TACOMA BOATBUILDING

1840 MARINE VIEW DRIVE
TACOMA, WASHINGTON 98541

SITE CHARACTERIZATION AND INDEPENDENT CLEANUP ACTION REPORT

Ecology LUST # 5655

August 25, 1995

Prepared by:
Omega Services, Inc.
3214 16th Avenue SW
Seattle, Washington 98134

Prepared for:
Tacoma Boatbuilding
Mr. Ray Nichols
1840 Marine View Drive
Tacoma, Washington 98541

Operations Project # 2194-086
Environmental Project # 2634-079

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

APPENDICES

1. Introduction

This report presents the findings of Omega Services, Inc. (Omega) regarding the removal of one (1) 1,000 gallon gasoline-containing underground storage tank (UST) located at Tacoma Boatbuilding in Tacoma, Washington (Figure 1). This report documents tank removal activities, subsequent subsurface soil and groundwater investigations, and the independent cleanup action regarding petroleum contaminated soils (PCS) and groundwater encountered during UST closure activities.

1.1 Scope of Work

The scope of work and objectives of this project were to:

- Decommission and remove one (1) 1,000 gallon gasoline-containing UST;
- Excavate PCS with the intent of bringing the site soils into compliance with Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) *Method A Soil Cleanup Guidelines* (WAC 173-340);
- Determine concentrations of total petroleum hydrocarbons (TPH) for in-situ soil and excavation water after the independent cleanup action;
- Compare TPH concentrations detected in soil and excavation water to the MTCA *Method A Soil and Groundwater Cleanup Guidelines*;
- Characterize and dispose of approximately 34 tons of gasoline contaminated soil at a licensed and permitted petroleum contaminated soil treatment/disposal facility;
- Install one (1) groundwater monitoring well, after remedial excavation, in conjunction with backfill and site closure activities
- Prepare a final Site Characterization and Independent Cleanup Action Report which documents site and UST history, tank removal activities, independent cleanup action, soil and groundwater sampling and results, conclusions and recommendations. The report for this project was prepared following Ecology's *Guidelines for Site Checks and Site Assessments for USTs* (revised, October 1992) and *Guidance on Preparing Independent Remedial Action Reports* (working draft, 1994).

1.2 Site Location

The Tacoma Boatbuilding site is located at 1840 Marine View Drive, Tacoma, Washington (Figure 1). The site is located adjacent to Commencement Bay in Puget Sound.

The 1,000 gallon gasoline-containing UST was located immediately northeast of the Warehouse building and situated beneath a concrete slab (Figure 2).

2. Tank Decommissioning & Removal Operations

2.1 Permits and Checklists

Copies of the UST 30-Day Notice of Intent to Close, UST Temporary/Permanent Closure Notice and Site Assessment Checklist, and other removal permits are provided in Appendix A. Copies of UST cleaning and disposal certificates are included in Appendix B.

2.2 UST Removal Activities

The 30-Day Intent to Close notification was submitted to Ecology by Omega prior to commencing field activities. On February 28, 1995, the tank was pumped of product and triple-rinsed by Coastal Tank Cleaning (Coastal), of Seattle, Washington. All product and rinsate were disposed of by Coastal in accordance with all applicable federal, state, and local regulations.

On March 1, 1995, Omega Services inerted the UST with dry ice. Subsequently, the concrete slab overlying the UST was removed using a concrete breaker. The tank was excavated using a backhoe and transported to Coastal for final cleaning and disposal as scrap metal.

Petroleum impacted soil was stockpile on-site, on and covered with plastic sheeting, pending analytical results, characterization, and final disposition.

2.3 UST System Conditions

Visually, the tank was in good condition except for a patched segment on the top of the tank, indicating a previous repair. The piping showed heavy rusting in places and was in relatively poor condition overall.

2.4 Field Observations and Release Reporting

Discolored soil, olfactory observations, and field screening results suggested that petroleum hydrocarbons had impacted tank overburden soil and surrounding soil. The most likely source for the petroleum release was from tank overfill and/or pipe leakage.

Groundwater was encountered at a depth of approximately 3 feet below ground surface. What appeared to be weathered free product was floating on the static water surface.

Omega reported the release to the Department of Ecology in compliance with WAC 173-340-300. This site was assigned a Leaking Underground Storage Tank (LUST) Incident Number of 5655.

2.5 Excavation Descriptions

The size of the original excavation measured 12 feet by 12 feet with a depth of 6 feet below ground surface (BGS).

2.6 SITE ASSESSMENT SOIL SAMPLING

Soil samples collected from the excavation and associated soil stockpile are shown in Figure 2 and listed in Table 1. Soil samples were collected where field instruments and/or observations indicated contamination was most likely to be present. Soil samples were collected from the excavation using a backhoe bucket. Excavation water samples were collected with a stainless steel hand bailer. Soil samples were placed directly into laboratory-prepared borosilicate glass jars with Teflon lids. Water samples were transferred into a laboratory-prepared 1 liter amber bottle and into two (2) 40 ml vials. All samples were uniquely labeled and stored in a chilled cooler for transport to the analytical laboratory. Omega's sampling protocol and decontamination procedures are presented in Appendix C.

On March 1, 1995 soil samples were collected after tank removal following sampling protocols and guidelines outlined in Ecology's *Guidelines for Site Checks and Site Assessments for USTs.* In addition, sample locations were determined by Ms. Cynthia Ruggiero of Tacoma Pierce County Health Department (TPCHD).

