011245
#2247 Soil ✓
281-7025
S.R.
Done
AK
Final
Complete
8/13/91

LAKE UNION AIR

950 Westlake Ave. North
Seattle, Washington 98109

(206) 284-0300
Fax (206) 283-2414

1-800-826-1890
Arinc LKEUA7L

July 10, 1991

Christi Madden
Northwest Regional Office
State of Washington
Department of Ecology
3190 160th Ave. S.E.
Bellevue, WA 98008-5452

Dear Ms. Madden:

I am enclosing the final paperwork to close underground storage tank site #011245.

Included are the final lab test results of the remediated soil from the site, as well as the contractor's site assessment. Total hydrocarbons are less than 30 ppm.

For your information, I have also included all historical documentation for the tank removal. Although it is not common practice for DOE to respond when this type of site is closed, I am requesting a letter from your office accepting the site as closed.

Thank you for your assistance with this matter.

Sincerely,

Wes Gustafson
General Manager

dj
Enclosures

O'Sullivan
CONSTRUCTION INC.

3214 16th Avenue S.W.
Seattle, Washington 98134
(206) 682-2440

28395 S.W. Boberg Road
Wilsonville, Oregon 97070
(503) 682-0275

July 8, 1991

Mr. Wes Gustafson
Lake Union Air
950 Westlake Av N
Seattle, WA 98109

Reference: Soil Contamination

Dear Mr. Gustafson:

To recount past activities, O'SULLIVAN CONSTRUCTION removed two (2) underground storage tanks from the parking lot of the AGC Building located at 1100 Westlake Av N, Seattle, Washington. During the removal process, some soil contamination was discovered. The polluted soil was subsequently excavated and transported to Lake Union Air for treatment.

On July 5th, 1991, I made a visit to Lake Union Air at 950 Westlake Av N, Seattle, Washington to inspect the soil stockpile. What I found was an area of soil approximately 20' x 30' lined with visqueen on an asphalt parking lot and varying from 1' to 3' in depth. All edges of this relatively flat area were bermed and it did not appear that any leaching had occurred from the treatment cell. Furthermore, I found no evidence of site contamination from the stockpiled material or from any other source.

To finalize matters, the soil treatment measures were effective. Enclosed is a copy of the soil analysis and a sketch showing the sampling location. The contamination testing of soil reveals that all petroleum contaminates are below the Washington State Department of Ecology clean-up levels.

If I can be of further assistance, please don't hesitate to call me at 206/682-2440.

Sincerely,

O'SULLIVAN CONSTRUCTION, INC

James R. Cazort

James R. Cazort
Project Manager
Petroleum Division

JRC/klr

enclosures

jc\LKUNION.jc

PEI

PACIFIC TESTING LABORATORIES

TACOMA DIVISION
2402 Pacific Highway East
Tacoma, WA 98424
(206) 922-9299
FAX (206) 922-1512

EXECUTIVE OFFICES
3220 - 17th Avenue West
Seattle, WA 98119-1790
(206) 282-0666
FAX (206) 282-0710

EASTSIDE DIVISION
18939 - 120th Avenue N.E. Suite 107
Bothell, WA 98011
(206) 451-8436
FAX (206) 485-4611

June 28, 1991
Certificate No. 9106-7155

Mr. Joe Steinbrenner
O'SULLIVAN CONSTRUCTION
3214 16th Avenue S.W.
Seattle, Washington 98134

Subject: Contamination Testing of Soil

Dear Mr. Steinbrenner:

On June 27, 1991, the Chemistry Department of Pacific Testing Laboratories received one soil sample from your P.O. No. 26479 sampled on June 6, 1991. The samples were analyzed on June 27, 1991 for total petroleum hydrocarbons (TPH), EPA Method 418.1, using a Perkin Elmer 1600 Series FTIR (S/N 135991). Results are presented in ppm dry weight. Benzene, toluene, ethyl-benzene, and xylenes (BTEX) content, as well as TPH-gasoline were determined by EPA Method 8020 (Headspace Method) and 8015 (modified), using a Hewlett-Packard 5890A gas chromatograph (2429 A03040). Results are presented in ppm total weight. Results of this analysis are presented in Table 1.

Table 1. Analytical Results for Soil Samples (ppm)

Sample I.D.	% Moisture	Total Petroleum Hydrocarbons	Benzene	Toluene	Ethyl Benzene	Total Xylenes	TPH-G
1	14.4	<30.0	0.22	4.0	<1.0	<1.5	25.8

This test has been made and report prepared based upon the specific sample provided to us by the client for testing. We assume no responsibility for variations in quality of samples made by persons or under conditions over which we have no control.

