

PETROLEUM RELEASE FORM

Please Check All That Apply

E
UPDATES:

-----INCIDENT INFORMATION-----

LOG NBR: 04-96-485

RECEIVED BY: SAM

☒ REGULATED UST

UST FAC NBR: 2716

DATE REPORTED: 19 Aug 96

☐ NON-REGULATED UST

SITE NAME: Cannon Beach RFPD

☐ HEATING OIL TANK

SITE ADDRESS: 232 N Spruce St.

SITE CITY: Cannon Beach ZIP: 97110

FUNDING

SITE COUNTY: PHONE:

☒ LUST
☐ OHC☐ HSRF
☐ FINANCIAL ASST

PROJECT MANAGER:

☐ INVOICE START☐ INVOICE STOP
☐ NFA SENT

-----MAIL CONTACTS-----

REPORTED BY

NAME: Pam Obrist

COMPANY: Dan Obrist Exc.

ADDRESS:

CITY: ZIP:

STATE: PHONE: 667-4042

RESPONSIBLE PARTY

NAME: Fire Chief

COMPANY: Cannon Beach RFPD

ADDRESS: 232 N Spruce St - PO Box 24

CITY: Cannon Beach ZIP: 97110

STATE: OR PHONE:

INVOICE CONTACT

NAME: RP

COMPANY:

ADDRESS:

CITY: ZIP:

STATE: PHONE:

OTHER CONTACT(S)

NAME:

COMPANY:

ADDRESS:

CITY: ZIP:

STATE: PHONE:

-----SITE ASSESSMENT-----

DATE DISCOVERED: 17 Aug 96

☐ EMERGENCY RESP.☐ ENFORCEMENT☒ FURTHER CLEANUP REQ.☐ NO FURTHER CLEANUP REQ.☐ OFFSITE MIGRATION

L.I.P.S. SCORE (Region)

CONFIRMATION:

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

DISCOVERY:

- ☐
- RM) ROUTINE MONITORING
-
- ☐
- DC) DECOMMISSIONING
-
- ☐
- CP) COMPLAINT
-
- ☐
- IC) INVENTORY CONTROL
-
- ☒
- SA) SITE ASSESSMENT
-
- ☐
- TT) TANK TEST
-
- ☐
- OT) OTHER

CAUSE:

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

*site closed
8-21-96
MB

-----CONTAMINANTS - IMPACTS-----

CONTAMINANTS:

- ☐ UG) UNLEADED GASOLINE
- ☐ LG) LEADED GASOLINE
- ☐ MG) MISC. GASOLINE
- ☒ DS) DIESEL
- ☐ FO) FUEL OIL
- ☐ WO) WASTE OIL
- ☐ LB) LUBRICANT

- ☐ SV) SOLVENT
- ☐ BF) BUNKER FUEL
- ☐ OP) OTHER PET. DIST.
- ☐ CH) CHEMICAL
- ☐ HO) HEATING OIL
- ☐ UN) UNKNOWN
- ☐ OT) OTHER _____

MEDIA/IMPACT:

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

-----SITE - SOIL MANAGEMENT-----

RELEASE STOPPED: 17 / Aug / 96

REMEDATION COMPLETED: 6 / 10 / 02

CLEANUP STARTED: 17 / Aug / 96

NO FURTHER ACTION: 8 / 21 / 02

SWLA PERMIT NUMBER: _____

DATE ISSUED: _____ / _____ / _____

AMOUNT OF SOIL (yds 3) TREATED ON SITE: _____

TREATMENT METHOD:

- ☐ AREATION
- ☐ THERMAL
- ☐ BIOLOGICAL
- ☐ OTHER _____

AMOUNT OF SOIL (yds 3) TREATED OFF SITE: _____

AMOUNT OF SOIL (yds 3) DISPOSED OF: _____ ☐ TREATED

☐ UNTREATED

FINAL DISPOSITION OF SOIL:

- ☐ ONSITE
- ☐ LANDFILL

- ☐ ROAD BASE
- ☐ OTHER _____

NOTES/COMMENTS: _____

This Space Provided For Regional Use

FILE NAME: Cannon Beach RFPs LOG NO. 04-96-0485

NWR'S NFA TRACKING CHECKLIST

ROUTE TO	ACTIVITY	RESPONSIBLE PERSON	DATE COMPLETED
	Sequent checked by project manager to make sure fees paid and tanks closed and that UST compliance issues have been resolved.	JL	6-5-02
	OTIS updated with soil disposal, public notice, and other applicable information by project manager.	JL	6-5-02
	Draft NFA prepared by Project Manager (PM) and submitted to NRS-4 Hydro or Manager for review	JL	6-5-02
ANP	Draft NFA approved by NRS-4 Hydro (or Manager, if necessary) and submitted for data entry		
	SEQUENT updated with final invoice request date and new green sheet information.	TA	6-10
	OPTIONAL STEP: Expedited payment request by responsible party (RP) is handled by =====>>		
	OPTIONAL STEP: Estimated Expedited Payment Amount given to RP by =====>>		
	To Administrative staff for cost recovery entries	TVB	6-10
	Final invoice paid notice received from Business Office and PM informed by Manager	AM	8/20
	Final NFA drafted and signed by PM (and Manager, if necessary), and sent for data entry	JL	8-20-02
	SEQUENT updated with filed closed information.	TVB	8-21
	Proofreading letter and file closure activities	TRND	6-10
	Copies made and mailed	TVB	8-21-02

NFA PROCESS COMPLETE



Oregon

John A. Kitzhaber, M.D., Governor

Department of Environmental Quality

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

August 21, 2002

CLEVE ROOPER, CHIEF
CANNON BECH R.F.P.D.
BOX 24
CANNON BEACH OREGON 97110

Re: Cannon Beach RFPD
File No. 04-96-0485
Facility ID. No. 2716

Dear Mr. Rooper:

The Department of Environmental Quality (DEQ) has completed its review of the information submitted to date concerning the underground storage tank (UST) decommissioning and cleanup conducted at 232 North Spruce Street, in Cannon Beach, Oregon. The DEQ has determined that the cleanup appears to have met the requirements of Oregon Administrative Rules (OAR) 340-122-205 through 340-122-360 and that no further action is required at this time.

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

1. A 1,000-gallon diesel UST was decommissioned at this location. The tank was recycled at Schnitzer Steel Products in Portland, Oregon.
2. Diesel contamination was discovered during decommissioning. Approximately 40 cubic yards of contaminated soil was treated off-site through the Departments Solid Waste Letter of Authorization (SWLA) Permit No. PCSLA-NWR-96-010. After treatment of the contaminated soil was complete, confirmatory sampling were detected in the soil at 45, 32 and 31 ppm diesel range hydrocarbons. The treated soil according to the report prepared by Roger N. Smith Associates will be used as fill material for a helicopter landing pad to be built at the treatment location by the City of Cannon Beach.
3. After cleanup was complete, 31 parts per million diesel hydrocarbons were left in the north bottom of the tank pit. This amount is below the most stringent cleanup level of 100 parts per million (ppm) for diesel range hydrocarbons. BTEX soil sample results showed no detection for benzene. Toluene, ethylbenzene and xylenes were detected at a maximum of 1.48 ppm, 0.36 ppm and 1.46 ppm respectively. These concentrations are below the least stringent risk based screening levels in the DEQ's "Risk-Based Decision Making For The Remediation Of Petroleum-Contaminated Sites" (September 29, 1999) guidance document.
4. Groundwater was encountered during the decommissioning. The analysis of the ground water samples that were collected did not detect petroleum hydrocarbons or BTEX.



Mr. Rooper
August 21, 2002
Page 2

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

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

Your efforts to comply with the regulations to ensure that your facility has been adequately cleaned up have been appreciated.

If you have any questions, please feel free to contact me at (503) 229-5472.

Sincerely,

A handwritten signature in cursive script, reading "Tina Leppaluoto".

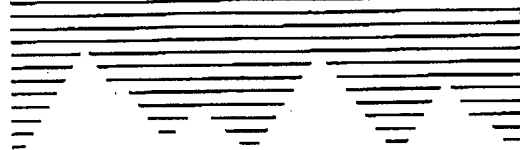
Tina Leppaluoto, Cleanup Specialist
UST Cleanup and Compliance Section

cc: Roger N. Smith Associates, Inc.

(tll:TLL)

04-96-8485

ROGER N. SMITH ASSOCIATES, INC.
Groundwater and Environmental Consultants



800 N.W. 6th Ave., Suite 318; Portland, OR 97209

FACSIMILE COVER PAGE

FAX Number: (503) 241-1441

Tel: (503) 241-5444

e-mail: rnsagroundwater@cs.com

TRANSMISSION TO: Tina Leppaluoto
Oregon DEQ, UST Cleanup and Compliance Section

FAX NUMBER: 503-229-6945

DATE SENT: 5/16/02

PAGES FOLLOWING COVER SHEET:

(if you do not receive all of the pages, please call (503) 241-5444)

Tina:

Attached are the changes we discussed this morning. The groundwater sample has been moved to the west side of the tank pit.

Roger (503)-241-5444

NOTE: The information contained in this facsimile transmission is intended only for the use of the individual or entity to whom it is addressed. It may contain certain information protected by consultant-client privilege. If the reader of this message is not the intended recipient, you are hereby notified that any disclosure, copying, distribution, or the taking of any action in reliance on the contents of this communication is strictly prohibited. If you have received this facsimile transmission in error, please immediately notify us with a collect telephone call at (503) 241-5444, and return the original facsimile to us at the address above, via the U.S. Postal Service.

ROGER N. SMITH
ASSOCIATES, INC

Groundwater and Environmental Consultant

May 16, 2002

Ms Tina Leppaluoto
Oregon DEQ, UST Cleanup and Compliance Section
Northwest Region
2020 SW Fourth Avenue
Portland, Oregon 97201
RE: DEQ File No 04-96-0485
Facility ID No. 2716

Dear Ms. Leppaluoto:

This is in response to our telephone conversation this morning about the plan presented to you on May 14th. This new Scope incorporates the changes discussed this morning (i.e. moving the groundwater sample) and collecting a soil sample from the soil remediation site. The remainder of the scope is the same as the May 14th version. It is our understanding that this work will supply sufficient information to the DEQ to receive an NFA on the property.

Attached to this letter is a map drawn approximately to scale showing the upcoming sampling locations.

The following narrative discusses the specifics for each task. Each numbered item relates to the same number listed in the 4/29/02 letter.

1.) Two soil samples will be collected from the soil-water interface. One sample will be collected two feet east of the former tank pit boundary and one sample will be collected two feet west of the former tank pit boundary (see attached site diagram). The groundwater depth will first be confirmed by cutting through the asphalt, hand augering through the 1 foot of crushed gravel and down to approximately 1 foot into the native sand. The water depth has been previously measured to be between 2 and 3 feet below ground surface (bgs). Once the water table depth is confirmed another hole will be hand augered to a depth immediately above the water table and the sample will be collected using a 1-foot long lined core barrel driven into the soil with a slide hammer. Samples on both sides of the former tank pit will be collected in the same manner. The soil samples will be placed in clean sample jars, filling and compacting the soil to drive out as much air space as possible. Samples will then be placed on ice until delivery to the analytical lab to be analyzed for BTEX by EPA Method 8021B. The soil boring holes will be filled with bentonite clay as is required by Or. Dept. of Water Resources (ODWR). When the work is complete the pavement will be patched with quick-set cement. Also as required by DEQ protocol a health and safety plan will be developed for the work.

Results of the sample analyses along with a narrative of the sample process will be presented in a summary report.

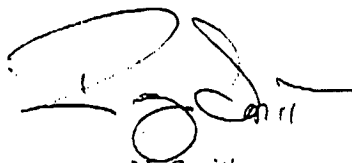
2.) A groundwater sample will be collected at the soil/water interface approximately 2 feet west of the former tank pit boundary (see attached diagram for sample location). A hole will be cut in the pavement to access the soil beneath. This soil will be hand augered to a depth approximately 6-inches above the water table. The water sample will be collected by driving a retractable groundwater sample point through the bottom of the hand auger hole to just below the water table. The drive rod will be retracted approximately 3 inches which will expose the sampling point. Water will be drawn to the surface through a teflon tube connected to the sample point using a peristaltic pump. If flow is sufficient, groundwater parameters (temperature, pH and conductivity) will be monitored during purging of the water. When parameters have stabilized a sample will be collected in 40 ml VOA bottles, labeled and placed on ice. The groundwater sample will be submitted to the lab for BTEX analysis by EPA Method 8021B. This sample point will be registered with the Oregon Dept. of Water Resources as required because a water quality sample was collected.

Results from the analyses will be presented in the summary report.

3.) Information will be supplied regarding the disposition of soil removed from the former tank pit during remediation in 1996. During the upcoming field work the soil disposal site will be visited and a soil sample will be collected for analysis by NWTPH-Dx.

The field portion of the proposed work is planned for completion this week (Friday), with analytical results available by the following Friday (May, 24). We anticipate completion of the report and delivered to the DEQ before the end of May. It is presumed that the Fire Dept. will assure access (i.e. absence of parked vehicles) to the proposed sample locations.

Sincerely,
RNSA, Inc.



Roger N. Smith,
Principal, Geologist OR #G838
Water Rights Examiner OR #43665
Monitoring Well Constructor #10225

attcnmts: Figure 1, proposed soil and groundwater interface sampling locations

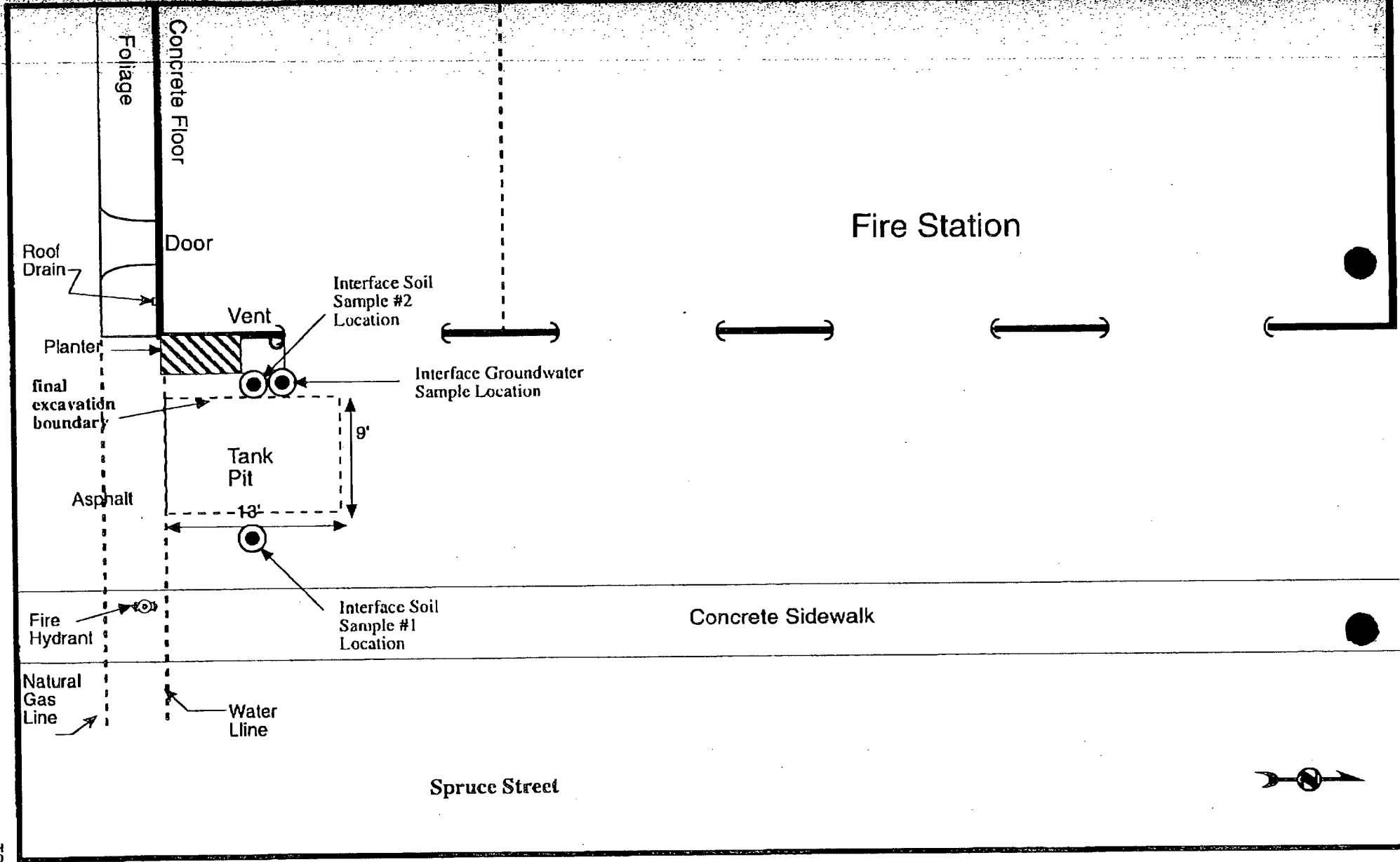


Figure 1: Proposed Soil and Groundwater Interface Sampling Locations

May 28, 2002

Tina Leppaluoto
Oregon Department of Environmental Quality
Northwest Region
2020 SW Fourth Avenue
Portland Oregon 97201-4987

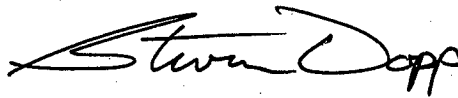
Re: Materials enclosed.

Tina:

Please find the enclosed original copy of the Final Groundwater and Soil
Sampling Report for the old Cannon Beach RFPD firehouse, DEQ file number
04-96-0485. /

If you have comments or questions with regard to this document, please call me at
(503) 241-5444.

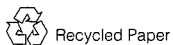
Sincerely,



Steven Dopp
Geologist
RNSA

Enclosures: Final Groundwater and Soil Sampling Report

RECEIVED
MAY 30 2002



DEPT OF ENVIRONMENTAL QUALITY
NORTHWEST REGION

800 NW 6th Ave., Suite 318
Portland, OR 97209-3700
TEL (503) 241-5444
FAX (503) 241-1441

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: Roger Smith DATE: 5/16/02
WITH: RUSA TIME: 11:00
TELEPHONE NO: (503) 241-5444
REGARDING: Cannon Beach RFPD
FILE NO: 04-96-0485

SUMMARY OF CALL

Called Roger Smith re: proposed sample plan.
ask to have the water sample taken from
the sample on the west end of Tank. Which
indicates on the site sketch as sample #2
we also discussed sampling the treated soil
after it was placed in the designated
area according to O&E records. Requested
to have that sample analyzed for NWTPH-BX.
Should have report in the next couple of weeks.
work will be done on 5/17/02.

J. Leppakurto
Staff Signature

54-96-485

ROGER N. SMITH ASSOCIATES, INC.

Groundwater and Environmental Consultants



800 N.W. 6th Ave., Suite 318; Portland, OR 97209

FACSIMILE COVER PAGE

FAX Number: (503) 241-1441

Tel: (503) 241-5444

e-mail: rnsagroundwater@cs.com

TRANSMISSION TO: Tina Leppaluoto
Oregon DEQ, UST Cleanup and Compliance Section

FAX NUMBER: 503- 229-6945

DATE SENT: 5/15/02

PAGES FOLLOWING COVER SHEET:

(if you do not receive all of the pages, please call (503) 241-5444)

Tina:

Attached is the proposed soil and groundwater locations for
Cannon Beach Fire Department.

As we would like to complete this work on Friday, I would
appreciate a quick review. Thank you.

Roger (503)-241-5444

NOTE: The information contained in this facsimile transmission is intended only for the use of the individual or entity to whom it is addressed. It may contain certain information protected by consultant-client privilege. If the reader of this message is not the intended recipient, you are hereby notified that any disclosure, copying, distribution, or the taking of any action in reliance on the contents of this communication is strictly prohibited. If you have received this facsimile transmission in error, please immediately notify us with a collect telephone call at (503) 241-5444, and return the original facsimile to us at the address above, via the U.S. Postal Service.

ROGER N. SMITH
ASSOCIATES, INC.

Groundwater and Environmental Consultants

May 14, 2002

Ms Tina Leppaluoto
Oregon DEQ, UST Cleanup and Compliance Section
Northwest Region
2020 SW Fourth Avenue
Portland, Oregon 97201
RE: DEQ File No 04-96-0485
Facility ID No. 2716

Dear Ms. Leppaluoto:

This letter is in response to your April 29, 2001 letter requesting additional information associated with the closure of an underground storage tank removed from an area in front of the former Cannon Beach Fire House at 232 North Spruce Street in Cannon Beach, Oregon.

Our company (RNSA) has developed this scope of work to address items outlined in your 4/29/02 letter. The goal of doing this work is to obtain an NFA (no further action) from DEQ. Therefore, I am sending this proposed approach for your review and approval. We will contact you before field work begins to confirm that our approach is approved for our intended goal.

Attached to this letter is a map drawn approximately to scale showing the upcoming sampling locations.

The following narrative discusses the specifics for each task. Each numbered item relates to the same number listed in the 4/29/02 letter.

1.) Two soil samples will be collected from the soil-water interface. One sample will be collected two feet east of the former tank pit boundary and one sample will be collected two feet west of the former tank pit boundary (see attached site diagram). The groundwater depth will first be confirmed by cutting through the asphalt, hand augering through the 1 foot of crushed gravel and down to approximately 1 foot into the native sand. The water depth has been previously measured to be between 2 and 3 feet below ground surface (bgs). Once the water table depth is confirmed another hole will be hand augered to a depth immediately above the water table and the sample will be collected using a 1-foot long lined core barrel driven into the soil with a slide hammer. Samples on both sides of the former tank pit will be collected in the same manner. The soil samples will be placed in clean sample jars, filling and compacting the soil to drive out as much air space as possible. Samples will then be placed on ice until delivery to the analytical lab to be analyzed for BTEX by EPA Method 8021B. The soil boring holes will be filled with bentonite clay as is required by Or. Dept. of Water Resources (ODWR). When the work is complete the pavement will be patched

with quick-set cement. Also as required by DEQ protocol a health and safety plan will be developed for the work.

Results of the sample analyses along with a narrative of the sample process will be presented in a summary report.

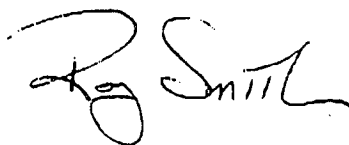
2.) A groundwater sample will be collected at the soil/water interface approximately 2 feet north of the former tank pit boundary (see attached diagram for sample location). A hole will be cut in the pavement to access the soil beneath. This soil will be hand augered to a depth approximately 6-inches above the water table. The water sample will be collected by driving a retractable groundwater sample point through the bottom of the hand auger hole to just below the water table. The drive rod will be retracted approximately 3 inches which will expose the sampling point. Water will be drawn to the surface through a teflon tube connected to the sample point using a peristaltic pump. If flow is sufficient, groundwater parameters (temperature, pH and conductivity) will be monitored during purging of the water. When parameters have stabilized a sample will be collected in 40 ml VOA bottles, labeled and placed on ice. The groundwater sample will be submitted to the lab for BTEX analysis by EPA Method 8021B. This sample point will be registered with the Oregon Dept. of Water Resources as required because a water quality sample was collected.

Results from the analyses will be presented in the summary report.

3.) Information will be supplied regarding the disposition of soil removed from the former tank pit during remediation in 1996.

The field portion of the proposed work is planned for completion this week (Friday), with analytical results available by the following Friday (May, 24). We anticipate completion of the report and delivered to the DEQ before the end of May. It is presumed that the Fire Dept. will assure access (i.e. absence of parked vehicles) to the proposed sample locations.

Sincerely,
RNSA, Inc.



Roger N. Smith,
Principal, Geologist OR #G838
Water Rights Examiner OR #43665
Monitoring Well Constructor #10225

attcmnts: Figure 1, proposed soil and groundwater interface sampling locations

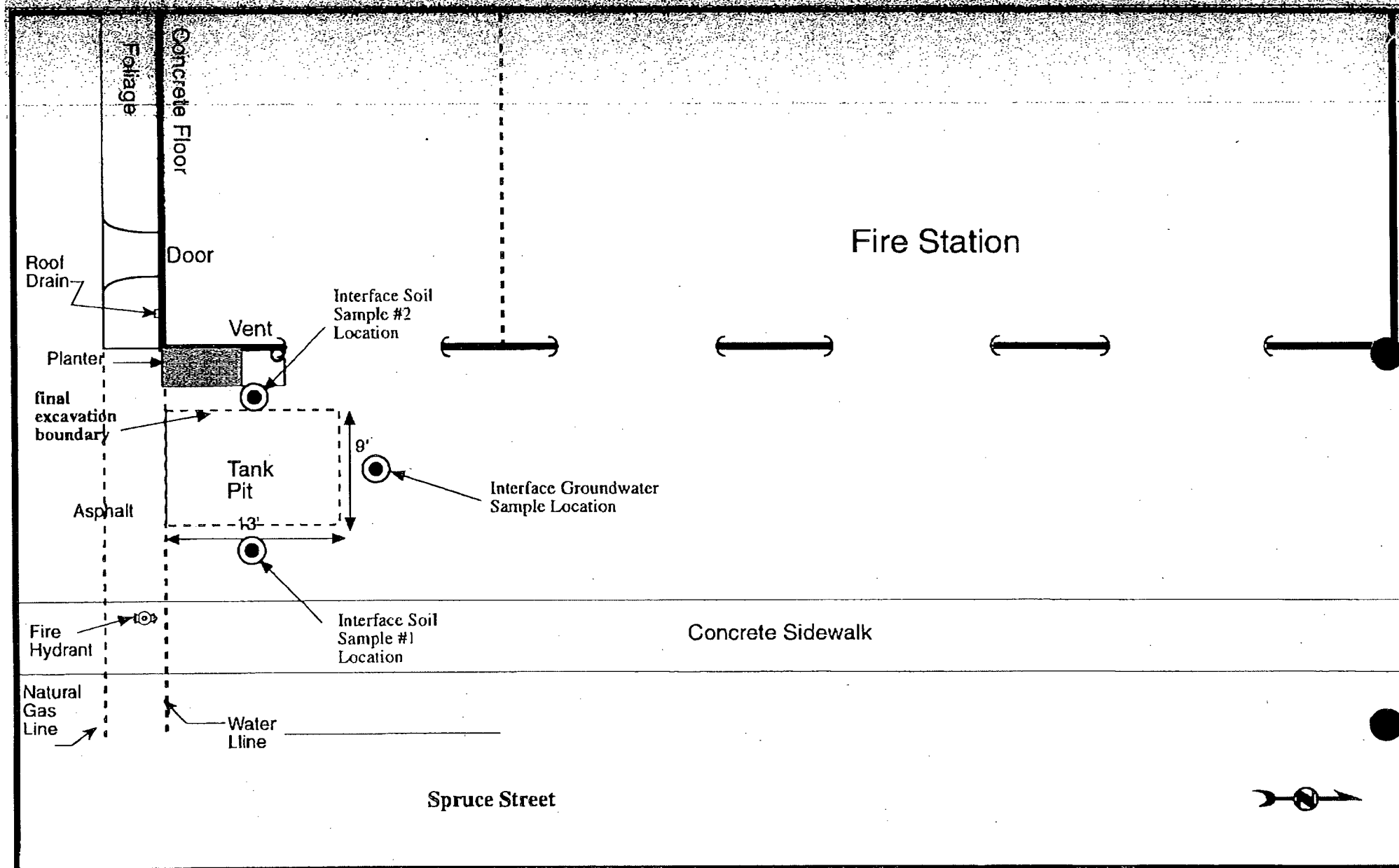


Figure 1: Proposed Soil and Groundwater Interface Sampling Locations



Oregon

John A. Kitzhaber, M.D., Governor

Department of Environmental Quality

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

April 29, 2002

CLEVE ROOPER, CHIEF
CANNON BEACH RFPD
BOX 24
CANNON BEACH OREGON 97110

Re: Cannon Beach RFPD
DEQ File No. 04-96-0485
Facility ID. No. 2716

Dear Mr. Rooper:

This letter is in regards to your cleanup project located at 232 North Spruce Street, in Cannon Beach, Oregon. I have completed the review of the information submitted by Roger N. Smith Associates, Inc. on November 14, 2001. I apologize for the delay, and appreciate the submittal of the additional information to clarify the sampling events. However, additional sampling is required to meet the Department of Environmental Quality (DEQ) requirements.

Please submit the following information:

1. Please collect two more soil samples from the soil groundwater/interface. The soil samples must be analyzed for BTEX. The soil samples originally collected were analyzed for TPH and not analyzed for BTEX, which is required by OAR 340-122-0240 (C).
2. At least one sample must be taken of the ground water from the soil/water interface in the boring. This sample shall be collected as required by OAR 340-122-0345(4). The water sample must be analyzed for BTEX at all sites.
3. Please document the location where the treated soil was removed to after cleanup was completed. Please be aware that the treated soil must be disposed of in a manner consistent with DEQ Solid Waste petroleum contaminated soil reuse policies. If you can not meet the reuse restriction/requirements described in the policy, it must be taken to an approved landfill.

If you have any questions or if I can be of help in any way, please call me at (503) 229-5472.

Sincerely,

Tina Leppaluoto, UST Cleanup Specialist
UST Cleanup and Compliance Section

Attachment:

cc: Roger N. Smith Associates, Inc.
(tll:TLL)



November 14, 2001

Oregon Department of Environmental Quality
Northwest Region
2020 S.W. 4th Avenue, Suite 400
Portland, Oregon 97201
ATTN.: Tina Leppaluoto, UST Cleanup Specialist

RECEIVED
DEC 4 2001

RE: Cannon Beach RFPD
DEQ File No. 04-96-0485
Facility ID. No. 2716

DEPT OF ENVIRONMENTAL QUALITY
NORTHWEST REGION

Dear Tina:

This letter is in response to your October 17, 2001 letter. Attached are tables and diagrams adapted from our report dated November 26, 1996.

The intention of the new tables and diagrams is to clarify the presentation made in the 11/26/96 report. The sampling has been divided into four events, they are: tank removal sampling, exploratory sampling, post-remedial excavation confirmatory sampling and soil remediation interim sampling. Table 1 lists all the soil samples analyzed; these results have been grouped together for each sampling event. Table 2 lists the analysis of a water sample collected during the remedial excavation around the tank. This sample was collected of water that entered the pit from the east wall of the pit. A review was made of all the sample numbers listed on the chain of custody to confirm that they were listed correctly on the tables and figures. The figures have been adjusted so that all sample locations and results are listed in a figure for each stage of the tank closure, i.e. one for tank removal sampling (Figure 4), one for exploratory sampling (Figure 5) and one for confirmatory sampling (Figure 6). The two cross-section diagrams (Figures 2 and 3) show the location, in a vertical profile, of soil and water samples collected during the tank removal, exploratory sampling (Figure 2) as well as the final soil and water sampling (Figure 3).

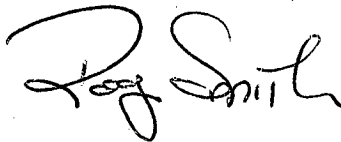
A site visit was made this month to confirm that the boundaries of the pit excavation were correctly identified on the maps. These boundaries are shown in Figures 4, 5 and 6). Item #1 in your 10/17/01 letter requested that a map be submitted showing limits of the excavation. Figures 2 and 3 show the vertical extent of the excavation and Figure 5 shows the final lateral excavation boundaries.

After collecting soil and groundwater samples from the tank pit in November of 1996, I had a conversation with Mitch Scheel of the NW Regions UST Division on 11/15/96 during which we discussed required analyses of samples collected. It

was my understanding from that conversation that if a sample collected of water seeping back into a tank excavation was analyzed for TPH 418.1 and found to have concentrations less than 0.5 ppm the DEQ would not require the BTEX water analyses. I referenced this conversation in our original 11/20/96 report (page 9).

If you have questions or would like clarification regarding this letter, feel free to call me at 503-241-5444.

Sincerely,
RNSA, Inc.



Roger N. Smith,
Principal, Geologist OR #G838
Water Rights Examiner OR #43665
Monitoring Well Constructor #10225

cc Cleave Rooper, Chief Cannon Beach RFPD

TABLE 1: Soil Sampling Results

Sample Batch	Date Collected	Sample Depth	Sample I.d.	Location	TPH 418.1 M (ppm)	Gasoline (ppm)	HCID Diesel (ppm)	Heavy Oil (ppm)
Tank Removal Sampling								
Dan Obrist	8/17/96	6'	S#1	N. end below tank	170	<13	Detected	Detected *
Dan Obrist	8/17/96	6'	S#2	S. end below tank	110	<13	Detected	Detected *
Exporatory Sampling								
Tank Pit #1	9/14/96	4'	1N/4/91496	N. of tank pit	<10	—	—	—
Tank Pit #1	9/14/96	3.5'	1S/3.5/91496	S. of tank pit	<10	—	—	—
Tank Pit #1	9/14/96	4'	1E/4/91496	E. of tank pit	<10	—	—	—
Tank Pit #1	9/14/96	4'	1W/4/91496	W. of tank pit	<10	—	—	—
Tank Pit #1	9/14/96	3.5'	1CA/3.5/91496	S. end of pit at 3.5'	101	—	—	—
Tank Pit #1	9/14/96	8.5'-9.5'	1CB/8.5 to 9.5/91496	N. end of pit at 9.0'	<10	—	—	—
Tank Pit #2	9/14/96	4'	2C/4/91496	Center of pit #2 at 4.0	<10	—	—	—
Post-Remedial Excavation Confirmatory Sampling								
Tank Pit #1	11/1/96	8.5'	CON/8.5'1S	S. end bottom of pit	<10	—	—	—
Tank Pit #1	11/1/96	8.5'	CON/8.5'1N	N. end bottom of pit	31	—	—	—
Soil Remediation Interim Sampling								
Remediation Pile	11/1/96	0.5'	Rem/6"/N	N-Center of Cell	45	—	—	—
Remediation Pile	11/1/96	0.5'	Rem/6"/S	S-Center of Cell	32	—	—	—
Remediation Pile	11/1/96	0.5'	Rem/6"/E	E-Center of Cell	31	—	—	—

— Indicates that the sample was not subjected to the given analysis.

< Indicates that levels of the analyte were below detection limits followed by the detection limit.

HCID Detection Limits: 13 ppm Gasoline, 25 ppm Diesel, and 100 ppm Heavy Oil

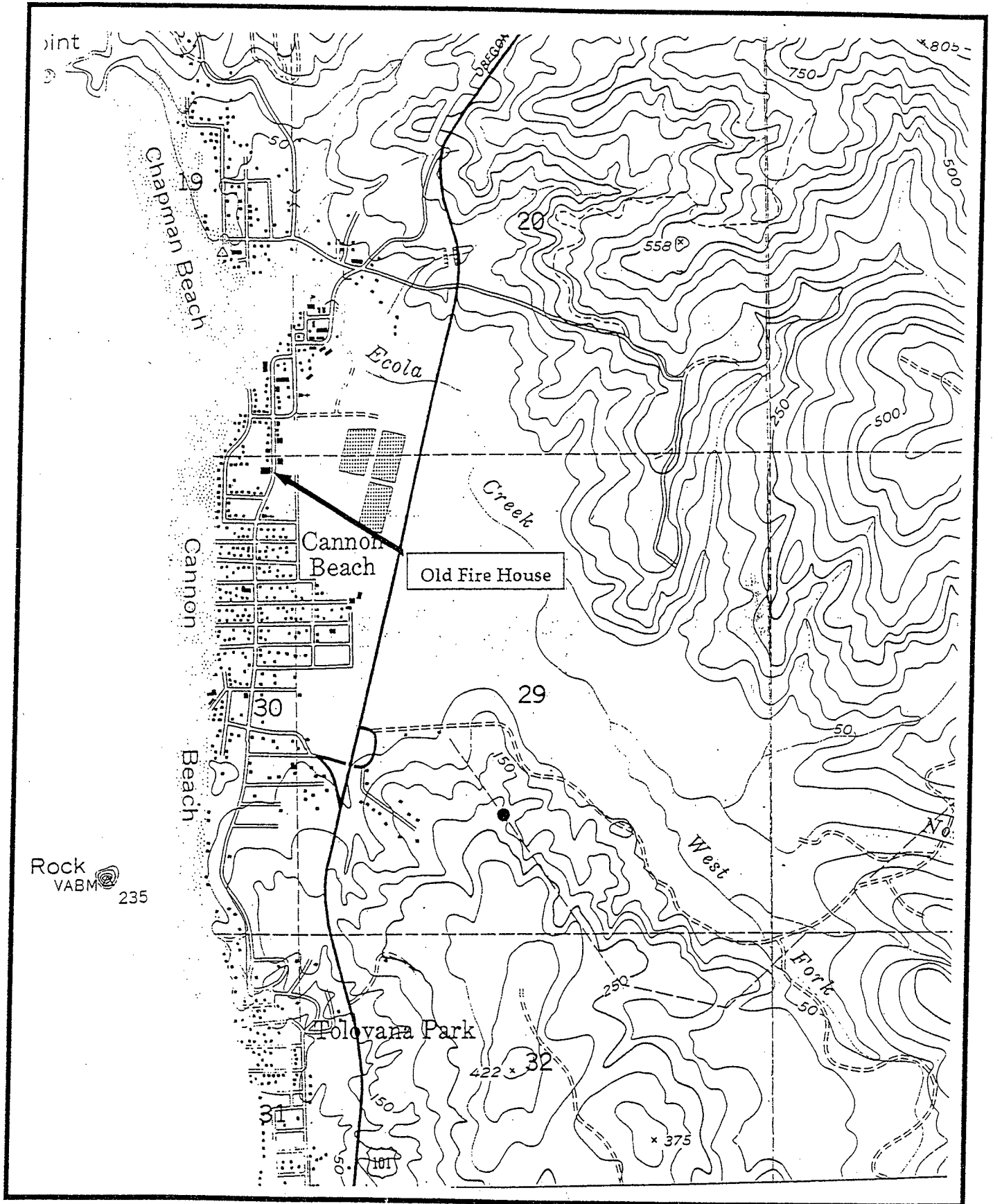
* heavy oil detected was identified by lab as a by-product of diesel.

