FLUOR DANIEL GTI

Received Sept. 12, 1997

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 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.

Sincerely,

NFA letter ?

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

C:\SEARS\STATES\WA\1069EXT.LTR

RECEIVED

OCT 24 1997

DEPT OF ECOLOGY

FLUOR DANIEL GTI

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

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:

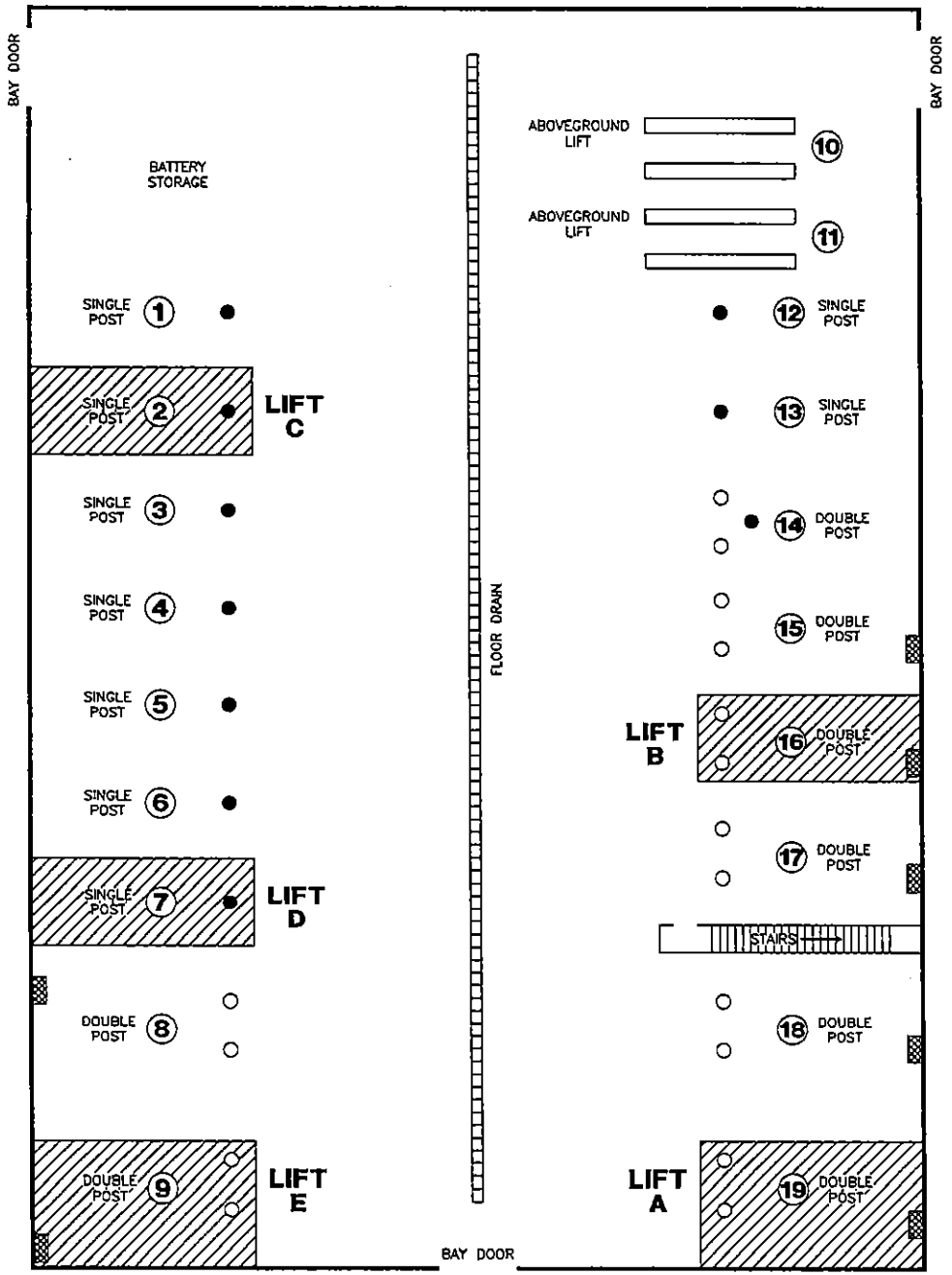
Eileen Brennan
Zone Project Manager

Jessica A. Nichols
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

Attachments:
Figures
Tables
A. Soil Disposal Documentation
B. Analytical Laboratory Reports and Chain-of-Custody Documentation

FIGURES



MAP SOURCE: FLUOR DANIEL GTI PERSONNEL FIELD SKETCH

LEGEND

- AREA OF EXCAVATION
- LIFT POST/CYLINDER LOCATION
- LIFT POST/CYLINDER LOCATION WITH UNDERGROUND RESERVOIR
- (1) BAY NUMBERS
- ABOVEGROUND RESERVOIR

