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*Prepared for:*

*Washington Department of Ecology*

*Prepared by:*

*Enviros, Inc.  
210 Marina Park Building  
25 Central Way  
Kirkland, Washington 98033*

***FINAL REPORT***

***Underground Storage Tank  
Decomissioning at the  
Maralco Aluminum Site  
7730 South 202nd Street  
Kent, Washington***

***July 31, 1995***

***E1/941008***

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## 1.0 INTRODUCTION

Enviros was contracted by the State of Washington Department of Ecology (Ecology) to oversee the decommissioning of a 35,000-gallon diesel underground storage tank (UST), and to conduct a site assessment per guidelines set by the Washington Department of Ecology (Ecology) UST Program. The site is the Maralco Aluminum Company (Maralco) site located at 7730 South 202nd Street in Kent, Washington (Figure 1). The tank was removed on June 29, 1995, by Omega Services. The purpose of this investigation was to document the decommissioning of the tank and to determine if any releases associated with the tank had occurred. Work was conducted under work order ENV-0012 through Ecology's Headquarters in Olympia, Washington under the direction of Charles Hinds, P.E.

The UST was located near the northwestern corner of the Maralco site (Figure 2). The subject site occupies that area to the south and east of the tank, a vacant property is present to the north of the site, and a railroad easement and rail line are present to the west. The UST was located directly north of the warehouse building.

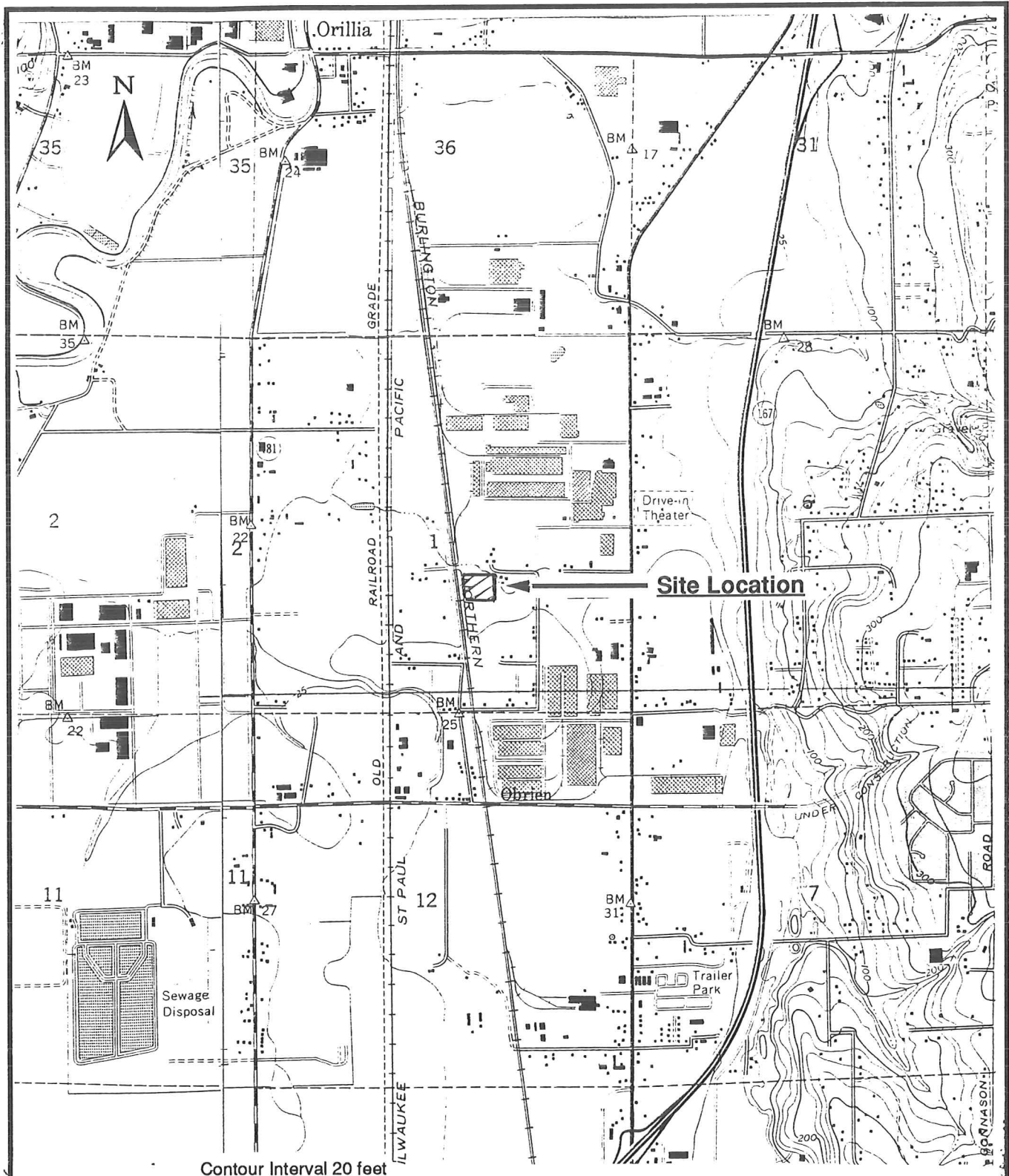
## 2.0 GEOLOGY AND HYDROLOGY

Based on visual observations made during excavation, the subsurface stratigraphy was classified as imported fill, surrounded by native soils. The fill consisted of pit run with sand, gravel, and cobbles up to two feet in diameter. According to the King County Soil Survey (1952), the native soil in the area is classified as Puyallup fine sandy loam with 0 to 2 percent slopes. The Puyallup series is made up of generally well drained soils. Observations indicate that the outside the tank pit paving is underlain by 6 to 12 inches of coarse gravel with cobbles and sand. Beneath that is an organic layer followed by interbedded silty sand with clay layers and paleosols.

