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September 8, 1997

Ms. Janet Thompson-Lee Washington Department of Ecology 3190 160th Avenue SE Bellevue, WA 98008

Subject: Hydraulic Lift Removal Activities Sears Facility #1069 2200 148th Avenue, NE Redmond, King County, Washington Fluor Daniel GTI Project 02060.0432

Dear Ms. Thompson-Lee:

On behalf of Sears, Roebuck and Co. (Sears), Fluor Daniel GTI, Inc. (Fluor Daniel GTI) has prepared this letter to request an extension of the due date for the required 30-day release report documenting the removal of five hydraulic lift systems at the above-referenced site.

FLUOR DANIEL GTI

Fluor Daniel GTI is currently awaiting final soil disposal and subsequent disposal documentation to complete the report. Once this information is obtained, the report will be finalized and submitted for review. The final report will be submitted within 45 days of the date of this letter.

Should you have any questions or comments regarding this correspondence, please contact Jessica Nichols at (770) 499-9000.

NFA WHAP?

Sincerely,

FLUOR DANIEL GTI, INC.

Jessica A. Nichols, CHMM Lead Environmental Engineer Lift Program Technical Specialist

c: Mr. David J. Clauson, Sears, Roebuck and Co., Hoffman Estates, Illinois Project Files, Fluor Daniel GTI, Inc., Lenexa, Kansas

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DEPT OF ECOLOGY

October 21, 1997

Ms. Janet Thompson-Lee Washington Department of Ecology 3190 160th Avenue SE Bellevue, WA 95008

Subject: Hydraulic Lift Removal Activities Sears Facility #1069 2200 148th Avenue, NE Redmond, King County, Washington Fluor Daniel GTI Project 02060.0432

Dear Ms. Thompson-Lee:

On behalf of Sears, Roebuck and Co. (Sears), Fluor Daniel GTI, Inc. (Fluor Daniel GTI) has prepared this report to document the removal of five hydraulic lift systems at the above-referenced site and to summarize the associated environmental investigation. A site layout sketch is presented on **Figure 1**.

SCOPE OF WORK

Sears initiated this environmental investigation to assess the potential impact of hydraulic fluid on the site's subsurface soil and/or groundwater.

Based on discussions with a representative from the Washington Department of Ecology (WDOE), no specific regulations governing the removal of hydraulic lifts are published at this time. Hydraulic lift systems are not regulated as underground storage tank (UST) systems by WDOE. However, releases of hydraulic fluid are regulated. In general, analysis by United States Environmental Protection Agency (EPA) Method 418.1 is appropriate for detection of hydraulic fluid as total recoverable petroleum hydrocarbons (TRPH). Based upon information from a representative of WDOE, a cleanup goal of 200 milligrams per kilogram (mg/kg) has been set by WDOE for releases of hydraulic fluid.

Because soil concentrations of TRPH were detected in excess of the 200 mg/kg cleanup goal, submittal of this report is necessary for WDOE review.

Soil Assessment Activities

Soil samples were collected from hand-augered borings and/or backhoe excavations at locations where releases are considered most likely to occur (e.g. hydraulic cylinders [posts]; hydraulic fluid

piping connections; underground/aboveground reservoirs; control valve assemblies). Total depth of each boring was generally based upon one or more of the following:

- concrete support pads or other types of structures in the hydraulic lift bay
- depth at which groundwater was encountered
- depth at which auger refusal was encountered
- field observations indicating the presence or lack of impacted soil (e.g. staining, odor)
- analytical data from an on-site mobile analytical laboratory

For specific information regarding the number of borings advanced, soil samples collected, and depth of each soil sample, please refer to Table 1 and Figures 2, 3 and 4.

Groundwater Assessment Activities

Groundwater was not encountered during this assessment. However, trapped water was observed in the Lift A excavation. The equalization tray associated with the lift was noted to be in poor condition and the water in the excavation is likely from liquids that entered the tray via surface infiltration (e.g. water generated during floor cleaning activities). Water was not noted in other excavations at similar depths.

