F

Oregon

December 23, 1996

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

NORTHWEST REGION

EARL DIERKING
TRIMET
710 NE HOLLADAY STREET
PORTLAND OREGON 97232

Re: Tri-Met Westside Light Rail-Allied Auto
File No. 34-96-0394

Dear Mr. Dierking:

The Department of Environmental Quality has completed its review of the information submitted to date concerning the underground storage tank (UST) decommissioning and cleanup conducted at 17350 SW Baseline Road in Beaverton, Oregon. The Department has determined that the cleanup appears to have met the requirements of Oregon Administrative Rules (OAR) 340-122-205 through 340-122-360 and that no further action is required at this time.

This determination is a result of our evaluation and judgment based on the regulations and facts as we now understand them, including:

1. Two 500 gallon gasoline USTs were decommissioned at this location. The tanks were recycled at Schnitzer Steel Products.

2. Gasoline contamination was discovered during the decommissioning. Approximately 44 tons of contaminated soil were removed from the excavation and taken to TPS Technologies for treatment.

3. After cleanup was complete, no contamination was detected remaining in the excavation.

4. No groundwater was encountered in the excavation.

The Department's determination will not be applicable if new or undisclosed facts show that the cleanup does not comply with the referenced rules. The Department's determination also does not apply to any conditions at the site other than the release of the petroleum product specifically addressed in the report(s).

Please note that pursuant to OAR 340-122-360(2), a copy of your report must be retained until ten (10) years after the first transfer of the property. We recommend that a copy of this information be kept with the permanent facility records.

2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471

Your efforts to comply with the regulations to ensure that your facility has been adequately cleaned up have been appreciated. If you have any questions, please feel free to contact me at (503) 229-5474.

Sincerely,

Andree Pollock
UST Cleanup Specialist

cc: Jennifer Sutter, NWR-VCSAS

Guy Neal
PBS Environmental
1220 SW Morrison Street
Portland, Oregon 97205

Debra Mervyn
Parsons Brinkerhoff
400 SW Sixth Avenue, Suite 802
Portland, Oregon 97204-1628

(avp:AVP)

34-96-394

FAX

Parsons Brinckerhoff
710 NE Holladay
Portland, OR 97232
(503) 239-2253
Fax: (503) 239-2285

Date: 7/9/96 Fax No. 229-6945

To: ANDREE POLLOCK

From: RANDY GOODE

Subject: DISCOVERY OF USTs ON BASELINE RD.

Total No. of Pages 2. (including this page)

Comments:

FURTHER TO OUR DISCUSSION ON 7/~~8~~3/96, THE ATTACHED MEMO HIGHLIGHTS THE KEY CONTACT FOR WASH. CO. AND THE DESCRIPTION OF SOIL CLEANUP PERFORMED 7/5/96.

ALSO, YOU SHOULD BE RECEIVING MATRIX REPORTS:

1. SETNICKERS - DELIVERY ON 7/10
2. RASMUSSEN - DELIVERY BY 7/12.

THANKS - RSG.

CC: E. DIERKING.
J. SUTTER.

WESTSIDE PROJECT MEMORANDUM

WCC708.408
WCC708.480.02117.01
70800607

TO: Jim Bell

FROM: Ken Kirse

SUBJECT: **WC0800 - Discovery of UST's on Baseline Rd. East of LRT Crossing**

DATE: July 5, 1996 (DEQ FILE # 34-96-394).

Neosho Project Manager Steve Koegeboehn informed me at about 3:00 on 7/2/96 that they had hit two underground storage tanks while excavating for Baseline Rd. widening. The approximate location of these tanks is shown on the attached plan. I told Neosho to have their environmental consultant Mr. Guy Neals of PBS prepare a plan for removing the tanks. A meeting was setup for 7/3/96 at 1:30 pm.

Phil Selinger contacted Wa. Co. and informed them of the meeting. Mr. Bill Hunter of Wa. Co. attended the 7/3/96 meeting along with Steve Koegeboehn, Guy Neals, Randy Goode, Mia Mahedy and myself. At the meeting the tanks were opened to find one full of water/gas mixture and one about half full of what appeared to be gasoline. The tanks were approximately 500 gal. each. Several soil samples were taken around the tanks and sent to PBS's lab. Bill Hunter agreed that the tanks were on new right-of-way purchased for Wa. Co. Baseline Rd. widening. Bill agreed that the cost of the removal and clean-up would be Wa. Co. responsibility. Bill also agreed that the best coarse of action was to proceed with Neosho's consultant and subcontractor performing the work. Randy Goode agreed to contact DEQ and Guy Neals agreed to get all necessary permits and arrange for pumping the tanks dry, tank removal, contaminated ground removal, and soil testing after tank removal.

On 7/5/96 Neosho's subcontractor had secured the permits, pumped the tanks dry, removed the contaminated soil surrounding the tanks, and removed the tanks. Soil was removed for about 18" below the tanks. I was told that the sniffer recorded clean soil below that level. Several samples were taken to verify that all contaminated soil was removed. Results of these samples will be available on 7/8/96. Neosho put a barrier around the hole which is approx. 12' x 10' by 6' deep and left it open. Pending favorable results from the soil samples, the cost for the clean-up and removal of the tanks should be approx. $ 10,000.

cc: Tuck Wilson
Ron Drake
Earl Dierking
Phil Selinger
Bill Hunter, Wa. Co.
Randy Goode HS 630
Dean Phillips PB
Albert Lai
Rod Kempkes
Mia Mahedy

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: Randy Goode DATE: 7/3/96

WITH: Parsons Brinkerhoff TIME:

TELEPHONE NO: ( ) -

REGARDING: Near Allred auto on baseline

FILE NO: 34-96-384

SUMMARY OF CALL

Found 2 old USTS. had product + water in tanks. Observed some contamination around fill pipes. Exposed tops of tanks at this point. to be pulled Friday.
Have (Gave) approval to proceed with work. Will need to permit tanks, pay bank fees, Decom. notice etc, Believe tanks associated with Allred Auto

Staff Signature

✓ E

UPDATES:

◂ MORE ON BACK ▸

12-23-96

* PETROLEUM RELEASE FORM *

Please Check All That Apply

INCIDENT INFORMATION

LOG NBR: 34-96-394 RECEIVED BY: AVP

UST FAC NBR: _____ DATE REPORTED: 7/3/96

SITE NAME: Tri Met - Westside Light Rail - Allied Auto

SITE ADDRESS: 17350 SW Baseline Rd

SITE CITY: Beaverton ZIP: 97006

SITE COUNTY: Wash. PHONE: _____

PROJECT MANAGER: Andee Pollock

☑ REGULATED UST
☐ NON-REGULATED UST
☐ HEATING OIL TANK

FUNDING

☑ LUST ☐ HSRAF
☐ OHC ☐ FINANCIAL ASST

☐ INVOICE START ☐ INVOICE STOP
LTR. AGR. ☐ NFA SENT
DATE: _____

Bill any time to TAS-1319 Trimet westside Light Rail

MAIL CONTACTS

REPORTED BY

NAME: Randy Goode
COMPANY: Parsons Brinkerhoff
ADDRESS: 400 SW 6th Ave
CITY: Portland ZIP: 97204-1628
STATE: OR PHONE: 503-239-2267

RESPONSIBLE PARTY

NAME: Earl Dierking
COMPANY: TRI-MET
ADDRESS: 710 NE Holladay St.
CITY: Portland ZIP: 97232
STATE: OR PHONE: 238-2163

INVOICE CONTACT

NAME: Not Applicable
COMPANY: _____
ADDRESS: _____
CITY: _____ ZIP: _____
STATE: _____ PHONE: _____

OTHER CONTACT(S)

NAME: _____
COMPANY: Washington County
ADDRESS: _____
CITY: _____ ZIP: _____
STATE: _____ PHONE: _____

SITE ASSESSMENT

DATE DISCOVERED: 7/2/96

☐ EMERGENCY RESP.
☐ ENFORCEMENT

☐ FURTHER CLEANUP REQ.
☐ NO FURTHER CLEANUP REQ.
☐ OFFSITE MIGRATION
_____ L.I.P.S. SCORE (Region)

12-23-96

CONFIRMATION:

☐ SI) STAFF
☐ LD) LAB:DEQ
☐ LR) LAB:RP
☐ LO) LAB:OTHER
☐ RR) RP REPORT
☑ CN) CONTRACTOR
☐ OT) OTHER _____

DISCOVERY:

☐ RM) ROUTINE MONITORING
☐ DC) DECOMMISSIONING
☐ CP) COMPLAINT
☐ IC) INVENTORY CONTROL
☐ SA) SITE ASSESSMENT
☐ TT) TANK TEST
☑ OT) OTHER Right of Way work

CAUSE:

☐ TL) TANK LEAK
☐ PL) PIPE LEAK
☑ OF) OVERFILL
☐ SS) SURFACE SPILL
☐ PV) PUMP/VALVE LEAK
☐ OT) OTHER _____
☐ UN) UNKNOWN

CONTAMINANTS - IMPACTS

CONTAMINANTS:

- ☐ UG) UNLEADED GASOLINE
- ☐ LG) LEADED GASOLINE
- ☑ MG) MISC. GASOLINE
- ☐ DS) DIESEL
- ☐ FO) FUEL OIL
- ☐ WO) WASTE OIL
- ☐ LB) LUBRICANT
- ☐ SV) SOLVENT
- ☐ BF) BUNKER FUEL
- ☐ OP) OTHER PET. DIST.
- ☐ CH) CHEMICAL
- ☐ HO) HEATING OIL
- ☐ UN) UNKNOWN
- ☐ OT) OTHER _____

MEDIA/IMPACT:

- ☑ SL) SOIL
- ☐ GW) GROUNDWATER
- ☐ SW) SURFACE WATER
- ☐ DW) DRINKING WATER
- ☐ FV) FACILITY (VAPOR)
- ☐ FP) FACILITY (FREE PROD)

SITE - SOIL MANAGEMENT

RELEASE STOPPED: 6-JUL-96
CLEANUP STARTED: 6-JUL-96

REMEDIATION COMPLETED: 12-23-97 VCB
NO FURTHER ACTION: 12-23-97 VCB

SWLA PERMIT NUMBER: _____

DATE ISSUED: _____

AMOUNT OF SOIL (yds3) TREATED ON SITE: _____
AMOUNT OF SOIL (yds3) TREATED OFF SITE: _____

TREATMENT METHOD:
- ☐ AREATION
- ☐ THERMAL
- ☐ BIOLOGICAL
- ☐ OTHER _____

AMOUNT OF SOIL (yds3) DISPOSED OF: _____ ☐ TREATED ☐ UNTREATED

FINAL DISPOSITION OF SOIL:
- ☐ ONSITE
- ☐ LANDFILL
- ☐ ROAD BASE
- ☐ OTHER _____

NOTES/COMMENTS: _____

This Space Provided For Regional Use

UNDERGROUND STORAGE TANK DECOMMISSIONING
and
MATRIX REPORT
FACILITY ID# 34-96-0394

for

ALLIED AUTO SITE
173rd & BASELINE ROAD
HILLSBORO, OREGON

Prepared by

PBS ENVIRONMENTAL
1220 S.W. Morrison St.
Portland, OR 97205
(503) 248-1939

PBS Project Number
8148.10

September 1996

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1.0 INTRODUCTION

PBS Environmental (PBS) was retained by Neosho Construction Co., Inc. (Neosho) to oversee the permanent decommissioning of two underground storage tanks (USTs) and contaminated soil removal and disposal, located at the Allied Auto Site in Hillsboro, Oregon. The USTs were discovered on July 2, 1996, during construction activities related to Line Section 8 of the Westside Lightrail project.

This report describes the procedures used in, and presents the results of, the permanent decommissioning and site remediation activities conducted at this site. The activities described in this report were completed pursuant to Oregon Administrative Rules (OAR) 340-150-130 "Permanent Decommissioning of an Underground Storage Tank", and OAR 340-122-305 through 340-122-360 "Numeric Soil Cleanup Levels for Motor Fuel and Heating Oil". This report summarizes previous work performed at the site, and the results of the most recent investigation, and outlines our current understanding of the site conditions.

1.1 Previous Investigations

The USTs were discovered on Tuesday, July 2, 1996, during subgrade preparation of the Baseline Road reconstruction near its intersection with the new lightrail line west of S.W. 173rd Avenue. No other investigations associated with the USTs were conducted prior to undertaking the decommissioning activities on July 5, 1996.

1.2 Project Objectives and Scope of Work

The objectives and scope of work for the current project are as follows:

- Remove and permanently decommission two underground storage tanks (USTs) located at the Allied Auto site, 17350 S.W. Baseline Road, Hillsboro, Oregon.
- Evaluate the open excavation associated with the USTs for evidence of contamination.
- Determine the nature and extent of the contamination associated with any release from the USTs.
- Excavate and dispose of soils that are determined to be contaminated with a release from the USTs.
- Analytical confirmation of the completed excavation to measure the effectiveness of the remedial effort.
- Transportation and disposal of contaminated soils at an approved disposal facility.
- Provide reporting to meet DEQ requirements.

2.0 BACKGROUND

2.1 Site Location

The Allied Auto site is located at 17350 S.W. Baseline Road, near the intersection of S.W. 173rd Avenue, in Hillsboro, Oregon. The site is located in Section 6 of Range 1 West, Township 1 South, Willamette Meridian. The site location is shown on Figure 1 of Section Two.

2.2 Area Geology

The subject site is located within a relatively flat area at an elevation of approximately 220 feet above mean sea level. The Portland West Hills are located approximately four miles east of the site. Cedar Mill Creek, located roughly one-half mile south of the site, flows to the southwest towards the Tualatin River. Willow Creek is located approximately one-half mile to the west and is a tributary of Cedar Mill Creek.

Underlying the site to a depth of approximately 60 feet are unconsolidated clays, silts, and sands deposited by catastrophic floods during the Pleistocene epoch. Beneath these sediments are approximately 950 feet of poorly consolidated sands and gravels of the Troutdale Formation and Sandy River Mudstone Equivalent. Basalt lava flows of the Columbia River Basalt Group are present at a depth of about 1,000 feet, beneath the Sandy River Mudstone Equivalent.

Groundwater beneath the subject is expected to be present within the Troutdale Formation and the Columbia River Basalt Group. Shallower groundwater at depths of 10 to 20 feet is expected to exist over most of the site. Shallow groundwater in the immediate vicinity of the site is expected to flow either to the south, toward Cedar Mill Creek, or to the west, toward Willow Creek. Local fluctuations in groundwater depth and flow direction may occur.

3.0 MATRIX REPORT

3.1 UST Removal and Decommissioning

Prior to completing decommissioning activities, verbal approval was received from DEQ and a removal permit was obtained from Tualatin Valley Fire & Rescue Fire Marshall office (Appendix H). Registration of the previously unpermitted tanks is currently being completed along with formal application for removal. The USTs are the property of Washington County (contact William Hunter). Documentation will be included in the permanent project file when completed.

Excavation and removal of the USTs was completed on July 5, 1996. Residual product and water was removed and an access hole cut into the top of each UST prior to removing from the excavation. Each UST was then removed from the excavation and transported to a metal recycling facility for disposal. Residual product and rinse water was transported to a petroleum recycling facility for disposal. The capacity of each UST was 500 gallons and contained gasoline (confirmed through laboratory analysis). A disposal receipt for the tanks and residual product was obtained from the respective recycling facilities and is included in Appendix C. No piping associated with the USTs was evident in the excavation.

An Underground Storage Tank Decommissioning Checklist (Oregon DEQ form) was prepared by PBS at the completion of site activities and is included in Appendix G.

3.2 Release Discovery

During inspection of the exposed portion of the USTs on July 3, 1996, visibly contaminated soils were first observed around the fill piping. Contaminated soil and backfill material surrounding the tank was also observed to be visibly contaminated during decommissioning activities occurring on July 5, 1996. DEQ was verbally notified of the release on July 3, 1996. The site was assigned DEQ identification # 34-96-0394.

3.3 Release Control Measures

No evidence of free product was observed during the excavation of the UST. Visibly contaminated soils were removed by excavation methods and loaded directly into dump trucks for later shipment for disposal.

3.4 Initial Site Evaluation

After removal of the UST from the excavation, an initial site evaluation was conducted to determine the necessity for additional excavation of contaminated soils. The initial determination of contaminated soil was completed through visual and olfactory means. Soils were visibly stained around the fill pipe location and throughout the tank bedding material. After removal of visibly contaminated soils from the excavation were completed, soil samples were collected to measure any remaining contamination that may be present. The type of contamination was determined by Hydrocarbon Identification (Oregon Method), and later quantified using DEQ approved methods.

3.5 Excavation and Handling of Contaminated Soils

3.5.1 Excavation

Excavation was completed using a track excavator. Soils removed were visually segregated into two stockpiles based visual and olfactory inspection. Material determined to contain contamination was loaded directly into dump trucks for disposal.

The excavation was completed to an approximate depth of five feet beneath the surrounding ground surface (approximate depth of UST). Groundwater was not encountered during excavation activities.

3.5.2 Disposal

Application for disposal of the contaminated soil stockpile was submitted and approved at TPS Technologies Soil Recycling (TPST) facility, located in Portland, Oregon. Contaminated soils were transported to the TPST facility by bulk transport trucks and each load was accompanied by a Non-Hazardous Soils manifest supplied by TPST. After disposal, signed manifests were returned to the job site to verify proper disposal.

Disposal of the contaminated soils was completed on July 8, 1996. A total of 44.41 tons of contaminated soil was disposed at the TPST facility. Copies of signed disposal manifests are included in Appendix B.

3.6 Sampling

3.6.1 Soil Sampling

At the conclusion of excavation activities, soil samples were collected to measure the effectiveness of the remedial effort and determine the type of contamination present. A description of each sample collected during this project is presented in Table 1.

A detailed description of soil sampling procedures is presented in Appendix A.

The initial sample for identification of petroleum contamination and quantification was submitted to North Creek Analytical on July 3, 1996. Confirmation samples were submitted to American Environmental Network on July 5, 1996.

3.6.1.1 Characterization Sampling

One soil sample was collected from the visually contaminated soils near the fill pipe of the UST to identify type of petroleum contamination and to determine disposal options.

3.6.1.2 Confirmation Sampling

Confirmation soil samples were collected from the completed excavation. Five samples were obtained from the open excavation. The rationale for collection of confirmation soil samples is discussed below:

During completion of the excavation activities on July 5, 1996, olfactory evidence of contamination was determined. Hydrocarbon odor and soil staining was evident surrounding the USTs. Based on field observations, the collection of five individual soil samples was determined to be appropriate to measure for residual contamination potentially located in the open excavation. One sample was collected from each side wall and one sample was collected from the bottom of the excavation. The location of collected soil samples are shown in Figure 1.3, Section Two of this report.

Laboratory results of the five soil samples indicated that the objectives of the site remediation had been achieved and that additional excavation was not necessary.

3.7 Unusual Conditions

No unusual conditions were encountered during completion of the UST decommissioning or soil remediation at this site.

3.8 Soil Matrix Scoring

To determine the required cleanup levels for this site, matrix scoring was completed for five site-specific parameters detailed in OAR 340-122-330. The five assigned scores were then totaled and compared to the cleanup levels contained in OAR 340-122-335. The five site-specific parameters evaluated were depth to groundwater, mean annual precipitation, native soil type, sensitivity of the uppermost aquifer, and potential receptors.

Preliminary matrix scoring was completed which indicated that a Level 2 cleanup is appropriate for this site. The target cleanup of gasoline contaminated soil for this site is 80 parts per million. The completed Matrix score sheet is contained in Appendix F.

4.0 RESULTS

4.1 Analytical Results

All samples were extracted and analyzed within the recommended holding times for soil. Laboratory analytical data indicates that the contamination associated with the site is gasoline. Contamination levels measured near the fill pipe was 220 parts per million gasoline. No detectable levels of gasoline contamination was measured in any of the confirmation samples. A summary of the analytical data is shown in Table 2. Analytical data sheets are contained in Appendix D of this report.

5.0 CONCLUSIONS

The following statements with respect to the UST decommissioning and soil remediation.

1. Two USTs were removed and permanently decommissioned in accordance with DEQ regulations.
2. Soil contamination was discovered associated with the USTs on July 3, 1996.
3. The contamination associated with the UST release is gasoline.
4. Groundwater was not encountered during excavation activities.
5. The maximum detected soil contamination was 220 ppm (TPH-G).
7. The maximum detected soil contamination that remains in soils at the site is <5.0 ppm (TPH-G).
8. The matrix scoring for the site determined that Level II cleanup is appropriate (80 ppm Gasoline).

6.0 RECOMMENDATIONS

Based on the conclusions reached during this investigation, the following is recommended:

1. Submit information relating to UST decommissioning and soil remediation to DEQ Northwest Region and request concurrence that activities are in accordance with their regulations and "No Further Action" is required.

2. Maintain UST closure documents in the owner's permanent records. Closure documents include: disposal records for tank, tank contents, and contaminated soil; soil sample results; closure report prepared by PBS, and; any correspondence from DEQ regarding this site. Any other documentation relating to the UST removal and decommissioning and site remediation should also be retained.

3. UST permit application including necessary fees are provided by Washington County. This is intended to assist DEQ in facilitating closure of the subject UST removal and issuance of a "No Further Action" determination.

9-18-96

Guy M. Neal, P.E.
PBS Project Manager
DEQ Soil Matrix License #12833
DEQ UST Decommissioning License #12832

TABLE 1
SOIL SAMPLE DESCRIPTION

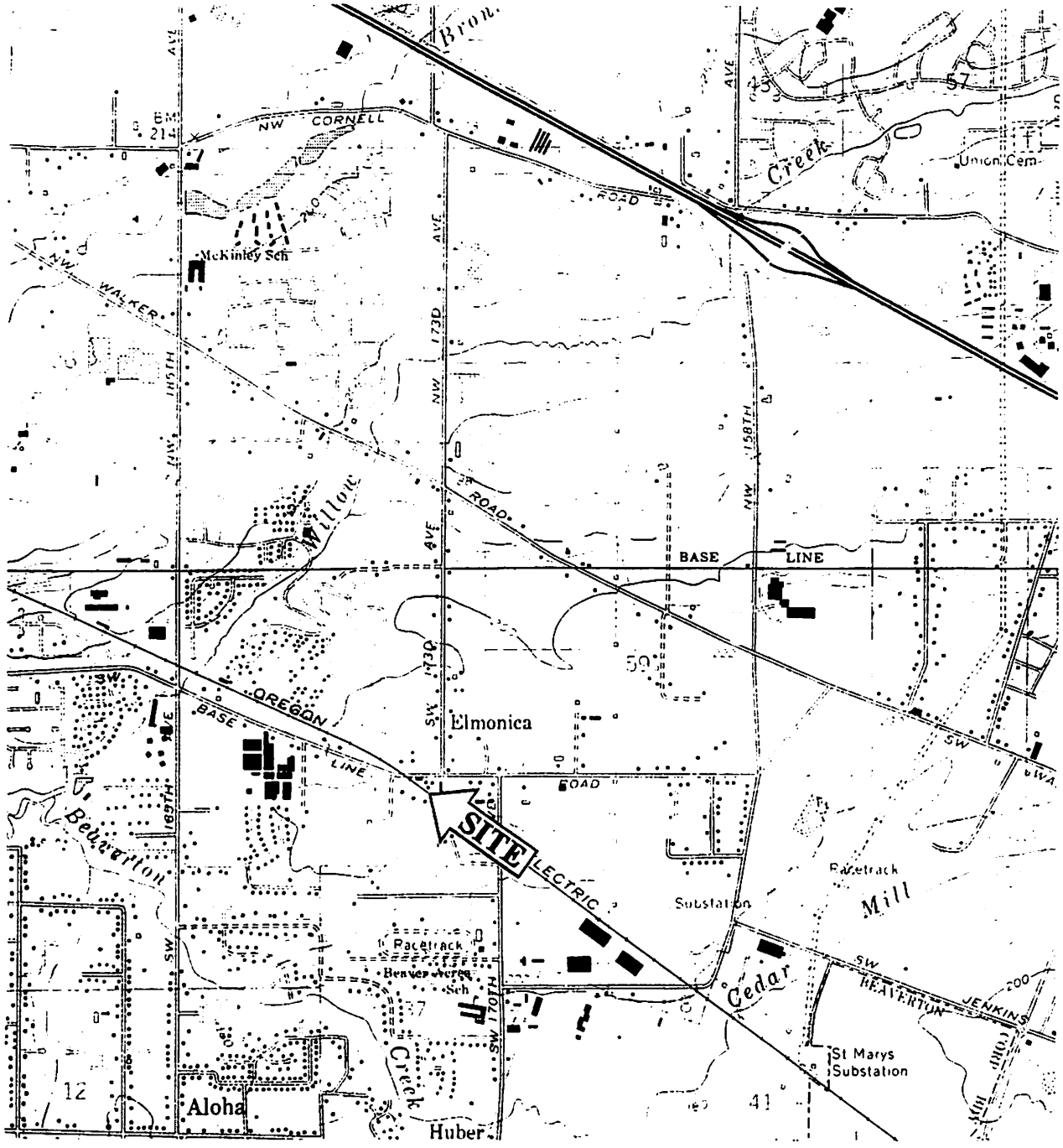
SAMPLE I.D.	LOCATION (DEPTH)$_{(a)}$	ANALYTICAL TEST METHOD
703-90+10-001	Fill Pipe (3 feet)	TPH-HCID (Oregon DEQ), TPH-418.1M (Oregon DEQ), TPH-G (Oregon DEQ)
705-90+10-001	South Wall (5 feet)	TPH-G (Oregon DEQ)
705-90+10-002	Pit Bottom (6 feet)	TPH-G (Oregon DEQ)
705-90+10-003	West Wall (5 feet)	TPH-G (Oregon DEQ)
705-90+10-004	East Wall (5 feet)	TPH-G (Oregon DEQ)
705-90+10-005	North Wall (5 feet)	TPH-G (Oregon DEQ)

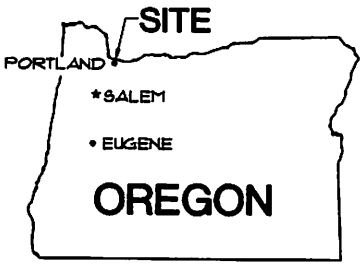
(a) Depth as measured from surrounding ground surface

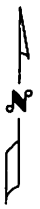
TABLE 2
SOIL SAMPLE RESULTS (ALLIED AUTO SITE)

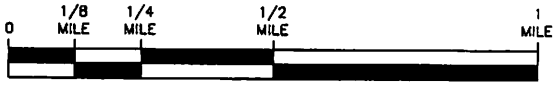
Sample I.D.	703-90+10-**001**	705-90+10-**001**	705-90+10-**002**	705-90+10-**003**	705-90+10-**004**	705-90+10-**005**	MRL$_{(a)}$ (ppm)
TPH-HCID (Oregon Method) (ppm)$_{(b)}$ Gasoline	DET$_{(d)}$						
Diesel	ND$_{(c)}$						
Heavy/Bunker	ND						
TPH-418.1M (Oregon DEQ) (ppm)	97						
TPH-G (Oregon Method) (ppm)	220	ND	ND	ND	ND	ND	5.0

(a) MRL - Method Reporting Limit
(b) ppm - part per million
(c) ND - None Detected at or above the Method Reporting Level
(d) DET - Detected at levels above the Method Reporting Level









SOURCE: LINNTON QUADRANGLE 1961, PHOTOREVISED 1984.

PREPARED FOR:
NEOSHO CONSTRUCTION CO.

8141.10

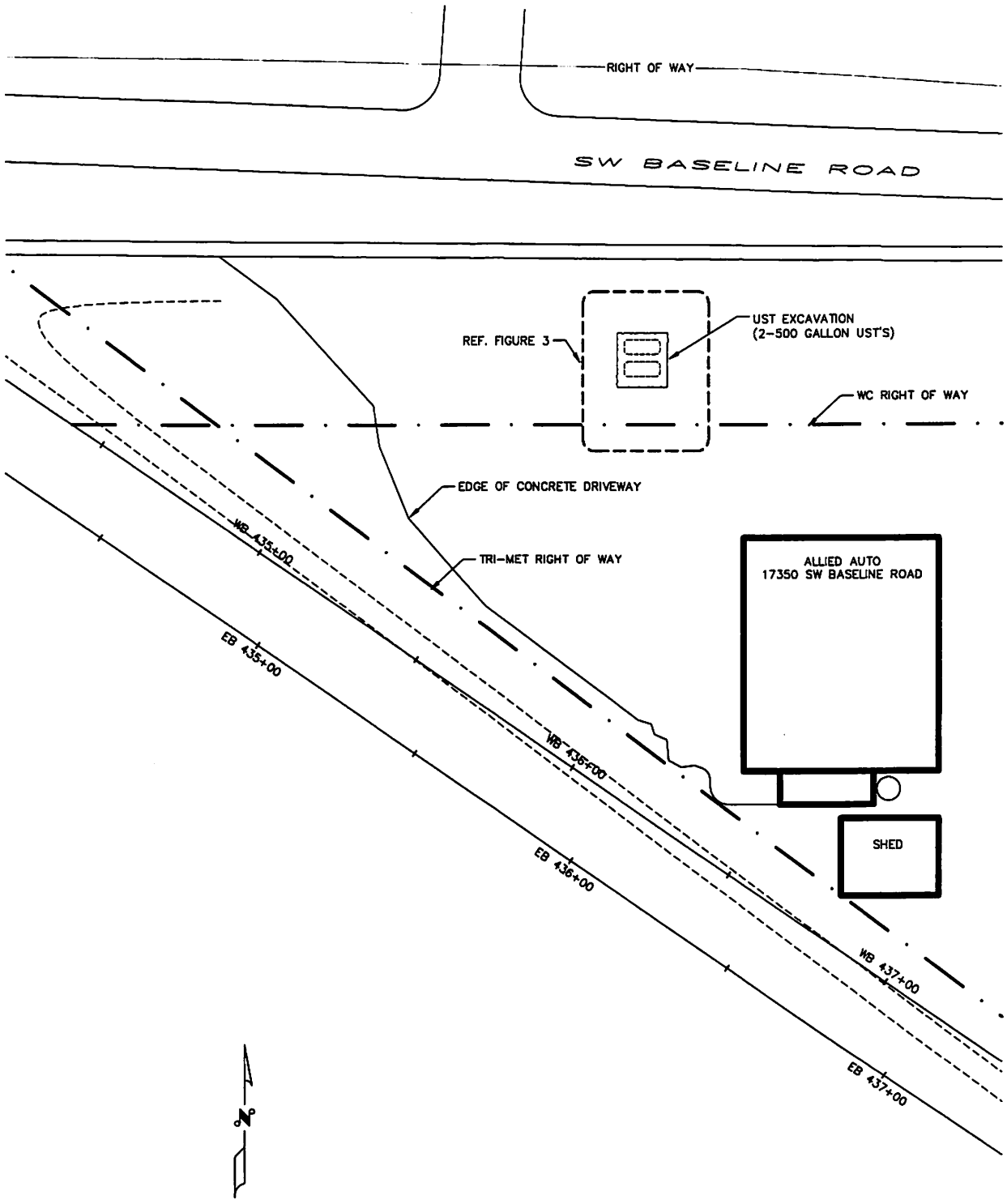
JULY 1996

SITE LOCATION MAP

WESTSIDE LIGHRAIL PROJECT: LS-8

PBS ENVIRONMENTAL
1220 SW MORRISON
PORTLAND, OREGON
97205
(503) 248-1939
FAX
(503) 248-0223

FIGURE 1



SCALE 1" = 40'-0"

PREPARED FOR:
NEOSHO CONSTRUCTION CO.

8141.10

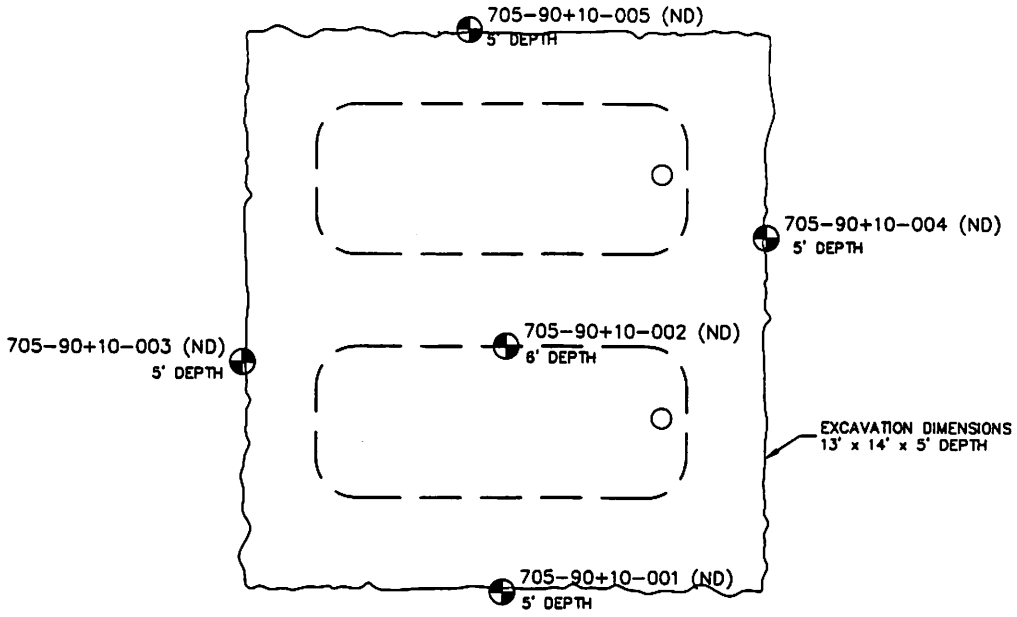
JULY 1996

SITE VICINITY PLAN

WESTSIDE LIGHRAIL PROJECT: LS-8

PBS ENVIRONMENTAL
1220 SW MORRISON
PORTLAND, OREGON
97205
(503) 248-1939
FAX
(503) 248-0223

FIGURE 2



LEGEND

SOIL SAMPLES ANALYZED FOR TPH-GASOLINE (OREGON).

(ND) SAMPLE RESULT.

N

SCALE 1" = 5'-0"

PREPARED FOR:
NEOSHO CONSTRUCTION CO.

8141.10

JULY 1996

SOIL SAMPLE LOCATIONS

WESTSIDE LIGHRAIL PROJECT: LS-8

PBS ENVIRONMENTAL
1220 SW MORRISON
PORTLAND, OREGON
97205
(503) 248-1939
FAX
(503) 248-0223

FIGURE 3

UST DECOMMISSIONING - VIEW TO THE SOUTH

UST DECOMMISSIONING & REMOVAL OF CONTAMINATED SOIL
AFTER REMOVAL OF SOUTH UST (NORTH UST VISIBLE IN EXCAVATION)

UST EXCAVATION
AFTER REMOVAL OF USTs & DURING REMOVAL OF CONTAMINATED SOIL

UST EXCAVATION
EXCAVATION LIMITS ON 7/05/96

REFERENCES

DOCUMENTS REVIEWED

USGS 7.5 minute series topographic map: Linnton Quadrangle (1961, photorevised 1984)

PUBLICATIONS

Oregon Administrative Rules, Cleanup Rules for Leaking Petroleum UST Systems (OAR 340-122-205 through 340-122-235), Department of Environmental Quality, September, 1993

Oregon Administrative Rules, Numeric Soil Cleanup Levels for Motor Fuel and Heating Oil (OAR 340-122-245 through 340-122-360), Department of Environmental Quality, September, 1993.

Baldwin, Ewart M., 1981, Geology of Oregon.

Schlicker, H.G., and Deacon, R.J., 1967, Engineering Geology of the Tualatin Valley Region, Oregon, State of Oregon Department of Geology and Mineral Industries, Bulletin 60, 87 p.

PERSONAL COMMUNICATIONS

Randy Goode	Parsons Brinckerhoff; Tri-Met Representative, various dates
William Hunter	Washington County, Project Coordinator, July 3 & 9, 1996
Steve Koegeboehn	Neosho Construction, Project Manager, July 3, 1996

APPENDIX A
PBS SOIL SAMPLING PROCEDURES

PBS SAMPLING PROCEDURES
(SOIL SAMPLES)

During work activities associated with the Allied Auto Site (Westside Lightrail, LS-8), the following sampling procedures were followed during the collection of soil samples.

1. The sampler wore a new pair of disposable latex-gloves for each sample.
2. Soil samples were retrieved from open excavations with on-site excavation equipment due to worker safety precautions.
3. Soil samples were obtained from the toothed area of the excavator bucket. Approximately three inches of soil was scraped away from the soil surface just prior to sample collection.
4. Each sample was placed into a laboratory cleaned sample jar with Teflon lined lids. Samples were prepared to minimize head space within each sample jar.
5. Each sample was issued a project specific identification number.
6. Each sample was immediately placed in cool storage (ice chest).
7. The location, and time of each sample was logged into the sampler's field notebook.
8. Characterization samples were transported to North Creek Analytical accompanied by chain-of-custody documentation.
9. Confirmation samples were transported to American Environmental Network accompanied by chain-of-custody documentation.

7-10-96

Guy M. Neal Date
PBS, Project Investigator

APPENDIX B
NON-HAZARDOUS SPECIAL WASTE MANIFESTS

Manifest

TPS Technologies Soil Recycling
Non-Hazardous Soils

⬇ Manifest # ⬇

Date of Shipment:		Transporter Truck #:			Load #
-	CONSULTANT	FOSS ENV	09	01693	

WASHINGTON COUNTY
155 N FIRST AVENUE, STE 350-18
HILLSBORO, OR 97124
(503) 693-4724
WILLIAM HUNTER
( ) -

PBS ENVIRONMENTAL
1220 SW MORRISON, SUITE 600
PORTLAND, OR 97205
(503) 417-7595
GUY NEAL
(503) 248-0223 1001162

LIGHTRAIL RIGHT-OF-WAY
173RD AND BASELINE
HILLSBORO, OR
( ) -
220T50 ppb
( ) - ppb

TPST SOIL RECYCLERS OF OREGON
9333 NORTH HARBORGATE STREET
PORTLAND, OR 97203
(503) 735-9525
GLENNA MULLAN
(503) 240-1712

( ) -

( ) -

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			82060	33580	48480
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐				2449	

List any exception to items listed above:

***Generator's and/or consultant's certification:** I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Date Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.*

Print or Type Name: Generator ☐ Consultant ☐ Signature and date: Month Day Year

***Transporter's certification:** I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.*

Print or Type Name: Norman Peacher Signature and date: Norman Peacher Month 07 Day 08 Year 96

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name: Glenna Mullan Signature and date: Glenna Mullan 7/8/96

Please print or type. CUSTOMER COPY

Manifest

TPS Technologies Soil Recycling
Non-Hazardous Soils

⬇ Manifest # ⬇

Date of Shipment:		Transporter Truck #:			Load #
- -	CONSULTANT	FOSS ENV	09	01695	

WASHINGTON COUNTY
155 N FIRST AVENUE, STE 350-18
HILLSBORO, OR 97124
(503) 693-4724
WILLIAM HUNTER
( ) -

PBS ENVIRONMENTAL
1220 SW MORRISON, SUITE 600
PORTLAND, OR 97205
(503) 417-7595
GUY NEAL
(503) 248-0223 1001162

LIGHTRAIL RIGHT-OF-WAY
173RD AND BASELINE
HILLSBORO, OR
( ) - pCi/g
220T50 ppm
( ) - ppb ppm

TPST SOIL RECYCLERS OF OREGON
9333 NORTH HARBORGATE STREET
PORTLAND, OR 97203
(503) 735-9525
GLENNA MULLAN
(503) 240-1712

( ) -

( ) -

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			73420	33580	39840
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐				19.92	

List any exception to items listed above:

***Generator's and/or consultant's certification:** I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Date Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.*

Print or Type Name: Generator ☐ Consultant ☐ Signature and date: Month Day Year

***Transporter's certification:** I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.*

Print or Type Name: Benny Walls Signature and date: Month 7 Day 8 Year 96

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name: Glenna Mullan Signature and date: 7/8/96

Please print or type.

CUSTOMER COPY

CUSTOMER REPORT OF

Customer Name: : PBS ENV/WASH CNTY

Reporting FROM : 07-08-96 00:00 TO : 07-08-96 23:59

DATE : 07-08-96
TIME : 16:13:05

Date In	Manifest No.:	Transporter:	Driver's Name:	Gross lb	Tare lb	Net lb	Net Tons	:
07-08-96	09-01695	FOSS ENV	NORMAN PEACHER	82060 #	33080 #	48980		24.49
07-08-96	09-01695	FOSS ENV	BENNY WALLS	73420 #	33580 #	39840		19.92
TOTALS :				155480	66660	88820		44.41

APPENDIX C
DISPOSAL RECEIPTS
USTs & RESIDUAL PRODUCT

DATE		AMOUNT
09 JUL 96	GROSS LBS: 10620 TARE LBS: 9740 NET TONS PRICE 103-00 UNPREPARED 0.540 $53.00 NT	EXT. PRICE $28.62
	CHECK TOTAL:	$28.62 94603110

PLEASE DETACH BEFORE DEPOSITING

SCHNITZER STEEL PRODUCTS CO.
P.O. Box 10047 Portland, Oregon 97210
(503) 286-5771

First Interstate Bank of Oregon, N.A.
N.W. 28th & Yeon Branch
Portland, Oregon

24-12
1239
552

No. 548217

DATE 9 JUL 96 548217

PAY
THE SUM OF TWENTY EIGHT DOLLARS AND 62/100 CENTS $ *****28.62

TO THE ORDER OF
FOSS ENVIRONMENTAL
5420 N. LAGOON AVE
PORTLAND, OR 97217-763

Bra Kelly

⑈548217⑈ ⑆123000123⑆552 002360 40⑈

CONTAINS HAZARDOUS MATERIALS

STRAIGHT BILL OF LADING – SHORT FORM – Original – Not Negotiable

Shipper's No. ____

(Carrier) Foss Environmental SCAC. ____ Carrier's No. 37486

Received, subject to the classifications and tariffs in effect on the date of this Bill of Lading:

at Beaverton ORE, date 7-5-96 from PBS (Light Rail)

the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its own road or its own water line, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained (as specified in Appendix B to Part 1035) which are hereby agreed to by the shipper and accepted for himself and his assigns.

TO: (Mail or street address of consignee for purposes of notification only.)
Consignee: Harbor oil
Street:
Destination: Portland ORE Zip

FROM:
Shipper: PBS Light Rail
Street: 173 Rd & Baseline
Origin: Beaverton ORE Zip

Route:

Delivering Carrier: Foss — Trailer Initial Number: 445 — U.S. DOT Hazmat Reg. Number:

No. of Packages	HM	Description of articles, special marks and exceptions	Hazard Class	I.D. Number	Packing Group	Weight	Class or rate	Labels required	Check column
1		Material Not Regulated By D.O.T. Oily H2O				793	6A		
		Jeff Jansen							

Remit C.O.D. to:
Address:
City: State: Zip:

COD AMT: $
Charges Advanced $

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement: The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of consignor)

C. O. D. FEE: Prepaid ☐ Collect ☐ $

FREIGHT CHARGES ☐ Prepaid ☐ Collect

If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight". Note. – Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding ____ per ____

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Per [signature]

PLACARDS REQUIRED

PLACARDS SUPPLIED ☐ YES ☐ NO - FURNISHED BY CARRIER

DRIVER'S SIGNATURE:

SHIPPER: PBS Environmental
PER: ____ DATE: ____

CARRIER: Foss Environmental
PER: [signature] DATE: ____

Permanent post office address of shipper

EMERGENCY RESPONSE TELEPHONE NUMBER: ( )
Monitored at all times the Hazardous Material is in transportation including storage incidental to transportation (§172.604).

CONTAINS HAZARDOUS MATERIALS

APPENDIX D
LABORATORY ANALYTICAL REPORTS

NORTH CREEK ANALYTICAL
Environmental Laboratory Services

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

July 10, 1996

PBS Environmental Building
Consultants, Inc.
1220 S.W. Morrison, #600
Portland, OR 97205

Attention: Guy Neal

RE: JOB # 8148.00
P.O.# 8148.00
PROJECT - LIGHTRAIL-LS8

Enclosed are test results for your samples received in this lab on Jul. 03, 1996. For your reference, these analyses have been assigned our NCA # P607051.

Solid samples are reported on a dry weight basis except for Oregon DEQ Fuels Methods and where otherwise noted.

This report will be accompanied by a separate Quality Control Data Report, unless omitted by client request.

Please call if you have any questions.

Respectfully,

Howard Holmes
Project Manager

NORTH CREEK ANALYTICAL
Environmental Laboratory Services

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

TPH-HCID per Oregon DEQ
Results In mg/kg (ppm)

Client: PBS Environmental Building
Project: LIGHTRAIL-LS8

NCA Project #: P607051
Matrix: soil
Sampled: 07/03/96
Received: 07/03/96

Client ID	Lab ID	Analyte	Results	MRL	Date Prepared	Date Analyzed
703-90+10-001	P607051-1	Gasoline	DET	20	07/03/96	07/04/96
		Diesel	ND	50		
		Heavy/Oil	ND	100		

MRL Method Reporting Level
ND None Detected at or above the method reporting level
* See Comment Section at end of report

NORTH CREEK ANALYTICAL
Environmental Laboratory Services

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

TPH-G per Oregon DEQ (C6-C10)

Results In mg/kg (ppm)

Client: PBS Environmental Building
Project: LIGHTRAIL-LS8

NCA Project #: P607051
Matrix: soil
Sampled: 07/03/96
Received: 07/03/96

Client ID	Lab ID	Analyte	Results	MRL	Date Prepared	Date Analyzed
703-90+10-001	P607051-1	Gasoline/Related	220	10	07/03/96	07/05/96

MRL Method Reporting Level
ND None Detected at or above the method reporting level
* See Comment Section at end of report

NORTH CREEK ANALYTICAL
Environmental Laboratory Services

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

TPH-418.1M per Oregon DEQ
Results In mg/kg (ppm)

Client: PBS Environmental Building
Project: LIGHTRAIL-LS8

NCA Project #: P607051
Matrix: soil
Sampled: 07/03/96
Received: 07/03/96

Client ID	Lab ID	Analyte	Results	MRL	Date Prepared	Date Analyzed
703-90+10-001	P607051-1	TPH	97	20	07/03/96	07/05/96

MRL Method Reporting Level
ND None Detected at or above the method reporting level
* See Comment Section at end of report

NORTH CREEK ANALYTICAL
Environmental Laboratory Services

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

SURROGATE RECOVERIES (%)

Client: PBS Environmental Building
Project: LIGHTRAIL-LS8

NCA Number: P607051
Received: 07/03/1996

Sample Name	Analyte	Result	Control Limits
TPH-HCID per Oregon DEQ			
703-90+10-001	1-Chlorooctadecane	97	50-150
TPH-G per Oregon DEQ (C6-C10)			
703-90+10-001	4-Bromofluorobenzene	155 *1	63-126
	Trifluorotoluene	134	50-150

MRL Method Reporting Level
ND None Detected at or above the method reporting level
* See Comment Section at end of report

NORTH CREEK ANALYTICAL
Environmental Laboratory Services

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

COMMENTS

Client: PBS Environmental Building
Project: LIGHTRAIL-LS8

NCA Number: P607051
Received: 07/03/1996

1. Surrogate recovery is out of control limits due to high hydrocarbon concentration.

NORTH CREEK ANALYTICAL
Environmental Laboratory Services

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

July 10, 1996

PBS Environmental Building
Consultants, Inc.
1220 S.W. Morrison, #600
Portland, OR 97205

Attention: Guy Neal

Re: Quality Control Data
JOB # 8148.00
P.O.# 8148.00
PROJECT - LIGHTRAIL-LS8

NCA project number P607051.

Note: Surrogate Recoveries are included in the final report.

QUALITY CONTROL DEFINITIONS

METHOD BLANK RESULTS

The method blank is an analyte-free matrix which is carried through the same analytical process as the samples. It is used to document contamination that may result from the analytical process.

SURROGATE STANDARD

A surrogate standard (i.e., a chemical compound not expected to occur in an environmental sample) is added to each sample, blank, and matrix spike sample just prior to extraction or processing. The recovery of the surrogate standard is used to monitor for unusual matrix effects, gross sample processing errors, etc. Surrogate recovery is evaluated for acceptance by determining whether the measured concentration falls within accepted limits.

NORTH CREEK ANALYTICAL
Environmental Laboratory Services

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Accuracy is measured by percent recovery as in:

$$\% \text{ Recovery} = \frac{\text{(Measured Concentration)}}{\text{(Actual Concentration)}} \times 100$$

Precision is measured using duplicate tests by relative percent difference.

$$\text{RPD} = \frac{\text{(Result of Test 1 - Result of Test 2)}}{\text{(Result of Test 1 + Result of Test 2)/2}} \times 100$$

If you should have any questions concerning this report, please contact me.

Sincerely,

Howard Holmes
Project Manager

NORTH CREEK ANALYTICAL
Environmental Laboratory Services

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

BATCH QUALITY CONTROL RESULTS
TPH-HCID per Oregon DEQ

Client: PBS Environmental Building
Project: LIGHTRAIL-LS8

NCA Project #: P607051
Received: 07/03/96

METHOD BLANK
Batch # FA96054a
Results In mg/kg (ppm)

Compound	Result	MRL
Gasoline	ND	20
Diesel	ND	50
Heavy/Oil	ND	100
Date Prepared	07/03/96	
Date Analyzed	07/04/96	

Surrogate Recovery (%)	Result	Control Limit
1-Chlorooctadecane	95	50-150

NORTH CREEK ANALYTICAL
Environmental Laboratory Services
BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

BATCH QUALITY CONTROL RESULTS
TPH-G per Oregon DEQ (C6-C10)

Client: PBS Environmental Building
Project: LIGHTRAIL-LS8
NCA Project #: P607051
Received: 07/03/96

METHOD BLANK
Batch # BT96041a
Results In mg/kg (ppm)

Compound	Result	MRL
Gasoline/Related	ND	2.0
Date Prepared	07/03/96	
Date Analyzed	07/08/96	

Surrogate Recovery (%)	Result	Control Limit
4-Bromofluorobenzene	94	63-126
Trifluorotoluene	85	50-150

DUPLICATE
Batch # BT96041a
Results In mg/kg (ppm)
Duplicate ID P607020-18

Compound	Sample Conc	Dup Conc	RPD	QC Limit RPD
Gasoline	536	681	24	50

LABORATORY CONTROL SAMPLE
Batch # BT96041a
Results In mg/kg (ppm)

Compound	True	Found	% Rec	QC Limit % Rec
Gasoline	31	36.9	119	50-150

NORTH CREEK ANALYTICAL
Environmental Laboratory Services

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

BATCH QUALITY CONTROL RESULTS
TPH-418.1M per Oregon DEQ

Client:	PBS Environmental Building	**NCA Project #:**	P607051
Project:	LIGHTRAIL-LS8	**Received:**	07/03/96

METHOD BLANK
Batch # FB96035a
Results In mg/kg (ppm)

Compound	Result	MRL
TPH	ND	20
Date Prepared	07/03/96	
Date Analyzed	07/05/96	

DUPLICATE
Batch # FB96035a **Duplicate ID P607051-1**
Results In mg/kg (ppm)

Compound	Sample Conc	Dup Conc	RPD	QC Limit RPD
TPH (ap)	97.4	52.2	–	50

(ap) RPD is not reported for sample concentrations less than 5 times the MRL.

LABORATORY CONTROL SAMPLE
Batch # FB96035a
Results In mg/kg (ppm)

Compound	True	Found	% Rec	QC Limit % Rec
TPH	125	59.7	48	30-134

28.3

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508 (206) 481-9200 FAX 485-2992
East 11115 Montgomery, Suite B, Spokane, WA 99206-4779 (509) 924-9200 FAX 924-9290
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132 (503) 643-9200 FAX 644-2202

NORTH CREEK ANALYTICAL
Environmental Laboratory Services

CHAIN OF CUSTODY REPORT

Work Order # P607051

REPORT TO:
ATTENTION: GUY NEAR/PBS ENVIRONMENTAL
ADDRESS: 1220 SW MORRISON, #400
PORTLAND, OR 97205
PHONE: 248-1939 FAX: 248-0223
PROJECT NAME: LIGHTRAIL - LSD
PROJECT NUMBER: ~~NON-LSD~~ 8148.00
SAMPLED BY: GUY NEAR

INVOICE TO:
ATTENTION: GUY NEAR
ADDRESS: SAME
P.O. NUMBER: ~~NCA~~ 8148.00 NCA QUOTE #:

TURNAROUND REQUEST in Business Days *
Organic & Inorganic Analyses: [10 Standard] [7] [5] [4] [3] [2] [1] [Same Day]
Fuels & Hydrocarbon Analyses: [5 Standard] [3-4] [2] [X] [Same Day]
[OTHER] Specify:
* Turnaround Requests less than standard may incur Rush Charges.

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)	Analysis Request: HCID	TPH-G	TPH 418.1M	MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS
1. 703-90+10-001	7/3/96 1435		X	X	X	SOIL	1	
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								

RELINQUISHED BY (Signature): [signature] DATE: 7-3-96
PRINT NAME: GUY NEAR FIRM: PBS TIME: 1448

RECEIVED BY (Signature): Sara McClurg DATE: 7-3-96
PRINT NAME: Sara McClurg FIRM: NCA TIME: 1448

RELINQUISHED BY (Signature): DATE:
PRINT NAME: FIRM: TIME:

RECEIVED BY (Signature): DATE:
PRINT NAME: FIRM: TIME:

ADDITIONAL REMARKS:

PAGE: OF

GAS CHROMATOGRAPHY RESULTS

TEST:	TPH-GASOLINE (OREGON)	**AEN I.D.:**	607535
CLIENT:	PBS Environmental	**DATE SAMPLED:**	07/05/96
PROJECT #:	8148.00	**DATE RECEIVED:**	07/05/96
PROJECT NAME:	Light Rail LS8	**DATE EXTRACTED:**	07/05/96
SAMPLE MATRIX:	SOIL	**UNITS:**	mg/kg

AEN ID	CLIENT ID	DATE ANALYZED	DF	GASOLINE (C6 - C10)	TFT (50%-142%)
607535-0	Method Blank	07/08/96	1	< 5.0	112%
607535-1	705-90+10-001	07/08/96	1	< 5.0	55%
607535-2	705-90+10-002	07/08/96	1	< 5.0	89%
607535-3	705-90+10-003	07/08/96	1	< 5.0	85%
607535-4	705-90+10-004	07/08/96	1	< 5.0	83%
607535-5	705-90+10-005	07/08/96	1	< 5.0	79%

Analyst: CS 7/8/96

Reviewer: 7/8/96

Analytical Technologies, Inc.
17400 S.W. Upper Boones Ferry Rd., Suite 270
Durham, Oregon 97224 • (503) 684-0447 FAX: (503) 620-0393

DATE 1 - - PAGE 1 OF 1

Chain of Custody

LABORATORY NUMBER: 60753
PROJECT NOTICE NUMBER:

PROJECT MANAGER: GUY NOAH
COMPANY: PBS ENVIRONMENTAL
ADDRESS: 1220 SW MORRISON, #400
PORTLAND, OR 97205
PHONE: 248-1939 SAMPLED BY: NOAH

SAMPLE DISPOSAL INSTRUCTIONS:
☐ ATI Disposal @ $5.00 each ☐ Return

ANALYSIS REQUEST

SAMPLE I.D.	DATE	TIME	MATRIX	LAB #	PETROLEUM HYDROCARBONS: TPH-HCID State: OR / WA	TPH-G State: OR / WA	TPH-D State: OR / WA	418.1 State: OR / WA	EPA 418.1	8015M	8020/M-BETX only	8310 HPLC PAHs	7421 Lead	% Moisture	ORGANICS: 8010 Halogenated VOCs	8020 Aromatic VOCs	8040 Phenols	8240 GC/MS Volatiles	8270 GC/MS Semivolatiles	8080 OC Pesticides/PCBs	8080M PCBs only	INORGANICS: Drinking Water (6)	Priority Pollutant Metals (13)	Cyanide	TCLP: TCLP Metals (8)	TCLP Volatiles 8240 ZHE/CT	TCLP Semivolatiles 8270	OTHER	NUMBER OF CONTAINERS
705-90+10-001	7-5-96	1225	SOIL	1		X																							1
705-90+10-002	"	1225	"	2		X																							1
705-90+10-003	"	1225	"	3		X																							1
705-90+10-004	"	1233	"	4		X																							1
705-90+10-005	"	1238	"	5	X																								1

PUSH

PROJECT INFORMATION
PROJECT NUMBER: 8148.00
PROJECT NAME: LIGHT RAIL - LSB
PURCHASE ORDER NUMBER: 8148
ONGOING PROJECT? YES ☐ NO ☒

SAMPLE RECEIPT
TOTAL NUMBER OF CONTAINERS: 5
COC SEALS/INTACT? Y \ N \ NA: NA
RECEIVED INTACT? Y \ N: Y
RECEIVED COLD? Y \ N:

PRIOR AUTHORIZATION REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) ☐ 2 WKS (RUSH) ☒ 24 HR ☐ 48 HRS ☐ 72 HRS ☐ 1 WK
GREATER THAN 24 HR. NOTICE? YES ☐ NO ☐ (LAB USE ONLY)
SPECIAL INSTRUCTIONS:
NEED TUESDAY A.M.

Received via:

RELINQUISHED BY:	RELINQUISHED BY:	RELINQUISHED BY:
Signature: Time: 1325	Signature: Time:	Signature: Time:
Printed Name: Date: GUY NOAH 7-5-96	Printed Name: Date:	Printed Name: Date:
Company: PBS ENVIRONMENTAL	Company:	Company:
RECEIVED BY:	**RECEIVED BY:**	**RECEIVED BY: (LAB)**
Signature: Time:	Signature: Time:	Signature: Time: 1320
Printed Name: Date:	Printed Name: Date:	Printed Name: Date: LISA MCKOWN 7/8/96
Company:	Company:	Analytical Technologies, Inc.

ATI Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001 • Portland (503) 684-0447 • Fort Collins (303) 490-1511
DISTRIBUTION: White, Canary - ATI • Pink - Originator

P.2/3
JUL 08 '96 05:01PM AEN PORTLAND

APPENDIX E
DEQ MATRIX CHECKLIST

Matrix Checklist

X 1. The release of petroleum has been reported to the Department of Environmental Quality (220).

X 2. The Matrix score sheet attached to this checklist has been completed for this site, unless the site is being cleaned up to the most stringent cleanup level (320).

NA 3. If the cleanup level used for this site is one of the three diesel cleanup levels, a hydrocarbon identification (HCID) test has been performed which proves that the soil contamination is not from gasoline (335(3)).

X 4. A sketch has been made of this site (345(1)). This sketch clearly shows:

   X a. The location of all buildings and other key features, both man-made and natural;

   X b. The names of adjacent streets and properties;

   X c. The location of all excavations including those there were for the removal of tanks and associated piping as well as those that were strictly for the removal of contaminated soils;

   X(NA) d. The location of all product storage tanks, lines and dispensers, including those there were decommissioned as well as those that remain on the site; and

   X e. The locations from which all soil ~~and water~~ samples were collected.

NA 5. If any contaminated soil in excess of matrix limits has been left on site, the reason for leaving this soil has been explained and the requirements of 355(4)f have been met.

NA 6. If water was present in the tank pit, the Department was notified, the water was pumped from the pit, and the requirements of 340(4) have been met.

X 7. All soil and/or water samples have been collected, coded, stored and shipped as specified in the rules, and proper chain-of-custody forms have been filled out (345).

X 8. All final confirmatory soil samples have been analyzed using the methods required by the Department (350).

NA 9. If a tank was decommissioned in place, the Department gave prior approval for a site-specific sampling plan (340(5)).

X 10. A report has been prepared which contains all of the information required by the rules (360).

APPENDIX F
DEQ MATRIX SCORE SHEET

MATRIX SCORE SHEET

1. Depth to Groundwater < 25 feet (10) 25-50 feet (7) 51-100 feet (4) > 100 feet (1)	10
2. Mean Annual Precipitation > 40 inches (10) 20-40 inches (5) < 20 inches (1)	10
3. Native Soil Type Coarse sands, gravels (10) Silts, fine sands (5) Clays (1)	5
4. Sensitivity of Uppermost Aquifer Sole Source (10) Current Potable (7) Future Potable (4) Non-potable (1)	4
5. Potential Receptors Many, near (10) Medium (5) Few, far (1)	5
TOTAL SCORE =	34

Matrix Score	Cleanup Level in ppm TPH	
	Gasoline	Diesel
Level 1: > 40 pts.	40	100
Level 2: 25-40 pts.	**80**	500
Level 3: < 25 pts.	130	1000

APPENDIX G
UST DECOMMISSIONING CHECKLIST

Oregon Department of Environmental Quality

UNDERGROUND STORAGE TANK DECOMMISSIONING/SERVICE CHANGE REPORT

DEQ FACILITY NUMBER: _____ DATE: _____

FACILITY NAME: _____

FACILITY ADDRESS: _____

_____

PHONE: _____

The following information MUST be submitted by the underground storage tank owner, operator or licensed DEQ Supervisor within 30 days following completion of the tank decommissioning or changing tank contents to a non-regulated substance. (OAR 340-150-001 though -150)

The attached supplemental checklist should be prepared by the person performing the decommissioning or service change. The checklist should be provided to DEQ and the tank owner to demonstrate that all required practices were followed.

Ordinarily the checklist is filled out by the DEQ licensed Service Provider or Supervisor. Owners who wish to personally decommission a tank or change service must follow all DEQ and other applicable standards. The owner should contact the DEQ Regional Office prior to starting the work to receive current copies of underground storage tank regulations.

A. DATES:

Decommissioning/Service Change Notice - Date Submitted: 7-3-96 (EMERGENCY REMOVAL) (30 days before work starts)

Work Start Telephone Notice - Date Submitted: 7-3-96 (3 working days before work starts)

DEQ Person Notified: ANDRE POLLOCK

Date Work Started: 7-5-96

Date Work Completed: 7-5-96

Note: Provide the following information if any soil or water contamination is found during the decommissioning or service change Contamination must be reported by the UST owner or operator within 24 hours. The licensed service provider must repor contamination within 72 hours after discovery unless previously reported.

Date Contamination Reported: 7-3-96 By: RANDY GOODE (PARSONS BRINCKERHOFF) TRI-MET REPRESENTATIVE

DEQ Person Notified: ANDRE POLLOCK

Backfill Telephone Notice - Date Called: 7-9-96 (before backfilling)

DEQ Person Notified: ANDRE POLLOCK

B. PERMITS:

Note: DEQ permits or an addendum to the UST permit(s) may be needed where soil or water cleanup is required.

DEQ Water Discharge Permit #: NA Date: _____

Disposed to (Location): _____

DEQ Solid Waste Disposal Permit #: NA Date: _____

B. PERMITS (Continued)

UST Soil Treatment Permit Addendum - Type: _____ Date: _____

Soil Disposal or Treatment Location: TPST, PORTLAND, OREGON

C. TANK INFORMATION:

Tank #	DEQ UST Permit	Tank Size in (Gallons)	Product: Gasoline, Diesel, Used Oil, Other?		Closure or Service Change?			Tank to be Replaced?	
			Present	New	Tank Removal	Closure∞ Inplace	Other∞ Use	Yes*	No
1		500	GASOLINE		X				X
2		500	GASOLINE		X				X

* Where decommissioned tank(s) are replaced by new underground storage tanks the UST owner or operator must submit a new permit application containing information on the new tanks 30 days before placing them in service.

∞ Submit a soil sampling plan to the DEQ regional office and receive plan approval prior to starting work if 1) tank is to be decommissioned in-place, 2) tank contents are changed to a non-regulated substance, 3) tank contains a regulated substance other than petroleum, or 4) tank changed to non-regulated use.

D. DISPOSAL INFORMATION:

Tank #	Tank & Piping Disposal Method				Disposal Location of Tank Contents *	
	Scrap	Land-fill	Other	Identify Location & Property Owner	Liquids	Sludges *
1	X				HARBOR OIL	
2	X				HARBOR OIL	

* Note: The tank contents, the tank and the piping may be subject to the requirements of Hazardous Waste regulations. If you have questions, contact the DEQ Hazardous Waste Section at (503) 229-5913 or DEQ regional office hazardous waste staff.

E. CONTAMINATION INFORMATION:

Tank #	Ground* water in pit?	Product odor in soil?	Product stains in soil?	Number of Samples	Laboratory (Name, City, State, Phone)
1		X	X	5	AMERICAN ENVIRONMENTAL NETWORK
2		X	X		

* Note: Sampling is required if groundwater is encountered. See cleanup rules.

F. SITE SKETCH: (Show location of adjacent roads, property lines, structures, dispenser, & all USTs) (Show North, general direction of ground slope and soil sample locations. Sketch does not need to be drawn to scale. You may attach a separate drawing.)

SEE REPORT

G. WORK PERFORMED BY:

DEQ Service Provider's License #: 12391 Construction Contractors License #: 89527

Name: RICH JANECEK (FOSS ENVIRONMENTAL

Telephone: 283-1150

DEQ Decommissioning Supervisor's License #: 12832

Name: GUY NEAL

Telephone: 248-1939

DEQ Soil Matrix Service Provider's License #: 12392 (If applicable)

Name: FOSS ENVIRONMENTAL (RICH. JANECEK)

Telephone: 283-1150

DEQ Soil Matrix Supervisor's License #: 12833 (If applicable)

Name: GUY NEAL

Telephone: 248-1939

H. ATTACHMENTS TO THIS REPORT:

1. Attach a copy of the laboratory report showing the results of all tests on all soil and water samples. The laboratory report must identify sample collection methods, sample location, sample depth, sample type (soil or water), type of sample container, sample temperature during transportation, types of tests, and copies of analytical laboratory reports, including QA/QL information. Include laboratory name, address and copies of chain-of-custody forms.

2. If contamination is detected and a Level 2 or Level 3 soil matrix cleanup standard is selected attach a copy of the soil matrix analysis for the site including methods of determining soil type, depth to groundwater, and sensitivity of uppermost aquifer.

I. REPORT FILING:

This report, signed by the tank owner or operator, complete with all applicable attachments must be filed with DEQ headquarters within 30 days after the excavation is backfilled or change-in-service is complete. Contact the DEQ regional office prior to filing this report where special circumstances exist at the site (such as water in pit, remaining pockets or contamination, etc.).

NOTE: If contamination was found during site assessment at decommissioning or change-in-service and reported to DEQ regional office, this report may be submitted with either the first interim cleanup report or the final cleanup report, whichever is first.

Return Completed and Signed Form to: Department of Environmental Quality
UST Program - Decommissioning Report
811 S.W. Sixth Ave.
Portland, Oregon 97204

Or FAX Completed and Signed Form to: (503) 229-6954

I have personally reviewed this report and the attachments and find them to be true and complete.

Signature: _____ Date: _____
(Owner or Operator)

For information: (503) 229-5733 or Toll Free in Oregon UST HELPLINE 1-800-742-7878

APPENDIX H
UST DECOMMISSIONING PERMITS

FIRE MARSHAL'S OFFICE
APPLICATION AND PERMIT

BEAVERTON: ☐ **TVF&R:** ☒

Business:
Name: WASHINGTON COUNTY - LIGHTRAIL-LSB
Address: 173rd & BASELINE
Phone: 693-4724
City/County: WASHINGTON
Permit Location: _____

Business Owner:
Name: WASHINGTON COUNTY
Address: 155 N 1st AVE. SUITE 350-18
Signature: [signature] (GUY NEAL, PBS for FOR WILLIAM C. HUNTER OF WA CTY
City: HILLSBORO, OR 97124

FMZ#: _____
AMOUNT RECEIVED: _____
(Completed by Fire Marshal's Office)

☐ **PERMIT:**
- ☐ Carnivals & fairs, $70.00
- ☐ Explosives (use & handling), $50.00
- ☐ Flammable gases (LPG Tank, see below), $30.00
- ☐ Tank (flammable or combustible liquids) installation, $50.00 (Additional tanks $5.00)
- ☐ Tank repair or tank replacement of piping, $39.00
- ☐ Pyrotechnical special effects material, $39.00
- ☐ Tents or temporary membrane structures (in excess of 200 square feet), $39.00
- ☐ Canopies (in excess of 400 square feet), $39.00
- ☐ Haunted house, $15.00

☐ **PLANS REVIEW:**
- ☐ Plan review fees of commercial buildings shall be 40% of the permit fee. (Minimum $39.00)
- ☐ Medical gas systems ($39.00)

Describe: DECOMMISSION 2 UNDERGROUND STORAGE TANKS FOUND DURING CONSTRUCTION ACTIVITIES RELATED TO LIGHT RAIL, LINE SECTION 8. TECHNICAL CONTACT IS GUY NEAL, PBS 417-7595 WASHINGTON COUNTY CONTACT IS WILLIAM HUNTER 693-4724

DECOMMISSIONING IS PLANNED TO BEGIN FRIDAY 7/5/96 AT ABOUT 900 AM. FOSS ENVIRONMENTAL WILL CONDUCT DECOMMISSIONING, PBS ENV. WILL CONDUCT SITE ASSESSMENT

Notice of Installation of Liquefied Petroleum Gas Tank

Make of Tank 2 - 500 GALLON STEEL Type of Installation _____ Year Built _____

Flow Rate Relief Valve (CFM) _____ Water Capacity _____ Container Serial No. _____

Name of ~~Installer~~ DECOM. (Co.) PBS ENVIRONMENTAL & FOSS ENVIRONMENTAL DECOM. Date Tank ~~Installed~~ FRI 7/5/96

[signature] #12832
Installer's Signature, Title & License No.

PERMIT NO. _____

This application is ☒ approved
☐ not approved
Insofar as Fire Codes are concerned.

[signature]
(Inspector)
DFM Plans Exam

White - Fire Marshal's Office
Yellow - Finance
Pink - Applicant
Gold - File