SCOLES ASSOCIATES, INC.

November 6, 1989

Mr. Richard Walker, Department of Ecology
SW Regional Office
7272 Cleanwater Lane, MS: LU-11
Olympia, WA 98504-6811

Dear Mr. Walker,

Please review the enclosed letter-style decommissioning reports for the underground storage tanks (USTs) removed on August 19 and 20, 1989 from Port of Camas / Washougal Industrial Park. You will see that the reports follow a similar format and that only the site specific details change from one report to the next.

Two of the decommissioning reports conclude that no indication of fuel contamination was observed by myself and no fuel hydrocarbon concentration was detected by analytical laboratory. These reports are submitted to DOE for review and inclusion in their files. The third report concludes that fuel contamination was observed and confirmed by the laboratory for a 1,000 gallon UST formerly storing diesel fuel. I am currently writing the interim investigation and cleanup report for this tank site (DOE no. 010715), so it will be mailed to you soon. That report discusses the soil excavation and proposed treatment of the contaminated soil stockpile.

Dick, I have spoken to you about this tank site a of couple times. Currently, the Port has safely stockpiled the contaminated soil and covered it with plastic. I am preparing an application for the Southwest Air Pollution Control Authority (SWAPCA) to aerate the contaminated soil next spring. I will keep you posted on a regular basis to maintain open communication between the DOE and the Port of Camas / Washougal. If I can provide you with any additional information, please feel welcome to call me (503-635-5132) at your convenience. Thanks again for your assistance and cooperation.

Very truly yours,

SCOLES ASSOCIATES, INC.

Phil Scoles

Phil Scoles
Soil and Water Scientist

enclosures

cc: Tom O'Donohue, Washougal Fire Marshall's Office
Sheldon Tyler, Manager, Port of Camas / Washougal

P.O. Box 2168 Lake Oswego, OR 97035-0052
(503) 697-3368

October 19, 1989

Mr. Sheldon Tyler, Manager
Port of Camas/Washougal
24 "A" Street
Washougal, WA 98671-2199

Dear Sheldon,

This letter is a decommissioning report for the 1,000 gallon underground storage tank (UST) removed from 531 South 28th Street, Washougal, Washington on August 20, 1989. This report summarizes the UST removal process, existing soil conditions, analytical sampling, and laboratory results. Scoles Associates, Inc. (SAI) has compiled this report for the express use of the Port of Camas / Washougal and its designates.

The UST removed from the Port's Industrial Park property was registered with the Department of Ecology (DOE). The DOE site number is 010715 (same identification number for UST no. 9). The UST was situated by itself and connected to a fuel dispenser / pump located near the northwest annex corner of Building no. 4. The 1,000 gallon capacity UST was constructed of steel and had no additional corrosion protection (i.e. fiberglass or tar coating, zinc cathodes, etc.). The tank was originally installed around 1972 by a lessee and in use until 1980 or so. The UST (designated no. 10 by the Port) contained diesel fuel.

On August 19, 1989 Northwest Field Services (NFS) triple-washed the UST in accordance with State regulations. NFS recovered all of its wash water and no petroleum product since the tank was already empty. Tom New Construction, the excavation contractor, removed the UST around 9:00 AM the following day (August 20, 1989).

Slightly after 1:00 PM, the tank pit and stockpile of backfill soil were inspected for fuel contamination. The soil conditions consisted of excessively-drained older dredge-fill sand (from the surface to 6 feet below) and poorly-drained silty clay (below 6 feet). The poorly-drained clay was formerly a surface wetland soil before the area was converted to an industrial park. No "water stains" were visible on the sides of the UST as an indication of contact with the ground water. Ground water was not encountered within 24 inches of the bottom of the tank pit.

Fuel leakage was observed – by sight and smell – in the bottom of the tank pit and directly below the fuel dispenser. Above the 6-foot depth, the sandy soil was stained grayish blue and had a slight diesel odor. Below 6 feet, the clay soil was discolored dark

grayish blue and had a moderate diesel odor. The area having the highest apparent fuel contamination was below the fuel dispenser and pump. The UST was also inspected for fuel contamination; none was apparent on the top, but the bottom and lower side surfaces had diesel-contaminated soil attached to it. The exterior of the UST appeared in fair to good condition, so the fuel dispensing line is suspected of leaking fuel and contaminating the soil below the tank. The attached photographs show the condition of the tank and tank pit after removal and prior to sampling.