A total of six (6) soil samples were collected for laboratory analysis. Four (4) discrete in-situ soil samples were collected from the UST excavation sidewalls. Samples TB-NSW-5, TB-ESW-5, TB-SSW-4 and TB-WSW-5 were obtained from the north, east, south and west sidewalls, respectively, at depths of 4.0 to 5.0 feet BGS. Sample TB-B-6 collected from the excavation floor was not submitted for laboratory analysis. Two (2) soil samples TB-OB1C and TB-OB2C were collected from the associated overburden soil and were composited together in the laboratory for analysis.

2.7 ANALYTICAL FINDINGS

All four (4) samples collected on from the UST excavation sidewalls (TB-NSW-5, TB-ESW-5, TB-SSW-4, TB-WSW-5) and overburden soil (sample TB-OB1C/TB-OB2C) had gasoline TPH and BTEX concentrations above Ecology's MTCA *Method A Cleanup Levels.* Gasoline TPH concentrations ranged from 39 ppm to 14,000 ppm. The highest TPH and BTEX concentrations were detected in sample TB-SSW-5, collected from the south sidewall at a depth of five (5) feet below ground surface (BGS). In addition, the soil samples were tested for lead content, as required for landfill disposal. Analytical results and the associated MTCA *Method A Cleanup Levels* are summarized in Table 1. A copy of the certificates of analysis and chain of custody are provided in Appendix E.

2.8 SITE ASSESSMENT CONCLUSIONS AND RECOMMENDATIONS

Based on analytical results and field observations, Omega recommended remedial excavation of petroleum contaminated soil (PCS) in an attempt to bring project specific soils into compliance with MTCA Method A Soil Cleanup Levels. Omega recommended that initial free product recovery be performed using adsorbent pads. In addition, Omega recommended that the excavation water be pumped and properly disposed of and that one (1) monitoring well be installed in conjunction with excavation backfill and site closure.

2.9 CLIENT ACTION

Omega was contracted by Tacoma Boatbuilding to perform remedial excavation of PCS. Tacoma Boatbuilding assumed full responsibility for the dewatering of the excavation. All regulations, associated permits and fees, approval from local/state/federal agencies, final treatment and discharge associated with the excavation dwatering was delegated to client (copies of correspondence between Omega and client are included in Appendix D).

In a letter from TPCHD to Omega, dated March 17, 1995, Ms. Cindy Ruggiero recommended that a minimum of three (3) monitoring wells be installed to adequately address the extent of impacted groundwater (copy of letter included in Appendix D). However on May 25, Ms. Cindy Ruggiero agreed that one (1) monitoring well would suffice at this time (personal communication, Ms. Massie, 1995).

3. Independent Cleanup Action

On May 15, 1995, Omega excavated PCS from the former UST excavation. In conjunction with remedial excavation, Tacoma Boatbuilding dewatered the excavation. Water was pumped from the excavation into a Baker tank on-site. All excavation operations were monitored by an Omega Geologist on-site. PCS excavation continued until field observations indicated that either:

1) in-situ soils appeared to be in compliance with Ecology's MTCA *Method A Soil Cleanup Guidelines*; or,

2) further excavation would have jeopardized the structural integrity of nearby structures and/or footings. Additional excavation along the south sidewall, immediately adjacent to the existing building, was not performed due to the presence of a sewer line and possibly jeopardizing the buildings footings.

All PCS excavated during this project was stockpiled on-site and covered with plastic sheeting.

3.1 EXCAVATION DESCRIPTIONS

The size of the original excavation measured 12 feet by 12 feet with a depth of 6 feet BGS. After the independent cleanup action, the UST excavation had final dimensions of 12 feet in width, 24 feet in length, and 6 feet in depth (Figure 2). Field observations suggested that the independent cleanup action was successful in bringing in-situ soils into compliance, except for isolated soils located immediately adjacent to, and north of, the existing Tacoma Boatbuilding building. .

Groundwater was encountered in the UST excavation at a depth of 3 to 4 feet BGS. The surface of this groundwater displayed a slight hydrocarbon sheen.

3.2 REMEDIAL EXCAVATION SOIL & WATER SAMPLING

Soil samples collected from the remedial excavation and associated soil stockpiles are shown in Figure 2 and listed in Table 1. Soil samples were collected where field instruments and/or observations indicated contamination was most likely to be present. Soil samples were collected from the excavation using a backhoe bucket. One excavation water sample was collected with a stainless steel hand bailer. Soil samples were placed directly into laboratory-prepared borosilicate glass jars with Teflon lids. The water sample was transferred into a laboratory-prepared 1 liter amber bottle and into two (2) 40 ml vials.

All samples were uniquely labeled and stored in a chilled cooler for transport to the analytical laboratory. Omega's sampling protocol and decontamination procedures are presented in Appendix C.

On March 15, 1995, after excavation dewatering and PCS remedial excavation, a total of five (5) discrete soil samples were collected from the in-situ excavation soil. Excavation samples TB-RE-NSW-3W, TB-RE-NSW-3E, TB-RE-SSW-3, TB-RE-ESW-3N and TB-RE-ESW-3E, were obtained from the north, south and east sidewalls, respectively, at depths of 3.0 feet BGS. In addition, one (1) excavation water sample (sample TB-EGW1) was collected.