N

NOT TO SCALE

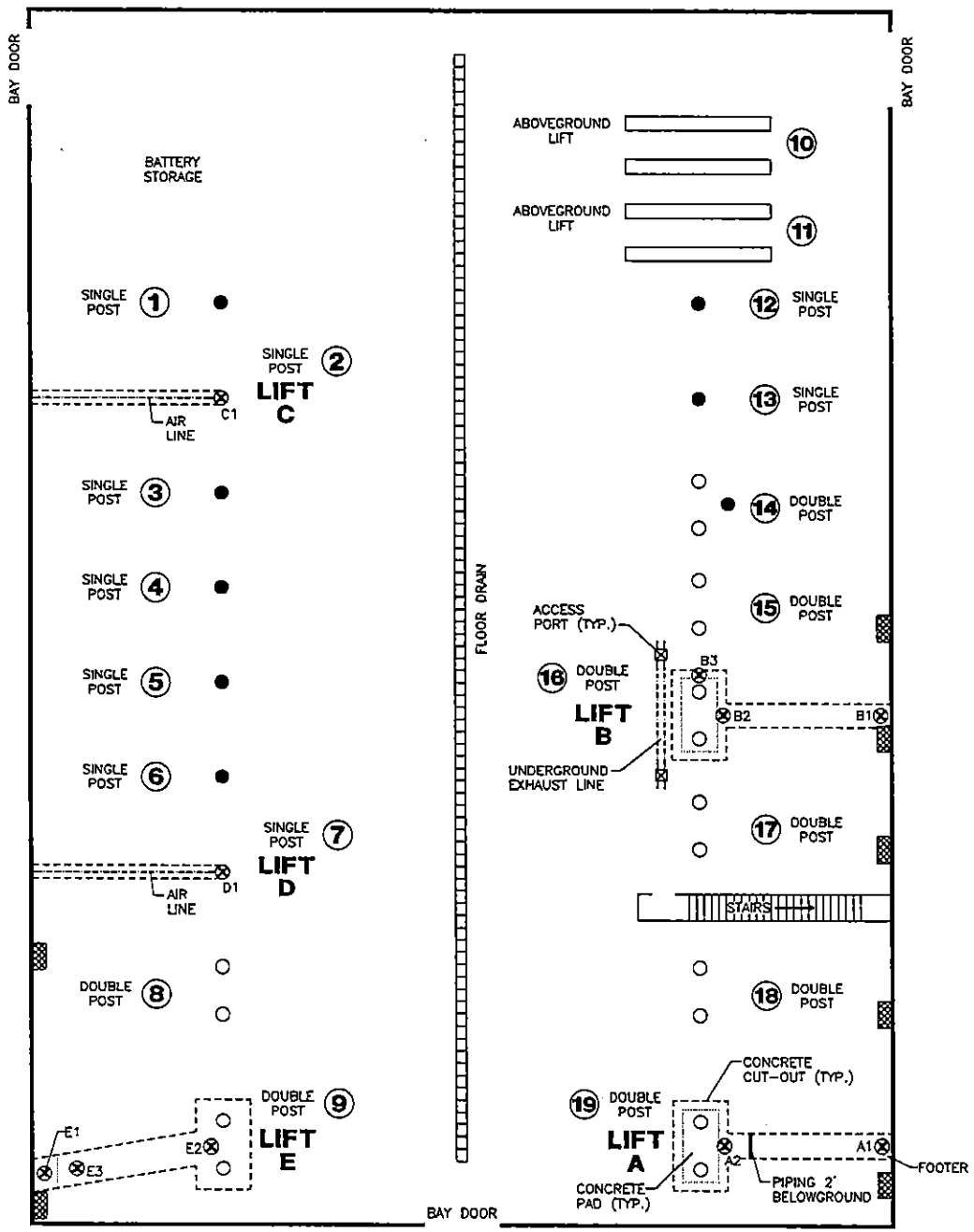
FLUOR DANIEL GTI
1281 KENNESTONE CIRCLE
MARIETTA, GA 30066
(770) 499-9000

REVISION:	DRAWING DATE:	ACAD FILE:
***	09-10-97	0432SITE

SITE LAYOUT

CLIENT:	PM:
SEARS, ROEBUCK AND CO. FACILITY #1069	EB
LOCATION: 2200 148 AVENUE N.E. REDMOND, WASHINGTON	PE/RG: ***

DESIGNED:	DETAILED:	PROJECT NO.:	FIGURE:
–	RMS	02060.0432	1



MAP SOURCE: FLUOR DANIEL GTI PERSONNEL FIELD SKETCH

LEGEND

- ⊗ SOIL SAMPLE LOCATION
- ○ LIFT POST/CYLINDER LOCATION
- ● LIFT POST/CYLINDER LOCATION WITH UNDERGROUND RESERVOIR
- (1) BAY NUMBERS
- ▩ ABOVEGROUND RESERVOIR

N

NOT TO SCALE

FLUOR DANIEL GTI

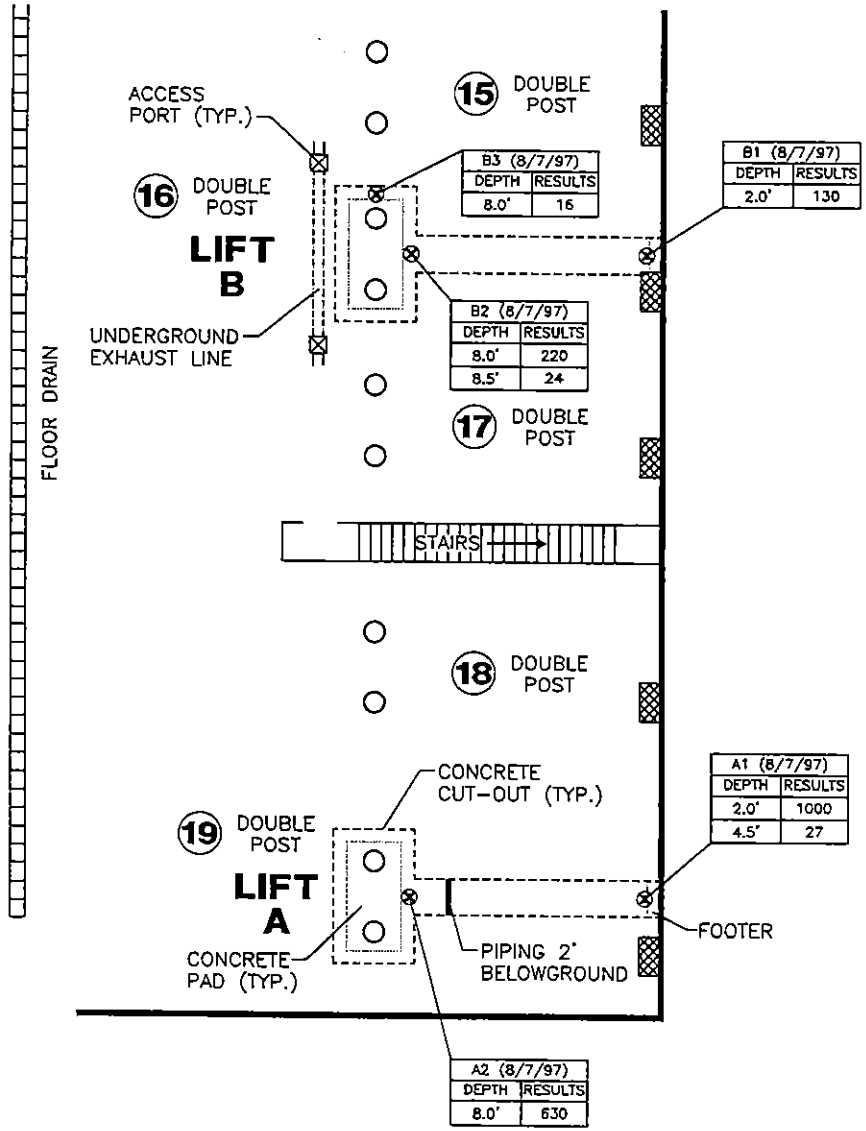
1281 KENNESTONE CIRCLE
MARIETTA, GA 30066
(770) 499-9000

