NOV 0 3 1998

DEPT. OF ECOLOGY

# FINAL SOIL REMEDIATION REPORT LYNNWOOD DODGE 20612 HIGHWAY 99 LYNNWOOD, WASHINGTON

**VOLUME I OF II** 

Submitted To:

Chrysler Realty Corporation 468 Rivergate Way, Suite 49 Sacramento, California 95831

Submitted By:

AGRA Earth & Environmental, Inc. 11335 NE 122nd Way, Suite 100 Kirkland, Washington 98034-6918

July 1995

File #11-09664-01





AGRA Earth & Environmental, Inc. 11335 NE 122nd Way Suite 100 Kirkland, Washington U.S.A. 98034-6918 Tel (206) 820-4669 Fax (206) 821-3914

21 July 1995 11- 09664-01

Chrysler Realty Corporation 468 Rivergate Way, Suite 49 Sacramento, California 95831

Attention:

Mr. A.R. Bucchiere, P.E.

Subject:

Final Soil Remediation Report

Lynnwood Dodge 20612 Highway 99 Lynnwood, Washington

Reference:

CRC Project Number WA6985

Dear Mr. Bucchiere:

As requested, AGRA Earth & Environmental, Inc. (AEE) performed soil remediation and facility restoration activities at the Lynnwood Dodge property in Lynnwood, Washington. This work was performed in several stages, beginning with a geotechnical-environmental study performed by in 1988, followed by two phases of environmental site characterization in 1994, documented in the following reports:

- Geotechnical Engineering Report and Level I Environmental Assessment by Rittenhouse-Zeman & Associates, Inc. dated 23 March 1988.
- Phase I/Phase II Environmental Assessment by AEE, dated July 1994; and
- Additional Site Characterization by AEE, dated October 1994.

The results of quarterly groundwater monitoring are detailed in the following reports:

- First Quarter Groundwater Sampling Event by AEE, dated 3 May 1995; and
- Second Quarter 1995 Groundwater Sampling Event by AEE, dated 14
   June 1995.

The subject of the Lower Drainline has been summarized in our interim report entitled "Limited Exploration and Soil Sampling Services", Lynnwood Dodge Used Car Lot, by AEE, dated 15 June 1995.

Following additional site characterization activities in October 1994, we proceeded with the following stages of work:

- Overexcavation of petroleum hydrocarbon-impacted soils from the Upper Drainline;
- Removal of in-ground hydraulic hoists from the Lower Service Garage;
- Additional test borings in the Lower Service Garage;
- Temporary restoration of the Lower Service Garage;
- Installation of an Oil/Water Separator to serve the Lower Service Garage;
- Installation of Foundation Underpinnings for the Lower Service Garage;
- Overexcavation of impacted soils and Exploration of the Lower Drainline
- Overexcavation of impacted soils underlying the Lower Service Garage;
- Restoration of the Lower Service Garage; and
- Initiation of a Quarterly Groundwater Monitoring Program in February 1995.

This report documents AEE's soil remediation activities at the subject site, and summarizes the status of quarterly groundwater monitoring. A limited volume of petroleum impacted soils will remain beneath an office addition to the dealership structure on site. We understand that institutional controls will be implemented to address the soils beneath the office addition.

We appreciate the opportunity to be of continued service to Chrysler Realty Corporation. Should you have any questions, or require further information, please do not hesitate to call.

Respectfully submitted,

AGRA Earth & Environmental, Inc.

Deborah H. Gardner, R.P.G.

**Project Geologist** 

/Sean W. Donnan, P.G.

**Associate** 

cc: Washington State Department of Ecology, Northwest Regional Office





# TABLE OF CONTENTS Lynnwood Dodge Lynnwood, Washington 11-09664-01

# **VOLUME I**

1.0	EXEC	UTIVE SUMMARY 1
2.0	PROJE 2.1 2.2 2.3 2.4	Site Location
3.0	DRAIN 3.1 3.2	Upper Drainline Overexcavation
4.0	OIL/W 4.1 4.2 4.3	ATER SEPARATOR INSTALLATION
5.0	5.1 5.2 5.3 5.4 5.5	R SERVICE GARAGE Hydraulic Hoist Removal 5.1.1 Sampling and Analysis 5.1.2 Summary Lower Service Garage Test Borings 5.2.1 Sampling and Analysis 5.2.2 Summary Lower Service Garage Preparation for Overexcavation Activities Lower Service Garage Underpinning Installation 5.4.1 Sampling and Analysis 5.4.2 Summary Lower Service Garage Overexcavation 5.5.1 Former Hoist Excavations 5.5.2 Former UST Location 5.5.3 Former Drainline 5.5.4 CarMon System 18 5.5.5 Permeable Fills Lower Service Garage Restoration
6.0	OFFIC 6.1 6.2	E ADDITION

7.0		CLUSIONS AND RECOMMENDATIONS	22
	7.1	Soil	22
	7.2	Groundwater	22
	7.3	Best Management Practices	24
8.0	LIMIT	ATIONS	24
Table '	101	Summary of Soil Analytical Results: Upper Drainline Overexcavation	
Table '	102	Summary of Soil Analytical Results: Lower Service Garage Inground Hoist Excavations	
Table '	103	Summary of Soil Analytical Results: Lower Service Garage Exploration	
Table '	104	Summary of Soil Analytical Results: Oil/Water Separator Installation	
Table '	105	Summary of Soil Analytical Results: Lower Service Garage Underpinning Installation	
Table '	106	Summary of Soil Analytical Results: Lower Drainline Overexcavation and Exploration	
Table '	107	Summary of Soil Analytical Results: Lower Service Garage Overexcavation	
Table '	108	Summary of Soil Analytical Results: Office Addition	
Figure		Location Map	•
Figure		Site and Exploration Plan	
Figure		Upper Drainline Overexcavation Detail  Lower Drainline Overexcavation and Exploration Detail	
Figure Figure		Lower Service Garage Detail	
Figures		· · · · · · · · · · · · · · · · · · ·	
riguies	5 0 10	19 Gite i notograpiis	
Appen	dix A	Test Boring Logs B-101 through B-108	
Appen		Soil Disposal Receipts, Soil Treatment Receipts and Certificates of Destruc	ction
Appen		Water Disposal Receipts	
Appen	dix D	Copy of SEPA Checklist and City of Lynnwood Permits	
VOLU			
Appen	dix E	Laboratory Analytical Reports and Chain-of-Custody Documents	

FINAL SOIL REMEDIATION REPORT LYNNWOOD DODGE 20612 HIGHWAY 99 LYNNWOOD, WASHINGTON

#### 1.0 EXECUTIVE SUMMARY

At the request of Chrysler Realty Corporation, AGRA Earth & Environmental, Inc. (AEE) observed remediation of petroleum-impacted soils at the Lynnwood Dodge dealership and service facility in Lynnwood, Washington. The goal of remediation is to achieve Washington State Model Toxics Control Act (MTCA) cleanup guidelines for soil and groundwater at the subject site. MTCA, Ch. 70.105D RCW, and its implementing regulation, Ch. 173-340 WAC is administered by the Washington Department of Ecology (Ecology), and includes provisions for the Independent Remedial Action Program (IRAP), whereby remediation may proceed on a voluntary basis, without oversight, enforcement order or consent decree by Ecology.

The remediation of soils at the Lynnwood Dodge facility was performed on a voluntary basis under the provisions of the IRAP. In general, MTCA Method A cleanup guidelines were selected as remediation goals for both soil and groundwater. In the event that a Method A soil cleanup guideline had not been established for a particular compound or element, Method B cleanup guidelines were selected.

Soil remediation activities focused on the removal of three sources of contamination and impacted soils located within close proximity to each other. The first source was a pair of inground hydraulic hoists located inside the Lower Service Garage. Second, the Lower Service Garage trench drain discharged through a catch basin into an old drainline that released contaminants to the soil and groundwater north of the Lower Service Garage. The third source was a 300-gallon used oil UST, formerly located off the north end of the garage, decommissioned and removed by others in 1990; the UST decommissioning report indicated that petroleum-hydrocarbon impacted soils remained beneath the north foundation of the garage.

Due to the high relative density of the native soils, and to the low volatility of the principal contaminant (diesel and heavy oil petroleum hydrocarbons), soil remediation was performed by overexcavation. No groundwater remediation has been performed, other than contaminant source removal. Please refer to AEE's report "Second Quarter 1995 Groundwater Sampling Event", dated 14 June 1995 for the results of quarterly groundwater monitoring.

This Final Soil Remediation report discusses several phases of subsurface exploration and overexcavation of impacted soils. Impacted soils were removed along 165 linear feet of old drainline that released shop discharge to the subsurface soil and groundwater. Impacted soils were overexcavated from inside the Lower Service Garage in the vicinity of a pair of in-ground hydraulic hoists and a former used oil underground storage tank (UST). A quarterly groundwater sampling program was initiated to monitor the response of groundwater parameters to the removal of these contaminant sources and impacted soils.

A limited volume of petroleum hydrocarbon-impacted soil remain beneath the Office Addition to the Old Facility Building on-site. We recommend that those soils be administered by institutional controls.

#### 2.0 PROJECT DESCRIPTION

This Final Soil Remediation Report summarizes AEE's work performed at the Lynnwood Dodge property in Lynnwood, Washington between November 1994 and July 1995. As indicated in the Table of Contents, the text of this report addresses Drainline Overexcavation and Exploration, Oil/Water Separator Installation, and the Lower Service Garage and Office Addition at the subject site. The text is supported by tables summarizing analytical results, site plans, site photographs, and five appendices. This report consists of two volumes; Volume II consists solely of Appendix E, Laboratory Test Results and Chain-of-Custody Documents. Conclusions and recommendations of this report include a summary of the status of quarterly groundwater monitoring.

## 2.1 Site Location

The Lynnwood Dodge site is located at 20612 Highway 99 in the city of Lynnwood, Washington. The site location is shown on the Location Map, Figure 1. Site features discussed in this report are shown on Figure 2, the Site and Exploration Plan, and are supplemented by detail plans on Figures 3 through 5.

## 2.2 Site and Vicinity Description

The subject site encompasses approximately 3.5 acres and supports an automobile dealership and service facility. There are two main structures on the site. The original structure supports offices, a showroom and eight-bay service facility, and was constructed in 1964 on the east-central portion of the property. In 1993, a new service facility was completed further upslope on the northwest portion of the site.

The site is bordered on the east by the Highway 99 and on the west by 68th Avenue West. The adjacent property to the south is occupied by Doug's Lynnwood Suzuki and Collision Repair Services. The Highland Ridge Apartments and Lynnwood Dodge Used Car Lot are adjacent to the north. Across 68th Avenue West to the west is a quarter section of land that supports the Edmonds Community College campus, along with a United States Post Office and county judicial building.

The site is serviced by underground, municipal water, sanitary sewer and storm utilities. The original storm collection facilities installed in 1964 do not match original building plans on file with the City of Lynnwood. The original storm collection facilities were installed in a manner to collect shop discharge as well as rain runoff. The 1992-1993 expansion of the dealership facility included new, upgraded storm collection system designed with retention structures and a series of bioswales. The text of this report distinguishes between these systems by referring to original installations as drainlines, and to the 1992 installations as storm systems, or new storm utilities.

## 2.3 Subsurface Conditions

The site is situated atop a glacial upland plateau, known as the Intercity Plateau, located between Puget Sound waterways two miles to the west, and the Snoqualmie River basin twelve miles to the east. The site is underlain by glacial till soils consisting of very dense, silty sand with gravel, which typically caps the upland plateau areas around Puget Sound. The glacial till is underlain by glacial advance sands consisting of relatively clean, fine to medium sand with gravel. As part of our 1988 geotechnical study, we advanced one test boring off the north end of the Lower Service Garage to a total depth of 28 feet below surrounding grades. This test boring encountered clean sands at a depth of 20 feet. The clean sands are interpreted to be the advance sand deposit. Please note that 1988 exploration locations are not shown on figures accompanying this Final Soil Remediation Report.

## 2.4 Groundwater

This sub-section is intended as an overview of local groundwater conditions. For specific details of quarterly groundwater monitoring, please refer to AEE's "Second Quarter 1995 Groundwater Sampling Event" report dated 14 June 1995. A brief summary of quarterly groundwater monitoring is also included in Section 7.2 of this report.

Groundwater at the subject site was typically perched within the upper 5 feet of the soil profile, as well as within a more permeable zone in the glacial till soils that was frequently encountered between depths of 10 and 12 feet. The five groundwater monitoring wells on site are completed within the glacial till soils. Three of these wells demonstrate slow to very slow rates of recharge during sampling activities. Static water levels stabilize at depths of 3 to 5 feet along the west side of the Lower Service Garage. In general, the direction of groundwater migration is towards the east-southeast, consistent with the surface topography.

According to the United States Geological Survey Water-Supply Paper 1135, "Ground-Water Resources of Snohomish County, Washington" (1952), the principal groundwater aquifer beneath the site occurs at a depths of approximately 100 to 150 feet below the surface, within the glacial advance sands.

#### 3.0 DRAINLINE

The approximate route of the drainline is shown on the Site and Exploration Plan, Figure 2. The drainline was explored in several stages, and the route and terminus were not confirmed until May 1995. Detail plans showing soil sampling locations along the drainline are included as Figures 3 and 4. Laboratory test results and chain-of-custody documents are included in Appendix E of Volume II of this report.

The floor drain of the Lower Service Garage was originally designed to discharge to catch basins outside the south and north bay door of the garage. The north catch basin discharged to a drainline that meandered around the north wing of the old facility building to an old oil/water separator along the Highway 99 right-of-way. The uppermost 150 feet of this

drainline, along with petroleum hydrocarbon-impacted soils, were overexcavated beginning in November 1994. Due to the proximity of a property corner, overexcavation and exploration of the lower 115 feet of the drainline did not resume until May 1995.

AEE did not observe any indications that the south catch basin discharged to a similar drainline, and has not encounter any indications of impacted soil or groundwater in the vicinity of the south catch basin.

## 3.1 Upper Drainline Overexcavation

Between 30 November and 16 December 1994, AEE observed the overexcavation of approximately 400 tons of impacted soils and drainpipe from the Upper Drainline area. These soils were disposed at the Klickitat County Regional Landfill. Soil Disposal Receipts are included in Appendix B. Rainwater that flowed into the excavation was collected for disposal by Marine Vacuum Service. Water disposal receipts are included in Appendix C.

Excavation and trucking services were provided by Custom Backhoe & Dumptruck of Bellevue, Washington. The excavation measured 4 to 12 feet deep, 3 to 15 feet wide, and followed the subject drainline for a distance of approximately 150 feet. Impacted soils appeared restricted to a narrow zone during the northern 35 feet of this excavation. The approximate limits of this excavation are shown on Figure 3, Upper Drainline Overexcavation Detail. Site photographs of this excavation are shown on Figures 6 and 7.

The catch basin linking the garage floor drain with the subject drainline was removed along with the piping and impacted soils. This catch basin was six feet deep and had an open base. A new, Type I catch basin was installed to collect runoff from the parking area and prevent ponding at the north end of the garage. The new catch basin was tightlined to the existing storm system upon authorization by the City of Lynnwood. In addition to rain runoff, the new catch basin receives roof downspout discharge from the Lower Service Garage and the Office Addition. The north outlet of the garage floor drain was plugged with concrete, preventing shop discharge from leaving the garage.

The final excavation was backfilled with imported structural fill, generally consisting of gravelly sand. This material was compacted in 8- to 12- inch lifts using a backhoe with a hoe-pack attachment, to a firm and unyielding condition.

#### 3.1.1 Sampling and Analysis

Ten representative soil samples collected from the base and sidewalls of the Upper Drainline Overexcavation were submitted for analysis. The locations of these soil samples are shown on the Upper Drainline Overexcavation Detail, Figure 3. The analytical results from these soil samples are summarized on Table 101. It should be noted that the results of soil sampling from our Additional Site Characterization also define the limits of TPH-impacted soils prior to the overexcavation activities. Refer to the previous report, dated October 1994, for those soil locations, analytical results, and supporting laboratory reports.

Samples B2/-6', B4-6', B5/-5', B6/-6', B7/-7' and B8/-12' were collected from native soils at the base of the final excavation and submitted for laboratory analysis. These samples did not contain detectable concentrations of diesel- or heavy oil-range TPH. Samples SW-2 and SH-2 were collected from native soils from the north sidewall below a retaining wall, and from just below the northwest corner of the Office Addition; no TPH as diesel or heavy oil was detected in either sample. Sample CB7P-B1/-7' was collected from the base of the excavation at the margin of a visibly impacted zone; no diesel was detected, and the heavy oil concentration of 32 parts per million (ppm) is below Method A cleanup guidelines.

## 3.1.2 Summary

Analytical test results indicate that TPH concentrations in the soils forming the base, and east and west sidewalls of the Upper Drainline excavation are below Washington State Model Toxics Control Act (MTCA) Method A cleanup limits for TPH in soils. The south sidewall of this excavation terminated in front of the north bay door of the Lower Service Garage. Sample S1/-5' was collected from a zone of visibly impacted soils exposed beneath the garage floor. This sample contained a diesel concentration of 880 ppm, and a heavy oil concentration of 4,600 ppm, both above the Method A cleanup guidelines of 200 ppm, indicating that impacted soils extended south of the Upper Drainline excavation beneath the footprint of the Lower Service Garage. Overexcavation beneath the Lower Service Garage resumed in May 1995 and is summarized subsequently.

Overexcavation along the Upper Drainline was terminated just short of the inside, northeast property corner. Attempts to jet out and locate the pipe beyond the end of the excavation encountered a concrete storm retention vault that was installed in 1992. It appeared that the older drainline had been severed during 1992 installation of new utilities. Due to the proximity of the property corner, further excavation and exploration of the drainline was terminated until permission to proceed could be obtained from the adjacent property owner.

## 3.2 Lower Drainline Overexcavation and Exploration

Once an access agreement had been made between property owners, drainline exploration and overexcavation activities resumed on 8 May 1995. Pertinent site features, storm structures, and sampling locations are shown on the Lower Drainline Overexcavation and Exploration Detail, Figure 3. A summary of analytical test results from this phase of work is presented on Table 106. Soils excavated for this phase of work were treated off-site by thermal desorption at the TPS Technologies, Inc. facility in Tacoma, Washington. Receipts or certificates of destruction are included in Appendix B.

Access to and exploration of the property line were restricted by a 4 to 6 foot embankment, as well as by the existence of storm, irrigation, power, phone and intercom utilities shared by between the subject site, Lynnwood Dodge, and the neighboring property at 20510 Highway 99, Lynnwood Dodge Used Car Lot. The irrigation and communication utilities were less than two feet deep, while the storm system ranged from 5 to 8 feet deep. Our exploration focused on any potential relationships between the drainline and the newer storm utility.

Soils overexcavated west of the storm vault, as well as soil and pipe mixtures removed from the test pits, were treated off-site by thermal desorption at the TPS Technologies, Inc. facility in Tacoma, Washington. A total of 131.11 tons of soil were treated from this phase of work. Based on analytical results from our Additional Site Characterization in October 1994, piping and contents were accepted for treatment, provided that the concrete pipe was crushed and mixed with the soil prior to transport.

## 3.2.1 Sampling and Analysis

All nine samples collected from the Lower Drainline were analyzed for TPH as diesel and heavy oil by Ecology Method WTPH-D Extended. Exploration began with two trenches excavated along the property line. The purpose of trenching was to expose existing storm lines as well as search for the drainline. For simplification, trench locations are identified by the sampling locations shown on Figure 4. In general, the soil conditions encountered consisted of loose to medium dense, silty sand utility backfill, surrounded by very dense, native, silty sand with gravel. The drainline was constructed from 6-inch diameter concrete pipe bedded in pea gravel.

The first trench extended from the approximate property line to the adjacent storm retention vault, and encountered dense, native glacial till soils with localized fills around the storm structure. No seepage was encountered, and no evidence of the drainline was encountered off the northeast quadrant of the storm retention vault. Soil sample SD-101/7.5 was collected from native soils exhibiting a sewer-like odor between a depth of 6 and 8 feet; the base of the adjacent vault was 8 feet deep. In addition to TPH as diesel and heavy oil, this sample was analyzed for VOCs by EPA 8240 in order to address potential concerns at the property line, and to renew manifests for soil treatment. A second test pit was excavated between the property line and storm outfall pipe further east. No evidence of the drainline was encountered along the property line or along the newer storm alignment. Soil sample SD-102/7' was collected immediately next to the base of the storm vault outfall pipe to evaluate the potential for contaminants to migrate along the pipeline. None of the parameters analyzed for were detected.

We returned to the last known position of the Upper Drainline and overexcavated approximately 12 linear feet of drainline between the north end of the previous Upper Drainline excavation and the storm utility vault. The drainline terminated against the side of the vault at a depth of approximately 5.5 feet. The west side of the vault was backfilled with pea gravel that appeared to saturated with heavy oil and sediment. One-quarter of the vault was exposed down to a depth below its base. The bioswale discharge pipe to the storm vault was exposed along 15 lineal feet. All visibly impacted soils and pea gravel were overexcavated and transported off-site for treatment by thermal desorption. Photographs showing impacted soils and pipe that were overexcavated from the area west of the storm retention vault are included as Figures 12 and 13. We collected three soil samples from this excavation (see Figure 3):

- Sample SD-103/5.5 was representative of visibly impacted soils in contact with the drainline, and contained TPH concentrations of diesel and heavy oil above Method A cleanup guidelines;
- Sample SD-104/8', collected from native till soils beneath the bioswale discharge pipe at the margin of the visibly impacted area, did not contain detectable concentrations of TPH; and
- Sample SD-105/10', collected from native soils underlying the pea gravel bedding beneath the storm vault, contained TPH concentrations of diesel and heavy oil below Method A cleanup guidelines.

Pipe bedding consisted of pea gravel and was not analyzed because in our opinion, weight-proportionate concentrations of TPH in gravel would not be representative of subsurface conditions. Pea gravel was removed where visibly impacted, and adjacent native soils were preferentially sampled for analysis.

We proceeded to excavate a trench approximately 10 feet southeast of the storm vault and encountered the drainline at a depth of approximately 5.5 feet below surrounding grades. At this location, soils appeared unimpacted and the pea gravel bedding appeared dry and unaffected. A photograph showing the condition of the pipe and bedding east of the storm retention vault is included as Figure 14. We collected two soil samples from this test pit:

- Sample SD-106/6' was collected from native soils directly beneath the pipe bedding of the drainline. No TPH was detected.
- Sample SD-107/9.5' was collected from native soils at a depth below the base of the nearby storm vault, and just below the base of the vault discharge pipe.
   No TPH was detected.