RNSA, Inc. Revised 11/01
Cannon Beach FD
DEQ File #04-96-0485

TABLE 2: Results of Water Sample Analyses

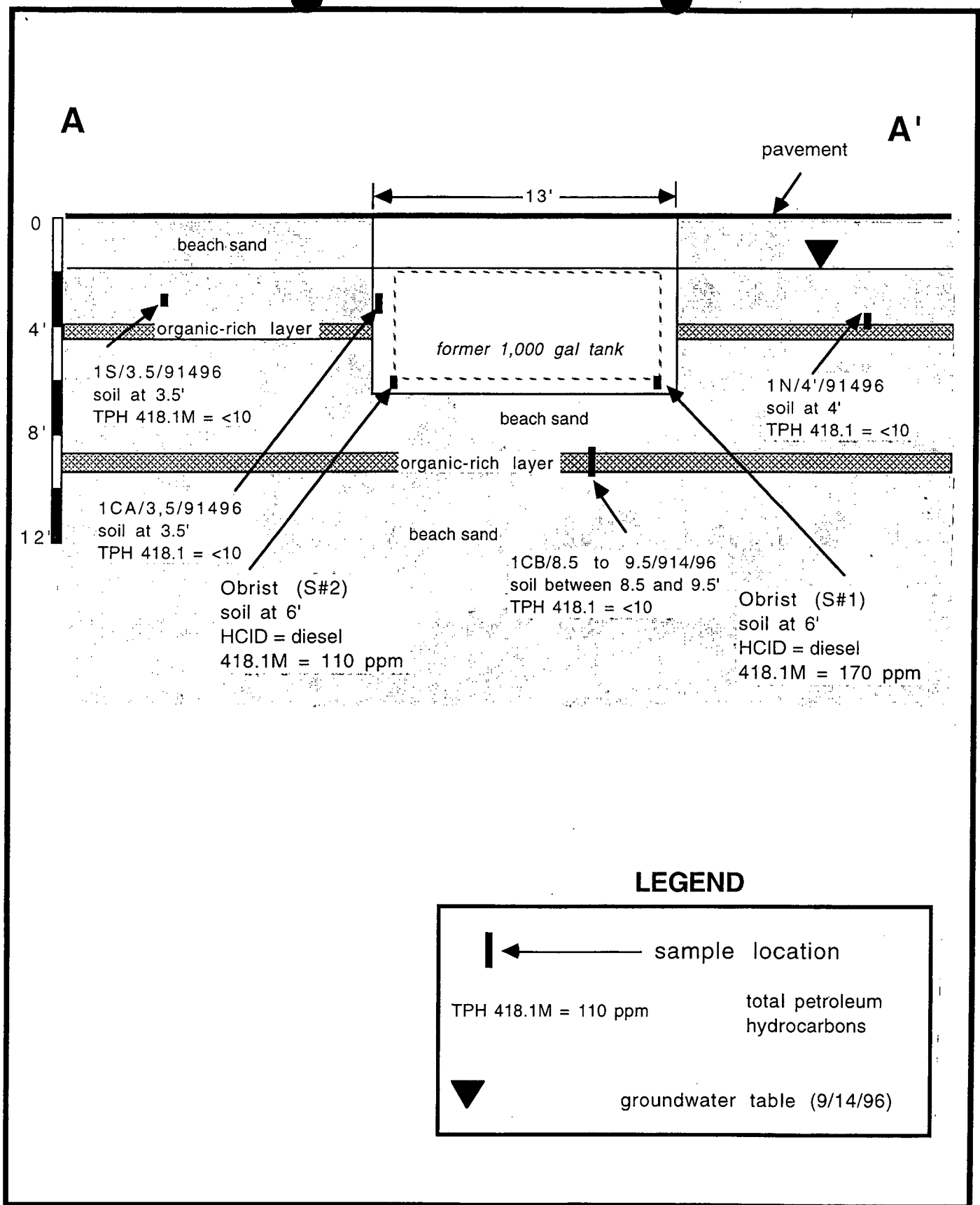
Sample Batch	Date Collected	Sample I.d.	Location	TPH 418.1 M (ppb)
Tank Pit #1	11/1/96	Wat/4'/E	east wall at 4.0'	<0.5

RNSA, Inc. Revised 11/01
Cannon Beach FD
DEQ File #04-96-0485



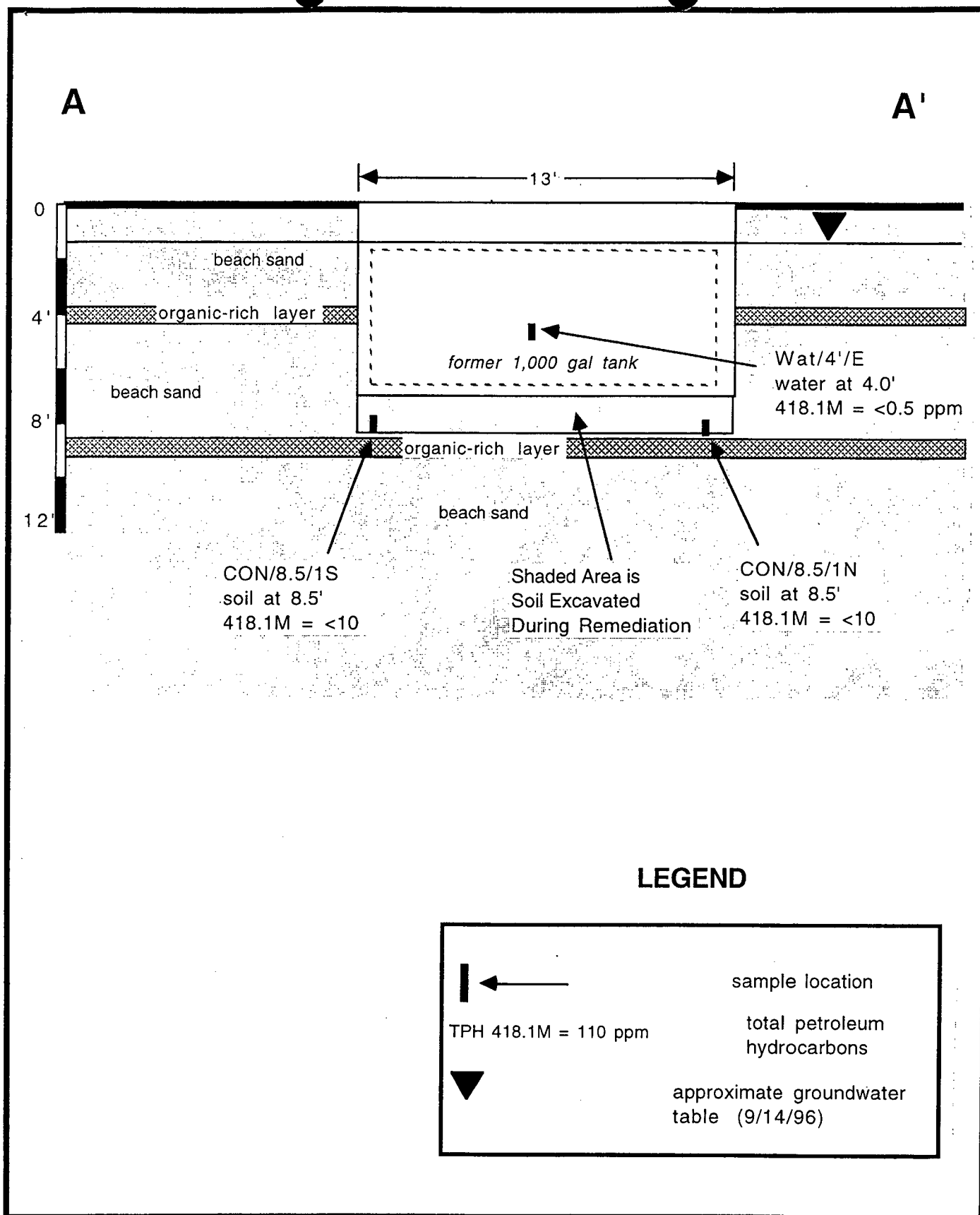
ROGER N. SMITH ASSOCIATES, INC.
Groundwater and Environmental Consultants

**Figure 1 Cannon Beach Fire District's
"Old" Fire House Location**



ROGER N. SMITH ASSOCIATES, INC.
Groundwater and Environmental Consultants

Figure 2: Cross-Section A-A'
Looking West Showing
Exploratory Soil Sample Locations



ROGER N. SMITH ASSOCIATES, INC.
Groundwater and Environmental Consultants

Figure 3: Cross-Section A-A'
Looking West Showing
Confirmatory Soil and Water Samples
(after remedial excavation)

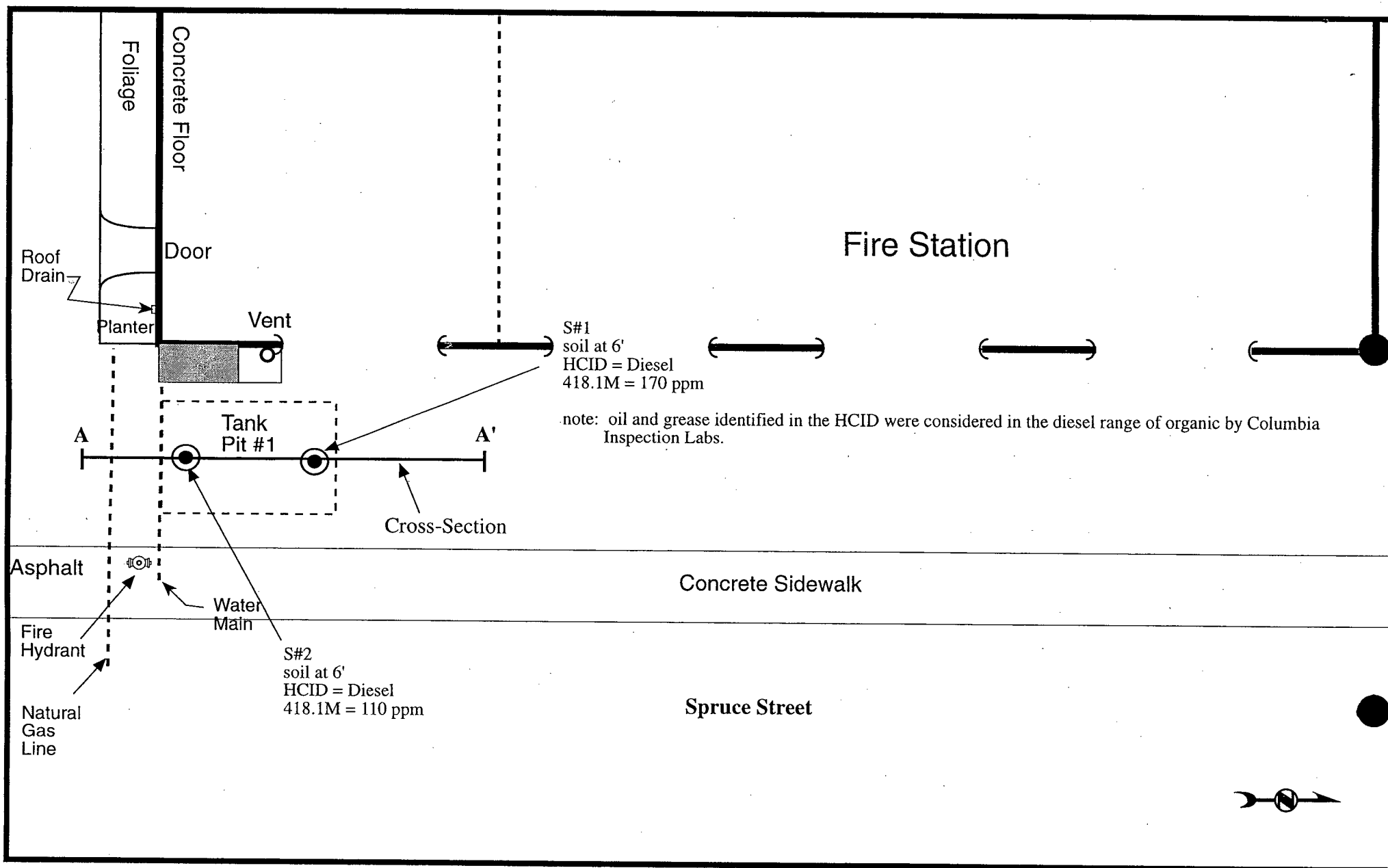


Figure 4: Soil Sample Results from Tank Removal Phase

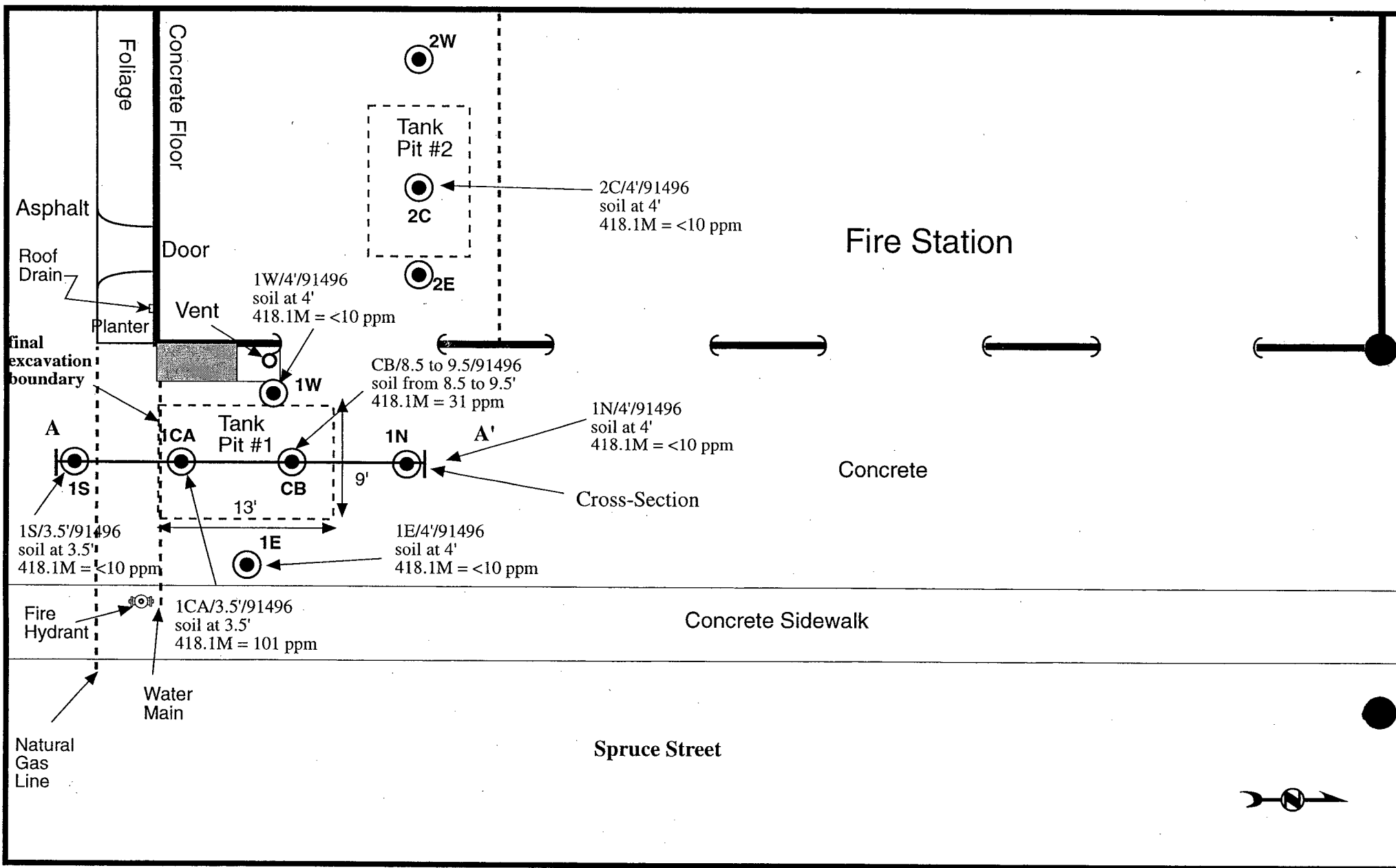
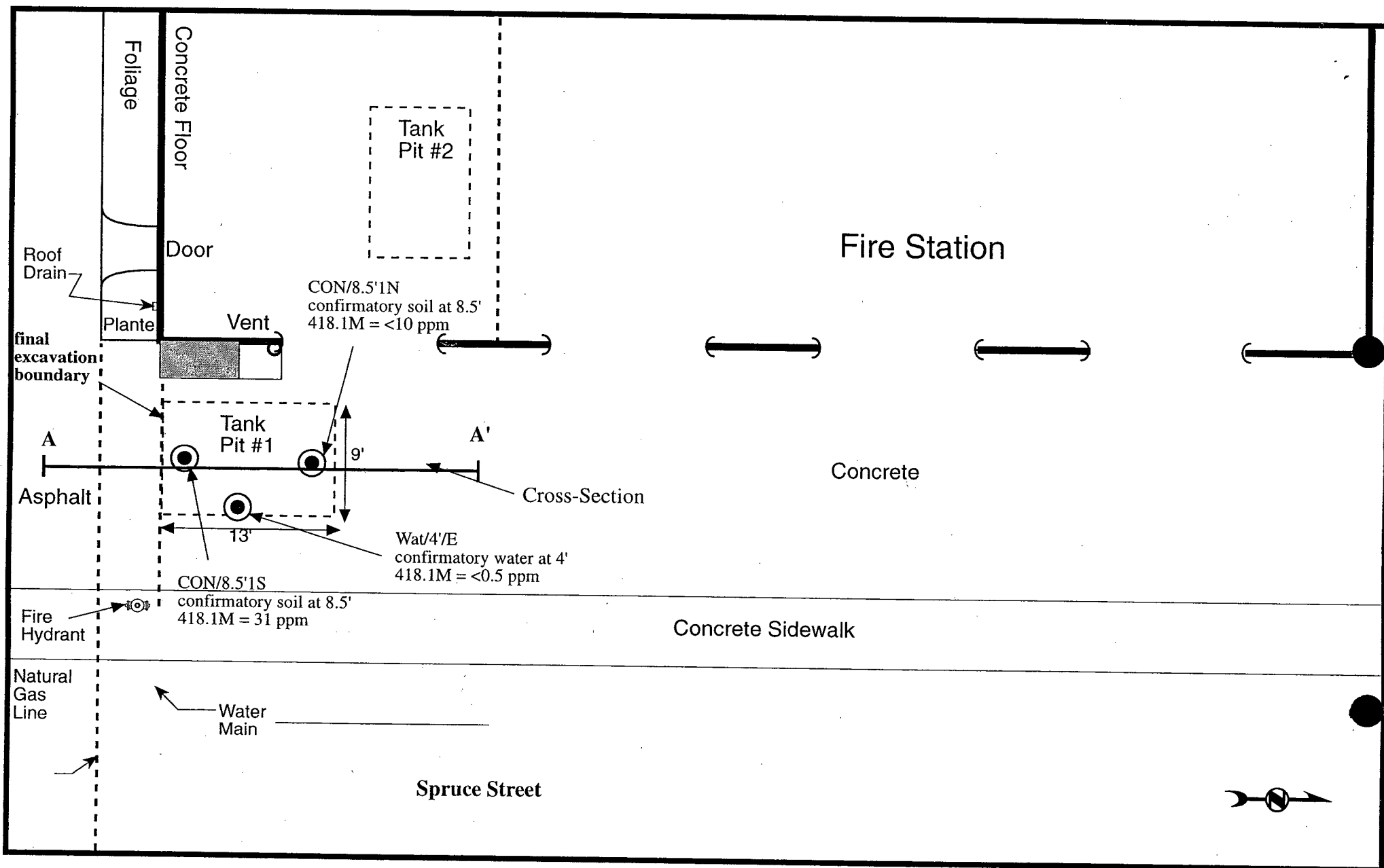


Figure 5: Soil Sample Results from Exploratory Phase



ROGER N. SMITH ASSOCIATES, INC.
Groundwater and Environmental Consultants

Figure 6: Soil and Water Sample Results from Remediation Phase

RNSA, Inc. Revised 11/01
Cannon Beach FD
DEQ File# 04-96-0485

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: Roger Smith DATE: 11/21/01
WITH: " " + Associates TIME: 10:47-10:53
TELEPHONE NO: (503) 241-5444
REGARDING: Cannon Beach RFPD
FILE NO: 04-96-0485

SUMMARY OF CALL

Roger called to let me know that he is preparing a letter outlining the activities for the sampling events, maps & tables to better understand what took place. He will be finished with it today & try to get it in the mail to receive by Friday or Monday. From there I need to review & see what else is required so we can get closure on this site.

J. Leppel
Staff Signature

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: Roger Smith DATE: 11/2/01
WITH: " " Assoc. TIME: 9:49-10:15
TELEPHONE NO: (503) 241-5444
REGARDING: ~~04-96~~ Cannon Beach RFPD
FILE NO: 04-96-485

SUMMARY OF CALL

Roger called concerning Dept letter dated OCT 17, 2001. Requiring further sampling for TPH-DX & BTEX for GW. GW entered the excavation & no BTEX sample was done during the cleanup.

Roger is compiling a summary to show sample location for confirmatory sampling & depth of those location. The report is a bit confusing on the figures documented in the report dated nov 20 1996.

once report - summary is received will review & discuss what sampling is required at that point.

J. Leporello
Staff Signature



Oregon

John A. Kitzhaber, M.D., Governor

October 17, 2001

Department of Environmental Quality

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

CLEVE ROOPER, CHIEF
CANNON BEACH RFPD
BOX 24
CANNON BEACH OREGON 97110

Re: Cannon Beach RFPD
DEQ File No. 04-96-0485
Facility ID. No. 2716

Dear Mr. Rooper:

This letter is in regards to your cleanup project located at 232 North Spruce Street, in Cannon Beach, Oregon. I have been assigned to your project and I have completed the review of the report titled "Combined 45-day and Final Report", dated November 20, 1996, by Roger N. Smith Associates, Inc. Based upon the review, further work is required before the Department can determine the site is ready for closure.

Please submit the following information:

1. A site map showing the limits of the excavation.
2. For the removal of an individual tank, soil samples are to be collected from the walls of the excavation next to the ends of the tank at the original soil/water interface. Please collect two more soil samples from the soil groundwater/interface. The soil samples must be analyzed for TPH-Dx.
3. At least one sample must be taken of the water in the boring. This sample shall be collected as required by OAR 340-122-0345(4). The water sample must be analyzed for BTEX at all sites, and for PAHs where releases of non-gasoline fractions have occurred. TPH analyses on groundwater samples as a preliminary screen for PAHs. The TPH method detection limit must be no greater than 0.5 ppm. Any groundwater sample for which TPH is detected must be analyzed for PAHs. These analyses must be made using the methods specified in OAR 340-122-0218.

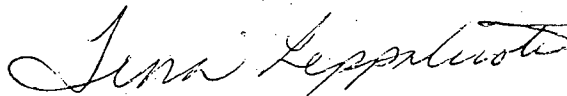


Mr. Rooper
October 17, 2001
Page 2

4. Please document the location where the treated soil was removed to after cleanup was completed. If the treated soil remains in the treatment cell, it's required to properly dispose of the soil at either a treatment facility or an approved landfill.

If you have any questions or if I can be of help in any way, please call me at (503) 229-5472.

Sincerely,



Tina Leppaluoto, UST Cleanup Specialist
UST Cleanup and Compliance Section

Cc: Roger N. Smith Associates, Inc.

(tll:TLL)

SEP 27 2000

See

COST RECOVERY AGREEMENT

NORTHWEST REGION

This document serves as an agreement between the undersigned (hereinafter "you") and the Department of Environmental Quality (DEQ) regarding DEQ review and oversight of the investigation and/or cleanup of petroleum (hazardous substances) at the property located at:

Facility Name: CANNON BEACH RFPD
Address: Box 24
City, Zip: CANNON BEACH, OR 97110
File/Log #: 04-96-0485

See
any

DEQ agrees to review environmental documents submitted by you or on your behalf regarding the investigation and/or cleanup of the above-referenced site. Additional details regarding DEQ oversight will be established upon review of the initial site data.

DEQ requires that persons requesting DEQ review and oversight of investigation and cleanup activities agree to the terms of this cost recovery agreement and pay project oversight costs.

DEQ project oversight costs will include direct costs and indirect costs. Direct costs include site-specific expenses and legal costs. Indirect costs are those general management and support costs of the DEQ, including the Waste Management and Cleanup Division (WMCD), allocable to DEQ oversight of this agreement and not charged as direct, site-specific costs. Indirect charges are based on a percentage of direct personal services costs. Review and oversight costs shall not include any unreasonable costs or costs not otherwise recoverable by DEQ under ORS 465.255.

DEQ costs are due within thirty (30) days of issuance of the monthly statement, by a check made payable to the "Department of Environmental Quality".

Electing not to enter into this agreement does not release you from any responsibility that you might have for any reporting requirements, investigation and/or cleanup of petroleum (hazardous substances) at the above referenced facility. This does not preclude the DEQ from conducting audits or inspections of all or portions of the investigation and cleanup activities associated with this facility. Enforcement action may be initiated if any violation of DEQ requirements is found.

Either DEQ or you may terminate this agreement by giving 15 days advance written notice to the other. Only those costs incurred or obligated by DEQ prior to the effective date of any termination of the agreement shall be recoverable under this Agreement. Termination of this agreement will not affect any other right DEQ may have for recovery of costs under any applicable law.

You will hold DEQ harmless for any claims (including but not limited to claims of property damage or personal injury) arising from DEQ review and/or oversight activities under this agreement.

0005 7 8 932

Cost Recovery Agreement
Page Two

This agreement is not and shall not be construed to be an admission by you of any liability under ORS 465.255 or any other law or as a waiver by you of any defense to such liability. This agreement is not and shall not be construed to be a waiver, release, or settlement of claims that DEQ may have against you or any other responsible person nor is this agreement a waiver of any enforcement authority that DEQ may have.

The DEQ Northwest Region Tanks Program will be responsible for the review and oversight of the investigation and cleanup activities associated with the property. Please refer all site-specific inquiries to them at (503) 229-5263, 2020 SW Fourth Avenue, Portland, OR 97201.

All inquiries regarding cost recovery and/or invoices should be directed to (503) 229-5812.

If the terms of this agreement are acceptable, please have it executed by an authorized officer in the space provided below. In order to more effectively schedule your project, please return this agreement within 30 days of receipt to: DEQ Northwest Region Office, Tanks Program, 2020 SW Fourth Avenue, Portland, OR 97201.

Accepted and agreed to this 25 day of SEPTEMBER, 2000

By: Cleve Rooper

Title: Dist. Fire Chief

Please provide the following information as to where the invoices should be sent.

Individual Name: CLEVE ROOPER

Title: CHIEF

Company Name: CAUNON BEACH R.F.P.D.

Mail Address: Box 21

City, State, Zip: CAUNON BEACH, OR 97110

Phone Number: 503-436-2949



Oregon

John A. Kitzhaber, M.D., Governor

April 20, 2000

Department of Environmental Quality

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

FIRE CHIEF
CANNON BEACH RFPD
PO BOX 24
CANNON BEACH OR 97110

Re: CANNON BEACH RFPD
File No.: 04-96-0485

The purpose of this letter is to provide an update on your underground storage tank (UST) cleanup project, located at 232 N SPRUCE in CANNON BEACH, Oregon, and to inform you of some changes to the DEQ's program. You are receiving this letter because you or your contractor reported a release from the UST system at this property and because the DEQ has not assigned your project to a project manager or closed out your file. File closure occurs when cleanup has met the appropriate requirements and the DEQ has reviewed the reports and issued a "no further action" (nfa) letter.

BACKLOGGED PROJECTS

The DEQ's first priority is to work on projects that pose the highest threat to human health or the environment. Due to staffing limitations, not all projects are assigned to project managers for review and are placed on DEQ's backlog of work needing to be completed.

To accommodate people who do not want to (or cannot) wait years for the DEQ to work down its list of priorities, the DEQ has set up a program by which responsible parties can request oversight. Filling out and signing a "cost recovery agreement" does this. By signing this document, the responsible party agrees to work with the DEQ in resolving the cleanup issues and agrees to pay the oversight costs which DEQ is required by law to collect.

Once a "cost recovery agreement" has been received for a project, DEQ places the project on a waiting list for assignment to the next available project manager. How long this takes depends on a lot of factors including current DEQ staffing and the number of high priority projects that need to be dealt with. In the past, it has taken up to two years for DEQ project managers to be assigned to a project. Currently the wait is about six months for more complicated projects. If there is an immediate need (i.e. a property transaction pending) for DEQ review, projects are usually assigned within two to four weeks.

Backlog letter
Page 2

NEW PROGRAM INFORMATION

In November 1998, revised rules went into effect for UST Cleanups. These rules included housekeeping items as well as rules governing low impact sites (LIP) and for developing generic remedies. These rules are available at the DEQ's website (<http://www.deq.state.or.us/wmc/tank/200rules.htm>) or can be obtained from the Northwest Region office.

Guidance for LIP sites was prepared in December 1998. Copies of this guidance are available at the DEQ's website (<http://www.deq.state.or.us/wmc/tank/lisguid.htm>) or from the Northwest Region office.

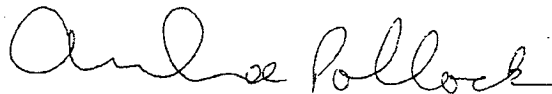
During 1999, DEQ developed a generic remedy for risk based assessments. The generic remedy and guidance document was finalized on September 29, 1999. Copies of this guidance are available at the DEQ's website (http://www.deq.state.or.us/wmc/tank/rbdrm_notice.htm) or from the Northwest Region office. This document replaces the DEQ's "Interim Guidance On Incorporating Risk Based Corrective Action For Petroleum Release Sites" (April 1996).

Another significant change is that the cleanup levels in Oregon Administrative Rules (OAR) 340-122-242 (4) have been replaced by the risk based screening levels in the risk based generic remedy.

The new rules and guidance apply to new releases and to cleanups that were not completed by the adoption date of the rules and guidance. If your cleanup was completed prior to these dates, or if you were operating under a DEQ *approved* corrective action plan, DEQ will apply the rules in place at the time of the cleanup when conducting our review.

If you have any questions or would like copies of the above referenced documents, please call Tina Leppaluoto at (503) 229-5472.

Sincerely,



Andree Pollock, Manager
UST Cleanup and Compliance Section

Enclosures: Cost Recovery Agreement

(avp:AVP)

ROGER N. SMITH
ASSOCIATES, INC.

Groundwater and Environmental Consultants

April 9, 1997

Oregon Dept. of Environmental Quality
NW Region, UST Division
2020 SW 4th Street, suite 700
Portland, Oregon 97201
ATTN: Jim Marsh

DEPT OF ENVIRONMENTAL QUALITY
RECEIVED

APR 14 1997

NORTHWEST REGION

RE: Final Soil Treatment Report
Cannon Beach Fire Dist. File #04-96-0485
Solid Waste Letter of Authorization Permit
No. PCSLA-NWR-96-010

Dear Jim:

The soil treatment associated with the diesel UST Cannon Beach Fire District is complete. The purpose of this letter is to conclude the Solid Waste Letter of Authorization Permit by presenting data documenting present condition of the soil and an outline of what is planned for the soil.

Included with this letter are the following items:

- location map showing where remediation took place
- soil remediation cell diagram showing where confirmation samples were collected
- analytical results of recent confirmation soil samples
- copy of the 10/28/96 SWLA permit

The soil originated from a diesel fuel tank removed from the former fire station of the Cannon Fire District. Approximately 30 cubic yards of soil was spread out in a remediation cell. The construction of this cell is described in the 45-day report sent to the DEQ on November 20, 1996, titled "Combined 45-Day and Final Report of the Underground Storage Tank Cleanup at the Former Cannon Beach Fire District Firehouse in Cannon Beach, Oregon. The impacted soil was

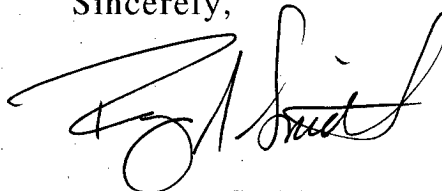
spread out to approximately 18 inches thick on black plastic within a hay bale border. The soil was turned and spread out with a back hoe in September of 1996. The soil remained as such through the winter months, with a plastic cover (see photos in the 45-Day report).

On April 1, 1997 two soil samples were collected from adjacent corners of the soil pile (see attached map). Samples were collected at a depth of between 6 and 12 inches below the surface. The first sample CB/SS#1 had no detectable concentrations of TPH-D (detection limit 20 ppm). The second sample CB/SS#2 had a concentration of 36 ppm of TPH-D. Both of these results fall below the cleanup target of 100 ppm set out in the Letter of Authorization. Therefore, it is recommended that the remediation of this soil be considered complete and closure be issued.

Although the exact site of final disposition of the soil by the Fire District has not yet been determined, it is understood by the Cannon Beach Fire District that final placement must be out of human contact, preferably in a road bed. Once the weather allows equipment access to the remediation cell the plastic and hay bales will be removed and disposed of at the local landfill.

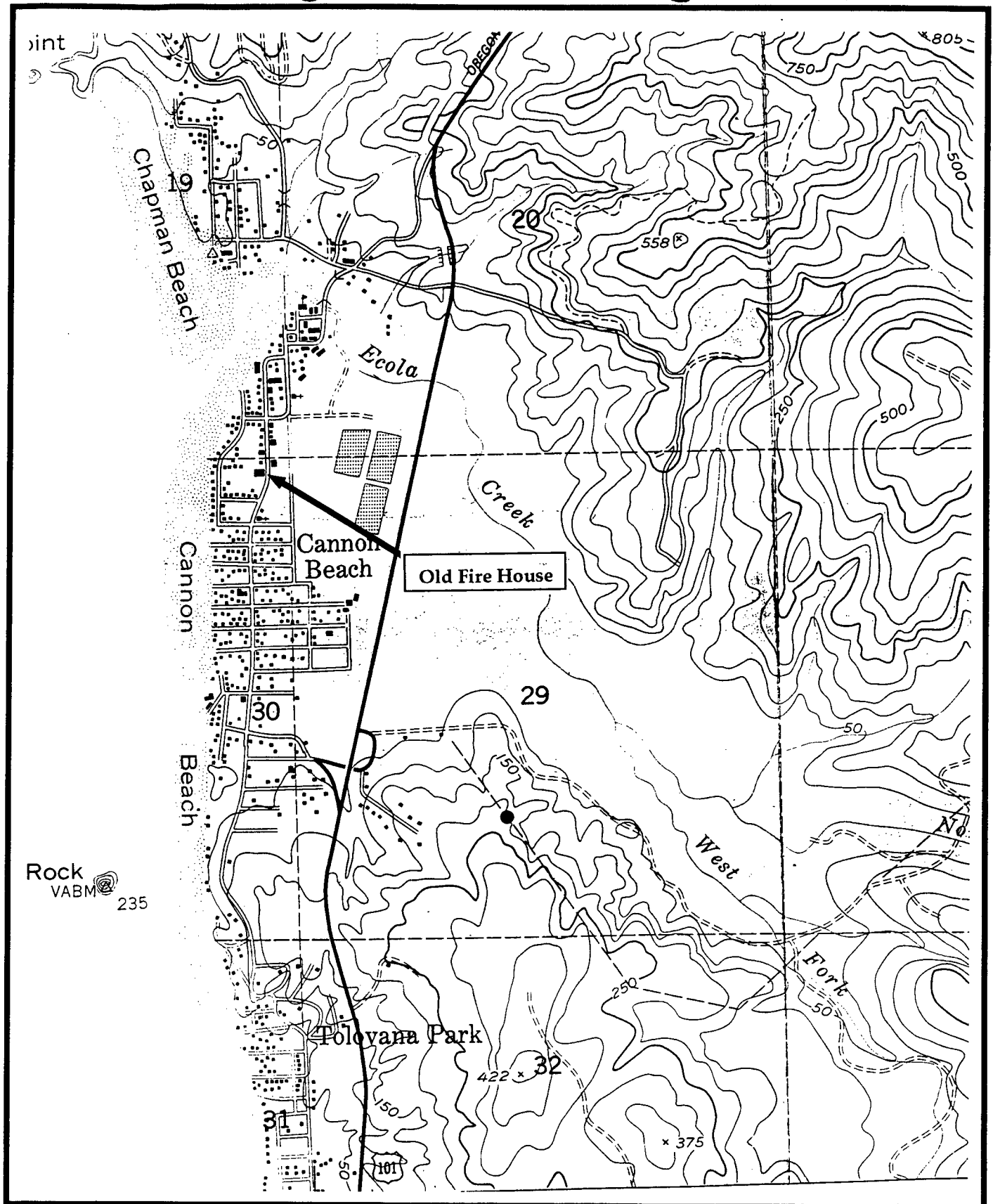
If you have any questions about this report feel free to call me at 241-5444.

Sincerely,

A handwritten signature in black ink, appearing to read "Roger N. Smith", written over a horizontal line.