3.3 LABORATORY ANALYSIS & ANALYTICAL RESULTS

Soil and excavation water samples were analyzed by American Analytical Services, Inc. of Seattle, Washington. Samples were analyzed for gasoline TPH/BTEX (benzene, toluene, ethyl benzene, xylenes) by Washington State Test Method WTPH-G/BTEX.

After the remedial activities on March 15, 1995, laboratory analysis of the submitted soil and excavation-water samples, were undetectable or below the MTCA Method A Soil and Groundwater Cleanup Levels for TPH, BTEX and Total Lead.

Petroleum impacted soil was stockpile on-site, on and covered with plastic sheeting, pending analytical results, characterization, and final disposition.

3.4 PETROLEUM CONTAMINATED SOIL CHARACTERIZATION & DISPOSAL

Approximately 25 cubic yards (34 tons) of gasoline contaminated soil was excavated and stockpiled on-site as a result of the UST removal and Independent Cleanup Action. On June 13, 1995, the 34 tons of PCS was transported to Taneum Recovery Corporation in Ellensburg, Washington for unenhanced bioremediation and subsequent use as cover at the Kittitas County Landfill. All certificates of transport and disposal are contained in Appendix G.

3.5 MONITORING WELL INSTALLATION AND GROUNDWATER SAMPLING RESULTS

On June 13, 1995 a groundwater monitoring well was installed by Omega during excavation backfilling. The well was installed under the supervision of an Ecology licensed well driller. Copies of the Monitoring Well Installation Permit and Well Completion Log are provided in Appendix F.

4. Project Conclusions and Recommendations

4.1 CONCLUSIONS & RECOMMENDATIONS

On March 1, 1995, Omega Services decommissioned and removed one (1) 1,000 gallon gasoline UST. The tank, product, rinsate was removed and disposed of following the applicable local, sate, and federal regulations.

Initial site assessment field screening results and analytical results from March 1, 1995 indicated that the UST had release gasoline to the subsurface soil and groundwater. The most likely source for the encountered petroleum release was from periodic tank overfill and/or pipe leakage. Groundwater was encountered at a depth of approximately 3 feet below ground surface. Omega reported the release to Ecology and was assigned a Leaking Underground Storage Tank (LUST) Incident Number of 5655.

Closure analytical and field screening results indicated that the remedial excavation performed on May 15, 1995 was successful in bringing in-situ soils in compliance with MTCA. In addition, one excavation water sample had TPH and BTEX concentrations in compliance with MTCA Method A Groundwater Cleanup Levels.

On June 13 approximately 25 cubic yards (34 tons) of gasoline contaminated soil was transported to Taneum Recovery Corporation in Ellensburg, Washington for unenhanced bioremediation and subsequent use as cover at the Kittitas County Landfill. Omega also installed one (1) groundwater monitoring in the excavation in conjunction with backfilling. The excavation was backfilled with clean imported fill material.

Omega Services concludes that the independent cleanup action was successful in bringing the immediate project area into compliance with the Ecology MTCA Method A Soil & Groundwater Cleanup Guidelines.

5. Limitations

Work for this project was performed, and this report prepared, in accordance with generally accepted professional practices for the nature and conditions of work completed in same or similar locations at the present time. Omega's results and findings from the select area do not necessarily reflect soil or groundwater conditions underlying other areas of the site not investigated. This scope of work was not meant to determine the lateral nor vertical full extent of groundwater impacted by the encountered release. This report is not meant to represent a legal opinion. No other warranty, expressed or implied, is made.

Any questions regarding our work or this report, the presentation of information, or interpretation of data are welcome and should be referred to the undersigned.

Sincerely,
Omega Services, Inc.

for Richard Simpson
Project Geologist

for Paul Riley
Environmental Services Manager

cc: Washington Department of Ecology
Underground Storage Tank Division
P.O. Box 47655
Olympia, Washington 98504-7655

Ms. Marlo Massie
Omega Services, Inc.