This report is provided for the information of the client only. The reproduction of this report by any method and its transmittal by any means to a third party, without the written permission of Pacific Testing Laboratories is prohibited.

If you have any questions, please contact us at (206) 282-0666.

Prepared by: Andrew F. Torres, Senior Chemist, Chemistry Department AFT

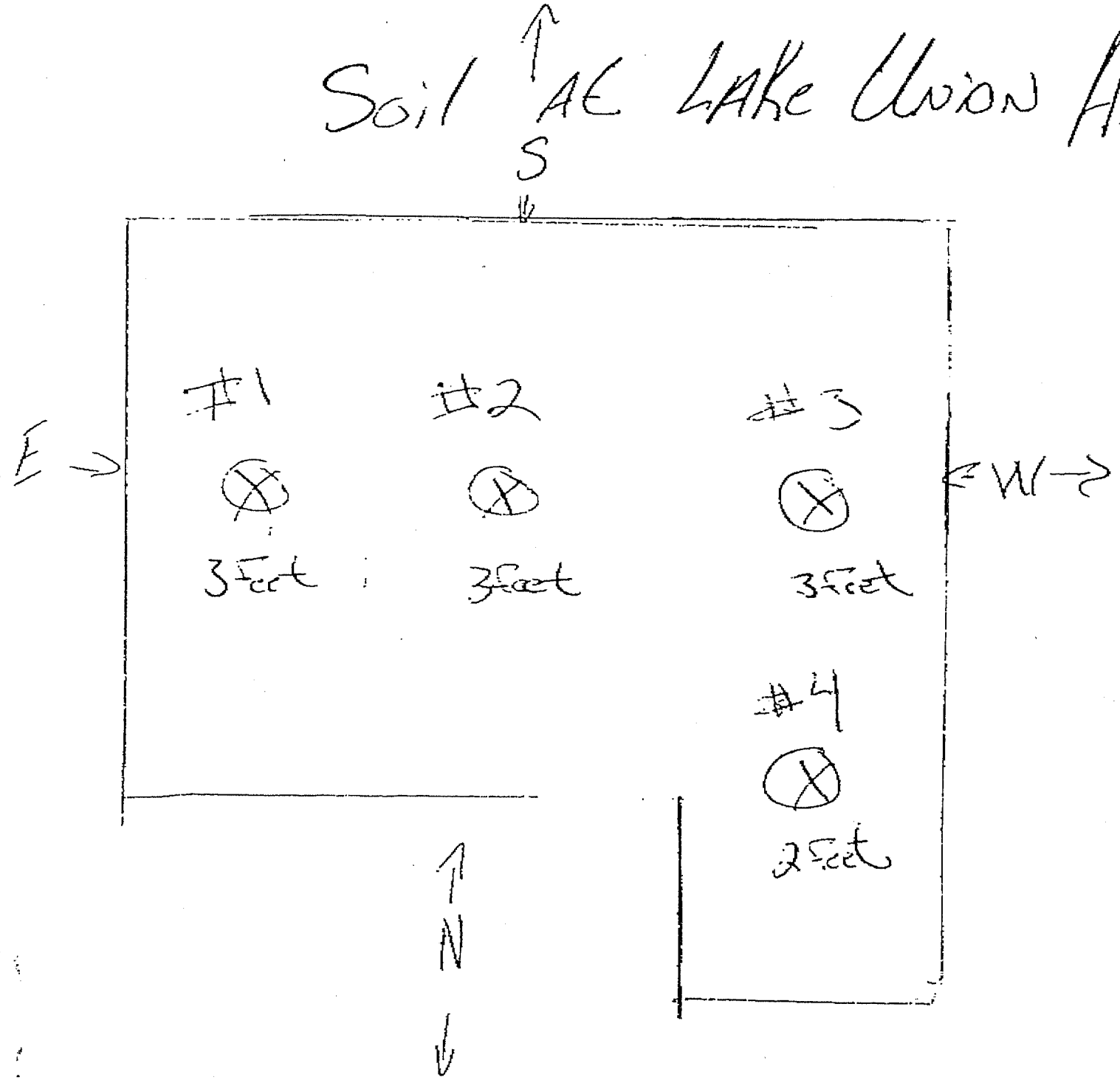
Sincerely,

Robert A. Bartlett

Robert A. Bartlett, Manager
Chemistry Department

AFT/ras

Soil AT Lake Union Air



* composite sample taken 6-27-91

O'Sullivan
CONSTRUCTION INC.