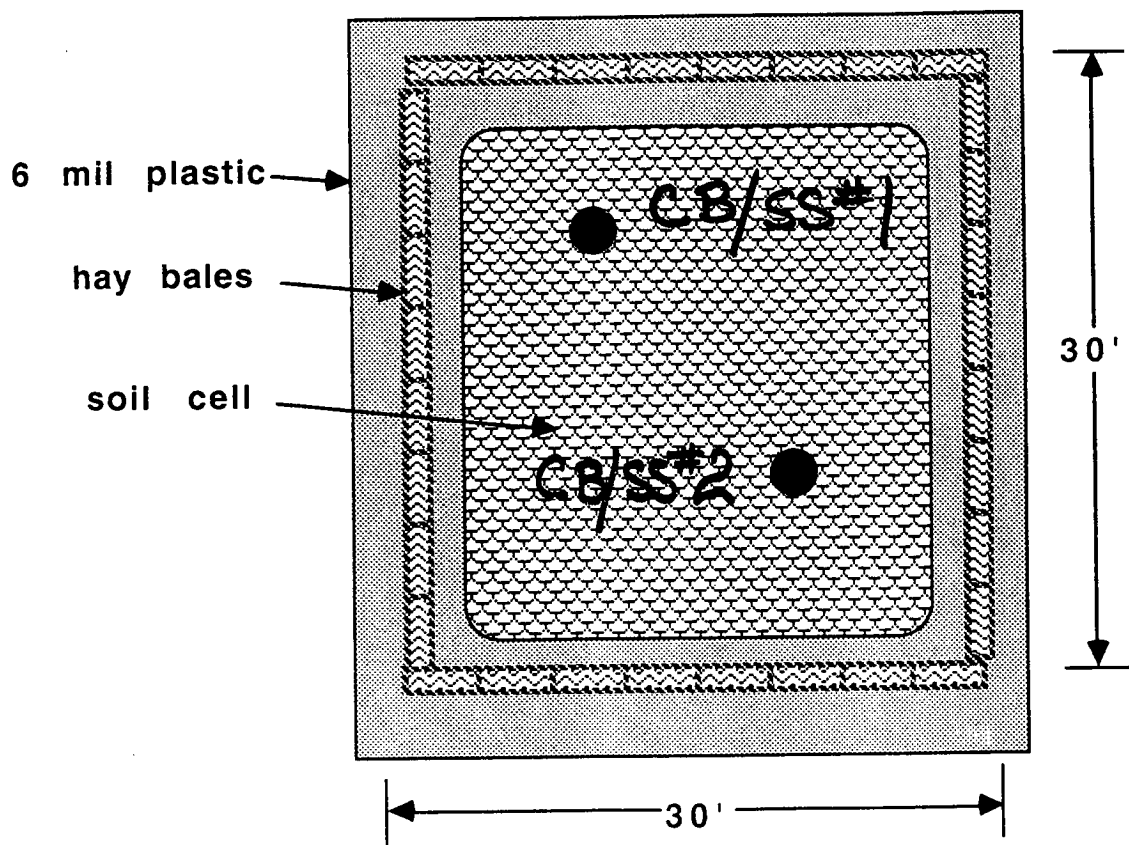
Roger N. Smith
Geological Engineer

cc Mike Graham, Cannon Beach Fire District



ROGER N. SMITH ASSOCIATES, INC.
Groundwater and Environmental Consultants

**Figure 1 Cannon Beach Fire District's
"Old" Fire House Location**



CONFIRM SOIL
SAMPLE LOCATIONS

*Wy'East Environmental Sciences, Inc.***LABORATORY REPORT**

Roger N. Smith Associates
800 NW 6th Ave. #318
Portland, OR 97209

PROJECT NAME/SITE: Cannon Beach
PROJECT NUMBER: 96-460
EXTRACTION DATE: 4-1-97

REPORT NUMBER: 18587
REPORT DATE: 4-2-97
PAGES: 1 of 1

OREGON DEQ TPH-D

Analyte: Diesel Range Hydrocarbons Quantification for soil

Field ID	Lab ID	mg/Kg (ppm)	Surrogate Recovery (%)
CB/SS#1	31569	ND	97
CB/SS#2	31570	36	83
BLANK	-	ND	-
Reporting Limit	-	20	-

Surrogate is o-Terphenyl

ND = Not Detected (below reporting limit or detection limit)

October 28, 1996

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

NORTHWEST REGION

MIKE GRAHAM
CANNON BEACH FIRE
DISTRICT
CANNON BEACH OREGON 97110

RE: Solid Waste Letter of Authorization Permit
No: PCSLA-NWR-96-010
Permit Expiration Date: April 1, 1997
Cannon Beach Fire District File #04-96-0485

Dear Mr. Graham:

Your application and written Soil Management Plan to treat Petroleum Contaminated Soil (PCS), from the Cannon Beach Fire District (old fire house) underground storage tank (UST) decommissioning project at 232 N. Spruce Street in Cannon Beach, Oregon, has been approved. Any Department specific changes to the permit application are listed below.

The letter permit authorizes you to conduct the soil treatment in accordance with the following conditions:

1. The treatment site is located on city property, east of Highway 101, south of the intersection at 3rd and Main Street in Cannon Beach, Oregon, township 4N, Range 10W of Section 6, Willamette Meridian, Latitude 46.58', Longitude 124.57.30".
2. Once treatment is complete, the treated soil will be removed from the treatment cell and used as road bed material elsewhere in the city.
3. Treatment will be accomplished by aeration.
4. Treatment is to be conducted in accordance with the Soil Management Plan submitted by Cannon Beach Fire District and RSNA, Inc. and approved by the Department. The maximum contaminant level allowed after treatment is 100 parts per million (ppm) for total petroleum hydrocarbons - diesel by modified method 418.1 (TPH-418.1).
5. This permit does not authorize the violation of any state, federal, or local rules or regulations.
6. Adequate site security (e.g. fencing or equivalent) must be maintained to prevent unauthorized access to the treatment area at all times.

John A. Kitzhaber
Governor



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

DEQ-1

7. Department staff shall be allowed access at reasonable times to inspect both the treatment site and any or all final soil disposition sites for compliance purposes and to collect samples as necessary.
8. This permit only authorizes the one-time treatment of petroleum contaminated soils generated from the cleanup operation identified in this permit at the specific treatment site noted. Contaminated soils otherwise classified as hazardous waste are specifically excluded. The treatment site may not be reused for treatment of soil from any additional cleanup projects or received soils from multiple cleanup projects without Department approval.
9. At any time active treatment is not in progress, the contaminated soil must be kept covered and the cover securely anchored (e.g., during rain or storm events).
10. Any leachate produced shall be collected, evaporated, or otherwise treated and controlled in a manner so as to prevent odors, public health hazards, and escapement to public waters.
11. The creation of public safety concerns, environmental hazards, or nuisance conditions (such as, but not limited to, odors or dust), is prohibited.
12. The treated soils must be reused as stated in condition 2., and in accordance with the statement signed by the property owner. Treated soils must be placed out of human contact (e.g., covered with clean soil, paved, etc.), placed above the seasonal high groundwater level, and may not be placed within approximately 100 feet of a surface water body, wetlands area, or 100 year flood plain area.
13. If treatment lasts longer than three months, interim quarterly reports must be submitted on a form provided by the Department or equivalent. Reports are due on the first day of January, April, July, and October, or as otherwise agreed upon.
14. No treated soils shall be reused on-site or moved off-site for final disposition without first coordinating with the Department.
15. Upon expiration of this permit, all PCS containing levels of contamination above the established treatment standard must be removed to an authorized disposal facility within thirty (30) days. Soil that has successfully met the treatment standard must be reused according to the Treatment Plan and the Department's policy for soil reuse within thirty (3) days, unless an alternate schedule has been approved by the Department.
16. A final treatment report is due on or before **April 1, 1997**, and must indicate whether or not the treatment has been successful in reducing contaminant concentrations to the levels required in this permit. This report must include final soil sampling data, a description of the sampling methods used, a diagram of sampling locations, a summary of the treatment history, and a recommendation for disposal at an approved facility or reuse of the treated soil. Following a review of this report, the Department will provide a written response outlining closure activities, including soil disposal reuse.

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: CBREPD DATE: 3-26-97

WITH: - TIME: 1045

TELEPHONE NO: () 436-2949

REGARDING: Soil Treatment

FILE NO: 64-96 485

SUMMARY OF CALL

lt msg. reminding of upcoming expiration
of SRSOA on 7-1-97.

Rose

Staff Signature

January 16, 1997

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

NORTHWEST REGION

Fire Chief
Cannon Beach RFPD
232 N Spruce Street
Cannon Beach OR 97110

Cannon Beach RFPD
File #04-96-485

Dear Fire Chief:

I have received the report "Combined 45-day and Final Report" dated November 20, 1996, enclosed WAS a Decommissioning checklist, but no Decommissioning report was enclosed.. In order to decommission this file and have your tank fees terminated, we need to receive all the reports that are required by DEQ.

Enclosed is the remaining paperwork that needs to be filled out by you or your contractor and sent back into our office.. Also enclosed is the DEQ rules that govern this request.

If you have any questions, please call me at 229-5441, or talk to the duty officer at 229-5489.

Sincerely,

Debi Smith

Debi Smith
Underground Storage Tanks Compliance

cc: Dan Obrist Excavating
6431 SE Jenne Road
Portland OR 97236

Roger Smith & Assoc.
800 NW 6th Ave Suite 318
Portland OR 97209

John A. Kitzhaber
Governor



2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471
DEQ-1

Inspection Date: 1-8-97

Time Begin End Total*

*Include inspection, travel, paperwork

Inspector: ROR

Inspection Type (check one)

- ☐ Install (New/Retro/StII)
- ☐ Decommission
- ☐ UST Facility - Full
- ☐ UST Facility - Partial
- ☐ Cleanup
- ☒ Soil Treatment
- ☐ Complaint
- ☐ Distrib. Audit
- ☐ Service Provider Audit
- ☐ Leak Detection
- ☐ Fuels (StI/StII/Tanker)

Hazards Appraised? Y N
 Photos Taken? Y N (attach)
 Samples Taken? Y N (attach results)

INSPECTION RESULTS - IN COMPLIANCE? Y / N / NA

Notes (use back of form as necessary)

(See photos)







04-96-485







11/20/96



7
~~04296-485~~

CBRED
SWLOA 96-10

ROGER N. SMITH
ASSOCIATES, INC.

Groundwater and Environmental Consultants

November 26, 1996

Oregon Dept. of Environmental Quality
NW Region, UST Division
2020 SW 4th Street, suite 700
Portland, Oregon 97201
ATTN: Jim Marsh

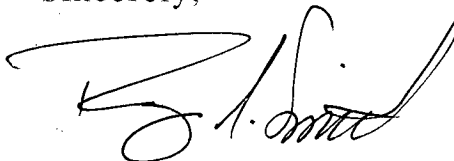
RE: 45-Day/Final Report
Cannon Beach Fire Dist.
DEQ File #04-96-0485

Dear Jim:

Enclosed with this letter is a report on the removal and cleanup of a UST at the old firehouse in Cannon Beach. The small amount of diesel discovered during removal has been excavated and impacted soil is now being treated by aeration. Because the conditions now meet DEQ standards, this report is considered to be a final report with a final soils report filed in the next few months.

If you have any questions about this report feel free to call me at 241-5444.

Sincerely,



Roger N. Smith
Geological Engineer

DEPT OF ENVIRONMENTAL QUALITY
RECEIVED

DEC 3 1996

NORTHWEST REGION



Recycled Paper

800 NW 6th Ave., Suite 318
Portland, OR 97209-3700
TEL (503) 241-5444
FAX (503) 241-1441

October 28, 1996

MIKE GRAHAM
CANNON BEACH FIRE
DISTRICT
CANNON BEACH OREGON 97110

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

NORTHWEST REGION

RE: Solid Waste Letter of Authorization Permit
No: PCSLA-NWR-96-010
Permit Expiration Date: April 1, 1997
Cannon Beach Fire District File #04-96-0485

Dear Mr. Graham:

Your application and written Soil Management Plan to treat Petroleum Contaminated Soil (PCS), from the Cannon Beach Fire District (old fire house) underground storage tank (UST) decommissioning project at 232 N. Spruce Street in Cannon Beach, Oregon, has been approved. Any Department specific changes to the permit application are listed below.

The letter permit authorizes you to conduct the soil treatment in accordance with the following conditions:

1. The treatment site is located on city property, east of Highway 101, south of the intersection at 3rd and Main Street in Cannon Beach, Oregon, township 4N, Range 10W of Section 6, Willamette Meridian, Latitude 46.58', Longitude 124.57.30".
2. Once treatment is complete, the treated soil will be removed from the treatment cell and used as road bed material elsewhere in the city.
3. Treatment will be accomplished by aeration.
4. Treatment is to be conducted in accordance with the Soil Management Plan submitted by Cannon Beach Fire District and RSNA, Inc. and approved by the Department. The maximum contaminant level allowed after treatment is 100 parts per million (ppm) for total petroleum hydrocarbons - diesel by modified method 418.1 (TPH-418.1).
5. This permit does not authorize the violation of any state, federal, or local rules or regulations.
6. Adequate site security (e.g. fencing or equivalent) must be maintained to prevent unauthorized access to the treatment area at all times.

John A. Kitzhaber
Governor



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

DEQ-1

7. Department staff shall be allowed access at reasonable times to inspect both the treatment site and any or all final soil disposition sites for compliance purposes and to collect samples as necessary.
8. This permit only authorizes the one-time treatment of petroleum contaminated soils generated from the cleanup operation identified in this permit at the specific treatment site noted. Contaminated soils otherwise classified as hazardous waste are specifically excluded. The treatment site may not be reused for treatment of soil from any additional cleanup projects or received soils from multiple cleanup projects without Department approval.
9. At any time active treatment is not in progress, the contaminated soil must be kept covered and the cover securely anchored (e.g., during rain or storm events).
10. Any leachate produced shall be collected, evaporated, or otherwise treated and controlled in a manner so as to prevent odors, public health hazards, and escapement to public waters.
11. The creation of public safety concerns, environmental hazards, or nuisance conditions (such as, but not limited to, odors or dust), is prohibited.
12. The treated soils must be reused as stated in condition 2., and in accordance with the statement signed by the property owner. Treated soils must be placed out of human contact (e.g., covered with clean soil, paved, etc.), placed above the seasonal high groundwater level, and may not be placed within approximately 100 feet of a surface water body, wetlands area, or 100 year flood plain area.
13. If treatment lasts longer than three months, interim quarterly reports must be submitted on a form provided by the Department or equivalent. Reports are due on the first day of January, April, July, and October, or as otherwise agreed upon.
14. No treated soils shall be reused on-site or moved off-site for final disposition without first coordinating with the Department.
15. Upon expiration of this permit, all PCS containing levels of contamination above the established treatment standard must be removed to an authorized disposal facility within thirty (30) days. Soil that has successfully met the treatment standard must be reused according to the Treatment Plan and the Department's policy for soil reuse within thirty (3) days, unless an alternate schedule has been approved by the Department.
16. A final treatment report is due on or before April 1, 1997, and must indicate whether or not the treatment has been successful in reducing contaminant concentrations to the levels required in this permit. This report must include final soil sampling data, a description of the sampling methods used, a diagram of sampling locations, a summary of the treatment history, and a recommendation for disposal at an approved facility or reuse of the treated soil. Following a review of this report, the Department will provide a written response outlining closure activities, including soil disposal reuse.

October 28, 1996

Page 3.

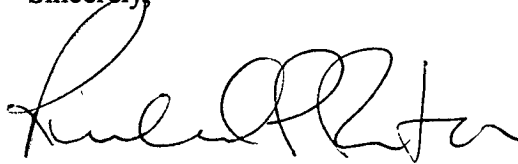
17. A closure report must be submitted following reuse of the treated soils. This report must include disposal documents (if any), and a description of all work related to closure. Closure activities include: field screening the treated soil for "hot spots," reuse of the treated soil, closure sampling (sampling from under the treatment area), disposal of hay bales, plastic sheeting, leachate, and any additional work deemed necessary by the Department. Additional work may include the excavation of native soil and additional sampling if the area under the treatment cell has become impacted.
18. Additional time for treatment beyond the permit expiration date is not allowed unless the Department has approved the renewal of this permit.

If your treatment activity is expected to last longer than the permit expiration date, the Department may consider a one time renewal of this permit if certain conditions are met.

Contact Richard Rose at (503) 229-5472 prior to the permit expiration date if you wish to inquire about possible renewal. An UST Duty Officer is also available to answer your general questions or provide technical assistance on matters pertaining to soil treatment at (503) 229-5489.

Thank you in advance for your cooperation and efforts to comply with the conditions of this permit.

Sincerely,



Richard P. Reiter
UST Section Manager
Northwest Region

enclosures

cc: Roger N. Smith Associates, Inc.
800 NW 6th Avenue
Suite 318
Portland, Oregon 97201

Remit and Make Checks Payable To:
DEPARTMENT OF ENVIRONMENTAL QUALITY

Attn: Business Office
811 SW Sixth Avenue
Portland, OR 97204

FOR DEQ USE ONLY

Date Received: OCT 11 1996

Amount Received: 500⁰⁰

Check No.: 5170

SOLID WASTE LETTER AUTHORIZATION
PERMIT FEE INVOICE

RECEIVED

OCT 16 1996

For Management of Petroleum Contaminated Soil
From UST Cleanup Project

WESTERN REGION - SALEM OFFICE

Application Processing Fee..... \$ 500.00

TOTAL DUE \$ 500.00

COMPLETE (PLEASE PRINT) THE FOLLOWING UST CLEANUP PROJECT SITE INFORMATION:

Facility Name: <u>CANNON BEACH FIRE DISTRICT (OLD FIRE HOUSE)</u>	DEQ File Number:
Facility Address: <u>232 N. Spruce St.</u>	<u>04-96-485</u>
City, State & Zip: <u>CANNON BEACH, OR 97110</u>	Amount Enclosed:
County: <u>CLATSOP CO.</u>	<u>\$ 500⁰⁰</u>
Responsible Party: <u>CANNON BEACH FIRE DISTRICT</u>	Date Submitted:
RP Phone No.: <u>MIKE GRAHAM 436-2949</u>	<u>10/17/96</u>

NOTE: Underground Storage Tank (UST) cleanup projects involving the management of petroleum contaminated soils include: on-site or off-site use of a mobile thermal treatment unit (does not include permanent, stationary thermal treatment soil processors), soil aeration or bioremediation. A permit may be issued for the one-time use of the treatment site property for a single UST cleanup project.

Fill in the facility information requested and send this form along with a check for \$500 to the Business Office address listed above. Additional information is provided on the back of this form. The DEQ File Number must be included to insure this record of your payment can be matched with your soil treatment application and plan in the regional office.

=====

BUSINESS OFFICE:

Send the original of this form to the regional office
Send the daily fee Transmittal form to Solid Waste Permits Section

UST CLEANUP SOIL TREATMENT PLAN

Complete the following information and submit with the Solid Waste Letter of Authorization application. Please print or type.

DEQ File Number assigned to site: 04-96-485

Facility where contaminated soils originated:

Facility Name: CANNON BEACH FIRE DISTRICT (OLD FIRE HOUSE)
Address: 232 N. SPRUCE ST.
CANNON BEACH, OR 97110

1. Type of petroleum contamination (check all that apply):

☐ Gasoline ☒ Diesel ☐ Waste Oil ☐ Heating Oil ☐ Other

NOTE: If any waste oil contaminated soil is proposed for treatment, you must also include a copy of sample results and chain-of-custody forms for halogenated solvents, BTEX, and TCLP Pb, Cr, & Cd (plus PCBs as necessary).

IF YOU PROPOSE SOIL AERATION FOR ANY PETROLEUM CONTAMINATION OTHER THAN GASOLINE, YOU MUST PROVIDE WRITTEN JUSTIFICATION. PROPOSALS FOR SIMPLE AERATION OF HEAVY OIL CONTAMINATED SOIL ARE GENERALLY NOT APPROPRIATE AND MAY BE REJECTED; PROPOSALS TO AERATE DIESEL CONTAMINATED SOILS WILL BE REVIEWED ON A CASE-BY-CASE BASIS.

2. Estimated volume of soil to be treated: 40 yd³ (cubic yards)

3. Highest concentration of TPH detected in the excavated soil:

Value 170 TPH mg/kg By TPH-G TPH-D 418.1m (circle one)
ppm

ATTACH COPIES OF ALL ANALYTICAL DATA AND CHAIN OF CUSTODY FORMS. IF ADDITIONAL PARAMETERS WERE ANALYZED (FOR THE EXCAVATED SOIL) OTHER THAN TPH, ATTACH COPIES OF THESE ADDITIONAL TEST RESULTS AND CHAIN OF CUSTODY FORMS.

4. Primary treatment method used: Aeration ☒ Bioremediation ☐ Thermal ☐ (check one)

5. Describe what specific active treatment methods and procedures will be used from the moment treatment begins until the point of completion: (tilling, blowers, moisture, bio-reagents, etc.)

Tilling
Every TWO WEEKS DURING DRY WEATHER UNTIL
CLEANUP CONCENTRATIONS ARE ATTAINED

6.

☒ Y
☐ N
NA

If soil will be thermally treated, it has been verified that thermal treatment is allowed for the types of contamination present in the soil.

UST CLEANUP SOIL TREATMENT PLAN - PAGE 2

7. Y ☒ N It is proposed that treated soils will be reused in the original tank excavation. If yes:

☒ Y N Was groundwater encountered or likely to be encountered?

The matrix score/level for this site is: 31 / (see Attached Score Sheet)

8. Y ☒ N Is the final disposition site located near (<100 feet) a wetlands, stream, 100-year floodplain or residential area?

9. Is the final disposition site (check and/or circle all that apply):

- ☒ Authorized Landfill (to be used as cover)
- ☐ Public or private roadway (to be used as subgrade)
- ☐ Private property - industrial/commercial/residential

NOTE: If the treated soil will be reused as fill at any site other than (public) road subgrade, then you must attach a signed Property Owners Statement.

10. Describe how the treated soil will be managed at the final disposition site to minimize/prevent human contact and contact with groundwater or surface waters:

Soil will be Removed from Treatment Cell AND Placed
in Public Roadway AS Road bed MATERIAL

11. It is estimated that it will take approximately 6 weeks/months (circle one) to complete the treatment based on the amount of soil to be treated, concentrations of contamination and treatment method to be used. BECAUSE OF TIME OF YEAR

12. Attach a sketch or drawing (drawn to scale) of the proposed treatment area that displays:

- a. The location of the treatment area in relation to existing structures on the subject property and adjacent properties; indicate relative distances.
- b. The size of the proposed treatment cell or area.
- c. A brief description of the current use of both the subject property and adjacent properties.
- d. The location of blowers and piping which may be used in the construction of biopiles or as an assist to aeration. Include description of system design and operation.

None Proposed

13. Work associated with active treatment will be done on the following schedule:
Once every (circle one) day/week/month (other)

This work will be done by: Soil Sample Collected by RNSA, Inc
(company/individual)

14. The treatment site will be inspected on the following schedule:

Once every (circle one) day/week/month (other)

Inspections will be made by: RNSA, Inc.
(company/individual)

UST CLEANUP SOIL TREATMENT PLAN - PAGE 3

15. Describe how the treatment site was selected as appropriate for treating petroleum contaminated soil:

Isolated from Community, out of Wetland Area
Property owned by Fire District (Public Property)

16. Y ☒ N ☐ Is the treatment area located near (<100 feet) a wetlands, stream, or residential area?

17. Describe how the underlying soils, surface water, or groundwater in the treatment area will be protected from coming in contact with the contaminated soil:

3 mil PLASTIC Sheeting will underly Soil; BARRIERS
will be formed with Nails Bases; Large overlap in sheets
will prevent seepage from Cell

18. Describe how surface water run-off and run-on will be controlled within the treatment area: Cell
Plastic Sheeting will be placed over the Soil Remediation
Cell During RAINY Periods

19. ☒ Y ☐ N Will the contaminated soil be kept covered and the cover anchored whenever it rains or treatment is not actively in progress? Who will be responsible for doing this?

Fire District Personnel

20. Describe how you will handle any leachate that collects in the treatment area:

Leachate will be pumped into 55-gal DOT
Steel Drum AND Appropriately Disposed of

21. ☒ Y ☐ N Will the treatment site be completely fenced? If no, describe how adequate site security will be maintained to prevent unauthorized access to the treatment area:

4-foot High PLASTIC Barrier fence

22. Describe how the creation of public safety concerns, environmental hazards, or nuisance conditions (such as odors or dust) will be prevented at the treatment site:

Isolation from Community (See Attached
MAP for Location)

23. 1 (#) discrete/composite (circle one) interim samples will be collected every week ☒ month ☐ quarter (circle one) to demonstrate treatment progress. i.e. Meeting 1 sample per 50 cubic
Yard Criteria Set by DEP

24. Interim samples will be analyzed for (circle all that apply):

TPH-G

TPH-D

TPH by 418.1m

Other: _____

25. Describe how the appropriate number of interim samples to collect was determined:

DEP Recommended Number

UST CLEANUP SOIL TREATMENT PLAN - PAGE 4

26. Describe how sample locations will be chosen for all interim samples to be collected:

RANDOMLY, USING RANDOM NUMBER GENERATOR
ON HAND-HELD CALCULATOR STARTING FROM NW CORNER
OF CELL.

27. 1 (#) discrete final samples will be collected to determine that the contaminated soil has been successfully treated.

28. Final samples will be analyzed for (circle all that apply):

TPH-G

TPH-D

TPH by 418.1m

Other: _____

29. Describe how the appropriate number of final samples to collect was determined:

EPA SW-846 STATISTICAL ANALYSIS FOR SOLID
WASTE SAMPLING

30. Describe how sample locations will be chosen for all final samples to be collected:

RANDOMLY. AS BEFORE

31. 1 (#) discrete/composite (circle one) closure samples will be collected from under the treatment area to determine if the area under the treatment site has been contaminated.

32. Closure samples will be analyzed for (circle all that apply):

TPH-G

TPH-D

TPH by 418.1m

Other: _____

33. Describe how the appropriate number of closure samples to collect was determined:

SW-846

34. Describe how sample locations will be chosen for all closure samples to be collected:

RANDOM LOCATION

NOTE: All sample collection and analyses must be performed in accordance with proper sampling protocols, chain of custody, and quality assurance/quality control requirements. Samples should be collected by the Responsible Party or a licensed Soil Matrix Service Provider if licensing is required for the cleanup project.

35. Describe how the treated soil will be field-screened as it is moved to the final disposition site, once treatment is complete:

VISUAL DURING EXCAVATION. FIELD ANALYSIS IF
APPROPRIATE AND LAB IF FOUND A HOT PARTICLE

36. Describe what actions will be taken if further contamination is discovered during the screening process:

SOIL WILL BE PLACED BACK IN CELL AND
REMEDIATION CONTINUED.

UST CLEANUP SOIL TREATMENT PLAN - PAGE 5

THIS PLAN WAS PREPARED BY:

Date: 9/17/96

Individual: Roger Smith Phone: 241-5444

Company: ROGER N. SMITH ASSOCIATES INC.

Address: 800 NW 6TH, Suite 310, Portland, OR

NOTE: If treatment will take longer than three months to complete, quarterly progress reports must be submitted.

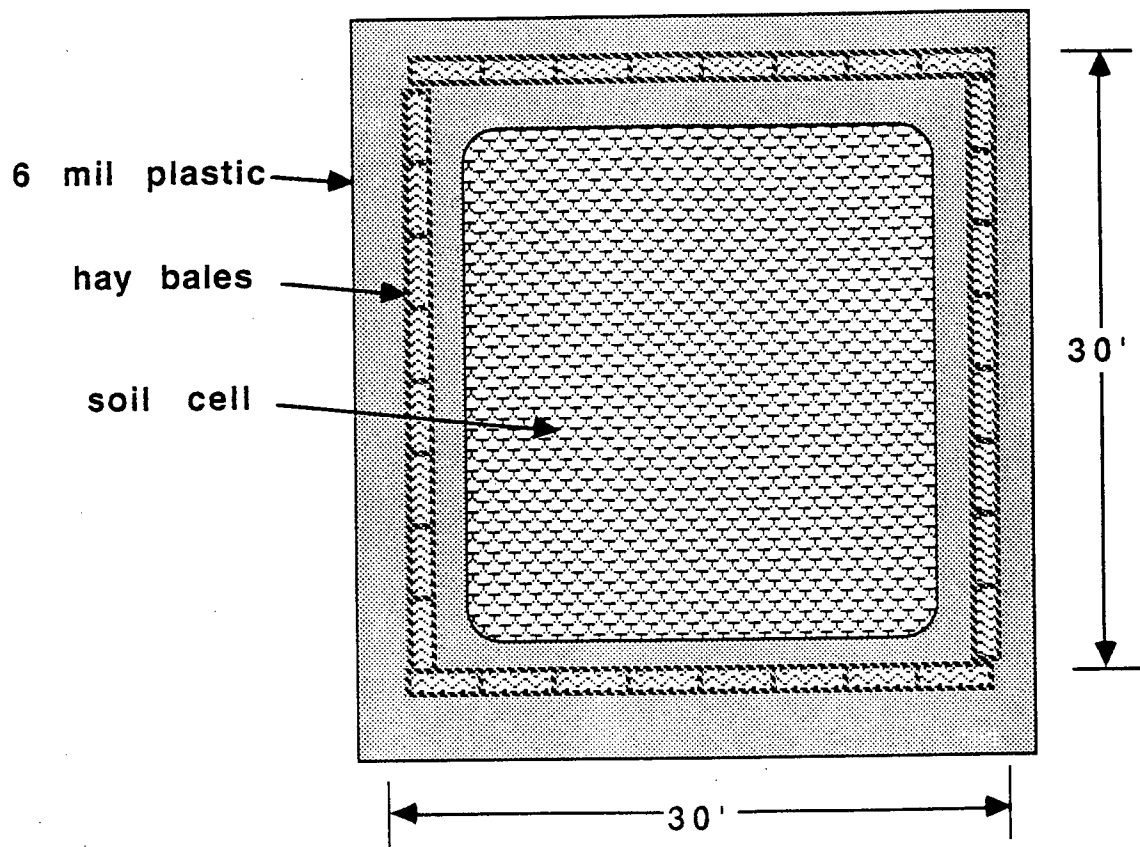
NOTE: Questions about specific treatment project plans, permits and/or the forms to be used should be directed to the regional office that has jurisdiction for the UST cleanup project.

Regional Office

Phone Number (503)

Eastern Region - Bend	388-6147
Eastern Region - Pendleton	276-4063
Eastern Region - The Dalles	298-7255
Northwest Region - Portland	229-5489
Western Region - Salem	378-8240
Western Region - Eugene	646-7838
Western Region - Medford	776-6136

The Department's toll-free, call-back number is 1-800-452-4011.



SOLID WASTE LETTER OF AUTHORIZATION

PERMIT APPLICATION

SHORT VERSION

DEQ USE ONLY

Application Rec'd: _____

Fee Rec'd: _____

Approved/Denied: _____

Disposal/Storage of Petroleum Contaminated Soils

THIS APPLICATION IS FOR THE FOLLOWING ACTIVITY:

Activity

☐ On-site soil reuse
☐ On-site soil storage
☐ Off-site soil reuse
☒ Off-site soil storage

Complete Questions Listed

#1, #2, #3, #5, #6
#1, #2, #3, #5, #6
#1, #2, #3, #4, #6
#1, #2, #3, #4, #6

< PLEASE COMPLETE THE FOLLOWING INFORMATION AS REQUIRED ABOVE >

1. Facility Information - UST cleanup project where contaminated soils originated

DEQ File Number assigned to site: 04-96-485

Facility Name: Cannon Beach Fire District (Old Fire House)

Facility Address: 232 N. Spruce St.
Cannon Beach, OR 97112

2. Attach the completed and signed Property Owner Statement for the site where the soils will be placed (soil disposition site). OR The site where the soil will be temporarily stored.

3. Explain the need and justification for the proposed project. What other disposal or reuse options were considered and why is this storage or soil reuse appropriate for this situation?

The soil has low concentrations (<170 ppm) diesel; low volume (<40 cubic yards). Disposal would require hauling to Hillsboro Landfill or to Portland for Thermal Treatment

4. Attach a completed and signed Land Use Compatibility Statement. (off-site treatment only)

5. You must confirm with local authorities that the proposed activity, treatment and or reuse is appropriate for the property in question and that this activity is compatible with local land use ordinances.

☒ Land use approval granted and/or verified that activity is allowed

Name of Official: JOHN J. Williams Date: 10/1/96

Department: CITY MANAGER / CANNON BEACH Phone: _____

SOLID WASTE LETTER OF AUTHORIZATION PERMIT APPLICATION-PAGE 2 (short version)

Note: Contractors or consultants retained by the responsible party to conduct work associated with the cleanup or soil treatment MAY NOT sign this application in lieu of the responsible party.

BY THE FOLLOWING SIGNATURE, THE RESPONSIBLE PARTY STATES THAT ALL INFORMATION SUBMITTED WITH THIS APPLICATION, INCLUDING ATTACHMENTS, IS TRUE AND CORRECT TO THE BEST OF YOUR KNOWLEDGE. SIGNATURE ALSO ACKNOWLEDGES THAT A LETTER OF AUTHORIZATION MAY BE SUSPENDED OR REVOKED IF THE APPLICATION CONTAINS A MATERIAL MISREPRESENTATION OR FALSE STATEMENT.

6. Responsible Party Name: CANNON BEACH R.F.P.D. (please print)

Signature: John M. Wasker

Date: 10/7/96

7. Please attach a site diagram that shows where the soil will be stored or reused. Include the location of roads, structures on the property and any nearby surface water.

8. Attach a signed and completed Property Owners Statement.

DETERMINE IF PERMIT FEE IS REQUIRED OR IF A FEE WAIVER IS APPROPRIATE:

The Department will waive the required permit fee if you have agreed to reimburse the Department for oversight costs associated with your UST cleanup project. If you have questions about the cost recovery process, or wish to have a Cost Recovery Agreement form mailed to you, please contact Ms. Debi Smith at 503-229-5441 or Kathleen Lippitt 503-229-6635. The Department's toll-free, call-back number is 1-800-452-4011.

a. IF THE PERMIT FEE IS DUE: Complete the attached Fee Invoice Form and submit a check for the permit fee to the Business Office address listed.

b. IF A PERMIT FEE WAIVER IS APPROPRIATE: Note the following as applicable:

___ A signed Cost Recovery Agreement has already been submitted to the Department on _____ (date).

___ A signed Cost Recovery Agreement is attached.

REMINDER - Have you:

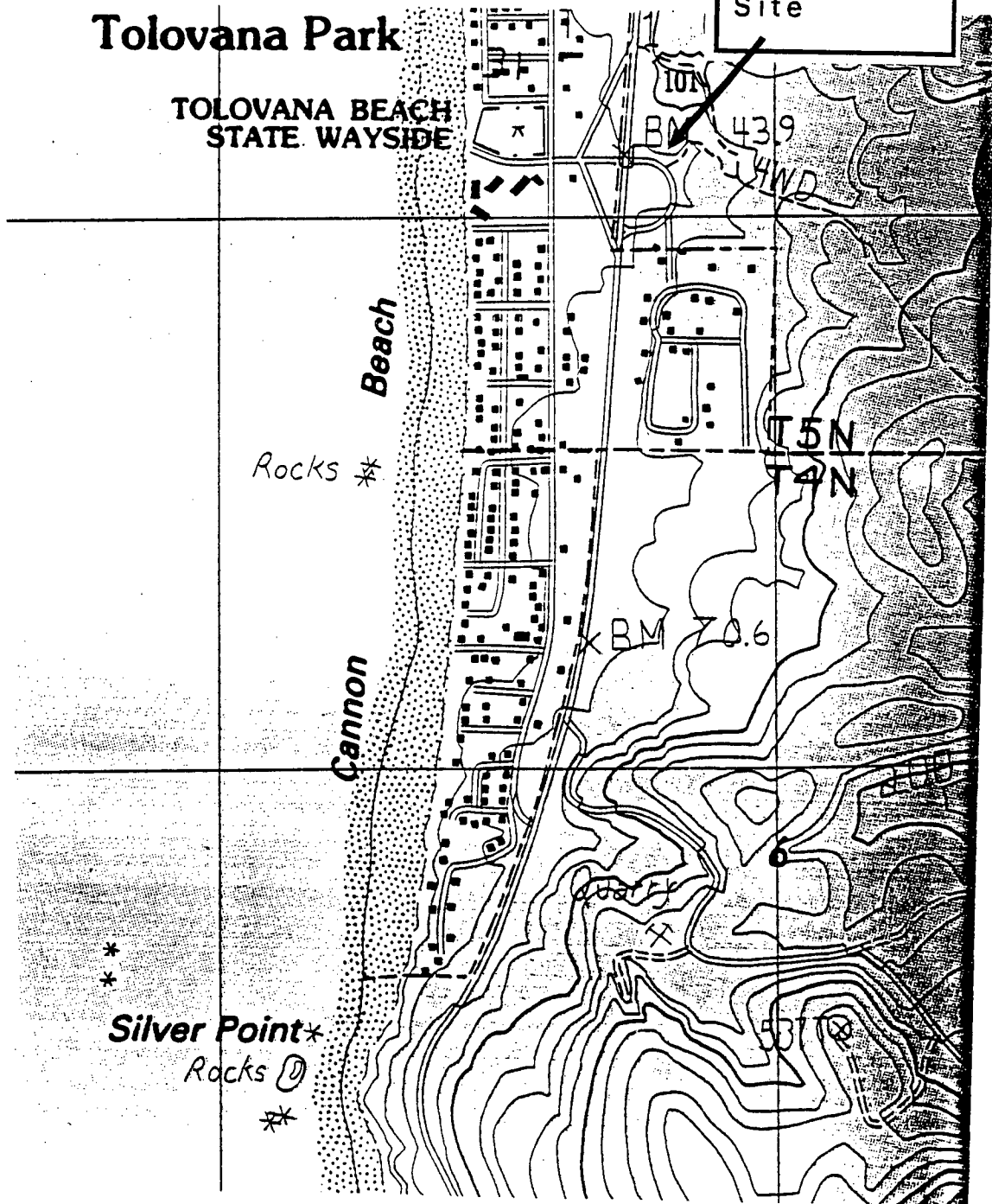
- ☒ Attached the completed and signed Property Owner Statement for the storage or final disposition site?
- ☒ Attached a signed/approved Land Use Compatibility Statement (if necessary)?
- ☐ Attached a signed Cost Recovery Agreement (if appropriate)?
- ☐ Submitted the appropriate permit fee (if appropriate)?

Submit this application, along with the appropriate attachments, to the DEQ Regional office that has jurisdiction for the UST cleanup project.

Tolovana Park

TOLOVANA BEACH
STATE WAYSIDE

Soil
Remediation
Site



ROGER N. SMITH ASSOCIATES, INC.
Groundwater and Environmental Consultants

Location of Soil Remediation Site
near US 101, 2 miles South of
Cannon Beach

PROPERTY OWNER STATEMENT

TREATMENT SITE

FACILITY INFORMATION

(UST cleanup project where soils originated)

DEQ File Number assigned to site: 04-96-485Facility Name: CANNON BEACH FIRE DISTRICT (OED FIREHOUSE)Facility Address: 237 N. SPRUCE STREET
CANNON BEACH, OR 97110

TREATMENT SITE INFORMATION

(location where soils will be treated)

Site Address: No Specific AddressLocated East of Highway 101 at 3rd Intersection South of
Marine Cannon Beach
Exit

Tax Lot No. (s): _____

County: Clatsop Co.

Approximate size of property:

Acres: _____ or Sq. Ft: _____ or Dimensions: _____

Property Owner Name: CITY OF CANNON BEACHMail Address: PO Box 368
Cannon Beach, OR 97110Phone Number: (503)436-1581

THE PROPERTY OWNER WHERE TREATMENT WILL OCCUR MUST SIGN AND DATE THE FOLLOWING STATEMENT:

As the owner of the property listed above which is proposed to be used as a petroleum contaminated soil treatment area, I agree that only petroleum contaminated soils from the UST cleanup project listed above will be allowed to be deposited and treated on this property. I agree that this is a one-time only use of this property for this purpose. I, or a representative for me, have confirmed that this activity is compatible with local land use ordinances. I also understand that I may be jointly responsible and liable for any future problems arising from this treatment project.