This trench was shored in order to rout and trace the destination of the drainline. Materials jetted out of the drain were collected by Marine Vacuum Service, and a utility locating contractor traced the jet line as it arced south a distance of approximately 80 feet, in the direction of an old oil/water separator at the edge of the Highway 99 right-of-way. We proceeded to jet out the opposite end of the drainline where it entered the oil/water separator, collecting a mixture of oil and sediment, followed by a muddy mixture of silt, sand and gravel. The jet line was traced northwest for a distance of approximately 25 feet, where it apparently terminated beneath an asphalt patch over a newer storm detention pipe. Another trench was excavated at the end of the trace and on the uphill side of the asphalt patch. At a depth of 5 feet, both the newer storm pipe and the severed drainline were exposed, perpendicular to each other. The location of this intersection is shown on Figure 4.

Although the drainline contained a mixture of oil and sediment, surrounding soils demonstrated no evidence of significant impact, and the pea gravel bedding was dry and unaffected. Soil sample SD-108/5.5', collected from directly beneath the pipe bedding, contained diesel and heavy oil TPH constituents below Method A cleanup guidelines.

All exposures of the drainline were jetted out in both directions, collecting the rinsate fluid from the downhill ends, until the water ran clear. The water was collected for permitted disposal by Marine Vacuum Service, based on the results of sediment samples SD-1 and SD-2 obtained for our Phase I/Phase II Environmental Assessment dated July 1994. Water disposal receipts are included with this report in Appendix C.

Subsequently, a hand-augered boring was advanced next to the four-foot-deep, oil/water separator at the end of the Lower Drainline. Approximately four feet of crushed rock base (CRB) fill was encountered overlying loose to dense silty sand with gravel. Sample SD-109/5' was collected from the fill-native soil contact at a depth of 5 feet, one foot below the base of the structure. Diesel and heavy oil TPH constituents were detected below Method A cleanup guidelines.

## 3.2.2 Summary

Based on the analytical results and on our observations of subsurface conditions, we recommended that approximately 100 feet of the Lower Drainline between the newer storm retention vault and the old oil/water separator remain in place. Our observations of the Lower Drainline encountered no evidence that the alignment acted as a pathway for contaminant migration or perched groundwater interception, and the contents were jetted out, removing a potential source of contaminants.

#### 4.0 OIL/WATER SEPARATOR INSTALLATION

The trench drain of the Lower Service Garage was originally designed to discharge at either end into storm catch basins outside the north and south bay doors. The north catch basin discharged to the Drainline, which meandered around the north wing of the Old Facility Building, as shown on Figure 2. The catch basin outside the south bay door of the Lower Service Garage discharged directly to 1992 storm facilities. The municipal storm collection utility and the Drainline provided an inappropriate avenue for shop drainage. Therefore, an oil/water separator was designed for the site that would discharge to the sanitary sewer utility. The system was designed by Perteet Engineering of Everett, Washington. A side sewer permit was obtained from the City of Lynnwood on 21 March 1995, and a copy is included in Appendix D.

The route of the new sewer line and location of the new oil/water separator (Utility Vault 660-SA) are indicated on Figure 2, the Site and Exploration Plan. The alignment extends from the south end of the garage trench drain to the new oil/water separator off the southeast corner of the Old Facility Building, and angles northeast towards the front entrance drive of the property, where it ties into the existing side sewer. The oil/water separator was installed in a landscape island, as shown in the photographs on Figures 8 and 9 of this report.

#### 4.1 Installation

The utility installation was performed by Fed-Ex Construction of Mercer Island, Washington. The structure was installed along with 175 feet of new side sewer line between 27 March and

5 April 1995, with weather-dependent paving and sidewalk restoration tasks complete by 10 April 1995.

During installation of the new oil/water separator and sewer line, two old drainlines were encountered outside the south garage bay door. These drains appeared to be plugged and were filled with water from roof downspout drainage. These drains released collected rainwater to the subsoils and pea gravel fills at the south end of the garage. We tightlined these drains to the adjacent, existing storm catch basin, in an attempt to divert rainwater from the open sewer trench as well as from future excavations inside the Lower Service Garage. Once the connection to the sanitary sewer was complete, we removed the segment of floor drain pipe that discharged from the floor drain to the catch basin outside the south garage bay door.

Native soils were reused as structural fill to a limited extent. Due to wet native soil conditions and heavy rainfall, the specified relative compaction requirements of 95 percent of the modified Proctor (ASTM:D-1557) were not met along the western three-quarters of the alignment. Due to shallow pipe cover and time constraints, lean-mix concrete was used to fill the trench. The lean-mix was necessary at the west end of the work area where the new PVC sewer line was buried under 11 inches of cover, and a roof downspout line had 5 inches of cover beneath an area slated for paving.

The majority of the native soils excavated for the oil/water separator installation south of the Lower Service Garage were too wet to reuse as structural backfill material. Based on the results of analytical screening, these soils were disposed at Maltby Resources in Maltby, Washington.

#### 4.2 Sampling and Analysis

According to original building design plans, the south catch basin outside the Lower Service Garage would have discharged to a catch basin directly downhill at the Highway 99 right-of-way. If such an alignment existed, it may have been removed during 1992 installation of upgraded utilities.

During excavation for the new sewer line, considering the potential for unknown drainlines south of the garage, we collected four soil samples, OW-1 through OW-4, at the locations shown on Figure 2. These samples were submitted to our subcontract laboratory for analytical screening. Samples OW-1, OW-3 and OW-4 were screened for the presence of gasoline, diesel and heavy oil compounds by Ecology Method WTPH-HCID. Due to its proximity adjacent to the floor drain discharge pipe, sample OW-2 was analyzed for diesel and heavy oil compounds by Ecology Method WTPH-D Extended. No TPH was detected above the stated detection limits in the three samples submitted for screening. Soil sample OW-2 demonstrated concentrations of TPH as diesel at 12 ppm and as heavy oil at 42 ppm, both below the Method A cleanup guideline. The results are summarized on Table 104.

## 4.3 Summary

Our observations of soil, drainpipe and water conditions during oil/water separator installation encountered no evidence of significant soil or groundwater impact from southbound garage drainage. The drainlines that were encountered were confirmed to convey roof downspout runoff. Also, unlike conditions at the north end of the garage, quarterly groundwater sampling results do not detect any TPH, VOC or total metals presence in Monitoring Well MW-1, installed next to the south catch basin.

#### 5.0 LOWER SERVICE GARAGE

The Lower Service Garage occupies the west wing of the Old Facility Building shown on Figure 2, Site and Exploration Plan. This building was constructed in 1964, and is equipped with a trench drain that was intended to discharge from both ends to storm catch basins located immediately outside the north and south bay doors of the garage. The north catch basin discharged to the Drainline, previously discussed in this report.

Soils impacted by the Drainline and north catch basin were known to extend beneath the north end of the Lower Service Garage. One of the six in-ground hydraulic hoists was confirmed by our previous work to have leaked to the surrounding soils. During hoist removal activities, a second in-ground hoist was confirmed to have leaked. Soils impacted by another source, a used oil UST removed in 1990, existed beneath the north foundation of the garage, west of the north bay door. AEE observed the following activities in the Lower Service Garage:

- In-ground hydraulic hoist removal;
- Additional test borings;
- Temporary restoration of the garage;
- Site preparation and underpinning sections of the garage foundation;
- Overexcavation of impacted soil beneath the garage; and
- Final restoration of the garage facility.

The following underground systems acted as potential conduits for contaminant migration beneath the garage floor:

- A layer of permeable fills beneath the south end of the garage;
- The trench drain located in the center of the garage, and its former connections to storm catch basins at either end of the garage;
- Automotive emissions were vented from the work area by near-surface ventlines manifolded to a blower located on the garage roof (the CarMon system); and
- Shallow electrical conduits that served outlets and garage door controls.

No other utilities such as sanitary sewer or water services existed in the vicinity of the garage.

## 5.1 Hydraulic Hoist Removal

The locations of six in-ground hoists are not specifically shown on Figure 5, Lower Service Garage Detail. The locations may be inferred by test boring locations B-1 through B-6, which are shown on Figure 5, and which were drilled next to each cylinder for AEE's Phase I/Phase II Environmental Assessment, dated July 1994.

Our scope of work included removal of one, single-post hydraulic hoist where a leak to the surrounding soils had been confirmed in our previous work. This hoist was located in the west-central portion of the Lower Service Garage, as indicated by test boring location B-2 on Figure 5 of this report. Hoist removal activities were initiated in December 1994. Upon removal of the one single-post hoist, we encountered an older double-post hoist system which had been deactivated in place and was equipped with a separate, underground reservoir tank. The single-post hoist had been installed in the center of the older double-post system. Both hoist systems were subsequently removed by the subcontractor, APS Services, Inc., along with the one reservoir tank. Approximately 120 tons of TPH impacted soils were removed from the excavation and disposed at the Klickitat County Regional Landfill. Soil disposal receipts are included in Appendix B.

## 5.1.1 Sampling and Analysis

Eight soil samples were collected from this hoist excavation, referred to as HPA, during this phase of work. Analytical results of soil samples collected during hoist removal are summarized on Table 102. The sample locations are shown on Figure 5, Lower Service Garage Detail. The first five samples were collected from the base and each of four sidewalls of the excavation. Sample HP-A/B-10' was collected from the base of the excavation at a depth of 10 feet; the diesel concentration of 30 ppm was below Method A cleanup guidelines, and no heavy oil compounds were detected. North, south and east sidewall samples HPA/N-1/-8', HPA/S-1/-6' and HPA/E-1/-8', as well as resamples HPA/N2/-5' and HPA/S2/-5', all demonstrated diesel and heavy oil concentrations well above Method A cleanup guidelines. Sample HPA/W-1/-8' was collected from the west sidewall next to the former hoist reservoir tank; no TPH was detected. On 5 January 1995, the expanded north sidewall of excavation HPA was resampled; no TPH was detected in sample HPA/N3/-5'.

The site tenant, Mr. Jack Carroll, concurrently retained the hoist contractor to deactivate the remaining five hoists. Four, single-post hoists were subsequently removed and one was deactivated in place. Three of these cylinders were activated by compressed air. The fifth hoist, adjacent to the active excavation, had been equipped with a separate, in-ground hydraulic oil reservoir tank. The contractor removed this fifth hoist along with its reservoir tank, leaving a small excavation (HPC) adjacent to the first hoist excavation (HPA). As a result of perched groundwater seepage, excavation HPC filled with a mixture of water and what appeared to be hydraulic oil. We obtained soil sample HPC/S1 from excavation HPC to confirm our observations that these soils were impacted with TPH (see Figure 9).

Small excavations for three other hoists also filled with water, but no product or sheen were observed, and no visual or olfactory indications of a release were evident. These observations, in conjunction with the results of our initial site assessment, indicated that these remaining hoists did not significantly impact surrounding soils. As part of our subsequent overexcavation activities in the Lower Service Garage, the backfill soils surrounding two of these former in-ground hoist locations were overexcavated for geotechnical reasons.

Sample HPC/S1 was analyzed for diesel- and heavy oil-range TPH by Ecology Method WTPH-D Extended, and for volatile organic compounds (VOCs) by EPA Method 8240. This soil sample (HPC/S1) was found to contain 4,900 parts per million (ppm) TPH as diesel, 16,000 ppm TPH as heavy oil, and 0.55 ppm acetone. The Method B cleanup guideline for acetone in soil is 800 ppm. Besides acetone, none of the other 33 VOC analytes were detected. The analytical results of soil samples collected from the base and four sidewalls of excavations HPA and HPC are summarized on Table 104. Photographs of these excavations are shown on Figures 8 and 9 of this report.

For the purposes of disposal characterization, we collected soil sample HPC/S16 from the same location as HPC/S1, and analyzed it for PCBs by EPA Method 8081, for Semi-Volatile Organics (SVOs) by EPA Method 8270, and for Eight RCRA Total Metals by EPA Method 6010/7000. No PCBs, no SVOs, and background concentrations of barium and chromium beneath cleanup guidelines were detected (see Table 104). Based on these analytical results, we were able to manifest future soil disposal for treatment by thermal desorption at the TPS Technologies, Inc. facility in Tacoma, Washington.

## **5.1.2 Summary**

The results of confirmation testing indicated that the south and east sidewall soils of excavation HPA contained concentrations of TPH in excess of Ecology cleanup guidelines. Space limitations inside the garage restricted further expansion of the excavations. Furthermore, visibly impacted soils were exposed in the east sidewall of HPA beneath an exhaust vent pipe. The pipe appeared to provide a pathway for migration of contaminants. Finally, a layer of pea gravel fill up to three feet thick was also visible in the south sidewall of excavation HPA, and was visible in all four sidewalls of excavation HPC, adjacent to the south. The pea gravel layer raised concerns over the mobility of hydraulic oil in conjunction with shallow, perched seepage encountered beneath the south end of the Lower Service Garage.

AEE recommended that further characterization and permitting were warranted prior to continuing excavation activities inside the Lower Service Garage. Excavations HPA and HPC were backfilled with pea gravel and the garage slab was restored for temporary service. One, above-ground hoist was re-erected for interim use. A SEPA Checklist was prepared for the site in order to obtain a grading permit from the City of Lynnwood to continue with site soil remediation activities. The City of Lynnwood issued a Mitigated Determination of

Nonsignificance on 15 March 1995, and a grading permit was issued on 21 April 1995. Copies of the SEPA Checklist and grading permit are included in Appendix D of this report.

## 5.2 Lower Service Garage Test Borings

On 10 and 11 January 1995, we advanced six limited access test borings inside, and one outside of, the Lower Service Garage. An eighth test boring was abandoned when it encountered an active electrical conduit. The locations of test borings B-101 through B-108 are shown on the Lower Service Garage Detail, Figure 3. Logs of the test borings are included in Appendix A of this report. Based on the results of field screening, one or two soil samples from each test boring were analyzed for TPH by Ecology Method WTPH-D Extended. The analytical results for the Lower Service Garage Exploration are summarized on Table 103.

## 5.2.1 Sampling and Analysis

Boring B-101 was drilled to a total depth of 11.5 at a position adjacent to the garage floor trench drain and 8 feet inside the north bay door. Sample B-101/S-1 was collected at a depth of 1 foot, next to the base of the trench drain. This sample contained diesel and heavy oil concentrations below Method A cleanup levels, and no VOCs were detected. Sample B-101/S-5.5 was collected in native soils at a depth of 5.5 feet, and demonstrated a diesel concentration of 6,100 ppm and a heavy oil concentration of 2,500 ppm. Sample B-101/S-7.5 demonstrated diesel and heavy oil concentrations below Method A cleanup guidelines.

Boring B-102 was advanced next to the trench drain a distance of 18 feet inside the north bay and to a depth of 4 feet where the auger and sampling equipment encountered an obstruction. Sample B-102/S-3 was collected from a depth of 3 feet; no TPH was detected.

Boring B-103 was drilled near the center of the garage to a depth of 14 feet. A layer of pea gravel fill saturated with groundwater was encountered between 2 and 3.5 feet. Sample B-103/S-3.5 was collected from native soils directly beneath the fill. This sample demonstrated a petroleum-like odor, but TPH concentrations were below Method A cleanup guidelines, and no VOCs were detected. Sample B-103/S-6, also a native soil sample, demonstrated no detectable TPH.

Boring B-104 was drilled east of hoist excavation HPC and adjacent to the underground vent line for the automobile exhaust collection system. A layer of pea gravel was encountered between 1.5 and 2.5 feet. This boring was terminated on an obstruction after sampling to a depth of 6 feet. Sample B-104/S-3.5 demonstrated diesel and heavy oil concentrations above Method A cleanup guidelines.

Boring B-105 was drilled west of hoist excavation HPC to a total depth of 11.5 feet. A layer of pea gravel, saturated with groundwater, was encountered from a depth of 2 to 3 feet. Sample B-105/S-3.5 was collected in native soils beneath the pea gravel. This sample contained 4,500 ppm diesel and 15,000 ppm heavy oil, well above cleanup guidelines.

Sample B-105/S-5.5 demonstrated diesel concentration of 860 ppm and heavy oil concentration of 3,100 ppm, indicating that TPH-impacted soils exist at or below the zone of structural influence beneath the west foundation of the Lower Service Garage at the location of B-105.

A corehole for boring B-106 was made next to the northeast roof support column. This boring was abandoned at a depth of 1.5 feet at the discovery of an electrical conduit. Boring B-106 was not relocated due to time and special space constraints next to the roof column.

Boring B-107 was drilled next to the northwest roof support column to a total depth of 11 feet. Two soil samples submitted from B-107 demonstrated no detectable TPH, except for a heavy oil concentration of 34 ppm at a depth of 6.5 feet.

Boring B-108 was drilled outside the south bay door of the Lower Service Garage. Samples collected from depths of 5.5 and 8 feet demonstrated no detectable TPH. Groundwater seepage was encountered in a gravelly layer between 6.5 and 7 feet in this test boring.

## 5.2.2 Summary

Results of these test borings confirmed that impacted soils existed within the structural influence of the west foundation of the Lower Service Garage. They confirmed that TPH-impacted soils extended at least 10 feet into the north end of the garage from the Upper Drainline area, and at least 10 feet laterally from the centers of the two open hoist excavations. These test borings also confirmed a broad wedge of pea gravel fill beneath the south central portion of the garage.

In addition, soil samples B-101/S-1 and B-103/S-3.5 were submitted for VOC analysis by EPA Method 8240, both to supplement disposal characterization and to evaluate the potential for solvents and other substances in the vicinity of the garage floor trench drain and the underground CarMon system. No VOCs were encountered.

# 5.3 Lower Service Garage Preparation for Overexcavation Activities

In order to obtain a grading permit from the City of Lynnwood for overexcavation of impacted soils from the Lower Service Garage, we completed a SEPA Checklist and submitted it to the city for review. A Mitigated Determination of Nonsignificance was issued on 15 March 1995. We obtained a grading permit for the project on 21 April 1995. Copies of these documents are included in Appendix D. No other permits or inspections were required from the City of Lynnwood for the proposed grading activities, limited demolition, underpinning installation, or associated restoration of building systems.

In preparation for future work inside the Lower Service Garage, it was necessary to relocate the natural gas meter from the north exterior of the garage to the southwest corner of the garage, where site characterization indicated that no earthwork would take place. The meter relocation was performed by the Washington Natural Gas utility. Concurrently, interior gas

plumbing was rerouted between the proposed gas meter location and the furnace. C&C Olympic Heating completed the natural gas plumbing work.

Two storage compounds were constructed adjacent to the north exterior of the garage and were dismantled in preparation for excavation activities in the Lower Service Garage. These compounds are shown on Figure 3, Upper Drainline Overexcavation Detail. The compound west of the north bay door housed above-ground storage tanks (ASTs) for motor oil and transmission fluid. The AST compound was positioned directly above the former used oil UST location. This area was slated for excavation activities, based on the information from the UST decommissioning report that TPH-impacted soils remained beneath the north foundation of the Lower Service Garage.

The compound east of the north bay door housed a pair of air compressors. This compound also had a concrete slab and a shed-style roof constructed against the Office Addition. During previous overexcavation of the Upper Drainline (Section 3.1), we observed that visibly impacted soils extended beneath under the north end of the garage and beneath the air compressor compound.

In order to maintain compressed air supply to the auto detail shop during the anticipated 6 to 8 weeks of earthwork, a temporary shelter was constructed off the northwest corner of the office addition. Temporary power and plumbing were extended to an air compressor relocated to the shelter location.

## 5.4 Lower Service Garage Underpinning Installation

Prior to excavating impacted soils from beneath the service garage, it was necessary to temporarily shore the roof support beams and underpin the west and north foundations. Underpinning locations are shown on the Lower Service Garage Detail, Figure 3. The underpinning design and specifications were performed by Dodd-Pacific Engineers of Seattle, Washington. Custom Backhoe & Dumptruck Service provided shoring and underpinning excavation services. The underpinnings are shown on photographs included as Figures 15, 16 and 17 of this report. The underpinning activities were observed and documented by an experienced representative of AEE, at the direction of an AEE Senior Geotechnical Engineer.

In order to facilitate characterization of the soil conditions directly beneath the foundation, the underpinnings were designed as three-foot-wide concrete columns, trenched at eight foot maximum intervals beneath the foundation. This method allowed direct observation of soil conditions and soil sampling for immediate planning purposes. Soils excavated during underpinning installation were treated by thermal desorption at the TPS Technologies, Inc. facility in Tacoma, Washington.

## 5.4.1 Sampling and Analysis

Soil samples collected from underpinning excavations were analyzed for diesel and heavy oil compounds by Ecology Method WTPH-D Extended. According to the text of the

decommissioning report for the former UST, "trace" concentrations of 1,1,1-trichloroethane were encountered in soils overexcavated during UST removal, next to the north foundation of the garage. It is not known whether these concentrations exceeded MTCA cleanup guidelines. Therefore, the soil sample closest to the former UST location that demonstrated visible TPH-impact was also analyzed for VOCs by EPA Method 8240. No VOCs, including trichloroethane, were detected in this soil sample. The results of these analyses are summarized on Table 105.

The UST decommissioning was observed by Applied Geotechnology, Inc. (AGI). A copy of AGI's report "Contamination Assessment, Underground Storage Tank Removal", dated 23 July 1990, is included in Appendix B of AEE's "Phase I/Phase II Environmental Assessment," dated July 1994.

## **5.4.2 Summary**

Although impacted soils were confirmed to extend within the structural influence of the west foundation, no contamination was found to extend directly beneath the west foundation. Impacted soils were confirmed to extend directly beneath the north foundation and north garage bay door opening. These soils appeared to have been impacted by releases from the former used oil UST as well as the north catch basin/upper drainline sources. Soils impacted by releases from the in-ground hydraulic hoists were generally confined to the building interior, although the initial groundwater sampling event in August 1994 encountered low concentrations of TPH in the groundwater west of the Lower Service Garage.

#### 5.5 Lower Service Garage Overexcavation

Overexcavation of impacted soils from the Lower Service Garage began on 16 May 1995, near the southwest portion of the garage and at the former hoist excavation HPC. Locations of soil samples collected from the Lower Service Garage are shown on the Lower Service Garage Detail, Figure 3. Summaries of analytical results of these samples are included on the following tables accompanying this report:

- Table 102 Lower Service Garage: In-Ground Hoist Excavations
   Table 105 Lower Service Garage: Underpinning Installations
- Table 107 Lower Service Garage Overexcavation

Soils overexcavated from the Lower Service Garage were trucked off-site for treatment by thermal desorption at the TPS Technologies, Inc. facility in Tacoma, Washington.