3214 16th Avenue S.W.
Seattle, Washington 98134
(206) 682-2440

28395 S.W. Boberg Road
Wilsonville, Oregon 97070
(503) 682-0275

March 1, 1991

Mr. Tony Davis
The Bayside Co
753 Ninth Av N
Seattle, WA 98109

Dear Mr. Davis:

This letter is to follow up our conversation of March 1, 1991 regarding the contaminated soil removed from the AGC Building parking lot. This soil was transported to Lake Union Air at 950 Westlake Av N, Seattle, as they were responsible for the fuel system in the adjacent parking lot.

As an approval method for site cleanup, the Department of Ecology looks favorably upon overexcavation of gasoline-polluted soil in conjunction with on-site aeration. O'SULLIVAN CONSTRUCTION employed this method in remediating the contaminated soil discovered during the tank removal at the AGC Building, 1200 Westlake Av N, Seattle. During this process, precautions were taken to safeguard all surrounding areas from contact with the excavated soil.

During the uncovering and excavation of the tanks, all contaminated soil was placed on visqueen to isolate it from the pavement and soils beneath. Before delivery of the soil to Lake Union Air, 6 mil visqueen was spread out to receive the contaminated soil and all edges were burmed to prevent soil migration. A dump truck was then used to transport the material from the AGC Building to Lake Union Air. At the conclusion of this operation, the entire stockpile was covered with visqueen so as to completely isolate the contaminated soil from rainwater and all surrounding areas. As part of the aeration process, the stockpile should be uncovered during dry weather to allow the volatile gases to vaporize into the atmosphere.

FYI: The highest pollutant levels analyzed were measured at 465.9 ppm for Total Petroleum Hydrocarbons and >1.0 ppm for Benzene and >50.0 ppm for Toluene.

Please feel free to contact me if you have any questions or need further information.

Sincerely

O'SULLIVAN CONSTRUCTION, INC

James R. Cazort
Project Manager
Petroleum Division

JRC/klr

cc: file/AGCBLDG.td

END

O'Sullivan
CONSTRUCTION INC.

3214 16th Avenue S.W.
Seattle, Washington 98134
(206) 682-2440

28395 S.W. Boberg Road
Wilsonville, Oregon 97070
(503) 682-0275

February 26, 1991

Mr. William Justen
Koll Company
2025 First Av
650 Market Pl Tower
Seattle, WA 98121

Dear Mr. Justen:

This letter is to follow up our conversation of February 22, 1991 regarding the contaminated soil removed from the AGC Building parking lot. This soil was transported to Lake Union Air at 950 Westlake Av N, Seattle, as they were responsible for the fuel system in the adjacent parking lot.

As an approval method for site cleanup, the Department of Ecology looks favorably upon overexcavation of gasoline-polluted soil in conjunction with on-site aeration. O'SULLIVAN CONSTRUCTION employed this method in remediating the contaminated soil discovered during the tank removal at the AGC Building, 1200 Westlake Av N, Seattle. During this process, precautions were taken to safeguard all surrounding areas from contact with the excavated soil.

During the uncovering and excavation of the tanks, all contaminated soil was placed on visqueen to isolate it from the pavement and soils beneath. Before delivery of the soil to Lake Union Air, 6 mil visqueen was spread out to receive the contaminated soil and all edges were burmed to prevent soil migration. A dump truck was then used to transport the material from the AGC Building to Lake Union Air. At the conclusion of this operation, the entire stockpile was covered with visqueen so as to completely isolate the contaminated soil from rainwater and all surrounding areas. As part of the aeration process, the stockpile should be uncovered during dry weather to allow the volatile gases to vaporize into the atmosphere.

Please feel free to contact me if you have any questions or need further information.

Sincerely

O'SULLIVAN CONSTRUCTION, INC

James R. Cazort
Project Manager
Petroleum Division

END

O'Sullivan
CONSTRUCTION INC.

3214 16th Avenue S.W.
Seattle, Washington 98134
(206) 682-2440

28395 S.W. Boberg Road
Wilsonville, Oregon 97070
(503) 682-0275

May 21, 1991

Mr. Wes Gustafson
Lake Union Air
1100 Westlake Av N
Seattle, WA 98109

Reference: Lake Union Air
950 Westlake Av N
Seattle, WA

Dear Mr. Gustafson:

O'SULLIVAN CONSTRUCTION has completed the scope of work described in the contract with Lake Union Air at the referenced property. To add to your files we have enclosed copies of the following documents: Soils Analysis, Soils Field Report, Site Assessment Checklist, DOE Form, Tank Removal Permit and Certificate of Disposal.

When doing underground storage tank removals, the Owner(s) of the tank(s) has certain responsibilities along with the contractor. One of these responsibilities is to notify the regulating authority for the area, in your case the Department of Ecology (DOE), that the work has been completed. In this notification you should include a copy of the original Washington State Underground Storage Tank Notification Form (WSUSTN from 1986) along with any changes that have been done (ie, upgrading tanks to current standards, removing tanks from the ground, filling tanks with a solid inert material). If a copy of your WSUSTN is not available a short cover letter explaining what has happened with the tanks will suffice. Also, the Department of Ecology would like a copy of the site assessment although as of yet it is not mandatory.

It has been a pleasure working with you. If we can be of service in the future please do not hesitate to contact us.

Very truly yours,

O'SULLIVAN CONSTRUCTION INC

Joe Steinbrenner
Operations Manager
Petroleum Division

JS/kr

enclosures
2190059.js

CHECK LIST FOR PERMANENT CLOSURE OF UNDERGROUND STORAGE TANK(S)

If closure information is different for individual tanks, please use a separate form for each tank

Business Name: Lake Union Air (owner # U0008499)

Site Owner/Operator: LAKE UNION AIR

Site Address: 1100 [redacted] Westlake N., Seattle, WA 98109

Telephone: (206) 771-4964

Site Identification (on invoice or available from Ecology if tank was reported): 011245

Local closure permit (if any) obtained from: Seattle Fire Department # 151909
(Always contact local authorities regarding permit requirements)

Date tank(s) were closed: 9/30/90

Tank closure performed by:

Company/Individual: O'Sullivan Construction

Telephone: (206) 682-2440

Method of Closure: Removal [X] In-Place Closure [ ]

If closed-in-place, type of fill material used: _____

Tank(s) Closed

Tank ID Number (on notification form)	Age	Size (Gal.)	Last Material Stored
Tank 1 none	—	2000	aviation gas
Tank 2 none	—	2000	kerosene

If removed, how will the tank(s) be disposed of: Scrap [X] Landfill [ ] Other _____ (please specify)

Will the tanks be replaced by new underground tanks? Yes [ ] No [X]

NOTE: If YES, you need to submit a notification form for the new tanks.

Was a site assessment completed? Yes [X] No [ ]

If yes, was contamination found? Yes [X] No [ ]

If yes, was the appropriate Regional Ecology Office Notified? Yes [X] No [ ]

NOTE: The appropriate regional office of the Washington Department of Ecology should be contacted for assistance if contamination is found (see attached map). Records of the site closure must also be maintained at the site and must be available upon an inspector's request for at least three years after closure.

Inspecting Agency: Seattle Fire Dept. Inspector Name: Inspector Negatto

NOTE: This is generally the local fire department or agency enforcing the Uniform Fire Code; in some cases (usually involving contamination) it may be Ecology. In some instances there may be no inspecting agency.

Owner's Signature (or designated representative): _____

Title: Operations Mgr Date: 9/25/91

Please return the completed form to:

Underground Storage Tank Section
Department of Ecology
M/S PV-11
Olympia, WA 98504-8711

Your Seattle Fire Department

SEATTLE FIRE DEPARTMENT

SEP 20 1990

PERMIT CODE: 799 T Title: TEMPORARY UNDERGROUND TANK REMOVAL/ABANDONMENT PERMIT

FEE: $60.00 + TIME CHARGE $_____ Code Reference: 79.113 9-20-90 / 9/24/90

Receipt # 151909 or Data Entry # _____ Date Received Date Issued

Firm Name: O'SULLIVAN CONSTRUCTION Phone: 682-2440

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

Job Site: LAKE UNION DRY DOCK, 1100 WESTLAKE N. Seattle, WA.

Person in Charge Joe Steinbrenner Phone: 682-2440

Number/size of tanks: (2) Two - 2,000 gallon Tanks (64"x144")

Product last contained: DIESEL

Type of rinse: SOAPY WATER RINSE

CONDITIONS:

1. TANKS MAY BE REMOVED ONLY AFTER FIRE DEPARTMENT INSPECTION.
2. Two (2) 20 BC portable fire extinguishers are to be on site within 50' of the operation.
3. Rope or ribbon barricades must be provided circling 10' from the operation or be enclosed in a fenced yard.
4. "No Smoking" signs must be posted in readily visible locations.
5. No hot works allowed unless the tanks are certified gas free. A separate Fire Department permit (Code 491) is required for cutting and welding operations.

PROCEDURES:

1. Call 386-1450, 24 hours prior to removal to arrange for an appointment. Appointments must be confirmed by an Inspector.
2. Permits may cover multiple tanks located at a single inspection area. If additional tanks are to be removed at later dates, separate permits shall be obtained.
3. Additional fees will be charged if inspectors are required to work other than normal business hours. (Normal business hours are 7:30 a.m. to 4:30 p.m.)
4. To ensure tanks are completely free of all flammable or combustible liquids, a receipt or certificate must be on site indicating the tank has been pumped and rinsed with an approved material. Product and rinse water must be disposed of in an approved manner.

5. To ensure that the tank atmosphere has been inerted, one (1) pound of dry ice (Carbon Dioxide) per 50-gallon capacity of the tank must be inserted in the tank. (A 1,000-gallon tank would require 20 pounds of dry ice.) This should be done prior to the use of heavy equipment for excavating.
   a. Wait a **minimum** of 60 minutes for dry ice to vaporize. Vapors should begin to show at the fill pipe at this time.

   b. A Fire Marshal's Office Inspector will test with a Carbon Dioxide Tester. When a reading of 60% CO_2 is achieved, tank removal may begin.

   c. CO_2 fire extinguishers or compressed gas are not to be used for inerting purposes. This produces static electricity which may result in an explosion.

6. Tanks with baffles to prevent movement of liquid (or tanks without baffles larger than 10,000 gallons) must be certified gas free by a Marine Chemist or a Petroleum Industry Safety Engineer regularly engaged in that business prior to removal.

7. Tanks must be removed from the ground and relocated to a remote, approved facility on the day that the permit is issued.

8. After the tanks are removed, the openings should be sealed so the CO_2 gas will remain in the tank during transit. In addition, tanks large enough to allow a person to enter it to do repair work should be marked on one side with spray paint **"NO AIR - INERT GAS"**.

PERMIT CONDITIONS OK

TESTED 2 x UST'S (2) > 60% CO_2 LEVEL

OK TO PULL ABOVE GRADE AND TRANSPORT

SEATTLE FIRE DEPARTMENT

Expiration Date: SEPT 24, 1990 By I A. NGRETO
Inspector

F238I
(1/90)

Northwest EnviroField Services

DISPOSAL CERTIFICATION

DATE: October 15, 1990

TO: O'Sullivan Construction
3214 16th Aveune SW
Seattle, WA 98134

REFERENCE P.O. #22318

To whom it may concern,

This letter is to certify that Northwest EnviroField Services has received the following tank(s) for cleaning and disposal in accordance with all federal, state and local rules and regulations:

1.) One (1) 2,000 gallon diesel
2.) One (1) 2,000 gallon gas

NWEFS JOB #: 32-15999

DATE RECEIVED: 09-25-90

DATE CLEANED: 09-29-90

DATE OF DISPOSAL: 09-29-90

METHOD OF DISPOSAL: Scrap Steel

LOCATION OF TANK ORIGIN: AGC Building / 1100 Westlake / Seattle, WA

If you have any questions or requests for service, feel free to contact this office at (206)-762-1190.

Thank you for your business and we look forward to being of service in the future.

Sincerely,

Northwest EnviroField Services

Kim Ducatt

Kim Ducatt
Underground Tank Division

KD:jsh

SITE ASSESSMENT AND SOIL TEST

Jobsite Name Lake Union Air Job # 2190-059

Owner's Name _____ Address [redacted] 1100 Westlake N.

General site condition at tanks good

Condition of existing equipment good

Physical condition of soil (sight & smell) during removal:

	Tank #1	2	3	4	5	6
0-3'	smell	smell				
3-6'	smell	smell				
6-9'	smell	smell				
9-12'						
12'-over						

Soil test taken at:

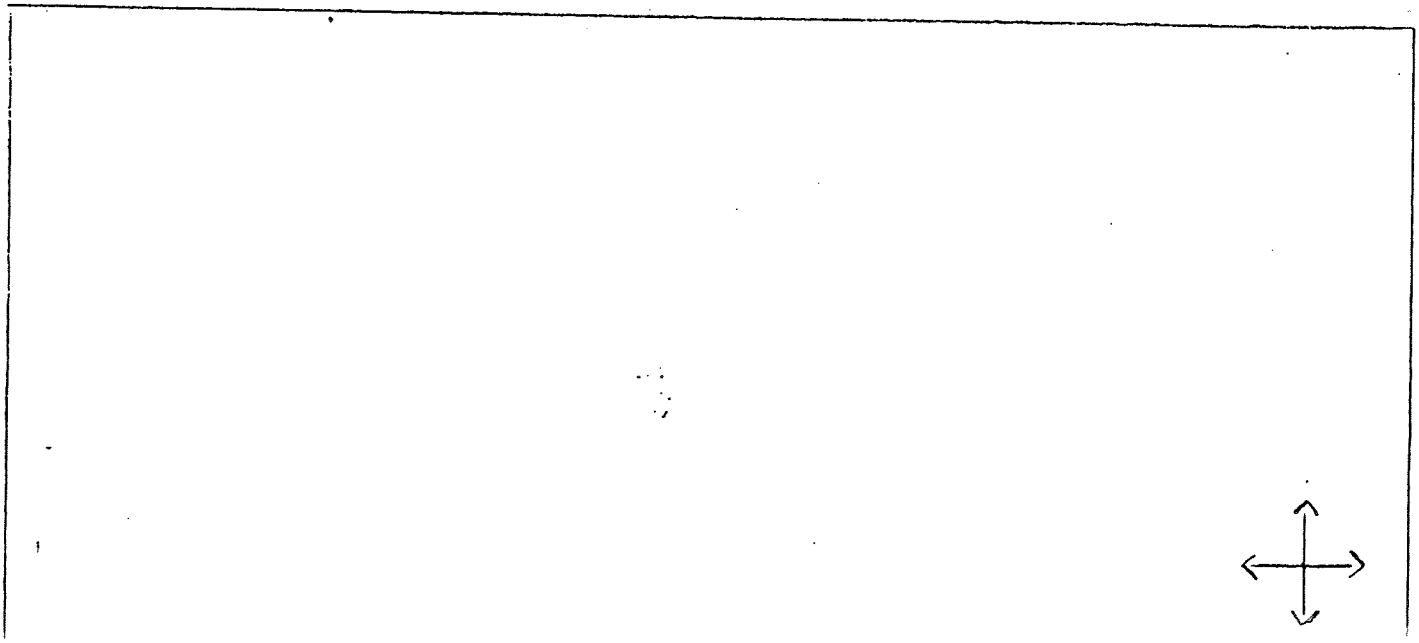
	Tank #1	2	3	4	5	6
	Bottom	southside	westside			
0-3'						
3-6'		✓	✓			
6-9'	✓					
9-12'						
12'-over						

Photographs taken: Yes _____ No ✓

Sample bottles filled: Yes ✓ No _____ Lab Name Pacific testing

Sample bottles labeled: Yes ✓ No _____

Sketch of Excavation



Site Lake Union NRE Job # 2190-05 Date 9/24/90

3 Total Number of Soils Samples Taken

Test #		Test #
1	Bottom	
2	Southside	
3	Westside	

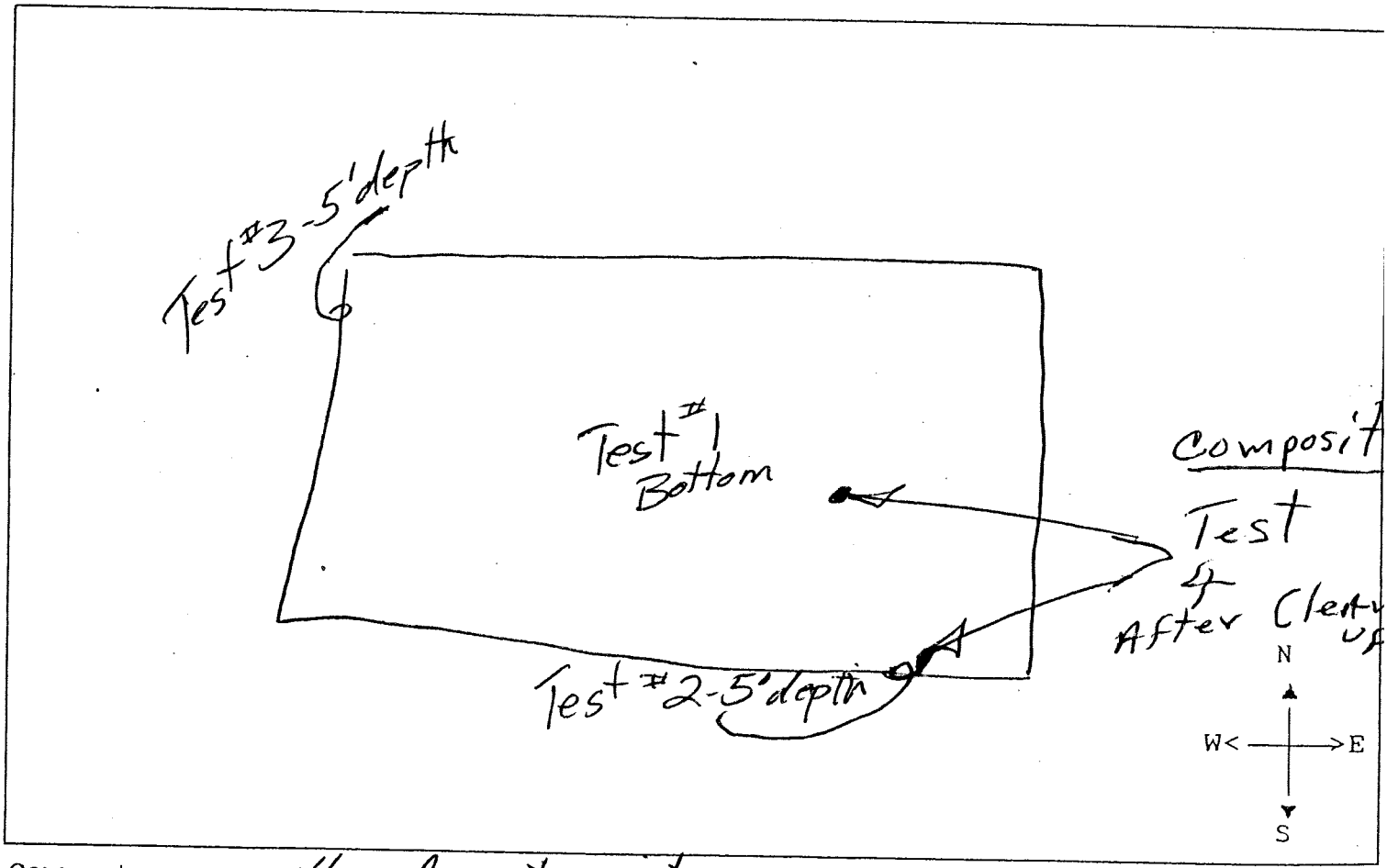
Depth (feet) each sample was taken:

Test #		Test #
1	8'	
2	5'	
3	5'	
~~#4~~	~~6' & 11'~~	

Yes	No	
☒	☐	Are sample bottles filled completely?
☒	☐	Are sample bottles labeled?
	☐	Lab name - soils samples were delivered ~~Pacific Testing~~

Yes	No	Photographs Taken
☐	☒	Closeup
☐	☐	Overall

Sketch of Excavation



Comments: smells of contamination

Superintendent: [signature] Date 9/24/90

PACIFIC TESTING LABORATORIES

EXECUTIVE OFFICES
3220 - 17th Avenue West
Seattle, WA 98119-1790
(206) 282-0666
FAX (206) 282-0710

TACOMA DIVISION
2402 Pacific Highway East
Tacoma, WA 98424
(206) 922-9299
FAX (206) 922-1512

October 4, 1990
Certificate No. 9009-7290

#59

O'SULLIVAN CONSTRUCTION
Mr. Joe Steinbrenner
3214 16th Avenue, S.W.
Seattle, WA 98134

Subject: Contamination Testing of Soil

Dear Mr. Steinbrenner:

On September 27, 1990, the Chemistry Department of Pacific Testing Laboratories received one soil sample from your P.O. No. 22375 for Job No. 2190-059 sampled September 27, 1990. The sample was analyzed on September 28, 1990, for total petroleum hydrocarbons, EPA Method 418.1, using a Perkin Elmer 1600 Series FTIR (S/N 135991), and benzene, toluene, and xylenes (BTEX) content by EPA method 3810 (Headspace Method), using a Hewlett-Packard 5890A gas chromatograph (2429 A03040). Results of this analysis, in parts per million (ppm), are presented in Table 1.

Table 1. Analytical Results for Soil Samples (ppm)

Sample I.D.	% of Water	Total Petroleum Hydrocarbons	Benzene	Toluene	Ethyl Benzene	Total Xylenes
4	19.4	<50.0	<0.05	<2.5	≤1.0	<1.5

The EPA regulated maximum set for total petroleum hydrocarbons in soil is 0.020 weight percent (200 ppm). Based on this criteria, the sample was found to be within the limit for total peetroleum hydrocarbons.

This test has been made and report prepared based upon the specific sample provided to us by the client for testing. We assume no responsibility for variations in quality of samples made by persons or under conditions over which we have no control.

This report is provided for the information of the client only. The reproduction of this report by any method and its transmittal by any means to a third party without the written permission of Pacific Testing Laboratories is prohibited.

If you have any questions, please contact us at (206) 282-0666.

Reviewed by: Mark A. Dubach, Chemist, Chemistry Department MAD

Sincerely,

Robert Allen Bartlett

Robert A. Bartlett, Manager
Chemistry Department

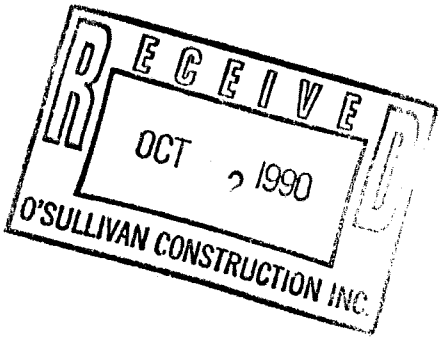
RAB/laj

PACIFIC TESTING LABORATORIES

EXECUTIVE OFFICES
3220 - 17th Avenue West
Seattle, WA 98119-1790
(206) 282-0666
FAX (206) 282-0710

TACOMA DIVISION
2402 Pacific Highway East
Tacoma, WA 98424
(206) 922-9299
FAX (206) 922-1512

September 28, 1990
Certificate No. 9009-7245



Mr. Joe Steinbrenner
O'SULLIVAN CONSTRUCTION, INC.
3214 16th Avenue S.W.
Seattle, WA 98134

Subject: Contamination Testing of Soil

Dear Mr. Steinbrenner:

On September 25, 1990, the Chemistry Department of Pacific Testing Laboratories received three soil samples from your P.O. No. 22238 for Job. No. 2190-059 sampled September 24, 1990. The samples were analyzed on September 26, 1990, for total petroleum hydrocarbons, EPA Method 418.1, using a Perkin Elmer 1600 Series FTIR (S/N 135991), and benzene, toluene, and xylenes (BTEX) content by EPA Method 3810 (Headspace Method), using a Hewlett-Packard 5890A gas chromatograph (2429 A03040). Results of this analysis, in parts per million (ppm), are presented in Table 1.

Table 1. Analytical Results for Soil Samples (ppm)

Sample I.D.	% of Water	Total Petroleum Hydrocarbons	Benzene	Toluene	Ethyl Benzene	Total Xylenes
1	14.0	179.7	0.13	35.65	≤2.5	3.71
2	17.9	465.9	>1.00	>50.00	≤2.0	4.24
3	7.3	<50.0	0.09	<2.50	≤1.0	<1.50

The EPA regulated maximum set for total petroleum hydrocarbons in soil is 0.020 weight percent (200 ppm). Based on this criteria, Sample No. 2 was found to be in excess of the limit for total petroleum hydrocarbons. Also Sample No. 2 was found to be in excess of the DOE regulated limit for Benzene in soil of 0.66 ppm.

This test has been made and report prepared based upon the specific sample provided to us by the client for testing. We assume no responsibility for variations in quality of samples made by persons or under conditions over which we have no control.

This report is provided for the information of the client only. The reproduction of this report by any method and its transmittal by any means to a third party without the written permission of Pacific Testing Laboratories is prohibited.

If you have any questions, please contact us at (206) 282-0666.

Prepared by: Mark A. Dubach, Chemist, Chemistry Department MAD

Sincerely yours,

Robert Allen Bartlett

Robert A. Bartlett, Manager
Chemistry Department

MAD/pb