Signature: [Signature] Date: 10/1/96

This signed statement must be included with the Soil Treatment Plan.

DEPARTMENT OF ENVIRONMENTAL QUALITY LAND USE COMPATIBILITY STATEMENT (LUCS)

WHAT IS A LUCS? The LUCS is the process DEQ uses to determine that DEQ permits and other approvals that affect land use are consistent with the local government comprehensive plan.

WHY IS A LUCS REQUIRED? Oregon law requires that state agency activities related to land use be consistent with local comprehensive plans. DEQ Division 18 administrative rules identify agency actions that are defined as programs affecting land use. These programs must have a process for determining local plan consistency.

WHEN IS A LUCS REQUIRED? A LUCS is required for nearly all DEQ permits, some general permits, and certain approvals of plans or related activities that affect land use. These activities are listed in this form. In cases where a source needs more than one DEQ permit or approval, a single LUCS may be used.

A permit modification requires a LUCS when:

- there is a physical expansion on the property or the use of additional land is proposed
- there is a significant increase in discharges to water
- there is a relocation of an outfall outside of the source property, or
- there is any physical change or change of operation of an air pollutant source that results in a net significant emission rate increase as defined in OAR 340-28-110.

A permit renewal requires a LUCS if one has not previously been submitted, or if one of the above four permit modification factors apply.

HOW TO COMPLETE A LUCS:

- The LUCS form is included in the DEQ permit application or approval packet.
- Applicant fills out Section 1 of the LUCS and then submits it to the city or county planning office.
- The local planning office determines if the business or facility meets all local planning requirements.
- The local planning office must attach written findings of fact for local reviews or other necessary planning approvals that are required of the applicant.
- The applicant includes the completed LUCS and attachments with the permit application or approval submittal.

WHERE TO GET HELP: Questions on the LUCS are to be directed to region staff responsible for processing the source permit or other approval application or, to Management Services Division at 800-452-4011 or (503) 229-6408.

SECTION 1 - TO BE FILLED OUT BY APPLICANT

1. Name of applicant CANNON BEACH FIRE DISTRICT Contact person MIKE GRAHAM
Telephone 436-2949

Mailing address:
P.O. Box 24
CANNON BEACH, OR 97110

Location address:
232 N. SPRUCE ST.
CANNON BEACH, OR

NEAR SOUTHEAST-MOST ENTRANCE TO CANNON BEACH/TILOUMA AREA
ON CITY-OWNED PROPERTY

Tax Acct# _____ Tax Lot# _____ Township 4N Range 10W Section 6
Latitude 46° 38' 00" Longitude 124° 57' 30" (SEE ATTACHED MAP)

2. Describe type of business or facility and the services or products provided:
FIRE DISTRICT FOR CANNON BEACH PROVIDING FIRE PROTECTION.
VEHICLE USED WERE DIESEL FUEL

TOTAL P.04

**DEPARTMENT OF ENVIRONMENTAL QUALITY
TRANSMITTAL ADVICE
SOLID WASTE PERMITS**

CK #	TRAN AMNT	FOR THE ACCOUNT OF	INV #	PJT #
CHECK NAME		REASON FOR PAYMENT	REF #	RCPT #
5170	500.00	CANNON BEACH FIRE DISTRICT		
		LETTER OF AUTHORIZATION		
	500.00	TOTAL		

Mailed
8/11 SW 6th
DEQ NW Region

Oregon Department of Environmental Quality
UNDERGROUND STORAGE TANK DECOMMISSIONING/CHANGE-IN-SERVICE 30 DAY NOTICE

FACILITY (Location of Tanks)

Name: CANNON BEACH FIRE DEPT.

Address: 232 SPRUCE STREET

CANNON BEACH, OR

Phone: (503) 436-2949

DEQ Facility I.D. Number: 2716

Work To Be Performed By: DAN OBRIST EXCAVATION, INC.

(Owner or Licensed Service Provider)

Phone: (503) 667-4042

TANK OWNER

Name: CANNON BEACH FIRE DEPT.

Address: PO BOX 24

CANNON BEACH, OR 97110

Phone: (503) 436-2949

License # 10610

Mobile Phone: _____

FORM MUST BE SUBMITTED BY UST OWNER OR OPERATOR 30 DAYS BEFORE START OF WORK

YOU MUST CONTACT YOUR LOCAL DEQ REGIONAL OFFICE 3-DAYS BEFORE STARTING ANY DECOMMISSIONING WORK. (Phone numbers are listed on reverse)

Will tank removal or potential cleanup affect adjacent property or Right-of-Way property? Yes _____ No X

Date decommissioning is scheduled to begin: 11/2/95

Tank #	DEQ UST Permit #	Tank Size in Gallons	Product: Gasoline, Diesel, Used Oil, Other?		Closure or Service Change?			Tank to be Replaced?	
			Present	New	Tank Removal	Closures Inplace	Other Use	Yes*	No
1	HBCA	1,000	DIESEL FUEL		X				X

DEPT OF ENVIRONMENTAL QUALITY
RECEIVED

OCT 26 1995

NORTHWEST REGION

* If decommissioned tank(s) are to be replaced by new underground storage tanks you must submit a new permit application containing information on the new tanks 30 days before placing them in service.

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

Signature: _____

(Owner or Operator)

Date: 10/2/95

May 26, 1992
Oregon DEQ

UST Decommissioning/Change-In-Service 30 DAY NOTICE

Page 1 of 2

OCT 14 1995

ENVIRONMENTAL CLEANUP DIVISION

October 9, 1995

Facility ID No.: 2716

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

Dear Tank Owner/Permittee:

We received a decommissioning notice on October 4, 1995 for 1 underground storage tank(s) located at:

Cannon Beach Fire Dept.
232 Spruce Street
Cannon Beach, OR 97110

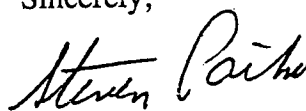
Checking our records, it appears the tanks are registered, permit fees are current, and the contractor is licensed. You are required to confirm the date of removal with the appropriate regional office (see below) at least 72 hours prior to tank removal. If you have any further questions about your permit fees, facility information or DEQ Licensed Contractors please call Steven Paiko at (503) 229-5733.

An assessment must be conducted at all tank sites and contamination must be reported within 24 hours of discovery. OAR 340-122-301 through 340-122-360 contains the sampling requirements necessary when decommissioning underground storage tanks. As soon as contamination is identified in any manner, including observations of visible staining or odors, it must be reported. If obvious signs of contamination are present in the excavation, **DO NOT** wait until you receive the sample results to report the contamination.

If you need to report contamination or have any general questions regarding site cleanup or UST compliance issues, please contact the regional office at the number listed below.

*** **REMINDER:** The UST Decommissioning/Change-In-Service Report form and the UST Decommissioning Checklist form must be submitted within 30 days after completion of work.

Sincerely,



Steven Paiko
Office Specialist
UST Compliance/Emergency Response Section
Waste Management & Cleanup Division

cc: Northwest Regional Office - 29-5263



811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
TDD (503) 229-6993
DEQ-1



October 9, 1995

Facility ID No.: 2716

Dear Tank Owner/Permittee:

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

We received a decommissioning notice on October 4, 1995 for 1 underground storage tank(s) located at:

Cannon Beach Fire Dept.
232 Spruce Street
Cannon Beach, OR 97110

Checking our records, it appears the tanks are registered, permit fees are current, and the contractor is licensed. You are required to confirm the date of removal with the appropriate regional office (see below) at least 72 hours prior to tank removal. If you have any further questions about your permit fees, facility information or DEQ Licensed Contractors please call Steven Paiko at (503) 229-5733.

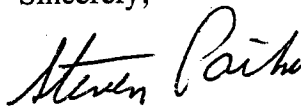
An assessment must be conducted at all tank sites and contamination must be reported within 24 hours of discovery. OAR 340-122-301 through 340-122-360 contains the sampling requirements necessary when decommissioning underground storage tanks. As soon as contamination is identified in any manner, including observations of visible staining or odors, it must be reported. If obvious signs of contamination are present in the excavation, **DO NOT** wait until you receive the sample results to report the contamination.

If you need to report contamination or have any general questions regarding site cleanup or UST compliance issues, please contact the regional office at the number listed below.

*** **REMINDER:**

The UST Decommissioning/Change-In-Service Report form and the UST Decommissioning Checklist form must be submitted within 30 days after completion of work.

Sincerely,



Steven Paiko
Office Specialist
UST Compliance/Emergency Response Section
Waste Management & Cleanup Division

cc: Northwest Regional Office - 29-5263



811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
TDD (503) 229-6993
DEQ-1



NWR UST FIELD INSPECTION REPORT

Inspection Date: 11-20-96

Site Name: Cannon Beach Fire Dist. Time Begin 2.5 hr. End Total*

Site Address: 3rd to Main off Hwy 101 Cannon Beach *Include inspection, travel, paperwork

File/Facility No.: 04-96-485 Inspector: RDP
(both UST & UST Cleanup file #'s as appropriate)

Others Onsite: No one present
include
company
name

Supervisor License No.: Exp. date
(note name with ** that Lic. No. applies to)

Potential Site Hazards

Hazards Appraised? Y / N
Photos Taken? Y / N (attach)
Samples Taken? Y N (attach results)

Inspection Type (check one)

- ☐ Install (New/Retro/StII)
- ☐ Decommission
- ☐ UST Facility - Full
- ☐ UST Facility - Partial
- ☐ Cleanup
- ☒ Soil Treatment
- ☐ Complaint
- ☐ Distrib. Audit
- ☐ Service Provider Audit
- ☐ Leak Detection
- ☐ Fuels (StI/StII/Tanker)

INSPECTION RESULTS - IN COMPLIANCE? Y / N / NA

↑
N SITE SKETCH (Plan View)

Notes (use back of form as necessary)

(See photos)

(See attached)

SOIL AERATION FIELD INSPECTION REPORT

Site Name: Cannon Beach Fire District

Date: 11-20-96

Site Address: 3rd & Main off Hwy 101

File No.: 04-96-485

Inspected By: RHR

Inspection Time: _____ / _____ + Travel: _____ = _____ Total Time
arrive depart (total rounded to nearest .5 hours)

PHOTOS TAKEN? (Y) / N (attach)

SAMPLES COLLECTED? Y / ~~N~~ (attach)

Y) N Is there any soil onsite? If yes, ESTIMATED VOLUME OF SOIL: 40 yd³

Y N Is any soil being treated offsite? If yes, list the treatment site address: _____

THE FOLLOWING ARE PROBLEMS THAT WERE OBSERVED: (circle appropriate descriptor)

There is no fence or other security measures in place to prevent unauthorized access to the contaminated soil OR barriers are damaged or have fallen.

Soil is being stockpiled with no active treatment evident.

No liner or liner is damaged.

— No liner or liner is damaged.
Not contained in a bermed area or berm is inadequate or damaged.

No cover or cover not secured.

Treated soil is not being responsibly managed.

No liner or liner is damaged or excessively torn.

Not contained in a bermed area or berm is inadequate or damaged.

Not contained in a belmed area or berm in the field.

_____ No evidence that soil is covered during rain or storms.

No evidence that soil is tilled/turned on a regular basis.

— No evidence that soil is tilled/cultured on a regular basis. Actual depth: Soil is spread thicker than 12-18 inches. Soil has been off base occurred

Soil is spread thicker than 12-18 inches. Actual depth.
Visible evidence that surface water runoff has occurred or is likely to occur.

Treatment site is not suitable.

Located near (<100 feet) a wetland area or surface stream.

— Treatment area is on a steep embankment.

— Treatment area is on a steep embankment.
— Located within a residential area and the Department has received complaints
— and/or observed nuisance conditions of dust or odors.

IN COMPLIANCE? Y / N / NA

If soil observed, complete the following:

⑧ N An UST Permit Addendum or LOA has been issued. Expires: 4-1-97

(v) N A Soil Treatment Plan has been received. Date Received:

NOTES: _____

↑
N

SITE SKETCH

NOTES

10/3/96
THINGS TO DO

- ☐ Talked to
- ☐ Roger Smith
- ☐ & Assoc.
- ☐ they will
- ☐ have Dan
- ☐ Obrist send
- ☐ in Decom Rpt.

they are
at the house
at the house
Debra

Oregon Department of Environmental Quality
UNDERGROUND STORAGE TANK DECOMMISSIONING CHECKLIST

DEQ FACILITY NUMBER: 2716 DATE: 9/19/96
 FACILITY NAME: CANNON BEACH FIRE DEPT.
 FACILITY ADDRESS: 232 SPRUCE ST.
CANNON BEACH, OR
 PHONE: (503) 436-2949

A. SAFETY EQUIPMENT ON JOB SITE:

Fire Extinguisher: Type/Size: 15 LB ABC DRY CHEM
 Combustible Gas Detector: Model: GASTECTOR SMPN 1314
 Oxygen Analyzer: Model: GASTECTOR SMPN 1314

Recharge Date: 9/1/96
 Calibration Date: 9/1/96
 Calibration Date: 9/1/96

B. DECOMMISSIONING: All Tanks: (Unk. = Unknown, N/A = Not Applicable)
 (Check Appropriate Box)

1. All electrical equipment grounded and explosion proof?
2. Safety equipment on job site?
3. Overhead electrical lines located?
4. Subsurface electrical lines off or disconnected?
5. Natural gas lines off or disconnected?
6. No open fires or smoking material in area?
7. Vehicle and pedestrian traffic controlled?
8. Excavation material area cleared?
9. Rainwater runoff directed to treatment area?
10. Drained and collected product from lines?
11. Removed product and residual from tank?
12. Cleaned tank?
13. Excavated to top of tank?
14. Removed tank fixtures? (pumps, leak detection equip.
15. Removed product, fill and vent lines?

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Yes	No	Unk	N/A
X			
X			
X			
X			
X			
X			
X			
			X
X			
X			
X			
X			
X			
X			

C. TANK ABANDONMENT IN-PLACE:

16. Sampling plan approved by DEQ?
 Date: _____ DEQ Staff: _____

			X
--	--	--	---

B. DECOMMISSIONING: All Tanks: (Unk. = Unknown, N/A = Not Applicable)
(Check Appropriate Box)

17. Contamination concerns fully resolved?

SAND

18. Fill Material? Type: _____

D. TANK REMOVAL:

19. Tank placement area cleared, chocks placed?

20. Purged or ventilated tank to prevent explosion?

Method used: TRIPLE RINSED Meter reading: 0 LEL

21. No chains or steel cables wrapped around tank for removal?

22. Tank removed, set on ground, blocked to prevent movement?

23. Tank set on truck and secured with strap(s)?

24. Tank labeled before leaving site?

E. SITE ASSESSMENT:

25. Site assessed for contamination? See OAR 340-122-340

26. Soil samples taken and analyzed?

27. Decommissioning/Change-in-Service report sent to DEQ?

28. Was contamination found? Date/Time: 8/19/96-AM

29. Was contamination reported to DEQ? By: PAM DUKART

Date/Time: 8/19/96 -1:45PM DEQ Staff: JIM MARESCH
#04-96-485

30. Was hazardous waste determination made for tank contents (Liquids/sludges)?

YUJAUU JATHEMMORIVAB 201950
DEW5058

31. Disposal location of tank(s) contents.

Name: OIL RE-REFINERS Date: 8/17/96

Address: 701 BOZARTH

WOODLAND, WA 98674 Attach disposal receipt.

32. Disposal or recycling location of removed tank(s) and associated piping.

Name: SCHNITZER STEEL PRODUCTS Date: 9/9/96

Address: 12005 N. BURGARD

PORTLAND, OR 97203 Attach disposal receipt.

33. If tank(s) are intended to be reused, identify new tank site.

Name: N/A Date: _____

Address: _____

Purpose of Reuse: _____

Yes	No	Unk	N/A
	X		

X			
X			
X			
X			
X			
X			

X			
X			
X			
X			
X			

F. WORK PERFORMED BY:

DEQ Service Provider's License #: 10610

Name: DAN OBRIST EXCAVATING, INC.

Telephone: (503) 667-4042

DEQ Decommissioning Supervisor's License #: 10387

Name: DANIEL F. OBRIST

Telephone: (503) 667-4042

E. CHECKLIST FILING:

1. Provide copy of checklist to the UST owner and operator.
2. Send completed checklist to the DEQ headquarters within 30 days after the excavation is backfilled.

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

Send Completed Form to:

Department of Environmental Quality
UST Program - Decommissioning Checklist
811 S.W. Sixth Ave.
Portland, Oregon 97204

241-5444

I have personally reviewed this decommissioning checklist and find it to be true and complete.

Signature: [Signature] Date: 9/19/96
(Licensed Supervisor)

Signature: _____ Date: _____
(Owner or Operator)

For information: (503) 229-5559 or Toll Free in Oregon 1-800-452-4011

INITIAL (TWENTY DAY) REPORT FORM FOR UST CLEANUP PROJECTS

Note: This report is due twenty (20) days from the date of the release.

DEQ File No.: 04-96-485

DEQ Facility Id. No. 2716

Site Name: CANNON BEACH FIRE DEPARTMENT

Site Address: 232 SPRUCE STREET, CANNON BEACH, OR

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INITIAL CLEANUP INFORMATION

SEP 20 1996

Type of contamination (check all that apply):

NORTHWEST REGION

☐ Gasoline ☒ Diesel ☐ Waste Oil ☐ Heating Oil
☐ Other (specify) _____

Y ☒ N Do you believe that this cleanup project can be conducted under the requirements for an UST Cleanup Matrix site?

☒ Y N Did groundwater enter the excavation? If yes, please identify the depth to groundwater in feet below ground surface _____

Note: If groundwater is encountered, soil samples from the soil/water interface must be collected and analyzed for BETX and the appropriate TPH method.

☒ Y N Was a sheen or odor observed on any water in the excavation?

☒ Y N Did groundwater recharge within 24 hours after pumping the accumulated water from the excavation? Please describe the disposal option selected for the excavation water: _____

Y ☒ N Are/were there any vapors present in building or utility corridors? If yes, are you continuing to monitor and mitigate any additional fire and safety hazards posed by vapors and free product? Explain: _____

SOIL MANAGEMENT

Y ^N Will the level of contamination detected require removal of contaminated soil for treatment or disposal?
unknown

All contaminated soil temporarily stockpiled onsite prior to treatment or disposal must be contained within a bermed area, kept covered, and the entire area secured to prevent unauthorized access by the public. If you haven't done this, please explain why: _____

Ahl in hole, covered with gravel

If contaminated soil is currently stockpiled onsite, please indicate when disposal will occur or when treatment will begin: _____

Note: Contaminated soil cannot be stockpiled onsite for more than thirty (30) days without applying for a Special Letter of Authorization.

Estimated volume of contaminated soil (tons or cubic yards): *unknown*

Intended disposition of soils (please check one):

____ Onsite treatment, Solid Waste Letter Authorization Permit Application attached.

____ Offsite treatment, Solid Waste Letter Authorization Permit Application attached.

Note: Offsite treatment is banned within the Portland Metro boundaries (see enclosed fact sheet).

____ Thermal treatment offsite at an authorized facility.

Facility name: _____

____ Thermal treatment onsite with a mobil treatment unit, permit required from DEQ.

Company name: _____

____ Landfill disposal. Name of Landfill: _____

Note: Please attach additional information as necessary to explain any unusual circumstances associated with this project.

This initial report is intended to provide the Department with the basic initial information about activities associated with the release. Future reports must be much more detailed and provide a complete picture of the cleanup project.

THIS REPORT WAS PREPARED BY:

Individual: DAN OBRIST Phone: (503)667-4042
Company: DAN OBRIST EXCAVATION, INC
Address: 6431 SE JENNE RD, PORTLAND, OR 97236

Please return this form to: DEQ - NORTHWEST REGION
UST Section
2020 SW Fourth Avenue, Suite 400
Portland, Oregon 97201

If you have questions, call (503) 229-5489 and ask for the underground storage tank (UST) Duty Officer.

REMINDER: Submit UST Decommissioning/Change-in-Service Report forms and UST Decommissioning Checklists DIRECTLY to:

DEQ - UST Compliance Program Phone (503) 229-5759
811 SW 6th
Portland, OR 97204

Failure to do so can result in delays to your project and may result in continued billing for the tank permit fees.

Please be aware that a DEQ permit/authorization is required for the following activities:

- 1) Soil aeration, bioremediation (onsite or offsite) or onsite thermal treatment.
- 2) Water discharges to a stream/storm drain from the excavation or treatment tank.

If these activities will be included in your cleanup project, contact the regional DEQ office for the appropriate application forms, information on permit fees and guidance documents.

Note: If there will be emissions from pollution control equipment (e.g. air strippers, vapor extraction systems, etc.), notify the DEQ by phone before installation. Have actual or estimated emissions calculated before calling.

KEEP A COPY OF THIS REPORT FOR YOUR FACILITY RECORDS

September 11, 1996

Mr. Jim Marsh
Department of Environmental Quality
UST Division
2020 SW 4th Avenue, Suite 400
Portland, OR 97201

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SEP 12 1996

NORTHWEST REGION

Re: DEQ File No.: 04-96-485

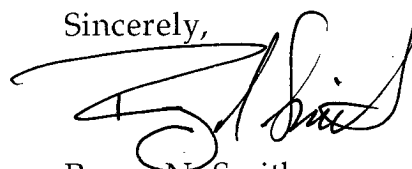
Dear Jim:

Enclosed with this letter is the 20-day report, aka "Initial Report Form for UST Cleanup Projects" for the Old Fire Station project located at 232 N. Spruce in Cannon Beach, Oregon.

We are doing additional investigation though in September. We will keep you informed of our progress and results.

If you have additional questions please don't hesitate to call me at (503) 241-5444.

Sincerely,



Roger N. Smith
Geological Engineer

:pdp
Enclosures

INITIAL REPORT FORM FOR UST CLEANUP PROJECTS

This report is due within twenty (20) days from the date of the release*

SITE INFORMATION

*DEQ File No.: 04-96-485 Discovery: August 1996
 *Date of Release: August 1996
 Site Name: Old Fire Station
 Site Address: 232 N Spruce, Cannon Beach, OR 97110
 Responsible Party: Mike Graham Phone: 503-436-2949
 RP Mail Address: P.O. Box 24, Cannon Beach, OR 97110
 Service Provider: Roger N. Smith Associates, Inc. Phone: 503-241-5444
 SP Mail Address: 800 NW 6th Ave., Suite 318, Portland, OR 97209-3700

* Note: This information is listed on the cover letter received by the Responsible Party.

INITIAL CLEANUP INFORMATION

☒ Y ☐ N Do you believe that this cleanup project can be conducted under the requirements for an UST Cleanup Matrix site?

➤ Groundwater use in the immediate area of the project (check all that apply) - complete whether or not the release is believed to have impacted groundwater.

☐ Drinking water supply ☐ Industrial
☐ Agricultural ☒ Groundwater not used

➤ Facility location (check all that apply)

☐ <100 ft. from a wetland or surface stream (circle one or both)
☐ within a residential area
☒ within an industrial/commercial area
☐ Other (describe): _____

➤ 3 Ft. Current approximate depth to groundwater (in feet).

➤ 2 Ft. Seasonal high groundwater level (in feet) if different.

➤ Describe how depths were determined: observation during tank

removal.

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NORTHWEST REGION

- (Y) N NA Did you take immediate action to prevent any further release of the regulated substance into the environment? EXPLAIN: Tank and distribution lines were removed.
- (Y) N NA Were steps taken to identify and mitigate fire, explosion, and vapor hazards? EXPLAIN: The tank was cleared of vapors before being removed. Diesel was the released product, therefore no other vapor problems were considered.
- (Y) N NA Did you remove as much of the regulated substance from the UST system as necessary to prevent further release to the environment? EXPLAIN: Tank and lines were removed.
- Y (N) NA Did you visually inspect any aboveground releases or exposed below ground releases and prevent further migration of the released substance in surrounding soils and groundwater? EXPLAIN: _____
- Y (N) NA Are/were there any vapors present in buildings or utility corridors? If yes, are you continuing to monitor and mitigate any additional fire and safety hazards posed by vapors and free product? EXPLAIN: _____
- Y (N) NA Have you remedied any hazards posed by contaminated soils that were excavated or exposed as a result of release confirmation, site investigation, abatement, or cleanup activities? EXPLAIN: Soil treatment is planned for the future.
- (Y) N NA Have you measured for the presence of a release where contamination is most likely to be present at the UST site? EXPLAIN: Diesel was found in soils surrounding tank 100ppm & 175ppm.
- Y (N) NA Did you investigate to determine the possible presence of free product and begin free product removal as soon as practicable? If yes, was the region notified? EXPLAIN: No free product.
- (Y) N Was groundwater initially encountered in the excavation? If yes, how was this water handled/disposed? How many gallons involved? EXPLAIN: No water was removed.
- (Y) N Was a sheen or odor observed on any water in the excavation? If yes, DESCRIBE OBSERVATIONS: Very small amount.

INITIAL REPORT FORM FOR UST CLEANUP PROJECTS - PAGE 3

Y N ☒ Did groundwater recharge 24 hours after pumping the accumulated water in the excavation? If yes, what actions have you taken as a result? Did you resample the recharge water? EXPLAIN: Water was present at time of tank removal, no water was removed from tank pit.

☒ N Are any SOIL OR WATER SAMPLE RESULTS available at the time of this report? If yes, attach all laboratory analysis reports and chain of custody forms.

GENERAL INFORMATION FOR ALL CONTAMINATED SOILS MANAGEMENT

Note: All soils temporarily stockpiled onsite prior to treatment or disposal must be contained within a bermed area, kept covered (and the cover anchored), and the entire area secured to prevent unauthorized access by the public. Non-contaminated soils should be protected and kept separated from contaminated soil.

☒ N The level of contamination noted is expected to require removal of contaminated soil for treatment or disposal. If yes, complete the following. If no, go to Page 4, "Report Prepared By".

➤ Type of petroleum contamination (check all that apply):

___ Gasoline ☒ Diesel ___ Waste Oil ___ Heating Oil

___ Other contamination (specify): _____

➤ Estimated volume of soil if known (tons or cubic yards): _____

➤ Intended Disposition of Soils (check appropriate method):

☒ Treatment

___ Thermal treatment offsite at an authorized facility

Facility Name: _____ Phone No.: _____

Facility Address: _____

___ Thermal treatment onsite with a mobil treatment unit **

Company Name: _____ Phone No.: _____

☒ Offsite soil aeration¹ or bioremediation **

Treatment Site Address: Fire District property in Tulovana

___ Onsite soil aeration or bioremediation **

___ Disposal

Landfill Name: _____ Phone No.: _____

Landfill Address: _____

1 Offsite soil aeration is banned within the Portland METRO area - see enclosed fact sheet.

** Permit from DEQ required, see page 5 if you would like forms mailed.

INITIAL REPORT FORM FOR UST CLEANUP PROJECTS - PAGE 4

➤ Who will be conducting the soil treatment or disposal work?

Company Name: Cannon Beach Fire District Phone: 436-2949

Contact Name: Mike Graham

➤ What date(s) is the treatment or disposal intended to be started?

Late September 1996.

Note: You have approximately 30 days to stockpile contaminated soils onsite while making arrangements for proper disposal or treatment. After that time, you may be required to obtain a permit from DEQ for onsite management of the contaminated soil if you fail to take active measures to manage the soil in an appropriate manner.

THIS REPORT WAS PREPARED BY:

Date: 9/11/96

Individual: Roger N. Smith

Phone: 241-5444

Company: Roger N. Smith Associates, Inc.

Address: 800 NW 6th Ave., Suite 318, Portland, OR 97209-3700

If this report was NOT prepared by the Responsible Party:

☒ N NA Are you the licensed Matrix Service Provider for the project and authorized by the Responsible Party to submit reports on their behalf?

Matrix Service Provider License No.: 12451

NOTE: This initial report is intended to provide the Department with the basic initial information about activities associated with the release. It is anticipated that future reports will be much more detailed and will provide a more complete picture of the entire cleanup project. If appropriate, you may reference this initial report in subsequent reports if the information does not need to be repeated for clarity.

➤ Please attach additional information as necessary to explain any unusual circumstances associated with the project or if you need more space to respond to any of the questions in this report form.

Return this form to:

Michael Zollitsch
DEQ-Hazardous Waste and Cleanup Div.
811 SW Sixth Avenue
PORTLAND OR 97204

If you have any questions, call 503-229-6931 -

➤➤➤➤➤ KEEP A COPY OF THIS REPORT FOR YOUR FACILITY RECORDS ◀◀◀◀◀

INITIAL REPORT FORM FOR UST CLEANUP PROJECTS - PAGE 5

General Information:

➡➡➡➡ A permit from DEQ is required for the following activities ◀◀◀◀

X Soil aeration, bioremediation (onsite or offsite) or onsite thermal treatment.

Water discharges to a stream/storm drain from excavations or treated groundwater.

Note: If there will be air emissions from pollution control equipment (e.g. air strippers, vapor extraction systems, etc.), notify the regional office by phone before installation. Have actual or estimated emissions calculated before calling.

Check any activities listed above that are anticipated for your cleanup project and the Department will send you the appropriate application forms to complete, information on permit fees and guidance documents as appropriate.

REMINDER: Submit UST Decommissioning/Change-in-Service Report forms and UST Decommissioning Checklists and Reports DIRECTLY to:

DEQ-UST Compliance Program
811 SW 6th
Portland, OR 97204

Phone: 503-229-5759

Failure to do so can result in delays to your project; these reports must be received by the UST Compliance Program or the tank owner will continue to be billed for tank permit fees.



CERTIFICATE OF ANALYSIS

CLIENT: DAN OBRIST EXCAVATION, INC.
6431 SE JENNE ROAD
PORTLAND OR 97236

PHONE: (503) 667-4042
FAX: (503) 667-3566

DATE SUBMITTED: 08/19/96

PO#:

PROJECT NAME: CANNON BEACH

CL. SAMPLE #	CLIENTS ID#	DATE	TIME	DESCRIPTION
960911-001-D1	S#1	08/17/96		T#1 NORTH END 6'
960911-002-01	S#2	08/17/96		T#2 SOUTH END 6'

REPORT DATE: 08/20/96

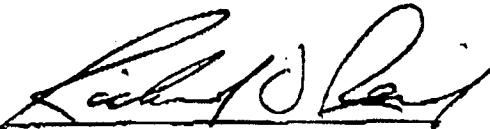
REPORT NUMBER: 960911

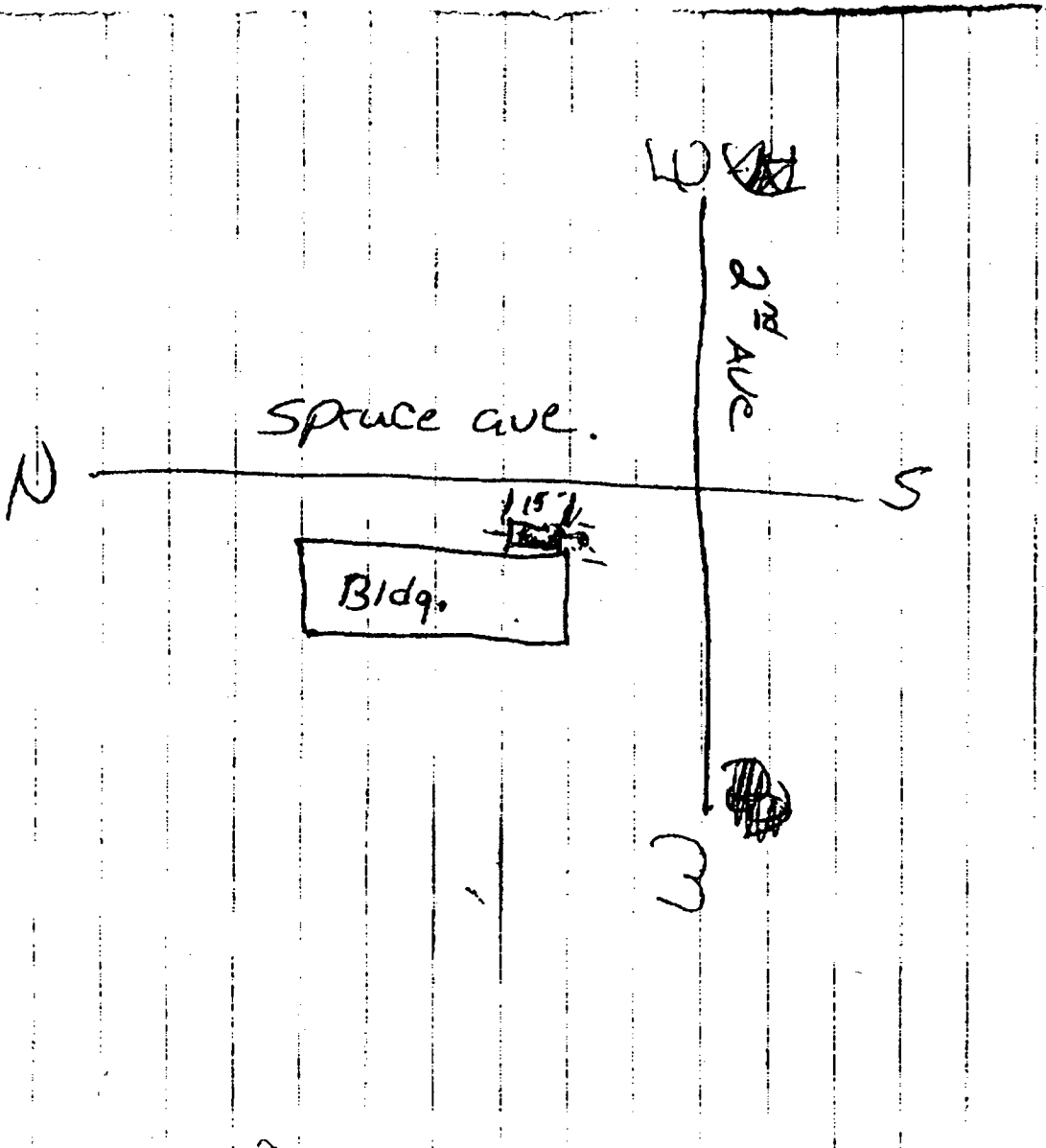
PAGE: 1 OF 1

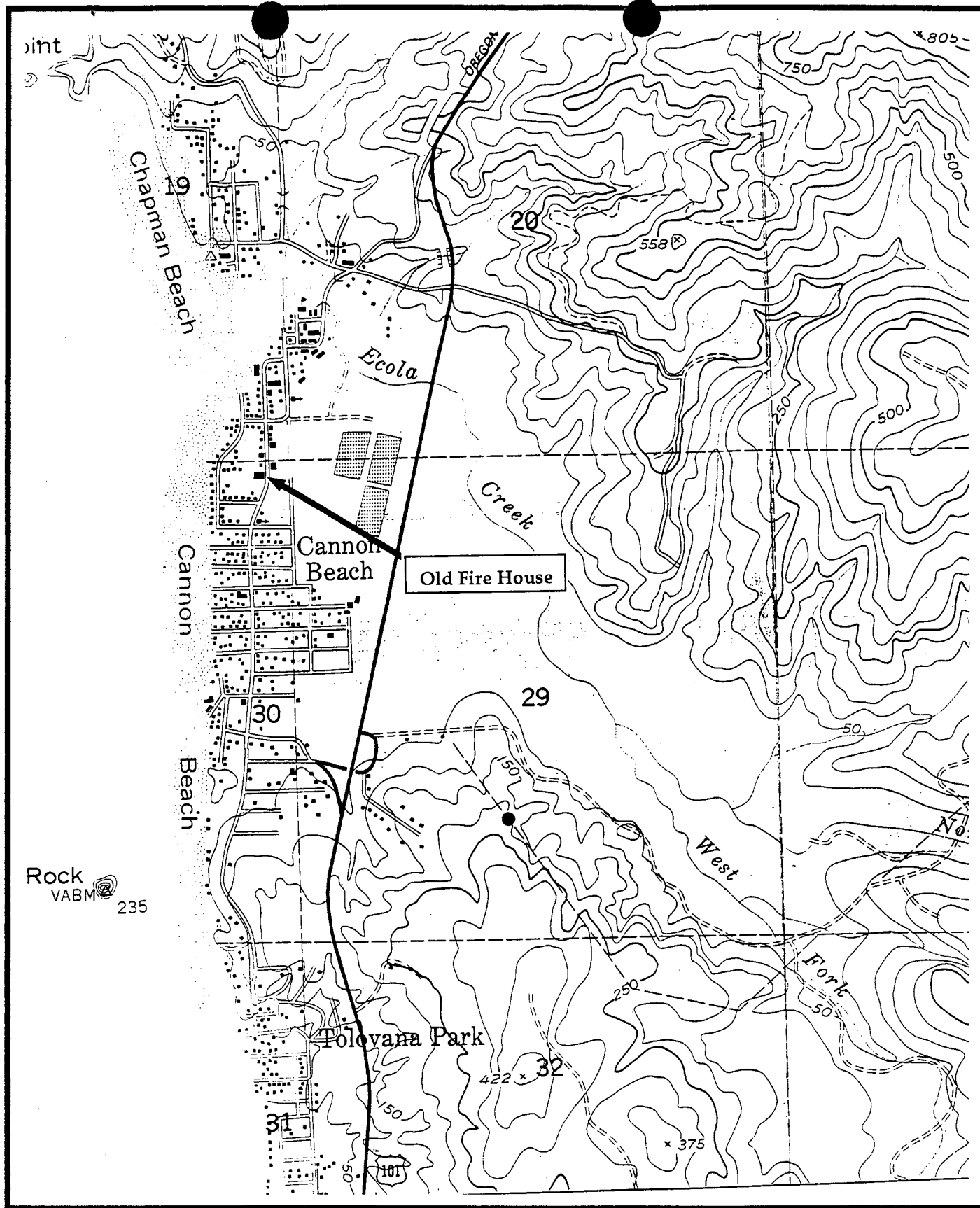
SAMPLE	TEST	PARAMETER	RESULT	UNIT	DETECTION LIMIT	ANALYST
S#1						
960911-001-01	TPH-HCID	GASOLINE	ND	PPM	13	Jacob F.
	QAR-OEQ TPH-HCID	DIESEL	DIESEL	PPM	25	
		OIL AND GREASE	GREASE*	PPM	100	
		SURROGATE	112%	% RECOVERY 50-150		
960911-001-01	TPH - SOIL EPA 418.1M	PETROLEUM HYDROCARBONS	170'	PPM	0.5	Jacob F.
S#2						
960911-002-01	TPH-HCID	GASOLINE	ND	PPM	13	Jacob F.
	QAR-OEQ TPH-HCID	DIESEL	DIESEL	PPM	25	
		OIL AND GREASE*	GREASE	PPM	100	
		SURROGATE	119%	% RECOVERY 50-150		
960911-002-01	TPH - SOIL EPA 418.1M	PETROLEUM HYDROCARBONS	110	PPM	0.5	Jacob F.