The first soil sample, T10-6.5, was collected below the fill pipe end of the tank. Additionally, samples from three other locations in the bottom of the tank pit were mixed together (in equal proportions) to form composite soil sample T10-6.5C. And a third sample, T10-4.0, was collected from soil still attached to the bottom surface of the UST. All samples were packed into laboratory-clean jars using decontaminated stainless steel sampling spoons. The sampling scientist (Phil Scoles) handled each sample separately with new disposal latex gloves and labeled each jar according to its sampling depth and time of sampling. The packed samples were immediately placed in a portable cooler containing frozen Blue Ice® and later shipped to Enviros Corporation for laboratory analysis. A chain of custody accompanied the samples and was returned after the laboratory finished its tests.

Enviros Corporation tested the three soil samples for total petroleum hydrocarbons (TPH) using modified EPA method 8015 (gas chromatography). Each soil sample had moderate to high detectable fuel concentrations. Composite sample T10-6.5C had the highest TPH concentration measured at 2600 parts per million (ppm). Sample T10-6.5 had the next highest TPH concentration measured at 1600 ppm. This sample came exclusively from the west end of the tank (the end with the fill pipe), while the composite sample included some soil from below the fuel dispensing unit (located south by southwest side of the center of the tank). The third sample, T10-4.0 had a TPH concentration of 1200 ppm. The Enviros laboratory report is attached with the completed chain of custody.

The laboratory results were verbally reported to SAI and the Port on August 23, 1989, so the tank pit was temporarily barricaded and deliberately not backfilled. The excavation contractor completed his work by removing the UST from the site and hauling it to Schnitzer Steel Products Co. at 12005 North Burgard Road, Portland, Oregon for recycling and disposal.

Based on soil conditions observed and the outcome of the analytical tests, SAI finds positive indication of petroleum (diesel) contamination in the tank pit and in some of the sandy and clayey backfill soil therein. An investigation plan will be submitted to the DOE soon hereafter detailing the necessary steps to determine the extent of the fuel contamination. The plan will involve exploratory digging by backhoe and additional soil sampling in order to decide further actions. This report makes no claim or conclusions about the ground water, the rest of the property, and the report findings and their significance should not be extrapolated beyond the immediate area of observation and sampling. SAI shall not be liable beyond the fees paid for its services for errors or omissions.

Sheldon, if you or the Port Commissioners require additional information about this matter, please contact me (503-635-5132) at your convenience. Scoles Associates, Inc. greatly appreciates the opportunity to serve you and the Port of Camas / Washougal.

Respectfully submitted,

SCOLES ASSOCIATES, INC.

Phil Scoles

Phil Scoles
Soil and Water Scientist

attachments

PHOTO NO. 1. View of the south side of the tank pit for UST no. 10 on the northwest side of Building 4, at 531 South 28th Street, Washougal, WA.

PHOTO NO. 2. Vertical view of the tank pit for UST no. 10. In the foreground, the venting and fuel dispensing pipes are visible. The product line is suspected of leaking.

PHOTO NO. 3. Close up view of the fill spout area on UST no. 10. The top and upper half of this tank did not have any indication of fuel contamination

PHOTO NO. 4. Close up view of petroleum-contaminated clayey wetland soil collected from below the sandy dredge material under UST no. 10. This soil was discolcred dark grayish blue and had a moderate diesel odor.

