUENCING DETAIL 4 2D

0 5 10 20 SCALE IN FEET CS3.3

STEP 5. BACKFILLED REMAINDER OF EXCAVATION TO FINAL GRADE WITH GENERAL OR SELECT FILL.

TYPICAL

SEQUENCING DETAIL 5 2E

0 5 10 20 SCALE IN FEET CS3.3

NO.	DATE	BY	REVISION DESCRIPTION
	12/09		AS BUILT

EXCAVATION AND BACKFILL GENERAL NOTES

1. SELECT FILL WAS CITY OF SEATTLE TYPE 17 COMPACTED TO 95% MODIFIED PROCTOR MAXIMUM DENSITY (ASTM D 1557). THE BASE LIFT OF SELECT FILL PLACEMENT WAS EXEMPT FROM THE COMPACTION REQUIREMENT.
2. THE FIRST LIFT AT THE BASE OF THE EXCAVATION GENERALLY CONSISTED OF SELECT FILL, 2 FEET THICK, UNDERLAIN WITH GEOTEXTILE AND RECEIVED A MINIMUM OF FOUR PASSES OF AN APPROVED VIBRATORY ROLLER COMPACTOR. DENSITY TESTS WERE NOT REQUIRED ON THIS BASE LIFT.
3. SELECT FILL WAS PLACED TO A DEPTH OF AT LEAST 1 FOOT BENEATH THE BASE OF THE PAVEMENT SECTION.
4. GENERAL FILL WAS USED IN ALL AREAS OF THE BACKFILLING OPERATIONS NOT DESIGNATED TO RECEIVE SELECT FILL OR OTHER IDENTIFIED BACKFILL MATERIAL. GENERAL FILL MET THE REQUIREMENTS OF WSDOT SPECIFICATION 9-03-14(3) FOR COMMON BORROW WITH THE ADDITIONAL REQUIREMENTS THAT NO MATERIAL BE GEATER THAN 3-INCHES IN DIAMETER AND THAT A MINIMUM OF 50% BY WEIGHT PASSED A STANDARD NO. 4 US SIEVE. GENERAL FILL WAS COMPACTED TO 92% MODIFIED PROCTOR MAXIMUM DENSITY (ASTM D 1557) AT A MOISTURE CONTENT WITHIN THE RANGE OF +2% AND -3% OF OPTIMUM MOISTURE.
5. SELECT FILL AND GENERAL FILL WAS USED ON THE CITY INVESTOR'S LOT 14 PROPERTY AS SHOWN IN DRAWINGS. ONLY SELECT FILL WAS USED TO BACKFILL CONOCO PHILLIPS PROPERTY.
6. SEE SHORING WALL PROFILE FOR AS-BUILT BASE OF KEY AND TOP OF SCB GRAVITY WALL ELEVATIONS.
7. EXCAVATION WAS EXTENDED TO DEPTHS BELOW ELEVATION 14 IN AREAS WHERE CONFIRMATION SAMPLING AND ANALYSIS INDICATED THAT CONTAMINATED SOILS EXTENDED TO GREATER DEPTHS. THE FINAL EXCAVATION DEPTHS ARE PROVIDED IN APPENDIX J WITH THE LABORATORY ANALYTICAL DATA IN THE CLOSE OUT REPORT.

AS-BUILT

NAME OR INITIALS AND DATE	INITIALS AND DATE
DESIGNED	REVIEWED: DES. CONST. SDOT PROJ. MGR.
CHECKED	
DRAWN	RECEIVED
CHECKED	REVISED AS BUILT

ALL WORK DONE IN ACCORDANCE WITH THE CITY OF SEATTLE STANDARD PLANS AND SPECIFICATIONS AND OTHER DOCUMENTS CALLED FOR IN SECTION 0-02.3 OF THE PROJECT MANUAL.

PHASE 2 - WESTLAKE/MERCER CLEANUP PROJECT
SEATTLE, WASHINGTON

SHORING SEQUENCING DETAILS

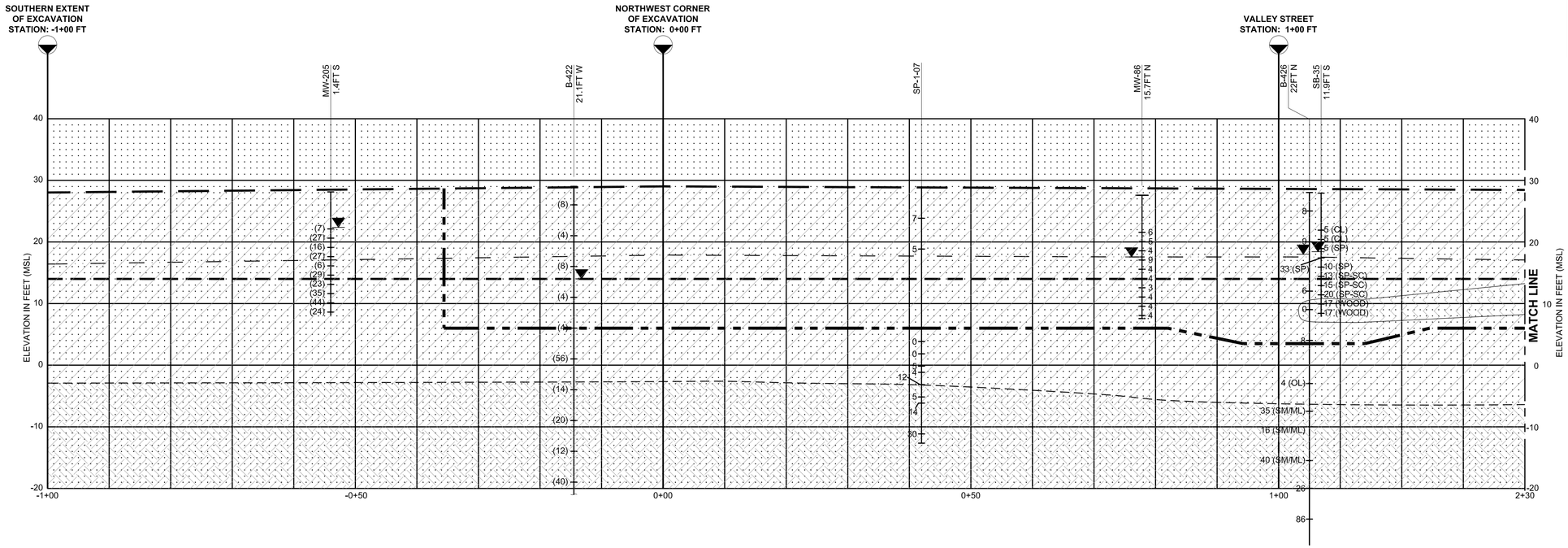
DESIGNED: TJ
DRAWN: EDM
CHECKED: PGN
PROJECT ENGINEER: DJH
APPROVED BY: DJH
DATE: 7/25/08

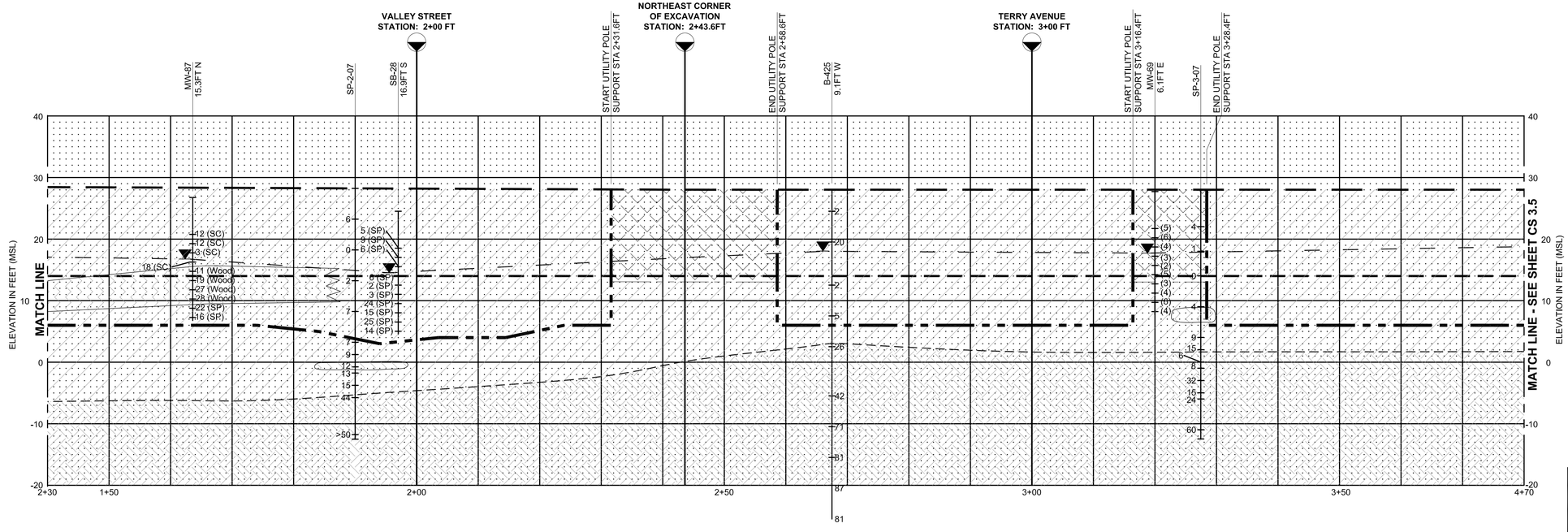
URS

SIZE D | PLATE: CS 3.3

SHEET: 7 OF 9

NO.	DATE	BY	REVISION DESCRIPTION
	12/09		AS BUILT





NOTES

1. SEE SHEET CS 3.2 FOR LOCATION AND ORIENTATION OF CATENARY AND UTILITY POLE SUPPORTS (CDF PANELS).

LEGEND

(20) STANDARD PENETRATION TEST "N" VALUE, BLOWS PER FOOT

FILL - SILTY SAND, SAND, SILT TO SILTY CLAY, SAND WITH CLAY, SANDY GRAVEL, AND OCCASIONALLY THIN LAYER (.5FT TO 2FT) OF PEAT/CLAY, MAY INCLUDE SOFT OR LOOSE UNCONSOLIDATED NATIVE SOIL

FIRM NATIVE SOIL - STIFF TO HARD, FINE TO COARSE, SANDY TO CLAYEY SILT WITH SOME SAND LAYERS

WOOD, SAWDUST, OR WOOD CHIPS THAT SIGNIFICANTLY AFFECT BLOW COUNT (SEE BORING LOGS)

CATENARY AND UTILITY POLE SUPPORT (CDF PANELS)

GROUND SURFACE & TOP OF SHORING

APPROXIMATE GROUNDWATER TABLE

PLANNED BOTTOM OF EXCAVATION AND AS-BUILT OF 12' WIDE SECTION OF SCB GRAVITY WALL

TOP OF FIRM NATIVE SOIL

AS-BUILT BOTTOM OF GRAVITY WALL SHORING (GAPS INDICATE CATENARY/POWER POLE SUPPORT)

ALONG SHORING WALL

PROFILE

0 10 20
SCALE IN FEET

AS-BUILT

NAME OR INITIALS AND DATE	INITIALS AND DATE
DESIGNED	REVIEWED:
CHECKED	DES. CONST.
	SDOT PROJ. MGR.
DRAWN	RECEIVED
CHECKED	REVISED AS BUILT

ALL WORK DONE IN ACCORDANCE WITH THE CITY OF SEATTLE STANDARD PLANS AND SPECIFICATIONS AND OTHER DOCUMENTS CALLED FOR IN SECTION 0-02.3 OF THE PROJECT MANUAL.

PHASE 2 - WESTLAKE/MERCER CLEANUP PROJECT
SEATTLE, WASHINGTON

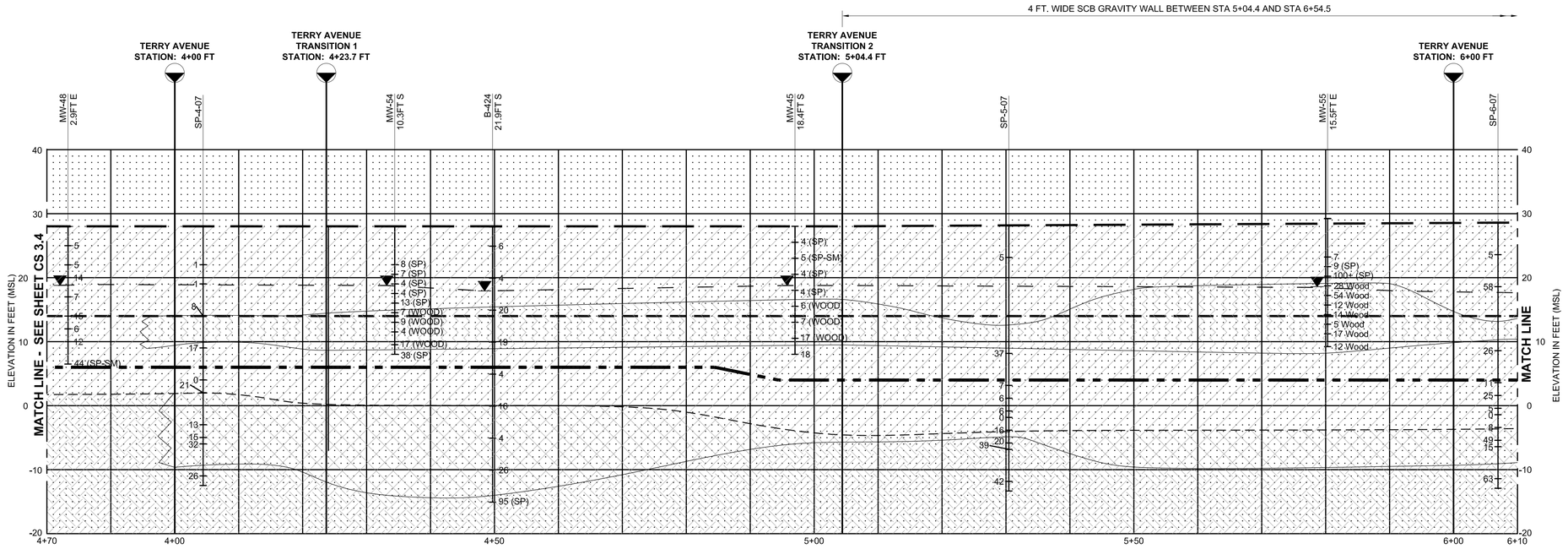
SHORING WALL PROFILE

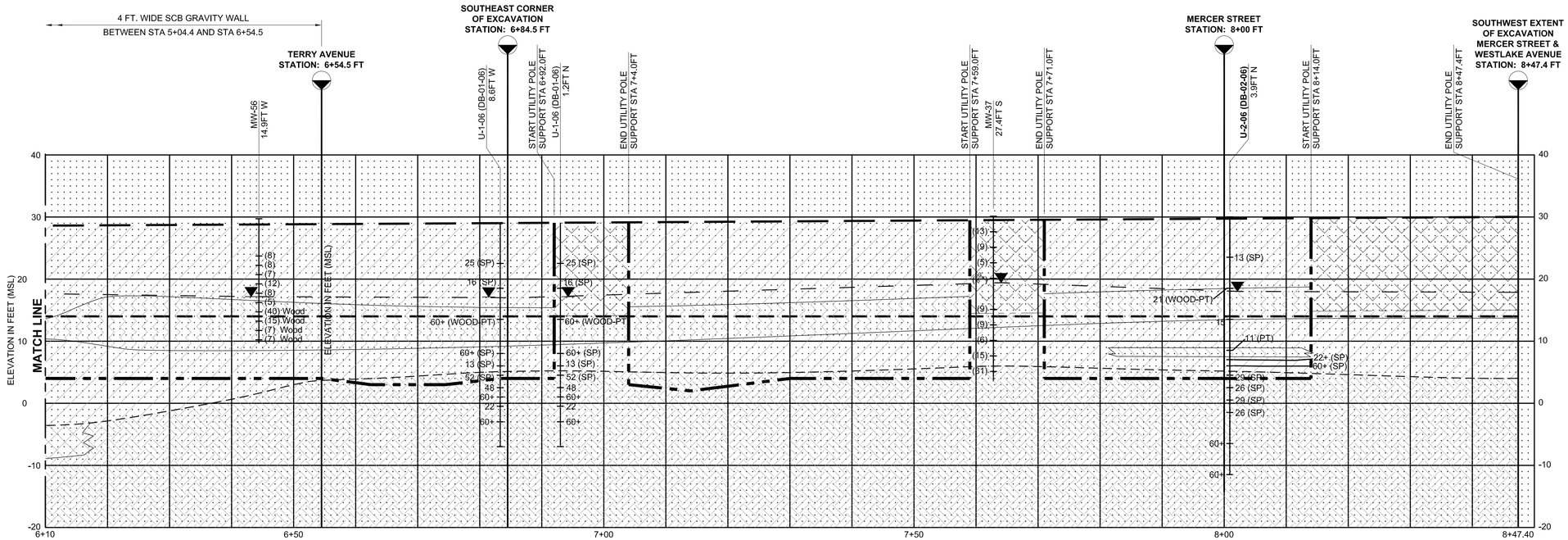
DESIGNED: VCV
DRAWN: JK
CHECKED: MM
PROJECT ENGINEER: DJH
APPROVED BY: DJH
DATE: 7/25/08

URS

SIZE: D
PLATE: CS 3.4
SHEET: 8 OF 9

NO.	DATE	BY	REVISION DESCRIPTION
	12/09		AS BUILT





ALONG SHORING WALL

PROFILE

0 10 20
SCALE IN FEET

NOTES

1. SEE SHEET CS 3.2 FOR LOCATION AND ORIENTATION OF CATENARY AND UTILITY POLE SUPPORTS (CDF PANELS).

LEGEND

(20) STANDARD PENETRATION TEST "N" VALUE, BLOWS PER FOOT

FILL - SILTY SAND, SAND, SILT TO SILTY CLAY, SAND WITH CLAY, SANDY GRAVEL, AND OCCASIONALLY THIN LAYER (.5FT TO 2FT) OF PEAT/CLAY, MAY INCLUDE SOFT OR LOOSE UNCONSOLIDATED NATIVE SOIL

FIRM NATIVE SOIL - STIFF TO HARD, FINE TO COARSE, SANDY TO CLAYEY SILT WITH SOME SAND LAYERS

WOOD, SAWDUST, OR WOOD CHIPS THAT SIGNIFICANTLY AFFECT BLOW COUNT (SEE BORING LOGS)

SILTY CLAY TO CLAYEY SILT WITHIN THE FIRM NATIVE SOIL

CATENARY AND UTILITY POLE SUPPORT (CDF PANELS)

GROUND SURFACE & TOP OF SHORING

APPROXIMATE GROUNDWATER TABLE

PLANNED BOTTOM OF EXCAVATION AND AS-BUILT OF 12' WIDE SECTION OF SCB GRAVITY WALL

TOP OF FIRM NATIVE SOIL

AS-BUILT BOTTOM OF GRAVITY WALL SHORING (GAPS INDICATE CATENARY/POWER POLE SUPPORT)

AS-BUILT

NAME OR INITIALS AND DATE	INITIALS AND DATE
DESIGNED	REVIEWED:
CHECKED	DES. CONST.
	SDOT PROJ. MGR.
DRAWN	RECEIVED
CHECKED	REVISED AS BUILT

ALL WORK DONE IN ACCORDANCE WITH THE CITY OF SEATTLE STANDARD PLANS AND SPECIFICATIONS AND OTHER DOCUMENTS CALLED FOR IN SECTION 0-02.3 OF THE PROJECT MANUAL.

PHASE II - WESTLAKE/MERCER CLEANUP PROJECT
SEATTLE, WASHINGTON

SHORING WALL PROFILE

DESIGNED: VCV
DRAWN: JK
CHECKED: MM
PROJECT ENGINEER: DJH
APPROVED BY: DJH
DATE: 7/25/08

URS

SIZE D | PLATE: CS 3.5
SHEET: 9 OF 9

ABBREVIATIONS

AB	ANCHOR BOLT	F	FLANGE	P	POLE, POWER	TK	THICKNESS
ABBR	ABBREVIATION	FF	FAR FACE, FIN FLOOR	PAR	PARALLEL	TOC	TOP OF CURB
ABAND	ABANDONED	FH	FIRE HYDRANT	PC	POINT OF CURVE	TOE	CONCAVE SLOPE BREAK
ABUT	ABUTMENT	FIG	FIGURE	PCC	PT OF COMPOUND CURVE	TOP	CONVEX SLOPE BREAK
ADJ	ADJUST	FIN	FINISH, FINISHED	PD	PERFORATED DRAIN LINE	TOPO	TOPOGRAPHY
AFF	ABOVE FINISH FLOOR	FL	FOG LINE	PE	PLAIN END	TOS	TOP OF SLAB
AH	AHEAD	FM	FROM, FORCE MAIN	PED	PEDESTRIAN	TOW	TOP OF WALL
ALT	ALTERNATE	FNC	FENCE	PI	POINT OF INTERSECTION	TP	TWISTED PAIRS, TEST PIT
AP	ANGLE POINT	FOC	FACE OF CURB	PL	PLASTIC/PLATE	TPOL	TRAFFIC SIGNAL POLE
APPROX	APPROXIMATELY	FOW	FACE OF WALL	POA	POLE ORIENTATION ANGLE	TRAN	TRANSITION
APWA	AMERICAN PUBLIC WORKS ASSOCIATION	FP	FULL PENETRATION, FLAG POLE	POC	POINT ON CURVE	TR	TRAFFIC, TELEPHONE RISER
				PPB	PEDESTRIAN PUSH BUTTON	TRJB	TRAFFIC CONTROL JUNCTION BOX
ARV	AIR RELIEF VALVE	FT	FEET/FOOT	PPBP	PEDESTRIAN PUSH BUTTON POST		
ASPH	ASPHALT	FTG	FOOTING			TS	TEST STATION
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS	FWPS	FINISHED WATER PUMP STATION	PR	PAIR	TSD	TRAFFIC SIGN DOUBLE POST
				PRC	PT OF REVERSE CURVE	TSS	TRAFFIC SIGN SINGLE POST
AVAR	AIR VACUUM, AIR RELEASE			PROP	PROPERTY	TUN	TUNNEL
AVG	AVERAGE	G	GAS LINE, GREEN	PRV	PRES REDUCING VALVE	TV	TELEVISION
AWG	AMERICAN WIRE GAUGE RD	GŸ	GREEN-THROUGH	PSD	PIPE STORM DRAIN	TWST	TWISTED
AWPA	AMERICAN WOOD PRESERVERS ASSOCIATION	G←	GREEN-LEFT	PSDD	PIPE STORM DRAIN DETENTION	TYP	TYPICAL
		Gž	GREEN-RIGHT				
		GA	GAUGE	PSF	POUNDS PER SQ. FT.	UBC	UNFORM BUILDING CODE
BLDG	BUILDING	GALV	GALVANIZED	PSI	POUNDS PER SQ. IN.	UDS	UTILITY DUCT SYSTEM
B	BLACK	GB	GREEN W/BLACK TRACER	PSS	PIPE STORM SEWER	UNO	UNLESS NOTED OTHERWISE
BHC	BEGIN HORIZONTAL CURVE	GDWY	GRAVEL DRIVEWAY	PT	POINT OF TANGENT, PT	UTIL	UTILITY
BK	BACK	GE	GRATE ELEVATION	PUD	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH CNTY	UG	UNDERGROUND
BL	BLUE	GM	GAS METER			UP	UTILITY POLE
BLDG	BUILDING	GR	GUARD RAIL	PVC	POLYVINYL CHLORIDE, PT OF VERTICAL CURVE	UPA	UTILITY POLE ANCHOR
BLVD	BOULEVARD	GRD	GROUND				
BOC	BACK OF CURB	GV	GAS VALVE	PVI	POINT OF VERTICAL INTERSECTION	V	VALVE
BOW	BACK OF WALK					VAR	VARIES
BOL	BOLLARD	H	HEIGHT	PVMT	PAVEMENT	VEH	VEHICLE
BM	BENCH MARK	HAP	HORIZONTAL ANGLE POINT	PVRC	POINT OF VERTICAL REVERSE CURVE	VERT	VERTICAL
BOT	BOTTOM	HD	HEAD			VLT	VAULT
BRDG	BRIDGE	HDCP	HANDICAP SYM	PVT	POINT OF VERTICAL TANGENT	W	WEST, WATER LINE, WALK, & WHITE
BRG	BEARING	HDG	HOT DIPPED GALV				
BRK	BREAK	HORIZ	HORIZONTAL	P/C	PRECAST	W/	WITH
BTWN	BETWEEN	HPS	HIGH PRESSURE SODIUM	P/L	PROPERTY LINE	WABO	WASHINGTON ASSOCIATION OF BUILDING OFFICIALS
BV	BUTTERFLY VALVE	HSB	HIGH STRENGTH BOLT	P/S	PRESTRESSED		
		HSE	HOUSE	P/T	POST-TENSIONED		
C	CONDUCTOR	HT	HEIGHT			WB	WHITE W/BLACK TRACER
CB	CATCH BASIN, CABLE	HWY	HIGHWAY	Q	QUADRUPOLE	WCLIB	WEST COAST LUMBER INSPECTION BOARD
CB1	CATCH BASIN TYPE 1						
CB2	CATCH BASIN TYPE 2	IBC	INTERNATIONAL BUILDING CODE	R	RADIUS, RED, RIVER	WCR	WHEEL CHAIR RAMP
CC	CENTER TO CENTER			RC	REINF CONC	WFP	WATER FILTRATION PLANT
CCb	COAXIAL CABLE			RB	RED W/ BLACK TRACER	WHSE	WAREHOUSE
CCd	CONTROL CONDUIT	JNX	JUNCTION	RD	ROAD, ROUND	WK	WALK
CCL	CREEK CENTER LINE	JB	JUNCTION BOX	REF	REFERENCE	WM	WATER METER, WATERMAIN
CD	CONDUIT	JT	JOINT	REINF	REINFORCED	W/O	WITHOUT
CG	CURB & GUTTER			REQD	REQUIRED	WO	WORK ORDER
CI	CAST IRON	L	LENGTH OF ARC, TRAFFIC DETECTION LOOP	RET	RETAINING	WP	WORK POINT
CICL	CAST IRON CONCRETE LINED			RETW	RETAINING WALL	WS	WATER SURFACE
CIP	CAST IN PLACE	LB	FOOT POUNDS	RMC	RIGID METAL CD	WSDOT	WA DEPT OF TRANS
CJ	CONSTRUCTION JOINT	LBS	POUNDS	RR	RAILROAD	WT	WATTS, WEIGHT
CLY	CLAY	LBS/CU FT	POUNDS PER CUBIC FOOT	RRC	RR CROSSING	WV	WATER VALVE
CLF	CHAIN LINK FENCE	LF	LINEAL FOOT/FEET	RT	RIGHT	WW	WING WALL
C/L	CENTERLINE	LLV	LONG LEG VERTICAL	R/W	RIGHT OF WAY	WWM	WELDED WIRE MESH
CLR	CLEARANCE, CLEAR	LT	LEFT				
CLS	CHLORINE SOLUTION	LUMIN	LUMINAIRE	S	SOUTH, SLOPE	X-BM	CROSS BEAM
CMP	CORRUGATED METAL PIPE			SB	SOIL BORING, SOUTH BOUND	X-RD	CROSS ROAD
CMU	CONC MASONRY UNIT	M	METER	SC	SECTION CORNER		
CO	CLEAN OUT	MA	TRAFFIC DETECTION MAGNETOMETER	SCb	SHIELDED CABLE	Y	YELLOW
COE	CITY OF EVERETT			SCC	CLOSE CORNER	Y	YELLOW (FLASH)
COL	COLUMN	MAX	MAXIMUM	SCCP	STEEL CONCRETE CYLINDER PIPE	YD	YARD
COM	COMMON	MB	MAILBOX				
CONC	CONCRETE	MC	MEANDER CORNER	SCHED	SCHEDULE	Ø	PHASE, DIAMETER
CONN	CONNECTION	MH	MANHOLE	SD	STORM DRAIN	&	AND
CONST	CONSTRUCT	MIC	MONUMENT IN CASE	SDMH	STORM DRAIN MANHOLE	'	FEET, MINUTES
CONT	CONTINUED, CONTINUOUS	MIL	MILITARY	SE	SPOT EL/SOUTHEAST	"	INCHES, SECONDS
COOR	COORDINATE	MIN	MINIMUM, MINUTE	SEC	SECOND	°	DEGREE
COP	COPPER	MISC	MISCELLANEOUS	SECT	SECTION		
CU	CUBIC	MJ	MECHANICAL JOINT	SERV	SERVICE		
CULV	CULVERT	ML	MATCH LINE	SHLD	SHIELDED		
CYL	CYLINDER	M/L	MONUMENT LINE	SHLDR	SHOULDER		
		MLCSP	MORTAR LINED AND COATED STEEL PIPE	SHT	SHEET		
				SIG	SIGNAL		
DBL	DOUBLE			SIM	SIMILAR		
DE	DE ENERGIZE	MLTCS	MORTAR LINED TAPE COATED STEEL PIPE	SL	SPAN LENGTH, SECTION LINE		
DEG	DEGREE			STLT	STREET LIGHT		
DET	DETAIL	MLECSP	MORTAR LINED EPOXY COATED STEEL PIPE	S/L	SURVEY LINE		
DI	DUCTILE IRON			SLJB	STREET LIGHTING JUNCTION BOX		
DIA	DIAMETER	MON	MONUMENT				
DIAPH	DIAPHRAGM	MUTCD	MANUAL ON UNIFORM TR CONTROL DEVICES	SLS	STAINLESS STEEL		
D/L	DAYLIGHT			SP	1 SHIELDED PAIR SINGLE CABLE, SPAN WIRE		
DW	DON'T WALK						
DW	DON'T WALK (FLASH)	N	NORTH	SPA	SPACE, SPACES		
D/W, DWY	DRIVEWAY	NA	NOT APPLICABLE	SPC	SHIELD INDIVIDUAL SINGLE CABLE SHIELDED, TWISTED		
DWG	DRAWING	NAD	NORTH AMERICAN DATUM				
		NAVD	NORTH AMERICAN VERTICAL DATUM	SPCb	PAIRS IN SINGLE CABLE		
E	EAST			SPEC	SPECIFICATIONS		
EA	EACH	NEG	NEGATIVE	SR	STATE ROUTE		
ECb	ELECTRICAL CABLE (BURIED)	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOC	SQ	SQUARE		
ECC	ECCENTRIC			SS	SANITARY SEWER, STAINLESS STEEL		
EF	EACH FACE	NF	NEAR FACE				
EHC	END HORIZONTAL CURVE	NGVD	NATIONAL GEODETIC VERTICAL DATUM	SSMH	SANITARY SEWER MANHOLE		
EL	EASEMENT LINE, ELEVATION			ST	STREET		
ELB	ELBOW	NIC	NOT IN CONTRACT	STA	STATION		
ELEV	ELEVATION	NOM	NOMINAL	STD	STANDARD		
EMB	EMBANKMENT	NTS	NOT TO SCALE	STIR	STIRRUP		
EO	EDGE OF	NO	NUMBER	STN, STL	STAINLESS STEEL		
EOA	EDGE OF ASPHALT			STPS	STEPS		
EOC	EDGE OF CONCRETE	O	ORANGE	STL	STEEL		
EOD	EDGE OF DIRT	OB	ORANGE W/BLACK TRACER	SVL	SURVEY LINE		
EOG	EDGE OF GRAVEL	O-XING	OVERHEAD CROSSING	S/W	SIDEWALK		
EP	EDGE OF PAVEMENT	OC	ON CENTER	SYM	SYMMETRICAL		
EQ	EQUAL	OD	OUTSIDE DIAMETER				
EVP	EMERGENCY VEHICLE PRE-EMPTION	OF	OUTSIDE FACE	T	TOP, TAN, TOPO		
		OHP	ORDINARY HIGH WATER	TB	THRUST BLOCK		
EW	EACH WAY	OL	OVERLAP PHASE	TAN	TANGENT		
EXC	EXCAVATION	OPNG	OPENING	T&B	TOP & BOTTOM		
EXIST	EXISTING	OPP	OPPOSITE	TBM	TEMP. BENCH MARK		
EXT	EXTERIOR, EXTENSION, EXTRUDED	OPT	OPTIC	TCb	BURIED TELEPHONE CABLE		
		OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION	TEBO	TELEPHONE BOOTH		
EVT	EVERETT			TEL	TELEPHONE		
		OT	OVERHEAD TELEPHONE	TEMP	TEMPORARY		
				TESC	TEMPORARY EROSION & SEDIMENTATION CONTROL		

SURVEY CONTROL DATUM

HORIZONTAL DATUM: NAD-83/91. BASED ON WASHINGTON COORDINATE SYSTEM. COORDINATES FOR THE PROJECT HAVE BEEN CONVERTED TO A PROJECT DATUM BY USING A GRID-TO-GROUND COMBINED SCALE OF 0.999972577 BASED ON A NORTH LATITUDE OF 47°37'30" (MERCER CORRIDOR)

VERTICAL DATUM: NAVD 88. BASED ON THE FOLLOWING SEANET VERTICAL SOUTH BENCHMARKS:

SNV-5181 ELEVATION=57.778 FEET
SNV-5180 ELEVATION=75.633 FEET
SNV-5123 ELEVATION=110.066 FEET
SNV-5122 ELEVATION=64.598 FEET

NO.	DATE	BY	REVISION DESCRIPTION
	12/09		AS BUILT

LEGEND

Signal Controller Cabinet
Electrical Vault (EV)
Electrical Cable (direct burial) (ECB)
Electrical Conduit (1"ECD)
Electrical Duct (12"X12"ED)
Combined Electrical & Telephone Duct (12"X12"ED-TD)
Span Wire
Aerial Interconnect Cable (AIC)
Transmission Pole (steel w/ conc base) (XP)
City Wood Pole (PP)
City Wood Pole w/ HPS (PP)
Traffic Signal Pole
Signal Pedestal
Vehicle Signal
Vehicle Signal w/ Backplate
Vehicle Signal (optically programmed)
Pedestrian Signal
Pedestrian Signal (optically programmed)
Pedestrian Push Button Pedestal
Pedestrian Push Button
Illuminated SIgn
Non-illuminated Sign
Junction Box
Handhole (HH)
Traffic Control Handhole (TCHH)
Streel Light Handhole (SLHH)
Ground Rod Handhole (GRHH)
Fire Alarm Handhole (FAHH)
Street Name Sign
US Mail Box (US)
Private Mail Box
Bollard
Post
Parking Meter
Rectangular Casting
Circular Casting
Column
Tree Pit

Traffic Signal Mast Arm Pole
Traffic Signal Mast Arm Pole w/ Luminaire
Traffic Signal on Span Wire
Multi-Directional Traffic Signal on Span Wire
Traffic Signal Conduit (2"TRCD)
Traffic Signal Cable (TRCB)
Detector Loop, Dipole (loop schedule)
Detector Loop, Quadrapole (loop schedule)
Pressure Detector
Manholes
Inlet Type 250A
Inlet Type 250B
Inlet Type 252
Inlet Type 268
Catch Basin round inlet top
Private CB & Inlet
Catch Basin Type 151 (pre 1985)
Catch Basin Type 240A (A)
Catch Basin Type 240B (B)
Catch Basin Type 240C (C)
Catch Basin Type 241
Catch Basin Type 242A
Catch Basin Type 242B
Catch Basin Type 277A
Catch Basin Type 277B
Sand Box (SB)
Clean Out
Air Valve
Blowoff
Butterfly Valve w/ Valve Box
Butterfly Valve w/ Chamber
Water Chamber
Sprinkler Head
Irrigation Valve (IRR V)

Concrete Culvert
Pipe Sewer Combined <1'-0"Dia
Pipe Sewer Combined ≥1'-0"Dia
Side Sewer Combined
Pipe Sewer Sanitary <1'-0"Dia
Pipe Sewer Sanitary ≥1'-0"Dia
Side Sewer Sanitary
Pipe Storm Drain <1'-0"Dia
Pipe Storm Drain ≥1'-0"Dia
Service Drain
Inlet & CB Connection
Open Ended Pipe
Small Ditch or Stream
Large Ditch or Stream
Telephone Cable (direct burial)
Telephone Conduit
Telephone Duct (12"X12"TD)
Telephone Enclosure (TEB)
Telephone Manhole (TMH)
Telephone Pole
Telephone Handhole (THH)
Television Cable (direct Burial) (TVCB)
Television Handhole (TVHH)
Telegraph Manhole (TELEG MH)
Steam Log (6"STM 14"X14"LOG)
Steam Vault (STEAM VAULT)
Gas Main (12"G)
Gas Valve
Gas Meter (GM)
Gas Regulator (G REG)
Petroleum or Oil (OIL)
Abandon(ed) (2"ECD(ABAN))

Watermain <8"Dia (12"CC)
Watermain 8"<1'-0"Dia (8"PS)
Watermain ≥1'-0"Dia (24"PS)
11 1/4° Bend w/ Conc Blocking
22 1/2° Bend (6"SS)
45° Bend (8"PSS)
90° Bend (24"PSS)
Cross (6"SSS)
Tee
Plug w/ Conc Blocking
Hydrant (8"PSD)
Water Meter
Valve Box (24"PSD)
Gate Valve (8"SD)
Gate Valve w/ Chamber
Gate Valve w/ Vault Chamber
Reducer (8"PSD)
Bench Mark (found or set)
Brass Plug/Cap (found or set) (DITCH)
Hub/Tack (found or set) (TCB)
Monument in Case (found or set) (3"TCdD)
Conc. Mon. (found or set) (12"X12"TD)
Rebar/Cap, Pipe/Cap Rebar, Iron Pipe (found or set)
Tack/Lead, Tack PK Nail, Spike (found or set)
Survey Shot Point
Light Pole (metal) w/ HPS (LP)
Strain Pole (metal) (CURB)
Combined Lighting Strain Pole HPS
Luminaire
Mercury Vapor Luminaire (M)
Double Light Pole
Utility Wood Pole (PP)
Utility Guy Pole (GP)
Anchor
Ground
OCS Pole

Center Line (℄)
Monument Line (M)
Survey Line (℄)
Right of Way Line
Lot & Ownership Line (L&O)
Permanent Easement Line
Vacated Street or Alley
State Highway Limited Access Line (STATE LAL)
Building
Chain Link Fence (X X)
Wood Fence (W W)
Guardrail (G G)
Rock Facing
Rock Facing
Riprap
Tree <1'-0" DIA
Tree >1'-0" DIA

Shrub or Bush
Ground, Grade Line
Grade (arrow downhill) (5.6)
Rail Road Tracks
City Limits (CITY OF SEATTLE KING COUNTY)
Contours (246)
Slope Angle Horiz:Vert (H:V)
Vertical Curve (V C)
Depression
Stump
Dimension Line
Match Line
Test Hole & Number (test boring) (TB) TH-7
Bench Mark (BM)

AS-BUILT

NAME OR INITIALS AND DATE	INITIALS AND DATE
DESIGNED	REVIEWED: DES. CONST. SDOT PROJ. MGR.
CHECKED	
DRAWN	RECEIVED
CHECKED	REVISED AS BUILT

ALL WORK DONE IN ACCORDANCE WITH THE CITY OF SEATTLE STANDARD PLANS AND SPECIFICATIONS AND OTHER DOCUMENTS CALLED FOR IN SECTION 0-02.3 OF THE PROJECT MANUAL.

PHASE 2 - WESTLAKE/MERCER CLEANUP PROJECT
SEATTLE, WASHINGTON

ABBREVIATIONS AND LEGEND

DESIGNED: EM
DRAWN: EM
CHECKED: PGN
PROJECT ENGINEER: DJG
APPROVED BY: PGN
DATE: 09/09

URS

SIZE: D
PLATE: G 1.3
SHEET: 1 OF 9

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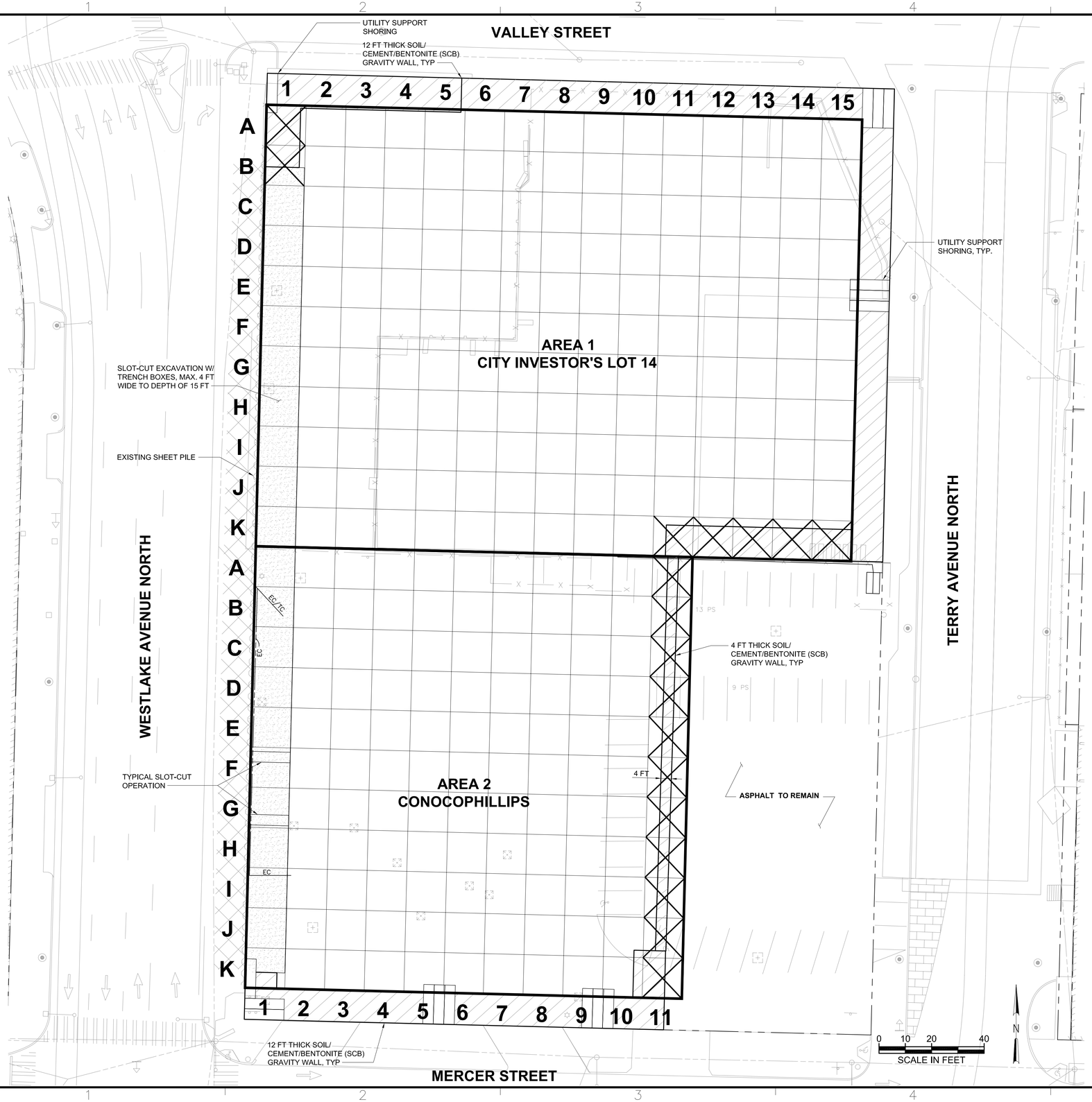
NO.	DATE	BY	REVISION DESCRIPTION
	12/09		AS BUILT



NOTES

1. SAMPLING GRID SQUARES WITH LESS THAN 50 PERCENT AVAILABLE AREA FOR SAMPLING (UNDER SCB GRAVITY WALL OR OUTSIDE OF EXCAVATION AREA) WERE NOT SAMPLED. THESE AREAS ARE SHOWN WITH AN "X" ACROSS THE SQUARE.
2. SAMPLE DESIGNATION IS AS FOLLOWS: "AREA"-"GRID NO."-"DEPTH IN FEET BGS", FOR EXAMPLE: AREA2-A1-15 FOR A SAMPLE FROM AREA 2, NORTHWEST CORNER (GRID NO. A1), AT 15 FEET BGS.
3. THE FINAL EXCAVATION DEPTHS IN EACH GRID SQUARE ARE PROVIDED IN APPENDIX J OF THE CLOSEOUT REPORT, WITH THE LABORATORY ANALYTICAL DATA. THE DEEPEST SAMPLE COLLECTED FROM EACH GRID SQUARE IS AT THE BASE OF THE EXCAVATION.

LEGEND

- PROPERTY LINE
- GRAVITY WALL
- SLOT-CUT EXCAVATION
- EXISTING SHEET PILE
- CATENARY/UTILITY POLE SUPPORT SHORING (CDF PANEL)

AS-BUILT

NAME OR INITIALS AND DATE	INITIALS AND DATE
DESIGNED	REVIEWED:
CHECKED	DES. CONST.
	SDOT PROJ. MGR.
DRAWN	RECEIVED
CHECKED	REVISED AS BUILT

ALL WORK DONE IN ACCORDANCE WITH THE CITY OF SEATTLE STANDARD PLANS AND SPECIFICATIONS AND OTHER DOCUMENTS CALLED FOR IN SECTION 0-02.3 OF THE PROJECT MANUAL.

PHASE 2 - WESTLAKE/MERCER CLEANUP PROJECT
SEATTLE, WASHINGTON

SOIL SAMPLING LOCATIONS
FIGURE 2

DESIGNED: MY
DRAWN: EDM
CHECKED: MY
PROJECT ENGINEER:
APPROVED BY:
DATE: 10/08

URS

SIZE D | PLATE: 2
SHEET: 1 OF 1

\\seagis\cadgis\geo\Westlake COP\SubTasks\Phase 2 - 2008\as-builts 9-09\Figure 2.dwg Dec 18, 2009 - 10:24am

Table J-1
Summary of Soil Analytical Results
Area 2
Westlake-Mercer

Sample ID:		COP-T2-S	COP-T2-N	COP-T1-N	COP-T1-S	A1		A2	A3	A4	A5			A6		A7	A8	A9	A10	B1		B2			B3	B4	B5	B6		
Sample Date:	MTCA Method A Soil Cleanup Level	1/30/2009	1/30/2009	1/29/2009	1/29/2009	6/5/2009	6/5/2009	6/8/2009	6/8/2009	6/10/2009	6/10/2009	6/12/2009	6/12/2009	4/3/2009	4/8/2009	4/3/2009	4/3/2009	4/3/2009	4/9/2009	6/5/2009	6/5/2009	6/8/2009		6/10/2009	6/10/2009	6/10/2009	4/3/2009	4/3/2009	4/7/2009	4/9/2009
Sample Elevation (Ft. above City of Seattle Datum):						14	11	14	14	14	14	11	9	14	11	14	14	14	14	14	11	14		9	14	14	14	14	12.5	9
Field QC:																							(DUP)							
VOCs (mg/kg)																														
Benzene	0.03	2.19	0.364	0.0243 U	0.0211 U	0.000966 U	0.00118 U	0.0150	0.0298	0.000978 U	0.000835	NA	NA	0.00318 U	0.00245 UJ	0.212 U	0.00636 U	0.00522 U	0.00699 U	0.00119 U	0.00105 U	12.1	11.2	0.00182	0.00176	0.000997 U	0.000925 U	0.181	0.00655 U	0.00622 U
Ethylbenzene	6	14.4	0.996	0.122 U	0.106 U	0.00258 U	0.00315 U	0.0728	0.0885	0.00261 U	0.0118	NA	NA	0.00850	0.00653 UJ	1.06 U	0.0170 UJ	1.63 U	0.208 J	0.00316 U	0.00281 U	17.5	16.2	0.00301 U	0.00427	0.00266 U	0.00247 U	1.18 U	0.0175 UJ	0.0166 UJ
Toluene	7	0.109 U	0.194	0.122 U	0.106 U	0.000966 U	0.00118 U	0.0268	0.0361	0.000978 U	0.00131	NA	NA	0.00468	0.00245 UJ	1.06 U	0.00636 UJ	0.00522 UJ	0.00699 UJ	0.00119 U	0.00105 U	36.8	33.0	0.00113 U	0.00233	0.000997 U	0.000925 U	1.18 U	0.00655 UJ	0.00622 UJ
Xylenes, total	9	38.1	4.07	0.365 U	0.317 U	0.00644 U	0.00789 U	0.157	0.410	0.00652 U	0.0532	NA	NA	0.0331	0.0163 UJ	3.18 U	0.0424 UJ	4.89 U	0.665 J	0.00791 U	0.00703 U	88.6	84.2	0.00753 U	0.0294	0.00665 U	0.00773	3.53 U	3.66 U	0.0415 UJ
Methyl tert-butyl ether (MTBE)	0.1	NA	NA	NA	NA	0.000644 U	0.000789 U	0.000553 U	0.000500 U	0.000652 U	0.000553 U	NA	NA	0.00212 U	0.264 U	0.00399 U	0.00526	0.816 U	0.00466 U	0.000791 U	0.000703 U	0.000679 U	0.000581 U	0.000753 U	0.000627 U	0.000665 U	0.000617 U	0.00512 U	0.00437 U	0.661 U
TPHs (mg/kg)																														
Gasoline-Range	30 / 100 [a]	949	73.9	12.7	5.28 U	5.81 U	7.06 U	6.87 J	17.4	7.62 U	3.25 J	NA	NA	25.7 U	8.39 J	53.0 U	53.6 U	81.6 U	22.2 J	6.43 U	6.85 U	1,090	1,040	7.18 U	1.84 J	6.19 U	3.31 J	37.8 J	69.0 J	66.1 U
Diesel-Range	2,000	74.8	172 J	16.8	11.5 U	11.9 U	12.9 U	12.7 U	12.3 U	13.5 U	26.0	NA	NA	338	92.2	97.0	170	270	54.1 U	12.7 U	12.9 U	12.6 U	13.7	12.9 U	11.4 U	12.4 U	70.2 J	188	82.0	52.8 U
Lube Oil-Range	2,000	37.3	371 J	90.1	38.4	29.9 U	32.2 U	31.8 U	30.7 U	33.8 U	48.5	NA	NA	556	165	202	206	491	135 U	31.7 U	32.2 U	31.5 U	31.8 U	32.4 U	110	31.1 U	338 J	419	249	132 U
Kerosene-Range	2,000	NA	NA	NA	NA	11.9 U	12.9 U	12.7 U	12.3 U	13.5 U	15.0 U	NA	NA	56.5	37.0	48.1 U	49.9 U	53.2 U	54.1 U	12.7 U	12.9 U	37.5 J	65.4 J	12.9 U	11.4 U	12.4 U	11.9 U	50.7 U	52.7 U	52.8 U
PAHs (mg/kg)																														
Acenaphthene	NE	0.0197	0.0121 U	0.0115 U	0.0116 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	0.0120 U	0.0121 U	0.0115 U	0.0116 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NE	0.0190	0.0121 U	0.0115 U	0.0116 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene [b]	NE	0.0120 U	0.0121 U	0.0115 U	0.0116 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene [b]	0.1	0.0120 U	0.141	0.0510	0.0116 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene [b]	NE	0.0120 U	0.0411	0.0325	0.0116 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene [b]	NE	0.0120 U	0.0128	0.0255	0.0116 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (ghi) perylene	NE	0.0120 U	0.0698	0.0502	0.0205	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene [b]	NE	0.0191	0.0779	0.0307	0.0116 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene [b]	NE	0.0120 U	0.0209	0.0115 U	0.0116 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	0.0213	0.0121 U	0.0151	0.0116 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	0.0329	0.0121 U	0.0115 U	0.0116 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene [b]	NE	0.0120 U	0.0328	0.0372	0.0131	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	NE	0.882	0.0425	0.0245	0.0116 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NE	1.62	0.0640	0.0296	0.0116 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	5	1.14	0.0224	0.0208	0.0116 U	0.00644 U	0.00789 U	0.0148	1.36 U	0.00652 U	0.00553 U	NA	NA	0.0212 UJ	0.0163 UJ	21.2 U	0.0424 UJ	0.0348 UJ	27.7 U	0.00791 U	0.00703 U	5.94	6.30	0.00753 U	0.00627 U	0.00665 U	0.00617 UJ	0.0512 UJ	0.0437 UJ	0.0415 UJ
Phenanthrene	NE	0.104	0.0268	0.0119	0.0116 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	0.0246	0.0456	0.0266	0.0116 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TTEC Concentration (c-PAHs)	0.1	0.000191	0.153	0.0608	0.00131	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs (mg/kg) [c]	NE	3.8826	0.5976	0.3556	0.0336	NA	NA	0.0148	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.94	6.30	NA	NA	NA	NA	NA	NA	NA
Total Metals (mg/kg)																														
Arsenic	20	NA	NA	2.63	1.64	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NE	NA	NA	89.9	81.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2	NA	NA	0.569 U	0.509 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	19 (Cr^{6+}) / 2,000 (Cr^{3+})	NA	NA	32.1	45.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	250	NA	NA	41.1	4.97	12.8	53.3	15.6	12.6	123	412	38.8 J	147 J	289 J	13.3	56.5 J	136 J	79.1 J	19.4	5.00	15.2	16.5	22.7	8.04	36.4	54.0	25.4 J	217 J	24.4 U	44.6
Selenium	NE	NA	NA	1.14 U	1.02 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NE	NA	NA	0.569 U	0.509 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	NA	NA	0.112 U	0.106 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP Metals (mg/L)																														
Lead	5 [d]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Model Toxics Control Act (MTCA) Cleanup Regulation, chapter 173-340 WAC; MTCA Method A and B from Ecology website downloaded August 2009 (https://fortress.wa.gov/ecy/clarc/Reporting/CLARCReporting.aspx).
DUP - Field duplicate
J - Estimated value
NA - Not applicable
NE - Not established
PAHs - Polynuclear aromatic hydrocarbons
TPHs - Total petroluem hydrocarbons
U - Compound was analyzed for but not detected above the reporting limit shown.
UJ - Compound was analyzed for but not detected above the reporting limit shown. The reporting limit is an estimated value.
VOCs - Volatile organic compounds
TTEC - Total Toxicity Equivalent Soil Concentration

[a] The soil cleanup level is 100 mg/kg if benzene is not present and the total of ethylbenzene, toluene, and xylenes is less than 1% of the gasoline mixture. The cleanup level for all other gasoline mixtures is 30 mg/kg.
[b] These compounds are considered carcinogenic PAHs (c-PAHs) and are subject to WAC-173-340 Toxicity Equivalent Soil Concentration calculations.
[c] Total PAHsare the sum of PAHs detailed by the WAC 173-303-040 (Acenaphthene, acenaphthylene, fluorene, anthracene, fluoranthene, phenanthrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, pyrene, chrysene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene, and benzo(g,h,i)perylene).
Note dibenzo [(a,e), (a,h), (a,i), and (a,1)] pyrenes and dibenzo(a,j) acridine are not included as these compounds were not analyzed for and are not typically included in the PAH analyte list. The waste characterization is determined based on an exceedance of a 1% total PAHs as decribed in WAC 173-303-100.
[d] WAC 173-303-090 - Dangerous Waste Criteria, dated July 31, 2009.

Table J-1
Summary of Soil Analytical Results
Area 2
Westlake-Mercer

Sample ID:		B7		B8		B9			B10	C1		C2	C3	C4		C5	C6		C7	C8	C9			C10		D1		D2	D3
Sample Date:	MTCA Method A Soil Cleanup Level	4/3/2009	4/7/2009	4/3/2009	4/7/2009	4/3/2009	4/7/2009	4/9/2009	4/9/2009	6/5/2009	6/5/2009	6/8/2009	6/10/2009	6/10/2009		4/3/2009	4/2/2009	4/7/2009	4/2/2009	4/2/2009	4/2/2009	4/7/2009	4/9/2009	4/9/2009	4/20/2009	6/4/2009	6/4/2009	6/4/2009	6/10/2009
Sample Elevation (Ft. above City of Seattle Datum):		14	11.5	14	11.5	14	12	9	14	14	11	14	14	14		14	14	12	14	14	14	12	9	14	9	14	12	14	14
Field QC:															(DUP)														
VOCs (mg/kg)																													
Benzene	0.03	0.350 U	0.00322 UJ	0.175 U	0.00573 UJ	0.269 J	0.208 U	0.198 U	0.162 U	0.00106 U	0.000955 U	0.00138	0.000849 U	0.00114 U	0.00244	0.00439	0.0255	0.00437 U	0.00637	0.0218	0.0398	0.207 U	0.00117 UJ	0.00474 U	0.00112 U	0.000740 U	0.000709 U	0.000931 U	0.00102 U
Ethylbenzene	6	1.75 U	0.00858 UJ	0.877 U	0.0153 UJ	0.898 U	1.04 U	0.990 U	0.137 J	0.0327	0.0168	0.0964	0.00226 U	0.00303 U	0.00323 U	0.0369	0.827 J	0.0117 UJ	0.0151 UJ	0.0948 J	0.365 J	1.03 U	0.00312 UJ	0.0126 UJ	0.00297 U	0.00197 U	0.00189 U	0.00248 U	0.00273 U
Toluene	7	1.75 U	0.898 U	0.877 U	0.00573 UJ	0.898 U	1.04 U	0.990 U	0.808 U	0.00119	0.00138	0.00767	0.000849 U	0.00114 U	0.00121 U	0.00801	0.204 J	0.00437 UJ	1.00 U	0.0880 J	0.157 J	1.03 U	0.00117 UJ	0.00474 UJ	0.00112 U	0.000740 U	0.000709 U	0.00164	0.00102 U
Xylenes, total	9	5.25 U	0.0215 UJ	2.63 U	0.0382 UJ	2.69 U	3.12 U	2.97 U	0.355 J	0.0733	0.0593	0.0348 J	0.00566 U	0.00757 U	0.0172	0.171	3.33	1.98 U	3.01 U	0.406 J	1.43 J	3.10 U	0.00780 UJ	0.0316 UJ	0.00744 U	0.00494 U	0.00473 U	0.00621 U	0.00682 U
Methyl tert-butyl ether (MTBE)	0.1	0.00395 U	0.449 U	0.00418 U	0.550 U	0.00502 UJ	0.521 U	0.495 U	0.00233 UJ	0.000707 U	0.000637 U	0.000559 U	0.000566 U	0.000757 U	0.000808 U	0.000822 U	0.00375	0.00854	0.00616	0.00492	0.254 U	0.517 U	0.000780 UJ	0.00607	0.000744 U	0.000494 U	0.000473 U	0.000621 U	0.000682 U
TPHs (mg/kg)																													
Gasoline-Range	30 / 100 [a]	41.4 J	44.9 U	61.5 J	56.1 U	95.6 J	52.1 U	49.5 U	21.4 J	32.9	9.50	3.72 J	6.83 U	7.56 U	9.00 U	20.6	53.2 J	33.0 U	50.2 U	33.9 U	32.8 J	51.7 U	6.55 U	49.7 U	1.83 J	6.16 U	5.44 U	2.27 J	8.05 U
Diesel-Range	2,000	62.8	139	40.6 U	92.1	54.0	75.7	108	65.9	12.5 U	11.8 U	12.0 U	12.5 U	14.3 U	14.0 U	87.1	175	56.4	141	39.6 U	34.3 U	297	12.1 U	83.0	12.4 U	12.3 U	12.4 U	13.4 U	13.7 U
Lube Oil-Range	2,000	103 U	337	101 U	216	119 U	163	252	201	31.3 U	29.5 U	29.9 U	31.2 U	35.7 U	35.0 U	146	225	175	293	98.9 U	85.7 U	513	30.3 U	168	31.0 U	30.7 U	31.0 U	33.4 U	34.2 U
Kerosene-Range	2,000	41.2 U	43.3	40.6 U	47.9 U	47.7 U	47.3 U	46.4 U	35.4 U	12.5 U	11.8 U	12.0 U	12.5 U	14.3 U	14.0 U	15.9 U	88.9	35.1 U	45.8 U	39.6 U	34.3 U	86.9	12.1 U	46.3 U	12.4 U	12.3 U	12.4 U	13.4 U	13.7 U
PAHs (mg/kg)																													
Acenaphthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene [b]	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (ghi) perylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	5	0.0395 UJ	0.0215 UJ	17.5 U	0.0382 UJ	18.0 U	20.8 U	0.0295 UJ	16.2 U	0.0581	0.0121	1.31 U	0.00566 U	0.00757 U	0.00808 U	0.0146	0.0307 UJ	0.0291 UJ	0.0377 UJ	0.0223 UJ	10.1 U	0.0317 UJ	0.00780 UJ	0.0316 UJ	0.00744 U	0.00494 U	0.00473 U	0.00621 U	0.00682 U
Phenanthrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TTEC Concentration (c-PAHs)	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs (mg/kg) [c]	NE	NA	NA	NA	NA	NA	NA	NA	NA	0.0581	0.0121	NA	NA	NA	NA	0.0146	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals (mg/kg)																													
Arsenic	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	19 (Cr^{6+}) / 2,000 (Cr^{3+})	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	250	79.5 J	20.3	51.2 J	64.0	118 J	39.4	35.0	126	7.77	14.9	5.41	6.36	17.3	23.5	62.3 J	45.8	31.6	67.5	59.7	144	96.7	5.78 U	483	4.14	3.80	3.43	20.6	41.7
Selenium	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP Metals (mg/L)																													
Lead	5 [d]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Model Toxics Control Act (MTCA) Cleanup Regulation, chapter 173-340 WAC; MTCA Method A and B from Ecology website downloaded August 2009 (https://fortress.wa.gov/ecy/clarc/Reporting/CLARCReporting.aspx).
DUP - Field duplicate
J - Estimated value
NA - Not applicable
NE - Not established
PAHs - Polynuclear aromatic hydrocarbons
TPHs - Total petroluem hydrocarbons
U - Compound was analyzed for but not detected above the reporting limit shown.
UJ - Compound was analyzed for but not detected above the reporting limit shown. The reporting limit is an estimated value.
VOCs - Volatile organic compounds
TTEC - Total Toxicity Equivalent Soil Concentration

[a] The soil cleanup level is 100 mg/kg if benzene is not present and the total of ethylbenzene, toluene, and xylenes is less than 1% of the gasoline mixture. The cleanup level for all other gasoline mixtures is 30 mg/kg.
[b] These compounds are considered carcinogenic PAHs (c-PAHs) and are subject to WAC-173-340 Toxicity Equivalent Soil Concentration calculations.
[c] Total PAHsare the sum of PAHs detailed by the WAC 173-303-040 (Acenaphthene, acenaphthylene, fluorene, anthracene, fluoranthene, phenanthrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, pyrene, chrysene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene, and benzo(g,h,i)perylene).
Note dibenzo [(a,e), (a,h), (a,i), and (a,1)] pyrenes and dibenzo(a,j) acridine are not included as these compounds were not analyzed for and are not typically included in the PAH analyte list. The waste characterization is determined based on an exceedance of a 1% total PAHs as decribed in WAC 173-303-100.
[d] WAC 173-303-090 - Dangerous Waste Criteria, dated July 31, 2009.

Table J-1
Summary of Soil Analytical Results
Area 2
Westlake-Mercer

Sample ID:		D4	D5		D6		D7		D8		D9		D10	E1		E2	E3	E4		E5			E6		E7		E8		E9	
Sample Date:	MTCA Method A Soil Cleanup Level	6/10/2009	3/27/2009	4/3/2009	3/30/2009	4/3/2009	3/30/2009	4/3/2009	3/30/2009	4/3/2009	3/30/2009	4/3/2009	4/9/2009	6/4/2009	6/4/2009	6/4/2009	6/4/2009	6/4/2009	6/9/2009	3/27/2009		4/1/2009	3/27/2009	4/1/2009	3/27/2009	4/1/2009	3/27/2009	3/31/2009	3/27/2009	3/31/2009
Sample Elevation (Ft. above City of Seattle Datum):		14	14	11.5	14	11.5	14	11.5	14	11.5	14	11.5	14	14	12	14	14	14	11	14		11.5	14	12	14	11.5	14	11.5	14	11.5
Field QC:																					(DUP)									
VOCs (mg/kg)																														
Benzene	0.03	0.00191	0.00815	0.00507 UJ	0.0657	0.265 U	0.0619	0.236 U	0.0730	0.00689 U	0.0205	0.00637 U	0.00361 UJ	0.0307 J	0.172 U	0.000863 U	0.00435	6.84 J	0.00146 U	0.0174 J	0.00514 J	0.00445 U	0.648 J	0.00587 U	0.237	0.00456 UJ	0.0847	0.00188 U	0.161	0.00224 U
Ethylbenzene	6	0.00253 U	1.96	0.0135 UJ	0.312	1.33 U	0.972	1.18 U	0.272	1.40 U	0.144	1.00 U	1.02 U	0.901 J	0.146 J	0.00230 U	0.00477	50.5 J	0.00388 UJ	0.122 J	0.0454 J	0.0119 UJ	0.831 U	0.0157 UJ	0.816 U	0.0122 UJ	1.14	0.00501 U	1.15	0.00598 UJ
Toluene	7	0.000948 U	0.0309	0.00507 UJ	0.183	1.33 U	0.204	1.18 U	0.162	0.00689 UJ	0.0563	0.00637 UJ	0.00361 UJ	0.00466 J	0.129 J	0.000863 U	0.00105 U	67.2 J	0.00146 UJ	0.0292 J	0.00842 J	0.00445 UJ	0.831 U	0.00587 UJ	0.816 U	0.00456 UJ	0.320	0.00188 U	0.621 U	0.384 U
Xylenes, total	9	0.00632 U	5.14	0.0338 UJ	2.82	3.98 U	4.05	3.54 U	2.75 U	4.19 U	2.35 U	3.01 U	3.05 U	2.11 J	0.327 J	0.00575 U	0.00795	281 J	0.00971 UJ	3.11 J	0.379 J	0.0297 UJ	2.49 U	0.0392 UJ	3.43	0.0304 UJ	5.14	0.767 U	4.31	1.15 U
Methyl tert-butyl ether (MTBE)	0.1	0.000632 U	0.000686 U	0.00338 UJ	0.00187 U	0.664 U	0.00207 U	0.591 U	0.00382 U	0.699 U	0.00343 U	0.0254	0.508 U	0.000612 U	0.00239 U	0.000575 U	0.000698 U	0.000605 U	0.000971 U	0.00102 U	0.000883 U	0.00297 U	0.00449 UJ	0.493 U	0.00414 UJ	0.458 U	0.00108 U	0.00456	0.00301 UJ	0.00408
TPHs (mg/kg)																														
Gasoline-Range	30 / 100 [a]	6.76 U	335	35.1 U	76.9 J	66.4 U	117 J	59.1 U	45.8 U	69.9 U	39.2 U	50.2 U	21.9 J	76.6	43.1 U	5.08 U	6.95 U	2960	16.9 U	90.5 J	53.0 J	37.3 U	41.5 U	49.4 U	67.8 J	45.3 U	134 J	12.7 U	82.4 J	19.2 U
Diesel-Range	2,000	12.2 U	33.1	102	22.7 U	159	29.1	85.4	43.0 U	76.2	35.8 U	195	46.8 U	12.4 U	44.6	11.0 U	13.0 U	20.3	26.0	56.6 J	16.2 J	73.8	154	90.8	38.2 U	67.4	24.1	18.4 U	31.1 U	30.8
Lube Oil-Range	2,000	30.4 U	57.9	209	56.8 U	337	58.4 U	194	107 U	173	89.6 U	507	117 U	30.9 U	102 U	27.5 U	32.5 U	30.0 U	73.3	85.0	33.2 U	163	309	149	95.4 U	145	43.9	46.0 U	77.8 U	53.7 U
Kerosene-Range	2,000	12.2 U	31.8	34.7 U	22.7 U	42.6 U	23.3 U	39.4 U	43.0 U	45.3 U	35.8 U	42.1 U	46.8 U	12.4 U	40.8 U	11.0 U	13.0 U	58.3	23.0 U	29.8	13.3 U	35.3 U	38.1 U	45.3 U	38.2 U	42.2 U	17.4 U	18.4 U	31.1 U	21.5 U
PAHs (mg/kg)																														
Acenaphthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene [b]	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (ghi) perylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	5	0.00632 U	0.137	0.0338 UJ	0.171	0.0445 UJ	8.23 U	0.0366 UJ	18.3 U	0.0459 UJ	15.7 U	0.0424 UJ	0.0241 UJ	0.120	17.2 U	0.00575 U	0.00698 U	10.8	0.00971 UJ	0.0947 J	0.0499 J	0.0297 UJ	0.0449 UJ	0.0392 UJ	16.3 U	0.0304 UJ	4.63 U	0.0125 U	12.4 U	0.0149 UJ
Phenanthrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TTEC Concentration (c-PAHs)	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs (mg/kg) [c]	NE	NA	0.1	NA	0.2	NA	NA	NA	NA	NA	NA	NA	NA	0.1	NA	NA	NA	10.8	NA	0.1	0.0499	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals (mg/kg)																														
Arsenic	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	19 (Cr^{6+}) / 2,000 (Cr^{3+})	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	250	15.6	44.3 J	106 J	18.0	36.2 J	41.7	42.1 J	98.2	34.9 J	87.4	57.0 J	89.0	7.20	81.5	3.22	23.7	43.4	36.1	21.1 J	30.7 J	61.8	86.4 J	83.5	92.2 J	94.0	48.5 J	9.67 J	63.5 J	34.3 J
Selenium	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP Metals (mg/L)																														
Lead	5 [d]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Model Toxics Control Act (MTCA) Cleanup Regulation, chapter 173-340 WAC; MTCA Method A and B from Ecology website downloaded August 2009 (https://fortress.wa.gov/ecy/clarc/Reporting/CLARCReporting.aspx).
DUP - Field duplicate
J - Estimated value
NA - Not applicable
NE - Not established
PAHs - Polynuclear aromatic hydrocarbons
TPHs - Total petroluem hydrocarbons
U - Compound was analyzed for but not detected above the reporting limit shown.
UJ - Compound was analyzed for but not detected above the reporting limit shown. The reporting limit is an estimated value.
VOCs - Volatile organic compounds
TTEC - Total Toxicity Equivalent Soil Concentration

[a] The soil cleanup level is 100 mg/kg if benzene is not present and the total of ethylbenzene, toluene, and xylenes is less than 1% of the gasoline mixture. The cleanup level for all other gasoline mixtures is 30 mg/kg.
[b] These compounds are considered carcinogenic PAHs (c-PAHs) and are subject to WAC-173-340 Toxicity Equivalent Soil Concentration calculations.
[c] Total PAHsare the sum of PAHs detailed by the WAC 173-303-040 (Acenaphthene, acenaphthylene, fluorene, anthracene, fluoranthene, phenanthrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, pyrene, chrysene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene, and benzo(g,h,i)perylene).
Note dibenzo [(a,e), (a,h), (a,i), and (a,1)] pyrenes and dibenzo(a,j) acridine are not included as these compounds were not analyzed for and are not typically included in the PAH analyte list. The waste characterization is determined based on an exceedance of a 1% total PAHs as decribed in WAC 173-303-100.
[d] WAC 173-303-090 - Dangerous Waste Criteria, dated July 31, 2009.

Table J-1
Summary of Soil Analytical Results
Area 2
Westlake-Mercer

Sample ID:		E10	F1			F2	F3			F4		F5		F6		F7	F8		F9		F10	G1		G2		G3		G4	G5
Sample Date:	MTCA Method A Soil	3/27/2009	6/4/2009	6/4/2009	6/9/2009	6/2/2009	5/29/2009		6/9/2009	4/21/2009	6/9/2009	3/27/2009	4/1/2009	3/27/2009	4/1/2009	3/27/2009	3/25/2009	3/25/2009	3/25/2009	3/31/2009	3/27/2009	6/4/2009	6/4/2009	6/2/2009	6/9/2009	5/29/2009	6/9/2009	5/29/2009	3/25/2009
Sample Elevation (Ft. above City of Seattle Datum):	Cleanup Level	14	14	11.5	9	14	14		11.5	14	10.5	14	11	14	12	14	14	14	14	11.5	14	14	10	14	11	14	11	14	14
Field QC:								(DUP)																					
VOCs (mg/kg)																													
Benzene	0.03	0.00708 UJ	0.0191	0.126 J	0.00104 U	0.00854	0.0826 J	0.0431 J	0.00249 UJ	0.0905	0.00268 UJ	0.171 J	0.00293 U	0.0847	0.00564 U	0.181 U	0.0375	0.0375	0.0236	0.00277 U	0.00207 U	0.000875 U	0.00292 U	0.0876	0.000802 UJ	0.0368	0.0239	0.000900 U	2.73 J
Ethylbenzene	6	0.977 U	0.107	0.168 J	0.00278 UJ	0.0101	5.78	7.47	0.00664 UJ	0.215 U	0.00716 UJ	1.95 J	0.00782 UJ	3.20	0.0150 U	0.906 U	1.80	1.80	0.675	0.00738 UJ	0.00553 U	0.00233 U	0.770 U	0.00387	0.158 U	0.00259	0.0318	0.00240 U	11.7 J
Toluene	7	0.977 U	0.0198	0.842 U	0.00104 UJ	0.00544	2.13	1.74	0.567 U	0.0409 J	0.672 U	0.906 J	0.00293 UJ	1.64	0.00564 U	0.906 U	0.956	0.956	0.345	0.00277 UJ	0.00207 U	0.00272	0.770 U	0.000916 U	0.158 U	0.000770 U	0.0191	0.000900 U	14.9 J
Xylenes, total	9	2.93 U	0.322	0.548 J	0.00694 UJ	0.0283	31.1	34.6	0.0166 UJ	0.646 U	0.0179 UJ	7.58 J	0.0195 UJ	13.7	0.0376 U	2.72 U	7.39	7.39	3.60	1.35 U	0.0138 U	0.00916	2.31 U	0.00610 U	0.474 U	0.00513 U	0.292	0.00600 U	49.0 J
Methyl tert-butyl ether (MTBE)	0.1	0.489 U	0.000669 U	0.00259 U	0.000694 U	0.000342 U	0.000612 U	0.000614 U	0.00166 UJ	0.108 U	0.00179 UJ	0.00192 U	0.00195 U	0.000772 U	0.531 U	0.453 U	0.000913 U	0.000913 U	0.000683 U	0.225 U	0.00138 U	0.000583 U	0.00195 U	0.000610 U	0.000535 UJ	0.000513 U	0.000737 U	0.000600 U	0.000837 U
TPHs (mg/kg)																													
Gasoline-Range	30 / 100 [a]	73.2 J	10.1	13.7 J	9.02 U	3.02 J	449	613	23.9 U	10.8 U	27.9 U	267 J	21.1 U	290 J	50.6 U	45.3 U	183 J	183 J	144	22.5 U	11.5	5.06 U	50.2 U	2.32 J	10.1 U	2.67 J	14.6 U	6.85 U	1,120 J
Diesel-Range	2,000	101	12.9 U	44.3 U	16.8 U	12.9 U	12.5 U	21.7	73.4	30.8	39.5 U	304	22.5 U	177	105	98.4	30.8	30.8	13.0 U	24.6 U	14.8	12.1 U	40.8 U	13.9 U	15.4 U	12.1 U	18.9 U	12.7 U	20.6
Lube Oil-Range	2,000	244	32.3 U	119	41.9 U	32.3 U	31.2 U	31.4 U	184	52.9	98.7 U	219	56.1 U	266	329	103 U	59.7 U	59.7 U	32.6 U	61.5 U	35.1 U	30.3 U	102 U	41.1	38.5 U	30.2 U	47.2 U	31.6 U	40.2
Kerosene-Range	2,000	45.6 U	12.9 U	44.3 U	16.8 U	12.9 U	33.5 J	74.3 J	32.3 U	16.0 U	39.5 U	43.0	22.5 U	83.5	44.9 U	41.3 U	23.9 U	23.9 U	13.0 U	24.6 U	14.0 U	12.1 U	40.8 U	13.9 U	15.4 U	12.1 U	18.9 U	12.7 U	33.6
PAHs (mg/kg)																													
Acenaphthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene [(b)]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene [(b)]	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene [(b)]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene [(b)]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (ghi) perylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene [(b)]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene [(b)]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene [(b)]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	5	19.5 U	0.0570	16.8 U	0.00694 UJ	0.00342 U	2.66	4.37	0.0166 UJ	0.00888 UJ	0.0179 UJ	7.13 U	0.0195 UJ	0.126	0.0376 UJ	18.1 U	0.167	0.167	0.123	0.0185 UJ	0.0138 U	0.00583 U	0.0195 UJ	0.00610 U	0.00535 UJ	0.00513 U	4.78 U	0.00600 U	6.12
Phenanthrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TTEC Concentration (c-PAHs)	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs (mg/kg) [c]	NE	NA	0.1	NA	NA	NA	2.7	4.37	NA	NA	NA	NA	NA	0.1	NA	NA	0.2	0.167	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.12
Total Metals (mg/kg)																													
Arsenic	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	19 (Cr^{6+}) / 2,000 (Cr^{3+})	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	250	100 J	3.96	101	12.3	3.41	20.8 J	19.6 J	46.3	28.8	1.90 U	84.8 J	15.5	88.2 J	42.3	36.4 J	61.6	61.6	23.1	35.9 J	25.7 J	1.78	1.95	163	0.791	29.8 J	23.9	10.2 J	161
Selenium	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP Metals (mg/L)																													
Lead	5 [(d)]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Model Toxics Control Act (MTCA) Cleanup Regulation, chapter 173-340 WAC; MTCA Method A and B from Ecology website downloaded August 2009 (https://fortress.wa.gov/ecy/clarc/Reporting/CLARCReporting.aspx).
DUP - Field duplicate
J - Estimated value
NA - Not applicable
NE - Not established
PAHs - Polynuclear aromatic hydrocarbons
TPHs - Total petroluem hydrocarbons
U - Compound was analyzed for but not detected above the reporting limit shown.
UJ - Compound was analyzed for but not detected above the reporting limit shown. The reporting limit is an estimated value.
VOCs - Volatile organic compounds
TTEC - Total Toxicity Equivalent Soil Concentration

[a] The soil cleanup level is 100 mg/kg if benzene is not present and the total of ethylbenzene, toluene, and xylenes is less than 1% of the gasoline mixture. The cleanup level for all other gasoline mixtures is 30 mg/kg.
[b] These compounds are considered carcinogenic PAHs (c-PAHs) and are subject to WAC-173-340 Toxicity Equivalent Soil Concentration calculations.
[c] Total PAHsare the sum of PAHs detailed by the WAC 173-303-040 (Acenaphthene, acenaphthylene, fluorene, anthracene, fluoranthene, phenanthrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, pyrene, chrysene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene, and benzo(g,h,i)perylene).
Note dibenzo [(a,e), (a,h), (a,i), and (a,1)] pyrenes and dibenzo(a,j) acridine are not included as these compounds were not analyzed for and are not typically included in the PAH analyte list. The waste characterization is determined based on an exceedance of a 1% total PAHs as decribed in WAC 173-303-100.
[d] WAC 173-303-090 - Dangerous Waste Criteria, dated July 31, 2009.

Table J-1
Summary of Soil Analytical Results
Area 2
Westlake-Mercer

Sample ID:		G6	G7	G8	G9	G10	H1			H2	H3	H4		H5		H6	H7	H8	H9	H10	I1			I2	I3	I4	I5	I6	
Sample Date:	MTCA Method A Soil Cleanup Level	3/25/2009	3/24/2009	3/24/2009	3/24/2009	3/23/2009	6/4/2009		6/4/2009	6/2/2009	5/29/2009	5/29/2009	6/9/2009	3/19/2009		3/24/2009	3/24/2009	3/24/2009	3/19/2009	3/23/2009	6/3/2009		6/3/2009	6/2/2009	5/29/2009	5/29/2009	3/19/2009	3/19/2009	3/23/2009
Sample Elevation (Ft. above City of Seattle Datum):		14	14	14	14	14	14		11.5	14	14	14	11	14		14	14	14	14	14	14		11	14	14	14	14	14	10
Field QC:								(DUP)							(DUP)							(DUP)							
VOCs (mg/kg)																													
Benzene	0.03	0.468 J	0.0938	0.201 J	0.297 J	0.0317	0.0571	0.0811	0.0180	0.000894 U	0.000961 U	0.0174	0.00272 UJ	0.298 J	0.703 J	0.129	0.0874	0.157	0.235 U	0.0037 UJ	0.194	0.247	0.00123	0.000850 U	0.000643 U	0.000953 U	0.00125 U	3.25	0.00386 U
Ethylbenzene	6	3.40 J	1.18	3.80 J	5.08 J	2.70	0.0409	0.0420	0.0805 J	0.00238 U	0.00256 U	3.89	0.00726 UJ	0.784 J	2.98 J	2.10	1.58	3.91	1.17 U	0.437 U	2.41	2.22	0.00273	0.00227 U	0.00172 U	0.00254 U	0.00334 U	14.6	0.423 U
Toluene	7	1.79 J	0.669	2.02 J	4.24 J	0.669	0.00321	0.00346	0.575 U	0.000894 U	0.000961 U	1.63	0.535 U	0.453 J	2.08 J	1.15	0.768	2.17	1.17 U	0.437 U	0.0552 J	0.131 J	0.00259	0.000850 U	0.000643 U	0.000953 U	0.00125 U	8.57	0.423 U
Xylenes, total	9	13.5 J	4.64	16.5 J	27.1J	4.93	0.158	0.148	1.73 U	0.00596 U	0.00640 U	8.85	1.60 U	2.80 J	10.9 J	8.11	5.89	17.3	4.56	1.31 U	12.8	10.4	0.0138	0.00567 U	0.00429 U	0.00636 U	0.00836 U	78.3	1.27 U
Methyl tert-butyl ether (MTBE)	0.1	0.00145 U	0.00182 U	0.00230 U	0.00381 U	0.00210 U	0.000414 U	0.000513 U	0.00176 U	0.000596 U	0.000640 U	0.000654 U	0.00181 U	NA	NA	0.00170 U	0.00213 U	0.00414 U	NA	0.0123 J	0.000638 U	0.000539 U	0.000568 U	0.000567 U	0.000429 U	0.000636 U	NA	NA	0.00257 U
TPHs (mg/kg)																													
Gasoline-Range	30 / 100 [a]	306 J	145 J	553 J	895 J	181 J	14.7	9.21	28.8 U	5.50 U	6.15 U	239 J	28.2 U	51.0 J	172 J	245 J	214 J	528 J	139 J	21.8 U	184	148	2.40 J	6.04 U	7.42	5.33 U	6.24 U	1520	21.1 U
Diesel-Range	2,000	80.8	184	132	289 J	22.1	11.9 U	11.6 U	66.3	13.0 U	12.2 U	12.0 U	33.9 U	110	74.5	183	123	185	48.2 U	19.3 U	23.9	21.1	12.6 U	12.7 U	12.3 U	11.6 U	11.9 U	40.8	20.5 U
Lube Oil-Range	2,000	142	265	235	537 J	40.8	29.8 U	29.0 U	185	32.6 U	30.6 U	30.1 U	84.7 U	162	107	312	211	368	120 U	61.0	32.4	30.2 U	31.6 U	31.9 U	30.8 U	28.9 U	29.8 U	63.3	131
Kerosene-Range	2,000	37.1	95.9	85.8	170 J	15.4 U	11.9 U	11.6 U	30.0 U	13.0 U	12.2 U	12.0 U	33.9 U	71.2	55.3	96.6	60.9	101	48.2 U	19.3 U	33.2	25.2	12.6 U	12.7 U	12.3 U	11.6 U	11.9 U	89.0	20.5 U
PAHs (mg/kg)																													
Acenaphthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene [b]	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (ghi) perylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	5	6.15 U	0.278	9.18 U	17.8 U	5.31 U	0.0591	0.0439	11.5 U	0.00596 U	0.00640 U	0.0440	0.0181 UJ	NA	NA	0.308	0.388	0.394	NA	8.73 U	1.78 J	2.73 U	0.00568 U	0.00567 U	0.00429 U	0.00636 U	NA	NA	8.45 U
Phenanthrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TTEC Concentration (c-PAHs)	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs (mg/kg) [c]	NE	NA	0.278	NA	NA	NA	0.1	0.0439	NA	NA	NA	0.0	NA	NA	NA	0.308	0.388	0.394	NA	NA	1.8	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals (mg/kg)																													
Arsenic	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	19 (Cr^{6+}) / 2,000 (Cr^{3+})	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	250	188	55.2 J	58.4 J	85.1 J	88.0	2.37	2.60	39.1	6.59	81.8 J	46.7	2.78 J	59.6 J	30.0 J	55.5 J	96.3 J	156 J	15.4 J	4.25	6.72	7.10	11.0	2.57	164 J	19.2 J	69.2 J	32.7 J	2.03
Selenium	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP Metals (mg/L)																													
Lead	5 [d]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Model Toxics Control Act (MTCA) Cleanup Regulation, chapter 173-340 WAC; MTCA Method A and B from Ecology website downloaded August 2009 (https://fortress.wa.gov/ecy/clarc/Reporting/CLARCReporting.aspx).
DUP - Field duplicate
J - Estimated value
NA - Not applicable
NE - Not established
PAHs - Polynuclear aromatic hydrocarbons
TPHs - Total petroluem hydrocarbons
U - Compound was analyzed for but not detected above the reporting limit shown.
UJ - Compound was analyzed for but not detected above the reporting limit shown. The reporting limit is an estimated value.
VOCs - Volatile organic compounds
TTEC - Total Toxicity Equivalent Soil Concentration

[a] The soil cleanup level is 100 mg/kg if benzene is not present and the total of ethylbenzene, toluene, and xylenes is less than 1% of the gasoline mixture. The cleanup level for all other gasoline mixtures is 30 mg/kg.
[b] These compounds are considered carcinogenic PAHs (c-PAHs) and are subject to WAC-173-340 Toxicity Equivalent Soil Concentration calculations.
[c] Total PAHsare the sum of PAHs detailed by the WAC 173-303-040 (Acenaphthene, acenaphthylene, fluorene, anthracene, fluoranthene, phenanthrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, pyrene, chrysene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene, and benzo(g,h,i)perylene).
Note dibenzo [(a,e), (a,h), (a,i), and (a,1)] pyrenes and dibenzo(a,j) acridine are not included as these compounds were not analyzed for and are not typically included in the PAH analyte list. The waste characterization is determined based on an exceedance of a 1% total PAHs as decribed in WAC 173-303-100.
[d] WAC 173-303-090 - Dangerous Waste Criteria, dated July 31, 2009.

Table J-1
Summary of Soil Analytical Results
Area 2
Westlake-Mercer

Sample ID:		I7	I8	I9	I10	J1	J2	J3	J4	J5	J6	J7	J8	J9	J10	K1		K2		K3		K4		K5	K6	K7	K8	K9	K10
Sample Date:	MTCA Method A Soil Cleanup Level	3/19/2009	3/19/2009	3/24/2009	3/23/2009	6/3/2009	6/1/2009	5/29/2009	5/29/2009	3/24/2009	3/19/2009	3/19/2009	3/19/2009	3/19/2009	3/23/2009	6/3/2009	6/3/2009	6/3/2009	6/3/2009	6/3/2009	6/3/2009	6/3/2009	6/3/2009	3/20/2009	3/20/2009	3/20/2009	3/20/2009	3/23/2009	3/20/2009
Sample Elevation (Ft. above City of Seattle Datum):		14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	11.5	14	12	14	12	14	12	14	14	14	14	14	14
Field QC:																													
VOCs (mg/kg)																													
Benzene	0.03	0.0115	0.00188 U	0.0772	0.0642	0.00754	0.000880 U	0.000893 U	0.00117 U	0.0102	0.00330	0.0283	0.0140	0.00502 U	0.00767 U	0.0471	0.00192	0.000757 U	0.000674 U	0.000934 U	0.000990 U	0.000873 U	0.000865 U	0.056 J	0.00194 U	0.00147 U	0.00133 U	0.00539	0.0015 U
Ethylbenzene	6	0.115	0.00503 U	4.66	1.16 U	0.0797	0.00235 U	0.00238 U	0.00313 U	1.36	0.00733	0.192	0.0122	0.0134 U	0.818 U	0.238	0.00258 U	0.00202 U	0.00180 U	0.00249 U	0.00264 U	0.00233 U	0.00231 U	0.632 J	0.00517 U	0.00393 U	0.00354 U	0.919	0.00401 U
Toluene	7	0.107	0.00188 U	3.03	1.16 U	0.0885	0.000880 U	0.000893 U	0.00139	0.0303	0.00893	0.177	0.0104	0.00645	0.818 U	0.00107	0.000967 U	0.000757 U	0.000674 U	0.000934 U	0.000990 U	0.000873 U	0.000865 U	0.186	0.00194 U	0.00147 U	0.00133 U	0.285 U	0.0015 U
Xylenes, total	9	2.93	0.0126 U	23.6	3.48 U	0.703	0.00587 U	0.00596 U	0.00783 U	11.5	0.0299	0.739	0.102	0.0385	2.46 U	0.0635	0.00645 U	0.00505 U	0.00450 U	0.00623 U	0.00660 U	0.00582 U	0.00576 U	1.58 J	0.0129 U	0.00983 U	0.00886 U	2.72	0.010 U
Methyl tert-butyl ether (MTBE)	0.1	NA	NA	0.00259 U	0.00529 U	0.000562 U	0.000587 U	0.000596 U	0.000783 U	0.00129 U	NA	NA	NA	NA	0.0132	0.000683 U	0.000645 U	0.000505 U	0.000450 U	0.000623 U	0.000660 U	0.000582 U	0.000576 U	NA	NA	NA	NA	0.00133 U	NA
TPHs (mg/kg)																													
Gasoline-Range	30 / 100 [a]	44.7	13.6 U	609 J	111 J	10.8	5.82 U	2.68 J	26.2	520	6.84 U	84.4 J	18.2 J	31.9 U	40.9 U	26.4	6.55 U	9.63	5.64 U	7.68 U	6.37 U	5.35 U	6.65 U	56.2 J	13.9	7.94	7.74 U	132	7.03 U
Diesel-Range	2,000	12.2 U	66.9	161	42.9 U	12.0 U	12.6 U	12.4 U	23.3	70.7	12.0 U	84.8	47.7	25.8 U	32.4 U	12.8 U	12.6 U	12.6 U	12.3 U	14.0 U	12.9 U	12.3 U	13.0 U	12.3 U	12.5 U	12.3 U	12.9 U	30.1	11.9 U
Lube Oil-Range	2,000	30.4 U	172	232	107 U	30.0 U	31.5 U	31.1 U	84.6	110	30.1 U	161	262	64.6 U	81.0 U	31.9 U	31.5 U	31.4 U	30.8 U	35.0 U	32.2 U	30.7 U	32.5 U	30.7 U	33.3	30.8 U	32.1 U	37.6 U	29.8 U
Kerosene-Range	2,000	12.2 U	23.4	92.2	42.9 U	12.0 U	12.6 U	12.4 U	15.6 U	87.6	12.0 U	54.7	19.7 U	25.8 U	32.4 U	12.8 U	12.6 U	12.6 U	12.3 U	14.0 U	12.9 U	12.3 U	13.0 U	12.3 U	12.5 U	12.3 U	12.9 U	15.1 U	11.9 U
PAHs (mg/kg)																													
Acenaphthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene [b]	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (ghi) perylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	5	NA	NA	9.11 U	23.2 U	0.0280	0.00587 U	0.00596 U	0.00783 U	3.27 U	NA	NA	NA	NA	16.4 U	0.110	0.00645 U	0.00505 U	0.00450 U	0.00623 U	0.00660 U	0.00582 U	0.00576 U	NA	NA	NA	NA	5.69 U	NA
Phenanthrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TTEC Concentration (c-PAHs)	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs (mg/kg) [c]	NE	NA	NA	NA	NA	0.028	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals (mg/kg)																													
Arsenic	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	19 (Cr^{6+}) / 2,000 (Cr^{3+})	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	250	11.6 J	242 J	91.1 J	76.7	2.68	8.44	36.4 J	97.9 J	52.3 J	6.76 J	192 J	298 J	212 J	38.3	5.91	3.40	4.00	8.07	4.53	2.41	3.09	7.98	74.9	15.8	8.81 J	22.6 J	386 J	103
Selenium	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP Metals (mg/L)																													
Lead	5 [d]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Model Toxics Control Act (MTCA) Cleanup Regulation, chapter 173-340 WAC; MTCA Method A and B from Ecology website downloaded August 2009 (https://fortress.wa.gov/ecy/clarc/Reporting/CLARCReporting.aspx).
DUP - Field duplicate
J - Estimated value
NA - Not applicable
NE - Not established
PAHs - Polynuclear aromatic hydrocarbons
TPHs - Total petroluem hydrocarbons
U - Compound was analyzed for but not detected above the reporting limit shown.
UJ - Compound was analyzed for but not detected above the reporting limit shown. The reporting limit is an estimated value.
VOCs - Volatile organic compounds
TTEC - Total Toxicity Equivalent Soil Concentration

[a] The soil cleanup level is 100 mg/kg if benzene is not present and the total of ethylbenzene, toluene, and xylenes is less than 1% of the gasoline mixture. The cleanup level for all other gasoline mixtures is 30 mg/kg.
[b] These compounds are considered carcinogenic PAHs (c-PAHs) and are subject to WAC-173-340 Toxicity Equivalent Soil Concentration calculations.
[c] Total PAHsare the sum of PAHs detailed by the WAC 173-303-040 (Acenaphthene, acenaphthylene, fluorene, anthracene, fluoranthene, phenanthrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, pyrene, chrysene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene, and benzo(g,h,i)perylene).
Note dibenzo [(a,e), (a,h), (a,i), and (a,1)] pyrenes and dibenzo(a,j) acridine are not included as these compounds were not analyzed for and are not typically included in the PAH analyte list. The waste characterization is determined based on an exceedance of a 1% total PAHs as decribed in WAC 173-303-100.
[d] WAC 173-303-090 - Dangerous Waste Criteria, dated July 31, 2009.

Table J-2
Summary of Soil Analytical Results
Area 1
Westlake-Mercer

Sample ID:	MTCA Method A Soil Cleanup Level	A2	A3	A4		A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	B2	B3				B4		B5	B6	
Sample Date:		4/28/2009	4/28/2009	4/22/2009		4/22/2009	4/22/2009	4/22/2009	4/22/2009	4/22/2009	4/6/2009	4/6/2009	4/6/2009	4/6/2009	4/6/2009	4/6/2009	4/28/2009	4/28/2009	4/30/2009	5/4/2009	6/11/2009	4/24/2009	4/29/2009	4/24/2009	4/23/2009	
65		14	14	14		14	14	14	14	14	14	14	14	14	14	14	14	14	9	7	4	14	9	14	14	
Field QC:					(DUP)																					(DUP)
VOCs (mg/kg)																										
Benzene	0.03	0.00103 U	0.00115 U	0.00342	0.00325	0.000901 U	0.000915 U	0.000928 U	0.000846 U	0.000982 U	0.000691 U	0.000839 U	0.000752 U	0.000795 U	0.000715 U	0.000754 U	0.00110 U	0.0186	0.0342	0.00233	NA	0.0307	0.000988 U	0.0166	0.00100 U	0.000510 U
Ethylbenzene	6	0.00275 U	0.00306 UJ	0.00338 U	0.00282 U	0.00240 U	0.00244 U	0.00247 U	0.00226 U	0.00262 U	0.00184 U	0.00272	0.00201 U	0.00212 U	0.00191 U	0.00201 U	0.00293 U	0.0122	0.00354	0.00345 UJ	NA	0.00241 U	0.00264 U	0.00234 U	0.00268 U	0.00136 U
Toluene	7	0.00103 U	0.00115 UJ	0.00253	0.00167	0.000901 U	0.000915 U	0.000928 U	0.000846 U	0.000982 U	0.000691 U	0.000839 U	0.000752 U	0.000795 U	0.000715 U	0.000754 U	0.00110 U	0.000704	0.00150	0.00129 UJ	NA	0.000903 U	0.000988 U	0.000879 U	0.00100 U	0.000510 U
Xylenes, total	9	0.00687 U	0.00766 UJ	0.0159	0.00967	0.00601 U	0.00610 U	0.00619 U	0.00564 U	0.00655 U	0.00461 U	0.00662	0.00501 U	0.00530 U	0.00477 U	0.00503 U	0.00732 U	0.00476	0.0136	0.00862 UJ	NA	0.00602 U	0.00659 U	0.00586 U	0.00670 U	0.00340 U
Methyl tert-butyl ether (MTBE)	0.1	0.000687 U	0.000766 U	0.000844 U	0.000705 U	0.000601 U	0.000610 U	0.000619 U	0.000564 U	0.000655 U	0.000461 U	0.000559 U	0.000501 U	0.000530 U	0.000477 U	0.000503 U	0.000732 U	0.000343 U	0.000723 U	0.000862 U	NA	0.000602 U	0.000659 U	0.000586 U	0.000670 U	0.000340 U
TPHs (mg/kg)																										
Gasoline-Range	30 / 100 [a]	7.20 U	3.04 J	26.9	28.1	7.17 U	7.16 U	6.76 U	7.86 U	8.24 U	4.50 U	3.88 U	7.89 U	5.32 U	4.30 U	6.47 U	2.01 J	70.2 J	11.1	5.41 J	NA	2.42 J	6.30 U	5.06 J	7.39 U	6.92 U
Diesel-Range	2,000	13.2 U	13.5 U	13.8 U	12.7 U	12.2 U	12.3 U	12.0 U	24.8	13.2 U	11.7 U	11.7 U	15.7 U	13.2 U	11.9 U	12.8 U	13.2 U	75.9	13.4 U	15.5 U	NA	76.3	13.2 U	11.4 U	13.1 U	12.7 U
Lube Oil-Range	2,000	33.0 U	33.9 U	34.4 U	31.7 U	30.5 U	30.7 U	29.9 U	69.2	32.9 U	29.3 U	29.2 U	39.3 U	33.0 U	29.8 U	32.1 U	33.1 U	158	33.5 U	38.9 U	NA	46.2	33.0 U	28.4 U	32.7 U	31.8 U
Kerosene-Range	2,000	13.2 U	13.5 U	13.8 U	12.7 U	12.2 U	12.3 U	12.0 U	12.4 U	13.2 U	11.7 U	11.7 U	15.7 U	13.2 U	11.9 U	12.8 U	13.2 U	30.0	13.4 U	15.5 U	NA	32.5	13.2 U	11.4 U	13.1 U	12.7 U
PAHs (mg/kg)																										
Acenaphthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene [b]	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (ghi) perylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	5	0.00687 U	0.00766 UJ	0.00844 U	0.00705 U	0.00601 U	0.00610 U	0.00619 U	0.00564 U	0.00655 U	0.00461 U	0.00559 U	0.00501 U	0.00530 U	0.00477 U	0.00503 U	0.00732 U	0.00343 U	0.00723 U	0.00862 UJ	NA	0.00602 U	0.00659 U	0.00586 U	0.00670 U	0.00340 U
Phenanthrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TTEC Concentration (c-PAHs)	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs (mg/kg) [c]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals (mg/kg)																										
Arsenic	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	19 (Cr^{6+}) / 2,000 (Cr^{3+})	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	250	4.77 J	105 J	49.3 J	44.2	20.4 J	7.95 J	2.58 J	42.9 J	4.69 J	38.7	17.5	69.8	6.36	10.7	13.6	11.1 J	23.8 J	7.20	274	12.6 J	5.72 J	8.18 J	3.26 J	9.30	6.52
Selenium	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP Metals (mg/L)																										
Lead	5 [d]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Model Toxics Control Act (MTCA) Cleanup Regulation, chapter 173-340 WAC; MTCA Method A and B from Ecology website downloaded August 2009 (https://fortress.wa.gov/ecy/clarc/Reporting/CLARCReporting.aspx).
DUP - Field duplicate
J - Estimated value
NA - Not applicable
NE - Not established
PAHs - Polynuclear aromatic hydrocarbons
TPHs - Total petroluem hydrocarbons
U - Compound was analyzed for but not detected above the reporting limit shown.
UJ - Compound was analyzed for but not detected above the reporting limit shown. The reporting limit is an estimated value.
VOCs - Volatile organic compounds
TTEC - Total Toxicity Equivalent Soil Concentration
[a] The soil cleanup level is 100 mg/kg if benzene is not present and the total of ethylbenzene, toluene, and xylenes is less than 1% of the gasoline mixture. The cleanup level for all other gasoline mixtures is 30 mg/kg.
[b] These compounds are considered carcinogenic PAHs (c-PAHs) and are subject to WAC-173-340 Toxicity Equivalent Soil Concentration calculations.
[c] Total PAHs are the sum of PAHs detailed by the WAC 173-303-040 (Acenaphthene, acenaphthylene, fluorene, anthracene, fluoranthene, phenanthrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, pyrene, chrysene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene, and benzo(g,h,i)perylene
Note dibenzo [(a,e), (a,h), (a,i), and (a,1)] pyrenes and dibenzo(a,j) acridine are not included as these compounds were not analyzed for and are not typically included in the PAH analyte list. The waste characterization is determined based on an exceedance of a 1% total PAHs as decribed in WAC 173-303-100.
[d] WAC 173-303-090 - Dangerous Waste Criteria, dated July 31, 2009.

Table J-2
Summary of Soil Analytical Results
Area 1
Westlake-Mercer

Sample ID:	MTCA Method A Soil Cleanup Level	B7	B8	B9	B10	B11	B12	B13		B14				B15	C1			C2	C3	C4	C5		C6	C7
Sample Date:		4/16/2009	4/16/2009	4/16/2009	4/15/2009	4/1/2009	4/1/2009	4/13/2009	4/1/2009	4/1/2009	4/13/2009	4/16/2009	6/19/2009	4/6/2009	5/4/2009	5/4/2009	5/12/2009	4/28/2009	4/28/2009	4/24/2009	4/24/2009	4/29/2009	4/23/2009	4/16/2009
65		14	14	14	14	14	14	10	14	14	9	7	2	14	14	9	4	14	14	14	14	7	14	14
Field QC:																								
VOCs (mg/kg)																								
Benzene	0.03	0.000907 U	0.000885 U	0.000979 U	0.00106 U	0.000919 U	0.00619 U	0.00647 U	0.00610 U	0.00521 U	0.00443 U	0.592 J	0.024 U	0.000918 U	0.0103 J	0.000963 U	0.00119 U	0.000994 U	0.000695 U	0.00354	0.0225	0.000951 U	0.000799 U	0.00134 U
Ethylbenzene	6	0.00242 U	0.00236 U	0.00261 U	0.00282 U	0.00245 U	0.0165 UJ	0.0172 U	0.0163 UJ	0.0139 UJ	0.883 U	0.688 U	0.060 U	0.00245 U	0.0186 J	0.00257 U	0.00318 U	0.00265 U	0.00185 U	0.00165 U	3.10	0.00254 U	0.00213 U	0.00357 U
Toluene	7	0.000907 U	0.000885 U	0.000979 U	0.00106 U	0.000919 U	0.00619 UJ	0.00849 J	1.08 U	0.992 U	0.883 U	0.688 U	0.060 U	0.000918 U	0.000856 UJ	0.000963 U	0.00119 U	0.000994 U	0.000695 U	0.000618 U	0.00115	0.000951 U	0.000799 U	0.00134 U
Xylenes, total	9	0.00605 U	0.00590 U	0.00652 U	0.00706 U	0.00613 U	0.0412 UJ	0.0431 U	0.0407 UJ	2.97 U	2.65 U	2.06 U	0.060 U	0.00612 U	0.00571 UJ	0.00642 U	0.00795 U	0.00663 U	0.00463 U	0.00412 U	0.00649 U	0.00634 U	0.00532 U	0.00893 U
Methyl tert-butyl ether (MTBE)	0.1	0.000835	0.000590 U	0.000652 U	0.000706 U	0.000613 U	0.00412 U	0.00431 U	0.00407 U	0.00347 U	0.00295 U	0.00247 U	0.060 U	0.000612 U	0.000571 UJ	0.000642 U	0.000795 U	0.000663 U	0.000463 U	0.000412 U	0.000649 U	0.000634 U	0.000532 U	0.00155
TPHs (mg/kg)																								
Gasoline-Range	30 / 100 [a]	6.51 U	6.69 U	6.67 U	6.91 U	7.09 U	76.0 U	29.3 J	79.3 J	175 J	192 J	59.6 J	6.0 U	7.57 U	6.14 U	219 J	7.39 U	5.61 U	1.71 J	2.44 J	351 J	1.81 J	2.40 J	2.73 J
Diesel-Range	2,000	12.8 U	13.2 U	12.9 U	12.8 U	13.2 U	126	60.4 U	241	755	809	1,530	49	13.6 U	10.8 U	11.7 U	13.3 U	12.1 U	12.2 U	12.3 U	17.3 U	12.0 U	13.9 U	18.2
Lube Oil-Range	2,000	85.5	33.0 U	32.3 U	32.1 U	33.1 U	242	151 U	121 U	252	433	291	62 U	34.0 U	27.0 U	29.2 U	33.2 U	30.1 U	30.4 U	30.8 U	48.1	30.1 U	34.8 U	51.1
Kerosene-Range	2,000	12.8 U	13.2 U	12.9 U	12.8 U	13.2 U	65.2 U	60.4 U	174	396	87.7	738	12.5 U	13.6 U	10.8 U	11.7 U	13.3 U	12.1 U	12.2 U	12.3 U	17.3 U	12.0 U	13.9 U	14.4 U
PAHs (mg/kg)																								
Acenaphthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene [b]	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (ghi) perylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	5	0.00605 U	0.00590 U	0.00652 U	0.00706 U	0.00613 U	0.0412 UJ	0.0431 UJ	21.6 U	19.8 U	17.7 U	13.8 U	0.06 U	0.00612 U	0.00571 UJ	0.00642 UJ	0.00795 U	0.00663 U	0.00463 U	0.00412 U	0.0646	0.00634 U	0.00532 U	0.00893 U
Phenanthrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TTEC Concentration (c-PAHs)	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs (mg/kg) [c]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1	NA	NA	NA
Total Metals (mg/kg)																								
Arsenic	20	NA	NA	NA	NA	NA	NA	2.94 U	NA	NA	2.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NE	NA	NA	NA	NA	NA	NA	34.7	NA	NA	20.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2	NA	NA	NA	NA	NA	NA	2.94 U	NA	NA	2.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	19 (Cr^{6+}) / 2,000 (Cr^{3+})	NA	NA	NA	NA	NA	NA	3.26	NA	NA	2.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	250	8.96 J	6.57 J	3.07 J	4.36 J	3.56	136	36.6	11.6	13.1	12.5	19.8 J	3.4	27.8	1.81	6.46	6.25	8.91 J	8.72 J	4.36	39.5 J	3.05 J	23.2	23.3 J
Selenium	NE	NA	NA	NA	NA	NA	NA	5.88 U	NA	NA	4.02 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NE	NA	NA	NA	NA	NA	NA	2.94 U	NA	NA	2.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP Metals (mg/L)																								
Lead	5 [d]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Model Toxics Control Act (MTCA) Cleanup Regulation, chapter 173-340 WAC; MTCA Method A and B from Ecology website downloaded August 2009 (https://fortress.wa.gov/ecy/clarc/Reporting/CLARCReporting.aspx).
DUP - Field duplicate
J - Estimated value
NA - Not applicable
NE - Not established
PAHs - Polynuclear aromatic hydrocarbons
TPHs - Total petroluem hydrocarbons
U - Compound was analyzed for but not detected above the reporting limit shown.
UJ - Compound was analyzed for but not detected above the reporting limit shown. The reporting limit is an estimated value.
VOCs - Volatile organic compounds
TTEC - Total Toxicity Equivalent Soil Concentration
[a] The soil cleanup level is 100 mg/kg if benzene is not present and the total of ethylbenzene, toluene, and xylenes is less than 1% of the gasoline mixture. The cleanup level for all other gasoline mixtures is 30 mg/kg.
[b] These compounds are considered carcinogenic PAHs (c-PAHs) and are subject to WAC-173-340 Toxicity Equivalent Soil Concentration calculations.
[c] Total PAHs are the sum of PAHs detailed by the WAC 173-303-040 (Acenaphthene, acenaphthylene, fluorene, anthracene, fluoranthene, phenanthrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, pyrene, chrysene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene, and benzo(g,h,i)perylene
Note dibenzo [(a,e), (a,h), (a,i), and (a,1)] pyrenes and dibenzo(a,j) acridine are not included as these compounds were not analyzed for and are not typically included in the PAH analyte list. The waste characterization is determined based on an exceedance of a 1% total PAHs as decribed in WAC 173-303-100.
[d] WAC 173-303-090 - Dangerous Waste Criteria, dated July 31, 2009.

Table J-2
Summary of Soil Analytical Results
Area 1
Westlake-Mercer

Sample ID:	MTCA Method A Soil Cleanup Level	C8		C9	C10	C11	C12		C13			C14	C15	D1					D2	D3	D4	D5			D6
Sample Date:		4/16/2009		4/16/2009	4/15/2009	4/15/2009	4/1/2009	4/16/2009	4/1/2009	4/16/2009	4/21/2009	4/6/2009	4/6/2009	5/4/2009		5/4/2009	5/12/2009	5/12/2009	4/28/2009	4/28/2009	4/24/2009	4/24/2009		4/29/2009	4/23/2009
65		14		14	14	14	14	9	14	9	6	14	14	14		9	7	4	14	14	14	14		9	14
Field QC:			(DUP)												(DUP)								(DUP)		
VOCs (mg/kg)																									
Benzene	0.03	0.0460	0.0214	0.00193 UJ	0.00105 U	0.000775 U	0.00710 U	0.158 U	0.156 U	0.0847	0.000917 U	0.000834 U	0.000870 U	0.108	0.0802	0.0342	0.00105 U	0.00112 U	0.000715 U	0.000895 U	0.000770 U	0.419 J	0.505	0.00209	0.00120 U
Ethylbenzene	6	0.0954 J	0.0317	0.00515 UJ	0.00281 U	0.00207 U	0.0189 UJ	0.0108 UJ	2.00	0.00693 UJ	0.00244 U	0.00222 U	0.00232 U	0.855	0.674	0.118 J	0.00279 U	0.00299 U	0.00191 U	0.00239 U	0.00205 U	4.93 J	4.99	0.00384	0.00319 U
Toluene	7	0.00798	0.00246	0.00193 UJ	0.00105 U	0.000775 U	1.35 U	0.790 U	0.780	0.00260 UJ	0.000917 U	0.000834 U	0.000870 U	0.139	0.131	0.0595 J	0.00105 U	0.00112 U	0.000715 U	0.000895 U	0.000770 U	0.0409 J	0.0241 J	0.000640 U	0.00120 U
Xylenes, total	9	0.458	0.554	0.0129 UJ	0.00703 U	0.00517 U	4.05 U	0.0270 UJ	8.83	0.0173 UJ	0.00611 U	0.00682	0.00580 U	1.62	2.10	1.62	0.00698 U	0.00747 U	0.00477 U	0.00597 U	0.00513 U	5.31 J	5.11	0.00427 U	0.00797 U
Methyl tert-butyl ether (MTBE)	0.1	0.000541 U	0.000552 U	0.00129 U	0.000703 U	0.000517 U	0.00473 U	0.00270 U	0.00240 UJ	0.00173 U	0.000611 U	0.000556 U	0.000580 U	0.000651 U	0.000578 UJ	0.000814 U	0.000698 U	0.000747 U	0.000477 U	0.000597 U	0.000513 U	0.000572 U	0.000649 U	0.000427 U	0.000797 U
TPHs (mg/kg)																									
Gasoline-Range	30 / 100 [a]	7.07 J	13.1 J	10.5 U	6.66 U	6.57 U	68.6 U	39.5 U	186 J	33.4 U	5.37 U	5.49 U	6.07 U	218 J	89.9 J	10.8	7.22 U	6.66 U	6.74 U	5.53 U	2.92 J	1,080 J	838 J	2.17 J	8.40 U
Diesel-Range	2,000	208	145	15.9 U	12.8 U	13.0 U	4870	818	353	415	12.3 U	12.3 U	15.0	132	117	12.8 U	12.8 U	12.2 U	12.7 U	11.7 U	11.7 U	23.1	20.3	12.0 U	13.7 U
Lube Oil-Range	2,000	542	384	39.8 U	32.1 U	32.5 U	11300	202	423	87.3 U	30.7 U	30.8 U	32.0 U	199	173	32.0 U	32.0 U	30.5 U	31.8 U	29.3 U	29.2 U	38.1	34.4	30.0 U	34.4 U
Kerosene-Range	2,000	33.0	23.5	15.9 U	12.8 U	13.0 U	692	653	161	299	12.3 U	12.3 U	12.8 U	38.4	28.8	12.8 U	12.8 U	12.2 U	12.7 U	11.7 U	11.7 U	25.7	26.4	12.0 U	13.7 U
PAHs (mg/kg)																									
Acenaphthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene [b]	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (ghi) perylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	5	1.77 U	0.0935	0.0129 UJ	0.00703 U	0.00517 U	0.0473 UJ	0.0270 UJ	15.6 U	0.0173 UJ	0.00611 U	0.00556 U	0.00580 U	2.17 U	1.94 U	0.0904	0.00698 U	0.00747 U	0.00477 U	0.00597 U	0.00513 U	3.75	3.27	0.00427 U	0.00797 U
Phenanthrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TTEC Concentration (c-PAHs)	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs (mg/kg) [c]	NE	NA	0.0935	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0904	NA	NA	NA	NA	NA	3.8	3.27	NA	NA
Total Metals (mg/kg)																									
Arsenic	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	19 (Cr^{6+}) / 2,000 (Cr^{3+})	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	250	3.23 J	3.73 J	156 J	4.10 J	4.19 J	2330	11.2 J	40.1	3.58 J	1.31	19.4	56.6	3.46	3.15	4.61	159	4.24	14.3 J	14.8 J	3.20 J	17.9 J	18.6	2.74 J	14.5
Selenium	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP Metals (mg/L)																									
Lead	5 [d]	NA	NA	1.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Model Toxics Control Act (MTCA) Cleanup Regulation, chapter 173-340 WAC; MTCA Method A and B from Ecology website downloaded August 2009 (https://fortress.wa.gov/ecy/clarc/Reporting/CLARCReporting.aspx).
DUP - Field duplicate
J - Estimated value
NA - Not applicable
NE - Not established
PAHs - Polynuclear aromatic hydrocarbons
TPHs - Total petroluem hydrocarbons
U - Compound was analyzed for but not detected above the reporting limit shown.
UJ - Compound was analyzed for but not detected above the reporting limit shown. The reporting limit is an estimated value.
VOCs - Volatile organic compounds
TTEC - Total Toxicity Equivalent Soil Concentration
[a] The soil cleanup level is 100 mg/kg if benzene is not present and the total of ethylbenzene, toluene, and xylenes is less than 1% of the gasoline mixture. The cleanup level for all other gasoline mixtures is 30 mg/kg.
[b] These compounds are considered carcinogenic PAHs (c-PAHs) and are subject to WAC-173-340 Toxicity Equivalent Soil Concentration calculations.
[c] Total PAHs are the sum of PAHs detailed by the WAC 173-303-040 (Acenaphthene, acenaphthylene, fluorene, anthracene, fluoranthene, phenanthrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, pyrene, chrysene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene, and benzo(g,h,i)perylene
Note dibenzo [(a,e), (a,h), (a,i), and (a,1)] pyrenes and dibenzo(a,j) acridine are not included as these compounds were not analyzed for and are not typically included in the PAH analyte list. The waste characterization is determined based on an exceedance of a 1% total PAHs as decribed in WAC 173-303-100.
[d] WAC 173-303-090 - Dangerous Waste Criteria, dated July 31, 2009.

Table J-2
Summary of Soil Analytical Results
Area 1
Westlake-Mercer

Sample ID:		D7	D8		D9					D10	D11					D12			D13	D14	D15	E1			
Sample Date:	**MTCA Method A Soil Cleanup Level**	4/16/2009	4/16/2009	5/4/2009	4/16/2009	4/28/2009	4/28/2009	4/30/2009	5/4/2009	4/13/2009	4/13/2009		4/28/2009	4/15/2009		4/13/2009	4/21/2009	4/23/2009	4/13/2009	4/13/2009	4/6/2009	5/4/2009	5/4/2009	5/15/2009	5/15/2009
65		14	14	2	14	12	9	7	1.5	14	14		12	9		14	9	6	14	14	14	14	9	7	4
Field QC:												(DUP)			(DUP)										
VOCs (mg/kg)																									
Benzene	0.03	0.00759	0.0984	0.000927 U	0.0368 U	NA	NA	0.00116 U	0.000924 U	0.0546 U	0.0705 J	0.0967 J	0.155	0.000787 U	0.000837 U	0.0275 J	0.207 U	0.00133 U	0.160 U	0.00292 U	0.000965 UJ	0.0139	3.48	0.00178	0.00114 U
Ethylbenzene	6	0.0342	0.110 J	0.00247 U	0.00325 UJ	NA	NA	0.00311 U	0.00246 U	0.273 U	0.216 J	0.239 J	0.0108 UJ	0.00210 UJ	0.00223 U	0.215 J	1.03 U	0.00355 UJ	0.00874 UJ	0.00778 UJ	0.00257 UJ	0.185	0.777 U	0.00378 U	0.00304 U
Toluene	7	0.00507	0.0745 J	0.000927 U	0.00122 UJ	NA	NA	0.00116 U	0.000924 U	0.273 U	0.280 J	0.328 J	0.132 J	0.000787 UJ	0.000837 U	1.34 U	1.03 U	0.00133 UJ	0.801 U	0.00292 UJ	0.000965 UJ	0.583 U	0.777 U	0.00142 U	0.00114 U
Xylenes, total	9	0.165	0.620 J	0.00618 U	0.00812 UJ	NA	NA	0.00777 U	0.00616 U	0.819 U	0.974 J	1.41 J	2.33 U	0.00525 UJ	0.00558 U	0.899 J	3.10 U	0.00888 UJ	2.40 U	2.15 U	0.00643 UJ	1.75 U	2.33 U	0.00946 U	0.00760 U
Methyl tert-butyl ether (MTBE)	0.1	0.000915 U	0.00168 U	0.000618 U	0.000812 UJ	NA	NA	0.000777 U	0.000616 U	0.137 U	0.00310 U	0.00325 U	0.00270 UJ	0.000525 U	0.000558 U	0.00253 U	0.00324 UJ	0.000888 U	0.00219 U	0.00194 U	0.000643 UJ	0.00141 U	0.00218 UJ	0.000946 U	0.000760 U
TPHs (mg/kg)																									
Gasoline-Range	30 / 100 [a]	14.5 J	121 J	7.33 U	7.51 J	NA	NA	19.1 U	7.61 U	13.7 U	204 J	180 J	203	7.94 U	6.27 U	183 J	31.5 J	13.0 U	40.1 U	22.5 J	6.53 U	14.8 J	17.4 J	10.2	2.27 J
Diesel-Range	2,000	36.9	6870	12.3 U	212	NA	NA	15.2 U	12.7 U	13.0 U	12,700 J	4,970 J	44,200	47	22	2010	583	19.9	523	398	12.9 U	216	438	13.6 U	13.1 U
Lube Oil-Range	2,000	92.7	19900	30.7 U	537	NA	NA	38.1 U	31.8 U	32.6 U	14,200 J	6,540 J	59,100	57.9	32.6 U	3010	412	44.6 U	96.4	80.3 U	32.3 U	373	135	34.0 U	32.7 U
Kerosene-Range	2,000	15.8	1030	12.3 U	33.1	NA	NA	15.2 U	12.7 U	13.0 U	2,070 J	790 J	8,490	14.3	13.0 U	334	336	17.8 U	37.0 U	32.1 U	12.9 U	35.3	37.2 U	13.6 U	13.1 U
PAHs (mg/kg)																									
Acenaphthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene [b]	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (ghi) perylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	5	0.0304	5.96 U	0.00618 U	0.00812 U	NA	NA	0.00777 U	0.00616 U	5.46 U	18.0 U	0.0325 U	15.5 U	0.00525 UJ	0.00558 U	0.0253 UJ	0.0324 UJ	0.00888 UJ	0.0219 UJ	0.0194 UJ	0.00643 U	11.7 U	15.5 U	0.00946 U	0.00760 U
Phenanthrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TTEC Concentration (c-PAHs)	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs (mg/kg) [c]	NE	0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals (mg/kg)																									
Arsenic	20	NA	NA	NA	NA	NA	NA	NA	NA	3.34	21.4	18.0	NA	NA	NA	5.85	NA	NA	1.89 U	1.57 U	NA	NA	NA	NA	NA
Barium	NE	NA	NA	NA	NA	NA	NA	NA	NA	96.2	516 J	237 J	NA	NA	NA	106	NA	NA	18.9 U	15.7 U	NA	NA	NA	NA	NA
Cadmium	2	NA	NA	NA	NA	NA	NA	NA	NA	0.663 U	2.29 U	2.30 U	NA	NA	NA	2.14 U	NA	NA	1.89 U	1.57 U	NA	NA	NA	NA	NA
Chromium	19 (Cr^{6+}) / 2,000 (Cr^{3+})	NA	NA	NA	NA	NA	NA	NA	NA	45.1	9.16	7.13	NA	NA	NA	5.81	NA	NA	1.89 U	1.57 U	NA	NA	NA	NA	NA
Lead	250	19.4 J	250 J	3.04	837 J	186 J	485 J	1130	12.0	4.50	6,410 J	3,440 J	4,660 J	10.5 J	13.1 J	560	34.5	7.40	9.06	2.61	5.78	39.0	2.70	3.86	4.38
Selenium	NE	NA	NA	NA	NA	NA	NA	NA	NA	1.33 U	4.58 U	4.60 U	NA	NA	NA	4.27 U	NA	NA	3.78 U	3.14 U	NA	NA	NA	NA	NA
Silver	NE	NA	NA	NA	NA	NA	NA	NA	NA	0.633 U	2.29 U	2.30 U	NA	NA	NA	2.14 U	NA	NA	1.89 U	1.57 U	NA	NA	NA	NA	NA
Mercury	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP Metals (mg/L)																									
Lead	5 [d]	NA	1.00 U	NA	6.66	NA	NA	1.00 U	NA	NA	11.0	8.32	2.81	NA	NA	1.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Model Toxics Control Act (MTCA) Cleanup Regulation, chapter 173-340 WAC; MTCA Method A and B from Ecology website downloaded August 2009 (https://fortress.wa.gov/ecy/clarc/Reporting/CLARCReporting.aspx).
DUP - Field duplicate
J - Estimated value
NA - Not applicable
NE - Not established
PAHs - Polynuclear aromatic hydrocarbons
TPHs - Total petroluem hydrocarbons
U - Compound was analyzed for but not detected above the reporting limit shown.
UJ - Compound was analyzed for but not detected above the reporting limit shown. The reporting limit is an estimated value.
VOCs - Volatile organic compounds
TTEC - Total Toxicity Equivalent Soil Concentration
[a] The soil cleanup level is 100 mg/kg if benzene is not present and the total of ethylbenzene, toluene, and xylenes is less than 1% of the gasoline mixture. The cleanup level for all other gasoline mixtures is 30 mg/kg.
[b] These compounds are considered carcinogenic PAHs (c-PAHs) and are subject to WAC-173-340 Toxicity Equivalent Soil Concentration calculations.
[c] Total PAHs are the sum of PAHs detailed by the WAC 173-303-040 (Acenaphthene, acenaphthylene, fluorene, anthracene, fluoranthene, phenanthrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, pyrene, chrysene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene, and benzo(g,h,i)perylene
Note dibenzo [(a,e), (a,h), (a,i), and (a,1)] pyrenes and dibenzo(a,j) acridine are not included as these compounds were not analyzed for and are not typically included in the PAH analyte list. The waste characterization is determined based on an exceedance of a 1% total PAHs as decribed in WAC 173-303-100.
[d] WAC 173-303-090 - Dangerous Waste Criteria, dated July 31, 2009.

Table J-2
Summary of Soil Analytical Results
Area 1
Westlake-Mercer

Sample ID:	MTCA Method A Soil Cleanup Level	E2	E3	E4		E5	E9	E10		E11			E12		E13	E14	E15	F1				F2	F3	F4	F5
Sample Date:		4/29/2009	4/29/2009	4/24/2009	4/29/2009	4/24/2009	5/12/2009	4/13/2009	5/11/2009	4/13/2009	4/15/2009	4/22/2009	4/13/2009	4/21/2009	4/13/2009	4/13/2009	4/6/2009	5/4/2009	5/4/2009	5/15/2009	5/22/2009	4/29/2009	4/29/2009	4/27/2009	4/27/2009
65		14	14	14	9	14	7	14	9	14	9	7	14	9	14	14	14	14	9	7	4	14	14	14	14
Field QC:																									
VOCs (mg/kg)																									
Benzene	0.03	0.000970 U	0.00101 U	0.0381	0.000785 U	0.00144 U	0.000951 U	0.00443 U	0.00176 U	0.00358 U	0.131 J	0.00325 U	0.0291 J	0.00565 J	0.206 U	0.00543 U	0.000859 U	0.00102 U	6.27	5.99	0.00310	0.00422	0.000855 U	0.0191	0.00182
Ethylbenzene	6	0.00259 U	0.00269 U	0.0319 J	0.00209 U	0.00383 U	0.00254 U	0.0118 UJ	0.00469 U	0.262 J	0.0563 J	0.00866 U	0.112 J	0.0138 UJ	0.0151 UJ	0.0145 UJ	0.00229 U	0.0166	0.700 U	0.989 U	0.00385 U	0.00574	0.00228 UJ	0.00927	0.00276 U
Toluene	7	0.000970 U	0.00101 U	0.000626 U	0.000785 U	0.00144 U	0.000951 U	0.115 J	0.00176 U	0.0514 J	0.0422 J	0.00325 U	0.0609 J	0.00516 UJ	0.00566 UJ	0.00543 UJ	0.000859 U	0.00102 U	0.700 U	0.989 U	0.00144 U	0.00111 U	0.000855 UJ	0.000926 U	0.00104 U
Xylenes, total	9	0.00647 U	0.00673 U	0.319 U	0.00524 U	0.00958 U	0.00634 U	0.0295 UJ	0.0117 U	0.432 J	0.179 J	0.0217 U	0.399 J	3.20 U	0.0378 UJ	0.0362 UJ	0.00573 U	0.00779	2.10 U	2.97 U	0.00963 U	0.00927	0.00570 UJ	0.00617 U	0.00690 U
Methyl tert-butyl ether (MTBE)	0.1	0.000647 U	0.000673 U	0.000418 U	0.000524 U	0.000958 U	0.000634 U	0.00295 U	0.00117 U	0.00239 U	0.000849 UJ	0.00217 U	0.00310 U	0.00344 U	0.00378 U	0.00362 U	0.000573 U	0.000682 U	0.00281 U	0.00321 U	0.000963 U	0.000740 U	0.000570 U	0.000617 U	0.000690 U
TPHs (mg/kg)																									
Gasoline-Range	30 / 100 [a]	2.10 J	6.04 U	1.92 J	1.55 J	15.6 U	6.49 U	41.8 J	8.89 J	104 J	9.63 J	39.5 U	110 J	21.3 J	51.5 U	49.7 U	4.16 U	2.84 J	25.5 J	25.4 J	9.95 U	2.45 J	6.88 U	5.65 U	5.70 U
Diesel-Range	2,000	12.4 U	12.3 U	12.0 U	11.8 U	19.4 U	12.3 U	272	210	30800	1,260	542	835	479	87.7	634	12.2 U	25.1	630	308	16.4 U	13.4 U	127 J	11.8 U	12.1 U
Lube Oil-Range	2,000	31.0 U	30.8 U	30.0 U	29.4 U	48.4 U	30.8 U	570	368	39600	1,780	72.6 U	914	271	110 U	740	30.5 U	45.0	143	158	41.1 U	33.4 U	181 J	29.6 U	30.1 U
Kerosene-Range	2,000	12.4 U	12.3 U	12.0 U	11.8 U	19.4 U	12.3 U	47.7	36.3	5,200 J	420	311	99.5	285	44.0 U	73.1	12.2 U	12.6 U	49.6	140	16.4 U	13.4 U	31.2	11.8 U	12.1 U
PAHs (mg/kg)																									
Acenaphthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene [b]	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (ghi) perylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	5	0.00647 U	0.00673 U	2.13 U	0.00524 U	0.0133	0.00634 U	19.2 U	0.0117 UJ	10.3 U	4.02 U	0.0217 UJ	19.2 U	0.0344 UJ	0.0378 UJ	0.0362 UJ	0.00573 U	0.00682 U	14.0 U	0.0321 UJ	0.00963 U	0.00740 U	0.00570 U	0.0144	0.00690 U
Phenanthrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TTEC Concentration (c-PAHs)	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs (mg/kg) [c]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0144	NA
Total Metals (mg/kg)																									
Arsenic	20	NA	NA	NA	NA	NA	NA	4.14	NA	28.3	NA	NA	5.49	NA	2.17 U	2.19 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NE	NA	NA	NA	NA	NA	NA	106	NA	465	NA	NA	84.1	NA	30.4	21.9 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2	NA	NA	NA	NA	NA	NA	2.23	NA	1.40 U	NA	NA	2.32 U	NA	2.17 U	2.19 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	19 (Cr^{6+}) / 2,000 (Cr^{3+})	NA	NA	NA	NA	NA	NA	18.3	NA	30.4	NA	NA	13.7	NA	2.17 U	2.19 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	250	10.9 J	24.5 J	2.30 J	2.43 J	19.4 J	2.76	518	101	6500	80.2 J	9.04 J	227	74.7	21.1	33.6	17.0	11.5	2.54	15.0	6.7	64.1 J	35.6 J	3.13	4.02
Selenium	NE	NA	NA	NA	NA	NA	NA	4.45 U	NA	2.80 U	NA	NA	4.64 U	NA	4.34 U	4.38 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NE	NA	NA	NA	NA	NA	NA	2.23 U	NA	1.40 U	NA	NA	2.32 U	NA	2.17 U	2.19 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP Metals (mg/L)																									
Lead	5 [d]	NA	NA	NA	NA	NA	NA	1.00 U	NA	2.54	NA	NA	1.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Model Toxics Control Act (MTCA) Cleanup Regulation, chapter 173-340 WAC; MTCA Method A and B from Ecology website downloaded August 2009 (https://fortress.wa.gov/ecy/clarc/Reporting/CLARCReporting.aspx).
DUP - Field duplicate
J - Estimated value
NA - Not applicable
NE - Not established
PAHs - Polynuclear aromatic hydrocarbons
TPHs - Total petroluem hydrocarbons
U - Compound was analyzed for but not detected above the reporting limit shown.
UJ - Compound was analyzed for but not detected above the reporting limit shown. The reporting limit is an estimated value.
VOCs - Volatile organic compounds
TTEC - Total Toxicity Equivalent Soil Concentration
[a] The soil cleanup level is 100 mg/kg if benzene is not present and the total of ethylbenzene, toluene, and xylenes is less than 1% of the gasoline mixture. The cleanup level for all other gasoline mixtures is 30 mg/kg.
[b] These compounds are considered carcinogenic PAHs (c-PAHs) and are subject to WAC-173-340 Toxicity Equivalent Soil Concentration calculations.
[c] Total PAHs are the sum of PAHs detailed by the WAC 173-303-040 (Acenaphthene, acenaphthylene, fluorene, anthracene, fluoranthene, phenanthrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, pyrene, chrysene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene, and benzo(g,h,i)perylene
Note dibenzo [(a,e), (a,h), (a,i), and (a,1)] pyrenes and dibenzo(a,j) acridine are not included as these compounds were not analyzed for and are not typically included in the PAH analyte list. The waste characterization is determined based on an exceedance of a 1% total PAHs as decribed in WAC 173-303-100.
[d] WAC 173-303-090 - Dangerous Waste Criteria, dated July 31, 2009.

Table J-2
Summary of Soil Analytical Results
Area 1
Westlake-Mercer

Sample ID:		F8	F9	F10		F11		F12			F13			F14	F15		G1			G2		G3			G4
Sample Date:	**MTCA Method A Soil Cleanup Level**	5/12/2009	5/12/2009	4/2/2009	5/12/2009	4/10/2009	4/22/2009	4/10/2009	4/15/2009	4/21/2009	4/10/2009	4/21/2009	4/23/2009	4/10/2009	4/6/2009	4/15/2009	5/4/2009	5/4/2009	5/20/2009	4/29/2009	5/21/2009	4/29/2009		5/21/2009	4/27/2009
65		7	7	14	9	14	9	14	9	7	14	9	6	14	14	9	14	9	4	14	6	14		7	14
Field QC:																							(DUP)		
VOCs (mg/kg)																									
Benzene	0.03	0.000906 U	0.000999 U	0.00941 U	0.000928 U	0.0791	0.000737 U	0.0121	0.203 U	0.000620 U	0.0844	0.233	0.00105 UJ	0.225 U	1.23	0.000777 U	0.0925 J	3.02	0.00554	0.00418 U	0.000886 U	0.0132	0.0142 J	0.000832 U	0.000935 U
Ethylbenzene	6	0.00242 U	0.00266 U	0.0251 UJ	0.00248 U	0.0364	0.00196 U	0.201 J	0.0108 UJ	0.00165 U	0.987 U	0.0129 UJ	0.00279 UJ	1.12 U	32.2	0.00207 U	0.712 U	0.706 U	0.00281 U	0.175 J	0.00236 U	0.260 J	0.136 J	0.00222 U	0.00249 U
Toluene	7	0.000906 U	0.000999 U	0.00941 UJ	0.000928 U	0.0330	0.000737 U	1.26 U	1.01 U	0.000620 U	0.987 U	0.970 U	0.00105 UJ	1.12 U	0.617	0.000777 U	0.712 U	0.706 U	0.00105 U	0.797 U	0.000886 U	0.0867 J	0.0681 J	0.000832 U	0.000935 U
Xylenes, total	9	0.00604 U	0.00666 U	0.0628 UJ	0.00619 U	0.118	0.00491 U	3.77 U	3.04 U	0.00414 U	0.474 J	0.0322 UJ	0.00697 UJ	0.371 J	110	0.00518 U	2.13 U	2.12 U	0.00703 U	2.39 U	0.00591 U	0.451 J	0.215 J	0.00555 U	0.00624 U
Methyl tert-butyl ether (MTBE)	0.1	0.000604 U	0.000666 U	0.00628 U	0.000619 U	0.000867 U	0.000491 U	0.00367 U	0.00270 U	0.000414 U	0.00283 U	0.00322 UJ	0.000697 UJ	0.00270 U	0.0553 U	0.000518 U	0.00349 U	0.00232 U	0.000703 U	0.00279 U	0.000591 U	0.00192 U	0.00143 U	0.000555 U	0.000624 U
TPHs (mg/kg)																									
Gasoline-Range	30 / 100 [a]	6.86 U	6.52 U	23.6 J	5.55 U	25.5 J	6.17 U	43.8 J	44.6 J	5.36 U	23.0 J	48.5 U	6.75 U	17.8 J	1290	5.09 U	46.1 U	15.6 J	6.73 U	40.4 J	5.64 U	32.5 J	31.8 J	5.74 U	5.64 U
Diesel-Range	2,000	12.0 U	12.1 U	2,120 J	12.7 U	535	27.9	13,000 J	747	12.2 U	538	350	12.5 U	150	15.1	11.9 U	534	565	12.8 U	80.6	11.7 U	2560	1,840	12.1 U	11.8 U
Lube Oil-Range	2,000	30.0 U	30.3 U	2,830 J	31.7 U	746	39.5	23,300 J	436	30.6 U	471	305	31.3 U	271	31.0 U	29.8 U	599	195	31.9 U	98.0	29.3 U	5060	3,220	30.2 U	29.5 U
Kerosene-Range	2,000	12.0 U	12.1 U	674 J	12.7 U	96.5	11.4 U	995 J	369	12.2 U	43.3 U	202	12.5 U	49.9 U	37.7	11.9 U	115	39.0	12.8 U	38.6 U	11.7 U	409	291	12.1 U	11.8 U
PAHs (mg/kg)																									
Acenaphthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene [b]	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (ghi) perylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	5	0.00604 U	0.00666 U	0.0628 UJ	0.00619 U	0.0111	0.00491 U	0.0367 UJ	20.3 U	0.00414 U	19.7 U	0.0322 UJ	0.00697 U	0.0270 UJ	9.06	0.00518 U	0.0349 UJ	14.1 U	0.00703 U	15.9 U	0.00591 U	0.0192 UJ	0.0161 U	0.00555 U	0.00624 U
Phenanthrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TTEC Concentration (c-PAHs)	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs (mg/kg) [c]	NE	NA	NA	NA	NA	0.0	NA	NA	NA	NA	NA	NA	NA	NA	9.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals (mg/kg)																									
Arsenic	20	NA	NA	NA	NA	5.79	NA	2.29	NA	NA	1.24 U	NA	NA	1.39 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NE	NA	NA	NA	NA	114	NA	29.3	NA	NA	13.6	NA	NA	30.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2	NA	NA	NA	NA	0.531	NA	1.46 U	NA	NA	1.24 U	NA	NA	1.39 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	19 (Cr^{6+}) / 2,000 (Cr^{3+})	NA	NA	NA	NA	34.2	NA	2.61	NA	NA	1.53	NA	NA	1.53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	250	1.80	1.85	205	1.37	357	19.3 J	1590	164 J	2.49	54.0	24.7	1.69	41.0	16.8	1.47 J	24.3	5.71	3.76	7.65 J	1.45	2,050 J	881 J	2.37	3.60
Selenium	NE	NA	NA	NA	NA	0.857 U	NA	2.92 U	NA	NA	2.49 U	NA	NA	2.77 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NE	NA	NA	NA	NA	0.429 U	NA	1.46 U	NA	NA	1.24 U	NA	NA	1.39 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP Metals (mg/L)																									
Lead	5 [d]	NA	NA	NA	NA	NA	NA	1.17	1.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.56	2.13	NA	NA

Notes:
Model Toxics Control Act (MTCA) Cleanup Regulation, chapter 173-340 WAC; MTCA Method A and B from Ecology website downloaded August 2009 (https://fortress.wa.gov/ecy/clarc/Reporting/CLARCReporting.aspx).
DUP - Field duplicate
J - Estimated value
NA - Not applicable
NE - Not established
PAHs - Polynuclear aromatic hydrocarbons
TPHs - Total petroluem hydrocarbons
U - Compound was analyzed for but not detected above the reporting limit shown.
UJ - Compound was analyzed for but not detected above the reporting limit shown. The reporting limit is an estimated value.
VOCs - Volatile organic compounds
TTEC - Total Toxicity Equivalent Soil Concentration
[a] The soil cleanup level is 100 mg/kg if benzene is not present and the total of ethylbenzene, toluene, and xylenes is less than 1% of the gasoline mixture. The cleanup level for all other gasoline mixtures is 30 mg/kg.
[b] These compounds are considered carcinogenic PAHs (c-PAHs) and are subject to WAC-173-340 Toxicity Equivalent Soil Concentration calculations.
[c] Total PAHs are the sum of PAHs detailed by the WAC 173-303-040 (Acenaphthene, acenaphthylene, fluorene, anthracene, fluoranthene, phenanthrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, pyrene, chrysene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene, and benzo(g,h,i)perylene
Note dibenzo [(a,e), (a,h), (a,i), and (a,1)] pyrenes and dibenzo(a,j) acridine are not included as these compounds were not analyzed for and are not typically included in the PAH analyte list. The waste characterization is determined based on an exceedance of a 1% total PAHs as decribed in WAC 173-303-100.
[d] WAC 173-303-090 - Dangerous Waste Criteria, dated July 31, 2009.

Table J-2
Summary of Soil Analytical Results
Area 1
Westlake-Mercer

Sample ID:	MTCA Method A Soil Cleanup Level	G5	G8		G9		G10		G11	G12		G13		G14	G15		H1			H2	H3	H4	H5		
Sample Date:		4/27/2009	4/20/2009	5/12/2009	4/20/2009	5/12/2009	4/2/2009	5/13/2009	4/10/2009	4/10/2009	4/21/2009	4/10/2009	4/21/2009	4/10/2009	4/6/2009	4/15/2009	5/4/2009	5/4/2009	5/19/2009	4/30/2009	4/30/2009	4/27/2009	4/27/2009		5/1/2009
65		14	14	7	14	7	14	7	14	14	9	14	9	14	14	9	14	9	4	14	14	14	14		7
Field QC:																							(DUP)		
VOCs (mg/kg)																									
Benzene	0.03	0.00786	0.436	0.00173 U	0.208 J	0.00136 U	0.00578 U	0.000964 U	0.00101 U	0.312 U	0.00135 U	0.144	0.000849 U	0.00686 U	0.0682	0.000791 U	0.000938 U	4.74	0.00114 U	0.0229	0.00108 U	0.00129 U	0.0493	0.0500	0.000979 U
Ethylbenzene	6	0.119	0.176 J	0.00461 U	1.30 U	0.00364 U	0.0154 U	0.00257 U	0.221 U	1.56 U	0.00361 U	0.565	0.00226 U	0.0183 UJ	0.508	0.00211 U	0.00250 U	0.820 U	0.00304 U	0.0143 UJ	0.00289 U	0.00345 U	0.472	0.369	0.00261 U
Toluene	7	0.00105 U	0.166 J	0.00173 U	0.169 J	0.00136 U	0.00578 U	0.000964 U	0.221 U	1.56 U	0.00135 U		0.000849 U	0.00686 UJ	0.0382	0.000791 U	0.000938 U	0.820 U	0.00114 U	0.107 J	0.00108 U	0.00129 U	0.00630 J	0.0204 J	0.000979 U
Xylenes, total	9	0.0829	0.705 J	0.0115 U	3.90 U	0.00909 U	0.0386 U	0.00643 U	0.662 U	4.67 U	0.00903 U	3.67 J	0.00566 U	3.79 U	0.644	0.0139	0.00625 U	0.0320 UJ	0.00760 U	3.21 U	0.00721 U	0.00862 U	0.263	0.177	0.00653 U
Methyl tert-butyl ether (MTBE)	0.1	0.000698 U	0.00216 UJ	0.00115 U	0.00250 UJ	0.000909 U	0.00386 U	0.000643 U	0.000674 U	0.00413 UJ	0.000903 U	0.00424 U	0.000566 U	0.00457 U	0.000410 U	0.000527 U	0.000625 U	0.00320 U	0.000760 U	0.00358 U	0.000721 U	0.000862 U	0.000887 U	0.000917 U	0.000653 U
TPHs (mg/kg)																									
Gasoline-Range	30 / 100 [a]	6.25	184 J	14.7 U	63.9 J	12.8 U	48.5 U	6.29 U	11.0 U	306 J	9.85 U	155 J	5.42 U	20.8 J	17.2	5.73 U	6.92 U	28.1 J	7.03 U	20.5 J	6.80 U	7.79 U	78.4 J	81.8 J	6.09 U
Diesel-Range	2,000	11.8 U	165	19.0 U	8440	17.8 U	59.2	11.9 U	32	5610	14.7 U	1130	12.2 U	385	11.8 U	12.0 U	11.3 U	317	12.8 U	263	12.7 U	13.6 U	64.1	101	11.9 U
Lube Oil-Range	2,000	29.4 U	205	47.6 U	7520	44.5 U	124 U	29.8 U	52.6	9450	36.7 U	1640	30.4 U	208	29.5 U	29.9 U	28.2 U	104	32.0 U	738	31.8 U	34.0 U	99.6	117	29.7 U
Kerosene-Range	2,000	11.8 U	55.9	19.0 U	3520	17.8 U	49.5 U	11.9 U	15.5 U	802	14.7 U	161	12.2 U	53.4 U	11.8 U	12.0 U	11.3 U	40.5 U	12.8 U	50.0 U	12.7 U	13.6 U	23.7	37.8	11.9 U
PAHs (mg/kg)																									
Acenaphthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene [b]	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (ghi) perylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	5	0.0519	20.7 U	0.0115 U	26.0 U	0.00909 U	0.0386 UJ	0.00643 U	0.00674 UJ	31.2 U	0.00903 UJ	29.1 U	0.00566 U	0.0457 UJ	0.0421	0.00527 U	0.00625 U	0.0320 UJ	0.00760 U	0.0358 UJ	0.00721 U	0.00862 U	0.107	0.0833	0.00653 U
Phenanthrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TTEC Concentration (c-PAHs)	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs (mg/kg) [c]	NE	0.0519	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0	NA	NA	NA	NA	NA	NA	NA	0.1	0.083	NA
Total Metals (mg/kg)																									
Arsenic	20	NA	NA	NA	NA	NA	NA	NA	2.02	3.72	NA	4.29	NA	1.30 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NE	NA	NA	NA	NA	NA	NA	NA	49.1	26.3	NA	42.6	NA	25.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2	NA	NA	NA	NA	NA	NA	NA	0.329 U	1.83 U	NA	1.35 U	NA	1.30 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	19 (Cr^{6+}) / 2,000 (Cr^{3+})	NA	NA	NA	NA	NA	NA	NA	20.0	2.61	NA	6.37	NA	1.78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	250	5.08	392	11.9	360	11.5	532	2.02	12.7	709	2.46	251	1.38	17.3	8.32	2.05 J	1.54	11.7	2.44	97.0	11.3	6.86	33.1	34.9	2.15
Selenium	NE	NA	NA	NA	NA	NA	NA	NA	0.658 U	3.65 U	NA	2.71 U	NA	2.59 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NE	NA	NA	NA	NA	NA	NA	NA	0.329 U	1.83 U	NA	1.35 U	NA	1.30 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP Metals (mg/L)																									
Lead	5 [d]	NA	NA	NA	NA	NA	1.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Model Toxics Control Act (MTCA) Cleanup Regulation, chapter 173-340 WAC; MTCA Method A and B from Ecology website downloaded August 2009 (https://fortress.wa.gov/ecy/clarc/Reporting/CLARCReporting.aspx).
DUP - Field duplicate
J - Estimated value
NA - Not applicable
NE - Not established
PAHs - Polynuclear aromatic hydrocarbons
TPHs - Total petroluem hydrocarbons
U - Compound was analyzed for but not detected above the reporting limit shown.
UJ - Compound was analyzed for but not detected above the reporting limit shown. The reporting limit is an estimated value.
VOCs - Volatile organic compounds
TTEC - Total Toxicity Equivalent Soil Concentration
[a] The soil cleanup level is 100 mg/kg if benzene is not present and the total of ethylbenzene, toluene, and xylenes is less than 1% of the gasoline mixture. The cleanup level for all other gasoline mixtures is 30 mg/kg.
[b] These compounds are considered carcinogenic PAHs (c-PAHs) and are subject to WAC-173-340 Toxicity Equivalent Soil Concentration calculations.
[c] Total PAHs are the sum of PAHs detailed by the WAC 173-303-040 (Acenaphthene, acenaphthylene, fluorene, anthracene, fluoranthene, phenanthrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, pyrene, chrysene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene, and benzo(g,h,i)perylene
Note dibenzo [(a,e), (a,h), (a,i), and (a,1)] pyrenes and dibenzo(a,j) acridine are not included as these compounds were not analyzed for and are not typically included in the PAH analyte list. The waste characterization is determined based on an exceedance of a 1% total PAHs as decribed in WAC 173-303-100.
[d] WAC 173-303-090 - Dangerous Waste Criteria, dated July 31, 2009.

Table J-2
Summary of Soil Analytical Results
Area 1
Westlake-Mercer

Sample ID:		H6	H7	H8		H9		H10	H11			H12				H13		H14		H15		I1		I2	
Sample Date:	**MTCA Method A Soil Cleanup Level**	5/1/2009	4/9/2009	4/8/2009	5/1/2009	4/8/2009	5/1/2009	4/2/2009	4/8/2009	4/28/2009	4/28/2009	4/10/2009	4/28/2009	4/15/2009	4/28/2009	4/10/2009	4/20/2009	4/10/2009	4/20/2009	4/10/2009	4/15/2009	5/28/2009	5/28/2009	4/30/2009	5/28/2009
65		7	14	14	7	14	7	14	14	12	9	14	12	9	7	14	9	14	9	14	9	14	9	14	4
Field QC:																									
VOCs (mg/kg)																									
Benzene	0.03	0.00128 U	0.00102 U	0.677	0.00107 U	0.149	0.000999 U	0.00218 U	0.771	0.00260 UJ	0.00105 U	0.00795	NA	0.00537 U	0.00101 U	0.0628	0.00100 U	0.251 U	0.000932 UJ	0.114	0.000740 U	0.0508	0.00112 U	0.00390 U	0.00106 U
Ethylbenzene	6	0.00343 U	0.00273 U	0.147 J	0.00284 U	0.0366 J	0.00266 U	0.00582 U	2.41	0.00694 UJ	0.00281 U	0.0112 UJ	NA	0.0143 UJ	0.00268 U	1.96	0.00267 U	1.26 U	0.00248 UJ	0.168 J	0.00197 U	0.0379 J	0.00298 U	0.0104 U	0.00282 U
Toluene	7	0.00128 U	0.00102 U	0.121 J	0.00107 U	0.103 J	0.000999 U	0.00218 U	0.709 UJ	0.00260 UJ	0.00105 U	1.03 U	NA	0.00537 UJ	0.00101 U	0.177	0.00100 U	1.26 U	0.000932 UJ	1.20 U	0.000740 U	0.0143	0.00112 U	0.00390 U	0.00106 U
Xylenes, total	9	0.00856 U	0.00682 U	0.449 J	0.00711 U	0.176 J	0.00666 U	0.0146 U	9.27	0.0173 UJ	0.00703 U	3.08 U	NA	0.0358 UJ	0.00670 U	9.64	0.00668 U	3.77 U	0.00621 UJ	0.996 J	0.00493 U	0.145 J	0.00745 U	0.0260 U	0.00704 U
Methyl tert-butyl ether (MTBE)	0.1	0.000856 U	0.000682 U	0.00230 U	0.000711 U	0.000596 UJ	0.000666 U	0.00146 U	0.00243 UJ	0.00173 UJ	0.000703 U	0.00281 U	NA	0.00358 UJ	0.000670 U	0.000998 U	0.000668 U	0.00368 UJ	0.000621 UJ	0.00370 U	0.000493 U	0.000675 U	0.000745 U	0.00260 U	0.000704 U
TPHs (mg/kg)																									
Gasoline-Range	30 / 100 [a]	10.3 U	4.24 J	204 J	5.93 U	8.70	5.94 U	12.3 J	214 J	6.56 J	6.85 U	16.5 J	NA	42.2 U	6.72 U	133 J	6.12 U	49.5 J	6.93 U	48.6 J	5.21 U	2.20 J	7.56 U	15.0 J	5.82 U
Diesel-Range	2,000	16.0 U	13.7 U	3410	11.2 U	113	11.7 U	226	864	NA	NA	6290	NA	4680	13.0 U	135	12.2 U	3300	12.3 U	191	12.4 U	12.7 U	13.8 U	364	11.5 U
Lube Oil-Range	2,000	40.0 U	34.3 U	3360	28.0 U	125	29.1 U	306	1240	NA	NA	11200	NA	11300	32.6 U	182	30.5 U	3780	30.7 U	438	31.1 U	31.6 U	34.5 U	649 J	28.8 U
Kerosene-Range	2,000	16.0 U	13.7 U	1340	11.2 U	43.8	11.7 U	81.5	279	NA	NA	1010	NA	1040	13.0 U	43.8	12.2 U	512	12.3 U	54.3 U	12.4 U	12.7 U	13.8 U	68.3	11.5 U
PAHs (mg/kg)																									
Acenaphthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene [b]	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (ghi) perylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	5	0.00856 UJ	0.00682 U	13.4 UJ	0.00711 U	2.44 U	0.00666 U	0.0214	15.6 U	0.0173 UJ	0.00703 U	0.0281 UJ	NA	0.0358 UJ	0.00670 U	3.29 U	0.00668 U	0.0368 UJ	0.00621 UJ	0.0370 UJ	0.00493 U	0.0351	0.00745 U	0.0260 U	0.00704 U
Phenanthrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TTEC Concentration (c-PAHs)	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs (mg/kg) [c]	NE	NA	NA	NA	NA	NA	NA	0.0214	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0	NA	NA	NA
Total Metals (mg/kg)																									
Arsenic	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17.6	NA	NA	NA	6.63	NA	3.32	NA	4.47	NA	NA	NA	NA	NA
Barium	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.2	NA	NA	NA	121	NA	22.0	NA	48.8	NA	NA	NA	NA	NA
Cadmium	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.61 U	NA	NA	NA	0.653 U	NA	1.61 U	NA	1.31 U	NA	NA	NA	NA	NA
Chromium	19 (Cr^{6+}) / 2,000 (Cr^{3+})	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	16.1	NA	NA	NA	34.9	NA	4.16	NA	11.3	NA	NA	NA	NA	NA
Lead	250	1.45	16.6	332	1.28	377	2.05	112	1450	18,900 J	2.39 J	1740	120 J	1,010 J	1.61 J	87.5	2.68	745	1.60	196	1.54 J	5.71 J	9.91 J	307	1.32 J
Selenium	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.22 U	NA	NA	NA	1.31 U	NA	3.21 U	NA	2.63 U	NA	NA	NA	NA	NA
Silver	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.61 U	NA	NA	NA	0.653 U	NA	1.61 U	NA	1.31 U	NA	NA	NA	NA	NA
Mercury	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP Metals (mg/L)																									
Lead	5 [d]	NA	NA	NA	NA	NA	NA	NA	7.47	57.7	NA	10.3	NA	1.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Model Toxics Control Act (MTCA) Cleanup Regulation, chapter 173-340 WAC; MTCA Method A and B from Ecology website downloaded August 2009 (https://fortress.wa.gov/ecy/clarc/Reporting/CLARCReporting.aspx).
DUP - Field duplicate
J - Estimated value
NA - Not applicable
NE - Not established
PAHs - Polynuclear aromatic hydrocarbons
TPHs - Total petroluem hydrocarbons
U - Compound was analyzed for but not detected above the reporting limit shown.
UJ - Compound was analyzed for but not detected above the reporting limit shown. The reporting limit is an estimated value.
VOCs - Volatile organic compounds
TTEC - Total Toxicity Equivalent Soil Concentration
[a] The soil cleanup level is 100 mg/kg if benzene is not present and the total of ethylbenzene, toluene, and xylenes is less than 1% of the gasoline mixture. The cleanup level for all other gasoline mixtures is 30 mg/kg.
[b] These compounds are considered carcinogenic PAHs (c-PAHs) and are subject to WAC-173-340 Toxicity Equivalent Soil Concentration calculations.
[c] Total PAHs are the sum of PAHs detailed by the WAC 173-303-040 (Acenaphthene, acenaphthylene, fluorene, anthracene, fluoranthene, phenanthrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, pyrene, chrysene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene, and benzo(g,h,i)perylene
Note dibenzo [(a,e), (a,h), (a,i), and (a,1)] pyrenes and dibenzo(a,j) acridine are not included as these compounds were not analyzed for and are not typically included in the PAH analyte list. The waste characterization is determined based on an exceedance of a 1% total PAHs as decribed in WAC 173-303-100.
[d] WAC 173-303-090 - Dangerous Waste Criteria, dated July 31, 2009.

Table J-2
Summary of Soil Analytical Results
Area 1
Westlake-Mercer

Sample ID:	MTCA Method A Soil Cleanup Level	I3	I4				I5	I6	I7	I8	I9	I10			I11	I12	I13		I14		I15	
Sample Date:		4/30/2009	5/1/2009	5/28/2009	5/28/2009	5/28/2009	5/1/2009	4/8/2009	4/8/2009	4/8/2009	4/8/2009	4/8/2009		4/13/2009	4/9/2009	4/9/2009	4/10/2009	4/20/2009	4/10/2009	4/20/2009	4/10/2009	4/15/2009
65		14	14	9	7	4	14	14	14	14	14	14		9	14	14	14	9	14	9	14	9
Field QC:													(DUP)									
VOCs (mg/kg)																						
Benzene	0.03	0.000943 U	0.00864	0.0259	0.00224 U	0.00101 U	0.00104 U	0.00112 U	0.0225 U	0.00403	0.00582 UJ	4.16 J	0.157 J	0.00640 U	0.00204 UJ	0.00543 UJ	0.0560 J	0.000858 U	0.0128	0.000998 U	0.00852 U	0.00150 U
Ethylbenzene	6	0.00252 U	0.128	0.777	0.00712	0.00270 U	0.00278 U	0.00299 U	0.112 U	0.0342	1.16 U	11.7 J	4.55 J	1.36 U	0.00544 UJ	0.0145 UJ	0.859 J	0.00229 U	1.36 U	0.00266 U	1.83 U	0.00400 UJ
Toluene	7	0.000943 U	0.00208	0.0552 J	0.00224 UJ	0.00101 U	0.00104 U	0.00112 U	0.112 U	0.00648	1.16 U	0.722	0.743 J	0.00640 UJ	0.00204 UJ	0.00543 UJ	1.59 U	0.000858 U	1.36 U	0.000998 U	1.83 U	0.00150 UJ
Xylenes, total	9	0.00629 U	0.155	1.94	0.0176	0.00676 U	0.00695 U	0.00748 U	0.337 U	0.106	3.49 U	9.79 J	4.16 J	4.09 U	0.0136 UJ	0.0362 UJ	3.17 J	0.00572 U	4.08 U	0.00665 U	5.48 U	0.0100 UJ
Methyl tert-butyl ether (MTBE)	0.1	0.000629 U	0.000680 U	0.230 U	0.00199	0.000676 U	0.000695 U	0.000748 U	0.0562 U	0.000954 U	0.00388 UJ	0.00290 U	0.00191 U	0.681 U	0.00136 UJ	0.00362 UJ	0.00476 U	0.000572 U	0.00382 U	0.000665 U	0.00568 U	0.00100 U
TPHs (mg/kg)																						
Gasoline-Range	30 / 100 [a]	6.40 U	305	49.9 J	14.8 U	6.30 U	3.33 J	8.74 U	5.62 U	7.35 J	58.2 U	740 J	279 J	20.2 J	3.95 J	56.0 U	96.2 J	5.86 U	92.8 J	6.11 U	104 J	9.26 U
Diesel-Range	2,000	12.7 U	12.4 U	106	46.6	12.5 U	12.4 U	14.3 U	11.5 U	44.3	51.1 U	697	571	129	33.5	322	315	11.6 U	3840	11.9 U	2490	15.6 U
Lube Oil-Range	2,000	31.7 U	31.0 U	128	124	31.4 U	30.9 U	35.6 U	28.7 U	64.6	128 U	1110	857	272	69.1	666 J	503	29.0 U	6050	29.8 U	4250	39.0 U
Kerosene-Range	2,000	12.7 U	12.4 U	48.7	21.0 U	12.5 U	12.4 U	14.3 U	11.5 U	17.4 U	51.1 U	264	224	55.7 U	18.3 U	46.3 U	60.8 U	11.6 U	614	11.9 U	333	15.6 U
PAHs (mg/kg)																						
Acenaphthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene [b]	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (ghi) perylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	5	0.00629 U	0.0279	9.19 U	0.0149 UJ	0.00676 U	0.00695 U	0.00748 U	2.25 U	4.70 U	23.3 U	381 J	163 J	27.2 U	4.20 U	0.0362 UJ	31.8 U	0.00572 U	0.0382 UJ	0.00665 U	0.0568 UJ	0.0100 UJ
Phenanthrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TTEC Concentration (c-PAHs)	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs (mg/kg) [c]	NE	NA	0.0	NA	NA	NA	NA	NA	NA	NA	NA	381.0	163	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals (mg/kg)																						
Arsenic	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.57	NA	NA	2.72	NA	2.14 U	NA	7.02	NA
Barium	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	32.2	NA	NA	39.0	NA	21.4 U	NA	46.5	NA
Cadmium	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.93 U	NA	NA	2.19 U	NA	2.14 U	NA	1.85 U	NA
Chromium	19 (Cr^{6+}) / 2,000 (Cr^{3+})	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.38	NA	NA	5.35	NA	2.14 U	NA	8.69	NA
Lead	250	6.47	38.9	45.7	65.9 J	2.67 J	32.5	77.1	5.43	39.7	60.7	323	243	91.6	48.2	242	76.3	1.48	566	2.44	1800	3.40 J
Selenium	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.86 U	NA	NA	4.38 U	NA	4.27 U	NA	3.70 U	NA
Silver	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.93 U	NA	NA	2.19 U	NA	2.14 U	NA	1.85 U	NA
Mercury	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP Metals (mg/L)																						
Lead	5 [d]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.4	NA

Notes:
Model Toxics Control Act (MTCA) Cleanup Regulation, chapter 173-340 WAC; MTCA Method A and B from Ecology website downloaded August 2009 (https://fortress.wa.gov/ecy/clarc/Reporting/CLARCReporting.aspx).
DUP - Field duplicate
J - Estimated value
NA - Not applicable
NE - Not established
PAHs - Polynuclear aromatic hydrocarbons
TPHs - Total petroluem hydrocarbons
U - Compound was analyzed for but not detected above the reporting limit shown.
UJ - Compound was analyzed for but not detected above the reporting limit shown. The reporting limit is an estimated value.
VOCs - Volatile organic compounds
TTEC - Total Toxicity Equivalent Soil Concentration
[a] The soil cleanup level is 100 mg/kg if benzene is not present and the total of ethylbenzene, toluene, and xylenes is less than 1% of the gasoline mixture. The cleanup level for all other gasoline mixtures is 30 mg/kg.
[b] These compounds are considered carcinogenic PAHs (c-PAHs) and are subject to WAC-173-340 Toxicity Equivalent Soil Concentration calculations.
[c] Total PAHs are the sum of PAHs detailed by the WAC 173-303-040 (Acenaphthene, acenaphthylene, fluorene, anthracene, fluoranthene, phenanthrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, pyrene, chrysene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene, and benzo(g,h,i)perylene
Note dibenzo [(a,e), (a,h), (a,i), and (a,1)] pyrenes and dibenzo(a,j) acridine are not included as these compounds were not analyzed for and are not typically included in the PAH analyte list. The waste characterization is determined based on an exceedance of a 1% total PAHs as decribed in WAC 173-303-100.
[d] WAC 173-303-090 - Dangerous Waste Criteria, dated July 31, 2009.

Table J-2
Summary of Soil Analytical Results
Area 1
Westlake-Mercer

Sample ID:	MTCA Method A Soil Cleanup Level	J1		J2					J3	J4	J5		J6	J7	J8		J9		J10	J11		J12		J13	
Sample Date:		5/28/2009	5/28/2009	5/1/2009		5/28/2009	5/28/2009	5/28/2009	5/1/2009	5/1/2009	5/1/2009	6/3/2009	4/8/2009	4/8/2009	4/8/2009	4/10/2009	4/8/2009	4/10/2009	4/7/2009	4/7/2009	4/14/2009	4/7/2009	4/14/2009	4/7/2009	4/14/2009
Sample Elevation (Ft. above City of Seattle Datum):		14	9	14		9	7	4	14	14	14	9	14	14	14	9	14	9	14	14	9	14	9	14	9
Field QC:					(DUP)																				
VOCs (mg/kg)																									
Benzene	0.03	0.00637	0.00101 U	0.0147	0.0125	0.0300	0.00930	0.000912 U	0.00515	0.00427	0.0616	0.00111 U	0.00105 U	0.00344 U	0.00465 U	0.00636 U	0.00309	0.00583 U	0.00104 UJ	0.00444 U	0.000956 U	0.330 U	0.00102 U	0.203 U	0.000793 UJ
Ethylbenzene	6	2.66	0.00326	0.132 J	0.0108 J	0.187 J	0.0396	0.00243 U	0.0538	0.00533	0.0961 J	0.00296 U	0.00281 U	0.00918 U	0.0124 UJ	0.0170 UJ	0.0153	0.0315	0.0944 U	1.19 U	0.00255 U	1.65 U	0.00272 U	1.01 U	0.00212 U
Toluene	7	0.921	0.00250	0.264 J	0.0565 J	0.187 J	0.0124	0.000912 U	0.00114 U	0.00236	0.0215	0.00111 U	0.00105 U	0.00344 U	1.13 U	0.00636 UJ	0.00485	0.00583 U	0.00104 UJ	1.19 U	0.000956 U	1.65 U	0.00102 U	1.01 U	0.000793 U
Xylenes, total	9	19.6	0.00644	0.314 J	0.0255 J	0.708 J	0.201	0.00608 U	0.0819	0.0147	0.361	0.00740 U	0.00703 U	0.0229 U	3.40 U	0.0424 UJ	0.0364	0.0389 U	0.283 U	3.57 U	0.00638 U	4.95 U	0.00680 U	3.10	0.00529 U
Methyl tert-butyl ether (MTBE)	0.1	0.0544 U	0.000674 U	0.00206 U	0.00236 U	0.00387 U	0.00313 U	0.000608 U	0.000760 U	0.000644 U	0.000806 U	0.000740 U	0.000703 U	0.00356	0.00945	0.00729	0.00180 U	0.00400	0.000696 UJ	0.00296 U	0.000638 U	0.00259 UJ	0.000680 U	0.00302 U	0.000529 UJ
TPHs (mg/kg)																									
Gasoline-Range	30 / 100 [a]	270 J	5.61 U	83.3 J	69.8 J	18.3 J	11.4 J	6.20 U	5.48 J	5.43 J	16.4	6.52 U	5.78 U	19.1 U	56.4 U	77.7 U	184 J	66.2 U	4.72 U	59.4 U	4.73 J	266 J	6.13 U	50.7 U	5.86 U
Diesel-Range	2,000	13.1 U	12.9 U	1030	654	233	157	12.5 U	13.3 U	12.5 U	143	12.3 U	11.5 U	30.4	79.3	58.6 U	46.4	56.0 U	12.3 U	54.1 U	12.2 U	112	12.4 U	370	12.1 U
Lube Oil-Range	2,000	32.7 U	32.3 U	2,570 J	930 J	321	301	31.3 U	33.2 U	31.3 U	35.4	30.7 U	28.9 U	68.5 U	150	146 U	87.8	140 U	30.9 U	135 U	30.5 U	247	30.9 U	673	30.2 U
Kerosene-Range	2,000	13.1 U	12.9 U	213	165	49.6	36.9 U	12.5 U	13.3 U	12.5 U	18.7	12.3 U	11.5 U	27.4 U	54.6 U	58.6 U	29.6 U	56.0 U	12.3 U	54.1 U	12.2 U	59.8 U	12.4 U	118	12.1 U
PAHs (mg/kg)																									
Acenaphthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene [b]	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (ghi) perylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	5	1.50 J	0.00674 U	12.6 U	0.0236 UJ	19.7 U	0.0313 UJ	0.00608 U	0.0171	0.00644 U	0.145	0.00740 U	0.00703 U	0.0229 UJ	0.0310 UJ	0.0424 UJ	11.8 U	0.0389 UJ	0.00696 UJ	23.8 U	0.00638 U	33.0 U	0.00680 U	20.3 U	0.00529 UJ
Phenanthrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TTEC Concentration (c-PAHs)	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs (mg/kg) [c]	NE	1.5	NA	NA	NA	NA	NA	NA	0.0171	NA	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals (mg/kg)																									
Arsenic	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.87 U	NA	1.57	NA	NA	NA	NA	NA	NA	NA
Barium	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19.5	NA	21.4	NA	NA	NA	NA	NA	NA	NA
Cadmium	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.87 U	NA	1.48 U	NA	NA	NA	NA	NA	NA	NA
Chromium	19 (Cr^{6+}) / 2,000 (Cr^{3+})	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.73	NA	2.32	NA	NA	NA	NA	NA	NA	NA
Lead	250	4.63 J	12.6 J	122	124	136 J	156J	2.36 J	7.48	13.9	65.1	2.29	10.5	196	268	9.49	389	17.4	44.5	390	1.60 J	82.8	1.70 J	149	1.55 J
Selenium	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.74 U	NA	2.96 U	NA	NA	NA	NA	NA	NA	NA
Silver	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.87 U	NA	1.48 U	NA	NA	NA	NA	NA	NA	NA
Mercury	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP Metals (mg/L)																									
Lead	5 [d]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

Model Toxics Control Act (MTCA) Cleanup Regulation, chapter 173-340 WAC; MTCA Method A and B from Ecology website downloaded August 2009 (https://fortress.wa.gov/ecy/clarc/Reporting/CLARCReporting.aspx).

DUP - Field duplicate

J - Estimated value

NA - Not applicable

NE - Not established

PAHs - Polynuclear aromatic hydrocarbons

TPHs - Total petroluem hydrocarbons

U - Compound was analyzed for but not detected above the reporting limit shown.

UJ - Compound was analyzed for but not detected above the reporting limit shown. The reporting limit is an estimated value.

VOCs - Volatile organic compounds

TTEC - Total Toxicity Equivalent Soil Concentration

[a] The soil cleanup level is 100 mg/kg if benzene is not present and the total of ethylbenzene, toluene, and xylenes is less than 1% of the gasoline mixture. The cleanup level for all other gasoline mixtures is 30 mg/kg.

[b] These compounds are considered carcinogenic PAHs (c-PAHs) and are subject to WAC-173-340 Toxicity Equivalent Soil Concentration calculations.

[c] Total PAHs are the sum of PAHs detailed by the WAC 173-303-040 (Acenaphthene, acenaphthylene, fluorene, anthracene, fluoranthene, phenanthrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, pyrene, chrysene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene, and benzo(g,h,i)perylene). Note dibenzo [(a,e), (a,h), (a,i), and (a,1)] pyrenes and dibenzo(a,j) acridine are not included as these compounds were not analyzed for and are not typically included in the PAH analyte list. The waste characterization is determined based on an exceedance of a 1% total PAHs as decribed in WAC 173-303-100.

[d] WAC 173-303-090 - Dangerous Waste Criteria, dated July 31, 2009.

Table J-2
Summary of Soil Analytical Results
Area 1
Westlake-Mercer

Sample ID:	MTCA Method A Soil Cleanup Level	J14		J15		K1			K2		K3	K4		K5	K6	K7		K8		K9		K10	SCB-4
Sample Date:		4/7/2009	4/14/2009	4/7/2009	4/14/2009	6/1/2009		6/1/2009	5/1/2009	6/1/2009	5/1/2009	5/5/2009	6/1/2009	5/5/2009	4/8/2009	4/3/2009	4/8/2009	4/3/2009	4/8/2009	4/3/2009	4/8/2009	4/8/2009	3/3/2009
Sample Elevation (Ft. above City of Seattle Datum):		14	9	14	9	14		9	14	9	14	14	9	14	10.5	14	10.5	14	11.5	14	11.5	14	26.5
Field QC:							(DUP)																
VOCs (mg/kg)																							
Benzene	0.03	0.0169	0.000719 U	0.133 U	0.000877 U	0.000977 U	0.000967 U	0.00104 U	0.825	0.000551 U	0.00653	0.0941	0.00104 U	0.00124 U	0.00422 UJ	0.00163 U	0.00261 U	0.379 U	0.00610 U	0.00529	0.00542 UJ	0.250 U	0.00540
Ethylbenzene	6	0.977	0.00192 U	0.666 U	0.00234 U	0.0188	0.0216	0.00277 U	0.0138 UJ	0.00147 U	0.00608	0.0774	0.00278 U	0.00330 U	1.16 U	0.00434 U	0.00697 UJ	1.90 U	0.0163 U	0.0117 UJ	0.0145 UJ	1.25 U	0.0403
Toluene	7	0.292 U	0.000719 U	0.666 U	0.000877 U	0.000977 U	0.000967 U	0.00104 U	0.855 J	0.000551 U	0.00100 U	0.109	0.00104 U	0.00131	1.16 U	0.00163 U	0.00261 UJ	1.90 U	0.00610 U	0.631 U	0.00542 UJ	1.25 U	0.00155 U
Xylenes, total	9	4.25	0.00479 U	2.00 U	0.00585 U	0.0258	0.0394	0.00692 U	0.0344 UJ	0.00367 U	0.0264	0.0841	0.00695 U	0.00825 U	3.48 U	0.0109 U	0.0174 UJ	5.69 U	0.0407 U	1.89 U	0.0361 UJ	3.75 U	0.0473
Methyl tert-butyl ether (MTBE)	0.1	0.00124 U	0.000479 U	0.00257 UJ	0.000585 U	0.000651 U	0.000645 U	0.000692 U	0.00344 UJ	0.000367 U	0.000670 U	0.000581 U	0.000695 U	0.000825 U	0.579 U	0.00109 U	0.00174 U	0.00654 U	0.00488	0.00292 U	0.00361 U	0.00288 U	NA
TPHs (mg/kg)																							
Gasoline-Range	30 / 100 [a]	113 J	5.71 U	57.1 J	6.29 U	36.9	36.8	6.43 U	36.0 J	4.48 U	7.01 U	11.1	6.78 U	8.08	57.9 U	10.9 U	27.1 U	94.8 U	53.5 U	14.1 J	54.2 U	62.5 U	13.6 U
Diesel-Range	2,000	137	11.9 U	686	12.0 U	12.2 U	12.4 U	12.1 U	1080	12.3 U	13.0 U	11.9 U	12.5 U	155	54.0 U	17.5 U	105	59.7 U	102	87.3	147	57.4 U	13.7 U
Lube Oil-Range	2,000	220	29.7 U	392	30.1 U	30.5 U	31.0 U	30.3 U	744	30.6 U	32.4 U	29.8 U	31.2 U	317	135 U	43.7 U	242	149 U	123	245	363	143 U	34.3 U
Kerosene-Range	2,000	65.9	11.9 U	413	12.0 U	12.2 U	12.4 U	12.1 U	97.4	12.3 U	13.0 U	11.9 U	12.5 U	29.5	54.0 U	17.5 U	27.6	59.7 U	46.2 U	34.5 U	48.6 U	57.4 U	NA
PAHs (mg/kg)																							
Acenaphthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene [b]	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (ghi) perylene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene [b]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	5	5.83 U	0.00479 U	13.3 U	0.00585 U	0.0295	0.0399	0.00692 U	0.0344 UJ	0.00367 U	0.00670 U	0.00581 U	0.00695 U	0.00825 U	0.0281 UJ	0.0109 U	0.0174 UJ	0.0654 UJ	0.0407 UJ	0.0292 UJ	0.0361 UJ	0.0288 UJ	NA
Phenanthrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TTEC Concentration (c-PAHs)	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs (mg/kg) [c]	NE	NA	NA	NA	NA	0.0	0.0399	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals (mg/kg)																							
Arsenic	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	19 (Cr^{6+}) / 2,000 (Cr^{3+})	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	250	218	1.48 J	66.0	1.57 J	4.50	5.49	1.46	153	2.57	5.53	7.12	2.42	11.6	17.1 U	316 J	64.2	23.2 J	30.0	125 J	79.4	22.4 U	NA
Selenium	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP Metals (mg/L)																							
Lead	5 [d]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

Model Toxics Control Act (MTCA) Cleanup Regulation, chapter 173-340 WAC; MTCA Method A and B from Ecology website downloaded August 2009 (https://fortress.wa.gov/ecy/clarc/Reporting/CLARCReporting.aspx).

DUP - Field duplicate

J - Estimated value

NA - Not applicable

NE - Not established

PAHs - Polynuclear aromatic hydrocarbons

TPHs - Total petroluem hydrocarbons

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[a] The soil cleanup level is 100 mg/kg if benzene is not present and the total of ethylbenzene, toluene, and xylenes is less than 1% of the gasoline mixture. The cleanup level for all other gasoline mixtures is 30 mg/kg.

[b] These compounds are considered carcinogenic PAHs (c-PAHs) and are subject to WAC-173-340 Toxicity Equivalent Soil Concentration calculations.

[c] Total PAHs are the sum of PAHs detailed by the WAC 173-303-040 (Acenaphthene, acenaphthylene, fluorene, anthracene, fluoranthene, phenanthrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, pyrene, chrysene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene, and benzo(g,h,i)perylene). Note dibenzo [(a,e), (a,h), (a,i), and (a,1)] pyrenes and dibenzo(a,j) acridine are not included as these compounds were not analyzed for and are not typically included in the PAH analyte list. The waste characterization is determined based on an exceedance of a 1% total PAHs as decribed in WAC 173-303-100.

[d] WAC 173-303-090 - Dangerous Waste Criteria, dated July 31, 2009.

Table J-3
Summary of Soil Analytical Results
Amazon Lot
Westlake-Mercer

Sample Location:	MTCA Method A Soil Cleanup Level	Amazon Lot 34													
Sample Date:		6	7	8	9	10	12	13	14	15	16	18	19	20	21
Field QC:		3/31/2009	4/2/2009	4/2/2009	4/2/2009	4/3/2009	4/23/2009	4/28/2009	5/1/2009	5/6/2009	5/7/2009	5/19/2009	5/20/2009	6/1/2009	6/19/2009
VOCs (mg/kg)															
Acetone	NE	0.0288 U	0.0265	0.0246 U	0.0343 U	0.0233 U	0.0262 U	0.0259 U	0.0291 U	0.0269 U	0.0284 U	0.0281 U	0.0267 U	0.0229 U	0.46 U
Benzene	0.03	0.00108 U	0.000818 U	0.000922 U	0.00129 U	0.000873 U	0.000981 U	0.000972 U	0.00109 U	0.00101 U	0.00106 U	0.00105 U	0.001 U	0.000859 UJ	0.018 U
Bromobenzene	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 U	0.00333 UJ	0.00286 UJ	0.046 U
Bromochloromethane	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 U	0.00333 U	0.00286 U	0.046 U
Bromodichloromethane	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 U	0.00333 U	0.00286 UJ	0.046 U
Bromoform	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 UJ	0.00333 UJ	0.00286 UJ	0.046 U
Bromomethane	NE	0.00721 U	0.00546 U	0.00615 U	0.00857 U	0.00582 U	0.00654 U	0.00648 U	0.00727 U	0.00671 U	0.00709 U	0.00701 U	0.00667 U	0.00573 U	0.16 U
2-Butanone	NE	0.0216 U	0.0164 U	0.0184 U	0.0257 U	0.0175 U	0.0196 U	0.0194 U	0.0218 U	0.0201 U	0.0213 U	0.021 U	0.02 U	0.0172 U	0.46 U
n-Butylbenzene	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 U	0.00333 UJ	0.00286 UJ	0.046 U
sec-Butylbenzene	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 U	0.00333 UJ	0.00286 UJ	0.046 U
tert-Butylbenzene	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 U	0.00333 UJ	0.00286 UJ	0.046 U
Carbon disulfide	NE	0.00216 U	0.00164 U	0.00184 U	0.00257 U	0.00175 U	0.00196 U	0.00194 U	0.00218 U	0.00201 U	0.00213 U	0.0021 U	0.002 U	0.00172 U	0.046 U
Carbon tetrachloride	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 U	0.00333 U	0.00286 UJ	0.023 U
Chlorobenzene	NE	0.00144 U	0.00109 U	0.00123 U	0.00171 U	0.00116 U	0.00131 U	0.0013 U	0.00145 U	0.00134 U	0.00142 U	0.0014 UJ	0.00133 UJ	0.00115 UJ	0.046 U
Chloroethane	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 U	0.00333 U	0.00286 U	0.46 U
Chloroform	NE	0.0018 U	0.00136 U	0.00154 U	0.00214 U	0.00146 U	0.00163 U	0.00162 U	0.00182 U	0.00168 U	0.00177 U	0.00175 U	0.00167 U	0.00143 U	0.046 U
Chloromethane	NE	0.00721 U	0.00546 U	0.00615 U	0.00857 U	0.00582 U	0.00654 U	0.00648 U	0.00727 U	0.00671 U	0.00709 U	0.00701 U	0.00667 U	0.00573 U	0.46 U
2-Chlorotoluene	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 U	0.00333 UJ	0.00286 UJ	0.046 U
4-Chlorotoluene	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 U	0.00333 UJ	0.00286 UJ	0.046 U
Dibromochloromethane	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 UJ	0.00333 UJ	0.00286 UJ	0.046 U
1,2-Dibromo-3-chloropropane	NE	0.00721 U	0.00546 U	0.00615 U	0.00857 U	0.00582 U	0.00654 U	0.00648 U	0.00727 U	0.00671 U	0.00709 U	0.00701 U	0.00667 UJ	0.00573 UJ	0.23 U
1,2-Dibromoethane (EDB)	0.005	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 UJ	0.00333 UJ	0.00286 UJ	0.046 U
Dibromomethane	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 U	0.00333 U	0.00286 UJ	0.046 U
1,2-Dichlorobenzene	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 U	0.00333 UJ	0.00286 UJ	0.046 U
1,3-Dichlorobenzene	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 U	0.00333 UJ	0.00286 UJ	0.046 U
1,4-Dichlorobenzene	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 U	0.00333 UJ	0.00286 UJ	0.046 U
Dichlorodifluoromethane	NE	0.0036 U	0.0917 UJ	0.107 UJ	0.122 UJ	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 U	0.00333 U	0.00286 U	0.046 U
1,1-Dichloroethane	NE	0.00144 U	0.00109 U	0.00123 U	0.00171 U	0.00116 U	0.00131 U	0.0013 U	0.00145 U	0.00134 U	0.00142 U	0.0014 U	0.00133 U	0.00115 U	0.046 U
1,2-Dichloroethane	NE	0.000901 U	0.000682 U	0.000768 U	0.00293	0.000728 U	0.000817 U	0.00081 U	0.000908 U	0.000839 U	0.000886 U	0.000877 U	0.000833 U	0.000716 UJ	0.046 U
1,1-Dichloroethene	NE	0.00216 U	0.00164 U	0.00184 U	0.00257 U	0.00175 U	0.00196 U	0.00194 U	0.00218 U	0.00201 U	0.00213 U	0.0021 U	0.002 U	0.00172 U	0.023 U
cis-1,2-Dichloroethene	NE	0.00216 U	0.00164 U	0.00184 U	0.00257 U	0.00175 U	0.00196 U	0.00194 U	0.00218 U	0.00201 U	0.00213 U	0.0021 U	0.002 U	0.00172 U	0.046 U
trans-1,2-Dichloroethene	NE	0.0018 U	0.00136 U	0.00154 U	0.00214 U	0.00146 U	0.00163 U	0.00162 U	0.00182 U	0.00168 U	0.00177 U	0.00175 U	0.00167 U	0.00143 U	0.046 U
1,2-Dichloropropane	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 U	0.00333 U	0.00286 UJ	0.014 U
1,3-Dichloropropane	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 UJ	0.00333 UJ	0.00286 UJ	0.046 U
2,2-Dichloropropane	NE	0.00721 U	0.00546 U	0.00615 U	0.00857 U	0.00582 U	0.00654 U	0.00648 U	0.00727 U	0.00671 U	0.00709 U	0.00701 U	0.00667 U	0.00573 U	0.046 U
1,1-Dichloropropene	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 U	0.00333 U	0.00286 U	0.046 U
cis-1,3-Dichloropropene	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 U	0.00333 U	0.00286 UJ	0.018 U
trans-1,3-Dichloropropene	NE	0.000901 U	0.000682 U	0.000768 U	0.00107 U	0.000728 U	0.000817 U	0.00081 U	0.000908 U	0.000839 U	0.000886 U	0.000877 UJ	0.000833 UJ	0.000716 UJ	0.018 U
Ethylbenzene	6	0.00288 U	0.00218 U	0.00246 U	0.00343 U	0.00233 U	0.00262 U	0.00259 U	0.00291 U	0.00269 U	0.00284 U	0.00281 UJ	0.00267 UJ	0.00229 UJ	0.046 U
Hexachlorobutadiene	NE	0.00721 U	0.00546 U	0.00615 U	0.00857 U	0.00582 U	0.00654 U	0.00648 U	0.00727 U	0.00671 U	0.00709 U	0.00701 U	0.00667 UJ	0.00573 UJ	0.046 U
Methyl tert-butyl ether	0.1	0.000721 U	0.000546 U	0.000615 U	0.000857 U	0.000582 U	0.000654 U	0.000648 U	0.000727 U	0.000671 U	0.000709 U	0.000701 U	0.000667 U	0.000573 U	0.046 U
n-Hexane	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 U	0.00333 U	0.00286 U	0.046 U
2-Hexanone	NE	0.0216 U	0.0164 U	0.0184 U	0.0257 U	0.0175 U	0.0196 U	0.0194 U	0.0218 U	0.0201 U	0.0213 U	0.021 UJ	0.0200 UJ	0.0172 UJ	0.23 U
Isopropylbenzene	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 UJ	0.00333 UJ	0.00286 UJ	0.046 U
p-Isopropyltoluene	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	7.76	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 U	0.00333 UJ	0.00286 UJ	0.046 U
4-Methyl-2-pentanone	NE	0.0216 U	0.0164 U	0.0184 U	0.0257 U	0.0175 U	0.0196 U	0.0194 U	0.0218 U	0.0201 U	0.0213 U	0.021 U	0.02 U	0.0172 UJ	0.23 U
Methylene chloride	0.02	0.00865 U	0.00655 U	0.00738 U	0.0103 U	0.00698 U	0.00785 U	0.00778 U	0.00872 U	0.00806 U	0.00851 U	0.00842 U	0.008 U	0.00687 U	0.046 U
Naphthalene	5	0.00721 U	0.00546 U	0.00615 U	0.00857 U	0.00582 U	0.00654 U	0.00648 U	0.00727 U	0.00671 U	0.00709 U	0.00701 U	0.00667 UJ	0.00573 UJ	0.046 U
n-Propylbenzene	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 U	0.00333 UJ	0.00286 UJ	0.046 U
Styrene	NE	0.0018 U	0.00136 U	0.00154 U	0.00214 U	0.00146 U	0.00163 U	0.00162 U	0.00182 U	0.00168 U	0.00177 U	0.00175 UJ	0.00167 UJ	0.00143 UJ	0.046 U
1,2,3-Trichlorobenzene	NE	0.00721 U	0.00546 U	0.00615 U	0.00857 U	0.00582 U	0.00654 U	0.00648 U	0.00727 U	0.00671 U	0.00709 U	0.00701 U	0.00667 UJ	0.00573 UJ	0.046 U
1,2,4-Trichlorobenzene	NE	0.00721 U	0.00546 U	0.00615 U	0.00857 U	0.00582 U	0.00654 U	0.00648 U	0.00727 U	0.00671 U	0.00709 U	0.00701 U	0.00667 UJ	0.00573 UJ	0.046 U
1,1,1,2-Tetrachloroethane	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 UJ	0.00333 UJ	0.00286 UJ	0.046 U
1,1,2,2-Tetrachloroethane	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 U	0.00333 UJ	0.00286 UJ	0.012 U
Tetrachloroethene	0.05	0.00144 U	0.00109 U	0.00123 U	0.00171 U	0.00116 U	0.00131 U	0.0013 U	0.00145 U	0.00134 U	0.00142 U	0.0014 UJ	0.00133 UJ	0.00115 UJ	0.023 U
Toluene	7	0.00108 U	0.000818 U	0.000922 U	0.00129 U	0.000873 U	0.000981 U	0.000972 U	0.00109 U	0.00101 U	0.00106 U	0.00105 UJ	0.001 UJ	0.000859 UJ	0.046 U
1,1,1-Trichloroethane	2	0.0018 U	0.00136 U	0.00154 U	0.00214 U	0.00146 U	0.00163 U	0.00162 U	0.00182 U	0.00168 U	0.00177 U	0.00175 U	0.00167 U	0.00143 U	0.046 U
1,1,2-Trichloroethane	NE	0.00144 U	0.00109 U	0.00123 U	0.00171 U	0.00116 U	0.00131 U	0.0013 U	0.00145 U	0.00134 U	0.00142 U	0.0014 UJ	0.00133 UJ	0.00115 UJ	0.014 U
Trichloroethene	0.03	0.0018 U	0.00136 U	0.00313	0.00456	2.69	0.00165	0.00197	0.00182 U	0.00168 U	0.00177 U	0.00205	0.00167 U	0.00143 UJ	0.018 U
Trichlorofluoromethane	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 U	0.00333 U	0.00286 U	0.046 U
1,2,3-Trichloropropane	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 U	0.00333 UJ	0.00286 UJ	0.046 U
1,2,4-Trimethylbenzene	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 U	0.00333 UJ	0.00286 UJ	0.046 U
1,3,5-Trimethylbenzene	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 U	0.00333 UJ	0.00286 UJ	0.046 U
Vinyl chloride	NE	0.0018 U	0.00136 U	0.00154 U	0.00214 U	0.00146 U	0.00163 U	0.00162 U	0.00182 U	0.00168 U	0.00177 U	0.00175 U	0.00167 U	0.00143 U	0.092 U
o-Xylene	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 UJ	0.00333 UJ	0.00286 UJ	0.046 U
m,p-Xylene	NE	0.0036 U	0.00273 U	0.00307 U	0.00428 U	0.00291 U	0.00327 U	0.00324 U	0.00363 U	0.00336 U	0.00355 U	0.00351 UJ	0.00333 UJ	0.00286 UJ	0.046 U
Total Xylenes	9	0.00721 U	0.00546 U	0.00615 U	0.00857 U	0.00582 U	0.00654 U	0.00648 U	0.00727 U	0.00671 U	0.00709 U	0.00701 UJ	0.00667 UJ	0.00573 UJ	0.046 U

Table J-3
Summary of Soil Analytical Results
Amazon Lot
Westlake-Mercer

Sample Location:	MTCA Method A Soil Cleanup Level	Amazon Lot 34													
		6	7	8	9	10	12	13	14	15	16	18	19	20	21
Sample Date:		3/31/2009	4/2/2009	4/2/2009	4/2/2009	4/3/2009	4/23/2009	4/28/2009	5/1/2009	5/6/2009	5/7/2009	5/19/2009	5/20/2009	6/1/2009	6/19/2009
TPHs (mg/kg)															
Gasoline-Range	30 / 100 a	5.23 U	4.59 U	5.33 U	6.10 U	4.86 U	5.32 U	5.68 U	5.84 U	5.59 U	6.18 U	5.74 U	4.99 U	5.42 U	4.6 U
Diesel-Range	2,000	10.7 U	11.1 U	11.2 U	10.7 U	10.7 U	10.6 U	10.6 U	10.6 U	11.0 U	11.1	10.6 U	10.8 U	10.6 U	27
Lube Oil-Range	2,000	26.7 U	27.7 U	27.9 U	26.7 U	27.1	26.5 U	26.5 U	26.6 U	27.5 U	47.9	26.6 U	27.1 U	26.4 U	47 U
Kerosene-Range	2,000	10.7 U	11.1 U	11.2 U	10.7 U	10.7 U	10.6 U	10.6 U	10.6 U	11.0 U	10.9 U	10.6 U	10.8 U	10.6 U	10.3 U
PAHs (mg/kg)															
Acenaphthene	NE	0.0105 U	0.0109 U	0.0112 U	0.0106 U	0.0107 U	0.0106 U	0.0106 U	0.0107 U	0.0110 U	0.0109 U	0.0107 U	0.0109 U	0.0106 U	0.0052 U
Acenaphthylene	NE	0.0105 U	0.0109 U	0.0112 U	0.0106 U	0.0107 U	0.0106 U	0.0106 U	0.0107 U	0.0110 U	0.0109 U	0.0107 U	0.0109 U	0.0106 U	0.0052 U
Anthracene	NE	0.0105 U	0.0109 U	0.0112 U	0.0106 U	0.0107 U	0.0106 U	0.0106 U	0.0107 U	0.0110 U	0.0109 U	0.0107 U	0.0109 U	0.0106 U	0.0052 U
Benzo(a)anthracene [b]	NE	0.0105 U	0.0109 U	0.0112 U	0.0106 U	0.0107 U	0.0106 U	0.0106 U	0.0107 U	0.0110 U	0.0109 U	0.0107 U	0.0109 U	0.0106 U	0.0052 U
Benzo(a)pyrene [b]	0.1	0.0105 U	0.0109 U	0.0112 U	0.0106 U	0.0107 U	0.0106 U	0.0106 U	0.0107 U	0.0110 U	0.0109 U	0.0107 U	0.0109 U	0.0106 U	0.0052 U
Benzo(b)fluoranthene [b]	NE	0.0105 U	0.0109 U	0.0112 U	0.0106 U	0.0107 U	0.0106 U	0.0106 U	0.0107 U	0.0110 U	0.0109 U	0.0107 U	0.0109 U	0.0106 U	0.0052 U
Benzo(k)fluoranthene [b]	NE	0.0105 U	0.0109 U	0.0112 U	0.0106 U	0.0107 U	0.0106 U	0.0106 U	0.0107 U	0.0110 U	0.0109 U	0.0107 U	0.0109 U	0.0106 U	0.0052 U
Benzo (b & k) fluoranthene	NE	0.0211 U	0.0219 U	0.0223 U	0.0213 U	0.0214 U	NA	0.0212 U	0.0214 U	0.0220 U	NA	0.0214 U	NA	NA	NA
Benzo (ghi) perylene	NE	0.0105 U	0.0109 U	0.0112 U	0.0106 U	0.0107 U	0.0106 U	0.0106 U	0.0107 U	0.0110 U	0.0109 U	0.0107 U	0.0109 U	0.0106 U	0.0052 U
Chrysene [b]	NE	0.0105 U	0.0109 U	0.0112 U	0.0106 U	0.0107 U	0.0106 U	0.0106 U	0.0107 U	0.0110 U	0.0109 U	0.0107 U	0.0109 U	0.0106 U	0.0052 U
Dibenz(a,h)anthracene [b]	NE	0.0105 U	0.0109 U	0.0112 U	0.0106 U	0.0107 U	0.0106 U	0.0106 U	0.0107 U	0.0110 U	0.0109 U	0.0107 U	0.0109 U	0.0106 U	0.0052 U
Fluoranthene	NE	0.0105 U	0.0109 U	0.0112 U	0.0106 U	0.0107 U	0.0106 U	0.0106 U	0.0107 U	0.0110 U	0.0109 U	0.0107 U	0.0109 U	0.0106 U	0.0052 U
Fluorene	NE	0.0105 U	0.0109 U	0.0112 U	0.0106 U	0.0107 U	0.0106 U	0.0106 U	0.0107 U	0.0110 U	0.0109 U	0.0107 U	0.0109 U	0.0106 U	0.0052 U
Indeno(1,2,3-cd)pyrene [b]	NE	0.0105 U	0.0109 U	0.0112 U	0.0106 U	0.0107 U	0.0106 U	0.0106 U	0.0107 U	0.0110 U	0.0109 U	0.0107 U	0.0109 U	0.0106 U	0.0052 U
1-Methylnaphthalene	NE	0.0105 U	0.0109 U	0.0112 U	0.0106 U	0.0107 U	0.0106 U	0.0106 U	0.0107 U	0.0110 U	0.0109 U	0.0107 U	0.0109 U	0.0106 U	0.0052 U
2-Methylnaphthalene	NE	0.0105 U	0.0109 U	0.0112 U	0.0106 U	0.0107 U	0.0106 U	0.0106 U	0.0107 U	0.0110 U	0.0109 U	0.0107 U	0.0109 U	0.0106 U	0.0052 U
Naphthalene	5	0.0105 U	0.0109 U	0.0112 U	0.0106 U	0.0107 U	0.0106 U	0.0106 U	0.0107 U	0.0110 U	0.0109 U	0.0107 U	0.0109 U	0.0106 U	0.0052 U
Phenanthrene	NE	0.0105 U	0.0109 U	0.0112 U	0.0106 U	0.0107 U	0.0106 U	0.0106 U	0.0107 U	0.0110 U	0.0109 U	0.0107 U	0.0109 U	0.0106 U	0.0052 U
Pyrene	NE	0.0105 U	0.0109 U	0.0112 U	0.0106 U	0.0107 U	0.0106 U	0.0106 U	0.0107 U	0.0110 U	0.0109 U	0.0107 U	0.0109 U	0.0106 U	0.0052 U
TTEC Concentration (c-PAHs)	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs (mg/kg)[c]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals (mg/kg)															
Arsenic	20	1.64	2.15	1.58	1.56	1.85	1.72	2.21	1.54	1.48	1.72	1.43 J	1.68	1.39	1.1
Barium	NE	43.2	68.3	39.6	39.5	42.7 J	36.5	28.0	34.5 J	40.8	44.3	32.6	45.0 J	36.7	28
Cadmium	2	0.528 U	0.568 U	0.582 U	0.518 U	0.544 U	0.524 U	0.533 U	0.364 U	0.551 U	0.544 U	0.535 UJ	0.533 U	0.529 U	0.21 U
Chromium	19 (Cr^{6+}) / 2,000 (Cr^{3+})	23.1	27.7	20.3	22.2	23.3	21.0	23.5	21.2	22.8	22.2	22.3	25.4	23.3	20
Lead	250	2.45 J	5.39	3.04	2.32	2.92 J	1.91	2.62 J	2.37 J	3.13	11.4 J	2.34	3.27	2.69	1.6
Selenium	NE	1.06 U	1.14 U	1.16 U	1.04 U	1.09 U	1.05 U	1.07 U	0.728 U	1.10 U	1.09 U	1.07 U	1.07 U	1.06 U	0.51 U
Silver	NE	0.528 U	0.568 U	0.582 U	0.518 U	0.544 U	0.524 U	0.533 U	0.364 U	0.551 U	0.544 U	0.765	0.533 U	0.529 U	0.21 U
Mercury	2	0.107 U	0.103 U	0.0987 U	0.104 U	0.101 U	0.104 U	0.0972 U	0.0994 U	0.102 U	0.104 U	0.0987 U	0.0000097 U	0.0985 U	0.018 U

Notes:

Model Toxics Control Act (MTCA) Cleanup Regulation, chapter 173-340 WAC; MTCA Method A and B from Ecology website downloaded August 2009 (https://fortress.wa.gov/ecy/clarc/Reporting/CLARCReporting.aspx).

DUP - Field duplicate

J - Estimated value

NA - Not applicable

NE - Not established

PAHs - Polynuclear aromatic hydrocarbons

TPHs - Total petroluem hydrocarbons

U - Compound was analyzed for but not detected above the reporting limit shown.

UJ - Compound was analyzed for but not detected above the reporting limit shown. The reporting limit is an estimated value.

VOCs - Volatile organic compounds

TTEC - Total Toxicity Equivalent Soil Concentration

[a] The soil cleanup level is 100 mg/kg if benzene is not present and the total of ethylbenzene, toluene, and xylenes is less than 1% of the gasoline mixture. The cleanup level for all other gasoline mixtures is 30 mg/kg.

[b] These compounds are considered carcinogenic PAHs (c-PAHs) and are subject to WAC-173-340 Toxicity Equivalent Soil Concentration calculations.

[c] Total PAHs are the sum of PAHs detailed by the WAC 173-303-040 (Acenaphthene, acenaphthylene, fluorene, anthracene, fluoranthene, phenanthrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, pyrene, chrysene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene, and benzo(g,h,i)perylene). Note dibenzo [(a,e), (a,h), (a,i), and (a,1)] pyrenes and dibenzo(a,j) acridine are not included as these compounds were not analyzed for and are not typically included in the PAH analyte list. The waste characterization is determined based on an exceedance of a 1% total PAHs as decribed in WAC 173-303-100.

[d] WAC 173-303-090 - Dangerous Waste Criteria, dated July 31, 2009.

Table J-4
Summary of Oil Analytical Results
Westlake-Mercer

Sample ID:	COP-T1-2-Oil
Sample Date:	2/10/2009
VOCs (mg/kg)	
Benzene	10.0 U
Bromochloromethane	10.0 U
Bromodichloromethane	10.0 U
Bromoform	10.0 U
Bromomethane	10.0 U
Carbon tetrachloride	10.0 U
Chlorobenzene	10.0 U
Chloroethane	10.0 U
Chloroform	10.0 U
Chloromethane	50.0 U
Dibromochloromethane	10.0 U
1,2-Dichlorobenzene	11.8
1,3-Dichlorobenzene	10.0 U
1,4-Dichlorobenzene	10.0 U
1,1-Dichloroethane	10.0 U
1,2-Dichloroethane	10.0 U
1,1-Dichloroethene	10.0 U
cis-1,2-Dichloroethene	10.0 U
trans-1,2-Dichloroethene	10.0 U
1,2-Dichloropropane	10.0 U
cis-1,3-Dichloropropene	10.0 U
trans-1,3-Dichloropropene	10.0 U
Ethylbenzene	11.9
Methylene chloride	200 U
1,1,2,2-Tetrachloroethane	10.0 U
Tetrachloroethene	10.0 U
Toluene	10.0 U
1,1,1-Trichloroethane	10.0 U
1,1,2-Trichloroethane	10.0 U
Trichloroethene	10.0 U
Trichlorofluoromethane	10.0 U
Vinyl chloride	10.0 U
Total Xylenes	46.9
TPHs (mg/kg)	
Gasoline-Range	17,600
Diesel-Range	228,000 J
Lube Oil-Range	153,000 J
Bunker C	595,000 J
PCBs (mg/kg)	
Aroclor 1016	20.0 U
Aroclor 1221	20.0 U
Aroclor 1232	20.0 U
Aroclor 1242	20.0 U
Aroclor 1248	20.0 U
Aroclor 1254	20.0 U
Aroclor 1260	20.0 U
Aroclor 1262	20.0 U
Aroclor 1268	20.0 U
Total Metals (mg/kg)	
Arsenic	3.68
Barium	57.0
Cadmium	0.266 U
Chromium	18.3
Lead	139
Selenium	1.41
Silver	0.266 U
Mercury	0.0952 U
Conventionals	
pH (Standard units)	7.19

Notes:
TPHs - Total petroluem hydrocarbons
VOCs - Volatile organic compounds
PAHs - Polynuclear aromatic hydrocarbons

Table J-5
Summary of Soil Analytical Results
ICON
Westlake-Mercer

Sample ID: / Sample Date:	MTCA Method A Soil Cleanup Level	ICON Position 1 5/8/2009	Position 2 5/8/2009	Position 3 5/8/2009	Position 4 5/8/2009	Position 5 5/8/2009	Position 6 5/8/2009	Position 7 5/8/2009	Position 8 5/8/2009
VOCs (mg/kg)									
Acetone	NE	0.0241 U	0.0242 U	0.026 U	0.0235 UJ	0.0228 U	0.0253 U	0.0242 U	0.0242 U
Benzene	0.03	0.000904 U	0.000906 U	0.000975 U	0.000882 UJ	0.000856 U	0.00095 U	0.000909 U	0.000909 U
Bromobenzene	NE	0.00301 U	0.00302 UJ	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
Bromochloromethane	NE	0.00301 U	0.00302 U	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
Bromodichloromethane	NE	0.00301 U	0.00302 U	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
Bromoform	NE	0.00301 U	0.00302 UJ	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
Bromomethane	NE	0.00603 U	0.00604	0.0065 U	0.00588 UJ	0.00571 U	0.00633 U	0.00606 U	0.00606 U
2-Butanone	NE	0.0181 U	0.0181 U	0.0195 U	0.0176 UJ	0.0171 U	0.019 U	0.0182 U	0.0182 U
n-Butylbenzene	NE	0.00301 U	0.00302 UJ	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
sec-Butylbenzene	NE	0.00301 U	0.00302 UJ	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
tert-Butylbenzene	NE	0.00301 U	0.00302 UJ	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
Carbon disulfide	NE	0.00181 U	0.0181 U	0.00195 U	0.00176 UJ	0.00171 U	0.0019 U	0.00182 U	0.00182 U
Carbon tetrachloride	NE	0.00301 U	0.00302 U	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
Chlorobenzene	NE	0.00121 U	0.00121 UJ	0.0013 U	0.00118 UJ	0.00114 U	0.00127 U	0.00121 U	0.00121 U
Chloroethane	NE	0.00301 U	0.00302 U	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
Chloroform	NE	0.00151 U	0.00151 U	0.00162 U	0.00147 UJ	0.00143 U	0.00158 U	0.00152 U	0.00151 U
Chloromethane	NE	0.00603 U	0.00604 U	0.0065 U	0.00588 UJ	0.00571 U	0.00633 U	0.00606 U	0.00606 U
2-Chlorotoluene	NE	0.00301 U	0.00302 UJ	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
4-Chlorotoluene	NE	0.00301 U	0.00302 UJ	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
Dibromochloromethane	NE	0.00301 U	0.00302 UJ	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
1,2-Dibromo-3-chloropropane	NE	0.00603 U	0.00604 UJ	0.0065 U	0.00588 UJ	0.00571 U	0.00633 U	0.00606 U	0.00606 U
1,2-Dibromoethane (EDB)	0.005	0.00301 U	0.00302 UJ	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
Dibromomethane	NE	0.00301 U	0.00302 U	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
1,2-Dichlorobenzene	NE	0.00301 U	0.00302 UJ	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
1,3-Dichlorobenzene	NE	0.00301 U	0.00302 UJ	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
1,4-Dichlorobenzene	NE	0.00301 U	0.00302 UJ	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
Dichlorodifluoromethane	NE	0.00301 U	0.00302 U	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
1,1-Dichloroethane	NE	0.00121 U	0.00121 U	0.0013 U	0.00118 UJ	0.00114 U	0.00127 U	0.00121 U	0.00121 U
1,2-Dichloroethane	NE	0.000754 U	0.000755 U	0.000812 U	0.000735 UJ	0.000713 U	0.000792 U	0.000758 U	0.000757 U
1,1-Dichloroethene	NE	0.00181 U	0.00181 U	0.00195 U	0.00176 UJ	0.00171 U	0.0019 U	0.00182 U	0.00182 U
cis-1,2-Dichloroethene	NE	0.00181 U	0.00181 U	0.00195 U	0.00176 UJ	0.00171 U	0.0019 U	0.00182 U	0.00182 U
trans-1,2-Dichloroethene	NE	0.00151 U	0.00151 U	0.00162 U	0.00147 UJ	0.00143 U	0.00158 U	0.00152 U	0.00151 U
1,2-Dichloropropane	NE	0.00301 U	0.00302 U	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
1,3-Dichloropropane	NE	0.00301 U	0.00302 UJ	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
2,2-Dichloropropane	NE	0.00603 U	0.00604 U	0.0065 U	0.00588 UJ	0.00571 U	0.00633 U	0.00606 U	0.00606 U
1,1-Dichloropropene	NE	0.00301 U	0.00302 U	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
cis-1,3-Dichloropropene	NE	0.00301 U	0.00302 U	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
trans-1,3-Dichloropropene	NE	0.000754 U	0.000755 UJ	0.000812 U	0.000735 UJ	0.000713 U	0.000792 U	0.000758 U	0.000757 U
Ethylbenzene	6	0.00241 U	0.00242 UJ	0.0026 U	0.00235 UJ	0.00228 U	0.00253 U	0.00242 U	0.00242 U
Hexachlorobutadiene	NE	0.00603 U	0.00604 UJ	0.0065 U	0.00588 UJ	0.00571 U	0.00633 U	0.00606 U	0.00606 U
Methyl tert-butyl ether	0.1	0.000603 U	0.00604 U	0.00065 U	0.000588 UJ	0.000571 U	0.000633 U	0.000606 U	0.000606 U
n-Hexane	NE	0.00301 U	0.00302 U	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
2-Hexanone	NE	0.0181 U	0.0181 UJ	0.0195 U	0.0176 UJ	0.0171 U	0.019 U	0.0182 U	0.0182 U
Isopropylbenzene	NE	0.00301 U	0.00302 UJ	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
p-Isopropyltoluene	NE	0.00301 U	0.00302 UJ	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
4-Methyl-2-pentanone	NE	0.0181 U	0.0181 U	0.0195 U	0.0176 UJ	0.0171 U	0.019 U	0.0182 U	0.0182 U
Methylene chloride	0.02	0.00723 U	0.00725 U	0.0078 U	0.00706 UJ	0.00685 U	0.0076 U	0.00727 U	0.00727 U
Naphthalene	5	0.00603 U	0.00604 UJ	0.0065 U	0.00588 UJ	0.00571 U	0.00633 U	0.00606 U	0.00606 U
n-Propylbenzene	NE	0.00301 U	0.00302 UJ	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
Styrene	NE	0.00151 U	0.00151 UJ	0.00162 U	0.00147 UJ	0.00143 U	0.00158 U	0.00152 U	0.00151 U
1,2,3-Trichlorobenzene	NE	0.00603 U	0.00604 UJ	0.0065 U	0.00588 UJ	0.00571 U	0.00633 U	0.00606 U	0.00606 U
1,2,4-Trichlorobenzene	NE	0.00603 U	0.00604 UJ	0.0065 U	0.00588 UJ	0.00571 U	0.00633 U	0.00606 U	0.00606 U
1,1,1,2-Tetrachloroethane	NE	0.00301 U	0.00302 UJ	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
1,1,2,2-Tetrachloroethane	NE	0.00301 U	0.00302 UJ	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
Tetrachloroethene	0.05	0.00121 U	0.00121 U	0.0013 U	0.00118 UJ	0.00114 U	0.00127 U	0.00121 U	0.00121 U
Toluene	7	0.000904 U	0.906 U	0.000975 U	0.000882 UJ	0.000856 U	0.00095 U	0.000909 U	0.000909 U
1,1,1-Trichloroethane	2	0.00151 U	0.00151 U	0.00162 U	0.00147 UJ	0.00143 U	0.00158 U	0.00152 U	0.00151 U
1,1,2-Trichloroethane	NE	0.00121 U	0.00121 UJ	0.0013 U	0.00118 UJ	0.00114 U	0.00127 U	0.00121 U	0.00121 U
Trichloroethene	0.03	0.00151 U	0.00151 U	0.00162 U	0.00147 UJ	0.00143 U	0.00158 U	0.00152 U	0.00151 U
Trichlorofluoromethane	NE	0.00301 U	0.00302 U	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
1,2,3-Trichloropropane	NE	0.00301 U	0.00302 U	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
1,2,4-Trimethylbenzene	NE	0.00301 U	0.00302 UJ	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
1,3,5-Trimethylbenzene	NE	0.00301 U	0.00302 UJ	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
Vinyl chloride	NE	0.00151 U	0.00151 U	0.00162 U	0.00147 UJ	0.00143 U	0.00158 U	0.00152 U	0.00151 U
o-Xylene	NE	0.00301 U	0.00302 UJ	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
m,p-Xylene	NE	0.00301 U	0.00302 UJ	0.00325 U	0.00294 UJ	0.00285 U	0.00317 U	0.00303 U	0.00303 U
Total Xylenes	9	0.00603 U	0.00604 UJ	0.0065 U	0.00588 UJ	0.00571 U	0.00633 U	0.00606 U	0.00606 U

Table J-5
Summary of Soil Analytical Results
ICON
Westlake-Mercer

Sample ID: / Sample Date:	MTCA Method A Soil Cleanup Level	ICON Position 1 5/8/2009	Position 2 5/8/2009	Position 3 5/8/2009	Position 4 5/8/2009	Position 5 5/8/2009	Position 6 5/8/2009	Position 7 5/8/2009	Position 8 5/8/2009
TPHs (mg/kg)									
Gasoline-Range	30 / 100 [a]	4.64 U	4.65 U	4.51 U	5.15 U	4.88 U	5.10 U	5.45 U	4.89 U
Diesel-Range	2,000	55.0 U	109 U	24.2	52.7 U	26.8	53.6 U	10.9 U	53.1 U
Lube Oil-Range	2,000	615	978	188	440	218 J	460	73.2	484
Kerosene-Range	2,000	55.0 U	109 U	10.7 U	52.7 U	10.5 U	53.6 U	10.9 U	53.1 U
PCBs (mg/kg)									
Aroclor 1016	NE	0.0274 U	0.0270 U	0.0269 U	0.0264 U	0.0266 U	NA	NA	NA
Aroclor 1221	NE	0.0548 U	0.0541 U	0.0539 U	0.0529 U	0.0532 U	NA	NA	NA
Aroclor 1232	NE	0.0274 U	0.0270 U	0.0269 U	0.0264 U	0.0266 U	NA	NA	NA
Aroclor 1242	NE	0.0274 U	0.0270 U	0.0269 U	0.0264 U	0.0266 U	NA	NA	NA
Aroclor 1248	NE	0.0274 U	0.0270 U	0.0269 U	0.0264 U	0.0266 U	NA	NA	NA
Aroclor 1254	NE	0.0274 U	0.0270 U	0.0269 U	0.0264 U	0.0266 U	NA	NA	NA
Aroclor 1260	NE	0.0274 U	0.0270 U	0.0269 U	0.0264 U	0.0266 U	NA	NA	NA
Aroclor 1262	NE	0.0274 U	0.0270 U	0.0269 U	0.0264 U	0.0266 U	NA	NA	NA
Aroclor 1268	NE	0.0274 U	0.0270 U	0.0269 U	0.0264 U	0.0266 U	NA	NA	NA
Total PCBs	10,000	ND	ND	ND	ND	ND	NA	NA	NA
PAHs (mg/kg)									
Acenaphthene	NE	0.0110 U	0.0107 U	0.0108 U	0.0105 U	0.0106 U	0.0106 U	0.0108 U	0.0107 U
Acenaphthylene	NE	0.0110 U	0.0107 U	0.0108 U	0.0105 U	0.0106 U	0.0106 U	0.0108 U	0.0107 U
Anthracene	NE	0.0110 U	0.0107 U	0.0108 U	0.0105 U	0.0106 U	0.0106 U	0.0108 U	0.0107 U
Benzo(a)anthracene [(a)]	NE	0.0110 U	0.0116	0.0108 U	0.0120	0.0106 U	0.0145	0.0149	0.0107 U
Benzo(a)pyrene [(a)]	0.1	0.0117	0.0136	0.0108 U	0.0111	0.0106 U	0.0110	0.0139	0.0107 U
Benzo(b)fluoranthene [(a)]	NE	0.0110 U	0.0144	0.0108 U	0.0137	0.0106 U	0.0106 U	0.0125	0.0107 U
Benzo(k)fluoranthene [(a)]	NE	0.0110 U	0.0138	0.0108 U	0.0132	0.0106 U	0.0106 U	0.0121	0.0107 U
Benzo (ghi) perylene	NE	0.0110 U	0.0107 U	0.0108 U	0.0105 U	0.0106 U	0.0106 U	0.0108 U	0.0204
Chrysene [(a)]	NE	0.0358	0.0363	0.0116	0.0347	0.0106 U	0.0358	0.0198	0.0107 U
Dibenz(a,h)anthracene [(a)]	NE	0.0110 U	0.0107 U	0.0108 U	0.0105 U	0.0106 U	0.0106 U	0.0108 U	0.0165
Fluoranthene	NE	0.0110 U	0.0154	0.0108 U	0.0174	0.0106 U	0.0132	0.0371	0.0107 U
Fluorene	NE	0.0110 U	0.0107 U	0.0108 U	0.0105 U	0.0106 U	0.0106 U	0.0108 U	0.0107 U
Indeno(1,2,3-cd)pyrene [(a)]	NE	0.0110 U	0.0107 U	0.0108 U	0.0105 U	0.0106 U	0.0106 U	0.0108 U	0.0107 U
1-Methylnaphthalene	NE	0.0110 U	0.0107 U	0.0108 U	0.0105 U	0.0106 U	0.0106 U	0.0108 U	0.0107 U
2-Methylnaphthalene	NE	0.0110 U	0.0107 U	0.0108 U	0.0105 U	0.0106 U	0.0106 U	0.0108 U	0.0107 U
Naphthalene	5	0.0110 U	0.0107 U	0.0108 U	0.0105 U	0.0106 U	0.0106 U	0.0108 U	0.0107 U
Phenanthrene	NE	0.0150	0.0153	0.0108 U	0.0150	0.0106 U	0.0106 U	0.0205	0.0164
Pyrene	NE	0.0143	0.0179	0.0108 U	0.0207	0.0106 U	0.0166	0.0296	0.0179
TTEC Concentration (c-PAHs)	0.1	0.0121	0.0179	0.000116	0.0153	NA	0.0128	4.15	0.00165
Total PAHs (mg/kg)[4]	NA	0.0768	0.1383	0.0116	0.1378	NA	0.0911	0.1604	0.0712
Total Metals (mg/kg)									
Arsenic	20	2.87	2.95	2.65	2.94	2.39	2.68	2.79	3.22
Barium	NE	50.9	49.8	50.4	50.9	44.9	49.6	47.0	52.1
Cadmium	2	0.335 U	0.409 U	0.377 U	0.351 U	0.338 U	0.391 U	0.381 U	0.357 U
Chromium	19 (Cr^{6+}) / 2,000 (Cr^{3+})	26.7	20.7	28.2	23.9	21.0	25.4	22.1	20.5
Lead	250	3.28	4.79	2.68	3.23	2.81	3.06	2.90	2.99
Selenium	NE	0.671 U	0.819 U	0.753 U	0.703 U	0.675 U	0.783 U	0.761 U	0.713 U
Silver	NE	0.335 U	0.409 U	0.377 U	0.351 U	0.338 U	0.391 U	0.381 U	0.357 U
Mercury	2	0.0969 U	0.0987 U	0.0932 U	0.100 U	0.0954 U	0.0980 U	0.101 U	0.0797 U
TCLP Metals (mg/L)									
Lead	5 [(d)]	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NA	NA	NA

Notes:

Model Toxics Control Act (MTCA) Cleanup Regulation, chapter 173-340 WAC; MTCA Method A and B from Ecology website downloaded August 2009 (https://fortress.wa.gov/ecy/clarc/Reporting/CLARCReporting.aspx).

DUP - Field duplicate

J - Estimated value

NA - Not applicable

NE - Not established

PAHs - Polynuclear aromatic hydrocarbons

TPHs - Total petroluem hydrocarbons

U - Compound was analyzed for but not detected above the reporting limit shown.

UJ - Compound was analyzed for but not detected above the reporting limit shown. The reporting limit is an estimated value.

VOCs - Volatile organic compounds

TTEC - Total Toxicity Equivalent Soil Concentration

[a] The soil cleanup level is 100 mg/kg if benzene is not present and the total of ethylbenzene, toluene, and xylenes is less than 1% of the gasoline mixture. The cleanup level for all other gasoline mixtures is 30 mg/kg.

[b] These compounds are considered carcinogenic PAHs (c-PAHs) and are subject to WAC-173-340 Toxicity Equivalent Soil Concentration calculations.

[c] Total PAHs are the sum of PAHs detailed by the WAC 173-303-040 (Acenaphthene, acenaphthylene, fluorene, anthracene, fluoranthene, phenanthrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, pyrene, chrysene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene, and benzo(g,h,i)perylene). Note dibenzo [(a,e), (a,h), (a,i), and (a,1)] pyrenes and dibenzo(a,j) acridine are not included as these compounds were not analyzed for and are not typically included in the PAH analyte list. The waste characterization is determined based on an exceedance of a 1% total PAHs as decribed in WAC 173-303-100.

[d] WAC 173-303-090 - Dangerous Waste Criteria, dated July 31, 2009.

Table J-6
Summary of Water Analytical Results
Westlake-Mercer

Sample ID:	COP-T1-W	COP-T1.2-W	COP-T2-W	COP-T2-W
Sample Date:	1/30/2009	2/11/2009	2/3/2009	2/4/2009
Field QC:				
VOCs (ug/L)				
Benzene	121	NA	9.87	NA
Bromochloromethane	0.250 U	NA	0.250 U	NA
Bromodichloromethane	0.200 U	NA	0.200 U	NA
Bromoform	0.250 U	NA	0.250 U	NA
Bromomethane	2.00 U	NA	2.00 U	NA
Carbon tetrachloride	0.200 U	NA	0.200 U	NA
Chlorobenzene	0.200 U	NA	0.200 U	NA
Chloroethane	1.00 U	NA	1.00 U	NA
Chloroform	0.200 U	NA	0.200 U	NA
Chloromethane	1.00 U	NA	1.00 U	NA
Dibromochloromethane	0.200 U	NA	0.200 U	NA
1,2-Dichlorobenzene	10.7	NA	0.310	NA
1,3-Dichlorobenzene	0.390	NA	0.200 U	NA
1,4-Dichlorobenzene	2.91	NA	0.200 U	NA
1,1-Dichloroethane	0.200 U	NA	0.200 U	NA
1,2-Dichloroethane	0.200 U	NA	0.200 U	NA
1,1-Dichloroethene	0.200 U	NA	0.200 U	NA
cis-1,2-Dichloroethene	0.200 U	NA	0.200 U	NA
trans-1,2-Dichloroethene	0.200 U	NA	0.200 U	NA
1,2-Dichloropropane	0.200 U	NA	0.200 U	NA
cis-1,3-Dichloropropene	0.200 U	NA	0.200 U	NA
trans-1,3-Dichloropropene	0.200 U	NA	0.200 U	NA
Ethylbenzene	15.7	NA	12.8	NA
Methylene chloride	5.00 U	NA	5.00 U	NA
Tetrachloroethene (PCE)	0.200 U	NA	0.200 U	NA
1,1,2,2-Tetrachloroethane	0.500 U	NA	0.500 U	NA
Toluene	19.3	NA	10.1	NA
1,1,1-Trichloroethane	0.200 U	NA	0.200 U	NA
1,1,2-Trichloroethane	0.200 U	NA	0.200 U	NA
Trichloroethene (TCE)	0.200 U	NA	0.200 U	NA
Trichlorofluoromethane	0.500 U	NA	0.500 U	NA
Vinyl chloride	0.200 U	NA	0.200 U	NA
Total Xylenes	71.1	NA	111	NA
TPHs (mg/L)				
Gasoline-Range	2.48	NA	2.78	NA
Diesel-Range	99.5 J	NA	21.4 J	NA
Lube Oil-Range	30.6 J	NA	2.49 J	NA
PCBs (ug/L)				
Aroclor 1016	NA	0.472 U	NA	0.476 U
Aroclor 1221	NA	0.472 U	NA	0.476 U
Aroclor 1232	NA	0.472 U	NA	0.476 U
Aroclor 1242	NA	0.472 U	NA	0.476 U
Aroclor 1248	NA	0.472 U	NA	0.476 U
Aroclor 1254	NA	0.472 U	NA	0.476 U
Aroclor 1260	NA	0.472 U	NA	0.476 U
Aroclor 1262	NA	0.472 U	NA	0.476 U
Aroclor 1268	NA	0.472 U	NA	0.476 U
Total PCBs	NA	ND	NA	ND
Total Metals (mg/L)				
Arsenic	0.0214	0.100 U	0.00240	NA
Barium	0.446	0.374	0.112	NA
Cadmium	0.00217	0.00500 U	0.00100 U	NA
Chromium	0.0419	0.0100 U	0.00100 U	NA
Lead	0.150	0.0965	0.00100 U	NA
Selenium	0.0502	0.150 U	0.00540	NA
Silver	0.00116	0.0100 U	0.00100 U	NA
Mercury	0.000200 U	0.000200 U	0.000200 U	NA
Conventionals				
pH (std units)	NA	6.92	NA	NA

Notes:
J - Estimated value
NA - Not applicable or not analyzed
NE - Not established
ND - Not detected
TPHs - Total petroluem hydrocarbons
U - Compound was analyzed for but not detected above the reporting limit shown.
VOCs - Volatile organic compounds

Table J-7
Summary of Water for Waste Disposal Analytical Results
Westlake-Mercer

Sample ID	Sample Date	Volatile Organic Compounds (ug/L)				Total Petroleum Hydrocarbons (ug/L)					Total Metals (mg/L)					
		Benzene	Ethyl-benzene	Toluene	Total Xylenes	Diesel-Range	Lube Oil-Range	Kerosene-Range	Heavy Oil - Range	Gasoline-Range	Cadmium	Chromium	Copper	Lead	Nickel	Zinc
I	2/5/09	23.7	53.6	108	2,580	2,070	2,360 U	NA	NA	14,000	NA	NA	NA	NA	NA	NA
	3/5/09	0.540	8.18	0.500 U	7.69	1,100	593	NA	NA	287	NA	NA	NA	NA	NA	NA
	3/20/09	85.4	71.0	93.0	490	3,000	612	NA	NA	5,390	NA	NA	NA	NA	NA	NA
	4/15/09	2.16	0.500 U	0.500 U	5.05	1,130	681	NA	NA	257	NA	NA	NA	NA	NA	NA
	4/23/09	2.07	0.500 U	0.720	7.99	1,810	1,010	1,470	NA	410	NA	NA	NA	NA	NA	NA
	5/5/09	0.800	0.500 U	0.500 U	3.00 U	1,390	472 U	NA	NA	209	NA	NA	NA	NA	NA	NA
	5/20/09	0.660	1.00	0.500 U	4.97	797	555	NA	NA	176	NA	NA	NA	NA	NA	NA
	6/12/09	1.00 U	1.00 U	1.00 U	3.00 U	436	NA	NA	476 U	50 U	NA	NA	NA	NA	NA	NA
M	2/5/09	0.500 U	0.500 U	0.500 U	3.00 U	236 U	472 U	NA	NA	50.0 U	NA	NA	NA	NA	NA	NA
	3/5/09	0.500 U	0.500 U	0.500 U	3.00 U	236 U	472 U	NA	NA	50.0 U	NA	NA	NA	NA	NA	NA
	3/20/09	1.06	0.770	0.990	5.38	236 U	472 U	NA	NA	95.2	NA	NA	NA	NA	NA	NA
	4/15/09	0.620	0.500 U	0.500 U	3.00 U	788	611	NA	NA	119	NA	NA	NA	NA	NA	NA
	4/23/09	0.500 U	0.500 U	0.500 U	3.00 U	1,070	476 U	793	NA	160	NA	NA	NA	NA	NA	NA
	5/5/09	0.500 U	0.500 U	0.500 U	3.00 U	415	472 U	NA	NA	50.0 U	NA	NA	NA	NA	NA	NA
	5/20/09	0.500 U	0.500 U	0.500 U	3.00 U	440	472 U	NA	NA	62.6	NA	NA	NA	NA	NA	NA
	6/12/09	1.00 U	1.00 U	1.00 U	3.00 U	236 U	NA	NA	472 U	50 U	NA	NA	NA	NA	NA	NA
E01	2/5/09	0.500 U	0.500 U	0.500 U	3.00 U	236 U	472 U	NA	NA	173	0.00100 U	0.00109	0.00172	0.00277	0.00229	0.342
	3/5/09	0.500 U	0.500 U	0.500 U	3.00 U	236 U	472 U	NA	NA	50.0 U	NA	NA	NA	NA	NA	NA
	3/20/09	0.500 U	0.500 U	0.500 U	3.00 U	236 U	472 U	NA	NA	50.0 U	NA	NA	NA	NA	NA	0.0176
	4/15/09	0.500 U	0.500 U	0.500 U	3.00 U	243 U	485 U	NA	NA	50.0 U	NA	NA	NA	NA	NA	NA
	4/23/09	0.500 U	0.500 U	0.500 U	3.00 U	236 U	472 U	236 U	NA	50.0 U	NA	NA	NA	NA	NA	NA
	5/5/09	0.500 U	0.500 U	0.500 U	3.00 U	236 U	472 U	NA	NA	50.0 U	NA	NA	NA	NA	NA	NA
	5/20/09	0.500 U	0.500 U	0.500 U	3.00 U	236 U	472 U	NA	NA	50.0 U	NA	NA	NA	NA	NA	NA
	6/12/09	1.00 U	1.00 U	1.00 U	3.00 U	238 U	NA	NA	476 U	50 U	NA	NA	NA	NA	NA	NA
E02	2/5/09	NA	NA	NA	NA	240 U	481 U	NA	NA	50.0 U	NA	NA	NA	NA	NA	NA
	3/5/09	NA	NA	NA	NA	236 U	472 U	NA	NA	50.0 U	NA	NA	NA	NA	NA	NA
	3/20/09	NA	NA	NA	NA	236 U	472 U	NA	NA	50.0 U	NA	NA	NA	NA	NA	NA
	4/15/09	NA	NA	NA	NA	240 U	481 U	NA	NA	50.0 U	NA	NA	NA	NA	NA	NA
	4/23/09	NA	NA	NA	NA	236 U	472 U	236 U	NA	50.0 U	NA	NA	NA	NA	NA	NA
	5/5/09	NA	NA	NA	NA	236 U	472 U	NA	NA	50.0 U	NA	NA	NA	NA	NA	NA
	5/20/09	NA	NA	NA	NA	236 U	472 U	NA	NA	50.0 U	NA	NA	NA	NA	NA	NA
	6/12/09	NA	NA	NA	NA	238 U	NA	NA	476 U	50 U	NA	NA	NA	NA	NA	NA
E03	2/5/09	NA	NA	NA	NA	236 U	472 U	NA	NA	50.0 U	NA	NA	NA	NA	NA	NA
	3/5/09	NA	NA	NA	NA	236 U	472 U	NA	NA	50.0 U	NA	NA	NA	NA	NA	NA
	3/20/09	NA	NA	NA	NA	236 U	472 U	NA	NA	50.0 U	NA	NA	NA	NA	NA	NA
	4/15/09	NA	NA	NA	NA	240 U	481 U	NA	NA	50.0 U	NA	NA	NA	NA	NA	NA
	4/23/09	NA	NA	NA	NA	236 U	472 U	236 U	NA	50.0 U	NA	NA	NA	NA	NA	NA
	5/5/09	NA	NA	NA	NA	236 U	472 U	NA	NA	50.0 U	NA	NA	NA	NA	NA	NA
	5/20/09	NA	NA	NA	NA	236 U	472 U	NA	NA	50.0 U	NA	NA	NA	NA	NA	NA
	6/12/09	NA	NA	NA	NA	236 U	NA	NA	472 U	50 U	NA	NA	NA	NA	NA	NA

Notes:
NA - Not analyzed
U - Compound was analyzed for but not detected above the reporting limit shown.

Table J-8

Summary of Water Tank Analytical Results
Westlake-Mercer

Sample ID:	CI-TK1
Sample Date:	4/21/2009
Field QC:	
VOCs (ug/L)	
Acetone	10.0 U
Benzene	0.200 U
Bromobenzene	0.500 U
Bromochloromethane	0.250 U
Bromodichloromethane	0.200 U
Bromoform	0.250 U
Bromomethane	2.00 U
2-Butanone	2.00 U
n-Butylbenzene	0.580
sec-Butylbenzene	0.200 U
tert-Butylbenzene	0.500 U
Carbon disulfide	0.500 U
Carbon tetrachloride	0.200 U
Chlorobenzene	0.200 U
Chloroethane	1.00 U
Chloroform	0.200 U
Chloromethane	1.00 U
2-Chlorotoluene	0.500 U
4-Chlorotoluene	0.500 U
Dibromochloromethane	0.200 U
1,2-Dibromo-3-chloropropane	1.00 U
1,2-Dibromoethane	0.200 U
Dibromomethane	0.200 U
1,2-Dichlorobenzene	0.200 U
1,3-Dichlorobenzene	0.200 U
1,4-Dichlorobenzene	0.200 U
Dichlorodifluoromethane	0.500 U
1,1-Dichloroethane	0.200 U
1,2-Dichloroethane	0.200 U
1,1-Dichloroethene	0.200 U
cis-1,2-Dichloroethene	0.200 U
trans-1,2-Dichloroethene	0.200 U
1,2-Dichloropropane	0.200 U
1,3-Dichloropropane	0.200 U
2,2-Dichloropropane	0.500 U
1,1-Dichloropropene	0.200 U
cis-1,3-Dichloropropene	0.200 U
trans-1,3-Dichloropropene	0.200 U
Ethylbenzene	0.200 U
Hexachlorobutadiene	2.50 U
Methyl tert-butyl ether	1.00 U
n-Hexane	1.00 U
2-Hexanone	2.00 U
Isopropylbenzene	0.500 U
p-Isopropyltoluene	0.350
4-Methyl-2-pentanone	2.74
Methylene chloride	5.00 U
Naphthalene	2.50 U
n-Propylbenzene	0.500 U
Styrene	0.500 U
1,2,3-Trichlorobenzene	1.00 U
1,2,4-Trichlorobenzene	1.00 U
1,1,1,2-Tetrachloroethane	0.200 U
1,1,2,2-Tetrachloroethane	0.580
Tetrachloroethene	0.200 U
Toluene	0.200 U
1,1,1-Trichloroethane	0.200 U
1,1,2-Trichloroethane	0.200 U
Trichloroethene	0.200 U
Trichlorofluoromethane	0.500 U
1,2,3-Trichloropropane	0.500 U
1,2,4-Trimethylbenzene	0.970
1,3,5-Trimethylbenzene	2.28
Vinyl chloride	0.200 U
o-Xylene	0.250 U
m,p-Xylene	0.530
Total Xylenes	2.38
TPHs (mg/L)	
Gasoline-Range	0.43
Diesel-Range	7.36 J
Lube Oil-Range	1.90 J
Kerosene-Range	4.89
Total Metals (mg/L)	
Lead	0.0618

Notes:
J - Estimated value
TPHs - Total petroluem hydrocarbons
U - Compound was analyzed for but not detected above the reporting limit shown.
VOCs - Volatile organic compounds