Perched groundwater seepage in the native till soils manifested itself as large volumes of water stored in loose, hoist backfill soils and in permeable pea gravel fills. Water in the pea gravel layer also appeared to have been recharged by roof downspouts at the south end of the garage. Based on the results of quarterly groundwater monitoring of wells, and on the results of soil analyses in the vicinity, seepage encountered in the south and central garage excavations was pumped into a temporary storage tank. Marine Vacuum Service Inc. of

Seattle, Washington periodically collected the water for disposal at their permitted facility. Disposal receipts are included in Appendix C. Once the perched groundwater and hydraulic oil mixture were pumped out of the initial hoist excavations HPA and HPC, seepage volumes gradually diminished. Light groundwater seepage continued from native soils exposed in the south and west sidewalls of the excavation.

As individual excavation zones were completed, the deepest excavations were partially backfilled with lean-mix concrete. The use of the concrete allowed better control of seepage, rapid re-establishment of safe work space inside the building, and allowed deep, adjacent excavations while minimizing the problem of unstable sideslopes in granular backfill material. Structural fill consisting of clean, gravelly sand was compacted in the upper 6 feet to allow perched groundwater seepage to continue to flow through the site without diversion.

#### 5.5.1 Former Hoist Excavations

Soils were impacted by hydraulic oil were encountered between hoist excavations HPA and HPC to depths of 8 to 10 feet below finish floor grade. As the main excavation was extended, excavations HPA and HPC became part of the larger main excavation. Free product continued to accumulate at the location of excavation HPA after all apparent sources had been eliminated. The source of the free product was a narrow, vertical column of heavily impacted soils positioned directly beneath a former hoist cylinder. This hoist apparently released oil from the base of the cylinder into the native till soils to a total depth of 16 feet beneath the finish floor grade. Soil sample HA-B/16' was collected to characterize TPH concentrations beneath the base of the visibly impacted column of soil.

Soil samples GS-1.5' and GS-4', collected from the south sidewall of the initial garage excavation and next to former hoist excavation HPC, indicated elevated TPH concentrations beneath the pea gravel layer, and would require further overexcavation. The remainder of the west half of the garage slab was later removed to allow further overexcavation.

#### 5.5.2 Former UST Location

No impacted soils were encountered in underpinning excavation U7 at the northwest corner of the Lower Service Garage. Soils were found to be impacted beneath the foundation a distance of 8 feet to the west in U8 between depths of 8 and 10 feet. This layer was visibly impacted and was overexcavated beneath the foundation, continuing to a distance of approximately ten feet north of the garage. The impacted layer deepened towards the east under the former UST location to a maximum depth of 12 feet at underpinning U4. This excavation continued beneath the foundation up to the sandy backfill placed in the former UST excavation.

A sample of this permeable backfill soil had been collected from underpinning excavation U4, just above the perched groundwater level and immediately adjacent to impacted native soils beneath the foundation. The backfill soils at that location demonstrated TPH as diesel concentration of 39 ppm and TPH as heavy oil concentration of 180 ppm, both below

Method A cleanup guidelines. Based on these results, it was decided that the backfill soils may remain in place. Loose, saturated backfill soils from the former, northern in-ground hoist location were incidentally removed during overexcavation of the deeper soil layer impacted by the former UST.

## 5.5.3 Former Drainline

Once the west half of the garage and former UST excavation had been backfilled, we proceeded to excavate beneath the north bay door of the garage. This area had been impacted by releases from the Drainline between depths of 3 and 7 feet, and by the former UST between depths of 9 and 11 feet. This excavation extended approximately 12 feet south into the garage. Samples GN-11' and GC-3', collected from the north base and the south sidewall of this excavated zone, respectively, did not contain detectable concentrations of TPH.

## 5.5.4 CarMon System

Following deeper excavation activities, subslab utilities and the pea gravel fills at the south end of the garage were explored. Anecdotal information suggested that the CarMon system seasonally filled with water. All 40 feet of the west line of the CarMon system was removed during deeper excavation activities, as were the north 20 feet of the east line. Three soil samples had been collected to evaluate the potential impact of the vent line on the subsoils:

- Sample U4-X-1.5' was collected beneath the north end of the west vent line, in the close proximity of the former used oil UST. This sample contained 91 ppm diesel and 450 ppm heavy oil, exceeding the Method A cleanup guideline for heavy oil of 200 ppm;
- Sample HC-E/3' consisted of fill soils collected from the east sidewall of hoist excavation HPC, and immediately below the vent line. This sample exhibited a sewer-like odor. The diesel concentration of 42 ppm and heavy oil concentration of 95 ppm were both below Method A cleanup guidelines; and
- Sample GS-E/1.5' was collected directly beneath the mid-point of the east vent line. The diesel concentration of 12 ppm and heavy oil concentration of 33 ppm were both below Method A cleanup guidelines.

Based on these results and on our field observations, we planned to jet out the contents and grout the south 24 feet of the east vent line in place. The contents of the east vent and cross-member were jetted out, and the jetwater was collected and disposed by Marine Vacuum Service of Seattle, Washington.

#### 5.5.5 Permeable Fills

Beginning on 5 June 1995, we proceeded to overexcavate the pea gravel fills and impacted native soils beneath them from the south end of the garage. In general, this excavation was

one to three feet deep, but extended up to 6.5 feet deep beneath a break in the floor drain. The pea gravel layer was thinnest and shallowest on all perimeters. The lenticular shape of these permeable fills, and of the underlying glacial till soils, apparently confined contaminants to the vicinity of the permeable zone. Perimeter soil sampling, in conjunction with our observations of utilities in the area, confirmed that these contaminants did not migrate a significant lateral or vertical distance beyond the gravel layer. We collected the following samples from the perimeter of this excavation:

- Sample G-FD/6.5' consists of native soils collected from the deepest portion of the excavation beneath the break in the floor drain. No TPH was detected.
- Sample SE-4.0' consists of native soils collected from the base of the southeast sidewall of the excavation. No TPH was detected.
- Sample OW-2 consists of fill soils collected from directly beneath the former trench drain discharge pipe at the south end of the garage. A diesel concentration of 12 ppm and a heavy oil concentration of 42 ppm, both below Method A cleanup guidelines, were encountered in this sample.

## 5.6 Lower Service Garage Restoration

The final 6 feet of the Lower Service Garage excavations were backfilled with structural fill up to previous subgrade elevations. The fill material consisted of an imported gravelly sand material that was compacted in 8 to 12 inch thick lifts using a vibratory roller in the main excavation and a backhoe fitted with a hoe-pack next to the foundation and underpinnings. In-place density tests (ASTM:D-2922) were performed periodically as the fills were placed. Regardless of the method of compaction used, the fill consistently reached 97 percent relative compaction of the maximum dry density as determined by ASTM:D-1557 (modified Proctor). In areas where soils had been completely overexcavated beneath the foundation, structural fills were compacted up to a depth of two feet below the base of the footing, and foundation support was restored using lean-mix concrete with an additive to prevent shrinkage.

Inside the garage, a new trench drain was installed with slab-on-grade replacement. A 6-inch thick slab-on-grade was placed on 14 June 1995, and the concrete reached its designed strength of 4,000 pounds per square inch (psi) within seven days of placement. Reinforcing steel was placed on 2-foot centers where the new slab abutted the foundation, and on 4-foot centers where the slab connected to the 3.5- to 4-inch slab-on-grade. The remainder of the original garage floor was blast-tracked to remove the paint coating, and the entire garage floor was coated with a sealant.

Concrete slabs were also reconstructed for the north storage compounds. The compounds are secured by chain-link fencing and protected by shed roofs bolted to exterior walls of the adjacent building. The concrete slab for the motor oil above-ground storage tank (AST) compound was redesigned with spill containment to meet current City of Lynnwood fire code. The ASTs were reconnected by Shop Equipment Inc. to the compressed air supply, and to the overhead delivery system inside the garage.

The air compressor storage compound did not require redesign; however, the electrical panel and starter motors did not meet current electrical codes for outdoor use. EHS Electrical relocated the panel to the interior side of the garage wall, leaving the main disconnects outside next to the compressors. The starter motors were replaced.

During earthwork activities, two above-ground hoists remained in place in the two southeast bays of the garage. Following remediation activities, Shop Equipment, Inc. reinstalled two above-ground hoists in the garage, and installed three other above-ground hoists for the tenant. EHS Electrical restored electrical service to the two hoists reinstalled for Chrysler Realty Corporation. Underground electrical conduits removed during excavation activities were restored above-ground.

The original, underground CarMon system was removed during remediation. This system was replaced by Shop Equipment Inc. with an overhead system suspended from the ceiling. The primary purpose was to eliminate underground utilities where possible and minimize opportunities for surface contaminants to access the subsurface environment. Photographs showing floor slab placement and shop restoration are included as Figures 17, 18, and 19 of this report.

## 6.0 OFFICE ADDITION

The wood-framed office addition measures 18 by 25 feet and is a 1972 addition to the original 1964 masonry dealership structure. The addition is shown on the Lower Service Garage Detail, Figure 5. The results of soil analyses are summarized on Table 108 of this report.

## 6.1 Sampling and Analysis

On 17 May 1995, we began overexcavating a small area adjacent to the north bay door of the Lower Service Garage. This area was previously occupied by a storage compound for a pair of air compressors; for this reason it was excluded from overexcavation of the Upper Drainline in December 1994. This excavation beneath the compound encountered a one-inch diameter, tar-coated steel pipe, buried 2 feet deep along an east-west alignment parallel to the north end of the garage. Soils within a 3 to 5 foot radius of this pipe exhibited a gasoline-like odor and significant OVM readings. Sample U3-G/2.5', collected from native soils beneath the foundation for an office addition, contained 630 ppm TPH as gasoline, 2,800 ppm diesel and 250 ppm heavy oil, all above Method A cleanup guidelines.

Concerns that a separate source of contamination could have existed at this location were dispelled by close inspection of both structures. In a staircase storage area at the southeast corner of the addition, we located a natural gas shut-off valve partially encased in the concrete of the floor slab. The valve and one-inch supply line matched existing natural gas meter design. We concluded that the original natural gas meter was relocated west of the north garage bay door, and the line was abandoned when the addition was constructed.

We also concluded that the natural gas line and disturbed backfill soils provided a pathway for migration of contaminants. The broad mixture of gasoline, diesel and heavy oil was consistent with products encountered in the soils along the Upper Drainline and in the groundwater from the two closest monitoring wells, MW-2 and MW-3. Finally, while excavating in the area of the former UST, we encountered the recently-abandoned natural gas line sharing a trench with an older, tar-coated line, identical to the one encountered beneath the Office Addition. Apparently, the intermediate section of the older line was removed during UST decommissioning activities in 1990.

We cored a hole in the floor slab of the addition next to the abandoned shut-off valve, and augered to a depth of 4 feet to explore subsurface soil conditions. Field-screening did not indicate the presence of any ionizable organic vapors. Sample A-SE/4' was collected in native soils at a depth of 4 feet. The sample contained 2.5 ppm gasoline, and diesel and heavy oil compounds were not detected. Exploration at other locations inside the addition were not feasible due to the existence of asbestos-containing floor tiles and mastic covering the remainder of the floor.

The excavation was extended north to connect with the previously overexcavated area of the Upper Drainline, and deepened to a depth of approximately 6.5'. Samples U3-GS/2', U3-GN/2', and U3-G2/6.5' were collected at the south and north ends, and at the base, respectively, of the finished excavation. No gasoline, diesel or heavy oil compounds were detected in these samples, as shown on Table 108.

#### 6.2 Summary

A statistical analysis of TPH concentrations in the five samples collected from the Office Addition demonstrated that gasoline and diesel concentrations in the impacted sample exceeded the standard deviation above Method A cleanup guidelines for gasoline and diesel. Statistical analysis methodology was performed as described in Appendix D of Ecology's Guidance for Remediation of Releases from Underground Storage Tanks, WAC 340-820, Sampling and Analysis Plans.

Based on the square footage of impacted soils exposed in cross-section beneath the foundation, and on our observations of the geometry of impacted soils following other utilities in the immediate vicinity, we estimate that a limited volume of TPH-impacted soil remains beneath the office addition. We discussed several approaches to remediating TPH-impacted soils beneath the office addition in our letter entitled "Options for Site Closure", dated 12 June 1995. Due to the relative high density of native soils and low volatility of the principal contaminant, diesel-range TPH, in-situ remediation techniques would be experimental and time consuming. Demolition of the addition would require asbestos abatement, telephone service interruptions to the dealership and, in our opinion would not be feasible for the overexcavation of approximately 10 cubic yards of TPH impacted soils. Therefore, we recommend that these soils be administered by institutional controls.

This excavation was backfilled with lean-mix concrete. A material which could be easily excavated in the future, and provided reduced permeability as a measure to prevent migration of TPH compounds into the remediated zone, and to divert shallow groundwater seepage away from the impacted soils and through the more pervious backfill zones.

## 7.0 CONCLUSIONS AND RECOMMENDATIONS

#### 7.1 Soil

Soil impacted by the drainline, in-ground hydraulic hoists and former used oil UST have been overexcavated from the subject site. Soils containing residual petroleum hydrocarbons, below MTCA Method A cleanup guidelines, remain in limited quantities at the margins of some excavated areas and exploration locations.

AEE explored and characterized underground utilities that passed through or adjacent to excavated areas to assess whether these utilities contributed to migration of contaminants. During site restoration, underground site systems were replaced with above-ground systems wherever possible to minimize the opportunities for contaminants or surface runoff to reach the subsurface. In addition, shop discharge from the Lower Service Garage has been tightlined to the approved sanitary sewer utility.

## 7.2 Groundwater

Five groundwater monitoring wells were installed at the subject site in August 1994 as discussed in AEE's "Additional Site Characterization" report dated October 1994. The locations of these well are shown on Figure 1, the Site and Exploration Plan. The initial sampling event was performed on 31 August 1994.

Following the initial sampling event, the Upper Drainline area was overexcavated, design of appropriate garage discharge utilities was initiated, and in-ground hydraulic hoists were removed from the Lower Service Garage. A quarterly groundwater monitoring program was initiated in February 1995 to monitor any response of groundwater quality to removal of these and other contaminant sources.

Although a year of groundwater monitoring is recommended to evaluate seasonal fluctuations, the following trends were noted based on the results from the initial sampling event and the first two quarters of monitoring:

- None of the parameters analyzed for have been detected in MW-1, installed next to the catch basin south of the Lower Service Garage, after three events of sampling;
- TPH as heavy oil has disappeared in MW-2, installed next to the Drainline north
  of the Lower Service Garage. TPH as diesel and gasoline concentrations have
  halved, but remain sightly elevated above Method A cleanup guidelines. Total
  xylenes concentrations declined below cleanup guidelines. Total barium and

chromium diminished below cleanup guidelines. Slowly declining 1,1-dichloroethane concentrations are approaching the cleanup guideline. Vinyl chloride was not detected during the most recent monitoring event; however, the lowest available detection limit for vinyl chloride equals the cleanup guideline, and a significant trend has not yet been established. Seven other parameters detected below cleanup guidelines show a consistent trend of decline.

- In MW-3, installed between the drainline and the former UST, TPH concentrations remain stable below Method A cleanup guidelines, and vinyl chloride concentrations remain stable slightly above them. However, soil remediation activities were not complete in the vicinity of MW-3 by the time of second quarter sampling. Total barium, total chromium and 1,1-dichloroethane concentrations have diminished since the time of Upper Drainline overexcavation;
- Two samples were obtained from the downgradient well, MW-4. 1,1-Dichloroethane concentrations remain stable slightly above cleanup guidelines. TPH as diesel, cis-1,2-dichloroethene and 1,1,1-trichloroethane concentrations appear stable below cleanup guidelines; and
- None of the parameters analyzed for have been detected in upgradient well
   MW-5, since the removal of two leaking hydraulic hoists.

Due to the high costs of disposal of well purgewater impacted by chlorinated solvents such as vinyl chloride, we have been treating purgewater contained on-site using hydrogen peroxide to accelerate the chemical degradation process. The breakdown products of this process are carbon dioxide, water and iron chloride and iron sulfate. Once treated, the purgewater is transported to our office for sparging treatment and permitted disposal to the municipal sewer utility.

We are observing a gradual decline of contaminant concentrations in MW-2 and an indistinct response of MW-3 to surrounding soil remediation activities. Soil overexcavation was performed as close as two feet away from these wells, but the priority was to preserve these wells for the purpose of consistency in groundwater monitoring. Therefore, compounds may exist in the soil formation surrounding these wells that negatively influence the groundwater quality. We registered these two wells as Aquifer Remediation Wells with Ecology, obtaining permission to inject a one-percent solution of hydrogen peroxide into these wells as a measure to treat soils in the immediate vicinity. We will conduct this treatment on two occasions this summer. Ideally, this measure would temporarily oxygenate the groundwater, assisting the biodegradation process. However, due to the relatively high density of the site soils, and to the short half-life of the hydrogen peroxide, groundwater oxygenation is not an anticipated

benefit. Third quarter analytical results will be available by September 5, 1995, and the results of this process will be discussed in our next quarterly monitoring report.

We attribute the stable concentrations in downgradient well MW-4 to its very slow recharge rates, which are characteristic of glacial till soils. Therefore, we anticipate delayed response in this well to upgradient soil remediation activities. In our opinion, the suite of detected compounds are consistent with compounds detected in upgradient wells MW-2 and MW-3, and we feel that MW-4 remains suitable for assessing downgradient conditions at the subject site. At the time that soil overexcavation activities were concluding in June 1995, we purged approximately ten gallons of water from MW-4 over a two week period. The purpose was to develop connection with the formation soils, and to stimulate some flow through the well, however small. By the end of June, at the onset of the drier summer months, this well was generating less than half a gallon per day, and daily purging was discontinued.

## 7.3 Best Management Practices

While the new floor drain of the Lower Service Garage has been tightlined through an oil/water separator to the municipal sanitary sewer utility, storm catch basins exist in close proximity to the garage for intercepting rain runoff. In our opinion, the current waste management practices, in conjunction with the 30-year-old site grading and drainage constraints, do pose a risk to surface water, soil, and shallow groundwater quality. Therefore, the short-term and long-term success of site remediation efforts will be determined by the employment of best management practices from this timeframe forward. These practices include waste minimization where practicable, diligent waste collection and containment procedures, a spill control plan, and documentation of waste disposal activities and vendors. Strong leadership and employee training would play a major factor in protection of the site storm system.

Newer storm utilities on site were not designed to accommodate or process car-wash water. Therefore, we recommend that car-wash activities on-site be conducted at the designated area of the new service facility, that is serviced by an oil/water separator. Washwater contains grease, metals and other components of road grime that should not be allowed to enter the site storm system, and that can accumulate in the soils beneath the bioswale. Likewise, scrap metal, used parts and tires should be protected from rainfall, or stored indoors until they can be properly disposed.

#### 8.0 LIMITATIONS

The information in this report is based upon our field observations, explorations and laboratory analyses accomplished exclusively for this investigation. The conclusions presented herein are our professional opinions and reflect our interpretation of the analytical test results, as well as our experience and observations during the project field studies. The number, location and depths of our explorations, including the analytical testing scope, were completed within the site and proposal constraints so as to yield the information necessary to formulate our conclusions and recommendations.

We appreciate the opportunity to continue service to Chrysler Realty Corporation. Should you have any questions, or require further information, please do not hesitate to call.

Respectfully submitted,

AGRA Earth & Environmental, Inc.

Deborah H. Gardner, R.P.G.

**Project Geologist** 

Sean W. Donnan, P.G.

Associate

Table 101: Summary of Soil Analytical Results: Upper Drainline Overexcavation **Lynnwood Dodge** Lynnwood, Washington AGRA Earth & Environmental, Inc. Project No. 11-09664-01

		Depth	WTPI	H-D Ext.
Sample Number	Date Collected	Collected (ft)	Diesel (ppm)	Heavy Oil (ppm)
B2/-6'	30-Nov-94	6	ND	ND
SH-2	30-Nov-94	2	ND	ND
SW-2	30-Nov-94	2	ND	ND
B4/-6'	08-Dec-94	6	ND	ND
B5/-5'	08-Dec-94	5	ND	ND
B6/-6'	08-Dec-94	6	ND	ND
B7/-7'	08-Dec-94	7	ND	ND
B8/-12'	14-Dec-94	12	ND	ND
. S1/-5'*	14-Dec-94	5	880	4,600
CB7P-B1/-7'	14-Dec-94	7	ND	32
MTCA Method	"A" Cleanup C	auidelines	200	200

WTPH-D Ext. = Total petroleum hydrocarbons, diesel range (C12-C24) and heavy oil range (C>24), by Washington State Method WTPH-D Extended.

ND = Compound was not detected in this sample, refer to laboratory certificates for method detection limits.

\* = Sample S1/-5' reported as S1/-15' on laboratory certificates.

MTCA = Washington State, Model Toxics Control Act, Method "A" Cleanup Guidelines.

= indicates concentration is above MTCA cleanup level.

Table 102: Summary of Soil Analytical Results: Lower Service Garage **In-Ground Hoist Excavation Lynnwood Dodge** Lynnwood, Washington AGRA Earth & Environmental, Inc. Porject No. 11-09664-01

		Depth	WTPH-	D Ext.				Total M	etais
Sample Number	Date Collected	Collected (ft)	Diesel (ppm)	Heavy Oll (ppm)	PCBs (ppm)	VOCs (ppm)	SVOs (ppm)	Barium (ppm)	Chromium (ppm)
HP-A/B-10'	21-Dec-94	10	30	ND	NT	NT	NT	NT	NT
HPA/N-1/-8'	27-Dec-94	8	760	230	NT	NT	NT	NT	NT
HPA/S-1/-6'	27-Dec-94	6	1,600	390	NT	NT	NT	NT	NT
HPA/N2/-5'	28-Dec-94	5	6,600	3,300	ND	NT	NT	NT	NT
HPA/S2/-5'	28-Dec-94	5	4,400	2,200	NT	NT	NT	NT	NT
HPA/W-1/-8'	29-Dec-94	8	ND	ND	NT	NT	NT	NT	NT
HPA/E-1/8'	29-Dec-94	8	1,000	540	NT	NT	NT	NT	NT
HPA/N3/5'	05-Jan-95	5	39	65	NT	NT	NT	NT	NT
HPC/S1	04-Jan-95	3	4,900	16,000	NT	Acetone 0.55ppm	NT	NT	NT
HPC/S16	06-Mar-95	3	NT	NT	ND	NT	ND	26	11
HB-10'	16-May-95	10	51	97	NT	NT	NT	NT	NT
HC-E/3'	22-May-95	3	42	95	NT	NT	NT	NT	NT
H-AC/9'	23-May-95	9	ND	ND	NT	NT	NT	NT	NT
HA-B/16'	24-May-95	16	48	27	NT	NT	NT	NT	NT
MTCA Method	"A" Cleanup G	uidelines	200	200	1	Acetone 8,000*	varies	200*	100

WTPH-D Ext. = Total petroleum hydrocarbons, diesel range (C12-C24) and heavy oil range (C>24), by Washington State Method WTPH-D Extended.

