

**Parametrix, Inc.**

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*Consultants in Engineering and Environmental Science*



Ms. Jacquelyn Davis  
McDonald's Corporation  
10220 Points Drive  
Suite 300  
Kirkland WA, 98033

June 9, 1991  
55-1884-02

RE: Plum Street Site Investigation

At the request of the McDonald's Corporation Jeff Neuner of Parametrix visited the site at 715 Plum Street in Olympia Wa. on May 22, 1991. The purpose of the visit was to perform a preliminary assessment of the soil conditions in several footing excavations that had been dug at the site as part of a construction project. Mr. Ron Valdez of Lugo Construction had noted an oil sheen in the water that had collected in the excavation.


During the site visit five soil samples and two water samples were collected. All sampling locations are marked on the enclosed diagram relative to the excavated trench. Prior to Mr. Neuner's arrival at the site a vacuum truck from Amalgamated Services was contracted by Lugo Construction to remove the suspected contaminated water from the trenches. Also prior to the collection of soil and water samples the vacuum truck had removed 6-inches of water from the trenches. The driver indicated that the water was being sent to the Chempro facility in Kent for disposal.

During the site visit a pile driver began driving piles through the base of the trench. Mr. Neuner had previously recommended (during a telephone conversation with Mr. Perryea on 5/21/91) that the pile driving activities be postponed until the site was evaluated. Due to scheduling and cost considerations Mr. Kieth Perryea of McDonald's Corporation decided to proceed with the installation of the pilings.

**SAMPLING**

Two water samples were collected from the trenches by filling the bottles beneath the water surface. Water sample PS-1 was collected in from the northeast corner of the trench in the area that the oil sheen had first been detected. Water sample PS-2 was collected in the northwest corner of the trench.

Three soil samples were collected from the sidewall of the trench in areas that were visibly stained or showed a sheen. These soil samples were collected with stainless steel spoons. Sample PS-4 was collected in the northeast end of the trench at the interface between the silt and sand layers at a depth that ranged from 1-2.5-feet. Sample PS-5 was collected from the bottom of the trench approximately 15-feet south of sample PS-4. This was at the area

  
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where the oil sheen had been observed in the water. This sample was collected at a depth of approximately 3.5 feet in a mixture of sand, peat and organic material. Sample PS-6 was collected from the west sidewall of the northwest corner of the trench. The sample was collected at a depth of 2.5-feet in a layer of sand that had a slight diesel odor.

During the site visit an area of excavated material near the northwest corner of the trench had a slight diesel odor. Approximately 10 cubic yards of this material was moved onto a layer of visqueen at the northeast corner of the site. A composite sample (PS-3) of this material was collected. Mr. Valdez indicated that this material would be covered with visqueen by the end of the day to keep the material protected from rain.

A composite sample (PS-7) was also collected from a lift of excavated material that was deposited west of the trench during excavation. The quantity of stockpiled material in this was later estimated to be approximately 60 cubic yards by Mr. Ron Valdez.

All samples were delivered to Spectra Labs in Fife on the day that they were collected. All samples were analyzed for total petroleum hydrocarbons using Methods 418.1 and 8015 Modified. A copy of the chain of custody form that accompanied the samples to the lab is enclosed.

## RESULTS

A copy of the results of the soil and water analysis is enclosed. One water sample PS-2 was found to contain 1 part per million (PPM) of TPH as indicated by Method 418.1. This is the current action level set by the Washington State Department of Ecology (DOE). Three soil samples were found to contain TPH (as indicated by method 8015) in excess of the current action level of 200 PPM TPH (other than gasoline). All hydrocarbons detected with Method 8015 appeared to be similar to # 1 diesel fuel. Two of the samples (PS-3&7) in excess of the cleanup standard (3,720 PPM TPH and 731 PPM TPH respectively) were from excavated material and the third sample (PS-6 at 1,236 PPM TPH) was from the sidewall of the trench.

## DISCUSSION

Several old treated pilings and timbers were noted in the northeast corner of the trench. The oil sheen observed in this section of the trench may be the result of leaching from treated wood. The sand layer in the northwest corner of the trench had a slight diesel odor



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and a sheen was observed leaching into the water in this area during the site visit after the water level in the trench had been lowered by pumping.