The site is located approximately 1.25 miles east of the Green River in North Kent and Highway 167 is located approximately 1 mile to the east of the subject site. The subject site has an approximate elevation of 15 feet above mean sea level. Groundwater was encountered at the site during excavation and UST decommissioning activities at a depth of approximately 10 feet below the ground surface. There is very little topographic variation in the vicinity of the site. The presence of the Green River to the east of the site and hills to the east of the site suggest that groundwater may flow in a westerly to northerly direction. A small seasonal stream crosses the site from the southeast corner to near the center of the north property line.

## 3.0 UST DECOMMISSIONING ACTIVITIES

Mr. Stephen Hoedemaker of Enviro, a licensed Washington Site Assessor, was present at the site on June 27 to June 30, 1995 to observe the removal of the diesel UST and perform related site assessment activities. Enviro performed soil sample collecting as part of the required site assessment. Based upon observations of the tank and associated piping during the removal, it appears that the tank was used to fuel vehicles, and the presence of piping that extended from a pump and filter at the east end of the tank toward the warehouse building suggests that the tank may have also been used to fuel one or more of the furnaces within the building.



Source: U.S.G.S. 7.5x15 Minute Quadrangle Map of Renton and Des Moines, Washington, dated 1953, photorevised 1949 and 1973.

Scale: 1" = 2,000'

Figure 1. Vicinity Map of the Maralco Aluminum Recycling Site Located at 7730 South 202nd Street, Kent, King County, Washington.

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Drawn By: AIS Date: 7/27/95

Approved By: *[Signature]*

Date: 7/29/95



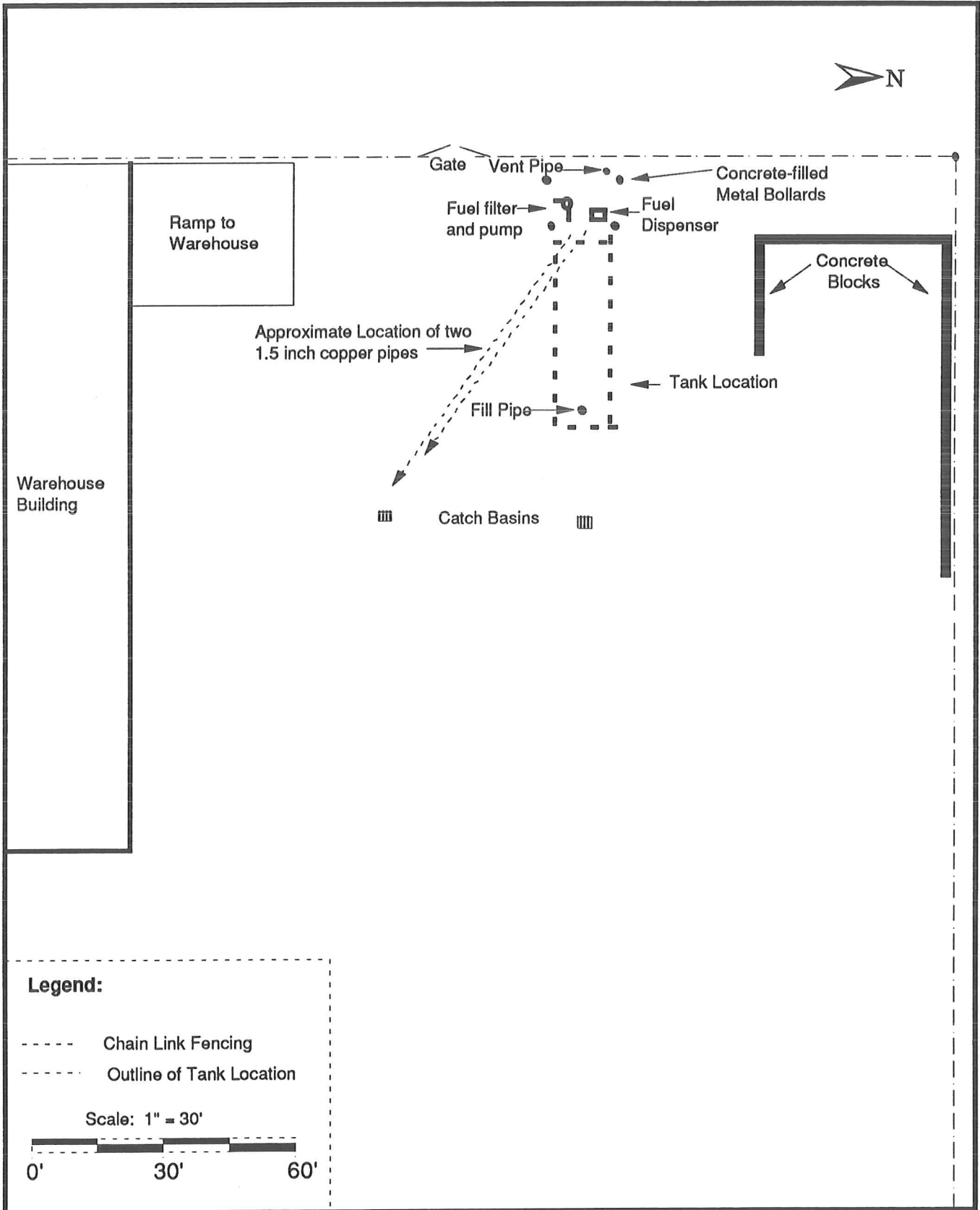


Figure 2. Site Sketch of the Maralco Aluminum Recycling Site Located at 7730 South 202nd Street, Kent, King County, Washington.

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Drawn By: SDH Date: 7/30/95

Approved By: *[Signature]*

Date: 7/29/95

On June 26, 1995, Coastal Tank Cleaning removed approximately 1,600 gallons of diesel fuel from the tank and subsequently triple rinsed it with soapy water (Appendix A: Tank Closure Documents). On June 27, 1995 removal of asphalt from the top of the tank began. Excavations were performed at the east and west ends of the tank to confirm tank orientation. Fine grained soils located in both excavations exhibited a discernible diesel odor. The fill pipe was located at the east end of the tank and the pump island was located at the west end of the tank. Contamination in these areas may be due to historical overfilling of the tank and/or leaks in associated piping.