PCBs = Polychiorinated biphenyls by EPA Method 8081.

VOCs = Volatile Organic Compounds, by EPA Method 8240.

SVOs = Semi-Volatile Organic Compounds, by EPA Method 8270.

Total Metals = Eight RCRA Total Metals, by EPA Method 6010/7000; Silver, Mercury, Lead, Barium, Cadmium, Chromium,

Arsenic, Selenium: none detected except Barium and Chromium, as shown. NT = Sample was not tested for this specific compound.

ND = Compound was not detected in this sample, refer to laboratory certificates for method detection limits.

MTCA = Washington State, Model Toxics Control Act, Method "A" Cleanup Guidelines.

= indicates concentration is above MTCA cleanup level.

= indicates concentration is above MTC/ All concentrations are expressed in parts per million (ppm).

<sup>\* =</sup> Method "B" Cleanup Guldelines - No Method "A" established.

Table 103: Summary of Soil Analytical Results: Lower Service Garage Exploration
Lynnwood Dodge
Lynnwood, Washington
AGRA Earth & Environmental, Inc. Project No. 11-09664-01

		Depth	WTPH-I	D Ext.	
Sample	Date	Collected	Diesel	Heavy Oil	VOC.
Number	Collected	(ft)	(ppm)	(ppm)	(ppm)
B-101/S-1	10-Jan-95	1	17	41	ND
B-101/S-5.5	10-Jan-95	5.5	6,100	2,500	NT
B-101/S-7.5	10-Jan-95	7.5	41	29	NT
B-102/S-3	10-Jan-95	3	ND	ND	NT
B-103/S-3.5	10-Jan-95	3.5	15	41	ND
B-103/S-6	10-Jan-95	6	ND	ND	NT
B-104/S-3.5	10-Jan-95	3.5	390	870	NT
B-105/S-3.5	11-Jan-95	3.5	4,500	15,000	NT
B-105/S-5.5	11-Jan-95	5.5	860	3,100	NT _
B-105/S-11	11-Jan-95	11	ND	ND	NT
B-107/S-6.5	11-Jan-95	6.5	ND	34	NT
B-107/S-8.5	11-Jan-95	8.5	ND	ND	NT
B-108/S-5.5	11-Jan-95	5.5	ND	ND	NT
B-108/S-8	11-Jan-95	8	ND	ND	NT
	'A" Cleanup Lev	el	200	200	varies

WTPH-D Ext. = Total petroleum hydrocarbons, diesel range (C12-C24) and heavy oil range (C>24), by Washington State Method WTPH-D Extended.

VOCs = Volatile Organic Compounds, by EPA Method 8240.

ND = Compound was not detected in this sample, refer to laboratory certificates for method detection limits.

NT = Sample was not tested for this specific compound.

MTCA = Washington State, Model Toxics Control Act, Method "A" Cleanup Guidelines.

= indicates concentration is above MTCA cleanup level.

Table 104: Summary of Soil Analytical Results: Oil/Water Separator Installation **Lynnwood Dodge** Lynnwood, Washington AGRA Earth & Environmental, Inc. Project No. 11-09664-01

• • • • • • • • • • • • • • • • • • • •		Depth		WTPH-HC	WTPH-	D Ext.	
Sample Number	Date Collected	Collected (ft)	Gasoline (ppm)	Diesel (ppm)	Heavy Oil (ppm)	Diesel (ppm)	Heavy Oil
OW-1	28-Mar-95	3	<20	<50	<100	NT	NT
OW-2	29-Mar-95	1	NT	NT	NT	12	42
OW-3	30-Mar-95	5	<20	<50	<100	NT	NT
OW-4	03-Apr-95	2	<20	<50	<100	NT	NT
MTCA Metho	d "A" Cleanup	Level	100	200	200	200	200

WTPH-HCID = Petroleum hydrocarbon identification, gasoline range C6-C12), diesel range (C12-C24) and heavy oil range (C>24), by Washington State Method WTPH-HCiD.
WTPH-D Ext. = Total petroleum hydrocarbons, diesel range (C12-C24) and heavy oil range (C>24), by Washington

State Method WTPH-D Extended.

NT = Sample was not tested for this specific compound.

MTCA = Washington State, Model Toxics Control Act, Method "A" Cleanup Guidelines.

Table 105: Summary of Soil Analytical Results: Lower Service Garage **Underpinning Installation Lynnwood Dodge** Lynnwood, Washington AGRA Earth & Environmental, Inc. Project No. 11-09664-01

		Depth	WTP		
Sample	Date	Collected	Diesel	Heavy Oil	VOCs
Number	Collected	(ft)	(ppm)	(ppm)	(ppm)
U1-2'	27-Apr-95	2	ND	ND	NT
U1-10'	27-Apr-95	10	15	35	NT
U2-2'	26-Apr-95	2	ND	ND	NT
U3-3'	28-Apr-95	3	990	570	NT
U3-9'	01-May-95	9	ND	ND	NT
U4-X-1.5'	28-Apr-95	1.5	91	450	NT
U4-F-3'	09-May-95	3	39	180	NT
U4-10'	02-May-95	10	730	300	NT
U4-13'	04-May-95	13	ND	ND	NT
U5-3'	04-May-95	3	ND	ND	NT
U5-9'	04-May-95	9	ND	ND	NT
U6-8'	05-May-95	8	ND	ND	NT
U7-2'	09-May-95	2	ND	ND	NT
U7-11'	09-May-95	11	ND	ND	NT
U8-8.5'	15-May-95	8.5	3,700	1,600	ND
U8-13'	15-May-95	13	11	ND	NT_
MTCA Method	d "A" Cleanup L	evel	200	200	varies

WTPH-D Ext. = Total petroleum hydrocarbons, diesel range (C12-C24) and heavy oil range (C>24), by Washington State Method WTPH-D Extended.

VOCs = Volatile Organic Compounds, by EPA Method 8240.

ND = Compound was not detected in this sample, refer to laboratory certificates for method detection limits.

NT = Sample was not tested for this specific compound.

MTCA = Washington State, Model Toxics Control Act, Method "A" Cleanup Guidelines.

= indicates concentration is above MTCA cleanup level.

Table 106: Summary of Soil Analytical Results: Lower Drainline Overexcavation and Exploration **Lynnwood Dodge** Lynnwood, Washington AGRA Earth & Environmental, Inc. Project No. 11-09664-01

		Depth	WTPI	H-D Ext.	
Sample Number	Date Collected	Collected (ft)	Diesel (ppm)	Heavy Oil (ppm)	VOC's (ppm)
SD-101/7.5'	08-May-95	7.5	ND	ND	ND
SD-102/7'	10-May-95	7	ND	ND	NT
SD-103/5.5'	10-May-95	5.5	210	410	NT
SD-104/8'	11-May-95	8	ND	ND	NT
SD-105/10'	11-May-95	10	24	37	NT
SD-106/6'	15-May-95	6	ND	ND	NT
SD-107/9.5'	15-May-95	9.5	ND	ND	NT
SD-108/5.5'	16-May-95	5.5	51	97	NT
SD-109/5'	19-May-95	5	43	120	NT
MTCA Method	"A" Cleanup G	iuidelines	200	200	varies

WTPH-D Ext. = Total petroleum hydrocarbons, diesel range (C12-C24) and heavy oil range (C>24), by Washington State Method WTPH-D Extended.

VOC's = Volatile Organic Compounds, by EPA Method 8240. ND = Compound was not detected in this sample, refer to laboratory certificates for method detection limits.

NT = Sample was not tested for this specific compound.

MTCA = Washington State, Model Toxics Control Act, Method "A" Cleanup Guidelines.

= indicates concentration is above MTCA cleanup level.

Table 107: Summary of Soil Analytical Results: Lower Service Garage Overexcavation **Lynnwood Dodge** Lynnwood, Washington AGRA Earth & Environmental, Inc. Project No. 11-09664-01

		Depth	WTPH	-D Ext.
Sample Number	Date Collected Collected (ft)		Diesei (ppm)	Heavy OII (ppm)
GS-1.5'	16-May-95	1.5	19	59
GS-4'	16-May-95	4	1,600	3,300
GE-10'	16-May-95	10	14	ND
U8-W/11'	25-May-95	11	ND	ND
G-SE/1.5'	02-Jun-95	1.5	12	33
GN-11'	02-Jun-95	11	ND	ND
GC-3'	06-Jun-95	3	ND	ND
GS2-4'	07-Jun-95	4	ND	ND
G-FD/6.5'	09-May-95	6.5	ND	ND
SE-4.0'	09-May-95	4	ND	ND
MTCA Method	"A" Cleanup Lev	/el	200	200

WTPH-D Ext. = Total petroleum hydrocarbons, diesel range (C12-C24) and heavy oil range (C>24), by

Washington State Method WTPH-D Extended.

ND = Compound was not detected in this sample, refer to laboratory certificates for method detection limits. MTCA = Washington State, Model Toxics Control Act, Method "A" Cleanup Guidelines.

= indicates concentration is above MTCA cleanup level.

All concentrations are expressed in parts per million (ppm).

### Table 108: Summary of Soil Analytical Results: Office Addition **Lynnwood Dodge** Lynnwood, Washington AGRA Earth & Environmental, Inc. Project No. 11-09664-01

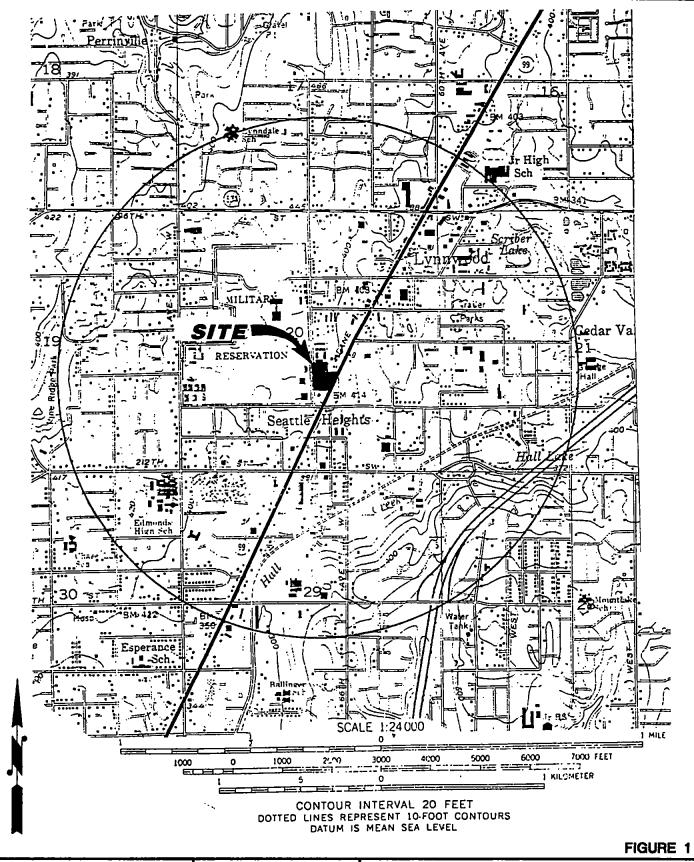
		Depth		WTPH	-D Ext.
Sample	Date	Collected	WTPH-G	Diesel	Heavy Oli
Number	Collected	(ft)	(ppm)	(ppm)	(ppm)
U3-G/2.5'	17-May-95	2.5	630	2,800	250
U3-GS/2'	01-Jun-95	2	ND	ND	ND
U3-GN/2'	01-Jun-95	2	ND	ND	ND
A-SE/4'	06-Jun-95	4	2.5	ND	ND
U3-G2/6.5'	09-Jun-95	6.5	ND	ND	ND
MTCA Method "A" Cleanup Level			100	200	200

#### Notes:

WTPH-G = Total petroleum hydrocarbons, gasoline range (C8-C12), by Washington State Method WTPH-G. WTPH-D Ext. = Total petroleum hydrocarbons, diesel range (C12-C24) and heavy oil range (C>24), by
Washington State Method WTPH-D Extended.
ND = Compound was not detected in this sample, refer to laboratory certificates for method detection limits.

MTCA = Washington State, Model Toxics Control Act, Method "A" Cleanup Guidelines.

= indicates concentration is above MTCA cleanup level.



AGRA
Earth & Environmental
11335 N.E. 122nd Way, Suite 100
Kirkland, WA, U.S.A. 98034-6918

W.O. 11-09664-01
DESIGN MB/DHG

DRAWN JMR
DATE JUL 1995
SCALE N.T.S.

LYNNWOOD DODGE 20612 HIGHWAY 99 LYNNWOOD, WASHINGTON

LOCATION MAP

Table 104: Summary of Soil Analytical Results: Oil/Water Separator Installation **Lynnwood Dodge** Lynnwood, Washington AGRA Earth & Environmental, Inc. Project No. 11-09664-01

	Depth WTPH-HCID				WTPH-D Ext.		
Sample Number	Date Collected	Collected (ft)	Gasoline (ppm)	Diesel (ppm)	Heavy Oil (ppm)	Diesel (ppm)	Heavy Oil (ppm)
OW-1	28-Mar-95	3	<20	<50	<100	NT	NT
OW-2	29-Mar-95	1	NT	NT	NT	12	42
OW-3	30-Mar-95	5	<20	<50	<100	NT	NT
OW-4	03-Apr-95	2	<20	<50	<100	NT	NT
MTCA Metho	d "A" Cleanup	Level	100	200	200	200	200

WTPH-HCID = Petroleum hydrocarbon identification, gasoline range C6-C12), diesel range (C12-C24) and heavy oil

range (C>24), by Washington State Method WTPH-HCID.

WTPH-D Ext. = Total petroleum hydrocarbons, diesel range (C12-C24) and heavy oil range (C>24), by Washington State Method WTPH-D Extended.

NT = Sample was not tested for this specific compound.
MTCA = Washington State, Model Toxics Control Act, Method "A" Cleanup Guidelines.

### Table 106: Summary of Soil Analytical Results: Lower Drainline Overexcavation and Exploration Lynnwood Dodge Lynnwood, Washington AGRA Earth & Environmental, Inc. Project No. 11-09664-01

	,	Depth	WTP	H-D Ext.	
Sample Number	Date Collected	Collected (ft)	Diesel (ppm)	Heavy Oil (ppm)	VOC's (ppm)
SD-101/7.5'	08-May-95	7.5	ND	ND	ND
SD-102/7'	10-May-95	7	ND	ND	NT
SD-103/5.5'	10-May-95	5.5	210	410	NT
SD-104/8'	11-May-95	8	ND	ND	NT
SD-105/10'	11-May-95	10	24	37	NT
SD-106/6'	15-May-95	6	ND	ND	NT
SD-107/9.5'	15-May-95	9.5	ND	ND	NT
SD-108/5.5'	16-May-95	5.5	51	97	NT
SD-109/5'	19-May-95	5	43	120	NT
MTCA Method	"A" Cleanup G	luidelines	200	200	varies

#### Notes:

WTPH-D Ext. = Total petroleum hydrocarbons, diesel range (C12-C24) and heavy oil range (C>24), by Washington State Method WTPH-D Extended.

VOC's = Volatile Organic Compounds, by EPA Method 8240.

ND = Compound was not detected in this sample, refer to laboratory certificates for method detection limits. NT = Sample was not tested for this specific compound.

MTCA = Washington State, Model Toxics Control Act, Method "A" Cleanup Guidelines.

= indicates concentration is above MTCA cleanup level.

Table 102: Summary of Soil Analytical Results: Lower Service Garage In-Ground Hoist Excavation
Lynnwood Dodge
Lynnwood, Washington
AGRA Earth & Environmental, Inc. Porject No. 11-09664-01

		Depth	WTPH-	D Ext.	_			Total M	etals
Sample Number	Date Collected	Collected (ft)	Diesel (ppm)	Heavy OII (ppm)	PCBs (ppm)	VOCs (ppm)	SVOs (ppm)	Barlum (ppm)	Chromlum (ppm)
HP-A/B-10'	21-Dec-94	10	30	ND	NT	NT	NT	NT	NT
HPA/N-1/-8'	27-Dec-94	8	760	230	NT	NT	NT	NT	NT
HPA/S-1/-6'	27-Dec-94	6	1,600	390	NT	NT	NT	NT	NT
HPA/N2/-5'	28-Dec-94	5	6,600	3,300	ND	NT	NT	NT	NT
HPA/S2/-5'	28-Dec-94	5	4,400	2,200	NT	NT	NT	NT_	NT
HPA/W-1/-8'	29-Dec-94	8	ND	ND	NT	NT	NT	NT	NT
HPA/E-1/8'	29-Dec-94	8	1,000	540	NT	NT	NT	NT	NT
HPA/N3/5'	05-Jan-95	5	39	65	NT	NT	NT	NT	NT
HPC/S1	04-Jan-95	3	4,900	16,000	NT	Acetone 0.55ppm	NT	NT	NT_
HPC/S16	06-Mar-95	3	NT	NT	ND	NT	ND	26	11
HB-10'	16-May-95	10	51	97	NT	NT	NT	NT	NT
HC-E/3'	22-May-95	3	42	95	NT	NT	NT	NT	NT
H-AC/9'	23-May-95	9	ND	ND	NT	NT	NT	NT	NT
HA-B/16'	24-May-95	16	48	27	NT	NT	NT	NT	NT
MTCA Method	"A" Cleanup G	iuidelines	200	200	1	Acetone 8,000*	varies	200*	100

WTPH-D Ext. = Total petroleum hydrocarbons, diesel range (C12-C24) and heavy oil range (C>24), by Washington State Method WTPH-D Extended.

PCBs = Polychlorinated biphenyls by EPA Method 8081.

VOCs = Volatile Organic Compounds, by EPA Method 8240.

SVOs = Semi-Volatile Organic Compounds, by EPA Method 8270.

Total Metals = Eight RCRA Total Metals, by EPA Method 6010/7000; Sliver, Mercury, Lead, Barium, Cadmium, Chromium,

Arsenic, Selenium: none detected except Barium and Chromium, as shown.

NT = Sample was not tested for this specific compound.

ND = Compound was not detected in this sample, refer to laboratory certificates for method detection limits.

MTCA = Washington State, Model Toxics Control Act, Method "A" Cleanup Guidelines.

= indicates concentration is above MTCA cleanup level.

<sup>\* =</sup> Method "B" Cleanup Guidelines - No Method "A" established.

Table 103: Summary of Soil Analytical Results: Lower Service Garage Exploration Lynnwood Dodge Lynnwood, Washington AGRA Earth & Environmental, Inc. Project No. 11-09664-01

		Depth	WTPH-I	Ext.	
Sample	Date	Collected	Diesel	Heavy Oil	VOCs
Number	Collected	(ft)	(ppm)	(ppm)	(ppm)
B-101/S-1	10-Jan-95	1	17	41	ND
B-101/S-5.5	10-Jan-95	5.5	6,100	2,500	NT
B-101/S-7.5	10-Jan-95	7.5	41	29	NT
B-102/S-3	10-Jan-95	3	ND	ND	NT
B-103/S-3.5	10-Jan-95	3.5	15	41	ND
B-103/S-6	10-Jan-95	6	ND	ND	NT
B-104/S-3.5	10-Jan-95	3.5	390	870	NT
B-105/S-3.5	11-Jan-95	3.5	4,500	15,000	NT
B-105/S-5.5	11-Jan-95	5.5	860	3,100	NT
B-105/S-11	11-Jan-95	11	ND	ND	NT
B-107/S-6.5	11-Jan-95	6.5	ND	34	NT
B-107/S-8.5	11-Jan-95	8.5	ND	ND	NT
B-108/S-5.5	11-Jan-95	5.5	ND	ND	NT
B-108/S-8	11-Jan-95	8	ND	ND	ТМ
MTCA Method	A" Cleanup Lev	el	200	200	varies

WTPH-D Ext. = Total petroleum hydrocarbons, diesel range (C12-C24) and heavy oil range (C>24), by Washington State Method WTPH-D Extended.

VOCs = Volatile Organic Compounds, by EPA Method 8240.

ND = Compound was not detected in this sample, refer to laboratory certificates for method detection limits.

NT = Sample was not tested for this specific compound.

MTCA = Washington State, Model Toxics Control Act, Method "A" Cleanup Guidelines.

= Indicates concentration is above MTCA cleanup level.

Table 105: Summary of Soil Analytical Results: Lower Service Garage **Underpinning Installation Lynnwood Dodge** Lynnwood, Washington AGRA Earth & Environmental, Inc. Project No. 11-09664-01

		Depth	WTPH	I-D Ext.	,
Sample	Date	Collected	Diesel	Heavy Oil	VOCs
Number	Collected	(ft)	(ppm)	(ppm)	(ppm)
U1-2'	27-Apr-95	2	ND	ND	NT
U1-10'	27-Apr-95	10	15	35	NT
U2-2'	26-Apr-95	2	ND	ND	NT
U3-3'	28-Apr-95	3	990	570	NT
U3-9'	01-May-95	9	ND	ND	NT
U4-X-1.5'	28-Apr-95	1.5	91	450	NT
U4-F-3'	09-May-95	3	39	180	NT
U4-10'	02-May-95	10	730	300	NT
U4-13'	04-May-95	13	ND	ND	NT
U5-3'	04-May-95	3	ND	ND	NT
U5-9'	04-May-95	9	ND	ND	NT
U6-8'	05-May-95	8	ND	ND	NT
U7-2'	09-May-95	2	ND	ND	NT
U7-11'	09-May-95	11	ND	ND	NT
U8-8.5'	15-May-95	8.5	3,700	1,600	ND
U8-13'	15-May-95	13	11	ND	NT
MTCA Method	"A" Cleanup L	evel	200	200	varies

WTPH-D Ext. = Total petroleum hydrocarbons, diesel range (C12-C24) and heavy oil range (C>24), by Washington State Method WTPH-D Extended.

VOCs = Volatile Organic Compounds, by EPA Method 8240.

ND = Compound was not detected in this sample, refer to laboratory certificates for method detection limits.