REVISION:	DRAWING DATE:	ACAD FILE:
***	09-10-97	0432SOIL

SOIL SAMPLE LOCATION MAP

CLIENT:		PM:
SEARS, ROEBUCK AND CO. FACILITY #1069		EB
LOCATION:	2200 148 AVENUE N.E. REDMOND, WASHINGTON	PE/RG: ***

DESIGNED:	DETAILED:	PROJECT NO.:	FIGURE:
–	RMS	02060.0432	2



MAP SOURCE: FLUOR DANIEL GTI PERSONNEL FIELD SKETCH

LEGEND

- ⊗ SOIL SAMPLE LOCATION
- ○ LIFT POST/CYLINDER LOCATION
- (19) BAY NUMBERS
- ▯ UNDERGROUND RESERVOIR
- ▩ ABOVEGROUND RESERVOIR

A1 (8/7/97)	
DEPTH	RESULTS
2.0'	1000

SAMPLE ID AND DATE
DEPTH (feet bgs) AND
TRPH CONCENTRATION (mg/Kg)

- bgs — BELOW GROUND SURFACE
- mg/kg — MILLIGRAMS PER KILOGRAM
- TRPH — TOTAL RECOVERABLE PETROLEUM HYDROCARBONS BY EPA METHOD 418.1

N

NOT TO SCALE

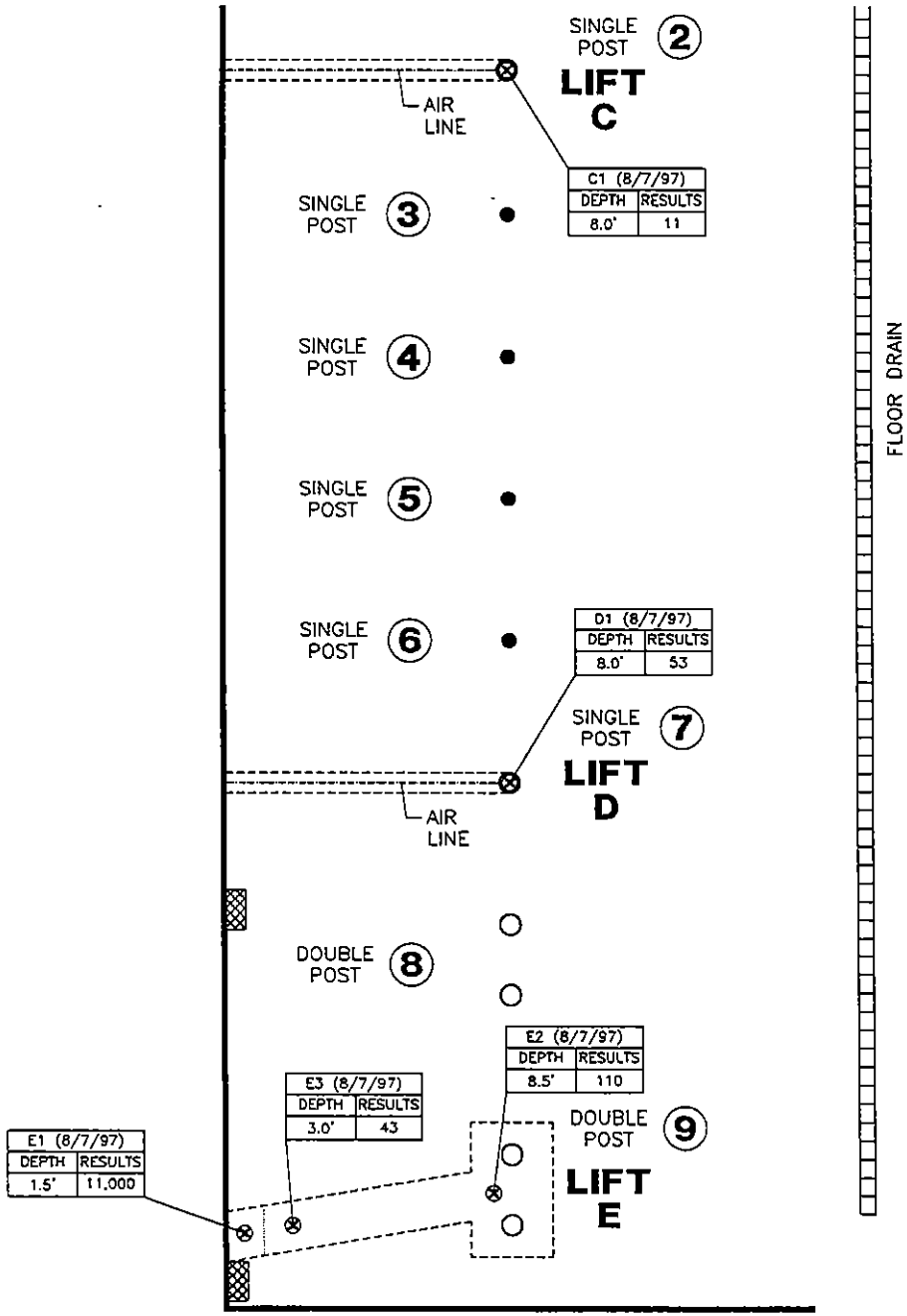
FLUOR DANIEL GTI
1281 KENNESTONE CIRCLE
MARIETTA, GA 30066
(770) 499-9000