* The heavy hydrocarbons found in both samples are carryover from the material characterized in the diesel range organics. No other lubricating or heavy oil was found.

REVIEWED BY:


Richard D. Reid - Laboratory Director





ROGER N. SMITH ASSOCIATES, INC.
Groundwater and Environmental Consultants

**Figure 1 Cannon Beach Fire District's
"Old" Fire House Location**



CANNON BEACH RURAL FIRE PROTECTION DISTRICT

P.O. Box 24
Cannon Beach, OR 97110
(503) 436-2949

DEPT OF ENVIRONMENTAL QUALITY
RECEIVED

AUG 29 1996

NORTHWEST REGION

27 August 1996

Jim Maresh
DEQ
2020 SW Fourth Av.
Suite 400
Portland, OR 97201-4987

RE: File # 04-96-0485

Dear Mr. Maresh:

As per our telephone conversation today, the Cannon Beach Rural Fire Protection District would like to extend the Initial (twenty day) Report Form For UST Cleanup Projects so that it can confer at its 9 September board meeting with Roger Smith Associates Inc. Mr. Smith is to address the board at its regular meeting that night and offer his proposals to handle the fire district's UST clean up project.

The fire district would appreciate your consideration in this matter.

Sincerely,

Mike Graham
Mike Graham, Secretary
CBRFPD

August 20, 1996

F
Oregon

FIRE CHIEF
CANNON BEACH RFPD
PO BOX 24
CANNON BEACH OR 97110

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

NORTHWEST REGION

RE: Cannon Beach RFPD
File No. 04-96-0485

Dear Fire Chief:

On August 19, 1996, a release was reported from an underground storage tank (UST) system at your facility located at 232 N. Spruce Street in Cannon Beach, Oregon. As the responsible party for the facility, you are required to clean up the release according to OAR 340-122-201 through 340-122-360.

An Initial Report Form for UST Cleanup Projects is enclosed, which needs to be completed and returned to this office within twenty (20) days from the date the release was reported. An outline of additional reporting requirements and due dates is also enclosed. A copy of the UST Cleanup regulations will be provided upon request. As the responsible party, you should be aware of what the requirements are, even if you have hired a qualified contractor or consultant to assist you.

Please reference the DEQ File Number listed above in all future correspondence and reports.

By law, DEQ is required to recover all cleanup project oversight costs. DEQ oversight begins with the initial site characterization and continues through site closure. Oversight includes activities such as reviewing reports, preparing correspondence, answering technical assistance questions, site inspections, and enforcement actions. You will be receiving an invoice each month for all oversight activities performed to-date.

DEQ's highest priority for oversight are those sites which pose the greatest hazard to human health, safety and the environment. As a result, many lower environmental priority sites will not be reviewed in detail or receive a final "No further action" or "closure" letter from DEQ until the higher priority sites are addressed. However, all projects - simple or complex - require at least some oversight. At a minimum, sufficient review of reports and data submitted is conducted to determine the environmental priority of the cleanup project.

John A. Kitzhaber
Governor



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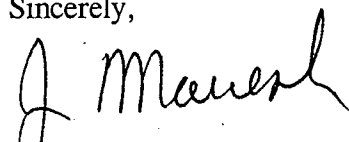
Fire Chief
August 20, 1996
Page Two

For those responsible parties who desire DEQ oversight, regardless of environmental priority, we have developed a Responsible Party Priority Site Program. To receive oversight and more effectively schedule your project, you will be asked to sign an agreement requesting priority review and confirming your agreement to pay DEQ oversight costs in a timely manner.

Not entering into the Agreement does not release you from responsibility for investigation and/or cleanup of the contamination; nor does it mean that you are exempt from paying for DEQ oversight costs. Please be aware that there may be a waiting list for assignment to the next available project manager, and that these projects are assigned on a first come, first served basis. Please read the attached information on the cost recovery and invoice process. We have also included information about the Responsible Party Priority Site Program and an agreement, if you are interested in expediting review of your project. You may contact the Waste Management and Cleanup Program at (503) 229-6635 if you have questions about cost recovery.

Thank you for your cooperation and continued efforts to comply with the regulations. If you have any questions about the regulations and/or your cleanup please call (503) 229-5489 and ask to speak to the Underground Storage Tank Duty Officer.

Sincerely,



J. Maresh
Duty Officer
Underground Storage Tanks
Northwest Region

Enclosures

(FIRE CHIEF:VCB)

COMBINED 45-DAY AND FINAL REPORT

of the:

UNDERGROUND STORAGE TANK CLEANUP

at the:

FORMER CANNON BEACH FIRE DISTRICT FIREHOUSE

in
CANNON BEACH, OREGON

Date Submitted:

NOVEMBER 20, 1996

RNSA Project No. 96-460

Submitted to:

**Cannon Beach Fire District
P.O. Box 24
Cannon Beach, Oregon 97110
ATTN: Mike Graham**

DEC 3 1996

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1.0 EXECUTIVE SUMMARY

This report narrates the discovery and cleanup of a diesel release discovered during the removal of a 1,000 gallon diesel tank from the former firehouse of the Cannon Beach Fire District in the summer and fall of 1996. Low concentrations were originally found at the site (170 ppm and 110 ppm) but the presence of groundwater required additional investigation and remediation. Exploratory drilling around the tank pit revealed no detectable concentrations of hydrocarbons in any direction. The impacted soil was limited to within the confines of the tank pit and immediately beneath it. Impacted in site soil was excavated out, confirmatory soil samples indicated a maximum concentration of 30 ppm in the bottom of the excavation. A groundwater sample revealed no detectable concentrations in water flowing back into the pit. Approximately 30 cubic yards of impacted soil are now being remediated in an approved location south of town under a Letter of Authorization permit. No further work is planned for the pit area and the soil remediation is anticipated to be completed before the end of the permit in April of '97. A no further action (NFA) letter is recommended for this site.

2.0 INTRODUCTION

This 45-day report concerns the remediation of diesel-contaminated soil discovered beneath a 1,000-gallon underground storage tank used by the Cannon Beach Fire District to fuel fire trucks and other emergency vehicles. The district's firehouse has recently been replaced by a newer facility approximately 1/4 mile south and the District is in the process of selling the old station to a developer.

This report presents conditions discovered during the recent (9/14/96) soil drilling in and around the former underground storage tank. A result of this September drilling was the definition of a small pocket of contaminated soil beneath the former underground storage tank. And on November 1, 1996 the diesel-impacted soil was excavated. This report documents the remedial excavation, soil treatment

and condition of native soil and ground water left in the vicinity of the former tank.

The appendix to this report contains maps, permits and documents developed during this recent successful cleanup.

2.1 Progress Summary

On August 17, 1996 Dan Obrist Excavation Company (DOEC) removed one 1,000 gallon-capacity diesel fuel tank (closure documents in appendix) from beneath a concrete apron between Pine Street and the southern-most bay of the Cannon Beach Fire District's firehouse (see Figure 1).

The DOEC crew collected two samples during the tank removal, one from beneath each end of the tank pit. One of these samples had concentrations of 110 ppm and another 170 ppm diesel which with the presence of ground water required additional cleanup.

With regards to the tank disposal, it is our understanding from conversations with Dan's office that the tank is being retained for reuse and will not be disposed of.

A 20-Day Report for this site was completed and sent to Jim Marsh at the DEQ as well as to the Cannon Beach Fire District (c/o Mike Graham).

As a follow-up to the DOEC discovery of diesel contamination around the former tank, additional sampling was initiated. On Saturday, September 14, 1996 ten soil borings were made in and around the old fire house tank pit. In Figure 2 a diagram shows the location of these borings. Seven of the borings were made around the former underground storage tank pit and three borings were made in the tank pit itself. Ground water was found to be a 1.5 feet below ground surface. The soil in the pit was found to consist of gravel backfill for the first 2 feet then native beach sands to a depth of approximately 8 feet where an organic-rich silt layer was intercepted. This organic

layer is thought to be the bottom of a wetlands that existed in this area before the City of Cannon Beach was built.

Two samples collected from the recent borings made through the former tank pit were analyzed for diesel (using EPA Method 418.1m). The sample collected from the sands lying half-way between the surface and the bottom of the tank pit was found to have a diesel concentration of 101 parts per million (ppm). This is a concentration very similar to DOEC sample results of 110 ppm and 170 ppm. A second sample collected at a depth of 8.5 feet (approximately 2.5 feet below the depth of the first DOEC samples) had no detectable concentration of diesel. Based on this information it appeared that the sand backfill in the former tank pit was impacted with diesel fuel but no product had migrated more than 2.5 feet below the bottom of the tank pit.

Four other borings were made out from each side of the tank pit, one north of the pit (1N), one south of the pit (1S), one east of the pit (1E) and one west of the pit (1W). One soil sample was taken from each of these holes at depths between 3.5 and 4.0 feet below ground surface (see Figures 2&3). Analyses of these four samples, again following TPH 418.1m, showed no detectable concentration of diesel. These results confirms that any diesel fuel released in the tank pit area has not migrated away from the pit.

In addition to the sampling around this tank pit, three soil boring were made through the floor of the southern-most bay of the old fire house (see Figure 3). This is the area that an even older underground storage tank was thought to have been buried. The borings were made in what was considered the most likely location of the former tank. All three borings were made to a depth of 4 feet below ground surface and no indications of an existing tank were found. One soil sample was collected from the bottom of each boring and analyzed for diesel following the same EPA Method 418.1m. No detectable concentration of diesel was found in any of the borings.

At the conclusion of the drilling and sampling all borings were backfilled with bentonite and the borings through the

concrete were patched with fresh concrete plugs. Boring logs were made of all the drill holes which are presented in the appendix of this report

Based on this preliminary drilling and analytical analyses there was calculated to be approximately 40 cubic yards of impacted soil to be removed from the former 1,000 gallon tank pit.

On November 1, 1996 a backhoe and operator from McEwen Construction Co. of Cannon Beach excavated the impacted soil from the former UST pit. Water flowed into the pit during excavation but dewatering with a submersible pump was able to keep up with the inflow. All water removed from the pit was contained in a tank supplied by McEwen. The water was later disposed of, with permission, into the City sanitary sewer system.

Confirmatory soil samples were collected from the bottom of the excavation, which extended to 8.5 feet below ground surface. A sample of the ground water flowing back into the pit was collected at the same time as the confirmatory samples were collected. No detectable 418.1m hydrocarbons were present in the ground water and low (31 ppm and non-detect) concentrations were found in the excavation-bottom samples.

All soil excavated from the former tank pit was taken to a remediation site south of Cannon Beach (see Figure 4). Under a permit from the DEQ the soil was treated in the following manner: Hay bales were placed around a square area 30 feet long on a side (see Figure 5). Three soil samples were collected from the virgin soil inside the cell area to determine pre-existing conditions. The entire remediation cell was then covered with a 6 millimeter (mil) thick plastic sheeting. The plastic sheet was cut to overlap the bales so no diesel-impacted soil came in contact with the hay bales or the underlying soil. Once the soil was placed in the remediation cell, plastic sheeting was placed over the entire cell, weighted down and the edges tucked beneath the hay bales.

2.2 Background

The following is a brief symposia of the previous property use and the present use of immediate surrounding properties.

Site Usage: Fire Station and Emergency Equipment Facility
since early 1950's.

Past Spills: none reported

Previous Use: undeveloped

Surrounding environment:

east - Pine Street across which is a municipal tennis
court

west - commercial retail stores along Cannon
Beach's main street

north - a retail bike shop

south - a newly constructed commercial retail
complex

3.0 LOCAL AND REGIONAL HYDROGEOLOGY

The following narrative presents an overview of the regional and local hydrogeology of the project area.

3.1 Regional Hydrogeology

The City of Cannon Beach as well as the old fire house is located near the confluence of the flood plain of Ecola Creek with the beach sands of the Pacific Ocean. The elevation of the entire town is below 50 feet and the elevation of the old firehouse is thought to be in the vicinity of 5 feet. Therefore the ground water is very near the surface and is thought to be affected by ocean tides.

3.2 Site-Specific Hydrogeology

During the drilling of 10 soil borings in the vicinity of the former tank pit and during the remedial excavation notes were taken of the soil type and stratigraphy. The predominant material present was beach sand. However, there were several layers of dense organic-rich layers 4 to 6 inches thick discovered. The source of the beach sands was thought to be either from the Pacific Ocean or from erosion of sandstones in the adjacent hills that were later deposited in this area by Ecola Creek. The organic-rich layers are mats of material thought to be developed in past wet-lands associated with the Ecola Creek flood plain. The multiple layers suggests that this area was historically exposed to flooding from Ecola Creek or impacted by deposits from periodic tsunamis.

The affect this deposition environment would have on the migration of diesel is significant. The diesel fuel has a lower specific density then water and would have a tendency to rise to the water-air interface (approximately 1.5 feet below ground at the site). The persistence of the ocean and stream-supplied water in the area is known to keep the ground water high. This high water table would prevent the vertical migration of hydrocarbons. In addition the dense organic layers appear to have a much lower permeability than the sands and would likely be a barrier to vertical downward migration.

Groundwater movement is thought to be east toward Ecola Creek at a low gradient. Also, the water table is though to fluctuate with ocean tides.

3.3 Area Groundwater Use

The shallow aquifer system is not used for irrigation or drinking. The City of Cannon Beach gets its water from springs 1.5

miles east of the City and as a backup from Ecola Creek at a point 1 mile east of the City. Because of the high iron content of the shallow ground water no known use is made of this shallow aquifer (communications Mr. Dan Eleck, Cannon Beach Public Works). All water for the City is supplied by a municipal distribution system.

4.0 TECHNICAL INFORMATION

This section is divided into four parts dealing with different phases of work, they are: first, a discussion of the original soil sampling by DOEC, second the exploratory sampling that outlined the diesel plume and third the confirmatory sampling done during the remedial excavation. A fourth section describes groundwater collection and analysis.

4.1 Soil Sampling/Diesel Discovery

During removal of an unused 1,000 gallon diesel UST by DOEC on August 17, 1996 two soil samples were collected from beneath each ends of the tank as per DEQ regulations. These samples were first run for HCID to identify the presence and type of hydrocarbon. Both samples had detectable concentrations of diesel and grease. No detectable concentrations of gasoline were found. A note on the analytical lab sheets indicated that the grease (heavy hydrocarbons) found in both samples were carryover from the material characterized in the diesel range organics. No other lubricating or heavy oil was found.

Because of liability associated with leaving a pit open in downtown Cannon Beach, the tank pit was filled in by DOEC once the tank was removed, even though additional excavation was anticipated.

4.2 Soil Sampling/Plume Limit Exploration

On September 19, 1996 ten soil boring were made in and around the former UST pit. Soil samples were collected from the depths of between 3.5 and 4.0 feet below ground level. Soil boring logs were made for each of the holes and are included in the appendix of this report. One soil sample was analyzed from each of these borings.

The array of the soil borings is shown in Figure 3 and was selected to collect a sample from each quadrant direction around the pit as well as four locations within the pit. The depth of the soil borings was limited because of the sloughing caused by the wet sand formation. However, one boring (1CB) reached a depth of 9.5 feet which was approximately 3 feet below the bottom of the tank pit. In addition to the soil sampling around the former UST, three soil borings were drilled approximately 30 feet west to explore for the presence of an even older UST left beneath the firehouse.

One soil sample was analyzed from each of the 10 soil boring by EPA Method 418.1m. Only one sample had concentrations above detectable levels (detection limit was 10 ppm). This sample (1CA) was collected from an depth of 3.5 feet near the south-central part of the tank pit. Concentrations of this sample was 101 ppm.

4.3 Soil Sampling/During Remedial Excavation

On September 13, 1996 approximately 30 cubic yards of diesel-impacted soil was excavated from the former UST pit. This soil was transported to remediation cell near the south end of town. Confirmatory samples were collected from each end of the bottom of this pit at a depth of approximately 8.5 feet below ground surface. The soils were analyzed by EPA Method 418.1m for total heavy oils and diesel. Concentrations in the confirmatory samples were non-

detect (detection limit of 10 ppm) and 31 ppm. The sample from the north end of the tank pit was the one with the detectable concentration.

Also, during the excavation 250 gallons of water was pumped out of the tank pit. Fresh formation water that seeped back into the pit was sampled and is discussed in section 4.4.

4.4 Ground Water Sampling

Ground water sampling occurred during the remedial excavation that occurred at the site on September 13, 1996. The method followed included dewatering the excavation to its maximum depth of 8.5 feet below ground surface, then collecting water into a clean 1-liter amber bottle. This sample was analyzed by EPA Method 418.1. No detectable concentrations of hydrocarbons were found in this sample (detection limit 0.5 ppm).

A recent (11/15/96) conversation with Mitch Scheel of the Northwest Region's UST Division indicated that if the ground water could be demonstrated as having less than 0.5 ppm total petroleum hydrocarbons the UST site could be cleaned up under the Soil Matrix rules. An evaluation of the Cannon Beach site for soil matrix indicated score of 31 (score sheet is in appendix) which designates this site as a Level 2 with target cleanup concentrations of 500 ppm for diesel and 80 ppm for gasoline. All confirmatory samples collected from the tank pit had concentrations less than the Level 2 thresholds.

5.0 RESULTS

The following discussion is divided into two sections: first, the presentation of analytical data and second, an evaluation of analytical results.

5.1 Presentation of Data

The laboratory analytical data for soil and water samples are tabulated in Tables 1 and 2. Original laboratory reports are documenting these results are presented in the appendix.

TABLE 1: Soil Sampling Results

Sample Batch	Sample I.d.	TPH 418.1 M (ppm)	Gasoline (ppm)	HCID Diesel (ppm)	Heavy Oil (ppm)
Confirmatory Sampling	CON/8.5'1s	ND	–	–	–
	CON/8.5'1N	31	–	–	–
	Rem/6"/N	45	–	–	–
	Rem/6"/S	32	–	–	–
	Rem/6"/E	31	–	–	–
Exploratory Sampling	1N/4'/91496	ND	–	–	–
	1S/3.5/91496	ND	–	–	–
	1E/4'/91496	ND	–	–	–
	1W/4'/91496	ND	–	–	–
	1CA/3.5'/91496	101	–	–	–
	1CB/3.5 to 9.5/91496	ND	–	–	–
	2C/4'/91496	ND	–	–	–
Dave Ohrist Sampling	960911-001-01	170	ND	Detected	Detected
	960911-002-01	110	ND	Detected	Detected

– Indicates that the sample was not subjected to the given analysis.

ND Indicates that levels of the analyte were below detection limits.

HCID Detection Limits: 13 ppm Gasoline, 25 ppm Diesel, and 100 ppm Heavy Oil

TABLE 2: Results of Water Sample Analyses

Sample I.d.	TPH 418.1 M (ppb)	EPA 8020 BTEX			
		Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
Wat/4/E	ND	–	–	–	–

– Indicates that the sample was not subjected to the given analysis.
ND Indicates that levels of the analyte were below detection limits.

5.2 Discussion of Soil Results

There were three groups of samples collected; first, the samples collected by DOEC; second, samples collected during the exploratory phase of the project and third was confirmatory samples taken during the remedial excavation. The groundwater sample was collected during the excavation.

DOEC samples were analyzed for type of hydrocarbons (HCID) and diesel was the only compound found. Although oil and grease was indicated in the analysis the chemist described this result as being caused by weathered diesel (see analytical lab sheets). Both samples collected by Obrist had concentrations of diesel (110 and 170 ppm). Action taken based on these results was the initiation of further investigation to define the extent of the diesel plume.

An exploratory phase of work was initiated to determine the approach for remediation. Also, included in the exploratory phase was some drilling near what was thought to be an old tank that may have been covered by the fire station building during a past expansion.

5.3 Discussion of Groundwater Sampling Results

The ground water sample collected from water entering the excavation from the east side of the pit during remedial excavation had no detectable concentration of hydrocarbons. Detection limit for this analysis (TPH 418.1) was 0.5 ppm.

5.4 Summary of Known Extent of Contamination

All detectable concentrations of diesel were found only within the limits of the original tank pit. Four borings 10 to 15 feet out from the tank walls found no diesel concentrations. A soil sample collected beneath the bottom of the tank pit by drilling found no detectable concentrations. A minor amount of diesel (31 ppm) was found in the north bottom end of the pit after remedial excavation was completed. A sample from the south bottom end of the tank pit had no detectable concentration.

In summary, from the three rounds of sampling, the majority of the diesel in the soil has been removed by excavation and no detectable dissolved concentration was found in the groundwater at the site. Based on conversations with DEQ the clean groundwater allow for soils to be cleaned up to Soil Matrix standards. All remaining concentrations of diesel are far below the level 2 cleanup requirements.

6.0 EXPOSURE ASSESSMENT

The following discussion is divided into three sections; first, a description of the contaminant, second, a discussion of pathways, and third, a discussion of exposure risks.

6.1 Nature of Contaminants

The contaminant at this site consists of diesel fuel released during the routine operation of the fire station. In general, diesel contamination has been found to be more pervasive than gasoline contamination in the environment. The quantity released is unknown, but the releases are believed to have occurred as overfill spills and minor in nature. The environmental behavior of the chemical of concern is influenced by site-specific physical and chemical conditions including: soil/groundwater pH and temperature, soil moisture, oxidation-reduction potential, other natural chemical characteristics of soil and groundwater, and the nature and presence of macro and micro-organisms.

The chemical and physical characteristics of diesel fuel is discussed below; refer also to Table 3.

Diesel. This fuel is derived from crude petroleum, which is a naturally occurring hydrocarbon composed mostly of organic carbon and hydrogen. Diesel typically has a boiling point greater than 200 degrees Celsius. The relative percentages of the many individual compounds vary, depending on the parent crude oil and the refinery. The middle distillate group of petroleum hydrocarbons, which includes diesel, tends to be more dense, less volatile, and less water soluble than gasoline. Typically, diesel contains a much lower percentage of lighter aromatic compounds such as BTEX. Because of these properties, diesel spills are more persistent but generally do not migrate as far from the source area as similarly sized gasoline spills. Diesel releases also have polynuclear aromatic hydrocarbons (PAH) that can have carcinogenic constituents. Below, in Table 3 a list of physical characteristics of diesel and its constituents are presented.

Table 3.
Physical Properties[°]

Constituent	CAS #	Molecular Weight (g/mol)	Solubility in H ₂ O (μg/L)	Vapor Pressure (mm Hg)	Specific Gravity
Benzene	71-43-2	78.11	1,780,000 *	76 *	0.8765 ^a
Ethylbenzene	100-41-4	106.17	152,000 *	7.1*	0.867 ^a
Toluene	108-88-3	92.14	515,000 *	36.7 [^]	0.8669 ^a
Xylenes: Ortho- Meta- Para-	95-47-6 108-38-3 106-42-3	106.17	152,000 * 158,000† 200,000†	8.3† 8.8† 6.6†	0.88 ^a 0.86 ^a 0.88 ^a
Napthalene	91-20-3	128.2	31,700	10.4	1.025
Anthracene	120-12-7	178.2	41	0.0008	1.283

[°] Montgomery, J.H. and Welkom, W.M., Groundwater Chemicals Desk Reference, Lewis Publishers, Inc., Chelsea, Michigan 1991.

*Determined at 20 degrees Celsius

†Determined at 25 degrees Celsius

[^]Determined at 30 degrees Celsius

^aDetermined as 20/4 degrees Celsius

g/mol - grams per mol

μg/L - micrograms per liter

mm Hg - millimeters of Mercury

ml/g - milliliter per gram

Physical Properties[°]

Constituent	CAS #	Molecular Weight (g/mol)	Solubility in H ₂ O (μg/L)	Vapor Pressure (mm Hg)	Specific Gravity
Fluoranthene	206-44-0	202.3	263	0.00121	—
Benzoapyrene	50-32-8	252.3	3.8	0.000000073	—

[°] Montgomery, J.H. and Welkom, W.M., Groundwater Chemicals Desk Reference, Lewis Publishers, Inc., Chelsea, Michigan 1991.

g/mol - grams per mol

μg/L - micrograms per liter

mm Hg - millimeters of Mercury

ml/g - milliliter per gram

Toxicological Properties. This subsection highlights toxicological profiles relating to acute, chronic and carcinogenic effects of the primary chemicals of concern at this site: benzene and the carcinogenic PAHs. Acute exposures (typically, inhalation) of high levels of benzene may lead to central nervous system depression, unconsciousness, cardiac arrhythmias, and death. Chronic exposures (from inhalation, dermal contact, or ingestion) may lead to depression of bone marrow affecting healthy formation of blood cells. Low level chronic exposures have been linked to blood disorders such as leukemia and aplastic anemia. Benzene is classified by U.S. EPA as an A human carcinogen. A causal association has been established between exposure to benzene by inhalation and leukemia.

The carcinogenic PAHs occur as extremely minor constituents in diesel fuels (probably < 1ppm total), and are absent from gasoline.

These compounds are insoluble to very slightly soluble in water, however, they are soluble in benzene. PAHs are highly toxic through ingestion and inhalation. The PAH, benzo [a] pyrene, is persistent in water and is soluble at 4 ppb. It is a known mutagen and carcinogen.

6.2 Exposure Pathways

This section describes how people can come into contact with chemicals of concern at the site under existing site conditions and typical exposure scenarios involving receptors ingesting, inhaling or coming into direct dermal contact with contaminated media. When evaluating exposure scenarios, it is convenient to build a conceptual model of the processes leading to exposure. For exposure to occur, the following exposure pathway elements must exist be understood:

- Contamination Source
- Transport Mechanisms
- Transport Media
- Potential Exposure Points
- Potential Exposure Routes
- Exposed Populations

Sources and Transport. The contamination source was diesel fuel spilled during filling of the 1,000 gallon UST buried in front of the south bay of the old Cannon Beach Firehouse. No other source is suspected at this time.

Exposure. Exposure of the minor residual amount of diesel fuel is very unlikely. The groundwater does not have any detectable concentration. The highest concentrations in the remaining soil was measured at 31 ppm at 8.5 feet below ground surface. Because groundwater is only 1.5 feet below ground surface, excavation to 8.5 feet is rare. Utility excavation in this area is likely but depths below 5 feet seem unlikely. The entire area surrounding the former UST

pit is covered either by concrete driveway, concrete floor slab or pavement of the roadway or parking lot. It is our understanding that the excavation area, that was originally covered by a concrete slab, would be repaired with concrete.

6.3 Current or Potential Future Exposures

The exposure of the minor about of hydrocarbons to workmen or residents in the old firehouse area seem unlikely. The remaining amount of diesel in the soil would be expected to biodegrade naturally eliminating long-term exposure risks.

7.0 CORRECTIVE ACTION MEASURES

The discussion under this section is divided into the following divisions: cleanup action already taken, proposed cleanup levels, off-site soil treatment and future cleanup activities.

7.1 Soil and Groundwater Remedial Action

Once the distribution of hydrocarbons was documented by soil boring around the former UST pit, remedial excavation was initiated. Approximately 30 cubic yards and 250 gallons of water was removed from the former UST pit. Confirmatory samples were taken of both the soil and groundwater to document sufficient cleanup occurred. Soil matrix cleanup level 2 is recommended, cleanup exceeded level 1 standards.

7.2 Off-Site Soil Treatment

At present there is approximately 30 cubic yards of soil being remediated at a site south of Cannon Beach (see Figure 4). The soil remediation is occurring under a letter of authorization from the DEQ (copy included in the appendix).

Soil. The proposed target cleanup level is 100 ppm TPH-D in soils. This is equivalent to a DEQ Level I Numeric Soil Cleanup standard for a UST diesel release. When diesel contamination levels in the soil have been reduced to 100 ppm, soil contamination will pose a negligible threat to the public health, safety, welfare and the environment and will be disposed of, probably by spreading out at the remediation site.

Groundwater. No ground water remediation is occurring nor recommended because of the non-detectable concentrations now in the groundwater.

7.3 Cleanup Actions Already Taken

A number of cleanup actions have taken place over the past four months that have succeeded in removing the sources (tank and soil) of contamination.

Tank Removals. Dan Obrist Excavation removed a 1,000 gallon tank from the site in August, 1996 (Tank Decommissioning documents included in the appendix).

Soil Remediation. Impacted soil has been removed from the tank pit environs leaving on minor (31 ppm) residual diesel concentrations.

7.4 Future Cleanup Activities

Once the excavated soil attains a diesel concentration of 100 ppm then the soil will appropriately disposed of in the area. No additional work is planned in the tank removal area.

8.0 CONCLUSIONS

The release of diesel at the former Cannon Beach firehouse from a 1,000 gallon tank discovered during its decommissioning in August of 1996 appears to have originated from minor spills and does not have a broad dispersion in the soil and groundwater. The concentrations at the site were low (maximum 170 ppm) to begin with and after excavation of 30 cubic yards from the former tank pit the maximum concentration attained from confirmatory samples was 31 ppm with no detectable concentration in the surrounding groundwater.

The soil removed from the site is being remediated in a constructed cell near the south end of Cannon Beach on City property. A Letter of Authorization permit for the remediation has been obtained and a final report will be submitted to the DEQ once the soil has reached the target cleanup concentration of 100 ppm.

No further remediation is planned for the former tank pit site and based on the exploratory drilling and the confirmatory soil and groundwater samples it is recommended that DEQ issue a closure letter for this site.

9.0 LIMITATIONS

Possession of this report, or a copy thereof, does not carry with it the right of publication. This report is solely for the use and information of the initial employer (client) unless otherwise noted in writing, and shall only be used with properly written qualification and in its entirety.

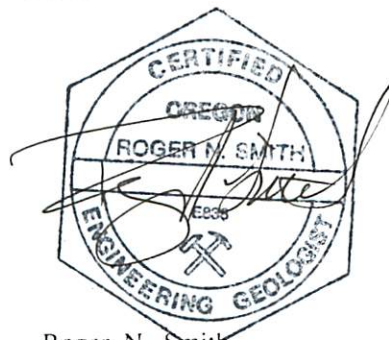
The liability of the consultant (RNSA, Inc.), its employees and subcontractors is limited to the initial employer (client) only, and only up to the amount of the fee actually received for services provided. Further, there is no accountability, obligation, or liability to any third party. If this report is placed in the hands of anyone other than the initial employer, the initial employer shall make such party aware of all limiting conditions of the work assignment(s) and related communications.

Although data presented in this report were collected, analyzed and interpreted in accordance with generally accepted professional standards, extrapolation of the data based on subsurface soil and ground water sampling data does not guarantee similar conditions exist between observation and sampling points. No other warranty, express or implied, is made. Therefore, anyone using the information presented in this report does so at their own risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. RNSA, Inc. is not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. Further, we do not warrant the accuracy of information supplied by others, nor the use of segregated portions of this report.

If conditions have not been identified during this study, such a finding, or lack thereof, should not therefore be construed as a guarantee of the absence of such conditions at or nearby a site, but rather the result of the services performed within the scope, limitations, and cost of the work assigned and performed.

The above limiting conditions describe the assumptions and parameters under which a professional environmental opinion is rendered. In accepting this opinion, the client understands and accepts these limiting conditions as a necessary outcome of the need to strike a balance between reasonable inquiry and exhaustive analysis of each conceivable environmental characteristic.



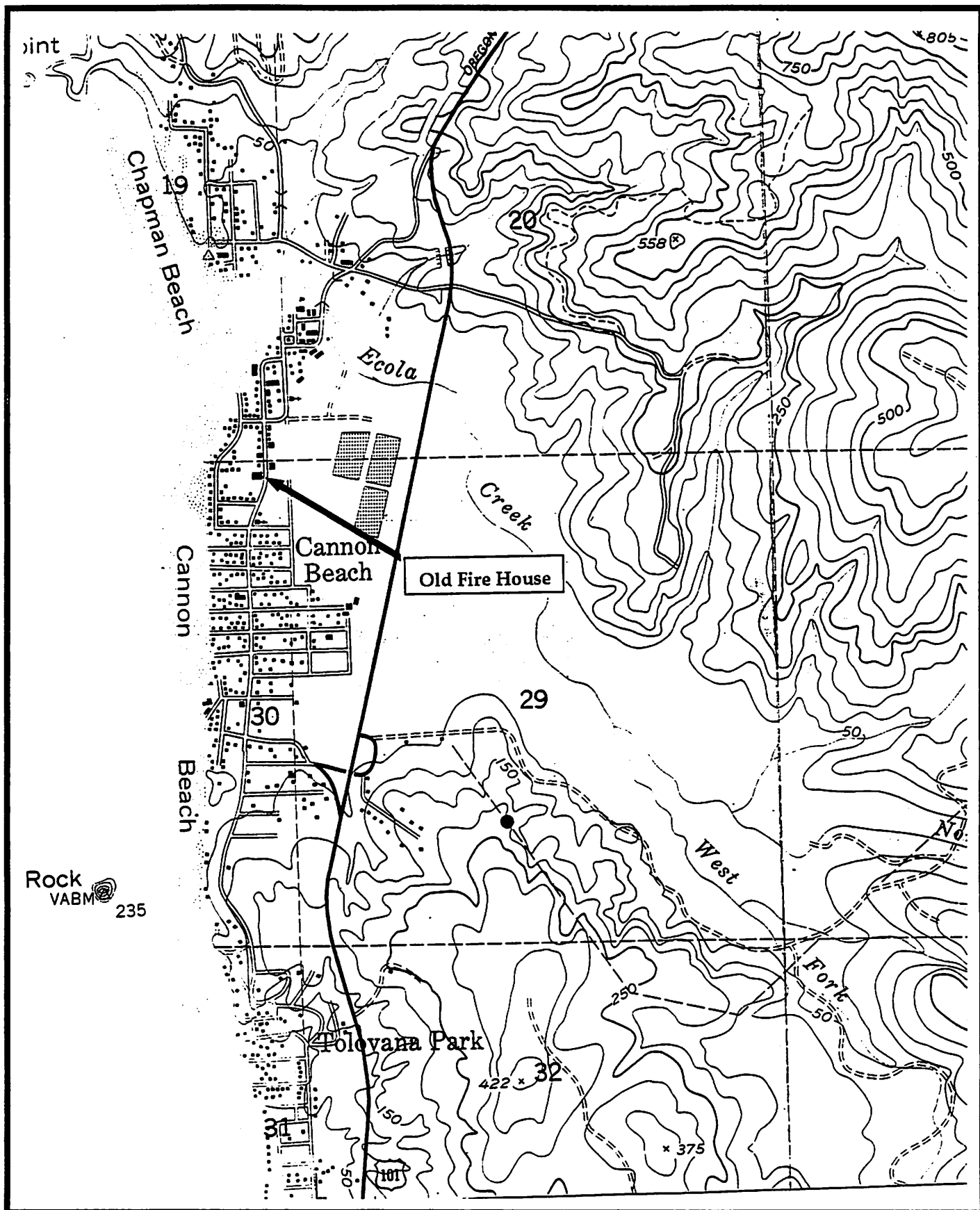
Roger N. Smith
President, RNSA, Inc.