NT = Sample was not tested for this specific compound.

MTCA = Washington State, Model Toxics Control Act, Method "A" Cleanup Guidelines.

= indicates concentration is above MTCA cleanup level.

Table 107: Summary of Soil Analytical Results: Lower Service Garage Overexcavation **Lynnwood Dodge** Lynnwood, Washington AGRA Earth & Environmental, Inc. Project No. 11-09664-01

•		Depth	WTPH	-D Ext.
Sample	Date	Collected	Diesel	Heavy Oil
Number	Collected	(ft)	(ppm)	(ppm)
GS-1.5'	16-May-95	1.5	19	59
GS-4'	16-May-95	4	1,600	3,300
GE-10'	16-May-95	10	14	ND
U8-W/11'	25-May-95	11	ND	ND
G-SE/1.5'	02-Jun-95	1.5	12	33
GN-11'	02-Jun-95	11	ND	ND
GC-3'	06-Jun-95	3	ND	ND
GS2-4'	07-Jun-95	4	ND	ND
G-FD/6.5'	09-May-95	6.5	ND	ND
SE-4.0'	09-May-95	4	ND	ND
MTCA Method	"A" Cleanup Lev	/el	200	200

WTPH-D Ext. = Total petroleum hydrocarbons, diesel range (C12-C24) and heavy oil range (C>24), by

Washington State Method WTPH-D Extended.

ND = Compound was not detected in this sample, refer to laboratory certificates for method detection limits. MTCA = Washington State, Model Toxics Control Act, Method "A" Cleanup Guidelines.

= indicates concentration is above MTCA cleanup level.
All concentrations are expressed in parts per million (ppm).

Table 108: Summary of Soil Analytical Results: Office Addition **Lynnwood Dodge** Lynnwood, Washington AGRA Earth & Environmental, Inc. Project No. 11-09664-01

		Depth		WTPH-	D Ext.
Sample Number	Date Collected	Collected (ft)	WTPH-G (ppm)	Diesel (ppm)	Heavy Oll (ppm)
U3-G/2.5'	17-May-95	2.5	630	2,800	250
U3-GS/2'	01-Jun-95	2	ND	ND	ND
U3-GN/2'	01-Jun-95	2	ND	ND	ND
A-SE/4'	06-Jun-95	4	2.5	ND	ND
U3-G2/6.5'	09-Jun-95	6.5	ND	ND	ND
MTCA Method "A" Cleanup Level			100	200	200

WTPH-G = Total petroleum hydrocarbons, gasoline range (C6-C12), by Washington State Method WTPH-G. WTPH-D Ext. = Total petroleum hydrocarbons, diesel range (C12-C24) and heavy oil range (C>24), by Washington State Method WTPH-D Extended.

ND = Compound was not detected in this sample, refer to laboratory certificates for method detection limits. MTCA = Washington State, Model Toxics Control Act, Method "A" Cleanup Guidelines.

— Indicates concentration is above MTCA cleanup level.

All concentrations are expressed in parts per million (ppm).



UPPER DRAINLINE OVEREXCAVATION, DECEMBER 1994 VIEWING SOUTH AT NORTH BAY DOOR OF LOWER SERVICE GARAGE.

FIGURE 6

LYNNWOOD DODGE LYNNWOOD, WASHINGTON

SITE PHOTOGRAPHS

AGRA

Earth & Environmental

11335 NE 122nd Way, Suite 100
Kirkland, Washington, U.S.A. 98034-6918

W.O. 11-09964-1
DESIGN DHG
DRAWN DMW
DATE JUL 1995
SCALE N.T.S.



UPPER DRAINLINE OVEREXCAVATION, DECEMBER 1994 VIEWING SOUTHEAST TOWARDS NORTH WING OF OLD FACILITY BUILDING



UPPER DRAINLINE OVEREXCAVATION, DECEMBER 1994 VIEWING NORTHEAST PAST NORTH WING OF OLD FACILITY BUILDING

FIGURE 7
LYNNWOOD DODGE
LYNNWOOD, WASHINGTON

AGRA
Earth & Environmental
11335 NE 122nd Way, Suite 100
Kirkland, Washington, U.S.A. 98034-6918

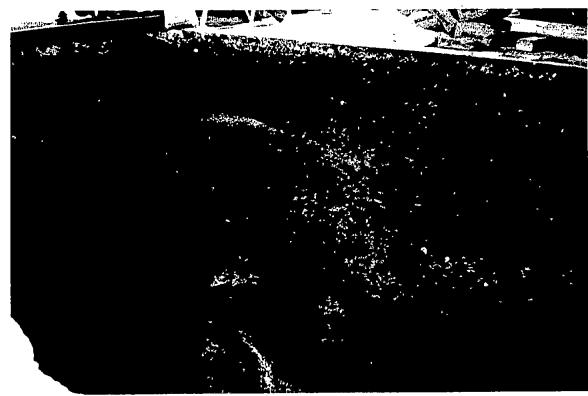
W.O. 11-09964-1

DESIGN DHG

DRAWN DMW

DATE JUL 1995

SCALE N.T.S.



HOIST EXCAVATION HPA, JANUARY 1995
PEA GRAVEL FILL VISIBLE IN SOUTH SIDEWALL,
UNDERGROUND CARMON SYSTEM VISIBLE IN EAST SIDEWALL,
FREE PRODUCT AND PERCHED GROUNDWATER IN BASE OF EXCAVATION.

FIGURE 8

Earth & Environmental
11335 NE 122nd Way, Suite 100
Kirkland, Washington, U.S.A. 98034-6918

W.O. 11-09964-1
DESIGN DHG
DRAWN DMW
DATE JUL 1995
SCALE N.T.S.

LYNNWOOD DODGE LYNNWOOD, WASHINGTON SITE PHOTOGRAPHS



HOIST EXCAVATION HPC, JANUARY 1995 PEA GRAVEL FILL VISIBLE IN NORTH SIDEWALL. EXCAVATION FILLED WITH MIXTURE OF WATER AND HYDRAULIC OIL.

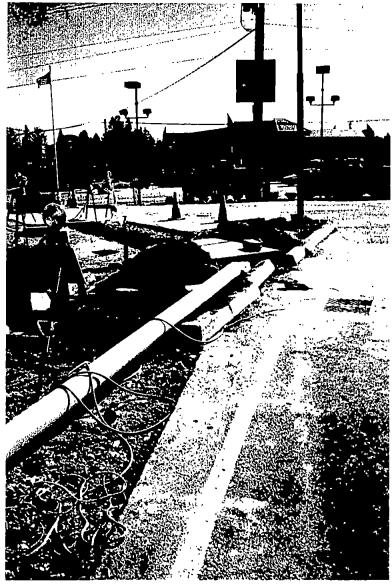
FIGURE 9

Earth & Environmental

11335 NE 122nd Way, Suite 100 Kirkland, Washington, U.S.A. 98034-6918

11-09964-1 DESIGN \_DHG\_ DRAWN \_DMW DATE JUL 1995 SCALE N.T.S.

LYNNWOOD DODGE LYNNWOOD, WASHINGTON **SITE PHOTOGRAPHS** 



OIL/WATER SEPARATOR INSTALLATION, MARCH 1995 EASTWARD VIEW OF OIL/WATER SEPARATOR LOCATED OFF SOUTHEAST CORNER OF OLD FACILITY BUILDING (NOT VISIBLE).

11-09964-1 W.O. **S**AGRA DESIGN DHG Earth & Environmental
11335 NE 122nd Way, Suite 100
Kirkland, Washington, U.S.A. 98034-6918 DRAWN \_DMW\_ DATE JUL 1995

SCALE N.T.S.

LYNNWOOD DODGE LYNNWOOD, WASHINGTON SITE PHOTOGRAPHS

FIGURE 10



OIL/WATER SEPARATOR INSTALLATION, APRIL 1995 LANDSCAPING AND PAVING RESTORED AROUND NEW STRUCTURE.

FIGURE 11

AGRA
Earth & Environmental

11335 NE 122nd Way, Suite 100 Kirkland, Washington, U.S.A. 98034-6918 W.O. 11-09964-1
DESIGN DHG
DRAWN DMW
DATE JUL 1995
SCALE N.J.S.

LYNNWOOD DODGE LYNNWOOD, WASHINGTON



LOWER DRAINLINE OVEREXCAVATION, MAY 1995 VIEWING EAST TOWARDS BIOSWALE DISCHARGE PIPE AND STORM RETENTION VAULT LOCATED AT INSIDE-NORTHEAST PROPERTY CORNER.

W.O. 11-09964-1

DESIGN DHG

DRAWN DMW

LYNNWOOD DODGE
LYNNWOOD, WASHINGTON

SITE PHOTOGRAPHS

JUL 1995

DATE

SCALE N.T.S.

FIGURE 12

11335 NE 122nd Way, Suite 100 Kirkland, Washington, U.S.A. 98034-6918



LOWER DRAINLINE OVEREXCAVATION, MAY 1995 DRAINPIPE AND PEA GRAVEL BEDDING APPEAR IMPACTED WEST AND UPGRADIENT FROM 1992 STORM RETENTION VAULT.

\_11-09964-1 W.O. AGRA DESIGN \_DHG DRAWN \_DMW\_ Earth & Environmental DATE JUL 1995

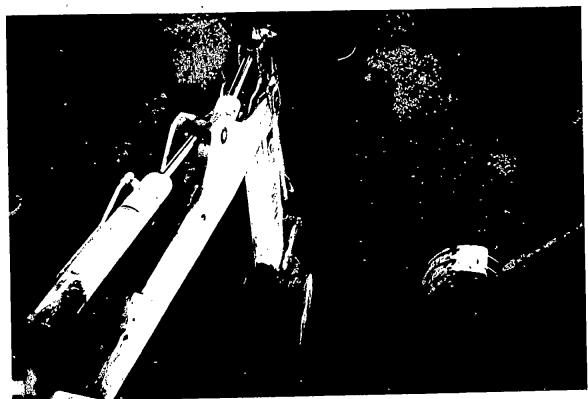
SCALE N.I.S.



LOWER DRAINLINE EXPLORATION, MAY 1995 DRAINPIPE AND PEA GRAVEL BEDDING APPEAR DRY AND UNAFFECTED EAST AND DOWNGRADIENT OF STORM RETENTION VAULT.

FIGURE 14

LYNNWOOD DODGE LYNNWOOD, WASHINGTON



LOWER SERVICE GARAGE OVEREXCAVATION, MAY 1995 UNDERPINNING COLUMNS SHOWN BENEATH WEST AND NORTH SIDEWALLS.

AGRA

Earth & Environmental

11335 NE 122nd Way Suite 100

11335 NE 122nd Way, Suite 100 Kirkland, Washington, U.S.A. 98034-6918

FIGURE 15

LYNNWOOD DODGE LYNNWOOD, WASHINGTON



LOWER SERVICE GARAGE OVEREXCAVATION, MAY 1995
VIEWING NORTH THROUGH FOUNDATION UNDERPINNINGS TOWARD FORMER
UST EXCAVATION. INTERIOR GRADES PARTIALLY RESTORED TO DEPTH OF
8 FEET USING LEAN-MIX CONCRETE.

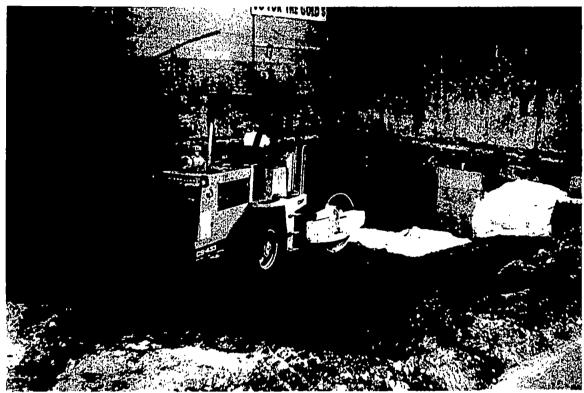
FIGURE 16

Earth & Environmental

11335 NE 122nd Way, Suite 100
Kirkland, Washington, U.S.A. 98034-6918

W.O. 11-09964-1
DESIGN DHG
DRAWN DMW
DATE JUL 1995
SCALE N.T.S.

LYNNWOOD DODGE LYNNWOOD, WASHINGTON SITE PHOTOGRAPHS

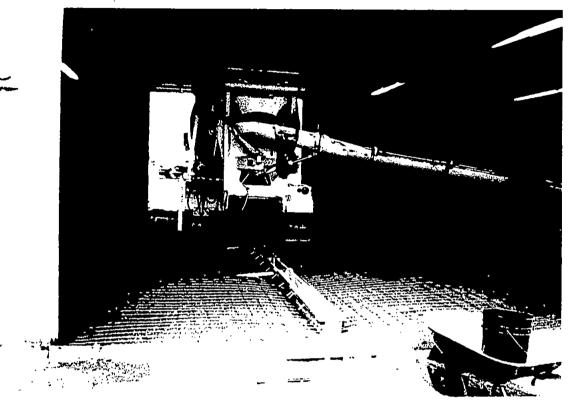


LOWER SERVICE GARAGE RESTORATION, MAY 1995 PLACEMENT OF STRUCTURAL FILL IN NORTHWEST CORNER OF GARAGE.

FIGURE 17

Earth & Environmental
11335 NE 122nd Way, Suite 100
Kirkland, Washington, U.S.A. 98034-6918

LYNNWOOD DODGE LYNNWOOD, WASHINGTON SITE PHOTOGRAPHS



LOWER SERVICE GARAGE RESTORATION, JUNE 1995 REPLACEMENT OF FLOOR SLAB-ON-GRADE AND TRENCH DRAIN.

FIGURE 18

AGRA

Earth & Environmental

11335 NE 122nd Way, Suite 100
Kirkland, Washington, U.S.A. 98034-6918

W.O. 11-09964-1
DESIGN DHG
DRAWN DMW
DATE JUL 1995
SCALE N.T.S.

LYNNWOOD DODGE LYNNWOOD, WASHINGTON



LOWER SERVICE GARAGE RESTORATION, JULY 1995 VIEWING NORTHWEST: INSTALLATION OF ABOVE-GROUND CARMON SYSTEM IN PROGRESS. NEW TRENCH DRAIN AT LOWER RIGHT.

FIGURE 19



W.O	11-09964-1
DESIGN	DHG
	DMW
	JUL 1995
SCALE .	N.T.S

# APPENDIX A GENERAL SAMPLING PROCEDURES AND FIELD METHODOLOGIES

## APPENDIX A GENERAL SAMPLING PROCEDURES AND FIELD METHODOLOGIES

#### SUBSURFACE EXPLORATION PROCEDURES

#### **Test Borings**

The subsurface exploration program conducted inside the Lower Service Garage consisted of the advancement of eight, limited-access, hollow-stem auger borings and the collection of selected soil samples. One test boring was abandoned when it encountered an active electrical conduit. The approximate sample locations of test borings B-101 through B-108 are shown on Figure 5, Lower Service Garage Detail. Other test borings shown on the plan were advanced as part of a previous AEE study.

These test borings were advanced on 10 and 11 January by Boretec, Inc. under subcontract to our firm. These borings were advanced using a limited-access B-24 auger drill. This rig was used to drill inside the building, where space and overhead clearance restricted the use of a truck-mounted rig. Drilling depths extended to a maximum depth of 14 feet. During the drilling process, samples were generally obtained at 2.5-foot-depth intervals.

Disturbed, but representative, soil samples were obtained by the Standard Penetration Test Procedures as described in ASTM:D-1586. This test and sampling method consists of driving a standard 2-inch outside diameter, split-barrel sampler a distance of 18 inches into the soil with a 140 pound hammer, free-falling a distance of 30 inches. The number of hammer-blows for each 6-inch interval is recorded, and the number of blows required to drive the sampler the final 12 inches is considered the Standard Penetration Resistance ("N" or blow counts). The blow counts are presented on the test boring logs in this appendix. If a total of 50 blows is recorded within one 6-inch interval, the blow count is recorded as 50 blows for the actual number of inches of penetration. the blow count ("N" value) provides a measure of the relative density of granular soils or the relative consistency of cohesive soils. The soil samples retrieved from the split-barrel sampler were classified in the field by an experienced geologist from AEE.

The boring logs presented in the appendix are based on visual inspection of samples secured, the drilling action, laboratory results, and field logs. The various types of soil are indicated, as well as the depths where soils or characteristics of soils changed. It should be noted that these changes may have been gradual, and if changes occurred between sample intervals, the soil contacts are interpreted. Subsurface water conditions are evaluated by observing the moisture content of the samples and the free water on the sampling rods.

Following collection, analytical samples were placed in laboratory-prepared, glassware equipped with teflon-lined, screw-on lids to minimize the loss of volatiles. The glassware was filled with soil to minimize headspace volumes inside the container which can also contribute to loss of volatiles. All sample containers were immediately placed in a chilled cooler for storage, until they could be transported to an analytical laboratory under AEE chain-of-custody (COC) procedures.

#### FIELD SCREENING

Field screening for total organic vapors was performed periodically, using an Organic Vapor Meter (OVM) photoionization detector (PID) equipped with a 10.0 eV lamp, capable of detecting volatile organic compounds with ionization potentials less than that of the lamp. Many compounds typically associated with chlorinated solvents and petroleum hydrocarbons have ionization potentials that fall into this range, making a PID a useful tool for screening soils for these constituents. Field screening involved placement of approximately 6 ounces of soil directly into a sealable plastic bag. This sample was then shaken vigorously for approximately 15 seconds and headspace reading was obtained by plunging the probe of the PID through the bag.

Field headspace analysis was performed using a ThermoEnvironmental Instruments Model 580B Organic Vapor Meter (OVM). The highest digital readout value displayed by the instrument was recorded for each sample. This value indicates the total vapor concentration of volatilized organic compounds. These compounds include numerous constituents of petroleum hydrocarbons. However, the OVM is not capable of distinguishing the species of these compounds or their concentrations in the soil samples. Consequently, it should be considered merely a screening tool that aids in detecting the presence of volatile soil contaminants.

#### LABORATORY ANALYSIS

During site characterization and remediation, soil samples were frequently analyzed for Total Petroleum Hydrocarbons (TPH) as diesel and heavy oil by Washington Department of Ecology (Ecology) Method WTPH-D Extended. This laboratory analysis was relied upon as the definitive screening tool to characterize TPH concentrations in the site soils and groundwater resulting from releases of hydraulic oil from the in-ground hoists, and from used oil releases from the former UST and Upper Drainline. Soils impacted by TPH were overexcavated based on laboratory analysis, supplemented by visual, olfactory, and field screening considerations.

For the purpose of disposal characterization, additional analyses were performed to evaluate whether metals and solvents were associated with TPH releases. Samples of TPH-impacted soils were periodically analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8240 and for eight RCRA Total Metals were analyzed by EPA Method 6010. For disposal characterization, one sample was also analyzed for PCBs by EPA Method 8081 and for Semi-Volatile Organics by EPA Method 8270. Soil samples collected from the Office Addition area were analyzed for TPH as gasoline by Ecology Method WTPH-G, in addition to diesel and heavy oil. Finally, samples collected from the Oil/Water Separator installation were screened for general hydrocarbon identification using Ecology Method WTPH-HCID.