All of the excavated material that was sampled (2 samples) showed levels of TPH contamination in excess of the cleanup standard. The water samples collected in the trench following the removal of water by the vacuum truck did not contain TPH in excess of the current DOE action levels.

The information generated during the site visit and sample collection activities was a preliminary assessment of the specific area near several footing excavations and does not necessarily represent the condition of the entire site.

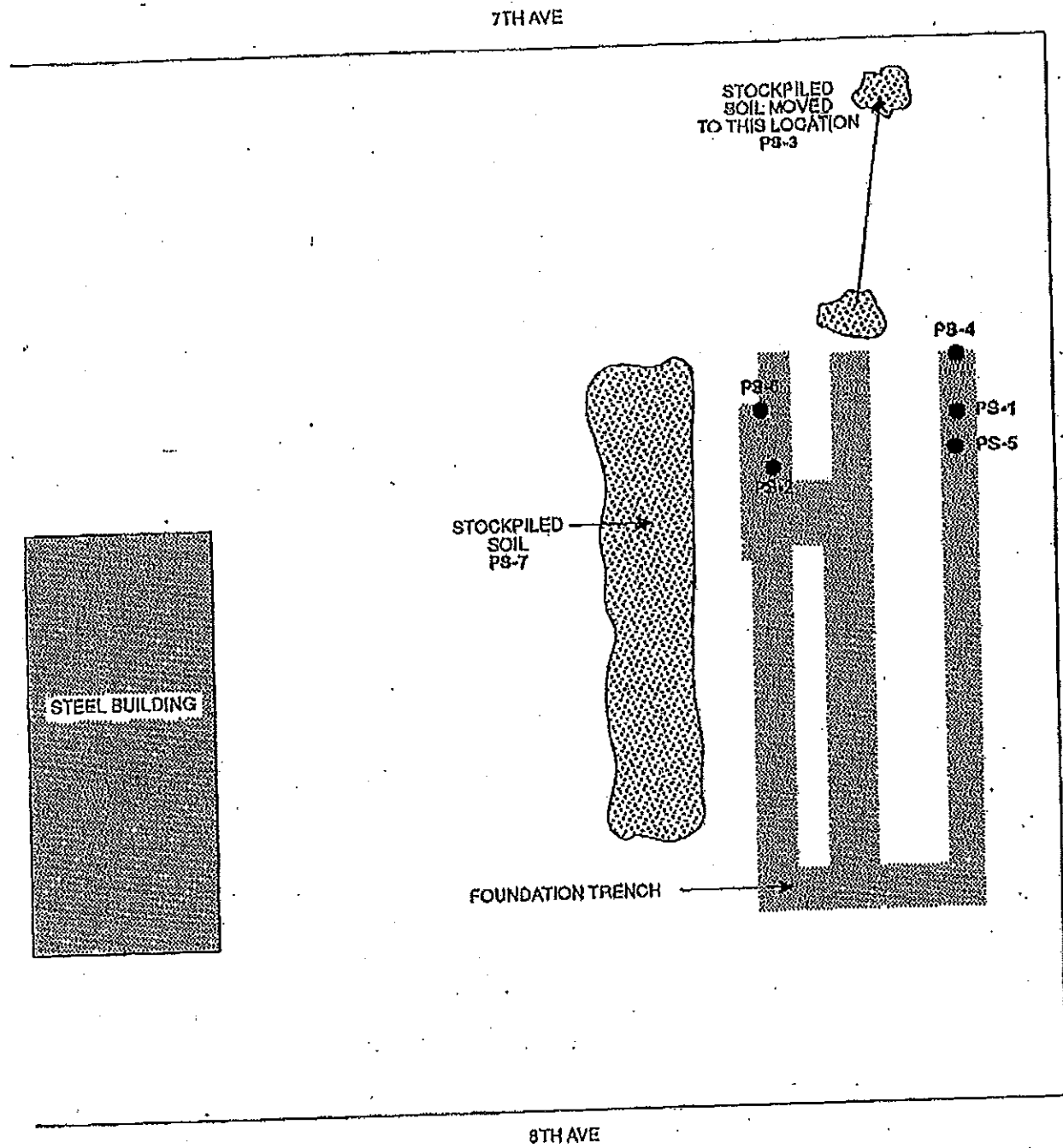
#### RECOMMENDATIONS

Based on the new information discovered during the current construction activities, we recommend that additional sampling and analysis of soil and groundwater be conducted to assess the site's subsurface conditions specifically in the area of current construction and other areas of the site that have not been previously evaluated. If you have any questions regarding this information please contact me, Mr. Clyde Moore, or Ms. Julie Wukelic at Parametrix.

Sincerely,

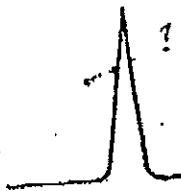
PARAMETRIX INC.

Jeff Neuner  
Environmental Scientist  
enclosures



NOT TO SCALE

Figure 1.  
 Diagram of Trench Layout  
 and Approximate Sample  
 Locations at the Plum Street Site



# SPECTRA Laboratories, Inc.

2221 Ross Way • Tacoma, WA 98421 • (206) 272-4850

May 23, 1991

Parametrix, Inc.  
13020 Northup, Suite 8  
Bellevue, WA 98005  
Customer #81933

Project #55-0000-00  
Site: MacDonalds Plum St.  
Date Taken: 5-22-91  
RUSH

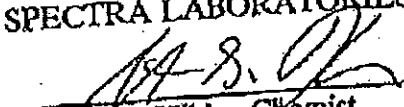
Attn: Jeff Neuner

<u>Spectra #</u>	<u>ID</u>	<u>Total Petroleum Hydrocarbons</u>	<u>Hydrocarbons by Modified 8015</u>
		0.5 mg/L	<1 mg/L
56167	PS-1 Water		
		1.0 mg/L	<1 mg/L
56168	PS-2 Water		
		3,160 ppm	3,720 ppm
56169	PS-3 Soil		
		109 ppm	25 ppm
56170	PS-4 Soil		
		60 ppm	<1 ppm
56171	PS-5 Soil		
		837 ppm	1,236 ppm
56172	PS-6 Soil		
		603 ppm	731 ppm
56173	PS-7 Soil		

Total Petroleum Hydrocarbon testing performed by EPA Method 418.1

Hydrocarbon contamination detected by modified 8015 appears to be similar to #1 diesel fuel.

SPECTRA LABORATORIES, INC.

  
Steven G. Hibbs, Chemist

Parametric, Inc. • 13020 Northrup Way, Suite 8 • Bellevue, Washington 98005  
 PROJECT NO. S-C CW-00 CLIENT Mac Donald  
 PROJECT NAME Mac Donald (Mem St.) RECORDER JN  
 SAMPLERS J McNamee

MIXTURE	# OF CONTAINERS AND PRESERVATIVE	LOCATIONING	DATE			STATION AND SAMPLE DESCRIPTION	MISCELLANEOUS INFORMATION
			MONTH	DAY	YEAR		
WATER			5	22	91	2 liters	
AIR		PS-1				2 liters	
SEDIMENT		PS-2				2 liters	
OTHER		PS-3					
UNPRESERVED		PS-4					
H <sub>2</sub> O <sub>2</sub>		PS-5					
HNO <sub>3</sub>		PS-6					
NAOH		PS-7					
NAOH AND ZINC ACETATE							
OTHER							

ANALYSIS EACH SAMPLE FOR TPH - 418.1  
 & TPH 8015 ml/Diesel  
 Ruth

LOCATIONING	MEASURING POINT	DEPTH TO WATER	TEMPERATURE DEGREES	PH	CONDUCTIVITY (UMH)	VOLUME PURGED (GAL)	CHAIN OF CUSTODY RECORD (PLEASE PRINT)			
							RELINQUISHED BY (NAME)	DATE	TIME	
							Jeff McNamee	5/21/91	10:00 am	9/22

TOTAL CONTAINERS: \_\_\_\_\_  
 While Copy: Parametric, Inc./Nelson Copy; Lab/Pack Copy; Client