REPORT FIGURES

for the:

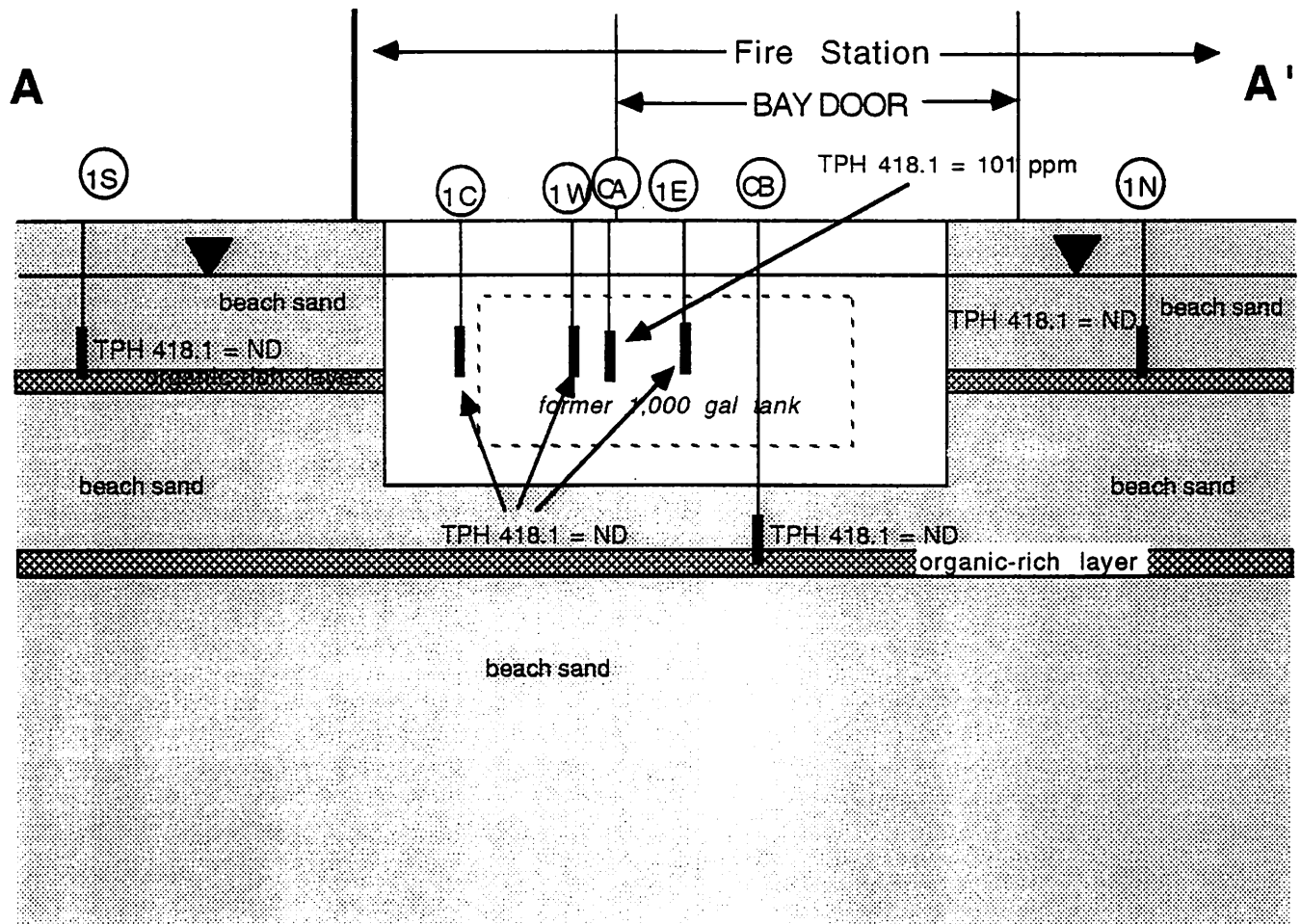
CANNON BEACH FIRE DISTRICT'S OLD FIREHOUSE TANK CLEANUP

Cannon Beach, Oregon



ROGER N. SMITH ASSOCIATES, INC.
Groundwater and Environmental Consultants

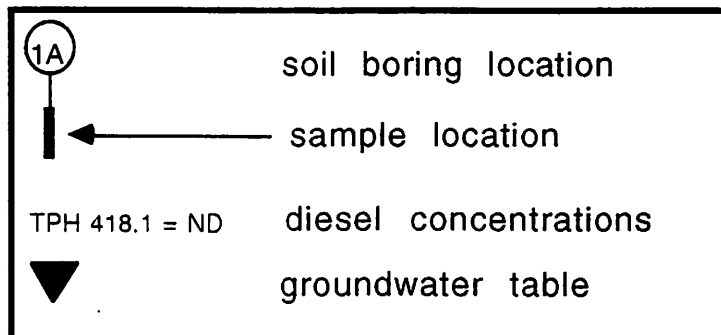
**Figure 1 Cannon Beach Fire District's
"Old" Fire House Location**



horiz. scale 1"=5'

vertical scale 1"=5'

LEGEND



ROGER N. SMITH ASSOCIATES, INC.
Groundwater and Environmental Consultants

Figure 2: Vertical Cross-Section
of 1,000 Gallon UST removed from
the old Cannon Beach Fire House

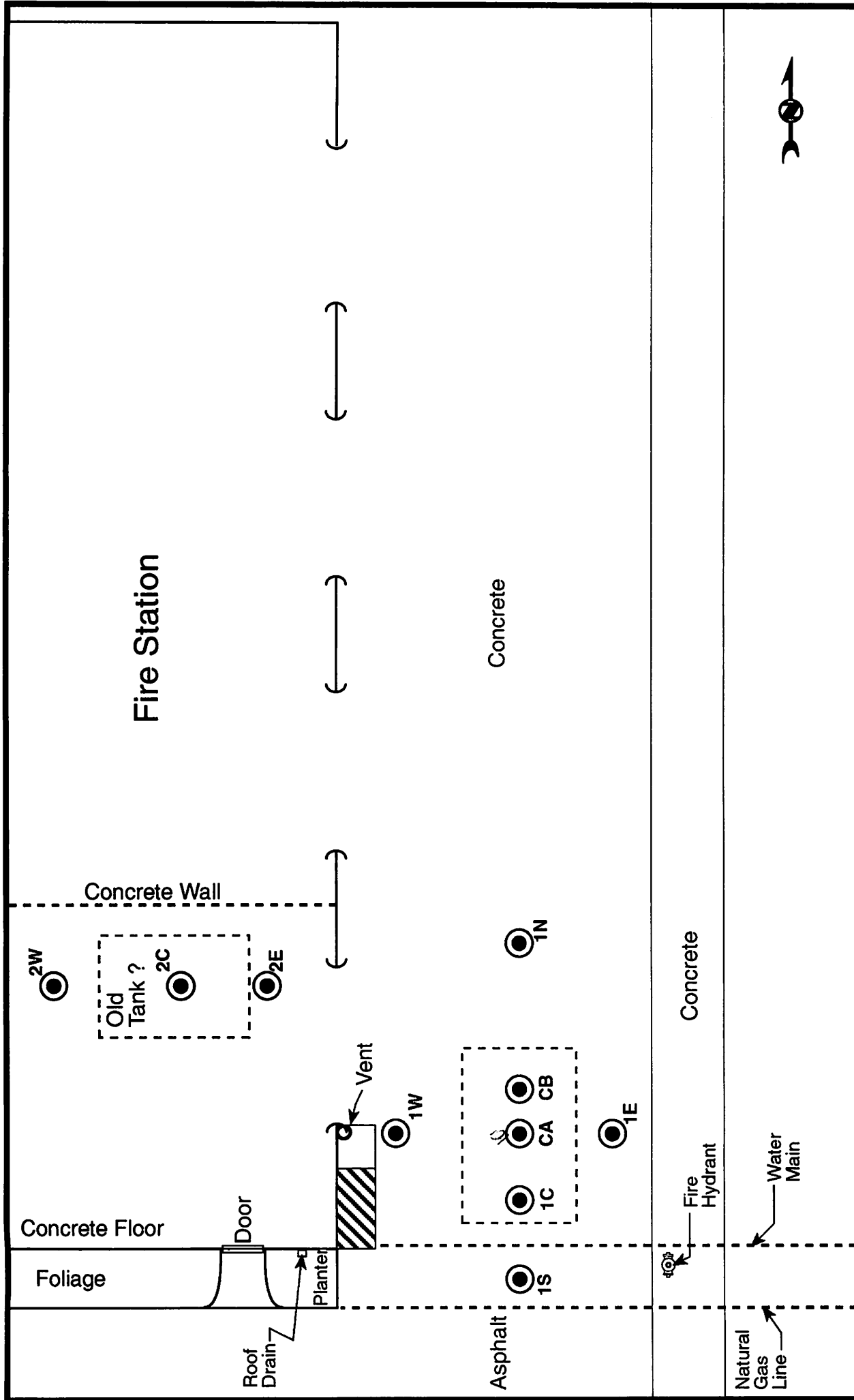
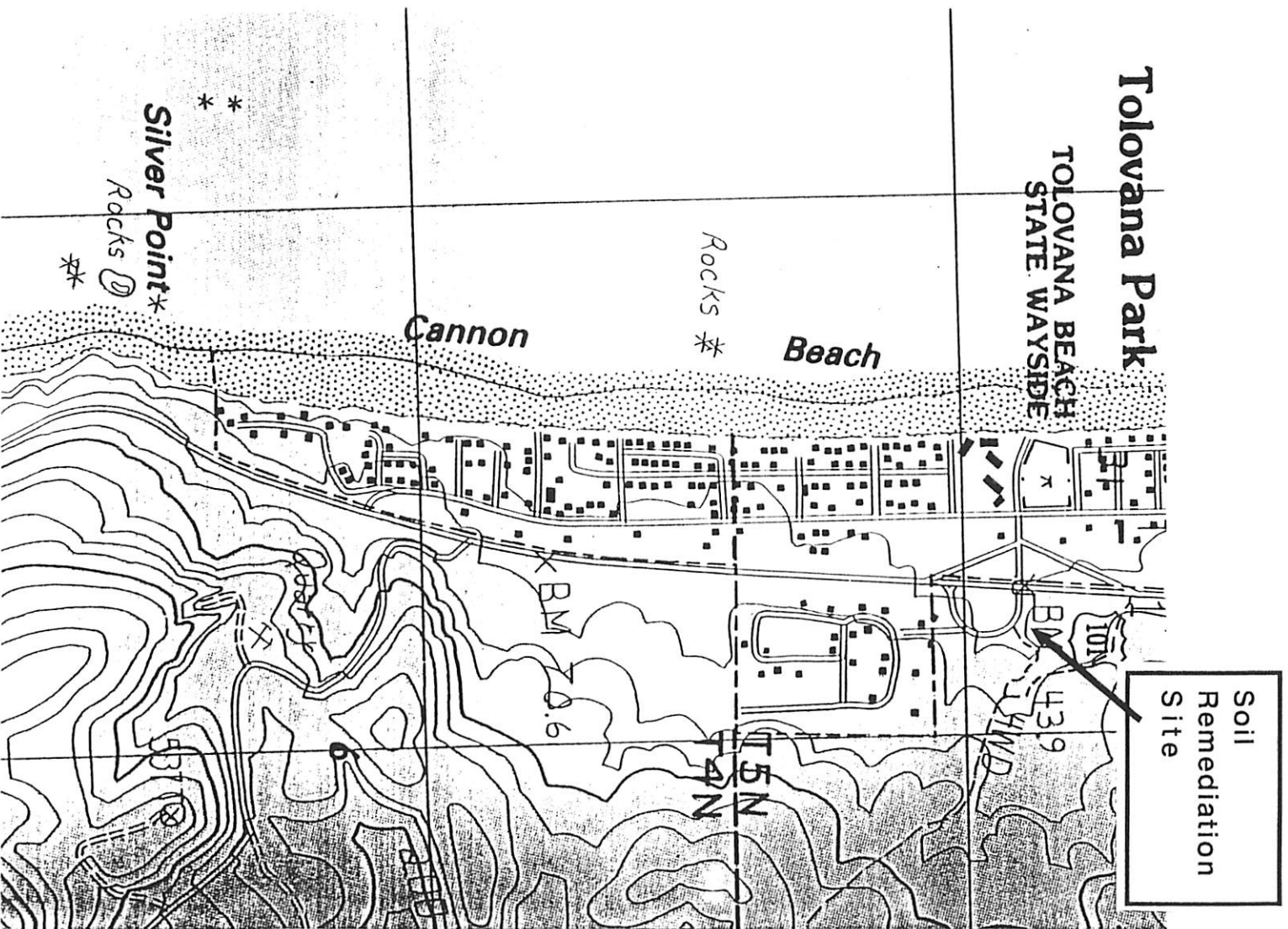


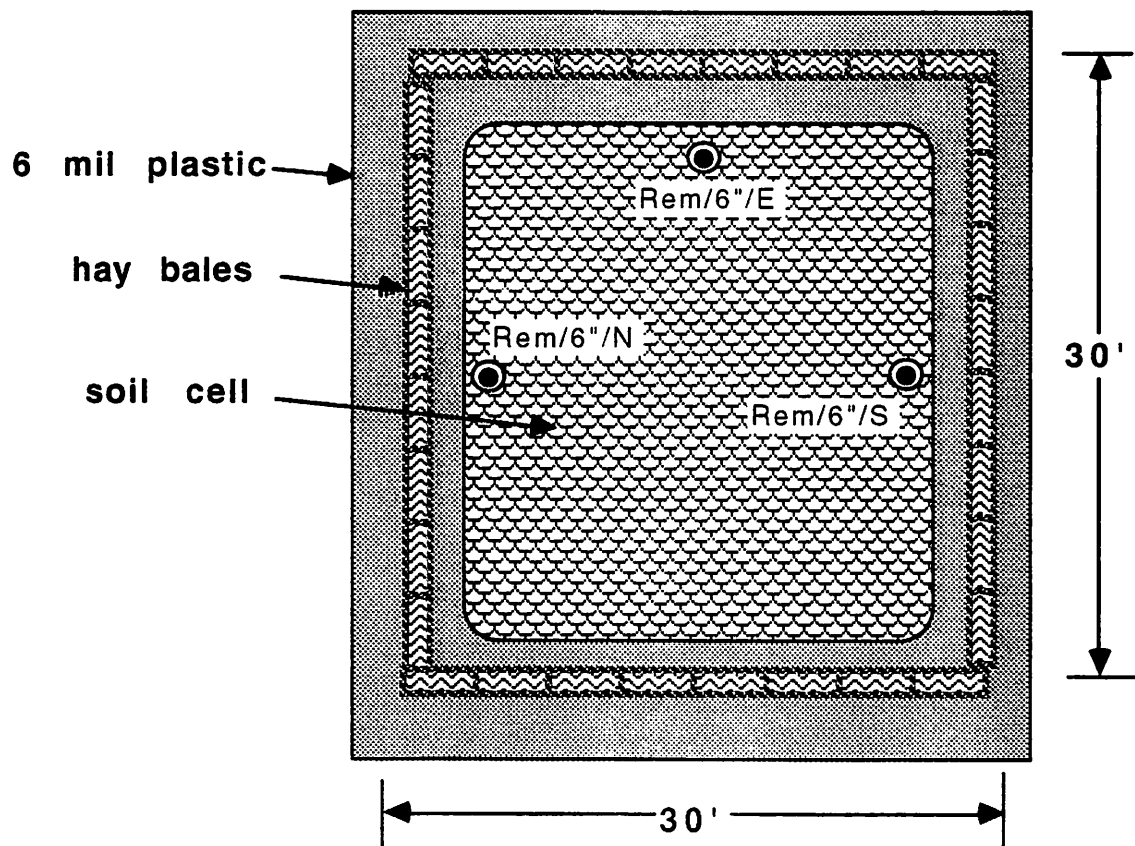
Figure 3: Map of Former Fire Station Building and Property, Showing Boring Locations.

ROGER N. SMITH ASSOCIATES, INC.
Groundwater and Environmental Consultants



ROGER N. SMITH ASSOCIATES, INC.
Groundwater and Environmental Consultants

Figure 4: Location of Soil Remediation Site
near US 101, 2 miles south of
Cannon Beach



LEGEND

- Soil Samples taken of virgin soil before cell was build
- ← N

Figure 5: Soil Remediation Cell

PROJECT SITE PHOTOGRAPHS

taken of the

**CANNON BEACH FIRE DISTRICT'S
OLD FIREHOUSE TANK CLEANUP**

Cannon Beach, Oregon



PHOTO 1: Northwest-facing view of soil remediation pile.



PHOTO 2: West-facing view of soil remediation pile.

SOIL BORING LOGS

for the:

**CANNON BEACH FIRE DISTRICT'S
OLD FIREHOUSE TANK CLEANUP**

Cannon Beach, Oregon

Groundwater and Environmental Consultants

BOREHOLE: 1S

Project No.: 96-460

Page 1 of 1

PROJECT Cannon Beach

LOCATION: Cannon Beach. Old Fire Station

DATE DRILLED: 9/14/96

SURFACE ELEVATION: $\approx 3'$

DATE COMPLETED: 9/14//96

TOP OF CASING ELEVATION: N/A

DRILLING METHOD: Hand Auger

TOTAL DEPTH: 4'

DRILLING COMPANY: RNSA, Inc

GEOLOGIST: Roger N. Smith

DEPTH feet	SAMPLE INTERVAL	ANALYTICAL RESULTS	WATER LEVEL	GRAPHIC LOG (types of soils between samples are extrapolated)	UNIFIED SOIL CLASS.	GEOLOGIC DESCRIPTION <i>Location:</i>	BOREHOLE COMPLETION
10 5 ND			10 5	10 5	10 5	0'-1.0': Tan/brown silty SAND with 3" minus cobbles 1.0'-3.0': Gray SAND, slight organic odor 3.0'-4.0': Sample; dark brown compost smelling roots (grass stalks). No odor, discoloration or sheen. Could not get past 4' due to sloughing.	10 5

RNSA, Inc.

Groundwater and Environmental Consultants

BOREHOLE: 1C

Project No.: 96-460

Page 1 of 1

PROJECT Cannon Beach

LOCATION: Cannon Beach, Old Fire Station

DATE DRILLED: 9/14/96

SURFACE ELEVATION: ≈3'

DATE COMPLETED: 9/14/96

TOP OF CASING ELEVATION: N/A

DRILLING METHOD: Hand Auger

TOTAL DEPTH: 3.5'

DRILLING COMPANY: RNSA, Inc

GEOLOGIST: Roger N. Smith

DEPTH feet	SAMPLE INTERVAL	ANALYTICAL RESULTS	WATER LEVEL	GRAPHIC LOG (types of soils between samples are extrapolated)	UNIFIED SOIL CLASS.	GEOLOGIC DESCRIPTION <i>Location: Center of pit</i>	BOREHOLE COMPLETION
0 1 2 3 4 5 6 7 8 9 10		ND				0'-3.5': Gravel/brick/sand back fill 3.5': Hit concrete. Sample had slight odor (diesel) and slight sheen.	

RNSA, Inc.

Groundwater and Environmental Consultants

BOREHOLE: 1 C-B

Project No.: 96-460

Page 1 of 1

PROJECT: Cannon Beach

LOCATION: Cannon Beach, Old Fire Station

DATE DRILLED: 9/14/96

SURFACE ELEVATION: $\approx 3'$

DATE COMPLETED: 9/14/96

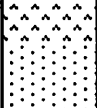
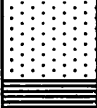
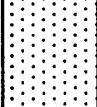
TOP OF CASING ELEVATION: N/A

DRILLING METHOD: Hand Auger

TOTAL DEPTH: 11.5'

DRILLING COMPANY: RNSA, Inc

GEOLOGIST: Roger N. Smith

DEPTH feet	SAMPLE INTERVAL & SAMPLE NO.	ANALYTICAL RESULTS	WATER LEVEL	GRAPHIC LOG (types of soils between samples are extrapolated)	UNIFIED SOIL CLASS.	GEOLOGIC DESCRIPTION <i>Location:</i>	BOREHOLE COMPLETION
						0'-2.0': Gravel fill.	
					SW	2.0'-4.5': Sand	
5					OH	4.5'-5.5': Organic rich	5
					SW	5.5'-7.5': Sand	
					OH	7.5'-8.5': Organic rich	
10		ND			SW	8.5'-10.5': Sand	10
					OH	10.5'-11.5': Organic Rich	
15							15

RNSA, Inc.

Groundwater and Environmental Consultants

SOIL BORING: 1C-A

Project No.: 96-460

Page 1 of 1

PROJECT Cannon Beach

LOCATION: Cannon Beach, Old Fire Station

DATE DRILLED: 9/14/96

SURFACE ELEVATION: ~3'

DATE COMPLETED: 9/14/96

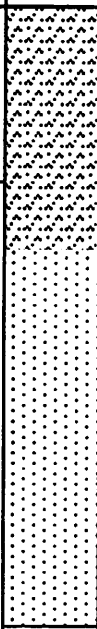
TOP OF CASING ELEVATION: N/A

DRILLING METHOD: Hand Auger

TOTAL DEPTH: 5'

DRILLING COMPANY: RNSA, Inc

GEOLOGIST: Roger N. Smith

DEPTH feet	SAMPLE INTERVAL	ANALYTICAL RESULTS	WATER LEVEL	GRAPHIC LOG (types of soils between samples are extrapolated)	UNIFIED SOIL CLASS.	GEOLOGIC DESCRIPTION <i>Location: North end of Tank Pit</i>	BOREHOLE COMPLETION
5 10		101 ppm			SW	0'-2.0': Gravel and sand fill. 20'-5.0': SAND 5.0': Diesel odor in SAND	 Filled With Bentonite

RNSA, Inc.

Groundwater and Environmental Consultants

SOIL BORING: 1N

Project No.: 96-460

Page 1 of 1

PROJECT Cannon Beach

LOCATION: Cannon Beach, Old Fire Station

DATE DRILLED: 9/14/96

SURFACE ELEVATION: ~3'

DATE COMPLETED: 9/14/96

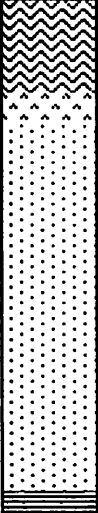
TOP OF CASING ELEVATION: N/A

DRILLING METHOD: Hand Auger

TOTAL DEPTH: 4'

DRILLING COMPANY: RNSA, Inc

GEOLOGIST: Roger N. Smith

DEPTH feet	SAMPLE INTERVAL & SAMPLE NO.	ANALYTICAL RESULTS	WATER LEVEL	GRAPHIC LOG (types of soils between samples are extrapolated)	UNIFIED SOIL CLASS.	GEOLOGIC DESCRIPTION <i>Location:</i>	BOREHOLE COMPLETION
0 1 2 3 4 5 6 7 8 9 10		ND			SW OH	0'-0.75': Concrete. 0.75'-1.0': 3/4 minus crushed rock. 1.0'-4.0': Gray organic smelling SAND. 4.0'-4.2': Dark brown loamy SILT, organic smelling, roots (grass). No odor, discoloration or sheen	 Filled With Bentonite

Groundwater and Environmental Consultants

SOIL BORING: 1E

Project No.: 96-460

Page 1 of 1

PROJECT Cannon Beach

LOCATION: Cannon Beach, Old Fire Station

DATE DRILLED: 9/14/96

SURFACE ELEVATION: $\approx 3'$

DATE COMPLETED: 9/14//96

TOP OF CASING ELEVATION: N/A

DRILLING METHOD: Hand Auger

TOTAL DEPTH: 4.1'

DRILLING COMPANY: RNSA, Inc

GEOLOGIST: Roger N. Smith

DEPTH feet		SAMPLE INTERVAL & SAMPLE NO.	ANALYTICAL RESULTS	WATER LEVEL	GRAPHIC LOG (types of soils between samples are extrapolated)	UNIFIED SOIL CLASS.	GEOLOGIC DESCRIPTION <i>Location:</i>	BOREHOLE COMPLETION
0	5		ND		                            	OH	0'-0.5': Concrete. 0.5'-0.75': 3/4 minus crushed rock. 0.75'-1.25': Tan/brown sandy SILT. 1.25'-4.0': Gray organic smelling SAND.	
5	10				                            	OH	4.0'-4.1': Dark brown loamy SILT, organic smelling, roots (grass). No odor, discoloration or sheen	

RNSA, Inc.

Groundwater and Environmental Consultants

SOIL BORING: 1W

Project No.: 96-460

Page 1 of 1

PROJECT Cannon Beach					LOCATION: Cannon Beach, Old Fire Station	
DATE DRILLED: 9/14/96					SURFACE ELEVATION: ≈3'	
DATE COMPLETED: 9/14/96					TOP OF CASING ELEVATION: N/A	
DRILLING METHOD: Hand Auger					TOTAL DEPTH: 4'	
DRILLING COMPANY: RNSA, Inc					GEOLOGIST: Roger N. Smith	

DEPTH feet	SAMPLE INTERVAL & SAMPLE NO.	ANALYTICAL RESULTS	WATER LEVEL	GRAPHIC LOG (types of soils between samples are extrapolated)	UNIFIED SOIL CLASS.	GEOLOGIC DESCRIPTION <i>Location:</i>	BOREHOLE COMPLETION
0						0'-0.5': Concrete.	
0.5					OH	0.5'-0.75': 3/4 minus crushed rock	
1						0.75'-1.25': Tan brown SILT.	
1.25					SW	1.25'-3.0': Gray organic smelling SAND.	
3					OH	3.0'-4.0': Gray and tan brown organic smelling loamy SILT. Small branches, grass roots/stalks. No diesel odor, discoloration or sheen.	
4							

Water Level:  at approximately 1.25 feet depth.

Analytical Results: ND

Graphic Log Scale: 0 to 10 feet (marked at 5 and 10)

Boresole Completion: Filled With Bentonite (0' to 4')

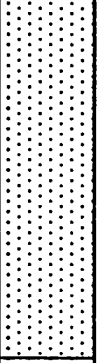
RNSA, Inc.

Groundwater and Environmental Consultants

SOIL BORING: 2W

Project No.: 96-460

Page 1 of 1

PROJECT Cannon Beach					LOCATION: Cannon Beach, Old Fire Station		
DATE DRILLED: 9/14/96					SURFACE ELEVATION: ≈3'		
DATE COMPLETED: 9/14/96					TOP OF CASING ELEVATION: N/A		
DRILLING METHOD: Hand Auger					TOTAL DEPTH: 4'		
DRILLING COMPANY: RNSA, Inc					GEOLOGIST: Roger N. Smith		
DEPTH feet	SAMPLE INTERVAL & SAMPLE NO.	ANALYTICAL RESULTS	WATER LEVEL	GRAPHIC LOG (types of soils between samples are extrapolated)	UNIFIED SOIL CLASS.	GEOLOGIC DESCRIPTION <i>Location:</i>	BOREHOLE COMPLETION
0					OH	0'-0.5': Concrete.	 Filled With Bentonite
0.5						0.5'-01.25': Tan brown/gray light SILT with sand.	
1			▼		SW	01.25'-4.0': Gray organic smelling SAND. No Deisel odor, discoloration or sheen.	
5							
10							

RNSA, Inc.

Groundwater and Environmental Consultants

SOIL BORING: 2C

Project No.: 96-460

Page 1 of 1

PROJECT Cannon Beach

LOCATION: Cannon Beach, Old Fire Station

DATE DRILLED: 9/14/96

SURFACE ELEVATION: ≈3'

DATE COMPLETED: 9/14/96

TOP OF CASING ELEVATION: N/A

DRILLING METHOD: Hand Auger

TOTAL DEPTH: 4'

DRILLING COMPANY: RNSA, Inc

GEOLOGIST: Roger N. Smith

DEPTH feet	SAMPLE INTERVAL & SAMPLE NO.	ANALYTICAL RESULTS	WATER LEVEL	GRAPHIC LOG (types of soils between samples are extrapolated)	UNIFIED SOIL CLASS.	GEOLOGIC DESCRIPTION <i>Location:</i>	BOREHOLE COMPLETION
10 5		ND	▼		OH SW	0'-0.5': Concrete. 0.5'-0.75': 3/4 minus crushed rock 0.75'-1.5': Gray/brown sandy SILT, organic odor. 1.5'-4.0': Gray organic smelling SAND. No diesel odor, discoloration or sheen.	

RNSA, Inc.

Groundwater and Environmental Consultants

SOIL BORING: 2E

Project No.: 96-460

Page 1 of 1

PROJECT Cannon Beach

LOCATION: Cannon Beach, Old Fire Station

DATE DRILLED: 9/14/96

SURFACE ELEVATION: ≈3'

DATE COMPLETED: 9/14/96

TOP OF CASING ELEVATION: N/A

DRILLING METHOD: Hand Auger

TOTAL DEPTH: 4'

DRILLING COMPANY: RNSA, Inc

GEOLOGIST: Roger N. Smith

DEPTH feet	SAMPLE INTERVAL & SAMPLE NO.	ANALYTICAL RESULTS	WATER LEVEL	GRAPHIC LOG (types of soils between samples are extrapolated)	UNIFIED SOIL CLASS.	GEOLOGIC DESCRIPTION <i>Location:</i>	BOREHOLE COMPLETION
0						0'-0.5': Concrete.	
0.5						0.5'-0.75': 3/4 minus crushed rock	
1					OH	0.75'-1.5': Gray/brown sandy SILT, organic odor.	
1.5						1.5'-4.0': Gray organic smelling SAND. No diesel odor, discoloration or sheen	
2					SW		
3							
4							
5							
6							
7							
8							
9							
10							

SOIL MATRIX SCORE SHEET

for the:

**CANNON BEACH FIRE DISTRICT'S
OLD FIREHOUSE TANK CLEANUP**

Cannon Beach, Oregon

MATRIX SCORE SHEET

FOR THE

Cannon Beach Fire District's (old station)

1. Depth to Groundwater < 25 feet (10) 25 to 50 feet (7) 51 to 100 feet (4) > 100 feet (1)	10
2. Mean Annual Precipitation > 45 inches (10) 20 to 45 inches (5) < 20 inches (1)	10
3. Native Soil Type Coarse Sands, Gravels (10) Silts, Fine Sands (5) Clays (1)	5
4. Sensitivity of Uppermost Aquifer Sole Source (10) Current Potable (7) Future Potable (4) Non-Potable (1)	1
5. Potential Receptors Many, Near (10) Medium (5) Few, Far (1)	5
TOTAL MATRIX SCORE	31

Matrix Score	Cleanup Level in ppm TPH	
	Gasoline	Diesel
Level 1: >40 points	40	100
Level 2: 25 to 40 points	80	500
Level 3: <25 points	130	1000

**LABORATORY ANALYTICAL REPORTS AND
CHAIN OF CUSTODY SHEETS**

for samples collected from:

**THE UNDERGROUND STORAGE
TANK REMOVAL AND CLEANUP
AT THE OLD FIREHOUSE**

Cannon Beach, Oregon

CERTIFICATE OF ANALYSIS

CLIENT: DAN OBRIST EXCAVATION, INC.
6431 SE JENNE ROAD
PORTLAND OR 97236

PHONE: (503) 667-4042
FAX: (503) 667-3566

DATE SUBMITTED: 08/19/96

PO#:

PROJECT NAME: CANNON BEACH

CI SAMPLE #	CLIENTS ID#	DATE	TIME	DESCRIPTION
-------------	-------------	------	------	-------------

960911-001-01	S#1	08/17/96		TP1 NORTH END 6'
960911-002-01	S#2	08/17/96		TP2 SOUTH END 6'

REPORT DATE: 08/20/96

REPORT NUMBER: 960911

PAGE: 1 OF 1

SAMPLE	TEST	PARAMETER	RESULT	UNIT	DETECTION LIMIT	ANALYST
S#1						
960911-001-01	TPH-HC10	GASOLINE	ND	PPM	13	Jacob F.
	QAR-DEQ TPH-HC10	DIESEL	DIESEL	PPM	25	
		OIL AND GREASE	GREASE*	PPM	100	
		SURROGATE	112%	% RECOVERY	50-150	
960911-001-01	TPH - SOIL	PETROLEUM HYDROCARBONS	170	PPM	0.5	Jacob F.
	EPA 418.1M					
S#2						
960911-002-01	TPH-HC10	GASOLINE	ND	PPM	13	Jacob F.
	QAR-DEQ TPH-HC10	DIESEL	DIESEL	PPM	25	
		OIL AND GREASE*	GREASE	PPM	100	
		SURROGATE	119%	% RECOVERY	50-150	
960911-002-01	TPH - SOIL	PETROLEUM HYDROCARBONS	110	PPM	0.5	Jacob F.
	EPA 418.1M					

* The heavy hydrocarbons found in both samples are carryover from the material characterized in the diesel range organics. No other lubricating or heavy oil was found.

REVIEWED BY:


Richard D. Reid - Laboratory Director

LABORATORY REPORT

Roger N. Smith Associates
800 NW 6th Ave. #318
Portland, OR 97209

PROJECT NAME/SITE: Cannon Beach
PROJECT NUMBER: 96-460
EXTRACTION DATE: 11-4-96

REPORT NUMBER: 17739
REPORT DATE: 11-5-96
PAGES: 1 of 1

OREGON DEQ TPH-418.1 MODIFIED

Analyte: Total Heavy Oils / Diesel Quantification for soil

Field ID	Lab ID	mg/Kg (ppm)
CON/8.5'IS	29316	ND
CON/8.5'IN	29317	31
Rem/6"/N	29323	45
Rem/6"/S	29324	32
Rem/6"/E	29325	31
BLANK	-	ND
Detection Limit	-	10

ND = Not Detected (below reporting limit or detection limit)

EPA 418.1

Analyte: Total Petroleum Hydrocarbon Quantification for water

Field ID	Lab ID	mg/L (ppm)
Wat/4'/E	29322	ND
BLANK	-	ND
Detection Limit	-	0.5

ND = Not Detected (below reporting limit or detection limit)

WyEast

Environmental Sciences, Inc.

Report Number: _____

17739

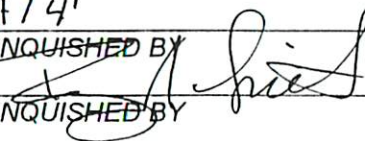
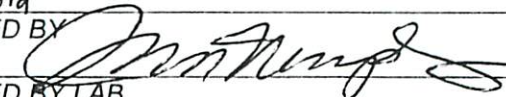
17739

Research, Laboratory, and Consulting Services

CHAIN OF CUSTODY

2415 SE 11th Ave. • Portland, Oregon 97214 • (503) 231-9320 • FAX (503) 231-9344

PROJECT # 96-460	PROJECT NAME / SITE Cannon Beach	STATE OR	PURCHASE ORDER #
COMPANY RNSA	REPORT ATTENTION Roger Roger	PHONE NUMBER 241-5444	FAX NUMBER 241-1441
SAMPLES COLLECTED BY RNS	DATE COLLECTED 11-1	TIME COLLECTED A.M.	SAMPLES CHILLED TO 4° C? yes
PRESERVATIVE USED? (HCl, etc.)			

FIELD ID	MEDIA	CONTAINER	VOLUME ETC.	ANALYSIS REQUIRED	LAB ID
Ex1 / 7' / N	Soil	4 ^{glass} oz jar	4 oz	hold	29314
Ex1 / 7' / S	"	glass jar	"	hold	29315
Con / 8.5' / S	"	" "	"	TPH 418.1	29316
Con / 8.5' / N	"	" "	"	TPH 418.1	29317
Int / 4' / W	"	" "	"	hold	29318
Int / 4' / E	"	" "	"	hold	29319
Int / 4' / N	"	" "	"	hold	29320
Int / 4' / S	"	" "	"	hold	29321
Wat / 4' / E	water	glass amber jar	1 liter	TPH 418.1	29322
Rem / 6" / N	soil	glass jar	4 oz	TPH 418.1	29323
Rem / 6" / S	"	" "	"	TPH 418.1	29324
Rem / 6" / E	"	" "	"	TPH 418.1	29325
Wat / 4'	water	glass vial	40 ml	hold	29326
RELINQUISHED BY 			DATE / TIME 11/3/96 2:30 P.M.	RECEIVED BY 	DATE / TIME 11-4-96 4:00 PM
RELINQUISHED BY			DATE / TIME	RECEIVED BY LAB	DATE / TIME
REMARKS				SHIPPED BY	

WyEast will return white copy to client with laboratory report and keep yellow copy for files. Client keeps pink copy.

LABORATORY REPORT

Roger N. Smith Associates, Inc.
800 NW 6th Ave. #318
Portland, OR 97209

PROJECT NAME/SITE: Cannon Beach
PROJECT NUMBER: 96-460
EXTRACTION DATE: 9-16-96

REPORT NUMBER: 17379
REPORT DATE: 9-17-96
PAGES: 1 of 1

OREGON DEQ TPH-418.1 MODIFIED

Analyte: Total Heavy Oils / Diesel Quantification for soil

Field ID	Lab ID	mg/Kg (ppm)
1N/4/91496	28190	ND
1S/3.5/91496	28191	ND
1E/4/91496	28192	ND
1W/4/91496	28193	ND
1CA/3.5/91496	28194	101
1CB/3.5 to 9.5/91496	28196	ND
2C/4/91496	28199	ND
BLANK	-	ND
Detection Limit	-	10

ND = Not Detected (below reporting limit or detection limit)

Report Number: 1.37



Research, Laboratory, and Consulting Services

CHAIN OF CUSTODY

2415 SE 11th Ave. • Portland, Oregon 97214 • (503) 231-9320 • FAX (503) 231-9344

PROJECT # <u>96-460</u>	PROJECT NAME / SITE <u>CANNON BEACH</u>	STATE <u>OR</u>	PURCHASE ORDER #
COMPANY <u>RNSA, Inc.</u>	REPORT ATTENTION <u>Roy</u>	PHONE NUMBER <u>241-5444</u>	FAX NUMBER <u>241-1441</u>
SAMPLES COLLECTED BY <u>RNS/LSC</u>	DATE COLLECTED <u>9/14/96</u>	TIME COLLECTED <u>A.M.</u>	SAMPLES CHILLED TO 4° C? <u>yes</u>
PRESERVATIVE USED? (HCl, etc.)			

FIELD ID	MEDIA	CONTAINER	VOLUME ETC.	ANALYSIS REQUIRED	LAB ID
<u>1N/4'/91496</u>	<u>Soil</u>	<u>4oz glass</u>	<u>4oz</u>	<u>TPH 418.1M</u>	<u>28190</u>
<u>1S/3.5'/91496</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>TPH 418.1M</u>	<u>28191</u>
<u>1E/4'/91496</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>TPH 418.1M</u>	<u>28192</u>
<u>1W/4'/91496</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>TPH 418.1M</u>	<u>28193</u>
<u>1CA/3.5'/91496</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>TPH 418.1M</u>	<u>28194</u>
<u>1CB/4'/91496</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>HOLD</u>	<u>28195</u>
<u>1CA/3.5'→9.5'/91496</u>	<u>"</u>	<u>Plastic Tube 4" Long</u>	<u>Approx 4oz</u>	<u>TPH 418.1M</u>	<u>28196</u>
<u>1CC/3.5'/9-14-96</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>HOLD</u>	<u>28197</u>
<u>2E/4'/91496</u>	<u>"</u>	<u>glass</u>	<u>4oz</u>	<u>TPH 418.1M HOLD RNS</u>	<u>28198 28197</u>
<u>2C/4'/91496</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>TPH 418.1M</u>	<u>28198 28197</u>
<u>2W/4'/91496</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>TPH 418.1M HOLD FLS</u>	<u>28198 28197</u>

RELINQUISHED BY <u>[Signature]</u>	DATE / TIME <u>9/16/96 - 9:00AM</u>	RECEIVED BY	DATE / TIME
RELINQUISHED BY	DATE / TIME	RECEIVED BY LAB <u>Cy. Chan</u>	DATE / TIME <u>9/16/96 10:20 AM</u>
REMARKS		SHIPPED BY	

WyEast will return white copy to client with laboratory report and keep yellow copy for files. Client keeps pink copy.

**UNDERGROUND STORAGE TANK DECOMMISSION/
SERVICE CHANGE REPORT**

for the:

**CANNON BEACH FIRE DISTRICT'S
OLD FIREHOUSE TANK CLEANUP**

Cannon Beach, Oregon

9/30/96

Oregon Department of Environmental Quality
UNDERGROUND STORAGE TANK DECOMMISSIONING CHECKLIST

DEQ FACILITY NUMBER: 2716 DATE: 9/19/96

FACILITY NAME: CANNON BEACH FIRE DEPT.

FACILITY ADDRESS: 232 SPRUCE ST.

CANNON BEACH, OR

PHONE: (503) 436-2949

A. SAFETY EQUIPMENT ON JOB SITE:

Fire Extinguisher: Type/Size: 15 LB ABC DRY CHEM

Combustible Gas Detector: Model: GASTECTOR SMPN 1314

Oxygen Analyzer: Model: GASTECTOR SMPN 1314

Recharge Date: 9/1/96

Calibration Date: 9/1/96

Calibration Date: 9/1/96

B. DECOMMISSIONING: All Tanks: (Unk. = Unknown, N/A = Not Applicable)
(Check Appropriate Box)

1. All electrical equipment grounded and explosion proof?
2. Safety equipment on job site?
3. Overhead electrical lines located?
4. Subsurface electrical lines off or disconnected?
5. Natural gas lines off or disconnected?
6. No open fires or smoking material in area?
7. Vehicle and pedestrian traffic controlled?
8. Excavation material area cleared?
9. Rainwater runoff directed to treatment area?
10. Drained and collected product from lines?
11. Removed product and residual from tank?
12. Cleaned tank?
13. Excavated to top of tank?
14. Removed tank fixtures? (pumps, leak detection equip.)
15. Removed product, fill and vent lines?