During the excavation process it was determined that the tank was covered with blanket of concrete. In consultation with the Ecology Project Manager, a change order was issued to remove the concrete from the top of the tank. This work was begun on June 27, 1995.

At the time of installation, concrete had been poured over the top of the tank and down the sides. In areas this concrete blanket was up to six feet thick. In general, the saddle was approximately one to three feet thick across the top of the tank. The concrete had been reinforced with steel bars. The removal of the concrete saddle was completed by the evening of June 28.

On the morning of June 29, 1995, the tank was floating in the excavation and a trackhoe was used to weight it down. Sound Testing provided a marine chemist to inert the tank prior to removal. Carbon dioxide was used to inert the tank and the lower explosion limit and oxygen levels were subsequently measured. A copy of the certificate is attached in Appendix A. At 7:00 A.M. the marine chemist certified that the tank was safe for removal and transport. The tank was removed using a crane. Visual inspection of the tank indicated that the tank was generally in good condition but did have three pin point holes near the west end of the tank. The tank was removed and taken off-site by Coastal Tank Cleaning for final decommissioning. The tank was disposed as scrap metal in accordance with regulations. Associated piping and pumps were disposed off-site by the contractor. Two copper fuel lines (approximately 1.5 inches in diameter) were removed up to the southern edge of the excavation and capped in place.

Water within the excavation had a slight frothy appearance and some free product was visible. Sorbent pads were used to remove free product from the surface of the water within the excavation.

Excavated soil was stockpiled adjacent to the excavation. This stockpiled soil was screened using a photoionization detector (PID) for a preliminary assessment of the existence of diesel-affected soils. Emissions from some gray lenses of clay in the stockpiled soil were detected as organic vapors on the PID. Due to mixing of stockpiled soils during the tank excavation, the exact origin of contaminated soil was difficult to ascertain. Approximately 150 yards of soil were stockpiled on plastic sheeting adjacent to the excavation. The soils with the highest organic vapor levels were composited and collected for laboratory analysis (SP-1, SP-2, and SP-3). Sample SP-1 was collected as a composite from the eastern portion of the stockpile, sample SP-2 was collected as a composite from the center of the stockpile, and SP-3 was collected as a composite from the western end of the stockpile.

After removal of the UST, soil was screened from the sidewalls and the bottom of the excavation for organic vapors. In general, post-excavation samples were collected from the more fine-grained native soil located outside the tank pit. Based on field screening and visual observations, contamination appeared to have been localized to backfilled soil immediately surrounding the tank. Elevated organic vapor readings were observed in soil along the south sidewall. This may be the result of leaks in tank piping that extended from the tank south toward the warehouse. Samples were collected from the four sidewalls (PE-1 to PE-4) and

from the bottom of the excavation with the use of a track-hoe (Figure 3). The sample from the bottom of the excavation (PE-5) was collected by digging beneath coarse-grained backfill material to fine, gray, silty sand. Due to the proximity of the tank to the associated piping, the west sidewall sample (PE-2) was collected in the area directly beneath the former pump island. Sidewall samples were collected at a depth of between 8 and 10 feet below the ground surface. The sample collected from the bottom of the excavation was collected from approximately 17 feet below the ground surface, below the coarse-grained backfill material.

Per Ecology's direction, excavated soil and concrete were backfilled into the excavation. Concrete was backfilled to above the water level within the excavation (approximately 8 feet below the ground surface) and stockpiled soils were placed on top of the concrete. Soils were compacted and imported gravel was used to bring the excavation up to grade. Old asphalt was disposed off-site and new asphalt paving was placed over the excavation area.