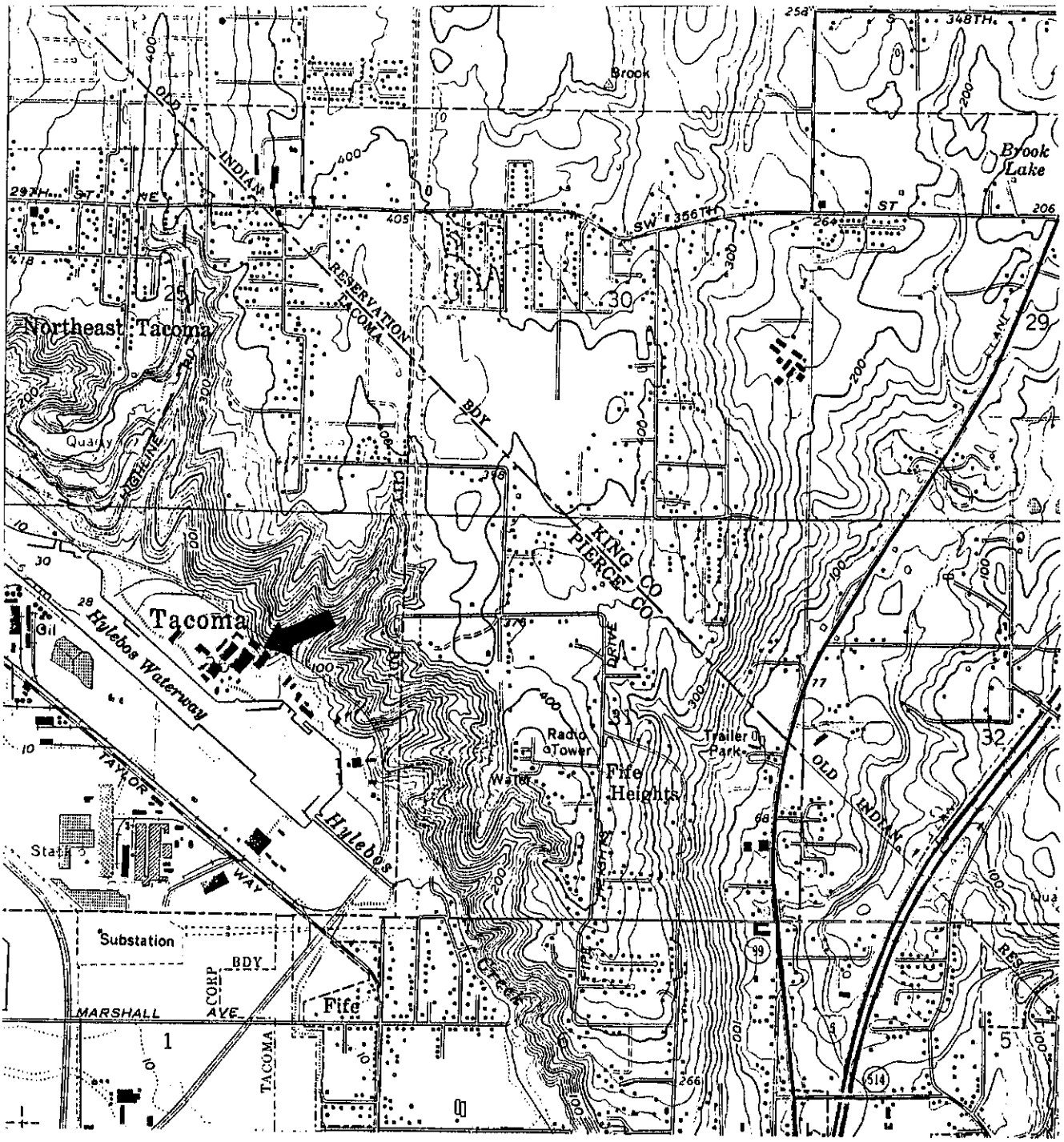
Ms. Cynthia Ruggiero
Tacoma Pierce County Health Department