Yes	No	Unk	N/A
X			
X			
X			
X			
X			
X			
X			
			X
X			
X			
X			
X			
X			
X			

C. TANK ABANDONMENT IN-PLACE:

16. Sampling plan approved by DEQ?
Date: _____ DEQ Staff: _____

			X
--	--	--	---

DECOMMISSIONING: All Tanks: (Unk. = Unknown, N/A = Not Applicable)
(Check Appropriate Box)

1. Contamination concerns fully resolved?
18. Fill Material? Type: SAND

Yes	No	Unk	YC
	X		

TANK REMOVAL:

19. Tank placement area cleared, chocks placed?
20. Purged or ventilated tank to prevent explosion?
Method used: TRIPLE RINSED Meter reading: 0 LEL
21. No chains or steel cables wrapped around tank for removal?
22. Tank removed, set on ground, blocked to prevent movement?
23. Tank set on truck and secured with strap(s)?
24. Tank labeled before leaving site?

X			
X			
X			
X			
X			
X			

SITE ASSESSMENT:

25. Site assessed for contamination? See OAR 340-122-340
26. Soil samples taken and analyzed?
27. Decommissioning/Change-in-Service report sent to DEQ?
28. Was contamination found? Date/Time: 8/19/96-AM
29. Was contamination reported to DEQ? By: PAM DUKART
Date/Time: 8/19/96 -1:45PM DEQ Staff: JIM MARESCH
#04-96-485
30. Was hazardous waste determination made for tank contents (Liquids/sludges)?

X			
X			
X			
X			
X			

31. Disposal location of tank(s) contents.
Name: OIL RE-REFINERS Date: 8/17/96
Address: 701 BOZARTH
WOODLAND, WA 98674 Attach disposal receipt.

32. Disposal or recycling location of removed tank(s) and associated piping.
Name: SCHNITZER STEEL PRODUCTS Date: 9/9/96
Address: 12005 N. BURGARD
PORTLAND, OR 97203 Attach disposal receipt.

33. If tank(s) are intended to be reused, identify new tank site.
Name: N/A Date: _____
Address: _____
Purpose of Reuse: _____

WORK PERFORMED BY:

DEQ Service Provider's License #: 10610

Name: DAN OBRIST EXCAVATING, INC.

Telephone: (503) 667-4042

DEQ Decommissioning Supervisor's License #: 10387

Name: DANIEL F. OBRIST

Telephone: (503) 667-4042

CHECKLIST FILING:

Provide copy of checklist to the UST owner and operator.

and completed checklist to the DEQ headquarters within 30 days after the excavation is backfilled.

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

Send Completed Form to:

Department of Environmental Quality
UST Program - Decommissioning Checklist
811 S.W. Sixth Ave.
Portland, Oregon 97204

I have personally reviewed this decommissioning checklist and find it to be true and complete.

Signature: [Signature]

(Licensed Supervisor)

Date: 9/19/96

Signature: [Signature]

(Owner or Operator)

Date: 11/19/96

For information: (503) 229-5559 or Toll Free in Oregon 1-800-452-4011

UST Decommissioning Checklist

**SOLID WASTE LETTER OF AUTHORIZATION
PERMIT**

for the:

**CANNON BEACH FIRE DISTRICT'S
OLD FIREHOUSE TANK CLEANUP**

Cannon Beach, Oregon

October 28, 1996

MIKE GRAHAM
CANNON BEACH FIRE
DISTRICT
CANNON BEACH OREGON 97110

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

NORTHWEST REGION

RE: Solid Waste Letter of Authorization Permit
No: PCSLA-NWR-96-010
Permit Expiration Date: April 1, 1997
Cannon Beach Fire District File #04-96-0485

Dear Mr. Graham:

Your application and written Soil Management Plan to treat Petroleum Contaminated Soil (PCS), from the Cannon Beach Fire District (old fire house) underground storage tank (UST) decommissioning project at 232 N. Spruce Street in Cannon Beach, Oregon, has been approved. Any Department specific changes to the permit application are listed below.

The letter permit authorizes you to conduct the soil treatment in accordance with the following conditions:

1. The treatment site is located on city property, east of Highway 101, south of the intersection at 3rd and Main Street in Cannon Beach, Oregon, township 4N, Range 10W of Section 6, Willamette Meridian, Latitude 46.58', Longitude 124.57.30".
2. Once treatment is complete, the treated soil will be removed from the treatment cell and used as road bed material elsewhere in the city.
3. Treatment will be accomplished by aeration.
4. Treatment is to be conducted in accordance with the Soil Management Plan submitted by Cannon Beach Fire District and RSNA, Inc. and approved by the Department. The maximum contaminant level allowed after treatment is 100 parts per million (ppm) for total petroleum hydrocarbons - diesel by modified method 418.1 (TPH-418.1).
5. This permit does not authorize the violation of any state, federal, or local rules or regulations.
6. Adequate site security (e.g. fencing or equivalent) must be maintained to prevent unauthorized access to the treatment area at all times.

John A. Kitzhaber
Governor



2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471
DEQ-1

October 28, 1996

Page 2

7. Department staff shall be allowed access at reasonable times to inspect both the treatment site and any or all final soil disposition sites for compliance purposes and to collect samples as necessary.
8. This permit only authorizes the one-time treatment of petroleum contaminated soils generated from the cleanup operation identified in this permit at the specific treatment site noted. Contaminated soils otherwise classified as hazardous waste are specifically excluded. The treatment site may not be reused for treatment of soil from any additional cleanup projects or received soils from multiple cleanup projects without Department approval.
9. At any time active treatment is not in progress, the contaminated soil must be kept covered and the cover securely anchored (e.g., during rain or storm events).
10. Any leachate produced shall be collected, evaporated, or otherwise treated and controlled in a manner so as to prevent odors, public health hazards, and escapement to public waters.
11. The creation of public safety concerns, environmental hazards, or nuisance conditions (such as, but not limited to, odors or dust), is prohibited.
12. The treated soils must be reused as stated in condition 2., and in accordance with the statement signed by the property owner. Treated soils must be placed out of human contact (e.g., covered with clean soil, paved, etc.), placed above the seasonal high groundwater level, and may not be placed within approximately 100 feet of a surface water body, wetlands area, or 100 year flood plain area.
13. If treatment lasts longer than three months, interim quarterly reports must be submitted on a form provided by the Department or equivalent. Reports are due on the first day of January, April, July, and October, or as otherwise agreed upon.
14. No treated soils shall be reused on-site or moved off-site for final disposition without first coordinating with the Department.
15. Upon expiration of this permit, all PCS containing levels of contamination above the established treatment standard must be removed to an authorized disposal facility within thirty (30) days. Soil that has successfully met the treatment standard must be reused according to the Treatment Plan and the Department's policy for soil reuse within thirty (3) days, unless an alternate schedule has been approved by the Department.
16. A final treatment report is due on or before April 1, 1997, and must indicate whether or not the treatment has been successful in reducing contaminant concentrations to the levels required in this permit. This report must include final soil sampling data, a description of the sampling methods used, a diagram of sampling locations, a summary of the treatment history, and a recommendation for disposal at an approved facility or reuse of the treated soil. Following a review of this report, the Department will provide a written response outlining closure activities, including soil disposal reuse.

October 28, 1996

Page 3

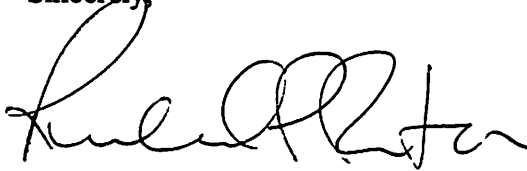
17. A closure report must be submitted following reuse of the treated soils. This report must include disposal documents (if any), and a description of all work related to closure. Closure activities include: field screening the treated soil for "hot spots," reuse of the treated soil, closure sampling (sampling from under the treatment area), disposal of hay bales, plastic sheeting, leachate, and any additional work deemed necessary by the Department. Additional work may include the excavation of native soil and additional sampling if the area under the treatment cell has become impacted.
18. Additional time for treatment beyond the permit expiration date is not allowed unless the Department has approved the renewal of this permit.

If your treatment activity is expected to last longer than the permit expiration date, the Department may consider a one time renewal of this permit if certain conditions are met.

Contact Richard Rose at (503) 229-5472 prior to the permit expiration date if you wish to inquire about possible renewal. An UST Duty Officer is also available to answer your general questions or provide technical assistance on matters pertaining to soil treatment at (503) 229-5489.

Thank you in advance for your cooperation and efforts to comply with the conditions of this permit.

Sincerely,



Richard P. Reiter
UST Section Manager
Northwest Region

enclosures


800 NW 6th Avenue
Suite 318
Portland, Oregon 97201

October 3, 1996

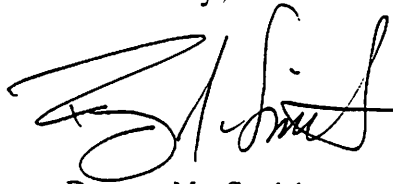
Cannon Beach Fire Department
P.O. Box 24
Cannon Beach, Oregon 97110
ATTN: Mike Graham

Dear Mike:

Find enclosed the completed permit forms for the soil remediation to be excavated from the old fire house. Please sign, enclose a check for the permit fee (\$500) and send to DEQ.

If you have any questions feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "R. N. Smith", with a stylized flourish at the end.

Roger N. Smith
Geological Engineer

Remit and Make Checks Payable To:
DEPARTMENT OF ENVIRONMENTAL QUALITY
Attn: Business Office
811 SW Sixth Avenue
Portland, OR 97204

FOR DEQ USE ONLY

Date Received: _____
Amount Received: _____
Check No.: _____

SOLID WASTE LETTER AUTHORIZATION PERMIT FEE INVOICE

For Management of Petroleum Contaminated Soil
From UST Cleanup Project

Application Processing Fee..... \$ 500.00
TOTAL DUE \$ 500.00

COMPLETE (PLEASE PRINT) THE FOLLOWING UST CLEANUP PROJECT SITE INFORMATION:

Facility Name: <u>Cannon Beach Fire District (old Fire House)</u>	DEQ File Number: _____
Facility Address: <u>232 N. Spruce St.</u>	<u>04-96-485</u>
City, State & Zip: <u>Cannon Beach, OR 97110</u>	Amount Enclosed: _____
County: <u>Clatsop Co.</u>	\$ <u>500⁰⁰</u>
Responsible Party: <u>CANNON BEACH FIRE DISTRICT</u>	Date Submitted: _____
RP Phone No.: <u>MIKE GRAHAM 436-2949</u>	_____

NOTE: Underground Storage Tank (UST) cleanup projects involving the management of petroleum contaminated soils include: on-site or off-site use of a mobile thermal treatment unit (does not include permanent, stationary thermal treatment soil processors), soil aeration or bioremediation. A permit may be issued for the one-time use of the treatment site property for a single UST cleanup project.

Fill in the facility information requested and send this form along with a check for \$500 to the Business Office address listed above. Additional information is provided on the back of this form. The DEQ File Number must be included to insure this record of your payment can be matched with your soil treatment application and plan in the regional office.

=====

BUSINESS OFFICE:

Send the original of this form to the regional office
Send the daily fee Transmittal form to Solid Waste Permits Section

UST CLEANUP SOIL TREATMENT PLAN

Complete the following information and submit with the Solid Waste Letter of Authorization application. Please print or type.

DEQ File Number assigned to site: 04-96-485

Facility where contaminated soils originated:

Facility Name: CANNON BEACH FIRE DISTRICT (OLD FIRE HOUSE)

Address: 232 N. SPRUCE ST.
CANNON BEACH, OR 97110

1. Type of petroleum contamination (check all that apply):

☐ Gasoline ☒ Diesel ☐ Waste Oil ☐ Heating Oil ☐ Other

NOTE: If any waste oil contaminated soil is proposed for treatment, you must also include a copy of sample results and chain of custody forms for halogenated solvents, BTEX, and TCLP Pb, Cr, & Cd (plus PCBs as necessary).

IF YOU PROPOSE SOIL AERATION FOR ANY PETROLEUM CONTAMINATION OTHER THAN GASOLINE, YOU MUST PROVIDE WRITTEN JUSTIFICATION. PROPOSALS FOR SIMPLE AERATION OF HEAVY OIL CONTAMINATED SOIL ARE GENERALLY NOT APPROPRIATE AND MAY BE REJECTED; PROPOSALS TO AERATE DIESEL CONTAMINATED SOILS WILL BE REVIEWED ON A CASE-BY-CASE BASIS.

2. Estimated volume of soil to be treated: 40 yd³ (cubic yards)

3. Highest concentration of TPH detected in the excavated soil:

Value 170 TPH mg/kg By TPH-G TPH-D 418.1m (circle one)
ppm

ATTACH COPIES OF ABL ANALYTICAL DATA AND CHAIN OF CUSTODY FORMS. IF ADDITIONAL PARAMETERS WERE ANALYZED (FOR THE EXCAVATED SOIL) OTHER THAN TPH, ATTACH COPIES OF THESE ADDITIONAL TEST RESULTS AND CHAIN OF CUSTODY FORMS.

4. Primary treatment method used: Aeration ☐ Bioremediation ☐ Thermal ☐ (check one)

5. Describe what specific active treatment methods and procedures will be used from the moment treatment begins until the point of completion: (tilling, blowers, moisture, bio-reagents, etc.)

Tilling
Every TWO WEEKS DURING DRY WEATHER UNTIL
CLEANUP CONCENTRATIONS ARE ATTAINED

6.

☒ N
NA

If soil will be thermally treated, it has been verified that thermal treatment is allowed for the types of contamination present in the soil.

UST CLEANUP SOIL TREATMENT PLAN - PAGE 2

7. Y ☒ N It is proposed that treated soils will be reused in the original tank excavation. If yes:

☒ N Was groundwater encountered or likely to be encountered?

The matrix score/level for this site is: 31 / 1 (See Attached Score Sheet)

8. Y ☒ N Is the final disposition site located near (<100 feet) a wetlands, stream, 100-year floodplain or residential area?

9. Is the final disposition site (check and/or circle all that apply):

- ☒ Authorized Landfill (to be used as cover)
- ☒ Public or private roadway (to be used as subgrade)
- ☒ Private property - industrial/commercial/residential

NOTE: If the treated soil will be reused as fill at any site other than (public) road subgrade, then you must attach a signed Property Owners Statement.

10. Describe how the treated soil will be managed at the final disposition site to minimize/prevent human contact and contact with groundwater or surface waters:

Soil will be Removed from Treatment Cell AND Placed
in Public Roadway AS Road bed MATERIAL

11. It is estimated that it will take approximately 6 weeks/months (circle one) to complete the treatment based on the amount of soil to be treated, concentrations of contamination and treatment method to be used. BECAUSE OF TIME OF YEAR

12. Attach a sketch or drawing (drawn to scale) of the proposed treatment area that displays:

- a. The location of the treatment area in relation to existing structures on the subject property and adjacent properties; indicate relative distances.
- b. The size of the proposed treatment cell or area.
- c. A brief description of the current use of both the subject property and adjacent properties.
- d. The location of blowers and piping which may be used in the construction of biopiles or as an assist to aeration. Include description of system design and operation.

13. Work associated with active treatment will be done on the following schedule:

Once every (circle one) day/week/month (other)

This work will be done by: Soil Sample Collected by RNSA, Inc
(company/individual)

14. The treatment site will be inspected on the following schedule:

Once every (circle one) day/week/month (other)

Inspections will be made by: RNSA, Inc.
(company/individual)

UST CLEANUP SOIL TREATMENT PLAN - PAGE 3

15. Describe how the treatment site was selected as appropriate for treating petroleum contaminated soil:

Isolated from Community, out of Wetlands Area
Property owned by Fire District (Public Property)

16. Y ☒ N ☐ Is the treatment area located near (<100 feet) a wetlands, stream, or residential area?

17. Describe how the underlying soils, surface water, or groundwater in the treatment area will be protected from coming in contact with the contaminated soil:

3 mil PLASTIC Sheeting will underly Soil; Barrier
will be formed with Key Bases; Large overlap in sheets
will prevent seepage from

18. Describe how surface water run-off and run-on will be controlled within the treatment area: Cell

Plastic Sheeting will be placed over the Soil Remediation
Cell During Rainy Periods

19. Y ☒ N ☐ Will the contaminated soil be kept covered and the cover anchored whenever it rains or treatment is not actively in progress? Who will be responsible for doing this?

Fire District Personnel

20. Describe how you will handle any leachate that collects in the treatment area:

Leachate will be pumped into 55-gal DOT
Steel Drums AND Appropriately Disposed of

21. Y ☒ N ☐ Will the treatment site be completely fenced? If no, describe how adequate site security will be maintained to prevent unauthorized access to the treatment area:

4-foot High PLASTIC Barrier fence

22. Describe how the creation of public safety concerns, environmental hazards, or nuisance conditions (such as odors or dust) will be prevented at the treatment site:

Isolation from Community (See Attached
MAP for Location)

23. 1 (#) discrete/composite (circle one) interim samples will be collected every week/month/quarter (circle one) to demonstrate treatment progress. i.e. Meeting 1 sample per 50 cubic

24. Interim samples will be analyzed for (circle all that apply):

TPH-G

TPH-D

TPH by 418.1m

Other: _____

25. Describe how the appropriate number of interim samples to collect was determined:

DEQ Recommended Number

UST CLEANUP SOIL TREATMENT PLAN - PAGE 4

26. Describe how sample locations will be chosen for all interim samples to be collected:

RANDOMLY, using Random Number generator
OR HAND-HELD Calculator Starting from NW Corner
of Cell.

27. 1 (#) discrete final samples will be collected to determine that the contaminated soil has been successfully treated.

28. Final samples will be analyzed for (circle all that apply):

TPH-G

TPH-D

TPH by 418.1m

Other: _____

29. Describe how the appropriate number of final samples to collect was determined:

EPA SW-846 STATISTICAL ANALYSIS for Solid
WASTE Sampling

30. Describe how sample locations will be chosen for all final samples to be collected:

RANDOMLY AS before

31. 1 (#) discrete/composite (circle one) closure samples will be collected from under the treatment area to determine if the area under the treatment site has been contaminated.

32. Closure samples will be analyzed for (circle all that apply):

TPH-G

TPH-D

TPH by 418.1m

Other: _____

33. Describe how the appropriate number of closure samples to collect was determined:

SW-846

34. Describe how sample locations will be chosen for all closure samples to be collected:

RANDOM LOCATION

NOTE: All sample collection and analyses must be performed in accordance with proper sampling protocols, chain of custody, and quality assurance/quality control requirements. Samples should be collected by the Responsible Party or a licensed Soil Matrix Service Provider if licensing is required for the cleanup project.

35. Describe how the treated soil will be field-screened as it is moved to the final disposition site, once treatment is complete:

VISUAL DURING EXCAVATION, FIELD ANALYSIS if
APPROPRIATE AND LAB if found A HOT PARTICLE

36. Describe what actions will be taken if further contamination is discovered during the screening process:

Soil will be placed back in Cell AND
Remediation Continued.

UST CLEANUP SOIL TREATMENT PLAN - PAGE 5

THIS PLAN WAS PREPARED BY:

Date: 9/17/96

Individual: Roger Smith Phone: 241-5444

Company: Rogan N. Smith Associates, Inc.

Address: 800 NW 6th Suite 310, Portland, OR

NOTE: If treatment will take longer than three months to complete, quarterly progress reports must be submitted.

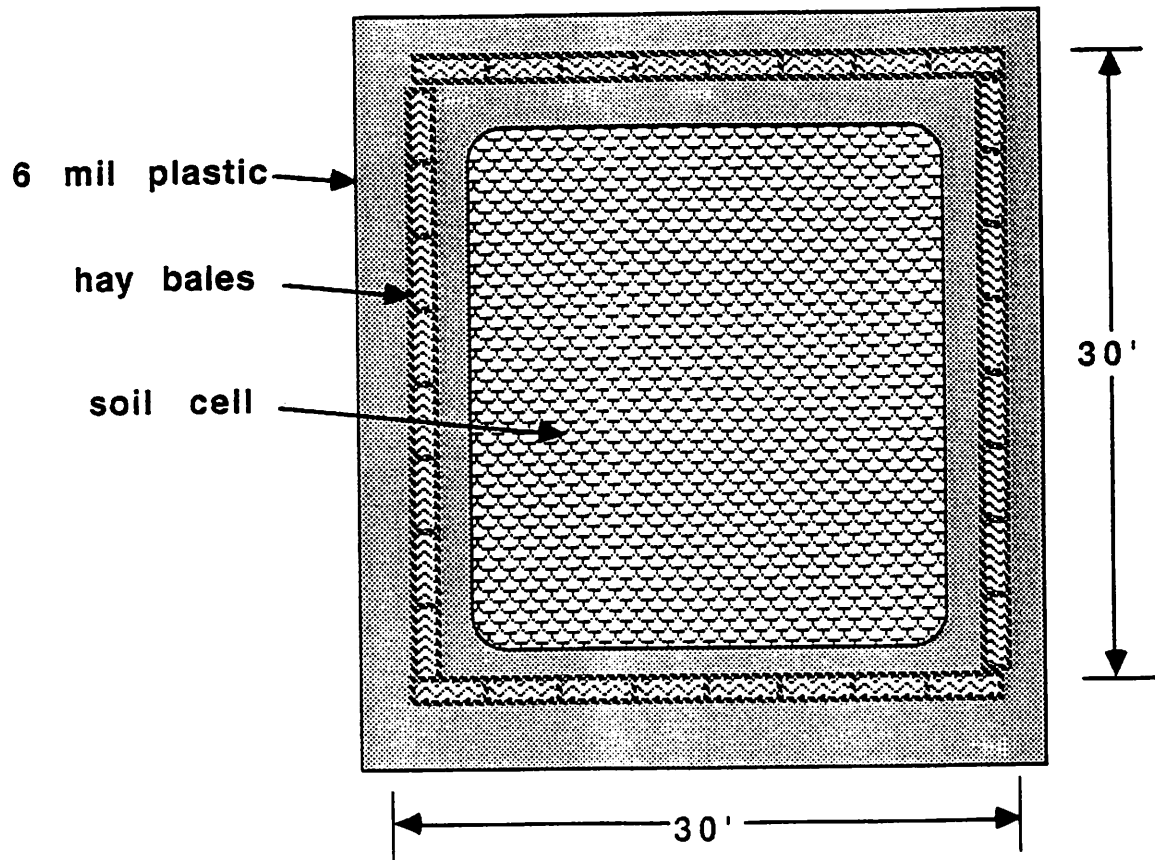
NOTE: Questions about specific treatment project plans, permits and/or the forms to be used should be directed to the regional office that has jurisdiction for the UST cleanup project.

Regional Office

Phone Number (503)

Eastern Region - Bend	388-6147
Eastern Region - Pendleton	276-4063
Eastern Region - The Dalles	298-7255
Northwest Region - Portland	229-5489
Western Region - Salem	378-8240
Western Region - Eugene	646-7838
Western Region - Medford	776-6136

The Department's toll-free, call-back number is 1-800-452-4011.



SOLID WASTE LETTER OF AUTHORIZATION

PERMIT APPLICATION

SHORT VERSION

DEQ USE ONLY

Application Rec'd: _____

Fee Rec'd: _____

Approved/Denied: _____

Disposal/Storage of Petroleum Contaminated Soils

THIS APPLICATION IS FOR THE FOLLOWING ACTIVITY:

Activity

On-site soil reuse
On-site soil storage
Off-site soil reuse
☒ Off-site soil storage

Complete Questions Listed

#1, #2, #3, #5, #6
#1, #2, #3, #5, #6
#1, #2, #3, #4, #6
#1, #2, #3, #4, #6

< PLEASE COMPLETE THE FOLLOWING INFORMATION AS REQUIRED ABOVE >

1. Facility Information - UST cleanup project where contaminated soils originated

DEQ File Number assigned to site: 04-96-485

Facility Name: Cannon Beach Fire District (Old Fire House)

Facility Address: 232 N. Spruce St.
Cannon Beach, OR 97110

2. Attach the completed and signed Property Owner Statement for the site where the soils will be placed (soil disposition site). OR The site where the soil will be temporarily stored.

3. Explain the need and justification for the proposed project. What other disposal or reuse options were considered and why is this storage or soil reuse appropriate for this situation?

THE SOIL HAS LOW CONCENTRATIONS (<170ppm) DIESEL, LOW VOLUME (<40 CUBIC YARDS). DISPOSAL WOULD REQUIRE HAULING TO HILLSBORO LANDFILL OR TO PORTLAND FOR THERMAL TREATMENT

4. Attach a completed and signed Land Use Compatibility Statement. (off-site treatment only)

5. You must confirm with local authorities that the proposed activity, treatment and or reuse is appropriate for the property in question and that this activity is compatible with local land use ordinances.

☒ Land use approval granted and/or verified that activity is allowed

Name of Official: JOHN J. WILLIAMS

Date: 10/1/96

Department: CITY MANAGER / CANNON BEACH

Phone: _____

SOLID WASTE LETTER OF AUTHORIZATION PERMIT APPLICATION-PAGE 2 (short version)

Note: Contractors or consultants retained by the responsible party to conduct work associated with the cleanup or soil treatment **MAY NOT** sign this application in lieu of the responsible party.

BY THE FOLLOWING SIGNATURE, THE RESPONSIBLE PARTY STATES THAT ALL INFORMATION SUBMITTED WITH THIS APPLICATION, INCLUDING ATTACHMENTS, IS TRUE AND CORRECT TO THE BEST OF YOUR KNOWLEDGE. SIGNATURE ALSO ACKNOWLEDGES THAT A LETTER OF AUTHORIZATION MAY BE SUSPENDED OR REVOKED IF THE APPLICATION CONTAINS A MATERIAL MISREPRESENTATION OR FALSE STATEMENT.

6. Responsible Party Name: _____ (please print)

Signature: _____

Date: _____

7. Please attach a site diagram that shows where the soil will be stored or reused. Include the location of roads, structures on the property and any nearby surface water.

8. Attach a signed and completed Property Owners Statement.

DETERMINE IF PERMIT FEE IS REQUIRED OR IF A FEE WAIVER IS APPROPRIATE:

The Department will waive the required permit fee if you have agreed to reimburse the Department for oversight costs associated with your UST cleanup project. If you have questions about the cost recovery process, or wish to have a Cost Recovery Agreement form mailed to you, please contact Ms. Debi Smith at 503-229-5441 or Kathleen Lippitt 503-229-6635. The Department's toll-free, call-back number is 1-800-452-4011.

a. IF THE PERMIT FEE IS DUE: Complete the attached Fee Invoice Form and submit a check for the permit fee to the Business Office address listed.

b. IF A PERMIT FEE WAIVER IS APPROPRIATE: Note the following as applicable:

____ A signed Cost Recovery Agreement has already been submitted to the Department on _____ (date).

____ A signed Cost Recovery Agreement is attached.

REMINDER Have you:

- ☒ Attached the completed and signed Property Owner Statement for the storage or final disposition site?
- ☒ Attached a signed/approved Land Use Compatibility Statement (if necessary)?
- ☐ Attached a signed Cost Recovery Agreement (if appropriate)?
- ☐ Submitted the appropriate permit fee (if appropriate)?

Submit this application, along with the appropriate attachments, to the DEQ Regional office that has jurisdiction for the UST cleanup project.

PROPERTY OWNER STATEMENT

TREATMENT SITE

FACILITY INFORMATION

(UST cleanup project where soils originated)

DEQ File Number assigned to site: 04-96-485Facility Name: CANNON BEACH FIRE DISTRICT (OLD FIREHOUSE)Facility Address: 237 N. Spruce Street
CANNON BEACH, OR 97110

TREATMENT SITE INFORMATION

(location where soils will be treated)

Site Address: No Specific Address
Located East of Highway 101 at 3rd Intersection South of
Marine Cannon Beach Exit

Tax Lot No. (s): _____

County: Clatsop Co.

Approximate size of property:

Acres: _____ or Sq. Ft.: _____ or Dimensions: _____

Property Owner Name: CITY OF CANNON BEACHMail Address: PO Box 368
Cannon Beach, OR 97110Phone Number: (503)436-1581

THE PROPERTY OWNER WHERE TREATMENT WILL OCCUR

MUST SIGN AND DATE THE FOLLOWING STATEMENT:

As the owner of the property listed above which is proposed to be used as a petroleum contaminated soil treatment area, I agree that only petroleum contaminated soils from the UST cleanup project listed above will be allowed to be deposited and treated on this property. I agree that this is a one-time only use of this property for this purpose. I, or a representative for me, have confirmed that this activity is compatible with local land use ordinances. I also understand that I may be jointly responsible and liable for any future problems arising from this treatment project.

Signature: [Signature] Date: 10/1/96

This signed statement must be included with the Soil Treatment Plan.

DEPARTMENT OF ENVIRONMENTAL QUALITY LAND USE COMPATIBILITY STATEMENT (LUCS)

WHAT IS A LUCS? The LUCS is the process DEQ uses to determine that DEQ permits and other approvals that affect land use are consistent with the local government comprehensive plan.

WHY IS A LUCS REQUIRED? Oregon law requires that state agency activities related to land use be consistent with local comprehensive plans. DEQ Division 18 administrative rules identify agency actions that are defined as programs affecting land use. These programs must have a process for determining local plan consistency.

WHEN IS A LUCS REQUIRED? A LUCS is required for nearly all DEQ permits, some general permits, and certain approvals of plans or related activities that affect land use. These activities are listed in this form. In cases where a source needs more than one DEQ permit or approval, a single LUCS may be used.

A permit modification requires a LUCS when:

- there is a physical expansion on the property or the use of additional land is proposed
- there is a significant increase in discharges to water
- there is a relocation of an outfall outside of the source property, or
- there is any physical change or change of operation of an air pollutant source that results in a net significant emission rate increase as defined in OAR 340-2B-110.

A permit renewal requires a LUCS if one has not previously been submitted, or if one of the above four permit modification factors apply.

HOW TO COMPLETE A LUCS:

- The LUCS form is included in the DEQ permit application or approval packet.
- Applicant fills out Section 1 of the LUCS and then submits it to the city or county planning office.
- The local planning office determines if the business or facility meets all local planning requirements.
- The local planning office must attach written findings of fact for local reviews or other necessary planning approvals that are required of the applicant.
- The applicant includes the completed LUCS and attachments with the permit application or approval submittal.

WHERE TO GET HELP: Questions on the LUCS are to be directed to region staff responsible for processing the source permit or other approval application or, to Management Services Division at 800-452-4011 or (503) 229-6408.

SECTION 1 - TO BE FILLED OUT BY APPLICANT

1. Name of applicant CANNON BEACH FIRE DISTRICT Contact person MIKE GRAHAM
Telephone 436-2946

Mailing address:
P.O. Box 24
CANNON BEACH OR 97110

Location address:
232 N. SOURCE ST.
CANNON BEACH, OR

NEAR SOUTHERN-MOST ENTRANCE TO CANNON BEACH/TOLUANA AREA
ON CITY-OWNED PROPERTY

Tax Acres Tax Lot # Township 4N Range 10W Section 6
Latitude 46° 38' 00" Longitude 124° 57' 30" (See ATTACHED MAP)

2. Describe type of business or facility and the services or products provided:
FIRE DISTRICT FOR CANNON BEACH PROVIDING FIRE PROTECTION.
FUEL USED WERE DIESEL FUEL

3. Circle the type of DEQ permits or approvals being applied for at this time:

Air Notice of Const.
Air Discharge Permit
Title V Air Permit
Air Indirect Source Permit
Parking/Traffic Circ. Plan

SW Disp/Auth Permit
Waste Tse Storage Permit
HNP/PCB Storage/Tmn/Disch Permit
Pollution Control Bond Request
Wastewater Revolving Loan Request

Fed. Permit WQ Cert.
WQ NPDES/WPCF Permit
WQ Stormwater General Permit
Wastewater/Sewer Facility Plan
Other WQ General Permit # _____

* excluding portable facility permits ** for on-site construction permits use DEQ form P:IMLANDUSE.OSS
*** includes review of plan changes that require use of new land **** general permits 002,702,1200CA and 1300 are exempt.

4. This application is for a: new permit ☒ permit renewal _____ permit modification _____ other _____

SECTION 2 - TO BE FILLED OUT BY CITY OR COUNTY PLANNING OFFICIAL

5. The facility proposal is located: _____ inside city limits _____ inside UGB _____ outside UGB

6. Name of city or county that has land use jurisdiction: _____
Jurisdiction means the legal entity that is responsible for land use decisions for the subject property or land use.

7. The business or facility complies with all applicable local land use requirements: _____ yes _____ no

7a. List all local reviews or approvals that were required of the applicant before the LUCS consistency was determined (This does not include past requirements that do not relate to the pending DEQ permit request):

7b. If no, identify reasons for noncompliance or list requirement(s) that the applicant must comply with before LUCS consistency can be determined:

7c. Is local government currently processing remaining requirements to attain LUCS consistency: _____ yes _____ no
Anticipated date of decision _____

7d. Is a public notice and hearing required? _____ yes _____ no hearing date _____

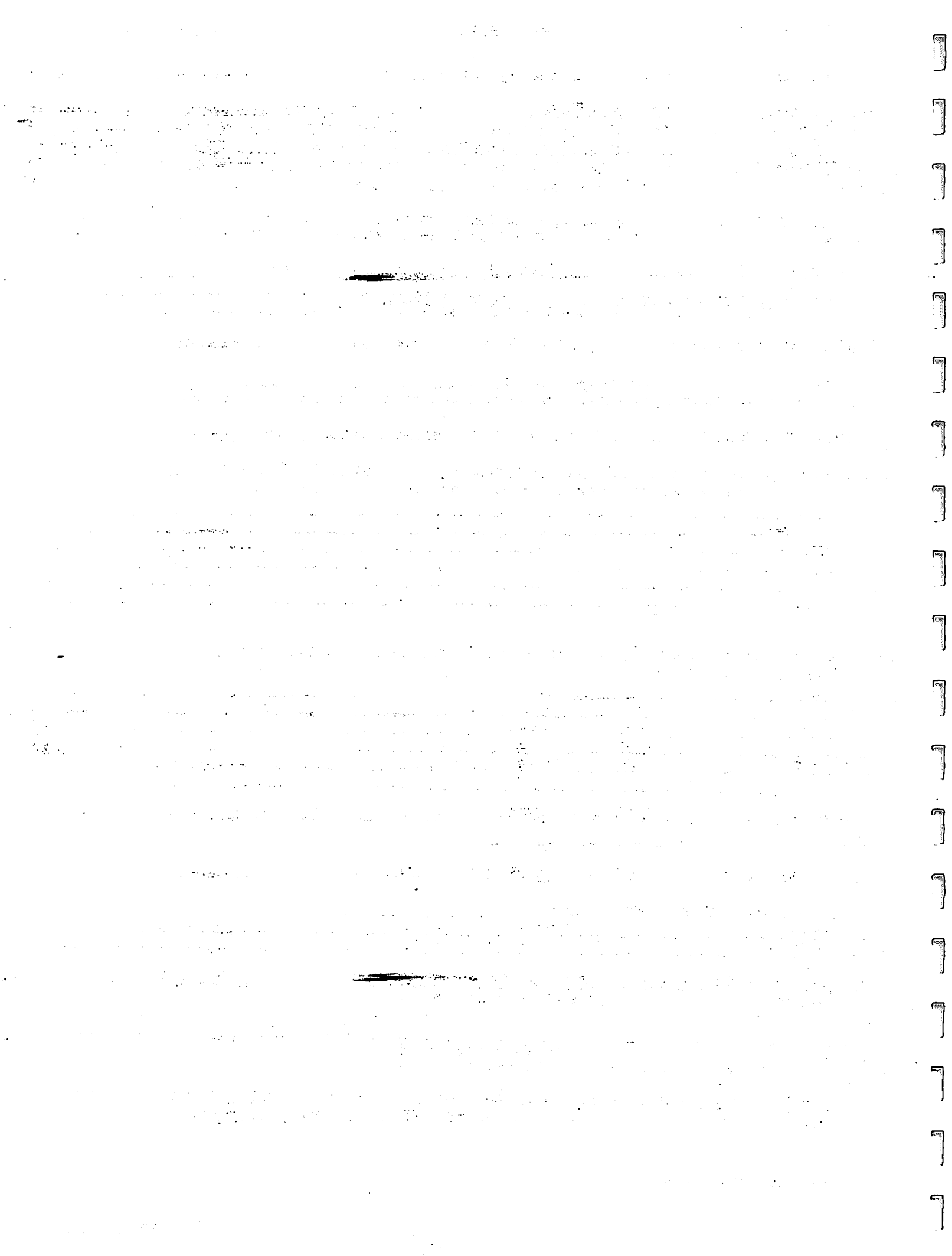
8. Planning official reviewer's telephone number: _____

SIGNATURES

John Williams John S. Williams Title CITY MGR. Date 10/1/86
Planning official (print planning official's name)

Planning official (print planning official's name)
(depending upon city/county agreement on jurisdiction outside city limits but within UGB)

ATTENTION: A LUCS approval cannot be accepted by DEQ until all local requirements have been met. Written findings of fact for all local decisions addressed under 7 thru 7b must be attached to the LUCS.



20 DAY REPORT

for the:

**CANNON BEACH FIRE DISTRICT'S
OLD FIREHOUSE TANK CLEANUP**

Cannon Beach, Oregon

September 11, 1996

Mr. Jim Marsh
Department of Environmental Quality
UST Division
2020 SW 4th Avenue, Suite 400
Portland, OR 97201

Re: DEQ File No.: 04-96-485

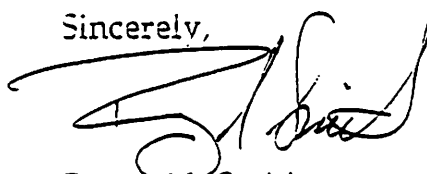
Dear Jim:

Enclosed with this letter is the 20-day report, aka "Initial Report Form for UST Cleanup Projects" for the Old Fire Station project located at 232 N. Spruce in Cannon Beach, Oregon.

We are doing additional investigation though in September. We will keep you informed of our progress and results.