REVISION:	DRAWING DATE:	ACAD FILE:
***	09-10-97	0432SANL

SOIL SAMPLE ANALYTICAL MAP

CLIENT:	PM:
SEARS, ROEBUCK AND CO. FACILITY #1069	EB
LOCATION: 2200 148 AVENUE N.E. REDMOND, WASHINGTON	PE/RG: ***

DESIGNED:	DETAILED:	PROJECT NO.:	FIGURE:
-	RMS	02060.0432	3



MAP SOURCE: FLUOR DANIEL GTI PERSONNEL FIELD SKETCH

LEGEND

- ⊗ SOIL SAMPLE LOCATION
- ○ LIFT POST/CYLINDER LOCATION
- ● LIFT POST/CYLINDER LOCATION WITH UNDERGROUND RESERVOIR
- (7) BAY NUMBERS
- ▩ ABOVEGROUND RESERVOIR

C1 (8/7/97)	
DEPTH	RESULTS
8.0'	11

SAMPLE ID AND DATE
DEPTH (feet bgs) AND
TRPH CONCENTRATION (mg/Kg)

bgs — BELOW GROUND SURFACE

mg/kg — MILLIGRAMS PER KILOGRAM

TRPH — TOTAL RECOVERABLE PETROLEUM HYDROCARBONS BY EPA METHOD 418.1

N

NOT TO SCALE

FLUOR DANIEL GTI
1281 KENNESTONE CIRCLE
MARIETTA, GA 30066
(770) 499-9000

REVISION:	DRAWING DATE:	ACAD FILE:
***	09-10-97	0432SAN2

SOIL SAMPLE ANALYTICAL MAP

CLIENT:	PM:
SEARS, ROEBUCK AND CO. FACILITY #1069	EB
LOCATION: 2200 148 AVENUE N.E. REDMOND, WASHINGTON	PE/RG: ***

DESIGNED:	DETAILED:	PROJECT NO.:	FIGURE:
—	RMS	02060.0432	4

TABLES

TABLE 1
Soil Sample Analytical Results

(Results expressed as milligrams per kilogram)

Sears Facility 1069
Redmond, Washington

Lift System	Sample ID	Sample Date	Sample Depth	TRPH[a]	PCBs[b]	BTEX[c]	TPH-D[d] (diesel)	TPH-D[d] (oil)
A	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
B	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
C	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

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

Notes: Depths listed in feet below ground surface (bgs). "NA" indicates the soil sample was not analyzed for 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
[d] TPH-D extended, according to EPA method 8015

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

ATTACHMENT A

SOIL DISPOSAL DOCUMENTATION

Manifest

TPS Technologies Soil Recycling
Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #
	Consultant		A03	01409	001

Generator and/or Consultant

Generator's Name and Billing Address:
SEARS, ROEBUCK & CO.
3333 BEVERLY ROAD
HOFFMAN ESTATES, IL 60179 USA

Generator's Phone #: (847) 286-7[illegible]99
Person to Contact: DAVE CLAUSO[illegible]
FAX#:
Generator's US EPA ID No.:
Customer Account Number with TPS: 3SEARSR

Consultant's Name and Billing Address:
STRATEGIC ENVIRO. SOLUTIONS
1800 - 15th STREET
SUITE 203
DENVER , CO 80202 USA

Consultant's Phone #: (303) 572-1[illegible]00
Person to Contact: ROSS THOMPSON
FAX#: (303) 572-1[illegible]06
Customer Account Number with TPS: 1002965

Generation Site (Transport from): *(name & address)*
SEARS #1069
2200 - 148th AVENUE NE
REDMOND, WA 00000 USA

Site Phone #: (425) 644-65[illegible]28
Person to Contact: MANAGER
FAX#: (425) -
BTEX Levels:
TPH Levels:
AVG. Levels:

Designated Facility (Transport to): *(name & address)*
TPS Technologies Inc.
2800 - 104th Street Court South
Lakewood, WA 98444-6766 USA

Facility Phone #: (253)584-843[illegible]
Person to Contact: Renee Avelino
FAX#: (253)584-8309
Facility Permit Numbers:

Transporter Name and Mailing Address:
JLA CONSTRUCTION
17404 MERIDIAN EAST
SUITE #F121
PUYALLUP, WA 98375 USA

Transporter's Phone #: (253) 531-9571
Person to Contact: SCOTT TALERICO
FAX#: (253) 846-25[illegible]3
Transporter's US EPA ID No.:
Transporter's DOT No.:
Customer Account Number with TPS: 3JLACON

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			118000	37680	80320
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐		NET TONS=	40.16		

List any exception to items listed above:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: X — Generator ☐ Consultant ☐ — Signature and date: — Month / Day / Year

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name: Don Mumme — Signature and date: Don Mumme — Month: 9 / Day: 24 / Year: 97

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name: RENEE AVELINO - CSM — Signature and date: [signature] 9/24

Please print or type.