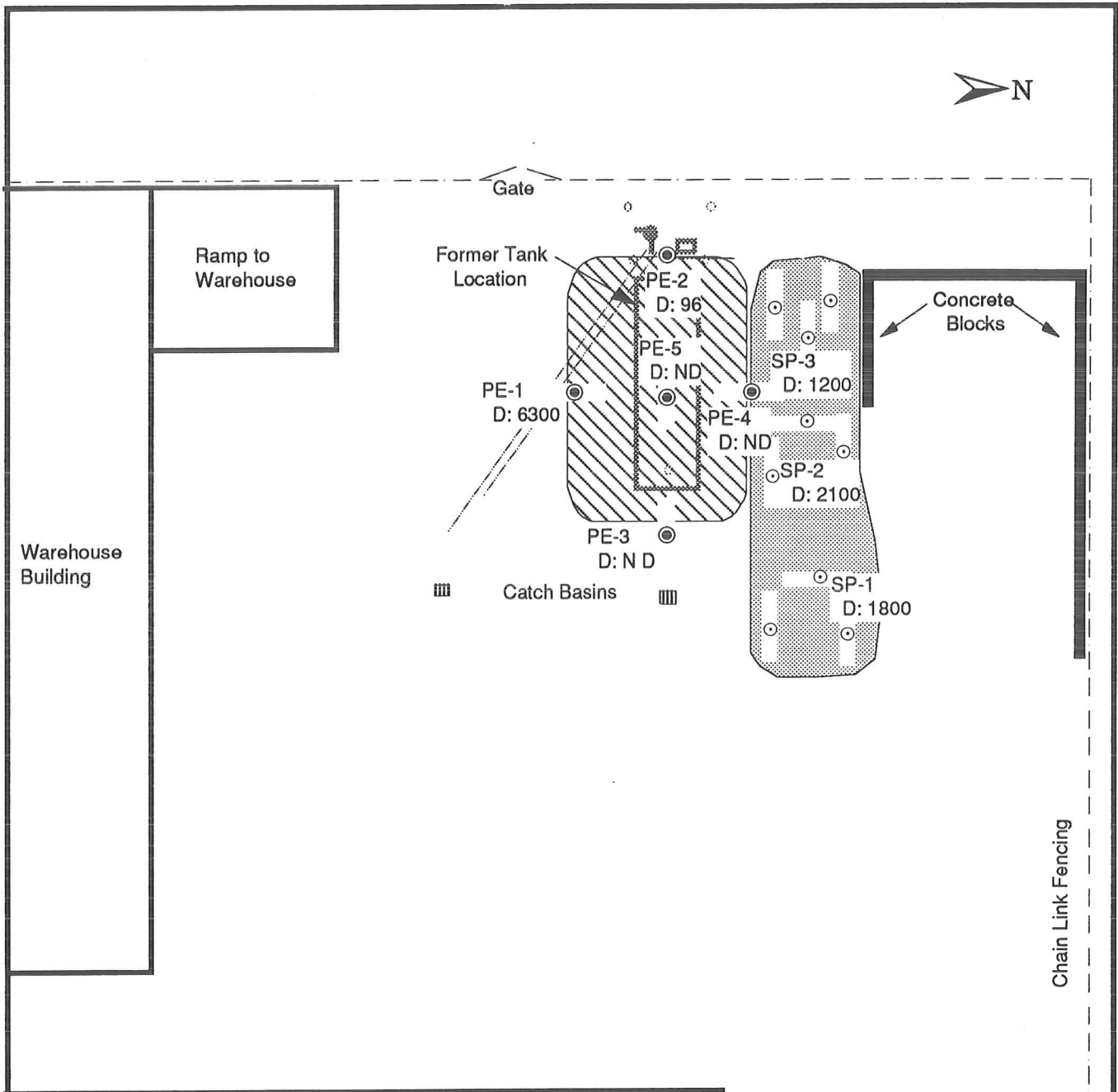
#### 4.0 ANALYTICAL RESULTS

The eight soil samples collected during the field investigation were analyzed for diesel using Method WTPH-D. Two of the five post-excavation samples had elevated concentrations of diesel. One of these samples (PE-1) had a diesel concentration above the MTCA Method A cleanup level of 200 parts per million (ppm). All of the stockpile samples had elevated concentrations of diesel above the MTCA Method A cleanup level for diesel. See Table 1 for tabulated analytical results. The analytical results are presented in Appendix B.

**Table 1. Analytical Results for Soil**

<b>Sample ID</b>	<b>Diesel (ppm)</b>
SP-1	<b>1800</b>
SP-2	<b>2100</b>
SP-3	<b>1200</b>
PE-1	<b>6300</b>
PE-2	96
PE-3	ND
PE-4	ND
PE-5	ND
<b>MTCA Method A Cleanup Level</b>	<b>200</b>

Bold - Concentrations that exceed the MTCA Method A Cleanup Level.



**Legend:**

- PE-3 Excavation Sample Location with Diesel Concentration (WTPH-D)  
D: N D
  - SP-1 Stockpile Composite Sample Location with Diesel Concentration (WTPH-D)  
○ D: 1800
- All concentrations are given in parts per million (ppm).
- ND - Not Detected

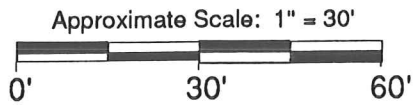


Figure 3. Excavation & Soil Stockpile Location with Analytical Results at the Maralco Aluminum Recycling Site Located at 7730 South 202nd Street, Kent, King County, Washington.

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Drawn By: SDH Date: 7/31/95

Approved By: *[Signature]* Date: 7/31/95

## 5.0 FIELD QUALITY ASSURANCE AND QUALITY CONTROL

Soil samples were collected from the excavator bucket by hand using latex gloves. The disposable latex gloves were changed between collection of all samples. The soil was placed into four-ounce wide mouth glass jars with plastic caps and Teflon<sup>®</sup> septa. Each soil sample container was filled with soil and hand packed to minimize the amount of head space in the jar. All samples were labeled, and stored on ice in a cooler until delivered to the laboratory. The samples were delivered to On-site Environmental Inc. in Redmond, Washington within the acceptable holding time.

A chain-of-custody was maintained from the time the samples were collected until they were relinquished to the laboratory and the analyses performed. Recorded sample information included: time and date of collection, sample identification number, analysis to be performed, preservative used, and special instructions as appropriate. The laboratory used internal precision and accuracy checks that are reported with the analytical results in Appendix A.

## 6.0 SUMMARY AND CONCLUSIONS

### 6.1 Summary

One 35,000-gallon diesel UST was excavated and removed from the site. The tank was decommissioned by the contractor and disposed off-site as scrap metal in accordance with applicable laws and regulations. Confirmatory sampling showed that some soil remaining in the excavation was above the MTCA Method A cleanup level for diesel of 200 ppm. The soil removed from the excavation also had diesel contamination above the MTCA Method A cleanup level for diesel. This soil was backfilled into the excavation. Groundwater was not assessed and remediation of contamination was not undertaken during this phase of the UST decommissioning activities.

### 6.2 Conclusions

Based upon observations of the tank piping, it appears that the tank was used to fuel vehicles and as a fuel source within the on-site warehouse. The south side wall sample had elevated concentrations of diesel. This contamination may be the result of leaking copper piping that extended from the pump island area southeast, toward the warehouse. Contamination around the tank appeared to be limited to the soil immediately surrounding the tank, as indicated by the elevated diesel concentrations within the stockpile. This contamination may have been the result of historical overfilling of the tank near the east end, and from piping leaks beneath the pump island. It is possible that the concrete blanket effectively kept much of the contamination from extending into immediately surrounding soils.

No warranty is expressly stated or implied in this report with regard to the condition of the substrate and groundwater at and/or below the surface of the property with the exception of the soil samples collected and parameters analyzed in this assessment.