If you have additional questions please don't hesitate to call me at (503) 241-5444.

Sincerely,



Roger N. Smith
Geological Engineer

pdp
Enclosures

cc. Mike Gerson

This report is due within twenty (20) days from the date of the release

S I M E I N F O R M A T I O N

Discovery: August 1996
Date of Release:

File No.: 04-96-485

Site Name: Old State Station

Site Address: 222 N Spruce, Cannon Beach, OR 97110

Responsible Party: Mike Graham
Phone: 503-436-3949

PO Mail Address: P.O. Box 24, Cannon Beach, OR 97110

Service Provider: Roger N. Smith Associates, Inc. Phone: 503-241-5444

SO Mail Address: 800 NW 6th Ave., Suite 318, Portland, OR 97209-3700

* Note: This information is listed on the cover letter received by the responsible party.

I N F I L I C I T C L A S S I F I C A T I O N

(4)

Do you believe that this cleanup project can be conducted under the requirements for an UST Cleanup Marking site?

Groundwater use in the immediate area of the project (check all that apply) - complete whether or not the release is believed to have impacted groundwater.

Drinking water supply
Industrial
Groundwater not used

Facility location (check all that apply)

<100 ft. from a wetland or surface stream (circle one or both)
Within a residential area
Within an industrial/commercial area
Other (describe):

3 ft. Constant appropriate depth to groundwater (in feet).

2 ft. Seasonal high groundwater level (in feet) is different.

Detected low depths were determined: observation during tank removal.

Q Did you take immediate action to prevent any further release of the regulated substance into the environment? EXPLAN: Tank and distribution lines were removed.

Q Were steps taken to identify and mitigate fire, explosion, and vapor hazards? EXPLAN: The tank was cleared of vapors before being removed. Diesel was the released product, therefore no other vapor problems were considered.

Q Did you remove as much of the regulated substance from the UST system as necessary to prevent further release to the environment? EXPLAN: Tank and lines were removed.

Q Did you visually inspect any aboveground releases or exposed below ground releases and prevent further migration of the released substance in surrounding soils and groundwater? EXPLAN:

Q Are/were there any vapors present in buildings or utility corridors? If yes, are you continuing to monitor and mitigate any additional fire and safety hazards posed by vapors and fire product? EXPLAN:

Q Have you remediated any hazards posed by contaminated soils that were excavated or exposed as a result of release confirmation, site investigation, abatement, or cleanup activities? EXPLAN: Soil treatment is planned for the future.

Q Have you measured for the presence of a release where contamination is most likely to be present at the UST site? EXPLAN: Diesel was found in soils surrounding tank 1000pm & 1750pm.

Q Did you investigate to determine the possible presence of free product and begin free product removal as soon as practicable? If yes, was the region notified? EXPLAN: No free product.

Q Was groundwater initially encountered in the excavation? If yes, how was this water handled/disposed? How many gallons involved? EXPLAN: No water was removed.

Q Was a sheen or odor observed on any water in the excavation? If yes, describe observations: Very small amount.

N/A

Did groundwater recharge 24 hours after pumping the accumulated water in the excavation? If yes, what actions have you taken as a result? Did you resample the recharge water? EXPLAN: Water was present at time of tank removal, no water was removed from tank pit.

Are any SOIL OR WATER SAMPLE RESULTS available at the time of this report? If yes, attach all laboratory analysis reports and chain of custody forms.

GENERAL INFORMATION FOR ALL CONTAMINATED SOILS MANAGEMENT

1. All soils temporarily stockpiled onsite prior to treatment or disposal, be contained within a bermed area, kept covered (and the cover anchored), and the entire area secured to prevent unauthorized access by the public. Non-contaminated soils should be protected and kept separated from contaminated soil.

The level of contamination noted is expected to require removal of contaminated soil for treatment or disposal. If yes, complete the following. If no, go to Page 4, "Report Prepared By".

Type of petroleum contamination (check all that apply):

☐ Gasoline ☒ Diesel ☐ Waste Oil ☐ Heating Oil

☐ Other contamination (specify): _____

Estimated volume of soil if known (tons or cubic yards): _____

Intended Disposition of Soils (check appropriate method):

☒ Treatment

☐ Thermal treatment onsite at an authorized facility:

Facility Name: _____ Phone No.: _____

Facility Address: _____

☐ Thermal treatment onsite with a mobile treatment unit **

Company Name: _____ Phone No.: _____

☒ Offsite soil aeration or bioremediation **

Treatment Site Address: Fire District property in Tulsa

☐ Onsite soil aeration or bioremediation **

☐ Disposal

Landfill Name: _____ Phone No.: _____

Landfill Address: _____

Offsite soil aeration is bermed within the Portland cement area - see enclosed fact sheet.

Permit form not required, see page 5 if you would like forms mailed.

Who will be conducting the soil treatment or disposal work?

Company Name: Cannon Beach Fire District

Phone: 436-2949

Contact Name: Mike Graham

What date(s) is the treatment or disposal intended to be started?

Late September 1996.

Note: You have approximately 30 days to complete contaminated soils onsite while making arrangements for proper disposal or treatment. After that time, you may be required to obtain a permit from DEQ for onsite management of the contaminated soil if you fail to take active measures to manage the soil in an appropriate manner.

THIS REPORT WAS PREPARED BY:

Date: 9/11/96

Individual: Roger N. Smith

Phone: 241-5444

Company: Roger N. Smith Associates, Inc.

Address: 800 NW 6th Ave., Suite 318, Portland, OR 97209-3700

Is this report was NOT prepared by the Responsible Party?

☒ Y ☐ N Are you the licensed Matrix Service Provider for the project and authorized by the Responsible Party to submit reports on their behalf?

Matrix Service Provider License No.: 12451

NOTE: This initial report is intended to provide the Department with the basic initial information about activities associated with the release. It is anticipated that future reports will be much more detailed and will provide a more complete picture of the entire cleanup project. If appropriate, you may reference this initial report in subsequent reports if the information does not need to be repeated for clarity.

Please attach additional information as necessary to explain any unusual circumstances associated with the project or if you need more space to respond to any of the questions in this report form.

Return this form to:

Michael Collitsch
DEQ-Hazardous Waste and Cleanup Div.
311 SW Sixth Avenue
PORTLAND OR 97204

If you have any questions, call 503-229-6931

KEEP A COPY OF THIS REPORT FOR YOUR FACILITY RECORDS

A permit from DNR is required for the following activities:

Joint excavation, transportation (on-site or off-site) or onsite thermal treatment.

Water discharges to a stream/river/estuary from excavations or treated groundwater.

Note: If there will be air emissions from pollution control equipment (e.g. air strippers, vapor extraction systems, etc.), notify the regional office by phone before installation. Have actual or estimated emissions calculated before calling.

If any activities listed above that are anticipated for your cleanup project, the Department will send you the appropriate application forms to complete, information on permit fees and guidance documents as appropriate.

NOTE: Submit USF Decommissioning/Change-in-Service Report forms and USF Decommissioning Checklists and Reports promptly to:

USF-USF Compliance Program
611 SW 6th
Portland, OR 97204

Phone: 503-229-5759

Failure to do so can result in delays to your project; these reports must be received by the USF Compliance Program or the tank owner will continue to be billed for tank permit fees.

FINAL GROUNDWATER and SOIL SAMPLING REPORT

for:

a UST Cleanup at
the Old Cannon Beach
Rural Fire Protection District
Firehouse

DEQ File No. 04-96-0485

Date Submitted:
May 28, 2002

RNSA Project No.: 96-460.1
Version 1.0

Submitted To:
Cleve Rooper, Chief
Cannon Beach RFPD
P.O. Box 24
Cannon Beach Oregon 97110

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1.0 EXECUTIVE SUMMARY

Under contract with the Cannon Beach Rural Fire Protection District, Roger N Smith Associates Inc. (RNSA) generated new sample data for a parcel of land located at 232 N. Spruce Street, in Cannon Beach, Oregon. This site is the location of the former Cannon Beach RFPD firehouse where a UST release (file No. 04-96-0485) was cleaned up in 1996. The purpose of the recent work was in response to a request for additional information received in a letter from Tina Leppaluoto, Oregon Department of Environmental Quality (DEQ), April 29, 2002. This report addresses each of the requested items described in Ms. Leppaluoto's letter.

The investigation involved collecting two new soil samples and one groundwater sample from the soil/water interface at the edge of the previously excavated tank pit to confirm initial cleanup levels. These samples were analyzed for BTEX compounds following EPA Method 8021B as required by OAR 340-122-0240(C) and OAR 340-122-0345(4).

No benzene was found in any samples analyzed and only one soil sample contained any detectable concentrations of toluene, ethyl-benzene, and xylene. The concentrations of these contaminants were significantly lower than Level 1 soil matrix cleanup standards. The groundwater sample collected from the site contained no detectable contamination.

The present location of soil removed during the 1996 remedial excavation is approximately 2.4 miles south of the former firehouse on a site adjacent to highway 101. The position of this site is documented on a location map (see appendix A) and a discussion of its intended use is presented herein.

2.0 INTRODUCTION

On behalf of the Cannon Beach Rural Fire Protection District (RFPD), Roger N. Smith Associates, Inc. (RNSA) presents this response to the DEQ request for additional information regarding a UST release (file No. 04-96-0485) documented in 1996 on the former Cannon Beach RFPD firehouse located at 232 North Spruce Street, in Cannon Beach, Oregon.

2.1 Purpose and Objectives

The purpose of the recent investigation was to respond to the DEQs request for additional information needed to meet requirements in regards to confirmatory sample analysis. To accomplish this goal two new soil samples and one groundwater sample were collected from the soil/water interface in the vicinity of the former UST. The scope of work presented below follows the outline of the letter requesting additional information received from Tina Leppaluoto of the Oregon DEQ (April 29, 2002). Before work began refinements were made to drilling locations, based conversations with Ms Leppaluoto.

2.2 Scope of Work

The following outlines tasks performed in order to provide the additional information requested by the DEQ.

Task 1. Collect two additional soil samples

Two additional soil samples were collected from the soil/groundwater interface in native soils near the previously excavated tank. One sample was collected from the west side of the tank pit and one from the east side. Both of these samples were analyzed for BTEX as per DEQ requirements.

Task 2. Collect one additional groundwater sample

A groundwater sample was collected from the soil/water interface in a separate boring on the west side of the tank pit. This sample was analyzed for BTEX as per DEQ requirements.

Task 3. Document the location where treated soil was moved to

A map was created showing the location of the soil stockpile in relation to the former Cannon Beach RFPD firehouse.

2.3 Report Format

The format of this report has been set up to address each item requested by Tina Leppaluoto ODEQ in her April 29, 2002 letter. Each of the following sections responds to a request in the letter. The responses are presented in the same order as they are requested in the letter.

3.0 COLLECTING TWO ADDITIONAL SOIL SAMPLES

Two new soil samples were collected from soil/groundwater interface on the perimeter of the previously excavated area. One sample was collected from approximately two feet west of the center of the former tank pit and one from approximately two feet east. To collect these samples the location of the water table was first established. This was accomplished by augering an initial hole to 2.5 feet below ground surface (bgs). Groundwater flowed back into this hole quickly and stabilized at 1.45 feet bgs.

Boreholes were advanced to within six inches of the water table with a stainless steel hand-auger after first breaking through the 6-8 inch thick concrete pad of the driveway with a roto-hammer equipped with a chisel bit. The hand-auger was then decontaminated in a three step process involving washing with Alquinox®, followed by a tap water rinse and finally a distilled water rinse. The decontaminated auger was then re-inserted into the borehole and advanced one foot to approximately two feet bgs. Samples were collected directly from the auger wearing new disposable latex gloves and packed into clean 9oz. Sample jars with a minimum of airspace.

The samples were labeled for borehole identification, depth, time and date of collection and immediately placed on ice to maintain a temperature no greater than 3° C. A chain-of-custody report was filled out to document sample handling. Both soil samples, SB-3 &

SB-4, were analyzed for BTEX following EPA method 8021B as required by OAR 340-122-0240 (C).

4.0 COLLECTING ONE ADDITIONAL GROUNDWATER SAMPLE

One groundwater sample, GW-5, was collected from the soil/water interface west of the former tank pit (see figure 2). To collect this sample a three-inch borehole was advanced to within 6 inches of the soil/water interface with a stainless steel hand auger, after breaking through the concrete pad, as in the soil samples described above. A stainless steel well point with retractable screen was then driven one foot into the native sand and pulled back exposing the screen. Water was drawn from the borehole with a peristaltic pump using new Teflon tubing. Water was purged from the sample point for 15-minutes while significant parameters (temperature, pH, specific conductivity, and turbidity) were recorded. After the parameters stabilized and the water cleared up, a sample was collected in three 40-ml VOAs.

The VOAs were labeled for borehole identification, depth, time and date of collection and immediately placed on ice to maintain a temperature no greater than 3° C. A chain-of-custody report was filled out to document sample handling. Sample number GW-5 was analyzed for BTEX following EPA method 8021B as required by OAR 340-122-0345(4).

5.0 DOCUMENTING THE LOCATION OF THE TREATED SOIL

To document the location of the treated soil a map was created showing the location of the soil stockpile in relation to the former Cannon Beach RFPD firehouse (see figure 1). The soil treatment location is approximately 2.4 miles south of the former firehouse site adjacent to Highway 101. The soil has been at this location since its removal from the tank pit.

Three soil samples were collected from the remedial storage area on 11/1/96 and analyzed following EPA Method TPH 418.1. The three samples, labeled Rem/6''/N, Rem/6''/S and Rem/6''/E, contained 45, 32 and 31 ppm respectively. All of these concentrations are below Soil Matrix level 1 cleanup standards.

The intended use of this soil was described by Cleve Rooper of the Cannon Beach Rural Fire Protection District will be as fill material for a helicopter landing pad to be built at the same location by the City of Cannon Beach. The site where this soil will ultimately reside is consistent with DEQ requirements. The site is above seasonal high groundwater levels, away from wetlands and out of a 100-year floodplain. The site will eventually be paved, ensuring that the treated soil will be out of human contact.

6.0 DISCUSSION OF ANALYTICAL RESULTS

This section presents the laboratory results of soil samples analyzed from the May 17th, 2002 sampling. A summary of these results is presented in Table 1 below.

TABLE 1 ANALYTICAL RESULTS OF BTEX ANALYSIS

SAMPLE NUMBER	DEPTH (ft bgs)	benzene (ppm)	toluene (ppm)	ethyl-benzene (ppm)	xylene (ppm)
SB-3	2	<0.04	<0.04	<0.04	<0.04
SB-4	2	<0.04	0.38	0.36	0.92
GW-5	2	<0.001	<0.001	<0.001	<0.001
RBC for soil leaching to groundwater (residential)		0.044	390	330	360

All the samples collected during the recent investigation had concentrations that were low or below detection levels, none contained concentrations of significant concern. The BTEX compounds found in soil sample SB-3, collected from the west edge of the tank pit, were well below Soil Matrix Level 1 cleanup standards. The slightly elevated concentrations of toluene, ethyl-benzene and xylene are not out of the ordinary as residues of former contamination.

A Risk-Based Assessment was not within the scope of this work, however Risk-Based Concentrations (RBCs) can be used for a general comparison. The most sensitive exposure pathway (i.e. the one with the lowest RBCs) for petroleum contaminated soils is: leaching to groundwater (residential). The concentrations of BTEX compounds found in the soils at the Cannon Beach RFPD firehouse are more than two orders of magnitude lower than these RBCs. The standards referred to here are those listed in the ODEQ Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites (9/29/99).

7.0 DISCUSSION OF FINDINGS

In response to the request for additional site information by the ODEQ this report presents the following new data. Two soil samples and one groundwater sample were collected from the area of the former UST at the soil/water interface. The location of the treated soil was documented and a discussion of the intended use of this soil was presented.

Results of the soil sample analyses on the Cannon Beach site indicate that the soils beneath the excavated tank pit were cleaned up to satisfactory levels, only trace amounts of the original constituents were found in one soil sample. The fact that the groundwater at the site contains no detectable concentrations of these compounds further reinforces the fact that this site poses no significant risk. The soils removed from the site have been cleaned up to acceptable levels and pose no further risk. In summation the information presented in this report should form a conclusive argument for closing the Departments file on this UST cleanup project and issuing a no further action (NFA) letter.

8.0 REFERENCES

ODEQ, 1999, Risk-Based Decision Making for the Remediation of Petroleum Contaminated Sites.

United States Geological Survey, 1985, Arch Cape, OR, 7.5' Quadrangle

United States Geological Survey, 1949 (Rev. 1973), Tillamook Head, OR, 7.5' Quadrangle

9.0 GENERAL LIMITING CONDITIONS

Possession of this report, or a copy thereof, does not carry with it the right of publication. This report is solely for the use and information of the initial employer (client) unless otherwise noted in writing, and shall only be used with properly written qualification and in its entirety.

The liability of the consultant (RNSA, Inc.), its employees and subcontractors is limited to the initial employer (client) only, and only up to the amount of the fee actually received for services provided. Further, there is no accountability, obligation, or liability to any third party. If this report is placed in the hands of anyone other than the initial employer, the initial employer shall make such party aware of all limiting conditions of the work assignment(s) and related communications.

Although data presented in this report were collected, analyzed and interpreted in accordance with generally accepted professional standards, extrapolation of the data based on subsurface soil and ground water sampling data does not guarantee similar conditions exist between observation and sampling points. No other warranty, express or implied, is made. Therefore, anyone using the information presented in this report does so at their own risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. RNSA, Inc. is not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. Further, we do not warrant the accuracy of information supplied by others, nor the use of segregated portions of this report.

If conditions have not been identified during this study, such a finding, or lack thereof, should not therefore be construed as a guarantee of the absence of such conditions at or nearby a site, but rather the result of the services performed within the scope, limitations, and cost of the work assigned and performed.

The client for this project agrees to recognize the uncertain and unknown nature of evaluating and predicting earth conditions and mechanics. Therefore, the client has agreed to the following conditions which restrict and limit the liability of consultant, provided the consultant performs work consistent with the standards of Registered Professional Geologists. If any loss occurs, or is alleged to have occurred, as a result of any action or inaction of consultant in performing the terms of this project, consultants liability, either under this agreement or any principle of law, shall be limited in amount to the amount of the fee paid to consultant by client under the agreement signed for the proposed scope of work. This limitation of liability shall include a claim directly against consultant by client and any

9.0 GENERAL LIMITING CONDITIONS (cont.)

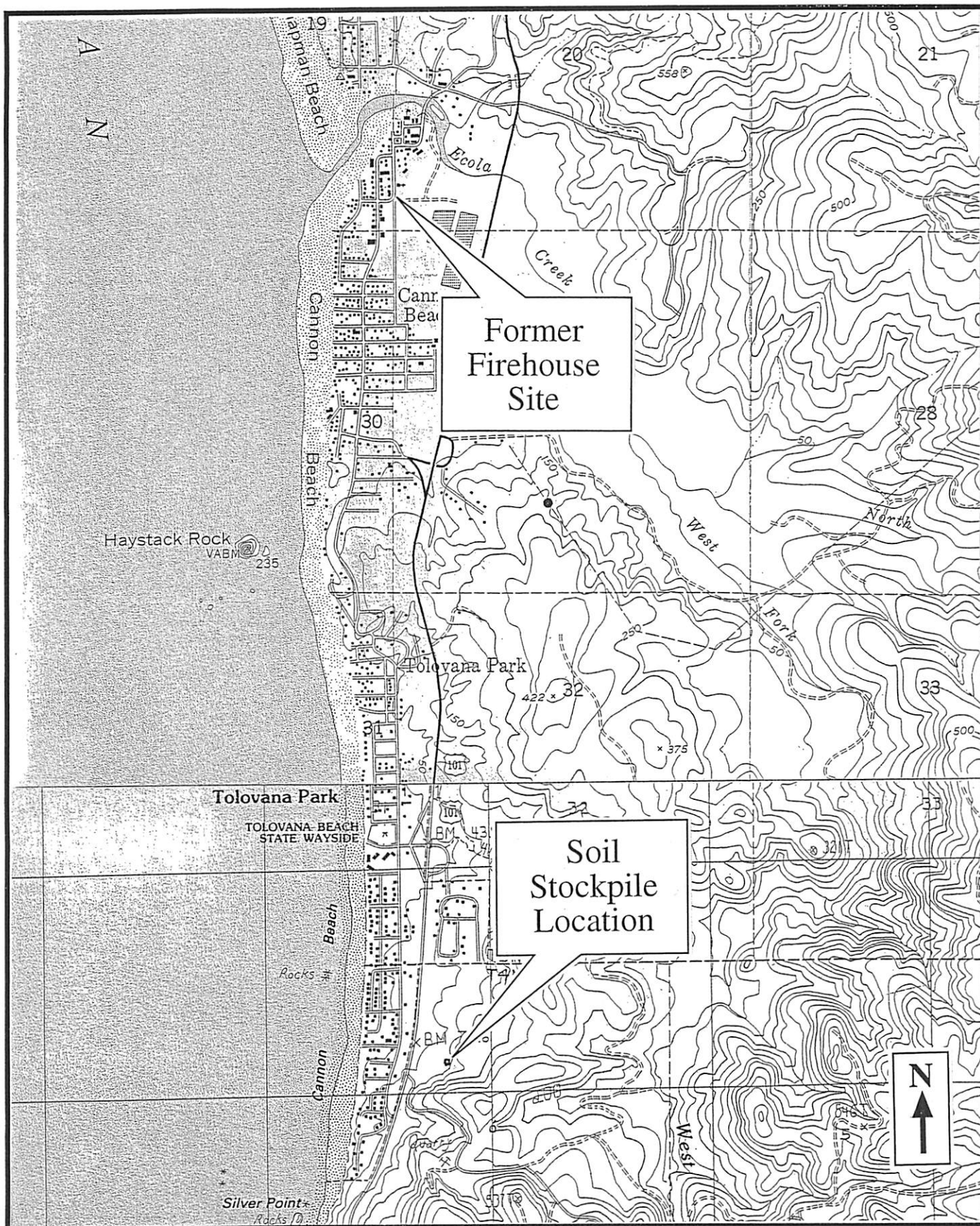
claim against consultant or client or both by third parties seeking recovery of losses suffered by such third parties.

The above limiting conditions describe the assumptions and parameters under which a professional environmental opinion is rendered. In accepting this opinion, the client understands and accepts these limiting conditions as a necessary outcome of the need to strike a balance between reasonable inquiry and exhaustive analysis of each conceivable environmental characteristic.

Report Reviewed By: Roger N. Smith
Prof. Reg. Geologist

Appendix A

REPORT FIGURES



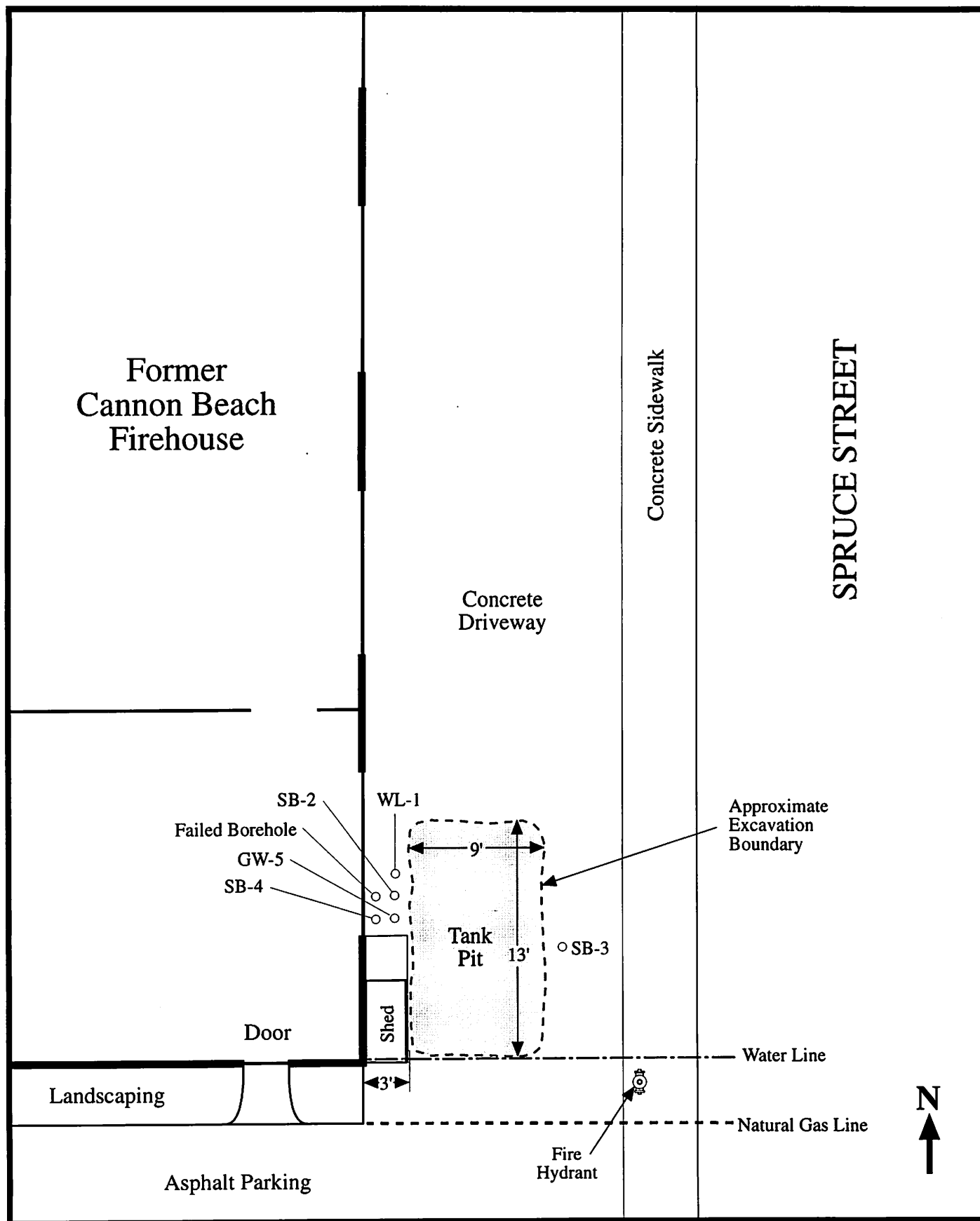
ROGER N. SMITH ASSOCIATES, INC.
Groundwater and Environmental Consultants

Project Manager
Roger N. Smith
Drawn By
Steven Dopp
Project Number
96-460.1
Date Last Mod.
May 21, 2002

Location Map of the Former Cannon Beach Firehouse and Contaminated Soil Stockpile

Map Adapted from the USGS, 1949 (Rev. 1973), Tillamook Head, OR, 7.5' Quadrangle, and the USGS, 1985, Arch Cape, OR, 7.5' Quadrangle

Figure 1



ROGER N. SMITH ASSOCIATES, INC.
Groundwater and Environmental Consultants

Project Manager
Roger N. Smith
Drawn By
Steven Dopp
Project Number
96-460.1
Date Last Mod.
May 21, 2002

Soil and Groundwater Sampling Locations

(map not to scale)

Figure 2

Appendix B

**GEOLOGIC LOGS
and
GROUNDWATER SAMPLING LOGS**

RNSA, Inc.

Groundwater and Environmental Consultants

MONITORING WELL: WL 1

Project No.: 96-460.1

Page 1 of 1

PROJECT: CANNON BEACH FIREHOUSE	LOCATION: WEST EDGE OF TANK
DATE DRILLED: 5/17/02	SURFACE ELEVATION: UNKNOWN
DATE COMPLETED: 8/17/02	TOP OF CASING ELEVATION: UNKNOWN
DRILLING METHOD: HAND AULER	TOTAL DEPTH: 2.5'
DRILLING COMPANY: RNSA	GEOLOGIST: SD

DEPTH feet	SAMPLE INTERVAL & SAMPLE NO.	BLOWS/FT.	GASTECH (ppm) field	ANALYTICAL RESULTS	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
5							0-0.2 ASPHALT 0.2-0.8 CONCRETE w/ WIRE 0.8-1.2 FILL-SANDY GRAVEL 1.2-2.5 BROWN SOFT SANDY SILT 1.5-2.5 WET SAND OLIVE GRAY	5
10								10
15								15
20								20

RNSA, Inc.

Groundwater and Environmental Consultants

BOREHOLE: SB 2

Project No.: 96-460.1

Page 1 of 1

PROJECT: CANNON BEACH WAREHOUSE

LOCATION: W. EDGE OF TANK PIT

DATE DRILLED: 5/17/02

SURFACE ELEVATION: UNKNOWN

DATE COMPLETED: 5/17/02

TOP OF CASING ELEVATION: UNKNOWN

DRILLING METHOD: HAND-AUGER

TOTAL DEPTH: 2 FEET

DRILLING COMPANY: RNSA

GEOLOGIST: SD

DEPTH feet	SAMPLE INTERVAL & SAMPLE NO.	ANALYTICAL RESULTS	GRAPHIC LOG (types of soils between samples are extrapolated)	UNIFIED SOIL CLASS.	GEOLOGIC DESCRIPTION <i>Location:</i>	BOREHOLE COMPLETION
5					0-0.2 ASPHALT 0.2-0.5 SILTY FILL 0.5-1.0 CONCRETE 1.0-1.4 GRAVEL FILL 1.4-2.5 GRAVEL FILL SANDY.	5
10						10
15						15
20						20

RNSA, Inc.

Groundwater and Environmental Consultants

BOREHOLE: SB-3

Project No.: 96-460.1

Page 1 of 1

PROJECT: CANNON BEACH FIREHOUSE	LOCATION: E. SIDE OF TANK PIT
DATE DRILLED: 5/17/02	SURFACE ELEVATION: UNKNOWN
DATE COMPLETED: 5/17/02	TOP OF CASING ELEVATION: UNKNOWN
DRILLING METHOD: HAND AUGER	TOTAL DEPTH: 2.0 FEET
DRILLING COMPANY: RNSA	GEOLOGIST: SD

DEPTH feet	SAMPLE INTERVAL & SAMPLE NO.	ANALYTICAL RESULTS	GRAPHIC LOG (types of soils between samples are extrapolated)	UNITED SOIL CLASS.	GEOLOGIC DESCRIPTION Location:	BOREHOLE COMPLETION
5					0-0.5 CONCRETE 0.5-0.7 SANDY GRAVEL FILL 0.7-1.0 SAND	
10						
15						
20						

RNSA, Inc.

Groundwater and Environmental Consultants

BOREHOLE: SB-4

Project No.: 96-460.1

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PROJECT: CANNON BEACH FIREHOUSE

LOCATION: W. SIDE OF TANK PIT

DATE DRILLED: 5/17/02

SURFACE ELEVATION: UNKNOWN

DATE COMPLETED: 5/17/02

TOP OF CASING ELEVATION: UNKNOWN

DRILLING METHOD: HAND-AUGER

TOTAL DEPTH: 2.0 FEET

DRILLING COMPANY: RNSA

GEOLOGIST: SD

DEPTH feet	SAMPLE INTERVAL & SAMPLE NO.	ANALYTICAL RESULTS	GRAPHIC LOG (types of soils between samples are extrapolated)	UNIFIED SOIL CLASS.	GEOLOGIC DESCRIPTION Location:	BOREHOLE COMPLETION
5					0-0.2 0.0-0.2 ASPHALT 0.2-0.6 CONCRETE 0.6-0.8 FILL 0.8-2.0 SAND NATIVE YELLOWISH BROWN SATURATED BELOW 1.5'	5
10						10
15						15
20						20

Groundwater and Environmental Consultants

SOIL BORING: GW-5

Project No.: 96-460.1

Page 1 of 1

PROJECT: CANNON BEACH FIREHOUSE

LOCATION: W. SIDE OF TANK PIT

DATE DRILLED: 5/17/02

SURFACE ELEVATION: UNKNOWN

DATE COMPLETED: 5/17/02

TOP OF CASING ELEVATION: UNKNOWN

DRILLING METHOD: HAND AUGER

TOTAL DEPTH: 2.0 FEET

DRILLING COMPANY: RNSA

GEOLOGIST: SD

DEPTH feet	SAMPLE INTERVAL & SAMPLE NO.	GasTector VAPOR SAMPLER FIELD RESULTS	ANALYTICAL RESULTS	GRAPHIC LOG (types of soils between samples are extrapolated)	UNIFIED SOIL CLASS.	GEOLOGIC DESCRIPTION	BOREHOLE COMPLETION
						Location:	
						0-0.2 ASPHALT 0.2-0.6 CONCRETE 0.6-0.8 FILL 0.8-2.0 BROWN SAND	

GROUNDWATER SAMPLING LOG

Low Flow Sampling

MONITORING WELL/PIEZOMETER NUMBER GW-5

Project Name: CANNON BEACH FIREHOUSE
 Project Number: 96-460.1
 Location: CB FIREHOUSE
 Sampler: SD

Date: 5/17/02
 Weather Conditions: SUNNY 70°F
 Wind Speed/Direction: 3-5 NW

WELL INFORMATION

Casing Diameter (in.): NA
 Top of Casing Elevation (ft): UNKNOWN
 Initial Depth to Water (ft): 1.45
 Wellhead Condition NA

Groundwater Elevation (ft): UNKNOWN
 Depth of Well ~~Casing~~ (ft): 2.0
 Actual Purge Volume: 1.4 GALLONS

PURGING MEASUREMENTS

Time	Volume Purged (GAL.)	pH (std. Units)	SC (μS)	Temp (°C)	ORP (mV)	DO (mg/L)	Color (visual)	Depth to Water (ft)	MC ppm Notes
2:41	0.03	6.49	1168	20.2°			LT BROWN		820
2:45	0.4	6.51	858	17.7			SLIGHTLY CLOUDY		420
2:47	0.6	6.45	460	17.1			CLEAR		231
2:50	0.8	6.49	609	16.8			"		305
2:52	1.0	6.48	587	16.7			"		294
2:54	1.2	6.49	528	16.7			CLEAR		264

Water Level Ind. Model & No.: SOLONIST
 ORP/DO Meter Model & No.: HANNA HI 991300
 Purge Equipment Used: MASTERFLEX PERISTALTIC PUMP
 Sampling Equipment Used:

Purge Start Time: 2:40
 Purge Completion Time: 2:57
 Average Purge Rate: 312 ml/min
 Analytical Lab: WYFAST

Sample Collection Time: 2:57
 Purging Method: PERISTALTIC PUMP
 Sample Containers Used: 3 40ml VOAS
 Chemical Analyses: STEX

Other Field Observations (purge pressure, refill, discharge):

Appendix C

**LABORATORY ANALYTICAL REPORTS
And CHAIN-OF-CUSTODY FORMS**

Wy'East*Wy'East Environmental Sciences, Inc.***LABORATORY REPORT**

Roger N. Smith Associates
800 NW 6th Ave. #318
Portland, OR 97209

PROJECT NAME/SITE: Cannon Beach Firehouse **REPORT NUMBER:** 42000
PROJECT NUMBER: 96-460.1 **REPORT DATE:** 5-22-02
EXTRACTION DATE: 5-21-02 **PAGE:** 1 of 1

EPA 8021B

Analyte: BTEX for soil (Benzene, Toluene, Ethylbenzene, Xylenes)

Field ID	Lab ID	Identification & Quantification mg/Kg (ppm)				Surrogate Recovery (%)
		Benzene	Toluene	Ethyl-Benzene	Xylenes	
51702-SB2-2	J258	ND	1.48	0.36	1.46	70
51702-SB4-2	J260	ND	0.38	0.36	0.92	72
BLANK	-	ND	ND	ND	ND	-
Quantitation Limits	-	0.04	0.04	0.04	0.04	-

Surrogate is p-Bromofluorobenzene

ND = Not Detected (below reporting limit or detection limit)

EPA 8021B

Analyte: BTEX for water (Benzene, Toluene, Ethylbenzene, Xylenes)

Field ID	Lab ID	Identification & Quantification µg/L (ppb)				Surrogate Recovery (%)
		Benzene	Toluene	Ethyl-Benzene	Xylenes	
51702-GW5	J262	ND	ND	ND	ND	102
BLANK	-	ND	ND	ND	ND	-
Quantitation Limits	-	1	1	1	1	-

Surrogate is p-Bromofluorobenzene

ND = Not Detected (below reporting limit or detection limit)

WyEast*Wy'East Environmental Sciences, Inc.***LABORATORY REPORT**

Roger N. Smith Associates
800 NW 6th Ave. #318
Portland, OR 97209

PROJECT NAME/SITE: Cannon Beach Firehouse **REPORT NUMBER:** 42000A
PROJECT NUMBER: 96-460.1 **REPORT DATE:** 5-23-02
EXTRACTION DATE: 5-22-02 **PAGE:** 1 of 1

EPA 8021B

Analyte: BTEX for soil (Benzene, Toluene, Ethylbenzene, Xylenes)

Field ID	Lab ID	Identification & Quantification mg/Kg (ppm)				Surrogate Recovery (%)
		Benzene	Toluene	Ethyl- Benzene	Xylenes	
51702-SB3-1.6	J259	ND	ND	ND	ND	85
BLANK	-	ND	ND	ND	ND	-
Quantitation Limits	-	0.04	0.04	0.04	0.04	-

Surrogate is p-Bromofluorobenzene

ND = Not Detected (below reporting limit or detection limit)

42000



Research & Laboratory Services

2415 SE 11th Ave. • Portland, Oregon 97214 • (503) 231-9320 • FAX (503) 231-9344

PROJECT # 96-460.1	PROJECT NAME / SITE LAWRENCE L. BROWN FIVE MILE	STATE OR	PURCHASE ORDER # 96-460.1
COMPANY CITY OF PORTLAND	REPORT ATTENTION STATION 10	PHONE NUMBER (503) 241-3444	FAX NUMBER (503) 241-1541
SAMPLES COLLECTED BY JOHN DOW	DATE(S) COLLECTED 5/17/02	TIME(S) COLLECTED	SAMPLES CHILLED TO 4° C? YES
PRESERVATIVE USED? (HCl, etc.) NONE			Regular ☒ 3-5 Days ☐

[illegible]

RELINQUISHED BY 	DATE / TIME 5/17/02 4:00	RECEIVED BY	DATE / TIME
RELINQUISHED BY 	DATE / TIME 5/20/02 2:00	RECEIVED BY LAB 	DATE / TIME 5/20/02 8:50
REMARKS	SHIPPED BY		

Wy'East will return white copy to client with laboratory report and keep yellow copy for files. Client keeps pink copy.