** TOTAL PAGE.03 **

109,120

Manifest

TPS Technologies Soil Recycling
Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #
	Consultant		A03	01409	002

Generator and/or Consultant

Generator's Name and Billing Address:
SEARS, ROEBUCK & CO.
3333 BEVERLY ROAD
HOFFMAN ESTATES, IL 60179 USA

Generator's Phone #: (847) 286-7199
Person to Contact: DAVE CLAUSON
FAX#:
Generator's US EPA ID No.:
Customer Account Number with TPS: 3SEARSR

Consultant's Name and Billing Address:
STRATEGIC ENVIRO. SOLUTIONS
1800 - 15th STREET
SUITE 203
DENVER , CO 80202 USA

Consultant's Phone #: (303) 572-1100
Person to Contact: ROSS THOMPSON
FAX#: (303) 572-1106
Customer Account Number with TPS: 1002965

Generation Site (Transport from): *(name & address)*
SEARS #1069
2200 - 148th AVENUE NE
REDMOND, WA 00000 USA

Site Phone #: (425) 644-6528
Person to Contact: MANAGER
FAX#: (425) -
BTEX Levels
TPH Levels
AVG. Levels

Designated Facility (Transport to): *(name & address)*
TPS Technologies Inc.
2800 - 104th Street Court South
Lakewood, WA 98444-6766 USA

Facility Phone #: (253)584-8430
Person to Contact: Renee Avelino
FAX#: (253)584-8309
Facility Permit Numbers:

Transporter Name and Mailing Address:
JLA CONSTRUCTION
17404 MERIDIAN EAST
SUITE #F121
PUYALLUP, WA 98375 USA

Transporter's Phone #: (253) 531-9571
Person to Contact: SCOTT TALERICO
FAX#: (253) 846-2563
Transporter's US EPA ID No.:
Transporter's DOT No.:
Customer Account Number with TPS: 3JLACON

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			69100	24320	44780
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐		NET TONS=	22.39		

List any exception to items listed above:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: X — Generator ☐ Consultant ☐ — Signature and date: — Month / Day / Year

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name: X JOHN S BARBER — Signature and date: — Month 9 / Day 24 / Year 97

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name: RENEE AVELINO - CSM — Signature and date: 9/24

Please print or type.

ATTACHMENT B

ANALYTICAL LABORATORY REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

Client: GTI
Lab: TEGNW Seattle
Lab Job #: S70808-2
Spreadsheet File Name: S70808-2.wk1

Project: SEARS 1069 Redmond, WA
Project#:
Printed: 08/12/97 12:39 PM

Compound	MTH BLK	LCS	A2-8'	Dupl A2-8'	RPD A2-8'	E1-1.5'	Dupl E1-1.5'	RPD E1-1.5'	SOIL PILE	Dupl SOIL PILE
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
% Moisture	08/08/97	08/08/97	9%	9%		8%	8%		5%	5%
TPH-D in mg/kg or mg/L (ppm)										
TPH-D, C12 > C24, (Diesel)	20 U	95%	49	45	9%					
TPH-D, C24 > C37, (Oil)	50 U		480	470	2%					
2-Fluorobiphenyl (surr #1)	78%	C	93%	96%						
o-Terphenyl (surr #2)	88%	C	93%	97%						
Hexacosane - nC26 (surr #3)	90%	102%	90%	89%						
8020 VOA, µg/kg or µg/L (ppb)										
Benzene	50 U		50 U	50 U						
Toluene	50 U		50 U	50 U						
Ethylbenzene	50 U		50 U	50 U						
Xylenes	50 U		50 U	50 U						
a,a,a-Trifluorotoluene (surr)	98%		92%	96%						
1,2-Bromofluorobenzene (surr)	111%		100%	105%						
TPH-418.1, mg/kg or mg/L (ppm)										
TPH (418.1)	50 U	92%							8,400	9,300
PCB in µg/kg or µg/L (ppb)										
A1016	200 U					200 U	200 U			
A1221	500 U					500 U	500 U			
A1232	500 U					500 U	500 U			
A1242	200 U					200 U	200 U			
A1248	200 U					200 U	200 U			
A1254	200 U					200 U	200 U			
A1260	200 U					200 U	200 U			
Tetrachloro-m-xylene (surr)	90%	102%				108%	100%			
Decachlorobiphenyl (surr)	88%	96%				82%	85%			

FILE COPY

☐ Project Management ☐ Reports
☐ Correspondence ☐ Safety
☐ Permits/Licenses ☑ Data
☐ Other 1069 LIFT

PRELIMINARY DATA-
NOT VALIDATED

NEI/GTEL
ENVIRONMENTAL LABORATORIES, INC.

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,
NEI/GTEL Environmental Laboratories, Inc.

Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Results For Multiple Methods

NEI/GTEL Client ID: 020600411
Login Number: W7070595
Project ID (number): 020600411
Project ID (name): 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 9045B	Date Analyzed	07/31/97	--	--	--
EPA 9045B	Dilution Factor	1.00	--	--	--
EPA SW846, CH.7	Date Prepared	08/01/97	--	--	--
EPA SW846, CH.7	Date Analyzed	08/01/97	--	--	--
EPA SW846, CH.7	Dilution Factor	1.00	--	--	--

Analyte		Reporting Limit	Units	Concentration:Wet Weight			
Inorganics (MT, WC)							
Total Cyanide	EPA 9010A	4.0	mg/kg	< 4.0	--	--	--
Flashpoint (Closed Cup)	ASTM D93	70.0	deg F	> 200.	--	--	--
pH	EPA 9045B	0.0	pH	10.0	--	--	--
Reactive Sulfide	EPA SW 846, CH.	250	mg/kg	< 250	--	--	--
Percent Solids	--	--	%	87.2	--	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

ASTM D93:

Annual Book of ASTM Standards, 1983 Revision.

EPA 9010A, EPA 9045B, EPA SW846, CH.7:

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

GTEL
4080 PIKE LANE, SUITE C
CONCORD, CA 94520
(510) 685-7852
(800) 423-7143

AMENDED COC

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

35803

Company Name: FDGTI
Phone #: (510) 310-3990
FAX #:
Company Address: Marietta GA 767 Arnold Dr. Martinez, CA
Site Location: 1400 Dell Range, Cheyenne
Project Manager: Jessica Nichols / Eileen Brennan
Client Project ID: #02060-0411-01 (NAME) Sears #2371 Cheyenne, WY
Sampler Name (Print): Aaron S. Vernik

I attest that the proper field sampling procedures were used during the collection of these samples.