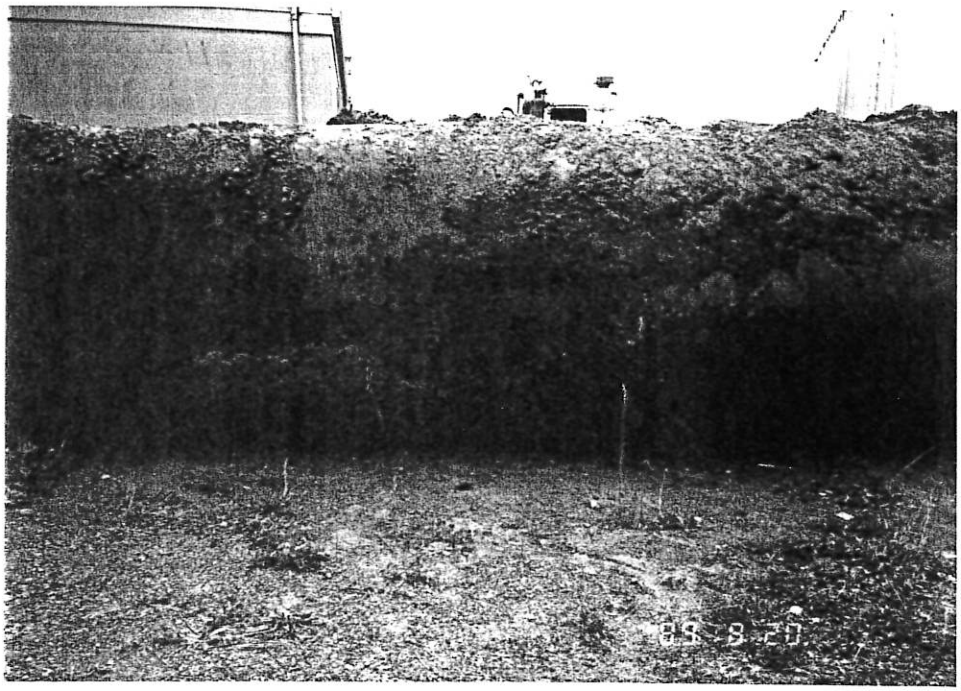

PHOTO NO. 5. Side view of UST no. 10. The exterior surface (unprotected) was in fair to good condition on all sides. The upper half had significantly more rust and scaling than the lower half.

PHOTO NO. 6. Opposite side view of UST no. 10 after removal. The UST had no apparent leakage point, and the fuel dispensing line is suspected of leaking.

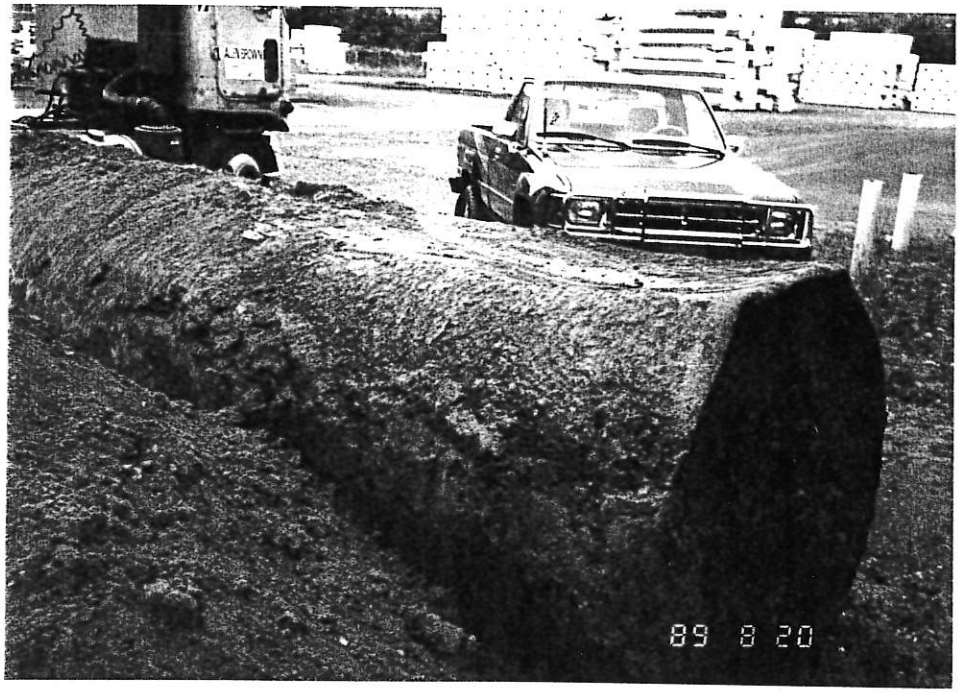

PHOTO NO. 7. End view of UST no. 9 after removal from the tank pit.