W.O. 11-09664-01 BORING NO. B-101 PROJECT: Lynnwood Dodge Elevation reference: N/A Well completed: N/A Page 1 AS-BUILT DESIGN of 1 Ground surface elevation: N/A Casing elevation: N/A SAMPLE NUMBER OVM READING SAMPLE TYPE BLOW GROUND WATER DEPTH (feet) TESTING SOIL DESCRIPTION 0 (4-Inch Concrete Slab) Medium dense to dense, wet, gray, WIPH-D Ext. S-1 28 3 silty SAND with gravel (Glacial Till) EPA 8240 (strong petroleum-like odor) WTPH-D Ed. S-2.5 68 (moderate petroleum-like odor) 5 Bentonite WTPH-D Ed. S-5.5 28 11 Becomes moist, light brown mottled (no petroleum-like odor) 19 0 S-7.5 Becomes light brown, moist, no 10 mottling(no petroleum-like odor) S-11.0 41 0 Bottom of boring at 11.5 feet. No groundwater seepage encountered. 15 20 25 30 LEGEND 2-Inch O.D. Observed groundwater level Earth & Environmental ATD = at time of drilling split-spoon sample 11335 NE 122nd Way, Suite 100 WTPH-D Ext. Kirkland, Washington 98034-6918 Analytical testing N/A - Not applicable EPA 8240

W.O. 11-09664-01 BORING NO. B-102 PROJECT: Lynnwood Dodge Elevation reference: N/A Well completed: N/A Page 1 AS-BUILT DESIGN of 1 Ground surface elevation: N/A Casing elevation: N/A SAMPLE NUMBER OVM RBADING SAMPLE BLOW DEPTH (feet) TESTING SOIL DESCRIPTION 0 (4-Inch Concrete Slab) Dense, moist, dark brown, silty, fine 30 0 SAND, becomes gray below 1.5 feet Bentonite (no petroleum-like odor) WTPH-D Ext. 5-3 25 0 Bottom of boring on an obstruction 5 at 2.5 feet; sampled to 4 feet. No groundwater seepage encountered. 10 15 20 25 30 LEGEND AGRA 2-Inch O.D. Observed groundwater level Earth & Environmental ATD = at time of drilling split-spoon sample 11335 NE 122nd Way, Suite 100 WTPH-D Ext. Kirkland, Washington 98034-6918 Analytical testing N/A - Not applicable EPA 8240

W.O. 11-09664-01 BORING NO. B-103 PROJECT: Lynnwood Dodge Elevation reference: N/A Well completed: N/A Page 1 AS-BUILT DESIGN of 1 Casing elevation: N/A Ground surface elevation: N/A SAMPLE NUMBER OVM READING GROUND SAMPLE BLOW DEPTH (feet) TESTING SOIL DESCRIPTION 0 (4-Inch Concrete Slab) Medium dense, moist, brown, silty SAND with gravel (Fill) Pea Gravel (FII) WTPH-D Ed. EPA 8240 3 S-3.5 31 ATD Dense, wet, blue-gray, slity, fine SAND (strong petroleum-like odor) 5 Bentonite WIPH-D Ext. S-6 61 0 Very dense, moist, light brown mottled, sity, fine to medium SAND with gravei (no petroleum-like odor) 0 5-8 50 10 88 0 S-14 80 0 Bottom of boring at 14 feet. 15 Heavy perched seepage encountered at 3 feet 20 25 30 LEGEND AGRA Observed groundwater level 2-inch O.D. Earth & Environmental ATD = at time of drilling spiit-spoon sample 11335 NE 122nd Way, Suite 100 N/A - Not applicable WTPH-D Ext. Kirkland, Washington 98034-6918 Analytical testing EPA 8240 Sample not recovered

Lynnwood Dodge W.O. 11-09664-01 PROJECT: BORING NO. *B-104* Elevation reference: N/A Well completed: N/A Page 1 AS-BUILT DESIGN of I Ground surface elevation: N/A Casing elevation: N/A SAMPLE NUMBER OVM READING SAMPLE TYPE BLOW GROUND WATER DEPTH TESTING (feet) SOIL DESCRIPTION 0 (4-Inch Concrete Slab) Medium dense, moist, brown, silty SAND Pea Gravel (FIII) Bentonite Dense, wet to moist, gray mottled, silty, 45 WTPH-D Ext. fine to medium SAND with gravel S-3,5 N/A (strong petroleum-like odor) 5 Very dense, light brown (no 50/ S-6 N/A petroleum-like odor) Bottom of boring on an obstruction at 5 feet; sampled to 6 feet. No groundwater seepage encountered. 10 15 20 25 30 **LEGEND S**AGRA Observed groundwater level 2-inch O.D. Earth & Environmental ATD = at time of drilling split-spoon sample 11335 NE 122nd Way, Suite 100 WTPH-D Ext. Kirkland, Washington 98034-6918 Analytical testing N/A - Not applicable

Drilling completed: 10 January 1995

Drilling started: 10 January 1995

Logged by:

DHG

BORING NO. *B-105* W.O. 11-09664-01 PROJECT: Lynnwood Dodge Well completed: N/A Page 1 Elevation reference: N/A AS-BUILT DESIGN of 1 Ground surface elevation: N/A Casing elevation: N/A OVM READING SAMPLE NUMBER SAMPLE TYPE BLOW DEPIH (feat) TESTING SOIL DESCRIPTION 0 (4-Inch Concrete Slab) Medium dense, moist to wet, brown, slity SAND with gravel Pea Gravel (FII) ATD WIPH-D Ed. S-3.5 29 34 Medium dense, wet, light brown, siity, fine to medium SAND with gravel (slight petroleum-like odor) Bentonite 5 Very dense, wet (no petroleum-like WTPH-D Ed. S-5.5 *7*5 18 odor) 50/ 3\* N/A 10 0 S-11 66 Bottom of boring at 11.5 feet. Heavy perched seepage encountered at 2.5 feet 15 20 25 30 **LEGEND S**AGRA Observed groundwater level
ATD = at time of drilling 2-inch O.D. Earth & Environmental split-spoon sample 11335 NE 122nd Way, Suite 100 N/A - Not applicable WTPH-D Ext. Kirkland, Washington 98034-6918 Analytical testing EPA 8240 X Sample not recovered

Drilling completed: 11 January 1995

Logged by:

W.O. 11-09664-01 PROJECT: Lynnwood Dodge BORING NO. *B-106* Elevation reference: N/A Well completed: N/A Page 1 **AS-BUILT DESIGN** Ground surface elevation: N/A of 1 Casing elevation: N/A SAMPLE SAMPLE OVM READING NUMBER GROUND DEPTH (feet) BLOW TESTING SOIL DESCRIPTION 0 (4-inch Concrete Slab) Medlum dense, molst, brown, slity N/A N/A N/A N/A Bentonite SAND, pipe encountered Bottom of boring hand probed to 1.5 feet and terminated due to 1\* diameter pipe at 1' depth. No seepage encountered. 5 10 15 20 25 30 **LEGEND AGRA** Observed groundwater level 2-Inch O.D. Earth & Environmental ATD = at time of drilling spiit-spoon sample 11335 NE 122nd Way, Suite 100 N/A - Not applicable WTPH-D Ext. Kirkland, Washington 98034-6918 Analytical testing X Sample not recovered EPA 8240

W.O. 11-09664-01\_ BORING NO. *B-107* PROJECT: Lynnwood Dodge Elevation reference: N/A Well completed: N/A Page 1 AS-BUILT DESIGN Ground surface elevation: N/A Casing elevation: N/A of 1 OVM READING SAMPLE NUMBER SAMPLE TYPE GROUND DEPTH (feet) TESTING SOIL DESCRIPTION 0 (4-Inch Concrete Slab) Medium dense, moist, light brown, silty, fine SAND with gravel S-3.5 18 (no petroleum-like odor) Dense, tan mottled 5 Bentonite WIPH-D Ext. S-6.5 31 WIPH D Bd. S-8.5 40 Very dense, light brown, gravelly 10 S-11 Bottom of boring at 11 feet. No groundwater seepage encountered. 15 20 25 30 **LEGEND S**AGRA Observed groundwater level 2-inch O.D. ATD = at time of drilling Earth & Environmental split-spoon sample 11335 NE 122nd Way, Suite 100 N/A - Not applicable WTPH-D Ext. Kirkland, Washington 98034-6918 Analytical testing X Sample not recovered

Drilling completed: 11 January 1995

Drilling started: 11 January 1995

Logged by:

DHG

W.O. 11-09664-01 BORING NO. B-108 PROJECT: Lynnwood Dodge Elevation reference: N/A Well completed: N/A Page 1 AS-BUILT DESIGN of 1 Ground surface elevation: N/A Casing elevation: N/A OVM READING DEPTH (feet) TESTING SOIL DESCRIPTION 0 (2-Inch Asphalt Pavement) Very dense, moist, light brown mottled, sitty, fine SAND with gravel (no S-3.5 69 0 petroleum-like odor) Wet, light brown (no petroleum-like 5 Bentonite odor) S-5.5 50 8 WTPH-D Ext. ATD (Gravelly drilling from 6.5 to 7 feet) Moist (no petroleum-like odor) WTPH-D Ext. 0 S-8 57 10 S-11 68 0 Bottom of boring at 11.5 feet. Heavy perched groundwater from approximately 6.5 to 7 feet. 15 20 25 30 **LEGEND S**AGRA Observed groundwater level 2-inch O.D. Earth & Environmental ATD = at time of drilling elqmos nooqs-filqs 11335 NE 122nd Way, Suite 100 N/A - Not applicable WTPH-D Ext. EPA 8240 Kirkland, Washington 98034-6918 Analytical testing X Sample not recovered

## APPENDIX B SOIL DISPOSAL AND TREATMENT DOCUMENTS

PO BOX 4248 BELLEVUE WA 98009-4248

Account#11499 Invoice#944140-11 Invoice Date:12/05/94 Total Invoice: \$ 9,234.43

To: AGRA Earth & Environmental, Inc.

Amount Paid

3

Attn: Accounts Payable 11335 NE 122nd Way

Net 30 From Invoice Date

Suite 100

Kirkland, WA 98034-6918

REGIONAL DISPOSAL COMPANY PO BOX 4248 BELLEVUE, WA 98009-4248

To: AGRA Earth & Environmental, Inc.

Attn: Accounts Payable
11335 NE 122nd Way

Suite 100

Kirkland, WA 98034-6918

Account # Invoice# Invoice Date Job Number 11499 944140-11 12/05/94 94-2113

Terms: Location: Net 30 From Invoice Date

20612 Highway 99 Lynnwood, WA

Purchase Order: 11-09664-01

202.950 TONS	(34) Petroleum Contaminated Soil I	Disposal -	43.50	8,828.32
	•			8,828.32
	Washington State Refuse Tax		4.60%	406.10
		Total:		9,234.43

Enclosures: Summary of Loads Hauled

Transfer Station Inquiries: 3rd & Lander - 646-2565 Black River (Renton) 235-0269; Billing questions: (205) 646-2411

DISPOSAL COMPANY

X 4248 BELLEVUE, WA 98009-4248

AGRA Earth & Environmental, Inc.

Attn: Accounts Payable 11335 NE 122nd Way

Suite 100

Kirkland, WA 98034-6918

Account # Invoice# Invoice Date Job Number 11499 944612-12 12/16/94 94-2113

Terms:

Net 30 From Invoice Date

Location:

20612 Highway 99 Lynnwood, WA

Purchase Order: 11-09664-01

Quants	ty/Unit	a De	ecription			U	ult Price	Amount
302.080	TONS	(34)	Petroleum	Contaminated	Soil	Disposal -	43.50	13,140.48
		Washi	ington Stat	te Refuse Tax			4.60%	13,140.48 604.46
				•		Total:		13,744.94
End	closures	3:	Summary o	of Loads Haule	ed	JOB NO APPROVE	11-09464- DBY_DHG	-01
		OB NO	O OVED BY			VENDOR !	1120-45	22-00
·	- V G	ÀL U .	- Maria de seguingo de la compansión de	·		Ċiv RE	CEIVED DE	EC 2 6 1984

Transfer Station Inquiries: 3rd & Lander - 646-2565 Black River (Renton) 235-0269 Billing questions: (206) 646-2411

# DISPOSAL COMPANY 30% 4248 BELLEVUE, WA 98009-4248

To:

AGRA Earth & Environmental, Inc.

Attn: Accounts Payable 11335 NE 122nd Way

Suite 100

Kirkland, WA 98034-6918

Account # 11499

Invoice# 945039-12

Invoice Date 12/23/94

Job Number 94-2113

Terms:

Net 30 From Invoice Date

Location:

20612 Highway 99 Lynnwood, WA

Purchase Order: 11-09664-01

14.280 TONS	(34) Petroleum Contaminated Soil Disposal -	43.50	4,971.1
	Washington State Refuse Tax	4.60%	4,971.1
	Total:		5,199.8

Enclosures:

Summary of Loads Hauled

JOB NO. MOGGGY-01
APPROVED BY DHG

REFERED DEC 2 7 1994

REGIONAL DISPOSAL COMPANY
PO BOX 4248 BELLEVUE, WA 98009-4248

To: AGRA Earth & Environmental, Inc.

Attn: Accounts Payable 11335 NE 122nd Way

Suite 100

Kirkland, WA 98034-6918

Account # Invoice# Invoice Date Job Number 11499 945460-12 12/31/94 94-2113

Terms:

Net 30 From Invoice Date

Location:

20612 Highway 99 Lynnwood, WA

Purchase Order: 11-09564-01

sa are si karina ni basa di bara bara ka

Quantity/Unit	s Description		Uni	t Price	Amount	
44.810 TONS	(34) Petroleum Cor	taminated Soil	Disposal -	43.50	1,949.24	
	Washington State R	efuse Tax		4.60%	1,949.24 89.67	
			Total:		2,038.91	

Enclosures:

Summary of Loads Hauled

Transfer Station Inquiries: 3rd & Lander - 646-2565 Black River (Renton) 235-0269
Billing questions: (206) 646-2411

🔔 Recycled and Redyclatie

REGIONAL DISPOSAL COMPANY
PO BOX 4248 BELLEVUE, WA 98009-4248

To: AGRA Earth & Environmental, Inc.

Attn: Accounts Payable 11335 NE 122nd Way

Suite 100

Kirkland, WA 98034-6918

Account # Invoice# Invoice Date Job Number 11499 946075-01 01/13/95 94-2113

Terms:

Net 30 From Invoice Date

Location: 20612 Highway 99 Lynnwood, WA

Purchase Order: 11-09664-01

Quantity/Uni	ts D	escription				Uni	t Price	Amount
55.410 TONS	(34)	Petroleum	Contaminated	Soil	Disposal	-	43.50	2,410.34
	Wash:	ington Stat	e Refuse Tax				4.60%	2,410.34 110.88
					Total:	:	E	2,521.22

Enclosures:

Summary of Loads Hauled

#191-chip @101-b100675=(205)7-646-24115

ENTERED JAN 2 4 1995

RECEIVED JAN 1 8 1995

Transfer Station Inquiries: 3rd & Lander - 646-2565 Black River (Renton) 235-0269

## REGIONAL DISPOSAL COMPANY 200 112th AVE NE Suite 300 Bellevue, WA 98009 (206)646-2400

# Invoice #945459-12

Date: January 13,1 995

To: Agra Earth & Environmental, Inc.

11335 NE 122nd Way, Suite 100

Kirkland, WA 98034-6318

Account #:

Job Number:

Number:

Location:

Terms:

11499

94-2113

Lynnwood Dodge

Net 30 days from invoice

PO#: 11-09664-01

Quantity	Unit	Description	Unit Price	Amount
7.880	Tons	(34) Petroleum Contaminated Soil Disposal	43.50	342.78
		Washington State Refuse Tax	4.6%	. 15.77
			Total Due:	\$358.55

Remit to:

Regional Disposal Co.

Attention: Cindy La

PO Box 4248

Bellevue, WA 98009-4248

**Direct Billing Questions:** 

Customers A - L (206) 646-2428

Customers M - Z (206) 646-2411

VENDOR #\_

ENTEREU JAN 2 4 1995

RECEIVED JAN 1 8 1995

# **TPS**

TECHNOLOGIES INC.

\$4 S. ORANGE BLOSSOM TR. APOPKA, FL 32703 (407) 886-2000 FAX: (407) 886-8300 REELT TO:

P.O. BOX 100103 PASADENA, CA XIP 91189-0163 INVOICE NUMBER

000111

YPS JOB: 03-00128

SOLD TO:

Agra Barth & Bavironmental 11335 BE 122md Way

Saite 100

Kirkland WA

98034-6918

REFERENCE:

LABRACOD DODCE

20612 EIGHWAY # 99

LYMEOOD, WA

CUSTOMER POF:

ACCOUNT NO. S	ALESPERSON	FACILITY	TERMS	INVOICE DATE		· .
1001720	PI	103	Het 30 Days	03/13/95		
CODE	QUANTITY		DESCRIPTION		UNIT PRIC	E EXTENDED PRICE
						_
				ENTE	RED MAR 2	8 1905
		CUSTONER CON	FACT: BOB LOWRITZER			
					l	
DRVA	2.60	CONTANIDATED	SOIL REMEDIATION		,	5.44 \$150.44
					•	
j						
Į.						
j			). 11-09664-01 OVED BY 3010			
		>10	11-09697			
		JOB NO	VED BY DIE			
•			20 #U53	37-00		
		VEND	OR # 1120 453			
		GLO	<b>-</b>			
•		·	RECEIVED M	AR 1 7 1995		
		<u> </u>				
			•			
				_		
\ Subsidiary of Thermo Remed	diation		The	ink You	TOTAL:	\$150.00

# **TPS**

TECHNOLOGIES INC.

54 S. ORANGE BLOSSOM TR. APOPKA, FL 32703 (407) 886-2000 FAX: (407) 886-8300 RENIT TO: TPS TECH. INC. P.O. BOX 100103 PASADENA, CA ZIP 91189-0103

INVOICE NUMBER

000286

TPS JOB: 03-00128

SOLD TO:

Agra Barth & Environmental 11335 NE 122nd Way

Suite 100

Kirkland WA

98034-6918

REFERENCE:

LYNNWOOD DODGE

20612 HWY 99

LYNNWOOD, WA

CUSTONER PO#:

ACCOUNT NO.	SALESPERSON	FACILITY	TERMS	INVOICE DATE		
1001720	PH	103	Net 30 Days	06/27/95	• ••	
CODE	QUANTITY		DESCRIPTION		UNIT PRICE	EXTENDED PRICE
	•					
		CUSTOMER CONT	ACT: DEE GARDNER			
					.	
REM	1,133.30	CORRINITION			10.00	445 232 44
ומא	1,133,30	CONTRATALED	SOIL REMEDIATION		40.00	\$45,332.00
	•		•			•
1				•		
					1	
					.	
			NO. 11-09664-			
			10090647			
			30 110 100			
		JOB	NO. DED BY			
		API	PHO.	4522-80		
-		/	ENCODE	D JUL 0 5 1995	.!	•
			3L00	D JUL D. J. D.		
ľ		ĺ	ENTERL			
			<del>-</del> -			
}		,				
.			•			
				<del>.</del>	<del>                                     </del>	
Subsidiary			070	001		
hermo Reme	ediation	•	Tha	nk You	TOTAL:	\$45,332.00



TECHNOLOGIES INC.

64 S. ORANGE BLOSSOM TR. APOPKA, FL 32703 (407) 886-2000 FAX: (407) 886-8300 REMIT TO: TPS TECH. INC. P.O. BOI 100103 PASADENA, CA ZIP 91189-0103

INVOICE NUMBER

000254

TPS JOB: 03-00216

SOLD TO:

Agra Barth & Environmental

11335 MB 122nd Way

Suite 100

Kirkland WA

98034-6918

REFERENCE:

LYRRWOOD DODGE USED CAR LOT

20510 HIGHWAY #99

LYRRWOOD, WA

CUSTOKER PO#:

ACCOUNT NO.	SALESPERSON	FACILITY	TERMS	INVOICE DATE		
1001720	PH	193	Net 30 Days	05/27/95		
CODE	QUANTITY		DESCRIPTION		UNIT PRICE	EXTENDED PRICE
-;						
		CUSTONER CO	DRTACT: DEE GARDNER			
-1 -1 -1	•					
REN	131	.11 CONTAMINATE	D SOIL REMEDIATION		40.00	\$5,244.40
			RECEIVED J	UN 0 2 1995		•
)				<b>– 103</b> 3		
-			ENTERED JUL	1 3 1995		
t		JO AF	B NO. <u>'/-09464</u> PROVED BY <del>07/</del> G	-01		
,		VE GI	NDOR # CODE	22-00		
- `						
<del></del>						<u> </u>
1					.	
-4 Subsidiary Thermo Rer			Tha	nk You	TOTAL:	\$5,244.40

# APPENDIX C WATER DISPOSAL DOCUMENTS

MARINE & INDUSTRIAL TANK CLEANING

Remit To:

P.O. BOX 24263 SEATTLE, WA 98124 24 HOUR SERVICE 206-762-0240

Invoice No:

10270

Invoice Date:\_

12/6/94

Customer P.O:\_

Job No:\_\_

Ordered By: \_\_\_\_\_\_\_\_DODGE

Terms: Net 30/11/2 % interest charged over 30 days.

AGRA EARTH & ENVIRONMENTAL 11335 NE 122ND WAY SUITE 100

KIRKLAND, WA 98034-6918

DATE	SERVICE DESCRIPTION	AMOUNT
.1/29/94	PUMPED WASTE WATER FROM TRENCH AND 3 DRUMS EQUIPMENT 90.00	
}   	LABOR 105.00 SAFETY SUPPLIES 5.00 DISPOSAL 400 GAL WASTE WATER 0.16 64.00 S GAL SOLIDS 25.00 STATE_REQUIRED WASTE IDENTIFICATION 75.00	
11/30/94	PUMPED WATER AND MUD	\$ 364.00
	EQUIPMENT 90.00 LABOR 105.00 SAFETY SUPPLIES 5.00 DISPOSAL 2600 GAL WASTE WATER 0.16 416.00 100 GAL SOLIDS 500.00 STATE REQUIRED WASTE IDENTIFICATION 75.00	\$1191.00  \$1555.00 
,	RECEIVED DEC 0 9 1994	
· · · · · · · · · · · · · · · · · · ·	JOB NO. 11 - 09664-01 APPROVED BY 7746	
· . 	VENDOR #	
) .t	ENTERED (	E 1 6 1994

MARINE & INDUSTRIAL TANK CLEANING

te		0

P.O. BOX 24263 SEATTLE, WA 98124 24 HOUR SERVICE 206-762-0240

Invoice No:

10280

12/13/94

AGRA EARTH & ENVIRONMENTAL INC 11335 NE 122ND WAY STE 100 KIRKLAND WA 98034-6918

Invoice Date:\_ Customer P.O:\_

Job No:\_\_\_\_ Ordered By:\_

Terms: Net 30/11/2 % interest charged over 30 days.

DOUG'S LYNNWOOD DODGE

DATE	SERVICE DESCRIPTION	AMOUNT
12/08/94	PUMPED WATER FROM DITCH, PUMPED & WASHED CATCH BASIN AND DRAINS IN AUTOMOTIVE SHOP, PUMPED BARRELS OF WASTE WATER	
	EQUIPMENT 150.00 LABOR 175.00 DISPOSAL: 1500 GAL WASTE WATER 240.00 60 GAL SLUDGE 300.00 SAFETY SUPPLIES 5.00 STATE REQUIRED WASTE IDENTIFICATION 75.00	
2/12/94	PUMPED SUMP	\$ 945.00
	EQUIPMENT 60.00 LABOR 70.00 DISPOSAL: 100 GAL WASTE WATER 16.00 SAFETY SUPPLIES 5.00	4 151 00
	SUB TOTAL SALES TAX	\$ 151.00  \$ 1096.00 89.87
	JOB NO. 11-09664-01  APPROVED BY DHG ENTERED DEC 1 6 19	\$ 1185.87 
	VENDOR#	2 19 <b>94</b>
	OIL SPILL ASSISTANCE	

MARINE & INDUSTRIAL TANK CLEANING

Ro	m	i÷	To	
ne	m	11	1 ( )	

P.O. BOX 24263 SEATTLE, WA 98124 24 HOUR SERVICE 206-762-0240

Invoice No:

10339

AGRA EARTH & ENVIRONMENTAL INC 11335 NE 122ND WAY STE 100

Invoice Date:\_\_\_ Customer P.O: \_\_\_

Ordered By:\_\_

12/22/94

KIRKLAND 98034-6918

Job No:\_\_\_\_

Terms: Net 30/11/2 % interest charged over 30 days.

DOUG'S LYNNWOOD DODGE

DATE	SERVICE DESCRIPTION	AMOUNT
12/20/94	PUMPED WATER IN SERVICE CENTER WHERE HYDRO LIFT WAS REMOVED; THEN PUMPED HYDRO OIL TANK	
	EQUIPMENT 90.00 LABOR 105.00 DISPOSAL: 55 GAL WASTE WATER 8.80 15 GAL HYDRAULIC DIL 3.00 1 GAL SLUDGE 5.00	
	SAFETY SUPPLIES 5.00 STATE REQUIRED WASTE IDENTIFICATION 75.00	<b>.</b>
	JOB NO	\$ 291.80 
	VENDOR #	
	RECEIVED DEC 2 7 1954	n -
	RECEIVED DEC 2 7 1954	<sup>(,</sup> 3 1995
	·	
		•
	OIL SPILL ASSISTANCE	

	MARINE & INDUSTRIAL TANK CLEANING		
•	Remit To: P.O. BOX 24263 SEATTLE, WA 98124	24 HOUR 208-76	
ſ	- · ¬	invoice No:	10349
L , · -	AGRA EARTH AND ENVIRONMENTAL  11335 NE 122ND WAY  SUITE 100  KIRKLAND, WA 98034-6918  Terms: Net 30/1½% interest charged over 30 days.	Invoice Date: Customer P.O: Job No: Ordered By:	
DATE	SERVICE DESCRIPTION	LYNNWOOD	AMOUNT
12/27/94	PUMPED WASTE WATER  EQUIPMENT  LABOR  SAFETY SUPPLIES  DISPOSAL: 3000 GAL WASTE WATER	90.00 105.00 5.00 480.00	

ENDOD #		
		1
APPROVED BY WITCH		
APPROVED BY 37+G		
JOB NO. 11-09GG4-01	•	
11-00001 01		1
		> /33.0

STATE REQUIRED WASTE IDENTIFICATION

GL CODE 1101-4532-00

RECEIVED DEC 2 8 1884

EALL

MARINE & INDUSTRIAL TANK CLEANING

R	e	m	Ħ	Т	O:
		и.			•

P.O. BOX 24263 SEATTLE, WA 98124 24 HOUR SERVICE 206-762-0240

- . <del>-</del>

Invoice No:

Invoice Date:\_

10382

01/10/95

AGRA EARTH AND ENVIRONMENTAL

11335 NE 122ND WAY STE 100

KIRKLAND, WA 98034-6918

Customer P.O:

Job No:\_\_\_

Ordered By:\_\_\_

Terms: Net 30/11/2 % interest charged over 30 days.

LYNNWOOD DODGE

DATE	SERVICE DESCRIPTION	AMOUNT
1/03/95	PUMPED WATER FROM HOLE IN GROUND  EQUIPMENT 45.00 LABOR 52.50 DISPOSAL: 1200 GAL WASTE WATER 192.00	
	5 GAL MUD 25.00 SAFETY SUPPLIES 5.00 STATE REQUIRED WASTE IDENTIFICATION 75.00	
		\$ 394.5
1/04/95	PUMPED WATER FROM HOLE IN GROUND	
	EQUIPMENT 60.00 LABOR 70.00 DISPOSAL: 1500 GAL WASTE WATER 240.00 SAFETY SUPPLIES 5.00 STATE REQUIRED WASTE IDENTIFICATION 75.00	
	INVOICE TOTAL	\$ 450.0  \$ 844.5 
	JOB NO. 11-09664-01 APPROVED BY AHG	
	VENDOR #	
	RECEIVED JAN 1 : 1995 ENTERED JAN 2	2 4 1995
	OIL SPILL ASSISTANCE	

MARINE & INDUSTRIAL TANK CLEANING

Remit To:

P.O. BOX 24263 SEATTLE, WA 98124 24 HOUR SERVICE 206-762-0240

Invoice No:

10394

01/13/95

Invoice Date:\_\_\_ AGRA EARTH AND ENVIRONMENTAL

11335 NE 122ND WAY STE 100

KIRKLAND, WA 98034-6918

Customer P.O:

Job No:\_\_ DEE .

Ordered By:\_

Terms: Net 30/11/2 % interest charged over 30 days.

LYNNWOOD DODGE

DATE	SERVICE DESCRIPTION	AMOUNT
01/10/95	PUMPED DRUMS  EQUIPMENT 90.00 LABOR 105.00 DISPOSAL: 250 GAL WASTE WATER 40.00	
	2 GAL SLUDGE 10.00 SAFETY SUPPLIES 5.00 STATE REQUIRED WASTE IDENTIFICATION 75.00	\$ 325.0
	JOB NO. 11-09664-01 APPROVED BY DHG	
	VENDOR #	
	RECEIVED JAN 1 8 1995	

MARINE & INDUSTRIAL TANK CLEANING

Remit To:

P.O. BOX 24263 SEATTLE, WA 98124 24 HOUR SERVICE 206-762-0240

Invoice No:

10449

AGRA EARTH AND ENVIRONMENTAL 11335 NE 122ND WAY STE 100 KIRKLAND, WA 98034-6918

Invoice Date: 01/24/95 Customer P.O:

Job No:\_

Ordered By:\_\_\_

-	Terms: Net 30/1½% interest charged over 30 days.	CANMOOD DO	DGE
DATE	SERVICE DESCRIPTION		AMOUNT
^1/23/95	PUMPED WASTE WATER FROM HOLE IN GROUND		
•	EQUIPMENT	120.00	
	LABOR	140.00	
=	DISPOSAL: 4700 GAL WASTE WATER	752.00	
1	10 GAL SLUDGE	50.00	
	SAFETY SUPPLIES	10.00	
•	STATE REQUIRED WASTE IDENTIFICATION	75.00	
			\$1,147.00
	APPROVED BY 2749	RECEIVED	JAN 2 6 1995
,	VENDOR #		
	ENTERED JAN 3 0 1995		

### 10 ....

# MARINE VACUUM SERVICE, INC.

MARINE & INDUSTRIAL TANK CLEANING

Remit To:

P.O. BOX 24263 SEATTLE, WA 98124 24 HOUR SERVICE 208-762-0240

- · ¬

Invoice No:

10639

03/07/95

AGRA EARTH AND ENVIRONMENTAL 11335 NE 122ND WAY STE 100 KIRKLAND, WA 98034-6918 Invoice Date: \_\_\_ Customer P.O: \_

Job No:\_

95-03-69

Ordered By:\_\_

Terms: Net 30/11/2% interest charged over 30 days.

LYNNWOOD DODGE

DATE	SERVICE DESCRIPTION	AMOUNT
03/03/95	PUMP WASTE WATER	
	EQUIPMENT 90.00	Į.
	LABOR . 115.00	
	DISPOSAL: 3000 GAL WASTE WATER 480.00	
,	SAFETY SUPPLIES 5.00	
	STATE REQUIRED WASTE IDENTIFICATION 75.00	
		\$ 765.0
1		
03/06/95	PUMP WASTE WATER	
	EQUIPMENT 90.00	
	LABOR 105.00	
	DISPOSAL: 750 GAL WASTE WATER 120.00	
1	SAFETY SUPPLIES 5.00	
	STATE REQUIRED WASTE IDENTIFICATION 75.00	İ
		\$ 395.0
.10	11-09664-01 INVOICE TOTAL	\$1,160.0
AP	PROVED BY THE	
VE	NDOR #	
GL	CODE TIME TOWN	
,		
(	TAITED TO MAD	
ţ	RECEIVED MAR 0 9 1995 ENTERED MAR 1 7	เหลว
	,, <u>,,                                </u>	
	•	
- ·	· ·	
		I

MARINE & INDUSTRIAL TANK CLEANING

Remit To:

P.O. BOX 24263 SEATTLE, WA 98124 24 HOUR SERVICE 206-762-0240

DEE

Invoice No: .

10876

AGRA EARTH AND ENVIROMENTAL

11335 NE 122ND WAY STE 100 KIRKLAND WA 98034-6918

ATTN: ACCOUNTS PAYABLE

Job No:\_\_\_\_\_

Terms: Net 30/11/2 % interest charged over 30 days.

Ordered By:\_\_\_

Invoice Date:\_

Customer P.O:\_

•	LYNNWOOD DODGE	
DATE	SERVICE DESCRIPTION	AMOUNT
5/03/95	PUMP OUT WASTE WATER FROM BAKER TANK.  EQUIPMENT 105.00 LABOR 122.50 DISPOSAL: 3500 GAL WASTE WATER 560.00	
_	SAFETY SUPPLIES 5.00 STATE REQUIRED WASTE IDENTIFICATION 75.00	
· - - -	SUBTOTAL SALES TAX	\$ 867.50 71.14 
· `	INVOICE TOTAL	\$ 938.64 
	ENTERED MAY 3 0 1995	
ı	168 NO	
	VENDOR# 1120 4522-00	
- }		

MARINE & INDUSTRIAL TANK CLEANING

Remit To:

Г

P.O. BOX 24263 SEATTLE, WA 98124 24 HOUR SERVICE 206-762-0240

Invoice Date: 05/11/95

Invoice No:

10875

AGRA EARTH AND ENVIROMENTAL 11335 NE 122ND WAY STE 100

KIRKLAND WA 98034-6918,

Terms: Net 30/11/2 % interest charged over 30 days.

Customer P.O: \_\_\_\_

Job No:\_\_\_\_\_95\_05-016 PAT

-ATTN: ACCOUNTS PAYABLE -

Ordered By:\_\_\_\_ I VNNUOOD DODGE

'	LYNNW	OOD DODGE
DATE	SERVICE DESCRIPTION	AMOUNT
5/05/95	PUMP OUT WASTE WATER.	
	LABOR 105 DISPOSAL: 3250 GAL WASTE WATER 520 SAFETY SUPPLIES 5	0.00 5.00 5.00 5.00
	SUBTOT	
	INVOICE TO	FAL \$ 850-15
		.
	ENTERED MAY 3 0 19	395
	·	
	JOB NO <i>  - 09664-01</i> APPROVED BY_ <i>2HG</i>	
	VENDOR #	į
	GL CODE 1130 4522-60	
ł		

MARINE & INDUSTRIAL TANK CLEANING

Remit To:

P.O. BOX 24263 SEATTLE, WA 98124 24 HOUR SERVICE 206-762-0240

Invoice No:

Invoice Date:\_

10919

AGRA EARTH AND ENVIROMENTAL 11335 NE 122ND WAY STE 100

KIRKLAND WA 98034-6918

L ATTN: ACCOUNTS PAYABLE\_

Customer P.O:

Job No:\_\_

95-05-037

Ordered By:\_

Terms: Net 30/11/2 % interest charged over 30 days.

LYNNWOOD DODGE

DATE	SERVICE DESCRIPTION		AMOUNT
05/16/95	SNAKE MUD AND GREASE FROM STORM DRAIN	LINE.	
	EQUIPMENT LABOR DISPOSAL: 1200 GAL WASTE WATER 30 GAL SLUDGE SAFETY SUPPLIES STATE REQUIRED WASTE IDENTIFICATION	601.25 455.00 192.00 150.00 30.00 75.00	
ļ	·	SUBTOTAL ALES TAX	\$1,503.2 123.2
	INVOIC	CE TOTAL	\$1,626.5 
	ENTERED MAY 3 0 1	995	
		•	·
`	JOB NO. 11-09GG4 -01 APPROVED BY 394G		
	VENDOR #		·
	OIL SPILL ASSISTANCE		

MARINE & INDUSTRIAL TANK CLEANING

Remit To:

P.O. BOX 24263 SEATTLE, WA 98124 24 HOUR SERVICE 206-762-0240

· -

Invoice No:

10962

AGRA EARTH AND ENVIROMENTAL 11335 NE 122ND WAY STE 100

22ND WAY STE 100 WA 98034-6918 Customer P.O: \_\_
Job No:\_\_\_\_\_

Invoice Date:\_\_

95-05-068

KIRKLAND WA 99034-6918

Ordered By:\_

DEE

LATTN: ACCOUNTS PAYABLE \_

LYNNWOOD DODGE

Terms: Net 30/11/2% interest charged over 30 days.

DATE	SERVICE DESCRIPTION						
5/24/95	PUMP ABOVE GROUND STORAGE TANK.	RECEIVED	MAY 2 6 1995				
- -	EQUIPMENT LABOR DISPOSAL: 2700 GAL WASTE WATER 15 GAL SLUDGE SAFETY SUPPLIES STATE REQUIRED WASTE IDENTIFICATION	90.00 105.00 432.00 75.00 5.00					
,		BTOTAL ES TAX	\$ 782.00 64.12				
	INVOICE	TOTAL	\$ 846-12 				
	JOR NO						
	VENDOR #	1995					
	·						

MARINE & INDUSTRIAL TANK CLEANING

Remit To:

P.O. BOX 24263 SEATTLE, WA 98124 24 HOUR SERVICE 206-762-0240

Invoice No:

11038

AGRA EARTH AND ENVIROMENTAL 11335 NE 122ND WAY STE 100 Invoice Date:\_ Customer P.O:\_

05/25/95

KIRKLAND WA 98034-6918 LATTN: ACCOUNTS PAYABLE \_

95-05-068 Job No:\_ DEE Ordered By:.

Terms: Net 30/11/2 % interest charged over 30 days.

I ANNMOUD DUDGE

	Terms: Net 30/11/2 % interest charged over 30 days. LYNNWOOD DODG	E
DATE	SERVICE DESCRIPTION	AMOUNT
06/06/95	PUMP 1000 GALLON BAKER TANK AND HYDRO-BLAST 50' × 12" CLAY LINE. RECEIVED	JUN 0 8 1995
	EQUIPMENT 277.50 LABOR 355.50 DISPOSAL: 150 GAL WASTE WATER 24.00 SAFETY SUPPLIES 75.00 STATE REQUIRED WASTE IDENTIFICATION 75.00	
· · ·	SUBTOTAL SALES TAX	\$ 807.00 66.17
	INVOICE TOTAL	\$ 873.17
*		
Ts 	JOB NO. <u>// -09664-0 /</u> APPROVED BY <u>07/6</u>	
_	VENDOR #	·
· ·	ENTERED JUN 2 7 1995	
!	OIL SPILL ASSISTANCE	

# APPENDIX D MUNICIPAL PERMITS

### CITY OF LYNNWOOD

FOR INSPECTIONS CALL: 778-4188 (Day or Night) 24 HRS. NOTICE REQUIRED

### Department of Public Works **Building Division** Permit Application Office 775-1971

PROPERTY ADDRESS 20606 HIGHWAY	79
<i>'</i>	
SPACE/SUITE NO.	

									<del></del>
NEST DE LA CONTRACTION DEL CONTRACTION DE LA CON		OCCUPANT			ANT: COMPLETE TH		SHADED	AREA FOR	WORK
NAME (OR NAME OF BUSIN					THIS PERMIT WILL E	APPLICABLE.			
CHRYSIER-	KLAL	ria Ce	KPOYATION.	PLUMB	ING				
56€ NEW	KING S	- SN17	E 350	No.	TYPE OF FIXT	URE OR ITEM		F	EE
CITY	21P	2011	TELEPHONENUMBER .		WATER CLOSET (TOIL	EI)	7.00	\$	
TROY MICHI	16AR)	48098	(916) 395-4849		BATHTUB		7.00		
	ARCHITEC	TVENGINEE	<u> </u>		LAVATORY (WASH BAS	SIN)	7.00		
NAME OF OFF	-14 4 5 <del>-</del>	A 4 4 6			SHOWER		7.00		
PERTEGT E	NOINER	erno-			KITCHEN SINK & DISP		7,00		
	AINE	SOITE	410		DISHWASHER		7.00		
2828 COLBY	ZIP	,	TELEPHONENUMBER	1	LAUNDRY TRAY		7.00		
EVERE A M	YA 9	78101	2061252-7233		CLOTHES WASHER		7.00	<u> </u>	
	CONTR	ACTOR	· •		WATER HEATER		7.00		<u> </u>
NAME.					URINAL		7.00		ļ
MAILING ADDRESS			<del></del>	<b>├</b>	DRINKING FOUNTAIN		7.00	<u> </u>	<del>                                     </del>
THE THE PARTY OF T				<u> </u>	FLOOR - SINK OR DRA	NN	700	<b> </b>	<del> </del>
тү	ZIP	,	TELEPHONENUMBER	1	SLOP SINK		7.00		
			l	<b>]</b>	LAWN SPRINKLER SYS		<del></del>	<u> </u>	<del> </del>
STATE LICENSB NUMBER	F	EXPIRATIONDAT	E CITY LIC. NO.		WATER PIPING & TREA		7.00	$\vdash$	<del>                                     </del>
				<del> </del>	WASTE INTERCEPTOR	-	7.00	$\vdash \!\!\! \! \!\! \! \!\!\! \! \!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!$	<del> </del>
<del></del> 1	_	٦	<b>—</b> .		VACUUM BREAKERS (	•	5.00	ĺ	<b>\</b>
RESIDENTIAL		REPAIR	PLUMBING	<u> </u>	(ove		1.00 ea	<b></b> -	-
NON-RESIDENTIAL		DEMOLISH	MECHANICAL	<del> </del>	<del> </del>		+	<del>                                     </del>	<del>                                     </del>
<del></del>		-		<del> </del>	<u> </u>	RMIT	- 5	20	00
NEW ALT	TER	FENCE	$\sqsubseteq$	<del></del>	•-	··········			"
ADD TE	NANT [	SIGN				TAL FEE	\$	<u> </u>	<u> </u>
	PROVEMENT		_ <del></del>	MECHAI				,	
Legal Description of Propert	ty and tax num	ber:		, No.	TYPE	OF EQUIPMENT		F	EE
					AIR COND. UNITS - To	ns/H.P.		\$	
Lot Block of					REFRIGERATION UNIT	S·H.P.		<u> </u>	
<del></del>		<del></del>			BQILERS - BTU				
					GAS PIRED A.C. UNITS			ļ <u> </u>	ļ
Nature of Work to be done	: (Note: Enviro	onmental Checkli	st may be Required)		FORCED AIR SYSTEM		١.	<b> </b>	<del>  _     _     _     _     _     _</del>
STORM			<del></del>	<u></u>	UNIT HEATERS B.T.L	J. M	_	1	<del> </del>
				<u> </u>	VENTILATION FAN			<del> </del>	<del> </del>
					RANGE HOOD			<b> </b>	<del> </del>
				<del> </del>	AIR HANDLING UNIT -	C.F.	м.	<u> </u>	ļ <u>.</u>
		TICE		<b></b>	METAL FIREPLACE			<del> </del>	<b>├</b> -
THIS PERMIT BECOMES MULL A	ND VOID IF WOR	RK OR CONSTRUCTO	ON AUTHORIZED IS NOT S SUSPENDED OP	<u></u>	TANKS	<u> </u>	┼	<del> </del>	
ABANDONED FOR A PERIOD OF				<u> </u>	GAS PIPING .75 ea.	Min	.300	<del> </del>	<del> </del>
HIEREBY CERTIFY THAT HAV				⊢—	<del> </del>		<del>-/-</del>	<del> </del>	<del> </del>
SAME TO BE TRUE AND CORRE THIS TYPE OF WORK WILL BE C	OMPLIED WITH	WHETHER SPECIFIE	D HEREIN OR NOT. THE		<del></del>			<del>{</del>	<del>  -</del>
GRANTING OF A PERMIT DOES? THE PROVISIONS OF ANY OTHE	NOTPRESUMET	OGIVE AUTHORITY	TO VIOLATE OR CANCEL	<del></del>	<del> </del>			<del>                                     </del>	<del> </del>
THE PERPORMANCE OF CONSTI		INDUNT RECOUNT		<del></del>	L	PERMIT	\$	25	00
MAX PHAN	<u> </u>			<u> </u>				<b>↓</b>	<del>  "</del> -
PRINT NAME PO		<u> </u>	11-10-	<u> </u>		TOTAL FEE	\$		<del> </del>
SIGNATURE OP OWNER OR AUT	THORIZED AGEN	π	1/5/75	<u></u>		VALUATION	FE	E	NUMBEI
NOTE: Permit Limit Eighteen Me	onths (Except DEM	HOLITIONS which sha	II be completed in 30 days:	BUILDING					NUMBER
MOVED IN BUILDINGS that be or	ompleted in 90 days	*}		PLUMBING	3				게 뛆 털
inished Area	Unfinished Area		Garage Area	MECHANIC	CAL				୷ਖ਼
	<del> </del>		10 - FR - FL - O 5-	FENCE					ے، ال
ype of Const.	Occupancy Grou	up	No. of Dwelling Units	SIGN					1 1/2
ine of Bide (Commercial)	No. of Stories		Max. Occ. Lond	PLAN CHE	CK				ا دم
izs of Bidg. (Commercial)	G SIGRE	ľ		ST BLDG.	CODE	· · · · · · · · · · · · · · · · · · ·			$\mathscr{Q} \parallel$
gn Arsa	Tenant Improver	mont Area	Fire Sprinklers Required	ST BLDG. CODE  CLEAR/GRADE					7
····			• • •	STORM D		<del> </del>	~~	<u> </u>	000
lanning Dept, Appr.	Fire Dept. Appr.	<del></del>	Public Works Approval	- STOKM DI	m144.	<del></del>	25	<u>,00</u>	エル
# - F - FF -	' '''					<del> </del>			エル
ermit Expired	Final Inspection	i,	Approved for Issuance	<u> </u>	<del></del>	ļ·			
•	Date			TOTAL A	MOUNT DUE		25	$\omega_{}$	4
WHEN SIGNED AND I	DATED BEL	LOW THIS IS	YOUR PERMIT.						
	en la commi	ence the above	described work, accordi-	ng to the c	onditions hereon an	d in accordance w	ith the appr	roved	1
Permission is hereby giv	pertaining th	nereto, subject I		or riynnw	ood ordinances and l	iawa ut inc 91816 (	>* 44 F2131UB	wii.	
Permission is hereby giv plans and specifications	-	_	19 <i>9</i> 95 By	INIAL	1 - /MJ	<u> </u>			II
Permission is hereby giv plans and specifications Permit Issued	<u>_1 -                                   </u>	2	19 <u>/ /</u> by_	BUILDINGO	EECH				11





est + Lynnwood, WA 98036 + Phone (206) 775-1971

TREASURER'S
RECEIPT 1- 127496
NUMBER

03-21-95

16:25

NAME AND ADDRESS

AGRA EARTH & ENVIRONMENT 20612 HWY 99 11335 NE 122ND WY STE 100

KIRKLAND

WA 98034

DESCRIPTION

ACCOUNT

AMOUNT

SIDE SEWER PERMIT

PER: 598717 000000000

AR0413

\$40.00

TOTAL DUE \$40.00
RECEIVED BY CHECK(S) \$40.00
RECEIVED IN CASH
CASHIER Julie TOTAL RECEIVED \$40.00
CHANGE GIVEN

**CUSTOMER RECEIPT** 



# **CITY OF LYNNWOOD**

P.O. BOX 5008 LYNNWOOD, WA 98046-5008 PHONE (206) 775-1971

. . . . . .

PLANNING DEPARTMENT

March 16, 1995

Andy Bucchiere Chrysler Realty Corporation 468 Rivergate Way, Suite 49 Sacramento, CA 95831

RE: Lynnwood Dodge Building and Grading Permits

Dear Mr. Bucchiere:

Enclosed for your information is a copy of the report of the Environmental Review Committee concerning the above-referenced project.

If you have any questions, please do not hesitate to contact me at 670-6652.

Respectfully,

CITY OF LYNNWOOD

Darryl Fastin, AICP
Senior Planner

DE/kw

Encl.

### MITIGATED DETERMINATION OF NONSIGNIFICANCE

DESCRIPTION OF PROPOSAL: Lynnwood Dodge Building and Grading Permits:

Proposed excavation and removal of soil contaminated

with petroleum hydrocarbons and replacement of

concrete floor of existing service garage.

PROPONENT: Andy Bucchiere, Chrysler Realty Corporation,

468 Rivergate Way, Suite 49, Sacramento, CA 95831

LOCATION OF PROPOSAL: 20612 Highway 99.

LEAD AGENCY: City of Lynnwood, P.O. Box 5008, Lynnwood, WA

98046

(206) 775-1971

The lead agency for this proposal has determined that it would not have a probable significant adverse impact on the environment if the following conditions were complied with. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

This determination is issued on the basis of compliance of the proposal with all applicable federal, state and local laws, regulations, and standards and does not modify or waive any such law, regulation or standard.

This Mitigated Determination of Nonsignificance is issued with the following conditions:

- 1. The proposal shall comply with the federal Environmental Protection Agency's requirements for excavation, storage and removal of contaminated soil and the appropriate federal, state and local permits for this type of activity are acquired.
- 2. That any temporary storage of contaminated soil on-site shall be covered and a leach containment facility provided per federal, state and local regulations that govern such storage to prevent the escape of contaminants.

This Mitigated DNS is issued under 197-11-340(2); the lead agency will not act on this proposal for 15 days from the date of issue. Comments must be submitted by March 30, 1995.

RESPONSIBLE OFFICIAL: ENVIRONMENTAL REVIEW COMMITTEE

DATE OF ISSUE: March 15, 1995

DATE OF SIGNATURE: March 15, 1995

POSITION/TITLE

SENIOR PLANNER

PUBLIC WORKS DEPT. PROJECT ENGINEER:

PARKS AND RECREATION DIRECTOR:

COMMUNITY REPRESENTATIVE:

SIGNATURE

NI +

You may appeal this determination to the Lynnwood City Council at 19100 44th Avenue West, P.O. Box 5008, Lynnwood, Washington 98046 no later than 25 days from the date of issuance of this mitigated determination of nonsignificance (April 9, 1995) in writing. You should be prepared to make specific factual objections.

Contact Lynnwood Planning Department to read or ask about the procedures for SEPA appeals.

### ENVIRONMENTAL CHECKLIST SOIL REMEDIATION-LYNNWOOD DODGE LYNNWOOD, WASHINGTON

#### A. BACKGROUND

1. Name of proposed project, if applicable:

Lynnwood Dodge

2. Name of applicant:

**Chrysler Realty Corporation** 

3. Address and phone number of applicant and contact person:

Chrysler Realty Corporation Mr. Andy Bucchiere 468 Rivergate Way, Suite 49 Sacramento, California 95831 (916) 395-4849

AGRA Earth and Environmental, Inc. Ms. Deborah Gardner, Project Manager 11335 NE 122nd Way, Suite 100 Kirkland, Washington 98034-6918 (206) 820-4669

4. Date checklist prepared:

February 1995

5. Agency requesting checklist:

City of Lynnwood

6. Proposed timing or schedule (including phasing, if applicable):

We would initiate earthwork within one to two weeks upon receipt of applicable city permits.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

No other projects related to this proposal are planned.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

A Geotechnical Engineering Report and Level I Environmental Assessment was performed by AGRA for the site in April 1988. Applied Geotechnology Inc. prepared a Contaminant Assessment report, dated 23 July 1990, documenting the removal of the site waste oil UST. Petroleum hydrocarbon impacted soils were documented in the UST excavation and beneath the foundation of the adjacent service garage at the time of removal. AGRA performed a Phase I and Phase II Environmental Assessment dated July 1994, which identified petroleum hydrocarbons in soils around one hydraulic hoist and around one storm drain structure. Subsequently, AGRA's Additional Site Characterization report dated October 1994 identified petroleum hydrocarbons and volatile organic compounds in the soils and shallow perched groundwater along an antiquated storm drainline. No further information would be prepared prior to the completion of the proposal.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

No such governmental approvals for other proposals affecting the property covered by the proposal are known.

10. List any government approvals or permits that will be needed for your proposal, if known.

City of Lynnwood Sewer Permit
City of Lynnwood Demolition Permit
City of Lynnwood Building Permit
City of Lynnwood Grading Permit

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site.

The proposal is to overexcavate impacted soils beneath the older service garage. An estimated 350 cubic yards of impacted soils would be overexcavated from the service garage. The building foundations would be shored prior to excavating within the structural influence of the building foundation.

Excavated soils would be disposed at an approved landfill or treatment facility. Any perched waters encountered or released into the excavation would be pumped and disposed at an approved treatment facility. The excavation(s) would be backfilled using lean mix of concrete or compacted granular fill. The concrete slab would be reconstructed and the facility restored to its original configuration.

The proposed use of the project would be to restore use of the existing automotive service facility.

### 12. Location of the proposal.

The proposed project is located in Snohomish County, at the Lynnwood Dodge auto dealership and service facility. The site address is 20612 Highway 99, Lynnwood, Washington. Excavation activities would take place inside the older service garage near the center of the site (see Figure 1). The site is located in Section 20, Township 27N, Range 4E.

#### B. ENVIRONMENTAL ELEMENTS

#### 1. Earth

a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other:

The proposed excavation would take place inside a service garage with a concrete slab at approximately Elevation 413.5. The surrounding topography slopes gently downhill from west to east.

b. What is the steepest slope on the site (approximate percent slope)?

The steepest slope on the site is approximately 10%.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

Soils on the site are glacial till, consisting of silty, fine sands with gravel. Localized fills consisting of silty sands and layers of pea gravel exist beneath the service garage and in utility alignments.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

There are no surface indications or history of unstable soils in the immediate vicinity.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

The purpose of grading would be to overexcavate an estimated 250 cubic yards petroleum hydrocarbon impacted soils. The final extent of excavation would be based on results of sampling and analytical testing. The excavation(s) would be backfilled with lean mix of concrete or compacted granular fill. The granular backfill would be imported from a gravel pit, such as Associated or Cadman. Grades would be restored to their original configuration, with no net change.

f. Could erosion occur as a result of clearing, construction or use? If so, generally describe.

No soil erosion is expected.

g. About what percent of the site will be covered with impervious surface after project construction (for example, asphalt or buildings)?

The percentage of impervious surface on site will remain unchanged, at approximately 95% impervious.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Following the overexcavation activities, the building would be restored to its original condition.

#### 2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial, wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Truck and backhoe exhaust emissions would be generated. Approximately two diesel-powered engines would operate simultaneously during the project. Upon completion of the restored project, emissions from up to eight automobiles (undergoing repairs) would be vented through the roof via the existing 20 foot exhaust stack, equal to conditions prior to the onset of the project.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

There are no such known emissions.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

There are no such measures proposed.

#### 3. Water

#### a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

There are no surface water bodies in the immediate vicinity of the site.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

The proposed project will not involve work over, in or adjacent to surface waters.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

No fill or dredge material would be placed in or removed from surface waters.

Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

The proposed project will not require surface water withdrawals or diversions.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

The proposal does not lie within a 100-year floodplain.

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

The proposal does not involve discharges of waste materials to surface waters.

#### b: Ground:

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose and approximate quantities if known.

No such ground water withdrawal or discharge would be performed. Quarterly compliance monitoring of ground water in five existing wells would continue through the proposed project per WDOE guidelines.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any.

The proposed project does not involve discharges of waste materials to groundwater.

### c. Water Runoff (including storm water):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

The proposed project is not expected to be exposed to direct runoff.

Perched water stored in permeable fills beneath the service garage may be released during the excavation process. These waters have been in contact with petroleum hydrocarbons. These waters would be pumped from the excavation directly into a tanker truck as they are encountered, and would be properly disposed at a permitted treatment facility.

2) Could waste material enter ground or surface waters? If so, generally describe.

The proposed project is not expected to cause waste material to enter ground or surface waters.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

No such surface or runoff measures are planned inside the building. Any perched waters encountered in the excavation would be controlled by pumping and disposal at a permitted treatment facility.

#### **Plants**

Check or circle types of vegetation found on the site: 8.

d	eciduous tree: alder, maple, aspen, other
	vergreen tree: fir, cedar, pine, other
	hrubs
	rass
p	asture
CI	rop or grain
W	et soil plants: cattail, buttercup, bulrush, skunk cabbage, other
W	ater plants: water lily, eelgrass, milfoil, other
O	ther types of vegetation

What kind and amount of vegetation will be removed or altered? b.

The proposed project would not alter or remove vegetation

List threatened or endangered species known to be on or near the site. C.

No threatened or endangered plant species are known to be on or near the site.

Proposed landscaping, use of native plants, or other measures to preserve or d. enhance vegetation on the site, if any:

There are no such measures proposed. The proposed project would not disrupt existing landscape strips.

#### 5. Animals

Circle any birds and animals which have been observed on or near the site or a. are known to be on or near the site:

Birds: hawk, heron, eagle songbirds, other: Mammals: deer, bear, elk, beaver, other:

Fish: bass, salmon, trout, herring, shellfish, other:

b. List any threatened or endangered species known to be on or near the site.

No threatened or endangered species are known to be resident on or near the site.

c. Is the site part of a migration route? If so, explain.

Various waterfewl and other birds migrate through the general area.

d. Proposed measures to preserve or enhance wildlife, if any:

No preservation or enhancement measures are proposed. The proposed project is not expected to affect wildlife.

### 6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

The completed project is not expected to use energy other than existing electric and natural gas utilities.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

The proposed project would not affect the use of solar energy by adjacent properties.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

Additional measures to reduce energy impacts are not expected to be necessary.

### 7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

The project is not expected to cause environmental health hazards. The proposed project is intended to eliminate a potential environmental hazard by removing petroleum hydrocarbons from the soil and groundwater at the project site.

1) Describe special emergency services that might be required.

No special emergency services are expected to be necessary

2) Proposed measures to reduce or control environmental health hazards, if any:

Measures included in the project to reduce or control potential environmental health hazards are described above in 7.(a)

#### b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

The proposed project is not sensitive to noise and is not expected to be adversely affected by existing noise levels.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

The remediation equipment, specifically trucking and excavators, will generate moderate noise levels between 8AM and 5 PM each weekday. The noise is not expected to be audible above background levels within 100 feet of the service garage.

3) Proposed measures to reduce or control noise impacts, if any:

Measures to reduce or control noise are not expected to be necessary.

#### 8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties?

The project site is currently the Lynnwood Dodge auto dealership and service facility. Adjacent properties include a motorcycle dealer, a used auto dealer, and neighboring residential buildings. A county courthouse, postal facilities, and the Edmonds Community College campus are situated across 68th Avenue West to the west. A Taco Bell restaurant, commercial strip and a vacant lot are situated across Highway 99 to the east.

b. Has the site been used for agriculture? If so, describe.

The site has not been used for agriculture for at least 50 years, and appaers to have been partially forested approximately 50 years ago.

c. Describe any structures on the site.

There are two structures on the site. An older, automobile showroom and service facility is located near the center of the site. A newer, automobile service facility is located in the northwest portion of the property.

d. Will any structures be demolished? If so, what?

Two outdoor storage compounds for above-ground storage tanks and an air compressor will be demolished and subsequently restored by the proposed project.

e. What is the current zoning classification of the site?

The project site is zoned general commercial.

f. What is the current comprehensive plan designation of the site?

The project site is planned for general commercial use.

g. If applicable, what is the current shoreline master program designation of the site?

The site has no shoreline designation.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

No portion of the site has been designated environmentally sensitive.

i. Approximately how many people would reside or work in the completed project?

The proposed project would not provide housing, or provide additional employment above the existing capacity.

j. Approximately how many people would the completed project displace?

The completed project would not displace anyone.

k. Proposed measures to avoid or reduce displacement impacts, if any:

No such measures are necessary.

1. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

Quarterly compliance monitoring of ground water in five existing wells would continue. No other measures are considered necessary.

#### 9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

The proposed project would not provide housing.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

The proposed project would not eliminate housing.

c. Proposed measures to reduce or control housing impacts, if any:

No such measures are necessary.

### 10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

No such structures are proposed.

b. What views in the immediate vicinity would be altered or obstructed?

No views will be altered or obstructed.

c. Proposed measures to reduce or control aesthetic impacts, if any:

No such measures are necessary.

### 11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

The proposed project would not produce light or glare.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

The proposed project would not produce light or glare.

c. What existing off-site sources of light or glare may affect your proposal?

The proposed project is not sensitive to light or glare.

d. Proposed measures to reduce or control light and glare impacts, if any:

Measures to control light and glare are not expected to be necessary.

### 12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

There are no recreational opportunities in the immediate vicinity.

b. Would the proposed project displace any existing recreational use? If so, describe.

The proposed project would not displace any existing recreational uses.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

Measures to reduce impacts to recreation are not necessary.

### 13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

There are no known historic or cultural resources on or next to the site.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

There are no known historic or cultural resources on or next to the site.

c. Proposed measures to reduce or control impacts, if any:

Measures to reduce impacts to historic or cultural resources are not expected to be necessary.

### 14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Shown on site plans, if any:

The project site is accessible from 68th Avenue West and from Highway 99.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

The site is not directly served by public transit. However, city bus service is accessible across 68th Avenue and across Highway 99. Additionally, several Community Transit bus stops are accessible within 1000 feet of the proposed project.

c. How many parking spaces would the completed project have? How many would the project eliminate?

The proposed project would not add or eliminate parking.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

The proposed project would not require changes to the existing street system.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

The proposed project will not require the use of rail or water transportation.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

The completed project would not generate additional traffic.

g. Proposed measures to reduce or control transportation impacts, if any:

No such measures are expected to be necessary.

### 15. Public Services

a. Would the project result in an increased need for public services (for example, fire protection, police protection, health care, schools, other)? If so, generally describe.

The proposed project is not expected to increase the need for public services.

b. Proposed measures to reduce or control direct impacts on public services, if any.

Measures to reduce impacts on public services are not expected to be necessary.

#### 16. Utilities

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

All utilities except septic systems are available.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

Natural gas service would need to be rerouted around the proposed project.

#### c. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature:

Date submitted:

23 FEBRUARY 1995

## CITY OF LYNNWOOD

FOR INSPECTIONS CALL: 778-4188 (Day or Night) 24 HRS. NOTICE REQUIRED Department of Public Works
Building Division
Permit Application
Office 775-1971

PROPERTY	
ADDRESS ZUCIZ	11/1/Y (17

SPACE/SUITE NO.

	Ollump (p. c.		//3-19/		<u>-</u>			
NAME (OR NAME OF BUS	OWNER/OCCUPAN	<u>ir )                                   </u>	APPLIC	ANT: COMPLETE	THIS FORM WITHE	SHADED	AREA FO	RWO
MAILING ADDRESS				THIS PERMIT WILL	BE APPLICABLE			
			PLUMB		989			_
ary 11 to	17 11		No.		TURE OR ITEM	VII		FEE
	zip 上 <u>1. Q 3</u> 4	TELEPHONENUMBER		WATER CLOSET (TO	(LET)	7.00	\$	Τ-
	ARCHITECT/ENGIN	<u> </u>	┥	BATHTUB		7.00		
AME	THE STATE OF THE S		┥	LAVATORY (WASH B		7.00		$oldsymbol{ol}}}}}}}}}}}}$
I A .		·	<b> </b>	SHOWER	**** *	7.00	ļ	
			<b>7</b>	KITCHEN SINK & DIS DISHWASHER	Р	7.00	<u> </u>	1
TIY NO.	719	TELEPHONENUMBER		LAUNDRY TRAY	_ <del></del>	7.00	ļ	4_
- CKIA U.	. 1.7.11	· (, ) : · // (f	.}	CLOTHES WASHER	<u> </u>	7.00		┺-
	CONTRACTOR	<u> </u>	1	WATER HEATER	<del></del>	7.00		┼
AME			+	URINAL		7.00	<del>-</del> -	+
AILING ADDRESS	ALKIE		_	DRINKING FOUNTAIN	<del></del>	7.00	<del>  _ `</del>	╅┷
I ()	F 11 - TU 2		<b>—</b>	FLOOR - SINK OR DR		7.00	<del> </del> -	╂─
ny	ZIP C	TELEPHONENLIMBER	-	SLOP SINK		7.00	<del>                                     </del>	+-
LLEWE	16,006	DATE CITYLIC NO.		LAWN SPRINKLER SY	STEM .	1		╁╴
ATE LICENSE NUMBER	EXPIRATION	DATE CITYLIC NO.	"	WATER PIPING & TRE	ATING EQUIP.	7.00		┼─
MTUEDIE	· /13/غليخت	16 17 2104		WASTE INTERCEPTO		7.00		1-
<b>7</b>	1 — ′′	_		VACUUM BREAKERS		5.00		<del>                                     </del>
RESIDENTIAL	REPAIR	PLUMBING		(ov	er5) 🧖 🧖	1.00 ea		1 .
NON-RESIDENTIAL	DEMOLISE	MECHANICAL	<u></u>			7		
<del></del>	<del></del>		<u> </u>	L	7.0	<u> </u>		
	TER FENCE	11- W	<b> </b>		ERMIT	\$	20	0
_	nant 🔲 sign		<u></u>		TAL FEE	\$		
	PROVEMENT		MECHAN	IICAL	+ 3 - M			
egal Description of Proper	rty and tax number:		No.	TYPE	OF EQUIPMENT		· F	EE
x Block o	<i></i>			AIR COND. UNITS - To	ns/H.P.		\$	
			REFRIGERATION UNITS - H.P.				<del>                                     </del>	
	•	<del></del>	<u></u>	BOILERS - BTU	1.0			
sture of Work to be done	e (Note: Environmental Chee	internal por ( in	ļ	GAS FIRED A.C. UNITS				
mule of stock to be don	(Note: Environmental Chec	cklist may be Required)		FORCED AIR SYSTEM				
		•		UNIT HEATERS - B.T.L	J. M		·	
<del>-144 - 14 -</del>	1.11 1 1 1 1 1 1 1 1	er (c 11957		VENTILATION FAN				
	S GUINAL	, ,	Դ——	RANGE HOOD AIR HANDLING UNIT -				ļ. <u>.</u>
<del></del>			7	METAL FIREPLACE	C.F.M			<u> </u>
IS PERMIT BECOMES HULL A	NOTICE  NO VOID IP WORK OR CONSTRUC	CTION AUTHORIZED IS NOT	<del></del>	TANKS				ļ
MMUNCED WITHIN 180 DAYS	I, OR IF CONSTRUCTION OR WOR 180 DAYS AT ANY TIME AFTER 1	K IS SHEDDNINGS ON	$\overline{}$	GAS PIPING .75 ea.	Min. :			<del> </del> -
	•		<del> 1</del>	G.1.0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	MILL			₩
ME TO BE TRUE AND CORRE	E READ AND EXAMINED THIS AP CT. ALL PROVISIONS OF LAWS A	ND ORDINANCES GOVERNING			- 2			├
IS TYPE OF WORK WILL BEC	OMPLIED WITH WHETHER SPECI FOT PRESUME TO GIVE AUTHORI	PTED HEREIN OR NOT, THE		<del></del>		<del>.</del>		-
E PROVISIONS OF ANY OTHE E PERFORMANCE OF CONSTR	R STATE OR LOCAL LAW REQUIL	ATING CONSTRUCTIONS OR	<del> </del>			<del></del>		<del> </del> -
	The ASSMIT				PERMIT :	\$	25	00
INTHAMS		<u> </u>			TOTAL FEE	\$		<del></del>
11/1/1/		1011			VALUATION	FEE		
INATURBOFOWNER OR AUT: Til: Permit Limit Firkteen Me	HORIZED AGENT nths (Except DEMOLITIONS <del>which</del> ;	(DATE)	BUILDING		400°	1 5,45		∥á.
VED-DY BUTLDINGS shall be co	replaced in 90 days).	- Compete at 30 case.	PLUMBING					MBE
hed Area	Unfinished Area	Garage Area	MECHANICA	<del>  </del>	9537			
			FENCE		- 480 ·	<u>,</u>	<u> </u>	יק. איניי
of Const.	Occupancy Group	No. of Dwelling Units	SIGN		11 tes	, . 		
4 Pido /Communica	No. of Clades	<u></u>		<u> </u>		· ·		<b>%</b>
( Bkig. (Commercial)	No. of Stories	Max. Occ. Load	PLAN CHEC		, F.W.		- <u>/i</u>	
	Tenani Improvement Area	Fire Sprinklers Required	ST BLDG. CO					N.
		oprovide requisi	CLEAR/GRA		्रवस्थातुः च	40	4.4	
ing Dept. Appr.	Fire Dept. Appr.	Public Works Approval	STORM DRA	IG.	327 (1)			
	,				(時) (	6.		NA COMPANY
t Expired	Final Inspection	Approved for Issuance						
	Cate	<u> </u>	TOTAL AMO	OUNT DUE ,	/	-31		(契)
mission is hereby give	ATED BELOW THIS IS in to commence the above certaining thereto, subject	e described work, according to compliance with City of 19	g to the con	d ordinances and la	in accordance with we of the State of	1	red L	

Table 101: Summary of Soil Analytical Results: Upper Drainline Overexcavation
Lynnwood Dodge
Lynnwood, Washington
AGRA Earth & Environmental, Inc. Project No. 11-09664-01

·		Depth	WTPH	I-D Ext.		
Sample Number	Date Collected	Collected (ft)	Diesel (ppm)	Heavy Oil (ppm)		
B2/-6'	30-Nov-94	6	ND	ND		
SH-2	30-Nov-94	2	ND	ND		
SW-2	30-Nov-94	2	ND	ND		
B4/-6'	08-Dec-94	. 6	ND	ND		
B5/-5'	08-Dec-94	5	ND	ND		
B6/-6'	08-Dec-94	6	ND	ND		
B7/-7'	08-Dec-94	7	ND	ND		
B8/-12'	14-Dec-94	12	ND	ND		
. S1/-5'*	14-Dec-94	5	880	4,600		
CB7P-B1/-7'	14-Dec-94	7	. ND	32		
MTCA Method "A" Cleanup Guidelines 200 200						

#### Notes:

WTPH-D Ext. = Total petroleum hydrocarbons, diesel range (C12-C24) and heavy oil range (C>24), by Washington State Method WTPH-D Extended.

ND = Compound was not detected in this sample, refer to laboratory certificates for method detection limits. \* = Sample S1/-5' reported as S1/-15' on laboratory certificates.

MTCA = Washington State, Model Toxics Control Act, Method "A" Cleanup Guidelines.

= indicates concentration is above MTCA cleanup level.

All concentrations are expressed in parts per million (ppm).