Field Sample ID	GTEL Lab # (Lab Use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	Method Preserved: HCl	HNO3	H2SO4	ICE	NONE	OTHER	Sampling: DATE	TIME
Soil Pile	W7.01.0925	4		X								X			7/30/97	0915

ANALYSIS REQUEST | OTHER

BTEX 602 ☐ 8020 ☐ with MTBE ☐
BTEX/GRO Hydrocarbons PID/FID ☐ with MTBE ☐
Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐
Hydrocarbon Profile (SIMDIS) ☐
Oil and Grease 413.1 ☐ 413.2 ☐ SM 503 ☐
TPH/IR 418.1 ☐ SM 503 ☐
EDB by 504 ☐ DBCP by 504 ☐
EPA 503.1 ☐ EPA 502.2 ☐
EPA 601 ☐ EPA 8010 ☐
EPA 602 ☐ EPA 8020 ☐
EPA 608 ☐ 8080 ☐ PCB only ☐
EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐
EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐
EPA 610 ☐ 8310 ☐
EP TOX Metals ☐ Pesticides ☐ Herbicides ☐
TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐
EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐
CAM Metals TTLC ☐ STLC ☐
Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐
Organic Lead ☐
(X) Ignitability ☐ Flash Point (X) Reactivity (X)

TAT: Priority (24 hr) (X) ☐ Expedited (48 hr) ☐ 7 Business Days ☐ Other _____ Business Days ☐

Special Handling: GTEL Contact _____ Quote/Contract # _____ Confirmation # _____ P.O. # _____

QA/QC Level: Blue ☐ CLP ☐ Other ☐ _____

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS

FAX ☐

REMARKS: Fax results to Jessica Nichols at (770) 499-9933 — 24 hr. TAT

Lab Use Only Lot #: Storage Location

Work Order #:

CUSTODY RECORD

	Date	Time	
Relinquished by Sampler: Aaron S. Vernik	7/30/97	1093O	Received by:
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date 7-31-97	Time 835	Received by Laboratory: Waybill # Jan Armstrong

GTEL ENVIRONMENTAL LABORATORIES, INC

4080 PIKE LANE, SUITE C
CONCORD, CA 94520
(510) 685-7852
(800) 423-7143

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

35803

Company Name: FDGTI

Phone #: (510) 370-3990

FAX #:

Company Address: 757 Arnold Dr. Martinez, CA

Site Location: 1400 Dell Range, Cheyenne

Project Manager: Eileen Brennan

Client Project ID: (#) 02060-0411-01 (NAME) Sears # 2371 Cheyenne, WY

I attest that the proper field sampling procedures were used during the collection of these samples.

Sampler Name (Print): Aaron S. Vernik

Field Sample ID	GTEL Lab # (Lab Use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	UNPRESERVED	OTHER (Specify)	Sampling: DATE	TIME
Soil Pile	WO7.0595	4		X								X			7/30/97	0915

ANALYSIS REQUEST

BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐	Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐	Hydrocarbon Profile (SIM/DIS) ☐	Oil and Grease 413.1 ☐ 413.2 ☐ SM-503 ☐	TPH/IR 418.1 ☐ SM 503 ☐	EDB by 504 ☐ DBCP by 504 ☐	EPA 503.1 ☐ EPA 502.2 ☐	EPA 601 ☐ EPA 8010 ☐	EPA 602 ☐ EPA 8020 ☐	EPA 608 ☐ 8080 ☐ PCB only ☐	EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐	EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐	EPA 610 ☐ 8310 ☐	EP TOX Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi VOA ☐ Pest ☐ Herb ☐	EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐	CAM Metals TTLC ☐ STLC ☐	Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐	Organic Lead ☐	Corrosivity ☐ Flash Point X Reactivity X	OTHER: PAH's
																				X	X

TAT
Priority (24 hr) X
Expedited (48 hr) ☐
7 Business Days ☐
Other _____ Business Days ☐

Special Handling
GTEL Contact _____
Quote/Contract # _____
Confirmation # _____
P.O. # _____

QA/QC Level
Blue ☐ CLP ☐ Other ☐ _____

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS

FAX ☐

REMARKS:
Fax results to Jessica Nichols at (770) 499-9933
24 hr. TAT

Lab Use Only Lot #: Storage Location

Work Order #:

CUSTODY RECORD

	Date	Time	
Relinquished by Sampler: Aaron S. Vernik	7/30/97	0930	Received by:
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date 7-31-97	Time 835	Received by Laboratory: Waybill # Jan Armstrong

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST, INC.

7110 38th Drive SE
Lacey, Washington 98503

Mobile Environmental Laboratories
Environmental Sampling Services

Telephone: 360-459-4670
Fax: 360-459-3432

August 20, 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. Korosec

Michael A. Korosec
President

cc: JN + AY 8/26

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-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.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.

SEARS #1069 PROJECT
Redmond, Washington
Fluor Daniel GTI

Heavy Petroleum Hydrocarbons in soil by WTPH-418.1

Sample Number	Date	TPH mg/kg
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 Detection Limit		10

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

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.

SEARS #1069 PROJECT
Redmond, Washington
Fluor Daniel GTI

Heavy Petroleum Hydrocarbons in soil by WTPH-418.1

Sample Number	Date	TPH mg/kg
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 Detection Limit		10

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

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST, INC.