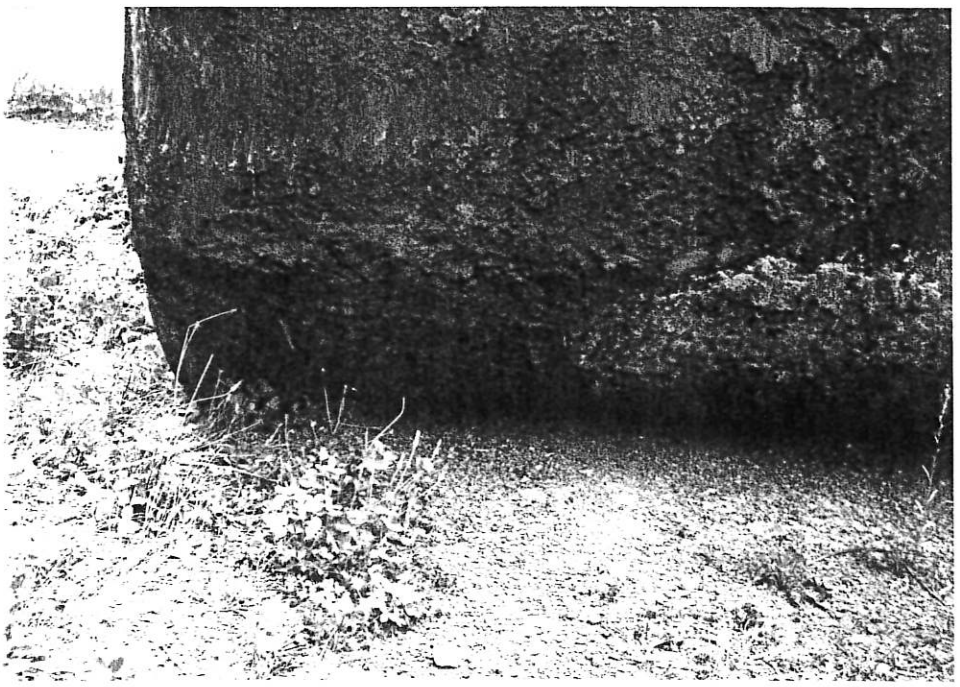

PHOTO NO. 8. Close up view of a lower corner of UST no. 10. The dark discoloring is the fuel-contaminated soil still attached to the tank exterior.

Scoles Associates, Inc.
Post Office Box 2168
Lake Oswego, OR 97035-0052
503-635-5132

PROCESS IMMEDIATELY

CHAIN OF CUSTODY RECORD

1. PROJ. NO.: SA-890819
2. PROJECT NAME & ADDRESS: CAWA – S. 28th St. (9 & 10) Truman St. (7 & 8)
3. SAMPLERS: (SIGNATURE) P. Scoles

4. STA. NO.	5. DATE	6. TIME	7. COMPOSITE	8. GRAB	9. STATION LOCATION	10. NO. OF CONTAINERS	11. ANALYSIS TO BE PERFORMED: BTXE	Fuel scan 8015 modified	CWEC LAB SAMPLE NO.	12. REMARKS
T7/8-GW11.0	8/19	1600		X	T7/8-GW11.0 NE corner	2	X			1 backup bottle
T7-10.5	8/20	1130		X	T7-10.5 SW corner	1		X		
T8-10.5		1145		X	T8-10.5 SE corner	1		X		
T7/8-10.5		1155	X		T7/8-10.5 castout	1		X		All Results called in 8-23-89 12:15 PM (TR)
T9-5.5		1240		X	T9-5.5 W side	1		X		
T9-5.5C		1255	X		T9-5.5C E-N-S sides	1		X		
T10-6.5		1315		X	T10-6.5 W side	1		X		
T10-6.5C		1330	X		T10-6.5C E-N-S sides	1		X		
T10-4.0		1355	X		T10-4.0 bottom of tank	1		X		

13. RELINQUISHED BY: (SIGNATURE)	14. DATE/TIME	15. RECEIVED BY: (SIGNATURE)	13. RELINQUISHED BY: (SIGNATURE)	14. DATE/TIME	15. RECEIVED BY: (SIGNATURE)
Phil Scoles	8/20/89 2120	[illegible]			
13. RELINQUISHED BY: (SIGNATURE)	14. DATE/TIME	15. RECEIVED BY: (SIGNATURE)	13. RELINQUISHED BY: (SIGNATURE)	14. DATE/TIME	15. RECEIVED BY (SIGNATURE)
		ENVIROS			
13. RELINQUISHED BY: (SIGNATURE)	14. DATE/TIME	16. RECEIVED FOR LABORATORY BY:	17. DATE/TIME	18. REMARKS	
			8/21/89 9:20	PLEASE CALL TO CONFIRM ANALYSES. THANKS	

Date of Report: August 25, 1989
Date Submitted: August 21, 1989
Project: SA-890819

RESULTS OF ANALYSES OF SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS (C7-C30) BY MODIFIED EPA METHOD 8015

Sample #	Matrix	Dil. Fac.	TPH (ppm)	RANGE (C7-C30)
T7-10.5	Soil		<10	----
T8-10.5	Soil		<10	----
T7/8-10.5	Soil		<10	----
T9-5.5	Soil		<10	----
T9-5.5C	Soil		<10	----
T10-6.5	Soil		1600	C7-C28
T10-6.5C	Soil		2600	C7-C28
T10-4.0	Soil		1200	C7-C28
Quality Assurance				
Method Blank			<10	----
T9-5.5C (Duplicate)			<10	----
T9-5.5C (Matrix Spike) Spiked @ 50 ppm Percent Recovery			61%	C7-C30

enviros