CHRONOLOGY

Field activities and lift removal assessment events are listed chronologically below:

- August 5, 1997 Fluor Daniel GTI personnel were on site to meet with the site contact and the subcontractor, Glacier Environmental Services, Inc. (Glacier). Fluor Daniel GTI personnel observed the initiation of the removal of the abovegrade lift components and concrete demolition in lift areas A, C, D and E. The locations of each lift and excavation are shown on Figure 2.
- August 6, 1997 Fluor Daniel GTI removal the evacuation of hydraulic fluid from lift systems A and D and their subsequent removal from the subsurface. The evacuated hydraulic fluid was pumped into properly labeled 55-gallon drums and stored on site, pending removal by Sears. Surface concrete demolition was completed in the area of Lift B.
- August 7-8, 1997 Began excavating and removing Lift B, C and D. The piping was drained of residual hydraulic fluid and placed into 55-gallon drums and stored on site, pending removal by Sears. Soil sampling commenced in locations beneath the aboveground hydraulic fluid reservoirs, piping, cylinders, and equalizer boxes (located between/adjacent to the cylinders). Samples were submitted to the on site mobile laboratory, Transglobal Environmental Geosciences, Inc. (TEG), for analysis. Overexcavation was required in areas associated with the Lift A and E aboveground hydraulic fluid reservoirs and Lift A and B lift cylinders. Overexcavation reached a total depth of approximately 8.5 feet below ground



surface (bgs) in lift excavations B and E. No overexcavation was conducted at Lifts C and D. An estimated 40 cubic yards of soil was generated from the hydraulic lift removals. Soil sample analytical results are summarized in **Table 1** and on **Figures 3** and **4**.

 September 24, 1997 - Stockpiled soil generated during this investigation was disposed of by Strategic Environmental Solutions (SES) of Denver, Colorado. Soil disposal documentation is included in Attachment A.

FIELD OBSERVATIONS

Soil encountered during the soil sample collection and soil excavation was brown and gray silty sand with trace gravel to a depth of 8.5 feet bgs (the limit of excavation). Groundwater was not encountered during the investigation.

ANALYTICAL PROGRAM

Soil samples collected during the assessment were analyzed by an on-site mobile analytical laboratory provided by TEG. Soil samples were analyzed according to EPA Method 418.1 for TRPH. The soil sample exhibiting the highest concentration of TRPH by EPA Method 418.1 was also analyzed for polychlorinated biphenyls (PCBs) according to EPA Method 8080. The composite soil sample collected from the stockpiled soils generated during hydraulic lift system excavation activities was submitted to TEG's fixed base laboratory in Lacey, Washington, and analyzed according to the following EPA Method 418.1 for TRPH.

Also, because TRPH concentrations above cleanup levels were left inplace at Lift A, a soil sample from this area was also analyzed by the following methods to further characterize the soils:

- EPA Method 8020 for benzene, toluene, ethylbenzene and xylenes (BTEX); and
- EPA 8015 for TPH-D extended

Analytical laboratory reports and chain-of-custody documentation are included as Attachment B and summarized in Tables 1 and 2 and on Figures 3 and 4.

DISCUSSION OF ANALYTICAL RESULTS

Analytical results for soil samples collected during the hydraulic lift removals indicated a maximum concentration of 11,000 mg/kg TRPH under the Lift E piping elbow from the AST (E-1-1.5). Overexcavation in this area was not possible as a building foundation footer was encountered at 2 feet bgs. Therefore, soil was removed from the area east of soil sample location E-1, along the side of the footer, and a soil sample was obtained at a depth of 3.0 feet bgs. Results indicate a TRPH



FLUOR DANIEL GI

concentration of 43 mg/kg (E-3-3.0), which is below the applicable cleanup levels. Lift A also had detected TRPH concentrations beneath its piping elbow at concentrations above cleanup levels (1,000 mg/kg in soil sample A-1-2.0). Overexcavation of impacted soil in this area of Lift A piping resulted in a concentration detected at 4.5 feet of 27 mg/kg (A-1-4.5), below the applicable cleanup levels.

The analytical results for lift B indicated TRPH impact under the lift system at 220 mg/kg (soil sample B-2-8.0). Overexcavation in this area and subsequent sampling indicated concentrations at 8.5 feet bgs of 24 mg/kg (B-2-8.5), and below the applicable cleanup levels.

Results for soil samples collected in the under the single post cylinders for Lifts C and D were below cleanup levels (C-1-8.0 at 11 mg/kg and D-1-8.0 at 53 mg/kg). Therefore, additional excavation was not performed in these lift areas.

Results from the Lift A cylinder excavation reported elevated TRPH concentrations of 630 mg/kg (A-2-8.0). Due to excavation constraints, primarily sloughing of sidewalls and undermining of concrete flooring, no overexcavation in this area was performed. In order to better classify the remaining impacted soils, soil sample A-2 obtained from 8.0 feet bgs was also analyzed for BTEX and TPH-D extended. Results indicate that BTEX constituents were not detected in the sample. Petroleum hydrocarbons were identified in the sample as diesel at 49 mg/kg and as oil at 480 mg/kg. This is relatively consistent with hydraulic fluid impact.

CONCLUSIONS AND RECOMMENDATIONS

Soil assessment activities in the area of the former hydraulic lift systems have been completed, and impacted soils have been excavated to the extent safe and feasible. However, impacted soil remains in-place at the former location of the Lift A cylinder. Analytical results and field observations pertaining to site soils obtained from the assessment do not indicate that groundwater at the site has been impacted by a release of hydraulic fluid. A monitoring well is proposed in the former area of Lift A where appropriate sampling should negate the need for further investigation or remediation relative to the lift removal activities at this site .

Should you have any questions or comments please contact Jessica Nichols at (770) 499-9000.

Sincerely,

FLUOR DANIEL GTI, INC.

Prepared by:

Aaron S. Vernik Staff Geologist

Reviewed by:

FOR wp Eileen Brennan

Zone Project Manager

ichols

/ Jead Environmental Engineer Lift Program Technical Specialist

c: Mr. David J. Clauson, Sears, Roebuck and Co., Hoffman Estates, Illinois Project Files, Fluor Daniel GTI, Inc., Lenexa, Kansas

Attachments:

Figures

Tables

A. Soil Disposal Documentation

B. Analytical Laboratory Reports and Chain-of-Custody Documentation





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FIGURES









TABLES

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TABLE 1 Soil Sample Analytical Results

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(Results expressed as milligrams per kilogram)

Lift System	Sample ID	Sample Date	Sample Depth	TRPH ^a	PCBs ^b	BTEX ^c	TPH-D ^d (diesel)	TPH-D ^d (oil)
А	1	8/7/97	2.0	1,000	NA	NA	NA	NA
			4.5	27	NA	NA	NA	NA
	2	8/7/97	8.0	630	NA	ND	49	480
В	1	8/7/97	2.0	130	NA	NA	NA	NA
	2	8/7/97	8.0	220	NA	NA	NA	NA
			8.5	24	NA	NA	NA	NA
	3	8/7/97	8.0	16	NA	NA	NA	NA
С	1	8/7/97	8.0	11	NA	NA	NA	NA
D	1	8/7/97	8.0	53	NA	NA	NA	NA
E.	1	8/7/97	1.5	11,000	ND	NA	NA	NA
	2	8/7/97	8.5	110	NA	NA	NA	NA
	3	8/7/97	3.0	43	NA	NA	NA	NA

Sears Facility 1069 Redmond, Washington

Source: TEG/Northwest, Lacey, Washington, 1997.

Depths listed in feet below ground surface (bgs). "NA" indicates the soil sample was not analyzed for Notes: that specific method/constituent. "ND" indicates constituents not detected at or above the laboratory reporting limit.

^a total recoverable petroleum hydrocarbons, according to EPA Method 418.1

^b polychlorinated biphenyls, according to EPA Method 8080
 ^c total benzene, toluene, ethylbenzene and xylenes, according to EPA Method 8020

^dTPH-D extended, according to EPA method 8015

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TABLE 2 Composite Soil Sample Analytical Results

(Results expressed as milligrams per kilogram)

Sears Facility #1069 Redmond, Washington

Sample ID	Sample Date	TRPH ^a
Soil Pile	8/8/97	8,400

Source: TEG/Northwest, Inc., Lacey, Washington, 1997.

^a total recoverable petroleum hydrocarbons, according to EPA Method 418.1



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ATTACHMENT A

SOIL DISPOSAL DOCUMENTATION

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ATTACHMENT B

ANALYTICAL LABORATORY REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

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A1232 A1242	200 U 200 U 200 U					500 U 500 U	500 U 500 U				
A1248 A1254 A1260	200 U 200 U 200 U					200 C 200 C 200 C	200 U 200 U 200 U				
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Midwest Region 4211 May Avenue Wichita, KS 67209

(316) 945-2624 (800) 633-7936 (316) 945-0506 (FAX)

August 1, 1997

Jessica Nichols FLUOR DANIEL GTI 1281 Kennestone Circle Nw Suite 100 Marietta, GA 30066

RE: NEI/GTEL Client ID:	020600411
Login Number:	W7070595
Project ID (number):	020600411
Project ID (name):	SEARS/2371/1400 DELL RANGE/CHEYENNE/WY

Dear Jessica Nichols:

Enclosed please find the analytical results for the samples received by NEI/GTEL Environmental Laboratories, Inc. on 07/31/97 under Chain-of-Custody Number(s) 35803.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by NEI/GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the State of Kansas under Certification Number E-10103.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely, NEL/GIEL Environmental Laboratories Inc

NEI/GTEL Environmental_Laboratories, Inc. service Manager 1s dan Terry R. Loucks Laboratory Director

ANALYTICAL RESULTS Results For Multiple Methods

NEI/GTEL Client ID: Login Number:	-
<pre>Project ID (number): Project ID (name);</pre>	020600411 SEARS/2371/1400 DELL RANGE/CHEYENNE/WY

Method: See Below Matrix: Solids

	NEI/GTEL Sample Number	W7070595-01			
	Client ID	SOIL PILE	••	• -	
	Date Sampled	07/30/97			••
ASTM D93	Date Analyzed	07/31/97			
ASTM_D93	Dilution Factor	1.00	• -		
EPA 9010A	Date Prepared	07/31/97		·····	
EPA 9010A	Date Analyzed	07/31/97			
EPA 9010A	Dilution Factor	1.00			
EPA 90458	Date Analyzed	07/31/97			
PA 9045B	Dilution Factor	1.00			
PA SW846, CH.7	Date Prepared	08/01/97			
EPA SW846, CH.7	Date Analyzed	08/01/97			
PA SW846, CH.7	Dilution Factor	1.00			

	Reporting		
<u>Analyte</u>	Limit	Units	Concentration:Wet Weight
Inorganics (MT, WC)			
Total Cyanide	PA 9010A 4.0	ma/ka	4.0
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pH is the second s	PA 90458 0.0	al h Had	10.0
reactive Juillue E	MA SW 040, UN, 250	mq/kg <	
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lates		<u> </u>	

<u> Hotes:</u>

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

ASTH D93;

Annual Book of ASTM Standards, 1983 Revision,

EPA 9010A, EPA 90458, EPA SN846, CH.7:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846. Third Edition including Update 2.

NE1/GTEL Wichita, KS W7070595

Page: 1

MENDED CC/CHAIN-OF-CUSTODY RECORD 35803 AND ANALYSIS REQUEST 35803	C 391// W/ USE C 19391 G 100 000 000 000 000 000 000 000 000	Flax results to Juscice Nichols at (770) 499-4933 24 fb- TAT	Lab Use Only Lot II: Serega Location Work Order II:		1 -	Date Time Received by Aborton: AMANTAN
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7110 38th Drive SE Lacey, Washington 98503

Mobile Environmental Laboratories Environmental Sampling Services Telephone: 360-459-4670 Fax: 360-459-3432

> August 20, 1997 RECEIVED AUG 2 5 1997

Eileen Brennan Fluor Daniel GTI 757 Arnold Drive Suite D Martinez, CA 94553

Re: Purchase Order No. 043155

Dear Ms. Brennan:

Please find enclosed an analytical report for the work done at the Sears Store No. 1069 located at 2200 148th Avenue Northeast in Redmond, Washington. Soil samples were analyzed at the project site on August 7 and 8, 1997, for Heavy Petroleum Hydrocarbons by WTPH-418.1.

The results of the analyses are summarized in the attached table. All soil values are reported on a dry weight basis. Applicable detection limits and QA/QC data are included. An invoice for this work is also enclosed.

TEG Northwest appreciates the opportunity to have provided analytical services to Fluor Daniel GTI for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

michael a Korora

Michael A. Korosec President

cc: ()N + AV 8/26

QA/QC FOR ANALYTICAL METHODS

<u>GENERAL</u>

The TEG Northwest Laboratory quality assurance and quality control (QA/QC) procedures are conducted following the guidelines and objectives which meet or exceed certification/accreditation requirements of California DOHS, Washington DOE, and Oregon DEQ. The Quality Control Program is a consistent set of procedures which assures data quality through the use of appropriate blanks, replicate analyses, surrogate spikes, and matrix spikes, and with the use of reference standards that meet or exceed EPA standards.

When analyses are taking place on-site with the mobile lab, the need for Field Blanks or Travel/Trip Blanks is eliminated. If there is going to be a delay before sample preparation for analysis, the sample is stored at 4° C.

ANALYTICAL METHODS

TEG Northwest Labs use analytical methodologies which are in conformity with U. S. Environmental Protection Agency (EPA), Washington DOE, and Oregon DEQ methodologies. When necessary and appropriate due to the nature or composition of the sample, TEG may use variations of the methods which are consistent with recognized standards or variations used by the industry and government laboratories.

TPH-Heavy Fuel Hydrocarbons (EPA 418.1, WTPH-418.1)

Calibration plot values must produce a best fit line, with known values deviating from the plot by less than 10%. Prior to sample run, a blank, a calibration standard, and a method blank are run. One method blank per 10 samples is prepared. A sample duplicate is prepared for each 10 samples to be run per day.

SEARS #1069 PROJECT Redmond, Washington Fluor Daniel GTI

Heavy Petroleum Hydrocarbons in soil by WTPH-418.1

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	======	=====	=====	=====
Sample		Date		TPH
Number				mg/kg
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Meth. Blank		08/07/97		nd
A1 (2')		08/07/97		1000
B1 (2')		08/07/97		130
D1 (8')		08/07/97		53
E1 (1.5')		08/07/97		11000
E2 (8.5')		08/07/97		110
E3 (3')		08/07/97		43
E3 (3') Dup		08/07/97		26
B2 (8')		08/07/97		220
B3 (8')		08/07/97		16
A1 (4.5')		08/07/97		27
C1 (8')		08/07/97		11
B2 (8.5')		08/07/97		24
A2 (8')		08/07/97		630
A2 (8') Dup		08/07/97		920
Method Dete	ection Limit			10
"nd" Indicates	s not detected	l at the listed	detection lim	it.

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SEARS #1069 PROJECT Redmond, Washington Fluor Daniel GTI

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Heavy Petroleum Hydrocarbons in soil by WTPH-418.1

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E2 (8.5')		08/07/97		110				
E3 (3')		08/07/97		43				
E3 (3') Dup		08/07/97		26				
B2 (8')		08/07/97		220				
B3 (8')		08/07/97		16				
A1 (4.5')		08/07/97		27				
C1 (8')		08/07/97		11				
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"TEG - The World Leader in Ou-Site Sampling and Analysis"

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7110 38th Drive SE Lacey, Washington 98503

Mobile Environmental Laboratories Environmental Sampling Services Telephone: 360-459-4670 Fax: 360-459-3432

August 20, 1997

RECEIVED AUG 2 5 1997

Eileen Brennan Fluor Daniel GTI 757 Arnold Drive Suite D Martinez, CA 94553

Re: Purchase Order No. 043155

Dear Ms. Brennan:

Please find enclosed an analytical report for the Sears Store No. 1069 located at 2200 148th Avenue Northeast in Redmond, Washington. Soil samples were analyzed on August 8, 1997, for Heavy Petroleum Hydrocarbons by WTPH-418.1, BTEX, Gasoline, Diesel and Oil by EPA Method 8020, WTPH-G and WTPH-Dx/Dx Extended, and Polychlorinated Biphenyls (PCBs) by EPA Method 8080.

The results of the analyses are summarized in the attached tables. All soil values are reported on a dry weight basis. Applicable detection limits and QA/QC data are included. An invoice for this work is also enclosed.

TEG Northwest appreciates the opportunity to have provided analytical services to Fluor Daniel GTI for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

michael a Korone

Michael A. Korosec President

FILE COF	γ	
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Correspondence		
Permits/Licenses	🗗 Data	
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QA/QC FOR ANALYTICAL METHODS

GENERAL

The TEG Northwest Laboratory quality assurance and quality control (QA/QC) procedures are conducted following the guidelines and objectives which meet or exceed certification/accreditation requirements of California DOHS, Washington DOE, and Oregon DEQ. The Quality Control Program is a consistent set of procedures which assures data quality through the use of appropriate blanks, replicate analyses, surrogate spikes, and matrix spikes, and with the use of reference standards that meet or exceed EPA standards.

When analyses are taking place on-site with the mobile lab, the need for Field Blanks or Travel/Trip Blanks is eliminated. If there is going to be a delay before sample preparation for analysis, the sample is stored at 4° C.

ANALYTICAL METHODS

TEG Northwest Labs use analytical methodologies which are in conformity with U. S. Environmental Protection Agency (EPA), Washington DOE, and Oregon DEQ methodologies. When necessary and appropriate due to the nature or composition of the sample, TEG may use variations of the methods which are consistent with recognized standards or variations used by the industry and government laboratories.

TPH-Gasoline, TPH-Diesel (Gasoline and/or Diesel, Modified EPA 8015, WTPH-Gx and WTPH-Dx)

A blank and a calibration standard are run at the beginning of the day. The standard must be within 15% of the continuing calibration curve value. The standard is rerun at the end of the day. All samples are prepared with a surrogate spike, and the recovery must be between 65% and 135%. A duplicate sample is run at a rate of 1 per 10 samples (or a matrix spike sample is prepared and analyzed). At least 1 method blank is run per 10 samples analyzed.

Purgeable Volatile Aromatics (BTEX, EPA 602/8020)

A blank and a calibration standard are run at the beginning of the day. The standard must be within 15% of the continuing calibration curve value. The standard is rerun at the end of the day if more than 10 samples have been run. All samples are prepared with a surrogate spike, and the recovery must be between 65% and 135%. At least 1 method blank is run per day.

TPH-Heavy Fuel Hydrocarbons (EPA 418.1, WTPH-418.1)

Calibration plot values must produce a best fit line, with known values deviating from the plot by less than 10%. Prior to sample run, a blank, a calibration standard, and a method blank are run. One method blank per 10 samples is prepared. A sample duplicate is prepared for each 10 samples to be run per day.

PCBs, Polychlorinated Biphenyls (EPA 8080, 8081)

A method blank and a calibration standard are run at the beginning of the day. The standard must be within 15% of the continuing calibration curve value. The check standard may be run at the end of the day. All samples are prepared with a surrogate spike, and the recovery must be between 65% and 135%. Samples which measure outside of the linear range of the calibration curve must be carefully diluted to fall into the upper range of the linear calibration. A duplicate sample is run at a rate of 1 per 10 samples. At least 1 method blank is run per 20 samples analyzed.

SEARS #1069 PROJECT Redmond, Washington Fluor Daniel GTI

Heavy Petroleum Hydrocarbons in soil by WTPH-418.1

====	=== ======	======	=====
Sample	Date		TPH
Number			mg/kg
		=====	=====
Meth. Blank	08/08/97		nd
LCS	08/08/97		92%
Soil Pile	08/08/97		8400
Soil Pile Dup	08/08/97		9300
-			

Method Detection Limit

50

"nd" Indicates not detected at the listed detection limit.

SEARS #1069 PROJECT Redmond, Washington Fluor Daniel GTI

BTEX, Gasoline, Diesel and Oil in Soil by EPA Method 8020, WTPH-G & WTPH-Dx/Dx-Extended

Sample		Meth	LCS	A2-8'	A2-8'
no.	MDL	Blk			Dup
Date Analyzed	mg/kg	08/08/97	08/08/97	08/08/97	08/08/97
Benzene	0.05	nd		nd	nd
Toluene	0.05	nd		nd	nd
Ethylbenzene	0.05	nd		nd	nd
Xylenes	0.05	nd		nd	nd
a,a,a-Trifluorotoluene (1,2-Bromofluorobenzer		98% 111%		92% 100%	96% 105%
Date Analyzed		08/08/97	08/08/97	08/08/97	08/08/97
Diesel (C12-C24)	20	nd	95 <i>%</i>	49	45
Oil (C24-C37)	50	nd		480	470
2-Fluorobiphenyl		78%	С	93%	96%
o-Terphenyl		88%	С	93%	97%
Hexacosane-nC26		90 <i>%</i>	102%	90%	89%
"nd" Indicates not detec		detection limi	it.		
"C" Coelution with Sam	прие г сакъ.				

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SEARS #1069 PROJECT Redmond, Washington Fluor Daniel GTI Polychlorinated Biphenyls (PCBs) in Soils (EPA Method 8080)

===== Sample Number	===== Date Analvzed	====== ======= Recovery Recovery Surr #1(%) Surr #2(%)	===== Recovery Surr #2(%)	====== 1221 m@/kg	===== 1232 mg/kg	====== 1242 mc/kg	====== 1248 mg/kg	====== 1254 mg/kg	====== 1260 mg/kg	===== Total mg/kg
Meth Blank 08/08/97	08/08/97	76%	107%		pu	pu	pu	pu		pu
LCS	08/08/97	101%	113%		pu	pu	pu	107%		107%
ERA PE	76/80/80	93%		pu	pu	pu	pu	103%	рш	103%
E1-1.5'	<i>16</i> /08/97	102%			pu	pu	nd	pu		pu
E1-1.5'Dup	08/08/97	85%		pu	pu	pu	pu	pu	п	nd
Detection Limit	imit			0.50	0.50	0.20	0.20	0.20	0.20	0.20
"nd" Indicat "int" Indicat	es not detecte	"nd" Indicates not detected at the listed detection limits. "int" Indicates that interference neaks prevent determination.	detection lim	its. nination						
Surrogate #	Surrogate #1 Tetrachloro-m-xylene	o-m-xylene								
Surrogate # =====	Surrogate #2 Decachlorobiphenyl ====== ==============================	11					14 11 14 11 11 11	.)1) 1 1 1 1 1	11 14 13 11 11	

SEARS #1069 PROJECT Redmond, Washington Fluor Daniel GTI

Heavy Petroleum Hydrocarbons in soil by WTPH-418.1

	=====		=====					
Sample	Date		TPH					
Number			mg/kg					
	======	=====	=====					
Meth. Blank	08/08/97		nd					
LCS	08/08/97		92%					
Soil Pile	08/08/97		8400					
Soil Pile Dup	08/08/97		9300					
Method Detection Limit			50					
"nd" Indicates not detected at the listed detection limit.								

SEARS #1069 PROJECT Redmond, Washington Fluor Daniel GTI

BTEX, Gasoline, Diesel and Oil in Soil by EPA Method 8020, WTPH-G & WTPH-Dx/Dx-Extended

Sample		Meth	LCS	A2-8'	A2-8'
no.	MDL	Blk			Dup
Date Analyzed	mg/kg	08/08/97	08/08/97	08/08/97	08/08/97
Benzene	0.05	nd		nd	nd
Toluene	0.05	nd		nd	nd
Ethylbenzene	0.05	nd		nd	nd
Xylenes	0.05	nd		nd	nd
a,a,a-Trifluorotoluene (su 1,2-Bromofluorobenzene (98% 111%		92% 100%	96% 105%
Date Analyzed		08/08/97	08/08/97	08/08/97	08/08/97
Diesel (C12-C24)	20	nd	95%	49	45
Oil (C24-C37)	50	nd		480	470
2-Fluorobiphenyl		78%	С	93%	96%
o-Terphenyl		88%	С	93%	97 <i>%</i>
Hexacosane-nC26		90%	102%	90%	89%
"nd" Indicates not detected		detection limi	t		
"C" Coelution with Sample	Peaks.			<u> </u>	

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SEARS #1069 PROJECT Redmond, Washington Fluor Daniel GTI Polychlorinated Biphenyls (PCBs) in Soils (EPA Method 8080)

===== Total mg/kg	nd 107%	103%	pu	pu	0.20	
===== = 1260 mg/kg	nd nd	рц	pu	pu	0.20	
===== = 1254 mg/kg	nd 107%	103%	pư	pu	0.20	
===== 1248 mg/kg	ри	рп	pu	pu	0.20	
====== 1242 mg/kg	ри ри	pu	pu	pu	0.20)
===== 1232 mg/kg	ពថ្ ព	nđ	pu	pu	0.50	}
====== 1221 mg/kg	ри	pu	pu	pu	0.50	ts. ination. = = = = =
====== : Recovery Surr #2(%)	107% 113%	117%	%16	100%		detection limit revent determ = = = = = = =
===== ================================	76% 101%	93%	102%	85%	Detection Limit	"nd" Indicates not detected at the listed detection limits. "int" Indicates that interference peaks prevent determination. Surrogate #1 Tetrachloro-m-xylene Surrogate #2 Decachlorobiphenyl ====== ===== ===== ===== ============
====== Date Analyzed	08/08/97 08/08/97	08/08/97	76/80/80	08/08/97	mit	"nd" Indicates not detected at the list "int" Indicates that interference peak Surrogate #1 Tetrachloro-m-xylenc Surrogate #2 Decachlorobiphenyl ====== ==============================
sample Number	Meth. Blank 08/08/97 LCS 08/08/97	ERA PE	E1-1.5	E1-1.5'Dup	Detection Limit	"nd" Indicate "int" Indicate Surrogate #1 Surrogate #2 =====

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CLIENT: FLUOV DAI	MANSSLUBAL ENVIRONMENTAL GEOSCIENCES	NCES		CHAI		-00ht
ADDRESS:		Marietta, CA		PROJECT NAME:	Sams 1069	
		FAX:		LOCATION: REAMONDY WA	NOID WA	a Adapting Transform
CLIENT PROJECT #:		PROJECT MANAGER: Jr 55 Tca		NRA. IS COLLECTOR: 24	and Verent But	
Sample Number Depth Time	Sample	Container Type	1 \ 2. 2.	222 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		Total Number Abratory Note Number
Pile - 0345	١٠٤		X			¦ <u></u> <u></u> -
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME	SAMPLE RECEIPT	LABORATORY NOTES:	
	~ho/4]3/8	Epin Nen Chily		TOTAL NUMBER OF CONTAINERS		
RELINQUISHED BY (Signature)	DATEITIME	RECEIVED BY (Signature)	╷╵	CHAIN OF CUSTODY SEALS Y/N/NA		
			<u> </u>	SEALS INTACT? Y/N/NA		-
SAI	SAMPLE DISPOSAL INSTRUCTIONS	ISTRUCTIONS		RECEIVED GOOD COND/COLD		
DTEG DISP	TEG DISPOSAL @ \$2.00 each	🖸 Return 🛛 Pickup		NOTES:		