TEG Northwest - Olympia Office:
7110 38 DR SE, Lacey WA 98503-7174
(360) 459-4670; Fax: (360) 459-3432

TEG Northwest - Seattle Office:
(Temporary Location)
1910 Fairview Ave. E, Seattle WA 98102-3699
(206) 324-9530; Fax (206) 328-5581

FAX TRANSMITTAL

DATE: 8/12/97 **TOTAL PAGES SENT:** 2

TO: Eileen Brennan Copy/fax to Jessica N-Marietta Aaron V-Kent

ADDRESS: FD GTI

FAX #: (510) 370-3991 ~~(972) 341-8366~~ **PHONE #:** (510) 370-3990 ~~(972) 341-8351~~

FROM: Blair Van Ysendoo
TEG NORTHWEST, INC. - Seattle Office

COMMENTS: Results for PCB 418.1 and TPH-D/G/BTEX
1069
Sears Redmond

"TEG - The World Leader in On-Site Sampling and Analysis"

teg TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES

CHAIN-OF-CUSTODY RECORD

CLIENT: Fluor Daniel GTI

ADDRESS: 757 Arnold Dr. Martinez, CA

PHONE (510) 370-3390 FAX:

CLIENT PROJECT #: PROJECT MANAGER: Eileen Brennan

DATE: 8/7/97-8/8/97 PAGE 1 OF 1

PROJECT NAME: Sears 1067

LOCATION: Redmond WA

COLLECTOR: Aaron S. Verrill

Sample Number	Depth	Time	Sample Type	Container Type	VOA 601/8010	VOA 602/8020	VOA 624/8240	Semi Vol 625/8270	TPH 418.1	TPH 8015 (gasoline)	TPH (8015 (diesel)	TPH 8015 (g & d)	PAH 610/8100	PEST/PCBs 8080	HEX CHROME	ORGANIC LEAD	TOTAL LEAD	pH	ASBESTOS	FIELD NOTES	Total Number of Containers	Laboratory Note Number
A1	2'	1300	Soil	40z Glass					X													
B1	2'	1340							X													
C1	8'	1335							X													
D1	1.5'	1325							X													
A2	8.5'	2240	S	40z Glass					X													
B2	3'	2245							X													
C2	8'	2305							X													
D2	8'	2315							X													
A3	4.5'	2335							X													
C3	8'	0050							X													
D3	8.5'	0100							X													
A4	8'	0320							X													

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
Aaron S. Verrill	8/8/97/0400	Brian Van Hecke	8/8/97 0400
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES:

Client: GTI
Lab: TEGNW Seattle
Lab Job #: S70808-2
Spreadsheet File Name: S70808-2.wk1

Project: SEARS 1069 Redmond, WA
Project#:
Printed: 08/12/97 12:39 PM

Compound	MTH BLK	LCS	A2-8'	Dupl A2-8'	RPD A2-8'	E1-1.5'	Dupl E1-1.5'	RPD E1-1.5'	SOIL PILE	Dupl SOIL PILE
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
% Moisture	08/08/97	08/08/97	9%	9%		8%	8%		5%	5%
TPH-D in mg/kg or mg/L (ppm)										
TPH-D, C12 > C24, (Diesel)	20 U	95%	49	45	9%					
TPH-D, C24 > C37, (Oil)	50 U		480	470	2%					
2-Fluorobiphenyl (surr #1)	78%	C	93%	96%						
o-Terphenyl (surr #2)	86%	C	93%	97%						
Hexacosane - nC26 (surr #3)	90%	102%	90%	89%						
8020 VOA, µg/kg or µg/L (ppb)										
Benzene	50 U		50 U	50 U						
Toluene	50 U		50 U	50 U						
Ethylbenzene	50 U		50 U	50 U						
Xylenes	50 U		50 U	50 U						
a,a,a-Trifluorotoluene (surr)	98%		92%	96%						
1,2-Bromofluorobenzene (surr)	111%		100%	105%						
TPH-418.1, mg/kg or mg/L (ppm)										
TPH (418.1)	50 U	92%							8,400	9,300
PCB in µg/kg or µg/L (ppb)										
A1016	200 U					200 U	200 U			
A1221	500 U					500 U	500 U			
A1232	500 U					500 U	500 U			
A1242	200 U					200 U	200 U			
A1248	200 U					200 U	200 U			
A1254	200 U					200 U	200 U			
A1260	200 U					200 U	200 U			
Tetrachloro-m-xylene (surr)	90%	102%				108%	100%			
Decachlorobiphenyl (surr)	88%	96%				82%	85%			

PRELIMINARY DATA-
NOT VALIDATED

teg TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES

CHAIN-OF-CUSTODY RECORD

CLIENT: Flour Daniel GTI

ADDRESS: 757 Arnold Dr. Martinez, CA

PHONE (510) 370-3990 FAX:

CLIENT PROJECT #: PROJECT MANAGER: Eileen Brennan

DATE: 8/8/97 PAGE 1 OF

PROJECT NAME: Sears 1069

LOCATION: Redmond, WA

COLLECTOR: Aaron S. Vernik DATE OF COLLECTION 8/7/97

Sample Number	Depth	Time	Sample Type	Container Type	PAH 610/8100	FIELD NOTES	Total Number of Containers	Laboratory Note Number
E1	1.5	1325	Soil	4oz Glass	X	Fax results to Aaron Vernik at (206)251-8452	1	

ANALYSES: VOA 601/8010; VOA 602/8020; VOA 624/8240; Semi Vol 625/8270; TPH 418.1; TPH 8015 (gasoline); TPH (8015 (diesel); TPH 8015 (g & d); PAH 610/8100; PEST/PCBs 8080; HEX CHROME; ORGANIC LEAD; TOTAL LEAD; pH; ASBESTOS

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
Aaron S. Vernik	8/8/97 0400		8/8/97 0400
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES:

360 459 3432

teg TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES

CHAIN-OF-CUSTODY RECOI

CLIENT: Fluor Daniel GTI

ADDRESS: 757 Arnold Dr. Martinez, CA

PHONE (510) 370-3950 FAX:

CLIENT PROJECT #: PROJECT MANAGER: Eileen Brennan

DATE: 8/8/97 PAGE 1 OF

PROJECT NAME: Sears 1069

LOCATION: Redmond, WA

COLLECTOR: Aaron S. Vernik DATE OF COLLECTION 8/

Sample Number	Depth	Time	Sample Type	Container Type	VOA 601/8010	VOA 602/8020	VOA 624/8240	Semi Vol 625/8270	TPH 418.1	TPH 8015 (gasoline)	TPH (8015 (diesel) ext	TPH 8015 (g & d)	PAH 610/8100	PEST/PCBs 8080	HEX CHROME	ORGANIC LEAD	TOTAL LEAD	pH	ASBESTOS	FIELD NOTES	Total Number of Containers
E1	1.5	1325	Soil	4oz Glass									X							Fax results to	1
A2	8	0320	Soil	4oz Glass		X				X										Aaron Vernik at (206) 251-8452	1