This report reflects our professional opinions, interpretations, recommendations and observations of property conditions on the day of the assessment only, and does not cover any other conditions subsequently found on the property that were not visible during the assessment. The scope of this limited environmental assessment does not include a formal review of compliance with federal, state and local environmental regulations.

The findings and conclusions documented in this report have been prepared in a manner consistent with the level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area, and in accordance with services contracted between Enviro and Client.

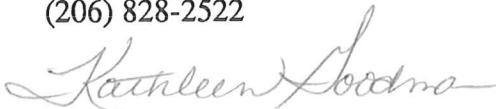
It has been a pleasure to provide our environmental services to Ecology during this project, and if you have any questions about this report or remediation options, please call us at the numbers provided below.

Sincerely,

**Enviros Incorporated**



Stephen Hoedemaker  
Project Environmental Scientist  
Washington Site Assessor #32-US-32001307  
(206) 828-2522

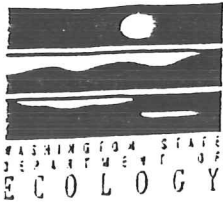


Kathleen Goodman, R.G.  
Principal Geoscientist  
(206) 828-2503

cc: Files  
City of Kent  
Charles Hinds (Ecology)  
David South (Ecology NWRO)  
UST Reporting (Ecology NWRO)

**APPENDIX A:  
TANK CLOSURE DOCUMENTS**





**UNDERGROUND STORAGE TANK  
TEMPORARY/PERMANENT CLOSURE  
and SITE ASSESSMENT NOTICE**

See back of form for instructions  
Please  the appropriate box(es)  
Please type or print information

**For Office Use Only**  
Owner # \_\_\_\_\_  
Site # \_\_\_\_\_

Temporary Tank Closure  Permanent Tank Closure  Change-In-Service  Site Assessment/Site Check

**SITE INFORMATION**

Site ID Number (on invoice or available from Ecology if the tanks are registered): #000515  
 Site/Business Name: MARALCO ALUMINUM RECYCLING (HARWIN-LYN CO)  
 Site Address: 7730 SOUTH 202ND ST. Telephone: ( ) N/A  
KENT City WA State 98032 ZIP Code

**TANK INFORMATION**

Tank ID	Closure Date	Tank Capacity	Substance Stored
<u>#1</u>	<u>7/29/95</u>	<u>35,000 GAL</u>	<u>DIESEL</u>

**CONTAMINATION PRESENT AT THE TIME OF CLOSURE**

Yes  No  Unknown

Check unknown if no obvious contamination was observed and sample results have not yet been received from analytical lab.

**UST SYSTEM OWNER/OPERATOR**

UST Owner/Operator: N/A  
 Owners Signature: \_\_\_\_\_ Telephone: ( ) \_\_\_\_\_  
 Address: \_\_\_\_\_  
Street P.O. Box  
City State ZIP Code

**TANK CLOSURE/CHANGE-IN-SERVICE PERFORMED BY:**

Service Provider: SEE ATTACHED License Number: \_\_\_\_\_  
 Licensed Supervisor: \_\_\_\_\_ Decommissioning License Number: \_\_\_\_\_  
 Supervisors Signature: \_\_\_\_\_  
 Address: \_\_\_\_\_  
Street P.O. Box  
City State ZIP Code  
 Telephone: ( ) \_\_\_\_\_

**SITE CHECK/SITE ASSESSMENT CONDUCTED BY:**

Name of Registered Site Assessor: STEPHEN HOEDERMAKER, ENVROS INC.  
 Telephone: (206) 827-5525  
 Address: 25 CENTRAL WAY, SUITE 210  
KIRKLAND City WA State 98033 ZIP Code



# UNDERGROUND STORAGE TANK Closure and Site Assessment Notice

<b>FOR OFFICE USE ONLY</b>	
Site ID #:	_____
Owner ID #:	_____

See back of form for instructions

Please  the appropriate box(es)  
 Temporary Tank Closure     Change-In-Service     Permanent Tank Closure     Site Check/Site Assessment

### Site Information

### Owner Information

(This form will be returned to this address)

Site ID Number _____ <small>(Available from Ecology if the tanks are registered)</small>	UST Owner/Operator _____
Site/Business Name <u>Maralco</u>	Mailing Address _____
Site Address <u>7730 S. 202nd St.</u> <small>Street</small>	_____ <small>Street</small>
City/State <u>Kent, WA</u>	_____ <small>P.O. Box</small>
Zip Code _____ Telephone ( ) _____	Zip Code _____ Telephone ( ) _____

Owner's Signature \_\_\_\_\_

### Tank Closure/Change-In-Service Company

Service Company <u>Omega Services, Inc.</u>	
Certified Supervisor <u>Sam C. Ross</u>	Decommissioning Certification No. <u>W001682</u>
Supervisor's Signature <u>Mario Massie for Sam C. Ross</u>	<small>(MMassie Decom Cert # 93200)</small>
Address <u>3214 16th Ave SW</u>	
<small>Street</small>	<small>P.O. Box</small>
<u>Seattle</u> <u>WA</u> <u>98134</u>	Telephone <u>(206) 682-2440</u>
<small>City</small>	<small>State</small> <small>Zip Code</small>

### Site Check/Site Assessor

Certified Site Assessor \_\_\_\_\_

Address Street \_\_\_\_\_ P.O. Box \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_ Telephone ( ) \_\_\_\_\_

### Tank Information

Tank ID	Closure Date	Closure Method	Tank Capacity	Substance Stored
1	6/29/95	removal		diesel

### Contamination Present at the Time of Closure

Yes     No     Unknown

Check unknown if no obvious contamination was observed and sample results have not yet been received from analytical lab.

Yes     No

If contamination is present, has the release been reported to the appropriate regional office?

# Instructions

Please Read Carefully

AFTER COMPLETING THIS FORM, RETURN TO:

TOXICS CLEANUP PROGRAM  
DEPARTMENT OF ECOLOGY  
P.O. BOX 47855  
OLYMPIA, WA 98504-7855

This form is to be completed by the tank owner and submitted to Ecology within 30 days of tank closure. Mark the appropriate box(es) for temporary tank closure, permanent tank closure, change-in-service, or site assessment.

Permanent Closure and Change-In-Service require a site assessment be performed.

## Site and Owner Information

Fill in the site and owner information. Include the Ecology site number, if known; also, be sure to provide telephone numbers so that any problems can be resolved quickly. The tank owner **MUST** sign this form.

## Tank Closure/Change-In-Service Company and Site Check/Site Assessor

List the closure company and fill in the site assessor information for permanent closure or change-in-service. Ask to see the closure company supervisor's IFCI Certification and make sure that the certified supervisor signs this form.

**Please note:** Individuals performing services **MUST** be certified by the International Fire Code Institute (IFCI), or other nationally recognized association by which they demonstrate appropriate knowledge pertaining to USTs or have passed another qualifying exam approved by the Department.

## Tank Information and Contamination Present at Time of Closure

Please fill in the tank information requested using tank ID numbers previously reported to Ecology. In the column entitled "Closure Method," indicate what manner of closure was used, such as closure in place or removal. Check the appropriate box(es) indicating if contamination is present and has been reported. Contamination found or suspected at the site must be reported to the appropriate Ecology regional office within 24 hours [see below for telephone numbers]. If contamination is confirmed, a site characterization report must be submitted to the regional office within 90 days; if contamination is not confirmed, then this form, a site assessment checklist, and a site assessment report must be submitted to the above address within 30 days.

Central	Eastern	Southwest	Northwest
(509) 574-2490 (voice)	(509) 456-2926 (voice)	(360) 407-6300 (voice)	(206) 649-7000 (voice)
(509) 454-7673 (TDD)	(509) 458-2055 (TDD)	(360) 407-6306 (TDD)	(206) 649-4259 (TDD)

The following tanks are exempt from notification requirements:

- ❖ Farm or residential tanks, 1,100 gallons or less, used to store motor fuel for personal or farm use only. The fuel must not be for resale or used for business purposes.
- ❖ Tanks used for storing heating oil that is used on the premises where the tank is located.
- ❖ Tanks with a capacity of 110 gallons or less.
- ❖ Equipment or machinery tanks such as hydraulic lifts or electrical equipment tanks.
- ❖ Emergency overflow tanks, catch basins, or sumps.

For more information, call toll free in the state of Washington 1-800-826-7716 (Message).



# CITY OF KENT

Exempt  
\$42.00

## CODE ENFORCEMENT DIVISION

220 4th Avenue South, Kent, WA 98032

(206) ~~859-3360~~ 8133000

EXPIRATION DATE	PERMIT NUMBER
7/23/95	7473

( thru Lt. Mike Evans )

Project Name Maraleo (Dept. of Ecology)	Address 7730 S. 202nd St. Kent	Phone Chuck Hinds, DDC
Installer Removal By Omega Services Inc.	Address 3214 16th Ave SW Seattle 98138	Phone Marlo 682-2440
Contractors No. OSULLPE099PW	Plans required	Valuation 20,000
Use Tank Removal - 35,000 gallon diesel UST		Fee Ø
Tax parcel number/legal description - Unknown - Environmental Checklist # ENV-95-35 Approved		

**THIS PERMIT MUST BE ON SITE - NON TRANSFERABLE**

Date issued 6/23/95 by Jackie Ferguson 10/90

23-02-CO-TI\*202RE

Phone: (206) 624-9843  
Fax No. (206) 624-9766

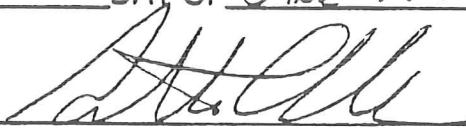
# Coastal Tank Cleaning, Inc.

3801 7th Avenue South, Seattle, WA 98108

TO: OMEGA 2452

THIS LETTER IS TO CERTIFY THAT COASTAL TANK CLEANING, INC. HAS STRIPPED AND RINSED WITH SOAPY WATER THE BELOW LISTED TANKS IN ORDER TO ALLOW THE TANKS TO BE INERTED.

DATED THIS 23 DAY OF JUNE 1995

AUTHORIZED SIGNATURE: 

ONE 35000 gallon Fuel Oil Tank Located AT 7730 S 202<sup>ND</sup>  
KENT, WA.

Disposal approx 1600 gallons

OUND TESTING, INC.

P.O. BOX 16204 SEATTLE, WA 98116  
(206) 932-0206

MARINE CHEMIST CERTIFICATE

SERIAL No. 42763

Date 6/28/95

Requested by OMEGA/MARLO

Vessel Owner or Agent OMEGA

Type of Vessel U.S.T. 7730 S202 ST. KENT

Vessel N/A

Specific Location of Vessel 0635 AN  
Time Survey Completed

DIESEL

Test Method LEL, O<sub>2</sub>, TOXICS, INERT

Last Three (3) Cargoes

ONE (1) 35,000 GAL U.S.T.

INERTED WITH CARBON DIOXIDE (CO<sub>2</sub>)

NOT SAFE FOR WORKERS (NO OXYGEN)

SAFE FOR EXCAVATION  
SAFE FOR TRANSPORT

END

In the event of any physical or atmospheric changes adversely affecting the gas-free condition of the above spaces, or if in any doubt, immediately stop all work and contact the undersigned Marine Chemist.

QUALIFICATIONS: Transfer of ballast or manipulation of valves or closure equipment tending to alter conditions in pipe lines, tanks or compartments subject to gas accumulation, unless specifically approved in this Certificate, requires inspection and endorsement or release of Certificate for the spaces so affected. All lines, vents, heating coils, valves, and similarly enclosed appurtenances shall be considered "not safe" unless otherwise specifically designated.

STANDARD SAFETY DESIGNATIONS

SAFE FOR WORKERS Means that in the compartment or space so designated (a) the oxygen content of the atmosphere is at least 19.5 percent by volume, and that, (b) toxic materials in the atmosphere are within permissible concentrations, and that, (c) the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Marine Chemist's Certificate

NOT SAFE FOR WORKERS Means that in the compartment or space so designated, the requirements of Safe for Workers has not been met

SAFE FOR HOT WORK Means that in the compartment so designated: (a) oxygen content of the atmosphere is at least 19.5 percent by volume, with the exception of inerted spaces or where external hot work is to be performed; and that, (b) the concentration of flammable materials in the atmosphere is below 10 percent of the lower flammable limit; and that, (c) the residues are not capable of producing a higher concentration than permitted by (b) above under existing atmospheric conditions in the presence of fire, and while maintained as directed on the Marine Chemist's Certificate; and further, that, (d) all adjacent spaces have been cleaned sufficiently to prevent the spread of fire, or are satisfactorily inerted, or, in the case of fuel tanks, or lube oil tanks, or engine room or fire room bilges, have been treated in accordance with the Marine Chemist's requirements.

NOT SAFE FOR HOT WORK Means that in the compartment so designated, the requirements of Safe for Hot Work have not been met

SAFE FOR REPAIR YARD ENTRY Means that the compartments and spaces of the flammable cryogenic liquid carrier so designated (a) have been tested by sampling at remote sampling stations, and results indicate the atmosphere tested to be above 19.5 percent oxygen, and less than 10 percent of the lower flammable limit, or (b) are inerted

CHEMIST'S ENDORSEMENT This is to certify that I have personally determined that all spaces in the foregoing list are in accordance with NFPA 306 1980 Control of Gas Hazards on Vessels and have found the condition of each to be in accordance with its assigned designation

The undersigned acknowledges receipt of this Certificate under Section 2.3 of NFPA 306 1980 and understands conditions and limitations under which it was issued

This Certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions

Signed: [Signature]

Company OMEGA Date 6/28/95

Signed: [Signature] Marine Chemist Certificate No. 667

PHIL DOVINA

VESSEL POSTING



GROUND TESTING, INC.  
P.O. BOX 16204 SEATTLE, WA 98116  
206) 932-0206

# MARINE CHEMIST CERTIFICATE

SERIAL No 42765

Date 6/29/95

OMEGA

Vessel Owner or Agent

U.S.T.

Type of Vessel

7730 U 202

Specific Location of Vessel

0700

Time Survey Completed

MEGA

Requested by

N/A

Vessel DIESEL

Test Method LEL, O2, TOXICS, INERT

Last Three (3) Cargoes

ONE (1) 35,000 GALLONS U.S.T.

INERT WITH CARBON DIOXIDE  
NOT SAFE FOR WORKERS  
NOT SAFE FOR HOT WORK

SAFE FOR EXCAVATION  
SAFE FOR TRANSPORT

END

In the event of any physical or atmospheric changes adversely affecting the gas-free condition of the above spaces, or if in any doubt, immediately stop all work and contact the undersigned Marine Chemist.

**QUALIFICATIONS:** Transfer of ballast or manipulation of valves or closure equipment tending to alter conditions in pipe lines, tanks or compartments subject to gas accumulation, unless specifically approved in this Certificate, requires inspection and endorsement or release of Certificate for the spaces so affected. All lines, vents, heating coils, valves, and similarly enclosed appurtenances shall be considered "not safe" unless otherwise specifically designated.

### STANDARD SAFETY DESIGNATIONS

**SAFE FOR WORKERS** Means that in the compartment or space so designated (a) the oxygen content of the atmosphere is at least 19.5 percent by volume, and that (b) toxic materials in the atmosphere are within permissible concentrations, and that (c) the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Marine Chemist's Certificate

**NOT SAFE FOR WORKERS** Means that in the compartment or space so designated, the requirements of Safe for Workers has not been met

**SAFE FOR HOT WORK** Means that in the compartment so designated: (a) oxygen content of the atmosphere is at least 19.5 percent by volume, with the exception of inerted spaces or where external hot work is to be performed; and that, (b) the concentration of flammable materials in the atmosphere is below 10 percent of the lower flammable limit; and that, (c) the residues are not capable of producing a higher concentration than permitted by (b) above under existing atmospheric conditions in the presence of fire, and while maintained as directed on the Marine Chemist's Certificate; and further, that, (d) all adjacent spaces have been cleaned sufficiently to prevent the spread of fire, or are satisfactorily inerted, or, in the case of fuel tanks, or lube oil tanks, or engine room or fire room bilges, have been treated in accordance with the Marine Chemist's requirements.

**NOT SAFE FOR HOT WORK** Means that in the compartment so designated, the requirements of Safe for Hot Work have not been met

**SAFE FOR REPAIR YARD ENTRY** Means that the compartments and spaces of the flammable cryogenic liquid carrier so designated (a) have been tested by sampling at remote sampling stations, and results indicate the atmosphere tested to be above 19.5 percent oxygen, and less than 10 percent of the lower flammable limit, or (b) are inerted

**CHEMIST'S ENDORSEMENT** This is to certify that I have personally determined that all spaces in the foregoing list are in accordance with NFPA 306-1980 Control of Gas Hazards on Vessels and have found the condition of each to be in accordance with its assigned designation

The undersigned acknowledges receipt of this Certificate under Section 2.3 of NFPA 306 1980 and understands conditions and limitations under which it was issued

This Certificate is based on conditions existing at the time the inspection herein forth was completed and is issued subject to compliance with all qualifications and instructions

Signed *[Signature]* Name *[Name]* Company *OMEGA*

Date 6/29/95

Signed *[Signature]* Marine Chemist Certificate No 667

VESSEL POSTING



# Coastal Tank Cleaning, Inc.

3801 7th Avenue South, Seattle, Washington 98108

## DISPOSAL CERTIFICATION

TO: Omega Services  
3214 16th Ave SW  
Seattle, Wa. 98134

July 10, 1995

Job Site: Maralco, 7730 South 202nd Street, Kent

Your PO#: 100872

Our Job#: 2452

Dear Sirs,

This letter is to certify that Coastal Tank Cleaning, Inc. (CTC) has received the following tank(s) for cleaning and disposal in accordance with all Federal, State and Local rules and regulations:

1 each 35,000 gallon

DATE RECEIVED: 6/29/95

DATE CLEANED: 6/29/95

MARINE CHEMIST CERT. #: 42776

DATE DISPOSED: 6/30/95

BILL OF LADING #: 69624

METHOD OF DISPOSAL: Scrap Metal

If you have any questions regarding this matter please feel free to call at (206) 624-9843

Sincerely,



Don Austin  
UST DISPOSAL MANAGER

**APPENDIX B:**  
**ANALYTICAL LAB REPORT**



July 3, 1995  
Lab Traveler #:06-107

Steve Hoedemaker  
Enviros, Inc.  
25 Central Way, Suite 210  
Kirkland, WA 98033-6156

Dear Steve:

Enclosed are the results of the analyses of samples submitted on June 30, 1995 from Project E1/941008.

We appreciate this opportunity to be of service to you on this project. If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Bay", with a horizontal line extending from the end of the signature. Below the signature, the initials "(AB)" are written in a small, handwritten font.

Andy Bay  
Project Chemist

Enclosures

Date of Report: July 3, 1995  
Samples Submitted: June 30, 1995  
Lab Traveler: 06-107  
Project: E1/941008

**WTPH-D**

Date Extracted: 6-30-95  
Date Analyzed: 6-30-95

Matrix: Soil  
Units: mg/Kg (ppm)

Client ID	Lab ID	Dilution Factor	Total Petroleum Hydrocarbons	Surrogate Recovery	Flags	PQL
SP-1	06-107-1	1.0	<b>1800</b>	---	F	25
SP-2	06-107-2	1.0	<b>2100</b>	---	F	25
SP-3	06-107-3	1.0	<b>1200</b>	---	F	25
PE-1	06-107-4	1.0	<b>6300</b>	---	F	25
PE-2	06-107-5	1.0	<b>96</b>	94%		25
PE-3	06-107-6	1.0	<b>ND</b>	97%		25
PE-4	06-107-7	1.0	<b>ND</b>	86%		25
PE-5	06-107-8	1.0	<b>ND</b>	87%		25

F-Surrogate recovery data not available due to the high concentration in the sample.

Date of Report: July 3, 1995  
Samples Submitted: June 30, 1995  
Lab Traveler: 06-107  
Project: E1/941008

**WTPH-D**  
**METHOD BLANK QUALITY CONTROL**

Date Extracted: 6-30-95  
Date Analyzed: 6-30-95

Matrix: Soil  
Units: mg/Kg (ppm)

Lab ID: MB0630S1  
Client ID: **Batch QA**

	Dilution Factor	Total Petroleum Hydrocarbons	Surrogate Recovery	Flags	PQL
Method Blank	1.0	ND	95%		25

Date of Report: July 3, 1995  
Samples Submitted: June 30, 1995  
Lab Traveler: 06-107  
Project: E1/941008

**WTPH-D  
DUPLICATE QUALITY CONTROL**

Date Extracted: 6-30-95  
Date Analyzed: 6-30-95

Matrix: Soil  
Units: mg/Kg (ppm)

Lab ID: 06-107-5  
Client ID: **Batch QA**

	Dilution Factor	Total Petroleum Hydrocarbons	Surrogate Recovery	Flags	PQL
Sample	1.0	90.8	94%		25
Duplicate	1.0	89.5	94%		25
RPD		1.5%			

Date of Report: July 3, 1995  
Samples Submitted: June 30, 1995  
Lab Traveler: 06-107  
Project: E1/941008

WTPH-D  
SB/SBD QUALITY CONTROL

Date Extracted: 6-30-95  
Date Analyzed: 6-30-95

Matrix: Soil  
Units: mg/Kg (ppm)

Lab ID: SB0630S1  
Client ID: **Batch QA**

	Dilution Factor	Total Petroleum Hydrocarbons	Percent Recovery	Surrogate Recovery	Flags	PQL
Spike Blank @ 100 ppm	1.0	82.4	82%	101%		25
Spike Blank Duplicate	1.0	86.8	87%	105%		25
RPD		5.2%				



Date of Report: July 3, 1995  
Samples Submitted: June 30, 1995  
Lab Traveler: 06-107  
Project: E1/941008

Date Analyzed: 6-30-95

**% MOISTURE**

Client ID	% Moisture
SP-1	15
SP-2	9.0
SP-3	20
PE-1	14
PE-2	5.0
PE-3	25
PE-4	23
PE-5	26

COMPANY OnSite Environmental Inc.  
 PROJECT # 1101075  
 PROJECT NAME Water Treatment Plant  
 MANAGER Jack  
 PM AAB



REQUESTED  
TURNAROUND?  
24 HOURS

WTPH-HCID   
 WTPH-G/BTEX   
 WTPH-G   
 WTPH-D   
 WTPH-418.1   
 DRY WEIGHT

TRAVELER #  
106-107

Dash	Sample Number	Date Sampled	Time Sampled	Type	# Jars	Analysis Required								Comments	
1	1101-1	4/2/11	7:10	5	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
2	1101-2		7:15	1	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
3	1101-3		12:00	1	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
4	1101-4		1:30	1	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
5	1101-5		1:45	1	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
6	1101-6		1:55	1	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
7	1101-7		1:50	1	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
8	1101-8		11:35	1	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
9	1101-9	4/6/11	11:00	5	1										Negative

Submitted by [Signature] Date 4/3/11  
 Firm [Firm Name] Time 1:15 A  
 Received by [Signature] Date 4/3/11  
 Firm [Firm Name] Time 1:15 A  
 Submitted Date [Blank] Time [Blank]  
 Firm [Blank] Time [Blank]