Attachments

Appendix A

TANK REMOVAL PERMITS AND UST CLOSURE & SITE ASSESSMENT NOTICE

Tacoma Boatbuilding
Vicinity Map

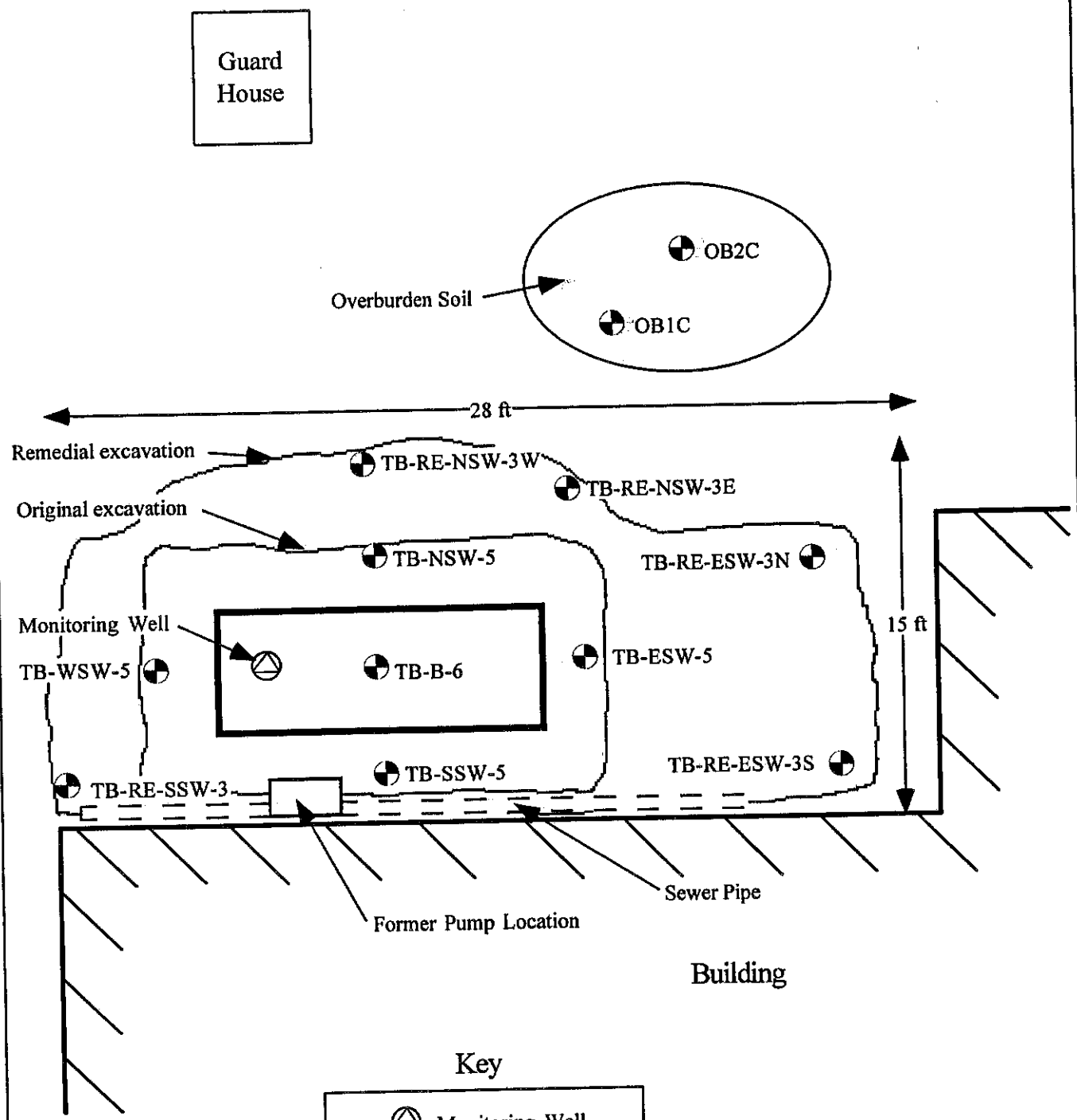


N

Omega Services, Inc.
Geologists, Environmental Specialists & General Contrator
Seattle, WA 98134

Scale : 1:24,000	Site Address: 1840 Marine View Drive,Tacoma, WA.	Date: 8/2/95	Figure 1

Tacoma Boatbuilding
Site Plan Map



Key

- Monitoring Well
- Sample Location
- Former UST Location

N

Omega Services, Inc.
Geologists, Environmental Specialists & General Contrator
Seattle, WA 98134

Not to scale	Site Address: 1840 Marine View Drive, Tacoma, WA	Date: 8/22/95	Figure 2

Table 1: Summary of analytical results for the Tacoma Boatbuilding UST Site Assessment and Independent Cleanup Action Project. Ecology Site ID # 004415 and LUST # 5655.

Sample Number	Sample Type	Sample Location	Sample Depth	Gas TPH (ppm)	B (ppm)	T (ppm)	E B (ppm)	X (ppm)	Total Lead (ppm)
Site Assessment Sampling on March 1, 1995									
TB-NSW-5	soil	north sidewall	5	***200***	<0.12	1.4	1.5	8.1	----
TB-SSW-5	soil	south sidewall	5	***14,000***	***6***	***140***	***110***	***320***	----
TB-ESW-5	soil	east sidewall	5	***6,700***	***3***	***78***	***65***	***190***	----
TB-WSW-5	soil	west sidewall	5	39	<0.12	0.23	0.16	0.94	----
TB-B-6	soil	excavation floor	6	---	---	---	---	---	----
TB-(OB1C & OB2C)	soil	overburden soil	---	***1,200***	***2***	***55***	***43***	***140***	<5.0
Site Characterization & Independant Cleanup Action Sampling on May 15, 1995									
TB-RE-NSW-3E	soil	north sidewall	3	<10	<0.1	<0.1	<0.1	<0.1	----
TB-RE-NSW-3W	soil	north sidewall	3	<10	<0.1	<0.1	<0.1	<0.1	----
TB-RE-SSW-3	soil	south sidewall	3	<10	<0.1	<0.1	<0.1	<0.1	----
TB-RE-ESW-3S	soil	east sidewall	3	<10	<0.1	<0.1	<0.1	<0.1	----
TB-RE-ESW-3N	soil	east sidewall	3	<10	<0.1	<0.1	<0.1	<0.1	---
TB-EGW1	water	excavation	---	0.34	<0.002	<0.002	<0.002	<0.002	---
MTCA	soil	---	---	100	0.5	40	20	20	250
MTCA	groundwater	---	---	1	0.005	0.040	0.030	0.020	1

Samples collected by Omega Services' Site Assessor Registered with Ecology.
Gasoline TPH and BTEX determined using Ecology Test Method WTPH-G/BTEX.
TPH, Total petroleum hydrocarbons.
B, Benzene.
T, Toluene.
EB, Ethylbenzene.
X, Total Xylenes.
Total Lead determined using EPA Test Method 6010.
ppm, parts per million (mg/Kg).
Bold & Italicized concentrations indicated concentrations above MTCA Cleanup Levels
MTCA, Ecology Model Toxics Control Act Method A Soil & Groundwater Cleanup Levels (WAC 173-340)
---. not applicable or not analyzed.

SW JS

UNDERGROUND STORAGE TANK
30 DAY NOTICE

See back of form for instructions
Please ☑ the appropriate box SW

☐ Intent to Install ☑ Intent to Close ☐ Both

WASHINGTON STATE DEPARTMENT OF ECOLOGY

For Office Use Only
Owner # U00068360
Site # 004415

RECEIVED
JAN 23 1995
ECOLOGY

SITE INFORMATION:

Site ID Number (on invoice or available from Ecology if the tank is registered): 004415

Site/Business Name: TACOMA BOATBUILDING CO.

Site Address: 1840 MARINE VIEW DR. (Street) Owner/Operator Telephone: (206) 572-3600

TACOMA (City) WA (State) 98422 (ZIP Code)

TANK INFORMATION:

TANKS TO BE CLOSED

This section to be filled out ONLY if tanks are being removed

Tank ID	Projected Closure Date	Tank Capacity	Substance Stored	Date tank last used	Is there product in the tank? (yes/no)	If no, date tank was pumped
NO1	1ST QTR 95	1000g	N-L GAS	1/94	NO	1/94

RECEIVED JAN 18 1995 ECOLOGY

TANKS TO BE INSTALLED

This section to be filled out ONLY if tanks are being installed

Tank ID	Approx. Install Date

RECEIVED AUG 29 1995 ECOLOGY

TANK INSTALLATION TO BE PERFORMED BY: (if known)

This section to be filled out ONLY if tanks are being installed

Service Provider: _____ Contact Name: _____

Telephone: (___) _____

Address: _____ (Street) _____ P.O. Box

_____ (City) _____ (State) _____ (ZIP Code)

TANK PERMANENT CLOSURE TO BE PERFORMED BY: (if known)

This section to be filled out ONLY if tanks are being removed

Service Provider: TO BE DETERMINED

Contact Name: _____

Telephone: (___) _____

Address: _____ (Street) _____ P.O. Box

_____ (State) _____ (ZIP Code)

This form will be returned to this address

OWNER/OPERATOR: TACOMA BOATBUILDING CO.

MAILING ADDRESS: 1840 MARINE VIEW DR (Street)

TACOMA (City), WA. (State) 98422 (ZIP Code)

Once validated by Ecology, this form serves as your temporary permit for the tanks listed above.

Please type or print information

ECY 070-35

Permit
(Non-Transferable)
☐ Annual
☐ Special

ABANDONMENT/REMOVAL OF UNDERGROUND TANK

TACOMA FIRE DEPARTMENT • Fire Prevention Bureau • Telephone: 591-5740 • Tacoma, Washington

hrs: until 5

Date 2-22-95 Expiration Date

Issued to O'Sullivan Omega Phone No. 682-2440

Address 3214 16th Ave S.W., Seattle, WA 98134

For UST removal (1) 1,000 gallon gasoline

Location 1840 Marine View Dr., Tacoma, WA 98422

Conditions:

1. Comply with Article 79 of the Uniform Fire Code (1988).
2. Comply with NFPA Standard #30.
3. Comply with TFD abandonment or removal of underground tank procedures.
4. Comply with API Bulletin #1604.
5. Pay ~~$5.00~~ 100.00 permit fee per ~~tank~~ site.
6. Call for Inspection AT LEAST 48 HOURS before tanks are removed from ground. Need to inspect tank and open hole.
7. Acquire permit from Pierce County Health Department, 3629 South D Street, 591-6469.

X Dawn Emery
Responsible Party

By
Fire Marshal

It is understood and agreed that this permit may be revoked for cause at any time.

DISTRIBUTION:
WHITE—Permit Site

FIR 274 (02/90)

Tacoma-Pierce County
Health Department

Permit # 95008

UNDERGROUND STORAGE TANK REMOVAL PERMIT

Tacoma-Pierce County Health Department (TPCHD)

Site Location 1840 Marine View Dr, Tac. WA 98422

Facility Name Tacoma Boat Building

Removal Firm O'Sullivan O'mega

Number of Tanks to be Removed 1

All work must be performed in accordance with current laws, ordinances, resolutions and rules and regulations.

Cynthia Ruggiero
Approval Signature

VALIDATION:

Health-Environment Health
For Deposit Only
TPCHD Tacoma Wash
4515 490.00 TOTAL
4515 490.00 CHECK
00001 02-22-95 T14:11

Permit must be accessible at site - DO NOT ALTER OR DEFACE
Expires 180 days from validation date.
Forty-eight (48) hour notice must be provided to the TPCHD prior to removal/abandonment.
Site assessment report for TPCHD due 90 days after removal.

SW
JS

UNDERGROUND STORAGE TANK
Closure and Site Assessment Notice

See back of form for instructions

FOR OFFICE USE ONLY
Site ID #: 004415
Owner ID #: V0006836

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

Site Information

Site ID Number 004415
(Available from Ecology if the tanks are registered)
Site/Business Name Tacoma Boat Building Co.
Site Address 1840 Marine View Drive (Street)
City/State Tacoma WA
Zip Code 98422 Telephone (206) 572-3600

Owner Information

(This form will be returned to this address)
UST Owner/Operator Tacoma Boat Building Co.
Mailing Address 1840 Marine View Drive (Street)
City/State Tacoma, WA (P.O. Box) 98422
Zip Code 98422 Telephone (206) 572-3600

Owner's Signature

Tank Closure/Change-In-Service Company

Service Company Omega Services, Inc.
Certified Supervisor Sam Ross Decommissioning Certification No. WOO1682
Supervisor's Signature Mark O'Massie for Sam Ross mMassie Decom# 73200
Address 3214 16th Ave SW (Street)
City Seattle State WA P.O. Box 98134 Zip Code Telephone (206) 682-2440

Site Check/Site Assessor

Certified Site Assessor Richard Simpson
Address Omega Services 3214 16th Ave SW (Street) P.O. Box
City Seattle State WA Zip Code 98134 Telephone (206) 682-2440

RECEIVED
AUG 29 1995
ECOLOGY

Tank Information

Tank ID	Closure Date	Closure Method	Tank Capacity	Substance Stored
No. 1	March 1, 1995	Removal	1,000 G	N-L Gasoline

* groundwater has been impacted by the release, The actual extent & magnitude is unknown at this time.

SOIL

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?

To receive this document in an alternative format, contact the TOXICS CLEANUP PROGRAM at 1-800-826-7716 (voice) OR (360) 407-6006 (TDD).

Instructions

AFTER COMPLETING THIS FORM, RETURN TO:

TOXICS CLEANUP PROGRAM
DEPARTMENT OF ECOLOGY
P.O. BOX 47655
OLYMPIA, WA 98504-7655

Please Read Carefully

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).

Appendix B

TANK CLEANING & DISPOSAL DOCUMENTATION

Coastal Tank Cleaning

DATE: 2/25/93

CUSTOMER: O'Sullivan Construction

JOB #: 5533-95 JOB SITE: Tacoma Boat PER:

VESSEL:	PUMP	GAS FREE
BILGE	☐	☐
BALLAST TANK	☐	☐
FUEL OIL	☐	☐
FRESH WATER	☐	☐
LAZARETTE	☐	☐
HYDRAULIC OIL	☐	☐
LUBE OIL	☐	☐
CHAIN LOCKER	☐	☐
COFFERDAM	☐	☐

TANK NO'S:

Strip + Rinse 1 10,000 gallon

Gasoline tank

GALLONS OF DISPOSAL: 500 AUTHORIZED SIGNATURE: Ray Sutherland

223-02-CO-AS-TI-202RE

Coastal Tank Cleaning, Inc.

3801 - 7th Avenue South, Seattle, Washington 98108
Phone: (206) 624-9843
Fax No.: (206) 624-9766

CHECKPOINT VERIFICATION

~~SHIP~~ Cust NAME: O'Sullivan Const ~~ITEM~~ Job #: 8835-95 ~~PARA.~~ PO #: 19923

TANK NUMBER and/or LOCATION: [illegible]

DATE: 2/23/95 TIME: __________ WHEN CALLED: __________

WORKED CHECKED (√ONE)	ACCEPTED (√)	REJECTED (√)
SURFACE PREPARATION	✓	

Coastal Tank INC. REPRESENTATIVE: [signature]

CUSTOMER Q/A REPRESENTATIVE: [signature]

TOPS Snap-off® CARBONLESS FORM 3841 — NO CARBON REQUIRED

BILL OF LADING

TRIPLIC

ALTERNATE STRAIGHT BILL OF LADING—SHORT FORM

Original—Not Negotiable

Shipper No. _____

Carrier No. _____

Date _____

(Name of Carrier)

TO: Consignee O'Sullivan Omega	FROM: Shipper Tacoma Boat
Street 3214 16th Ave SW	Street
Destination Coastal Tank Zip Code	Origin Zip Code
Route:	Vehicle No.

No. Shipping Units	Kind of Packaging, Description of Articles Special Marks and Exceptions	Weight (Subject to Correction)	RATE	CHARGES
(1)	1000 GAL Unleaded Steel UST.			

A. Cooley 3-1-95 CTC

REMIT C.O.D. TO: ADDRESS	COD Amt: $	C.O.D. FEE: PREPAID ☐ $ COLLECT ☐	TOTAL CHARGES: $

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 _____

Subject to Section 7 of the 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 charges.

(Signature of Consignor)

FREIGHT CHARGES

Check Appropriate Box:

☐ Freight prepaid ☐ Collect

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier 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 route, 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 anytime interested in all or any of said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.

Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER O'Sullivan Omega	CARRIER
PER [signature]	PER DATE

TOPS FORM No. 3841 LITHO in U.S.A.

1

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: O'Sullivan Construction 5835-95

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 28th DAY OF FEB 1995

AUTHORIZED SIGNATURE:

STRIP + RINSE 1-1000 GALLON GASOLINE UST LOCATED AT 1840 MARINE VIEW Dr., TACOMA, WA.

DISPOSAL APPROX 500 GALLONS GASOLINE + RINSE WATER

Appendix C

SOIL SAMPLING PROTOCOLS

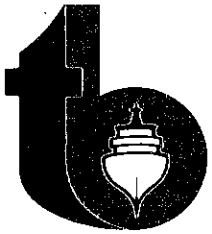
APPENDIX C
SOIL SAMPLING PROTOCOLS

Soil samples were selected based on field observations by an Omega Services Geologist (registered Site Assessor with Washington State Department of Ecology [Ecology]). Soil samples were collected and analyzed for parameters as outlined in Ecology's soil sampling and analytical guidelines.

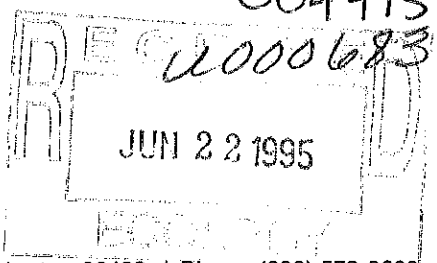
Soil samples were collected using Omega's standard decontamination and sampling protocols. The *Mini Rae* PID was calibrated at the beginning at each field day to benzene using 100 ppm isobutylene and zero air. Sampling equipment (stainless steel spoons, bailers, augers, etc.) were decontaminated prior to each sampling episode using a Alconox detergent solution, rinsed with tap water, followed by a final rinse with de-ionized water. All samples were transferred to a preconditioned sterilized borosilicate glass jar with Teflon lids using a stainless steel spoon. Sample jars and bottles were then placed in a cooled ice chest. Samples were delivered to American Analytical Laboratories, Inc. of Seattle, Washington for chemical analysis. Chain of custody procedures were followed for all samples.

SWRO

~~#101991~~
004415
00006836



tacoma boat



TACOMA BOATBUILDING CO. / 1840 Marine View Drive / Tacoma, Washington 98422 / Phone (206) 572-3600
Fax (206) 572-0548
SHIPBUILDING / SHIP REPAIR / ENGINEERING / MACHINERY MANUFACTURE

21 June 1995
OM-1759/UST

Department of Ecology
Underground Storage Tank Unit
P.O. Box 47655
Olympia, WA 98504-7655

Attn: Karen Backman, UST Unit

Subj: UST Letter Dated June 13, 1995

Dear Ms. Backman:

Tacoma Boatbuilding Co. is in the final stages of closing the underground storage tank referenced in the subject letter.

Removal of the tank was accomplished by an approved contractor based on the receipt of the 30 Day Notice endorsed by Ecology January 18, 1995. Completion of the final closure reports is presently underway.

The backfill material is being given time to settle out before the site will be restored.

If there are additional questions, please give me a call.

Sincerely,

TACOMA BOATBUILDING CO.

Ray E. Nichols
Vice President & General Manager

REN:jh

1/17/95 KB

WASHINGTON STATE DEPARTMENT OF ECOLOGY

UNDERGROUND STORAGE TANK
30 DAY NOTICE

See back of form for instructions
Please ☑ the appropriate box 3W

For Office Use Only
Owner # UO006836
Site # 004415

☐ Intent to Install ☑ Intent to Close ☐ Both

SITE INFORMATION:

Site ID Number (on invoice or available from Ecology if the tank is registered): 004415

Site/Business Name: TACOMA BOATBUILDING CO.

Site Address: 1840 MARINE VIEW DR. (Street) Owner/Operator Telephone: (206) 572-3600

TACOMA (City) WA. (State) 98422 (ZIP-Code)

TANK INFORMATION:

TANKS TO BE CLOSED

This section to be filled out ONLY if tanks are being removed

Tank ID	Projected Closure Date	Tank Capacity	Substance Stored	Date tank last used	Is there product in the tank? (yes/no)	If no, date tank was pumped
NO 1	1st Qtr 95	1000g	N-L GAS	1/94	NO	1/94

RECEIVED
JAN 18 1995
ECOLOGY

TANKS TO BE INSTALLED

This section to be filled out ONLY if tanks are being installed

Tank ID	Approx. Install Date

TANK INSTALLATION TO BE PERFORMED BY (if known):

This section to be filled out ONLY if tanks are being installed

Service Provider: _____ Contact Name: _____

Telephone: (____) _____

Address: _____ (Street) _____ (P.O. Box)

_____ (City) _____ (State) _____ (ZIP-Code)

TANK PERMANENT CLOSURE TO BE PERFORMED BY (if known):

This section to be filled out ONLY if tanks are being removed

Service Provider: TO BE DETERMINED

Contact Name: _____

Telephone: (____) _____

Address: _____ (Street) _____ (P.O. Box)

_____ (State) _____ (ZIP-Code)

This form will be returned to this address

UST OWNER/ OPERATOR: TACOMA BOATBUILDING CO.

MAILING ADDRESS: 1840 MARINE VIEW DR (Street)

TACOMA (City), WA. (State) 98422 (ZIP-Code)

Once validated by Ecology, this form serves as your temporary permit for the tanks listed above.

Please type or print information

ECY 020-33

6.92.032

TB/310/SW

UNDERGROUND STORAGE TANK

Tightness Testing Checklist

The purpose of this form is to certify the proper tightness testing of underground storage tank (UST) systems including connecting underground piping. Tightness testing shall be conducted in accordance with Chapter 173.360 WAC.

This Tightness Testing Checklist shall be completed and signed by a **Licensed Tightness Testing Supervisor.** The supervisor shall be on site when all tank tightness testing activities are being conducted. The firm which employs the licensed supervisor shall also be licensed by the Washington State Department of Ecology as a Service Provider.

Underground storage tank rules require owners/operators to employ a licensed tank services provider to repair, replace, upgrade, or close the UST system and to begin corrective action in accordance with WAC 173-360-399 if the test results indicate that a leak exists.

For further information about completing this form, please contact the Department of Ecology UST Program.

A separate checklist must be completed for each UST system (tank and associated piping) tightness tested, except that separate UST systems tightness tested at one site may be reported together by completing page 2 of this form separately for each system. The completed checklist should be mailed to the following address within 30 days of completion of tightness testing:

Underground Storage Tank Section
Department of Ecology
Mail Stop PV-11
Olympia, WA 98504-8711

DEPARTMENT OF ECOLOGY
UNDERGROUND STORAGE TANKS
JAN 06 1992

1. UST SYSTEM OWNER AND LOCATION

UST Owner/Operator: TACOMA BOATBUILDING CO. [redacted]

Owners Address: 1840 MARINE VIEW DRIVE (Street) | P.O. Box

TACOMA (City) | WA (State) | 98422 (ZIP-Code)

Telephone: (206) 572-3600

Site ID Number (on invoice or available from Ecology if tank is registered): 004415

Site/Business Name: TACOMA BOATBUILDING CO [redacted]

Site Address: 1840 MARINE VIEW DRIVE (Street) | County

TACOMA (City) | WA (State) | 98422 (ZIP-Code)

2. TIGHTNESS TESTING PERFORMED BY:

Firm: JOE HALL CONSTRUCTION | License Number: S000028

Address: 5303 PACIFIC HWY E #276 (Street) | P.O. Box

FIFE (City) | WA (State) | 98424 (ZIP-Code)

Telephone: (206) 922-6815

Licensed Supervisor: MIKE GRIFFIN | Tightness Testing License Number: W000347