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
Aaron S. Vernik	8/8/97 0400		8/8/97 0400
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPL
TOTAL NUMBER
CHAIN OF CUST
SEALS INTACT?
RECEIVED GOOD
NOTES:

Post-it® Fax Note 7671 Date 9-9-97 # of pages 1

To Aaron Vernik From Sherry

Co./Dept. FDGTI Co. TEGNW

Phone # Phone # 360-459-4670

Fax # 206-251-8452 Fax #

COPY

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST, INC.

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 Korosec

Michael A. Korosec
President

FILE COPY
☐ Project Management ☐ Reports
☐ Correspondence ☐ Safety
☐ Permits/Licenses ☑ Data
☐ Other 1069 LIFT

cc: JN + AV 8/26

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.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.

SEARS #1069 PROJECT
Redmond, Washington
Fluor Daniel GTI

Heavy Petroleum Hydrocarbons in soil by WTPH-418.1

Sample Number	Date	TPH 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.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.

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 no.	MDL	Meth Blk	LCS	A2-8'	A2-8' 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 (surr #1)		98%		92%	96%
1,2-Bromofluorobenzene (surr #2)		111%		100%	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%	C	93%	96%
o-Terphenyl		88%	C	93%	97%
Hexacosane-nC26		90%	102%	90%	89%

"nd" Indicates not detected at the listed detection limit.
"C" Coelution with Sample Peaks.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.

SEARS #1069 PROJECT
Redmond, Washington
Fluor Daniel GTI

Polychlorinated Biphenyls (PCBs) in Soils (EPA Method 8080)

Sample Number	Date Analyzed	Recovery Surr #1(%)	Recovery Surr #2(%)	1221 mg/kg	1232 mg/kg	1242 mg/kg	1248 mg/kg	1254 mg/kg	1260 mg/kg	Total mg/kg
Meth. Blank	08/08/97	76%	107%	nd	nd	nd	nd	nd	nd	nd
LCS	08/08/97	101%	113%	nd	nd	nd	nd	107%	nd	107%
ERA PE	08/08/97	93%	117%	nd	nd	nd	nd	103%	nd	103%
E1-1.5'	08/08/97	102%	97%	nd	nd	nd	nd	nd	nd	nd
E1-1.5'Dup	08/08/97	85%	100%	nd	nd	nd	nd	nd	nd	nd
Detection Limit				0.50	0.50	0.20	0.20	0.20	0.20	0.20

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference peaks prevent determination.
Surrogate #1 Tetrachloro-m-xylene
Surrogate #2 Decachlorobiphenyl

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.

SEARS #1069 PROJECT
Redmond, Washington
Fluor Daniel GTI

Heavy Petroleum Hydrocarbons in soil by WTPH-418.1

Sample Number	Date	TPH 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.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.

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 no.	MDL	Meth Blk	LCS	A2-8'	A2-8' 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 (surr #1)		98%		92%	96%
1,2-Bromofluorobenzene (surr #2)		111%		100%	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%	C	93%	96%
o-Terphenyl		88%	C	93%	97%
Hexacosane-nC26		90%	102%	90%	89%

"nd" Indicates not detected at the listed detection limit.
"C" Coelution with Sample Peaks.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.

SEARS #1069 PROJECT
Redmond, Washington
Fluor Daniel GTI

Polychlorinated Biphenyls (PCBs) in Soils (EPA Method 8080)

Sample Number	Date Analyzed	Recovery Surr #1(%)	Recovery Surr #2(%)	1221 mg/kg	1232 mg/kg	1242 mg/kg	1248 mg/kg	1254 mg/kg	1260 mg/kg	Total mg/kg
Meth. Blank	08/08/97	76%	107%	nd	nd	nd	nd	nd	nd	nd
LCS	08/08/97	101%	113%	nd	nd	nd	nd	107%	nd	107%
ERA PE	08/08/97	93%	117%	nd	nd	nd	nd	103%	nd	103%
E1-1.5'	08/08/97	102%	97%	nd	nd	nd	nd	nd	nd	nd
E1-1.5'Dup	08/08/97	85%	100%	nd	nd	nd	nd	nd	nd	nd
Detection Limit				0.50	0.50	0.20	0.20	0.20	0.20	0.20

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference peaks prevent determination.
Surrogate #1 Tetrachloro-m-xylene
Surrogate #2 Decachlorobiphenyl

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES (teg)

CHAIN-OF-CUSTODY RECORD

CLIENT: Fluor Daniel GTI

ADDRESS: Marietta, GA

PHONE ______ FAX: ______

CLIENT PROJECT #: ______ PROJECT MANAGER: Jessica Nichols

DATE: 8/8/97 PAGE ____ OF ____

PROJECT NAME: Sears 1069

LOCATION: Redmond, WA

COLLECTOR: Aaron S. Venich

Sample Number	Depth	Time	Sample Type	Container Type	VOA 601/8010	VOA 602/8020	VOA 624/8240	Semi Vol 625/8270	TPH 418.1	TPH 8015 (gasoline)	TPH (8015 (diesel)	TPH 8015 (g & d)	PAH 610/8100	PEST/PCBs 8080	HEX CHROME	ORGANIC LEAD	TOTAL LEAD	pH	ASBESTOS						FIELD NOTES	Total Number of Containers	Laboratory Note Number
Soil Pile	-	0345	Soil	4oz. Glass					X																		

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
Aaron S. Venich	8/8/97 / 0400	Brian Van Cleef	8/8/97 0400
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES: