

### GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS MATERIALS TESTING

JAN 0 9 2002

Project No. **5403.3.001.01** 

January 4, 2002

Mr. David Weiss AAA Truck & Van Parts 3884 Depot Road Hayward, CA 94545

Subject:

AAA Truck & Van Parts

3884 Depot Road Hayward, California

#### REPORT ON SITE CHARACTERIZATION

Reference:

ENGEO Inc.; Proposal for a Limited Site Characterization, AAA Truck & Van

Parts, 3884 Depot Road, Hayward, California; October 22, 2001, Revised

November 15, 2001.

#### Dear Mr. Weiss:

At your request, ENGEO Incorporated has performed a limited study to evaluate potential soil and groundwater impacts associated with the existing vehicle dismantling yard on the subject property, located in Hayward, California (Figure 1). The work was performed at the request of the Alameda County Environmental Health Department and performed in conjunction with the approved work plan dated October 22, 2001, revised November 15, 2001 (Reference).

#### SCOPE OF WORK

The scope of work included the following:

- Advance of 8 Geoprobe borings with the recovery of 16 soil samples and recovery of three grab-groundwater samples.
- Laboratory analysis of 11 soil and 3 groundwater samples for gasoline, diesel and motor oil range petroleum hydrocarbons, total oil and grease, Volatile Organic Compounds, and LUFT metals (Cr,Cu,Pb,Ni,Zn).
- Preparation of this report summarizing our findings with conclusions and recommendations.

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#### SITE ACTIVITIES

#### Geoprobe Borings

The subsurface assessment was undertaken on November 15, 2001, under the observation of an ENGEO Environmental Geologist. The purpose of the probing was to evaluate areas of potential environmental concern associated with current/former site activities (Figure 2). The Geoprobe locations were approved by Ms. Eva Chu with the Alameda County Environmental Health Department (ACEHD). The probe depths ranged from 3 feet to 20 feet below the ground surface. Three of the probes were advanced to a depth of 12 feet to 20 feet for the recovery of grab-groundwater samples. Field screening of the soil was performed using a Thermoelectron 580B photoionization detector (PID) equipped with a 10eV bulb. The eight Geoprobe borings were performed under permit with the Alameda County Public Works Department and grouted with cement upon sample recovery. Geologic logs with the results of PID screening are provided in Appendix D.

#### Soil Sampling/Laboratory Analysis

A total of sixteen soil samples were recovered from the probes, with each location sampled at 1 foot and 3 feet below the ground surface. The 8 one-foot samples were submitted for laboratory analysis (Figure 2). Samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-g), diesel (TPH-d), and motor oil (TPH-MO) by EPA Method 8015/8020; volatile organic compounds (VOCs) by EPA Method 8260, Total Oil and Grease (TOG) by EPA Method 5520, and LUFT metals (Chromium (Cr), Copper (Cu), Lead (Pb), Nickel (Ni), and Zinc (Zn) by EPA Method 6010. Silica gel cleanup was performed prior to the TPHd/MO and TOG analysis to reduce interference from naturally occurring organic compounds. The soil samples were recovered in 4-foot-long acrylic tubes. Sample tubes were cut into six-inch lengths at the appropriate sampling interval. The sample tubes were sealed with Teflon sheets, polyethylene end caps and tape. Samples were immediately placed in an ice-cooled chest for transport under documented chain of custody to McCampbell Analytical in Pacheco, California.

Concentrations of TPH-d, TPH-MO and TOG were reported in seven of the eight samples. Diesel concentrations were reported to range between 2.5 parts per million (ppm) to 1,100 ppm and motor oil concentrations were report at 51 ppm to 7,900 ppm. Oil and grease concentrations were reported at 300 ppm to 35,000 ppm. Gasoline range petroleum hydrocarbons and cumulative VOCs were reported in one sample at 1.7 ppm and 0.2269 ppm, respectively. Results of the organic compound laboratory analyses are summarized in Table I.

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TABLE I – Organic Compound Summary
Near Surface (1-foot) Soil Samples
(Concentrations reported in parts per million)

		Concentrations	reported in parts p	Ct Illilliony	
Sample	TPH	TPH	Motor	Total Oil	Cumulative
Number	Gasoline	Diesel	Oil	& Grease	VOCs by 8260
1-1	$\mathrm{ND}^1$	ND	ND	ND	ND
2-1	1.7	1,100	7,900	35,000	0.2269
3-1	ND	67	400	1,100	ND
4-1	ND	23	160	1,000	ND
5-1	ND	2.5	51	480	ND
6-1 <sub>a</sub>	ND	9.2	56	300	ND
7-1	ND	140	2,400	12,00	ND
821	ND	59	130	4,600	ND

- 1. ND: Non detect, below laboratory reporting limit.
- 2. Total Chromium (1/6 Ratio CrVI/CrIII).

Concentrations of the metals Cr, Pb, Ni and Zn were reported in each of the eight samples analyzed. Cadmium was reported above detection limits in six of the eight near-surface soil samples. Chromium and lead concentrations were reported to range between 27 ppm and 390 ppm, and 7.4 ppm to 310 ppm, respectively. Concentrations of nickel, and zinc were reported to range between 28 ppm and 51 ppm, and 50 ppm to 1,800 ppm, respectively. Cadmium concentrations were reported to range between 0.74 ppm and 4.1 ppm. Metal concentrations reported for the near-surface soil samples are presented in Table II.

TABLE II - LUFT Metals
Near Surface (1-foot) Soil Samples
(Concentrations reported in parts per million)

Sample Number	Cadmium (Cd)	Chromium (Cr)	Lead (Pb)	Nickel (Ni)	Zinc (Zn)
1-1	ND1	38	7.4	44	50
2-1	4.1	61	230	36	300
3-1	1.0	390	100	32	1,100
4-1	2,1	61	110	34	320
5-1	ND	48	13	32	88
6-1	2.5	260	310	40	1,800
7-1	1.2	27	150	28	170
8-1	0.74	220	60	51	500
TTLC <sup>2</sup>	100	2,500	1,000	2,000	5,000
STLC'	1.0	5 <sup>4</sup>	5	20	250
PRG <sup>5</sup>	810	450 <sup>4</sup>	750	41,000	100,000

- 1. ND: Non detect, below laboratory reporting limit.
- 2. TTLC: Total Threshold Limit Concentration regulatory concentration for hazardous waste.
- 3. STLC: Soluble Threshold Limit Concentration regulatory concentration for hazardous waste.
- Total Chromium (1/6 Ratio CrVI/CrIII).
- 5. EPA Preliminary Remediation Goal for Industrial site soils, reported in parts per million.

Based in the results of the near-surface soil analyses, ACEHD representative Ms. Eva Chu requested the analysis of five of the shallow surface (3-foot) soil samples. Ms. Chu requested that Samples 2-2, 7-2 and 8-2 be analyzed for diesel, motor oil, BTEX, and TOG, with Samples 2-2, 3-2, and 6-2 to be analyzed for the five LUFT metals.

Concentrations of diesel and motor oil range petroleum hydrocarbons and TOG were reported in two of the three samples. Diesel concentrations were reported at 19 ppm and 68 ppm and motor oil concentrations were report at 65 ppm and 1,100 ppm. Concentrations of oil and grease were reported at 200 ppm to 5,700 ppm. Toluene was reported in one sample at 0.018 ppm. Results of the 3-foot organic compound laboratory analyses are presented in Table III.

TABLE III—Organic Compounds
Shallow Surface (3-feet) Soil Samples
(Concentrations reported in parts per million)

Sample Number	TPH Diesel	Motor Oil	Total Oil & Grease	Benzene	Toluene	Ethyl Benzene	Total Xylenes
2-2	19	65	200	ND1	0.018	ND	ND
7-2	68	1,100	5,700	ND <sub>0b</sub>	ND	ND	ND
8-2	ND	ND	ND *	ND	ND	ND	ND

1. ND: Non detect, below laboratory reporting

Concentrations of the metals Cr, Pb, Ni and Zn were reported in each of the 3-foot soil samples analyzed. Chromium and lead concentrations were reported to range between 19 ppm and 710 ppm, and 9.6 ppm to 190 ppm, respectively. Concentrations of nickel, and zinc were reported to range between 21 ppm and 59 ppm, and 36 ppm to 770 ppm, respectively. Cadmium was reported in one of the three samples at 1.4 ppm. Metal concentrations reported for the shallow surface soil samples are presented in Table IV.

# TABLE IV – LUFT Metals Shallow Surface (3-feet) Soil Samples (Concentrations reported in parts per million)

Sample Number	Cadmium (Cd)	Chromium (Cr)	Lead (Pb)	Nickel (Ni)	Zinc (Zn)
	1.4	710	190	59	770
3-2	ND1	23	9.6	21	36
6-2	ND	19	16	21	47
TTLC <sup>2</sup>	100	2,500	1,000	2,000	5,000
STLC <sup>3</sup>	1.0	5 <sup>4</sup>	5	20	250
PRG⁵	810	450 <sup>4</sup>	750	41,000	100,000

- 1. ND: Non detect, below laboratory reporting limits.
- 2. TTLC: Total Threshold Limit Concentration regulatory concentration for hazardous waste.
- 3. STLC: Soluble Threshold Limit Concentration regulatory concentration for hazardous waste.
- 4. Total Chromium (1/6 Ratio CrVI/CrIII).
- 5. EPA Preliminary Remediation Goal for Industrial properties, reported in parts per million.

#### Groundwater Sampling/Laboratory Analysis

Three of the probes were advanced to a depth of 20 feet for the recovery of grab groundwater samples (Figure 2). Samples were analyzed for TPH-g, TPH-d, TPH-MO, VOCs, TOG and LUFT metals. Silica gel cleanup was performed prior to the TPH and O&G analysis to reduce interference from naturally occurring organic compounds. The grab-groundwater samples were recovered using a dedicated polyethylene tube equipped with a check valve. Following recovery, the groundwater samples were decanted into appropriate laboratory glassware, labeled, and preserved in a cooled ice chest for delivery under documented chain of custody.

Concentrations of diesel range petroleum hydrocarbons were reported in each of the three grab-groundwater samples. Diesel concentrations were reported to range between 110 parts per billion (ppb) to 1,900 ppb. Motor oil range petroleum hydrocarbons and oil and grease were reported in two of the three samples. Motor oil concentrations were report at 2,200 ppb to 9,500 ppb. Oil and grease concentrations were reported at 13 ppm to 74 ppm. Gasoline range petroleum hydrocarbons and cumulative VOCs were reported in one sample at 2,200 ppb and 728.5 ppb, respectively. Results of the organic compound laboratory analyses are summarized in Tables V and VI.

TABLE V - Organic Compound Summary Grab Groundwater Samples (Concentrations reported in parts per billion)

Sample Number	TPH Gasoline	TPH Diesel	Motor Oil	Total Oil & Grease	Cumulative VOCs by 8260
GW-1	ND1	1,900	9,500	74,000	ND
GW-2	ND	110	ND	ND	ND
GW-3	2200 <sup>2</sup>	1,500	2,200	13,000	728.5

1. ND: Non detect, below laboratory reporting limit.

2. Unmodified or weakly modified gasoline is significant

#### TABLE VI—Selected Volatile Organic Compounds Grab Groundwater Samples

(Concentrations reported in parts per billion)

	(Contoning World 11)							
Sample Number	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Naphthalene	Trimeth	ylbenzene 1,3,5-	Sum of listed VOCs <sup>1</sup>
GW-1	ND <sup>2</sup>	ND	ND	ND	ND	ND	ND	0
GW-2	ND	ND	ND	ND	ND	ND	ND	0
GW-3	110	14	120	230	110	99	23	706

1. Does not include all reported VOCs but the sum of concentrations of the seven compounds listed in Table VI.

2. ND: Non detect, below laboratory reporting limits.

No detectable LUFT metal concentrations were reported for the groundwater.

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#### Conclusions and Recommendations

Concentrations of organic compounds were detected in seven of the eight soil samples recovered from one foot beneath the ground surface. Analysis of deeper samples, recovered at three feet, was performed on three samples exhibiting elevated organic compound concentrations. The laboratory reported a significant decrease in the reported concentrations of organic compounds for the three deeper samples. Cumulative diesel/motor oil/TOG concentrations decreased with depth from 44,000 ppm to 284 ppm at the Probe 2 location and from 14,540 ppm to 6,868 ppm at the Probe 7 location. Soil at the location of Probe 8 was reported to contain 4,789 ppm to below laboratory reporting limits at the three-foot depth.

Concentrations of at least four of the five LUFT metals were reported in the eight soil samples recovered from one foot beneath the ground surface and for the three selected samples recovered at the 3-foot intervals. Cadmium was reported below laboratory detection limits in four of the 11 soil samples. Concentrations of the metals decreased between one and three feet for soils in the locations of Probes 3 and 6. Chromium and Zinc concentrations were reported to increase with depth while cadmium and lead decreased with depth at the location of Probe 2. reported concentrations for Cd, Pb, Ni and Zn are below EPA Preliminary Remediation Goals (PRGs) established for Industrial soils. The Cr concentration of 710 ppm reported in Sample 2-2 is above the 450 ppm PRG for industrial site soils. The reported metal concentrations do not exceed the Total Threshold Limit Concentration (TTLC) for hazardous waste. Concentrations above the TTLC value characterize the soil as a hazardous waste. The Soluble Threshold Limit Concentration (STLC) identifies a threshold for the leachable characteristics for hazardous waste classification. Concentrations between the STLC and TTLC may require additional analysis for hazardous waste characterization. Sample concentration dilution occurs during the STLC extraction/analysis so a ten-fold multiplier is commonly applied to STLC values. concentrations are reported to exceed the ten-fold STLC value for four of the samples. The ten-times STLC lead value is exceeded for six of the samples. Based on these reported concentrations, additional analysis may be required should the removal of soil occur.

Groundwater analysis detected diesel range petroleum hydrocarbons in the three samples analyzed. Motor oil and TOG were reported in two of the grab-groundwater samples. Gasoline range petroleum hydrocarbons and several volatile organic compounds were reported in one water sample. Concentrations of metals were reported below detection limits in the three grab-groundwater samples.

A review of the data suggests the site soils are surficially impacted by TPH, and/or volatile organic compounds. The depth of impact is generally three feet, with localized impact extending to a depth of five feet or more. Metal concentrations are variable and may be attributed to the nature of the fill material placed on the property and not by site activities. Based on the reported analyte concentrations, exposure to the soil at the site does not present a health risk as currently utilized. The noted soil impacts would be considered typical for a vehicle disassembly facility.

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Impact to groundwater does not appear to be pervasive; however, localized TPH and TOG present in the groundwater beneath the site could be attributed to activities at the site. It is unlikely the shallow aquifer underlying the property would be considered a drinking water source; therefore, the reported impacts do not appear significant.

A copy of this report should be provided to the ACEHD and the RWQCB. We are pleased to be of continued service to you on this project. If you have any questions, please contact us.

Very truly yours,

ENGEO INCORPORATED

Reviewed by:

Keith Nowell Geologist kn/hg:sitechar Shawn Munger CHG 413

Attachments: Appendix A - Figures

Appendix B – Sampling Forms

Appendix C - McCampbell Analytical, Laboratory Results

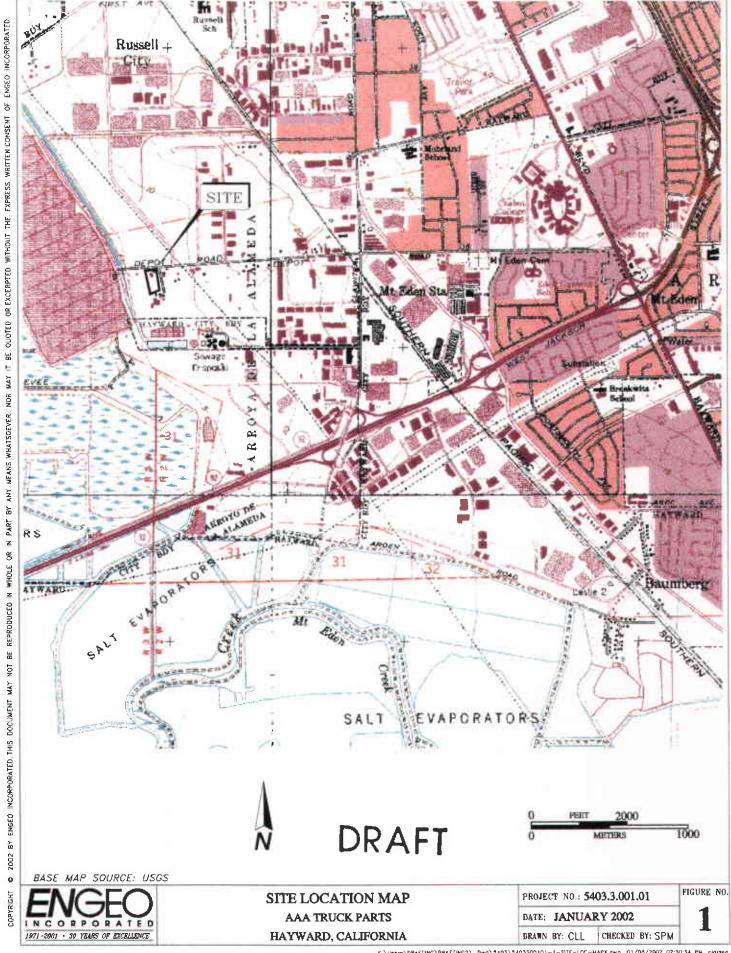
Appendix D - ENGEO Incorporated, Boring Logs

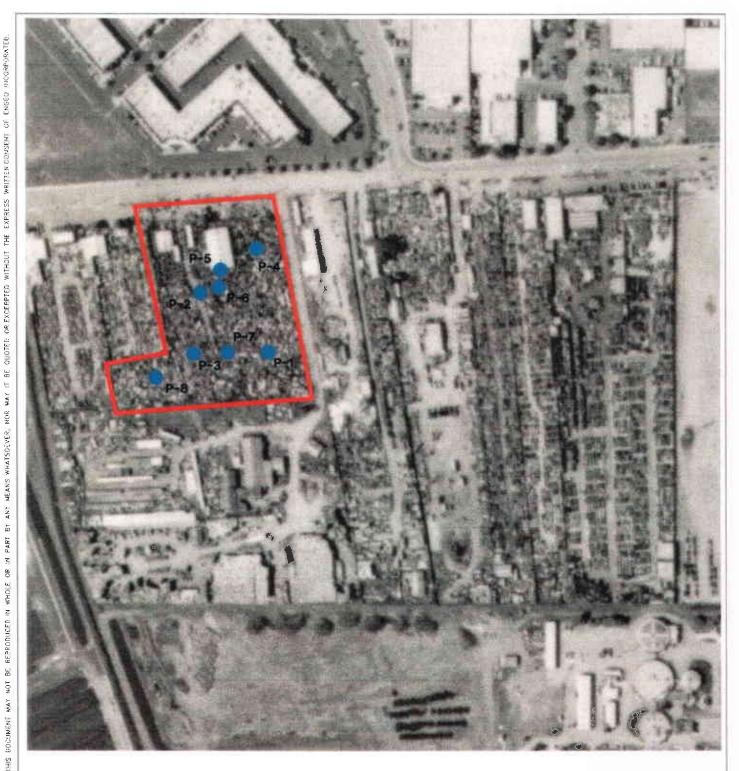
A P P E N D I



#### APPENDIX A

Figure	1	Site Location
Figure	2	Aerial Photograph Showing Boring Locations
Figure	3	Site Plan with Organic Analysis Summary
Figure	4	Site Plan with Metals Analysis
Figure	5	Site Plan with Groundwater Analysis Summary







APPROXIMATE LOCATION OF GEOPROBE

P-8





BASE SOURCE: PACIFIC AERIAL SURVEYS

AFRIAL I

AERIAL PHOTO SHOWING PROBE LOCATIONS

AAA TRUCK PARTS

HAYWARD, CALIFORNIA

PROJECT NO: 5403.3.001.01

DATE: JANUARY 2002

CHECKED BY:

DRAWN BY: CLL

2

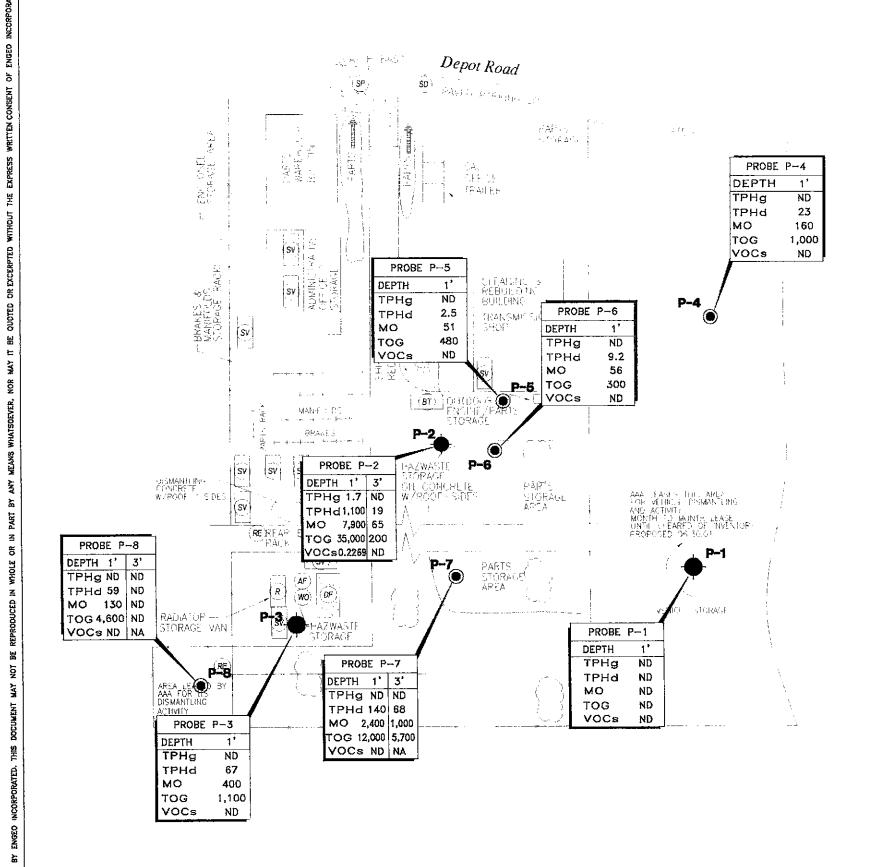
FIGURE NO.

NO SCALE

1971-2001 - 30 YEARS OF EXCELLENCE ORIGINAL FIGURE PRINTED IN COLOR

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COPYRIGHT @ 2002 BY ENGED INCORPORATED, THIS BOCUMENT MAY



TPHg GASOLINE RANGE HYDROCARBONS

TPHd DIESEL RANGE HYDROCARBONS

MO MOTOR OIL RANGE HYDROCARBONS

TOG TOTAL OIL AND GREASE

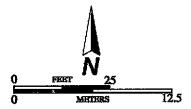
VOCs CUMULATIVE VOLATILE ORGANIC COMPOUNDS REPORTED BY EPA8260B

NOT ANALYZED

ANALYTE CONCENTRATION BELOW LABORATORY REPORTING LIMIT (CONCENTRATIONS REPORTED IN PARTS PER MILLION UNLESS OTHERWISE NOTED)

APPROXIMATE LOCATION OF GEOPROBE (SOIL SAMPLING)

APPROXIMATE LOCATION OF GEOPROBE (SOIL AND GROUNDWATER SAMPLING)



DRAFT

FIGURE NO

BASE MAP SOURCE: NEST ENVIRONMENTAL SERVICES



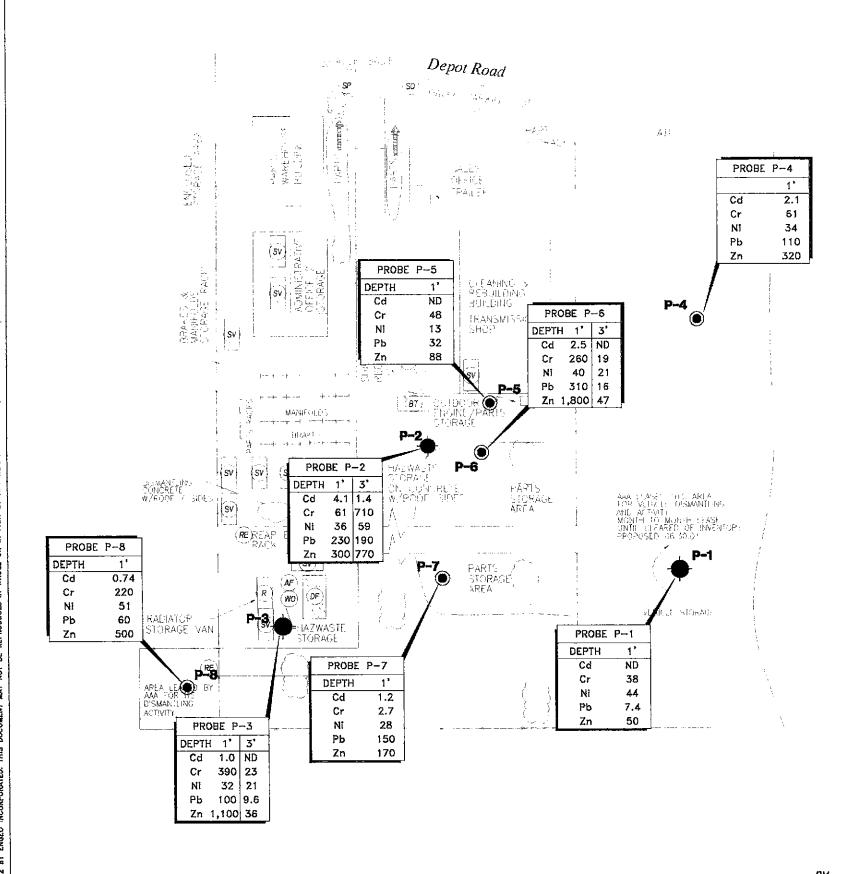
SITE PLAN WITH ORGANIC ANALYSIS SUMMARY AAA TRUCK PARTS

HAYWARD, CALIFORNIA

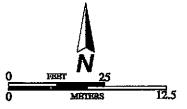
PROJECT NO.: 5403.3.001.01 DATE: JANUARY 2002

DRAWN BY: CLL CHECKED BY: SPM

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- Cd CADMIUM
- Cr CHROMIUM
- NI NICKEL
- Pb LEAD
- Zn **ZINC**
- ND ANALYTE CONCENTRATION BELOW LABORATORY REPORTING LIMIT (CONCENTRATIONS REPORTED IN PARTS PER MILLION UNLESS OTHERWISE NOTED)
- APPROXIMATE LOCATION OF GEOPROBE (SOIL SAMPLING)
- APPROXIMATE LOCATION OF GEOPROBE (SOIL AND GROUNDWATER SAMPLING)



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FIGURE NO.

ENGEO IN CORPORATED

SITE PLAN WITH METAL ANALYSES

AAA TRUCK PARTS

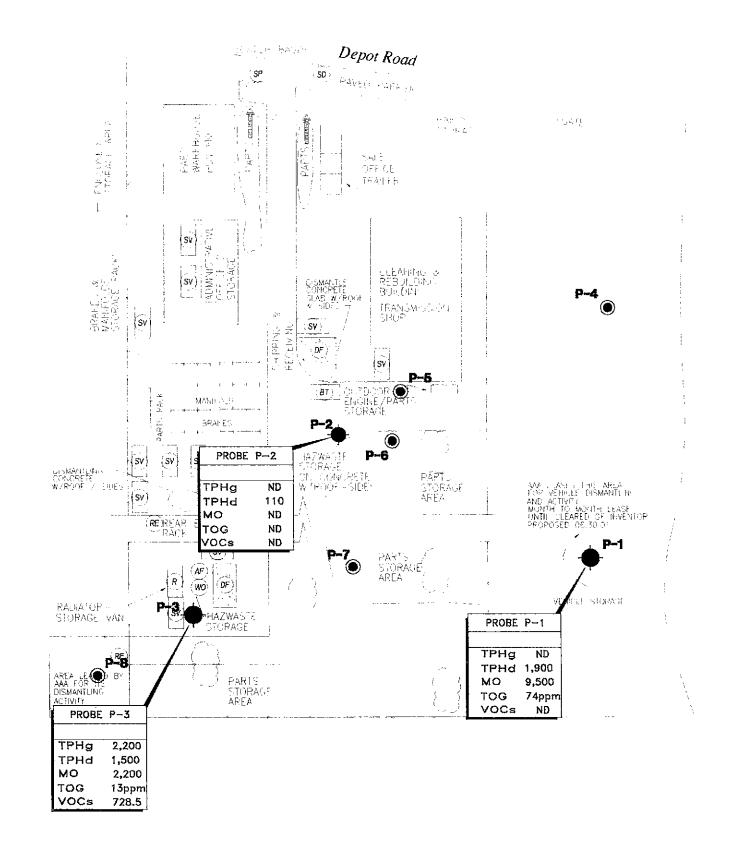
HAYWARD, CALIFORNIA

PROJECT NO.: 5403.3.001.01

DATE: JANUARY 2002

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TPHg GASOLINE RANGE HYDROCARBONS

TPHd DIESEL RANGE HYDROCARBONS

MO MOTOR OIL RANGE HYDROCARBONS

TOG TOTAL OIL AND GREASE

VOCs CUMULATIVE VOLATILE ORGANIC COMPOUNDS REPORTED BY EPA8260B

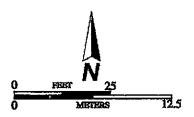
NA NOT ANALYZED

ND ANALYTE CONCENTRATION BELOW LABORATORY REPORTING LIMIT

(CONCENTRATIONS REPORTED IN PARTS PER BILLION UNLESS OTHERWISE NOTED)

APPROXIMATE LOCATION OF GEOPROBE
 (SOIL SAMPLING)

APPROXIMATE LOCATION OF GEOPROBE (SOIL AND GROUNDWATER SAMPLING)



DRAFT

FIGURE NO.

BASE MAP SOURCE: NEST ENVIRONMENTAL SERVICES



SITE PLAN
WITH GROUNDWATER ANALYSIS SUMMARY
AAA TRUCK PARTS
HAYWARD, CALIFORNIA

PROJECT NO.: 5403.3.001.01

DATE: JANUARY 2002

DRAWN BY: CLL CHECKED BY: SPM

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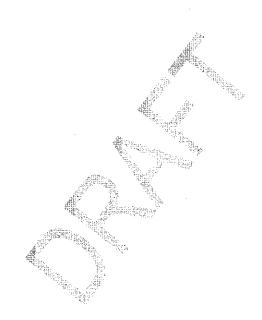
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В



#### APPENDIX B

Sampling Forms



# ENGEO INCORPORATED SOIL SAMPLING INFORMATION

Job Name:	AAA Truck Parts	Job Number:	5403.3.001.01	
Location1:	3884 Depot Road	Date:	11/15/01	
Location2:	Hayward, California	Ву:	K. Nowell	
Client:	David Weiss			

#### **DRILLING INFORMATION**

Drilling Contractor:	Vironex	License No.:	C57-705927
Auger Type:	Geoprobe	Sampler Type:	2.5-inch Continuous Core
Hole Diameter:	2.5-inch		

#### SAMPLINGING INFORMATION

Decon Procedure: TSP:	X	Distilled Water: X
Solvent:		Acid:

Sample Number	Time	Size	Test	Comments
1- 1	9:54	2" x 6"	TPH/TOG/VOC/LUFT	12"- 18" sample interval
. 1- 2	9:55	2" x 6"	TPH/TOG/VOC/LUFT	36"- 42" sample interval
2- 1	11:26	2" x 6"	TPH/TOG/VOC/LUFT	12"- 18" sample interval
2- 2	11:27	2" x 6"	TPH/TOG/VOC/LUFT	36"- 42" sample interval
3- 1	13:03	2" x 6"	TPH/TOG/VOC/LUFT	12"- 18" sample interval
3- 2	13:04	2" x 6"	TPH/TOG/VOC/LUFT	36"- 42" sample interval
4- 1	10:51	2" x 6"	TPH/TOG/VOC/LUFT	12"- 18" sample interval
4- 2	10:52	2" x 6"	TPH/TOG/VOC/LUFT	36"- 42" sample interval
5- 1	11:06	2" x 6"	TPH/TOG/VOC/LUFT	12"- 18" sample interval
5- 2	11:07	2" x 6"	TPH/TOG/VOC/LUFT	36"- 42" sample interval
6- 1	11:12	2" x 6"	TPH/TOG/VOC/LUFT	12"- 18" sample interval
6- 2	11:13	2" x 6"	TPH/TOG/VOC/LUFT	36"- 42" sample interval
7- 1	12:39	2" x 6"	TPH/TOG/VOC/LUFT	12"- 18" sample interval
7- 2	12:40	2" x 6"	TPH/TOG/VOC/LUFT	36"- 42" sample interval
8- 1	12:54	2" x 6"	TPH/TOG/VOC/LUFT	12"- 18" sample interval
8- 2	12:55	2" x 6"	TPH/TOG/VOC/LUFT	36"- 42" sample interval

			EO INCORPORATED ER SAMPLING INFO		•
Job Name:	AAA Truck Parts	i	Jok	Number:	5403.3.001.01
Location1:	3884 Depot Roa	đ	Da	te:	11/15/01
Location2:	Hayward, Califor	nia	Ву:		K. Nowell
Client:	David Weiss				
			•		
		DRIL	LING INFORMATION	l	
Drilling Contra	actor: Viro	nex	<u>Lic</u>	ense No.:	C57-705927
Auger Type:	Ged	probe	Sa	mpler Type:	Dedicated HDPE tubing
Hole Diamete	r: 2.5-	inch			
		SAMPL	INGING INFORMATI	ON	
				1411 - A 3 A 4 . 4	V
Decon Proced	•	X	<del></del>	tilled Water:	X
	Disposi	ble X	Aci	<u>a:</u>	
	<del></del>				,
ample Number	Time	Size	Test		Comments
ample Hamber	11110	ÇiZü	, 00.		
GW- 1	10:25	3 x 40 ml	Gas / VOCs	Grab groun	dwater sample
GW- 1	10:25	2 x 1000 ml	Diesel / Motor Oil	Grab groun	dwater sample
GW- 1	10:25	1 x 1000 mi	LUFT metals	Grab groun	dwater sample
GW- 2	11:55	3 x 40 ml	Gas / VOCs	Grab groun	dwater sample
GW- 2	11:55	2 x 1000 ml	Diesel / Motor Oil	Grab groun	idwater sample
GW- 2	11:55	1 x 1000 ml	LUFT metals	Grab groun	ndwater sample
GW- 3	13:25	3 x 40 ml	Gas / VOCs	Grab groun	ndwater sample
GW- 3	13:25	2 x 1000 ml	Diesel / Motor Oil	Grab groun	ndwater sample
GW- 3	13:25	1 x 1000 mi	LUFT metals	Grab grour	ndwater sample
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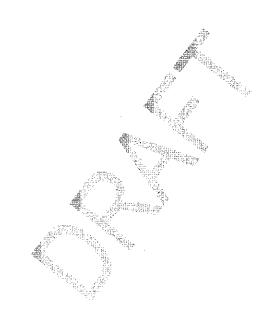
A P P E N D I X



#### APPENDIX C

### MCCAMPBELL ANALYTICAL, INC.

Laboratory Test Results





ENGEO Incorporated	Client Project ID: #5403.3.001.01;	Date Sampled: 11/15/01
2401 Crow Canyon Rd., Ste 200	AAA Truck Parts	Date Received: 11/15/01
San Ramon, CA 94583	Client Contact: Keith Nowell	Date Extracted: 11/15/01
	Client P.O:	Date Analyzed: 11/15/01

11/23/01

#### Dear Keith:

#### Enclosed are:

- 1). the results of 11 samples from your #5403.3.001.01; AAA Truck Parts project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Edward Hamilton, Lab Director

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone: 925-798-1620 Fax: 925-798-1622
<a href="http://www.mccampbell.com">http://www.mccampbell.com</a> E-mail: main@mccampbell.com

ENGEO Incorporated	Client Project ID: #5403.3.001.01;	Date Sampled: 11/15/01		
2401 Crow Canyon Rd., Ste 200	AAA Truck Parts	Date Received: 11/15/01		
San Ramon, CA 94583	Client Contact: Keith Nowell	Date Extracted: 11/15-11/29/01		
	Client P.O:	Date Analyzed: 11/15-11/29/01		

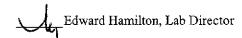
Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline\*, with Methyl tert-Butyl Ether\* & BTEX\*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g) <sup>+</sup>	МТВЕ	Benzene	Toluene	Ethyl- benzene	Xylenes	% Recovery Surrogate
83715	1-1	S	ND	ND	ND	ND	ND	ND	101
83717	2-1	S	1.7,b	ND	ND	0.12	0.017	0.11	112
83718	2-2	S	ND	ND	ND	0.018	ND	ND	109
83719	3-1	S	ND	ND	ND	ND	ND	ND	105
83721	4-1	S	ND	ND	ND	ND	ND	ND	107
83723	5-1	S	ND	ND	ND	ND	ND	ND	109
83725	6-1	S	ND	ND	ND	ND	ND	ND	110
83727	7-1	S	ND	ND	ND	ND	ND	0.0083	112
83728	7-2	S	ND	ND	ND	ND	ND	ND	112
83729	8-1	S	ND	ND	ND	ND	ND	ND	111
83730	8-2	S	ND	ND	ND	ND	ND	ND	100
otherwi:	g Limit unless se stated; ND	W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
	detected above orting limit	s	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

<sup>\*</sup> water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

"The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.



<sup>#</sup> cluttered chromatogram; sample peak coelutes with surrogate peak

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
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<a href="http://www.mccampbell.com">http://www.mccampbell.com</a> E-mail: main@mccampbell.com

ENGEO Incorporated	Client Project ID: #5403.3.001.01;	Date Sampled: 11/15/01			
2401 Crow Canyon Rd., Ste 200	AAA Truck Parts	Date Received: 11/15/01			
San Ramon, CA 94583	Client Contact: Keith Nowell	Date Extracted: 11/15-11/28/01			
	Client P.O:	Date Analyzed: 11/16-11/29/01			

## Diesel Range (C10-C23) and Oil-Range (C18+) Extractable Hydrocarbons as Diesel and Motor Oil with Silica Gel Clean-up\*

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d) <sup>+</sup>	TPH(mo) <sup>+</sup>	% Recovery Surrogate
83715	1-1	S	ND	ND	86
83717	2-1	S	1100,g	7900	#
83718	2-2	S	19,g,b	65	102
83719	3-1	S	67,g	400	100
83721	4-1	S	23,g,b	160	100
83723	5-1	S	2.5,g	51	106
83725	6-1	S	9.2,g	56	100
83727	7-1	S	140,g	2400	100
83728	7-2	S	68,g	1000	102
83729	8-1	S	59,g	130	102
83730	8-2	S	ND	ND	100
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	250 ug/L	
		S	1.0 mg/kg	5.0 mg/kg	

<sup>\*</sup>water samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/L

<sup>\*</sup>The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.



<sup>\*</sup> cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

ENGEO Incorporated	Client Project ID: #5403.3.001.01;	Date Sampled: 11/15/01		
2401 Crow Canyon Rd., Ste 200	AAA Truck Parts	Date Received: 11/15/01		
San Ramon, CA 94583	Client Contact: Keith Nowell	Date Extracted: 11/15-11/28/01		
	Client P.O:	Date Analyzed: 11/16-11/28/01		

#### Petroleum Oil & Grease (with Silica Gel Clean-up) \*

EPA methods 413.1, 9070 or 9071; Standard Methods 5520 D/E&F or 503 D&E for solids and 5520 B&F or 503 A&E for liquids

Lab ID	Client ID	Matrix	Oil & Grease*
83715	1-1	S	ND
83717	2-1	S	35,000
83718	2-2	S	200
83719	3-1	S	. 1100
83721	4-1	S	1000
83723	5-1	S	480
83725	6-1	S	300
83727	7-1	S	i 2,000
83728 7-2		S	5700
83729	8-1	S	4600
83730	8-2	S	ND
Reporting Lin	nit unless otherwise	W	5 mg/L
stated; ND mear the rep	ns not detected above orting limit	S	50 mg/kg

<sup>\*</sup> water samples are reported in mg/L, wipe samples in mg/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in mg/L.

h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5vol. % sediment.



	Volatile Organics By GC/MS			
	Client P.O:	Date Analyzed: 11/20-11/21/01		
San Ramon, CA 94583	Client Contact: Keith Nowell	Date Extracted: 11/15/01		
2401 Crow Canyon Rd., Ste 200	AAA Truck Parts	Date Received: 11/15/01		
ENGEO Incorporated	Client Project ID: #5403.3.001.01;	Date Sampled: 11/15/01		

	:Ρ	A	mei	thoc	82	bυ
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Ci /t method 6200	
Lab ID	83715
Client ID	1-1
Matrix	Š

Matrix		S					
Compound	Concentration*	Reportin	ng Limit	Compound	Concentration*	Reportin	g Limit
	Concentration	W	S	Compound	Concentration	W	S
Acetone (b)	ND	5.0	25	trans-1,3-Dichloropropene	ND	1.0	5.0
Benzene	ND	1.0	5.0	Ethylene dibromide	ND	1.0	5.0
Bromobenzene	ND	1.0	5.0	Ethylbenzene	ND	1.0	5.0
Bromochloromethane	ND	1.0	5.0	Hexachlorobutadiene	ND	5.0	25
Bromodichloromethane	ND	1.0	5.0	Iodomethane	ND	1.0	5.0
Bromoform	ND	1.0	5.0	Isopropylbenzene	ND	1.0	5.0
Bromomethane	ND	1.0	5.0	p-Isopтopyl toluene	NĎ	1.0	5.0
n-Butyl benzene	ND	1.0	5.0	Methyl butyl ketone (d)	ND	1.0	5.0
sec-Butyl benzene	ND	1.0	5.0	Methylene Chloride(e)	ND	1.0	5.0
tert-Butyl benzene	ND	1.0	5.0	Methyl ethyl ketone (f)	ND	2.0	10
Carbon Disulfide	ND	1.0	5.0	Methyl isobutyl ketone (g)	МÐ	1.0	5.0
Carbon Tetrachloride	ND	1.0	5.0	Methyl tert-Butyl Ether (MTBE)		1.0	5.0
Chlorobenzene	ND	1.0	5.0	Naphthalene	ND	5.0	25
Chloroethane	ND	1.0	5.0	n-Propyl benzene	ND	1.0	5.0
2-Chloroethyl Vinyl Ether (t)	ND	1.0	5.0	Styrene (k)	ND	1.0	5.0
Chloroform	ND	1.0	5.0	1,1,1,2-Tetrachloroethane	ND	1.0	5.0
Chloromethane	ND	1.0	5.0	1,1,2,2-Tetrachloroethane	ND	1.0	5.0
2-Chlorotoluene	ND	1.0	5.0	Tetrachloroethene	ND<10	1.0	5.0
4-Chlorotoluene	ND	1.0	5.0	Toluene (1)	ND	1.0	5.0
Dibromochloromethane	ND	1.0	5.0	1,2,3-Trichlorobenzene	ND	5.0	25
1,2-Dibromo-3-chloropropane	ND	2.0	10	1,2,4-Trichlorobenzene	ND	5.0	25
Dibromomethane	ND	1.0	5.0	1,1,1-Trichloroethane	ND	1.0	5.0
1,2-Dichlorobenzene	ND	1.0	5.0	1,1,2-Trichloroethane	ND	1.0	5.0
1,3-Dichlorobenzene	ND	1.0	5.0	Trichloroethene	ND	1.0	5.0
1,4-Dichlorobenzene	ND	1.0	5.0	Trichlorofluoromethane	ND	1.0	5.0
Dichlorodifluoromethane	ND	1.0	5.0	1,2,3-Trichloropropane	ND	1.0	5.0
1,1-Dichloroethane	ND	1.0	5.0	1,2,4-Trimethylbenzene	ND	1.0	5.0
l,2-Dichloroethane	ND	1.0	5.0	1,3,5-Trimethylbenzene	ND	1.0	5.0
1,1-Dichloroethene	ND	1.0	5.0	Vinyl Acetate (m)	ND	5.0	25
cis-1,2-Dichloroethene	ND	1.0	5.0	Vinyl Chloride (n)	ND	1.0	5.0
trans-1,2-Dichloroethene	ND	1.0	5.0	Xylenes, total (e)	ND	1.0	5.0
1,2-Dichloropropane	ND	1.0	5.0	Comments:			
1,3-Dichloropropane	ND	1.0	5.0	Surrogate Recoveries (%)			
2,2-Dichloropropane	ND	1.0	5.0	Dibromofluoromethane 107			07
1,1-Dichloropropene	ND	1.0	5.0	Toluene-d8		J	06
cis-1,3-Dichloropropene	ND	1.0	5.0	4-Bromofluorobenzene		1.	27

water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

DHS Certification No. 1644

Edward Hamilton, Lab Director

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

<sup>(</sup>b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (a) dimethylbenzenes.



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ENGEO Incorporated		Clie	nt Proj	ject ID:	: #5403.3.001.01;	Date S	ate Sampled: 11/15/01			
2401 Crow Canyon Rd., Ste 200 San Ramon, CA 94583		AA.	AAA Truck Parts				Date Received: 11/15/01			
		Clie	nt Con	tact: K	eith Nowell	Date I	Extracted: 11/15	5/01		
			nt P.O	;		Date A	Analyzed: 11/20	-11/21/	/01	
EPA method 8260		V	olatile	Orga	nics By GC/MS					
Lab II	<del>)  </del>		<del></del>		83717				x	
Client					2-1					
Matrix					S					
	<del></del> _		Reportin	g Limit			*	Reportin	g Limit	
Compound	Concen	tration*	W	S	Compound		Concentration*	W	S	
Acetone (b)	l l	ID	5.0	25	trans-1,3-Dichloroproper	ne	ND	1.0	5.0	
Benzene	N	ID	1.0	5.0	Ethylene dibromide	,	ND	1.0	5.0	
Bromobenzene	N	ID	1.0	5.0	Ethylbenzene	hylbenzene		1.0	5.0	
Bromochloromethane	N	ID	1.0	5.0	Hexachlorobutadiene		ND	5.0	25	
Bromodichloromethane	N	D	1.0	5.0	Iodomethane		ND	1.0	5.0	
Bromoform	N	D	1.0	5.0	Isopropylbenzene	торуlbenzene		1.0	5.0	
Bromomethane	N	D	1.0	5.0	p-Isopropyl toluene		ND	1.0	5.0	
n-Butyl benzene	7	ID	1.0	5.0	Methyl butyl ketone (d)		ND	1.0	5.0	
sec-Butyl henzene	J	ID.	1.0	5.0	Methylene Chloride(c)		ND	1.0	5.0	
tert-Butyl benzene	١	di	1.0	5.0	Methyl ethyl ketone (1)		26	2.0	10	
Carbon Disulfide	١	₹D	1.0	5.0		Methyl isobutyl ketone (g)		1.0	5.0	
Carbon Tetrachloride	١	1D	1.0	5.0	Methyl tert-Butyl Ether (	Methyl tert-Butyl Ether (MTBE)		1.0	5.0	
Chlorobenzene		ND		5.0	Naphthalene		ND	5.0	25	
Chloroethane	n	ID	1.0	5.0	n-Propyl benzene		ND	1.0	5.0	
2-Chloroethyl Vinyl Ether(c)	i	IĎ	1.0	5.0	Styrene (k)		ND	1.0	5.0	
Chloroform		ID	1.0	5.0	1,1,1,2-Tetrachloroethane		ND	1.0	5.0	
Chloromethane		ID	1.0	5.0	1,1,2,2-Tetrachloroethane		ND	1.0	5.0	
2-Chlorotoluene		ID	1.0	5.0	Tetrachloroethene		ND<10	1.0	5.0	
4-Chlorotoluene		ID .	1.0	5.0	Toluene (I)		76	1.0	5.0	
Dibromochloromethane	1	ID.	1.0	5.0	1,2,3-Trichlorobenzene		ND	5.0	25	
1,2-Dibromo-3-chloropropane	1	(D	2.0	10	1,2,4-Trichlorobenzene		ND	5.0	2.5	

1,1,1-Trichloroethane

1,1,2-Trichloroethane

Trichlorofluoromethane

1,2,3-Trichloropropane

1,2,4-Trimethylbenzene

1,3,5-Trimethylbenzene

Dibromofluoromethane

Trichloroethene

Vinyl Acetate [01]

Vinyl Chloride (11)

Xylenes, total "

Comments:

Toluene-d8

DHS Certification No. 1644

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

ND

ND

ND

ND

ND

ND

ND

ND

 $\overline{\text{ND}}$ 

ND

ND

ND

ND

ND

Dibromomethane

1,2-Dichlorobenzene

1,3-Dichlorobenzene

1,4-Dichlorobenzene

1.2-Dichloroethane

1,1-Dichloroethene

cis-1,2-Dichloroethene

1,2-Dichloropropane

1,3-Dichloropropane

2,2-Dichloropropane

1,1-Dichloropropene

trans-1,2-Dichloroethene

Dichlorodifluoromethane 1,1-Dichloroethane 1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

Edward Hamilton, Lab Director

ND

ND

ND

ND

ND

ND

ND

Surrogate Recoveries (%)

15

8.2

40

1.0

1.0

1.0

1.0

1.0

1.0

1.0

5.0

1.0

1.0

103

104

5.0

5.0

5.0

5.0

5.0

5.0

5.0

25

5.0

5.0

cis-1,3-Dichloropropene ND 1.0 5.0 4-Bromofluorobenzene 103

\*water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

<sup>(</sup>b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.



ENGEO Incorporated	Client Project ID: #5403.3.001.01;	Date Sampled: 11/15/01							
2401 Crow Canyon Rd., Ste 200	AAA Truck Parts	Date Received: 11/15/01							
San Ramon, CA 94583	Client Contact: Keith Nowell	Date Extracted: 11/15/01							
	Client P.O:	Date Analyzed: 11/20-11/21/01							
Volatile Organics By GC/MS									

Volatile Organics By GC/MS										
EPA method 8260										
	Lab ID	83719								
	Client ID	3-1								
	Matrix	S								

0 1	Concentration*	Reportin	g Limit	Compound	Concentration*	Reportin	g Limit
Compound	Concentration	W	S	Compound	Concentration	W	S
Acetone (b)	ND	5.0	25	trans-1,3-Dichloropropene	ND	1.0	5.0
Benzene	ND	1.0	5.0	Ethylene dibromide	ND	1.0	5.0
Bromobenzene	ND	1.0	5.0	Ethylbenzene	ND.	1.0	5.0
Bromochloromethane	ND	1.0	5.0	Hexachlorobutadiene	ND	5.0	25
Bromodichloromethane	ND	1.0	5.0	Iodomethane	ND	1.0	5.0
Bremeform	ND	1.0	5.0	Isopropylbenzene	ND	1.0	5.0
Bromomethane	ND	1.0	5.0	p-Isopropyl toluene	ND	1.0	5.0
n-Butyl benzene	ND	1.0	5.0	Methyl butyl ketone (d)	ND	1.0	5.0
sec-Butyl benzene	ND	1.0	5.0	Methylene Chloride(e)	ND	1,0	5.0
tert-Butyl benzene	ND	1.0	5.0	Methyl ethyl ketone (f)	ИД	2.0	10
Carbon Disulfide	ND	1.0	5.0	Methyl isobutyl ketone (g)	ND	1.0	5.0
Carbon Tetrachioride	ND	1.0	5.0	Methyl tert-Butyl Ether (MTBE)		1.0	5.0
Chlorobenzene	ND	1.0	5.0	Naphthalene	ND	5.0	25
Chloroethane	ND	1.0	5.0	n-Propyl benzene	ND	1.0	5.0
2-Chloroethyl Vinyl Ether(c)	ND	1.0	5.0	Styrene (k)	ND	1.0	5.
Chloroform	ND	1.0	5.0	1,1,1,2-Tetrachloroethane	ND	1.0	5.0
Chloromethane	ND	1.0	5.0	1,1,2,2-Tetrachloroethane	ND	1.0	5.0
2-Chlorotoluene	ND	1.0	5.0	Tetrachloroethene	ND<10	1.0	5.0
4-Chlorotoluene	ND	1.0	5.0	Toluene (1)	ND	1.0	5.0
Dibromochloromethane	ND	1.0	5.0	1,2,3-Trichlorobenzene	ND	5.0	25
1,2-Dibromo-3-chloropropane	ND	2.0	10	1,2,4-Trichlorobenzene	ND	5.0	25
Dibromomethane	ND	1.0	5.0	1,1,1-Trichloroethane	ND	1.0	5.0
1,2-Dichlorobenzene	ND	1.0	5.0	1,1,2-Trichloroethane	ND	1.0	5.0
1,3-Dichlorobenzene	ND	1.0	5.0	Trichloroethene	ND	1.0	5.1
1,4-Dichlorobenzene	ND	1.0	5.0	Trichlorofluoromethane	ND	1.0	5.
Dichlorodifluoromethane	ND	1.0	5.0	1,2,3-Trichloropropane	ND	1.0	5.
1,1-Dichloroethane	ND	1.0	5.0	1,2,4-Trimethylbenzene	ND	1.0	5.
1,2-Dichloroethanc	ND	1.0	5.0	1,3,5-Trimethylbenzene	ND	1.0	5.
1,1-Dichloroethene	ND	1.0	5.0	Vinyl Acetate (m)	ND	5.0	2:
cis-1,2-Dichloroethene	ND	1.0	5.0	Vinyl Chloride (n)	ND	1.0	5.
trans-1,2-Dichloroethene	ND	1.0	5.0	Xylenes, total (0)	ND	1.0	5.
1,2-Dichloropropane	ND	1.0	5.0	Comments:			
1,3-Dichloropropane	ND	1.0	5.0		ecoveries (%)		
2,2-Dichloropropane	ND	1.0	5.0	Dibromofluoromethane 102			
1,1-Dichloropropene	ND	1.0	5.0	Toluene-d8 106			
cis-1,3-Dichloropropene	ND	1.0	5.0	4-Bromofluorobenzene		1	14

<sup>\*</sup>water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

DHS Certification No. 1644

Edward Hamilton, Lab Director

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

<sup>(</sup>b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.



ENGEO Incorporated 2401 Crow Canyon Rd., S	te 200		nt Proj A Truci		#5403.3.001.01;		ampled: 11/15/ eceived: 11/15			
San Ramon, CA 94583	200	Clie	nt Con	tact: K	eith Nowell [	Date Extracted: 11/15/01				
S		Client P.O: Date Analyzed: 11/20						-11/21/01		
EPA method 8260		V	olatile	Orga	nics By GC/MS					
Lab ID					83721					
Client					4-1					
Matrix					S					
iviatila	L			2.1.1.				B	. Timele	
Compound	Conce	ntration*	Reporting		Compound		Concentration*	Reporting		
			W	S				W	S	
Acetone (b)		ND	5.0	25	trans-1,3-Dichloropropene		ND	1.0	5.0	
Benzene		ND	1.0	5.0	Ethylene dibromide		ND	1.0	5.0	
Bromobenzene		ND	1.0	5.0	Ethylbenzene		ND	1.0	5.0	
Bromochloromethane		ND	1.0	5.0	Hexachlorobutadiene		ND	5.0	25	
Bromodichloromethane		ND	1.0	5.0	Iodomethane		ND	1.0	5.0	
Bromoform		ND	1.0	5.0	Isopropylbenzene		ND	1.0	5.0	
Bromomethane		ND	1.0	5.0	p-Isopropyl toluene		ND	1.0	5.0	
n-Butyl benzene	<del></del>	ND ND		5.0	Methyl butyl ketone (d)		ND	1.0	5.0	
sec-Butyl benzene		ND	1.0	5.0	Methylene Chloride(c)		ND	1.0	5.0	
tert-Butyl benzene		ND	1.0	5.0	Methyl ethyl ketone (f)		ND	2.0	10	
Carbon Disulfide	l	ND	1.0	5.0	Methyl isobutyl ketone (g)		ND	1.0	5.0	
Carbon Tetrachloride	L	ND	1.0	5.0	Methyl tert-Butyl Ether (MT	TBE)		1.0	5.0	
Chlorobenzene	ļ	ND	1.0	5.0	Naphthalene		ND	5.0	25	
Chloroethane	<u> </u>	ND	1.0	5.0	n-Propyl benzene		ND	1.0	5.0	
2-Chloroethyl Vinyl Ether(c)		ND	1.0	5.0	Styrene (k)		ND	1.0	5.0	
Chleroform	<b>-</b>	ND	1.0	5.0	1,1,1,2-Tetrachioroethane		ND	1.0	5.0	
Chloromethane	<u> </u>	ND	1.0	5.0	1.1.2.2-Tetrachloroethane		ND	1.0	5.0	
2-Chlorotoluene		ND	1.0	5.0	Tetrachloroethene		ND<10	1.0	5.0	
4-Chlorotoluene		ND	1.0	5.0	Toluene (1)		ND	1.0	5.0	
Dibromochloromethane	<del> </del>	ND	1.0	5.0	1,2,3-Trichlorobenzene		ND	5.0	25	
1,2-Dibromo-3-chloropropane		ND	2.0	10	1,2,4-Trichlorobenzene		ND	5.0	25	
Dibromomethane		ND	1.0	5.0	1,1,1-Trichloroethane		ND	1.0	5.0	
1.2-Dichlorobenzene		ND	1.0	5.0	1,1,2-Trichloroethane		ND	1.0	5.0	
1,3-Dichlorobenzene	-	ND	1.0	5.0	Trichloroethene	-+	ND	1.0	5.0	
1,4-Dichlorobenzene	<del> </del>	ND	1.0	5.0	Trichlorofluoromethane		ND	1.0	5.0	
Dichlorodifluoromethane	<del> </del>	ND	1.0	5.0	1,2,3-Trichloropropane		ND	1.0	5.0	
1,1-Dichloroethane		ND	1.0	5.0	1,2,4-Trimethylbenzene		ND	1.0	5.0	
1,2-Dichloroethane		ND	1.0	5.0	1,3,5-Trimethylbenzene		ND	1.0	5.0	
1,1-Dichloroethene	ļ <u>-</u>	ND	1.0	5.0	Vinyl Acetate (iii)	1	ND	5.0	25	
cis-1,2-Dichloroethene		ND	1.0	5.0	Vinyl Chloride (ii)		ND	1.0	5.0	
trans-1,2-Dichloroethene	<b> </b>	ND	1.0	5.0	Xylenes, total (a)		ND	1.0	5.0	
1,2-Dichloropropane		ND	1.0					· · · · · · · · · · · · · · · · · · ·		
1,3-Dichloropropane	-	ND	1.0	5.0						
2,2-Dichloropropane	<b> </b>	ND	1.0	5.0	Dibromofluoromethane	B		Ţ ī	04	
1,1-Dichloropropene	-	ND	1.0	5.0	Toluene-d8			1 .	07	
cis-1,3-Dichloropropene	<b> </b>	ND	1.0	5.0	4-Bromofluorobenzene	-			19	
cis-1,3-Dichiolopropene		עאיי	1.0		- Diginoriagioconizone					

<sup>\*</sup>water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

DHS Certification No. 1644

Edward Hamilton, Lab Director

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

<sup>(</sup>b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

ENGEO Incorporated		Clie	nt Proi	ect ID:	#5403.3.001.01;	Date Sampled: 11/15/01						
2401 Crow Canyon Rd., S	te 200	<b>I</b>	A Truc		ļ	Date Received: 11/15/01						
San Ramon, CA 94583		Clie	Client Contact: Keith Nowell				xtracted: 11/15	/01				
San Ramon, Cri 54303		Clic	nt P.O:			Date A	nalyzed: 11/20	_11/21/	 'O 1			
		Circ	Client P.O: Date Analyzed: 11/20-11/21/									
EPA method 8260		7	olatile	Orga	nics By GC/MS							
Lab ID	)		83723									
Client	ID				5-1							
Matrix					S				******			
			Reportin	g Limit	C		C*	Reporting	g Limi			
Compound	Conce	entration*	W	S	Compound		Concentration*	W	S			
Acetone (b)		ND	5.0	25	trans-1,3-Dichloropropene		ND	1.0	5.0			
Benzene	<del> </del>	ND	1.0	5.0	Ethylene dibromide		ND	1.0	5.0			
Bromobenzene	1	ND	1.0	5.0	Ethylbenzene		ND	1.0	5.			
Bromochloromethane	<del> </del>	ND	1.0	5.0	Hexachlorohutadiene		ND	5.0	2.			
Bromodichloromethane	<b> </b>	ND	1.0	5.0	Iodomethane		ND	1.0	5.			
Bromoform		ND	1.0	5.0	Isopropylbenzene		ND	1.0	5.			
Bromomethane		ND	1.0	5.0	p-Isopropyl toluene		ND	1.0	5.			
n-Butyl benzene		ND	1.0	5.0	Methyl butyl ketone (d)		ND	1.0	5.			
sec-Butyl benzene		ND	1.0	5.0	Methylene Chloride(c)		ND	1.0	5.			
tert-Butyl benzene		ND	1.0	5.0	Methyl ethyl ketone (1)		ND	2.0	10			
Carbon Disulfide		ND	1.0	5.0	Methyl isobutyl ketone (g)		ND	1.0	5.			
Carbon Tetrachloride	li	ND	1.0	5.0	Methyl tert-Butyl Ether (M	(TBE)		1.0	5.			
Chlorobenzene		ND	1.0	5.0	Naphthalene		ND	5.0	2. 5.			
Chloroethane	1	ND	1.0	5.0	n-Propyl benzene		ND	1.0	5.			
2-Chloroethyl Vinyl Ether(c)	<u> </u>	ND	1.0	5.0	Styrene (k)		ND ND	1.0	5.			
Chloroform	<u> </u>	ND	1.0	5.0	1,1,1,2-Tetrachloroethane		ND ND	1.0	5.			
Chloromethane	ļ	ND	1.0	5.0	1,1,2,2-Tetrachloroethane Tetrachloroethene	—— <u> </u>	ND<10	1.0	5.			
2-Chlorotoluene	<b></b>	ND ND	1.0	5.0	Toluene (1)		ND=10	1.0	5.			
4-Chlorotoluene Dibromochloromethane	-	ND ND	1.0	5.0	1,2,3-Trichlorobenzene		ND	5.0	2			
1,2-Dibromo-3-chloropropane	<del> </del>	ND ND	2.0	10	1,2,4-Trichlorobenzene		ND	5.0	2			
Dibromomethane	<b> </b>	ND	1.0	5.0	1.1.1-Trichloroethane		ND	1.0	5.			
Dibloufulleriane		110	1.0		.,,,, 1110,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			<del> </del>	<del>  -</del>			

ND

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

1,1,2-Trichloroethane

Trichlorofluoromethane

1,2,3-Trichloropropane

1,2,4-Trimethylbenzene

1,3,5-Trimethylbenzene

Dibromofluoromethane

4-Bromofluorobenzene

Trichloroethene

Vinyl Acetate (m

Vinyl Chloride (0)

Xylenes, total (0)

Comments:

Toluene-d8

DHS Certification No. 1644

1,2-Dichlorobenzene

1,3-Dichlorobenzene

1,4-Dichlorobenzene

1.1-Dichloroethane

1.2-Dichloroethane

1,1-Dichloroethene

cis-1,2-Dichloroethene

1,2-Dichloropropane

1,3-Dichloropropane

2,2-Dichloropropane

1,1-Dichloropropene

cis-1,3-Dichloropropene

trans-1,2-Dichloroethene

Dichlorodifluoromethane

\_\_\_Edward Hamilton, Lab Director

ND

ND

ND

ND

ND

ND

ND

ND

ND

Surrogate Recoveries (%)

1.0

1.0

1.0

1.0

1.0

1.0

5.0

1.0

1.0

5.0

5.0

5.0

5.0

5.0

5.0

25

5.0

5.0

103

107

122

<sup>\*</sup>water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

<sup>(</sup>b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.



ENGEO Incorporated			nt Proje A Trucl		#5403.3.001.01;		ampled: 11/15/						
2401 Crow Canyon Rd., Ste	e 200					Dail	vale reconved. 11/15/01						
San Ramon, CA 94583		Clie	nt Con	tact: K	eith Nowell	Date Extracted: 11/15/01							
		Clie	nt P.O:		nalyzed: 11/20	-11/21/	01						
EPA method 8260		V	olatile	Orgai	nies By GC/MS								
Lab ID	<del></del>				83725								
Client I			6-1										
Matrix					S								
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,								Reporting	Limit				
Compound	Conce	ntration*	W		Compound		Concentration*	w	S				
				S	12 D(1)		ND	1.0	5.0				
Acetone (b)		ND	5.0	25	trans-1,3-Dichloropropene		ND ND	1.0	5.0				
Benzene		ND	1.0	5.0	Ethylene dibromide		ND ND	1.0	5.0				
Bromobenzene		ND	1.0	5.0	Ethylbenzene Hexachlorobutadiene		ND -	5.0	25				
Bromochloromethane		ND	1.0	5.0			ND	1.0	5.0				
Bromodichloromethane		ND	1.0	5.0	Iodomethane		ND ND	1.0	5.0				
Bromoform	ND		1.0	5.0	Isopropylbenzene		ND	1.0	5.0				
Bromomethane	ND		1.0	5.0	p-Isopropyl tolucne Methyl butyl ketone (d)	ND	1.0	5.0					
n-Butyl benzene	ND		1.0	5.0		Methylene Chloride <sup>(e)</sup>		1.0	5.0				
sec-Butyl benzenc	ND		1.0	5.0			ND ND	2.0	10				
tert-Butyl benzene		ND	1.0	5.0	Methyl ethyl ketone (f) Methyl isobutyl ketone (g)	ND	1.0	5.0					
Carbon Disulfide		ND	1.0	5.0	Methyl tert-Butyl Ether (M	(TDE)	ND	1.0	5.0				
Carbon Tetrachloride		ND	1.0	5.0		IIDE)	ND	5.0	25				
Chlorobenzene		ND	1.0	5.0 5.0	Naphthalene n-Propyl benzene		ND ND	1.0	5.0				
Chloroethane		ND	1.0	5.0	Styrene (k)		ND	1.0	5.0				
2-Chloroethyl Vinyl Ether <sup>(c)</sup>		ND ND	1	5.0	1,1,1,2-Tetrachloroethane		ND ND	1.0	5.0				
Chloroform		ND ND	1.0	5.0	1,1,2,2-Tetrachloroethane		ND	1.0	5.0				
Chloromethane		ND	1.0	5.0	Tetrachloroethene		ND<10	1.0	5.0				
2-Chlorotoluene		ND	1.0	5.0	Toluene (1)		ND	1.0	5.0				
4-Chlorotoluene Dibromochloromethane		ND ND	1.0	5.0	1,2,3-Trichlorobenzene		ND	5.0	25				
1,2-Dibromo-3-chloropropane		ND	2.0	10	1,2,4-Trichlorobenzene		ND	5.0	25				
Dibromomethane		ND	1.0	5.0	1,1,1-Trichloroethane		ND	1.0	5.0				
1.2-Dichlorobenzene		ND ND	1.0	5.0	1,1,2-Trichloroethane		ND	1.0	5.0				
1,3-Dichlorobenzene		ND	1.0	5.0	Trichloroethene		ND	1.0	5.0				
1,4-Dichlorobenzene		ND	1.0	5.0	Trichlorofluoromethane		ND	1.0	5.0				
Dichlorodifluoromethane	ļ	ND	1.0	5.0	1,2,3-Trichloropropane		ND	1.0	5.0				
1.1-Dichloroethane	ļ	ND	1.0	5.0	1,2,4-Trimethylbenzene		ND	1.0	5.0				
1,2-Dichloroethane		ND .	1.0	5.0	1,3,5-Trimethylbenzene		ND	1.0	5.0				
1,1-Dichloroethene		ND	1.0	5.0	Vinyl Acetate (III)		ND	5.0	25				
cis-1,2-Dichloroethene		ND	1.0	5.0	Vinyl Chloride (n)		ND	1.0	5.0				
trans-1,2-Dichloroethene		ND	1.0	5.0	Xylenes, total (0)		ND	1.0	5.0				
1,2-Dichloropropane		ND	1.0	0 5.0 Comments:									
1,3-Dichloropropane		ND	1.0	5.0									
2,2-Dichloropropane		ND	1.0	5.0	Dibromofluoromethane				14				
1,1-Dichloropropene	ļ	ND	1.0	5.0	Toluene-d8			P	07				
cis-1,3-Dichloropropene		ND	1.0	5.0	4-Bromofluorobenzene			11	12				

<sup>\*</sup>water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

DHS Certification No. 1644

Edward Hamilton, Lab Director

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

<sup>(</sup>b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.



ENGEO Incorporated		Clie	ent Proj	ect ID:	#5403.3.001.01;	Date S	ampled: 11/15/	01					
2401 Crow Canyon Rd., St	e 200	AA	A Truc	k Parts	]	Date Received: 11/15/01							
San Ramon, CA 94583		Clie	nt Con	tact: K	eith Nowell 1	Date E	extracted: 11/15	/01					
		Clie	ent P.O:		analyzed: 11/20	-11/21/	01						
EPA method 8260		Ţ	olatile	Orga	nics By GC/MS								
Lab ID		83727											
Client I	D				7-1								
Matrix					S								
Wattix	ا	•	Reportin	a Limit				Reporting	z Limit				
Compound	Concent	ration*	W	S	Compound		Concentration*	W	S				
Acetone (b)	N	D	5.0	25	trans-1,3-Dichloropropene		ND	1.0	5.0				
Benzene	N	D	1.0	5.0	Ethylene dibromide		ND	1.0	5.0				
Bromobenzene	N	D	1.0	5.0	Ethylbenzene		ND	1.0	5.0				
Bromochloromethane	N	D	1.0	5.0	Hexachlorobutadiene	xachlorobutadiene		5.0	25				
Bromodichloromethane	N	Ď	1.0	5.0	Iodomethane		ND	1.0	5.0				
Bromoform	N	C C	1.0	5.0	Isopropylbenzene		ND	1.0	5.0				
Bromomethane	N	D	1.0	5.0	p-Isopropyl toluene		ND	1.0	5.0				
n-Butyl benzene	N	D	1.0	5.0	Methyl butyl ketone (d)		ND	1.0	5.0				
sec-Butyl benzene	N	D	1.0	5.0	Methylene Chloridetel		ND	1.0	5.0				
tert-Butyl benzene	N	D	1.0	5.0	Methyl ethyl ketone (1)		ND	2.0	10				
Carbon Disulfide	N	D	1.0	5.0	Methyl isobutyl ketone (g)		ND	1.0	5.0				
Carbon Tetrachloride	N	D	1.0	5.0	Methyl tert-Butyl Ether (M	TBE)		1.0	5.0				
Chlorobenzene	N	D	1.0	5.0	Naphthalenc		ND	5.0	25				
Chloroethane	N	Ď	1.0	5.0	n-Propyl benzene		ND	1.0	5.0				
2-Chloroethyl Vinyl Ether(t)		D	1.0	5.0	Styrene (k)		ND	1.0	5.0				
Chloroform	N	D	1.0	5.0	1,1,1,2-Tetrachloroethane		ND	1.0	5.0				
Chloromethane	N	D	1.0	5.0	1,1,2,2-Tetrachloroethane		ND	1.0	5.0				
2-Chlorotoluene	N	D	1.0	5.0	Tetrachloroethene		ND<10	1.0	5.0				
4-Chlorotoluene	N	D	1.0	5.0	Toluene (1)	-	ND	1.0	5.0				
Dibromochloromethane	N	D	1.0	5.0	1,2,3-Trichlorobenzene		ND	5.0	25				
1,2-Dibromo-3-chloropropane	N	D	2.0	10	1,2,4-Trichlorobenzene		ND	5.0	25				
Dibromomethane	N	D	1.0	5.0	1,1,1-Trichloroethane		ND	1.0	5.0				
1,2-Dichlorobenzene	N	D	1.0	5.0	1,1,2-Trichloroethane		ND	1.0	5.0				
1,3-Dichlorobenzene	N	D	1.0	5.0	Trichloroethene		ND	1.0	5.0				
1,4-Dichlorobenzene		D	1.0	5.0	Trichlorofluoromethane		ND	1.0	5.0				
Dichlorodifluoromethane	N	D	1.0	5.0	1,2,3-Trichloropropane		ND	1.0	5.0				
1,1-Dichloroethane	ı	D	1.0	5.0	1,2,4-Trimethylbenzene		ND	1.0	5.0				
1,2-Dichloroethane	1	D	1.0	5.0	1,3,5-Trimethylbenzene		ND	1.0	5.0				
1,1-Dichloroethene		D	1.0	5.0	Vinyl Acetate (101)		ND	5.0	25				
cis-1,2-Dichloroethene	l	D	1.0	5.0	Vinyl Chloride (n)		ND	1.0	5.0				
trans-1,2-Dichloroethene		D	1.0	5.0	Xylenes, total (0)		ND	1.0	5.0				
1,2-Dichloropropane	N	D	1.0	5.0	Comments:								

Dibromofluoromethane

4-Bromofluorobenzene

Toluene-d8

5.0

5.0

5.0

5.0

1.0

1.0

1.0

1.0

ND

ND

ND

ND

DHS Certification No. 1644

1,3-Dichloropropane

2,2-Dichloropropane

1,1-Dichloropropene

cis-1,3-Dichloropropene

Edward Hamilton, Lab Director

Surrogate Recoveries (%)

113

110

116

<sup>&</sup>quot;water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

<sup>(</sup>b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (j) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.



ENGEO Incorporated			nt Proj	ect ID:	#5403.3.001.01;	Date S	Sampled: 11/15/01				
2401 Crow Canyon Rd., S	te 200		A Truc			Date F	Received: 11/15/01				
San Ramon, CA 94583		Clie	nt Con	tact: K	eith Nowell	Date E	ate Extracted: 11/15/01				
		Clie	Client P.O: Date Analyzed: 11/20-11/21/0						01		
4.4000		7	olatile	Orga	nics By GC/MS						
EPA method 8260					83729			<del></del>			
Lab ID					8-1				<del></del>		
Client											
Matrix				<del></del>	2		l	r .			
Compound	Concen	tration*	Reportin	-	Compound	Compound		Reporting Limit			
			W	S				W	S		
Acetone (b)	N	D	5.0	25	trans-1,3-Dichloroproper	ne	ND	1.0	5.0		
Benzene	N	D	1.0	5.0	Ethylene dibromide		ND	1.0	5.0		
Bromobenzene	N	D	1.0	5.0	Ethylbenzene		ND	1.0	5.0		
Bromochloromethane	N	D	1.0	5.0	Hexachlorobutadiene		ND	5.0	25		
Bromodichloromethane	N	D	1.0	5.0	lodomethane		ND	1.0	5.0		
Bromoform	N	D	1.0	5.0	Isopropylbenzene		ND	1.0	5.0		
Bromomethane	N	D	1.0	5.0	p-Isopropyl toluene		ND	1.0	5.0		
n-Butyl benzene	N	D	1.0	5.0	Methyl butyl ketone (d)		ND	1.0	5.0		
sec-Butyl benzene	Ň	D	1.0	5.0	Methylene Chloride(c)		ND	1.0	5.0		
tert-Butyl benzene	N	D	1.0	5.0	Methyl ethyl ketone (1)		"ND	2.0	10		
Carbon Disulfide	N	D	1.0	5.0	Methyl isobutyl ketone (		ND	1.0	5.0		
Carbon Tetrachloride	N	D	1.0	5.0	Methyl tert-Butyl Ether (	(MTBE)		1.0	5.0		
Chlorobenzene	N	D	1.0	5.0	Naphthalene		ND	5.0	25		
Chloroethane	1	D	1.0	5.0	n-Propyl benzene		ND	1.0	5.0		
2-Chloroethyl Vinyl Ether <sup>(c)</sup>		D.	1.0	5.0	Styrene (k)		ND	1.0	5.0		
Chloroform	1	D	1.0	5.0	1,1,1,2-Tetrachloroethan		ND	1.0	5.0		
Chloromethane	l N	ND		5.0	1,1,2,2-Tetrachloroethan	ne	ND	1.0	5.0		
2-Chlorotoluene	H .	D	1.0	5.0	Tetrachloroethene		ND<10	1.0	5.0		
4-Chlorotoluene		D	1.0	5.0	Toluene (1)		ND	1.0	5.0		

5.0 1.0 Comments: ND 1,2-Dichloropropane Surrogate Recoveries (%) 1.0 5.0 ND 1,3-Dichloropropane ND 1.0 5.0 Dibromofluoromethane T14 2,2-Dichloropropane 107 1,1-Dichloropropene ND 1.0 5.0 Toluene-d8 122 ND 1.0 5.0 4-Bromofluorobenzene cis-1,3-Dichloropropene

water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

NΓ

ND

ND

ND

ND

 $\overline{\text{ND}}$ 

ND

ND

ND

ND

ND

ND

Dibromomethane

1,2-Dichlorobenzene

1,3-Dichlorobenzene

1,4-Dichlorobenzene

1,1-Dichloroethane

1,2-Dichloroethane

1,1-Dichloroethene

cis-1,2-Dichloroethene

trans-1,2-Dichloroethene

Dichlorodifluoromethane

Dibromochloromethane

1,2-Dibromo-3-chloropropane

1.0

2.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

5.0

10

5.0

5.0

5.0 5.0

5.0

5.0

5.0

5.0

5.0

5.0

1,2,3-Trichlorobenzene

1,2,4-Trichlorobenzene

1,1,1-Trichloroethane

1,1,2-Trichloroethane

Trichlorofluoromethane

1,2,3-Trichloropropane

1,2,4-Trimethylbenzene

1,3,5-Trimethylbenzene

Trichloroethene

Vinyl Acetate (111)

Vinyl Chloride (ii)

Xylenes, total (0)

(b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (h) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

DHS Certification No. 1644

Edward Hamilton, Lab Director

ND

ND

ND

ND

 $\overline{\mathsf{ND}}$ 

ND

ND

ND

ND

ND

ND

ND

25

25

5.0

5.0

5.0

5.0

5.0

5.0

5.0

25

5.0

5.0

5.0

5.0

1.0

1.0

1.0

1.0

0.1

1.0

1.0

5.0

1.0

1.0

ENGEO Incorporated	Client Project ID: #5403.3.001.01;	Date Sampled: 11/15/01							
2401 Crow Canyon Rd., Ste 200	AAA Truck Parts	Date Received: 11/15/01							
San Ramon, CA 94583	Client Contact: Keith Nowell	Date Extracted: 11/15-11/28/01							
	Client P.O:	Date Analyzed: 11/16-11/29/01							
LUFT Metals*									

Lab ID	client ID	Matrix	Extraction	Cadmium	Chromium	Lead	Nickel	Zinc	% Recovery Surrogate
83715	1-1	S	TTLC	ND	38	7.4	44	50	97
83717	2-1	S	TTLC	4.1	61	230	36	300	102
83718	2-2	S	TTLC	1.4	710	190	59	770	93
83719	3-1	S	TTLC	1.0	390	100	32	1100	93
83720	3-2	S	TTLC	ND	23	9.6	21	36	100
83721	4-1	S	TTLC	2.1	61	110	34	320	103
83723	5-1	S	TTLC	ND	48	13	32	88	103
83725	6-1	S	TTLC	2.5	260	310	40	1800	106
83726	6-2	S	TTLC	ND	19	16	21	47	99
83727	7-1	S	TTLC	1.2	27	150	28	170	105
83729	8-1	S	TTLC	0.74	220	60	51	500	104
Reporti	ng Limit unless	S	TTLC	0.5 mg/kg	0.5	3.0	2.0	1.0	
otherw means no	ise stated; ND et detected above	W	TTLC	0.005 mg/L	0.02	0.005	0.05	0.05	
the reporting limit			STLC, TCLP	0.01 mg/L	0.05	0.2	0.05	0.05	

<sup>\*</sup> water samples are reported in mg/L, soil and sludge samples in mg/kg, wipes in ug/wipe and all TCLP / STLC / SPLP extracts in mg/L

i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.



<sup>&</sup>quot;Lead is analysed using EPA method 6010 (ICP) for soils, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples

<sup>&</sup>lt;sup>o</sup> EPA extraction methods 1311(TCLP), 3010/3020(water,TTLC), 3040(organic matrices,TTLC), 3050(solids,TTLC); STLC - CA Title 22

EDISTLC extractions are performed using STLC methodology except that deionized water is substituted for citric acid buffer as the extraction fluid. DISTLC results are not applicable to STLC regulatory limits.

<sup>\*</sup> surrogate diluted out of range; N/A means surrogate not applicable to this analysis

<sup>\*</sup> reporting limit raised due to matrix interference

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ENGEO Incorporated	Client Project ID: #5403.3.001.01;	Date Sampled: 11/15/01				
2401 Crow Canyon Rd., Ste 200	AAA Truck Parts	Date Received: 11/15/01				
San Ramon, CA 94583	Client Contact: Keith Nowell	Date Extracted: 11/15-11/29/01				
	Client P.O:	Date Analyzed: 11/28-11/29/01				

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline\*, with Methyl tert-Butyl Ether\* & BTEX\*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

EPA metho	EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)												
Lab ID	Client ID	Matrix	TPH(g)⁺	мтве	Benzene	Toluene	Ethyl- benzene	Xylenes	% Recovery Surrogate				
83718	2-2	s	ND	ND	ND	0.018	ND	ND	109				
83728	7-2	S	ND	ND	ND	ND	. ND	ND	112				
83730	8-2	S	ND	ND	ND	ND	ND	ND	100				
	·						<u> </u>		, ,,.				
							· · · · · · · · · · · · · · · · · · ·	·					
				Į.									
					-								
otherwi	g Limit unless se stated; ND	W	50 ug/L	5.0	0.5	0.5	0.5	0.5					
	t detected above porting limit	S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005					

<sup>\*</sup> water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

<sup>&#</sup>x27;The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.



<sup>\*</sup> cluttered chromatogram; sample peak coelutes with surrogate peak

ENGEO Incorporated	Client Project ID: #5403.3.001.01;	Date Sampled: 11/15/01
2401 Crow Canyon Rd., Ste 200	AAA Truck Parts	Date Received: 11/15/01
San Ramon, CA 94583	Client Contact: Keith Nowell	Date Extracted: 11/28/01
	Client P.O:	Date Analyzed: 11/28-11/29/01

# Diesel Range (C10-C23) and Oil-Range (C18+) Extractable Hydrocarbons as Diesel and Motor Oil with Silica Gel Clean-up\*

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCF1D(3510)

Lab ID	Client ID	Matrix	T <b>P</b> H(d)⁺	TPH(mo) <sup>+</sup>	% Recovery Surrogate
83718	2-2	S	19,g,b	65	102
83728	7-2	S	68,g	1000	102
83730	8-2	S	ND	ND	100
				,	
					N
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	250 ug/L	
		s	1.0 mg/kg	5.0 mg/kg	

<sup>\*</sup>water samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/l.

<sup>\*</sup>The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant; d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.



<sup>\*</sup> cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

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ENGEO Incorporated 2401 Crow Canyon Rd., Ste 200			Client Project ID: #5403.3.001.01;		Date Sampled: 11/15/01				
			Truck Parts	Date Received: 11/15/01					
San Ramon, CA 94583			Client Contact: Keith Nowell		Date Extracted: 11/28/01				
			Client P.O:		Date Analyzed: 11/28/01				
Petroleum Oil & Grease (with Silica Gel Clean-up) *  EPA methods 413.1, 9070 or 9071; Standard Methods 5520 D/E&F or 503 D&E for solids and 5520 B&F or 503 A&E for liquids									
		Mat							
83718	2-2	S		200					
83728	7-2	S		57	700				
83730	8-2	S		N	ND				
-									
	<u> </u>								
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		V			mg/L				
		5	S 50 mg/kg		ng/kg				

h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5vol. % sediment.



Edward Hamilton, Lab Director

<sup>\*</sup> water samples are reported in mg/L, wipe samples in mg/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in mg/L

ENGEO Incorporated			Client P	Client Project ID: #5403.3.001.01;			Date Sampled: 11/15/01			
	2401 Crow Canyon Rd., Ste 20			uck Parts		Date Received: 11/15/01				
San Ran	non, CA 94583		Client Contact: Keith Nowell				Date Extrac	ted: 11/2	8/01	
			Client P	.O:			Date Analy	zed: 11/2	9/01	
EPA analy	ytical methods 6010	/200.7. 239.2	ıl.	LUFT M	letals*					
Lab ID	Client ID	Matrix	Extraction	Cadmium	Chromium	Lead	Nickel	Zinc	% Recovery Surrogate	
83718	2-2	S	TTLC	1.4	710	190	59	770	93	
83720	3-2	S	TTLC	ND	23	9.6	21	36	100	
83726	6-2	S	TTLC	ND	19	16	21	47	99	
									:	
									<u> </u>	
<del></del>	-		<u> </u>			<u> </u>				
D (*)		S	TTLC	0.5 mg/kg	0.5	3.0	2.0	1.0		
otherv	ing Limit unless vise stated; ND ot detected above	w	TTLC	0.005 mg/L	0.02	0.005	0.05	0.05	1	
			_1	J	ļ				-	

<sup>\*</sup> water samples are reported in mg/L, soil and sludge samples in mg/kg, wipes in ug/wipe and all TCLP / STLC / SPLP extracts in mg/L

0.05

0.01 mg/L

STLC,

TCLP

0.05

0.05

the reporting limit

<sup>\*</sup> Lead is analysed using EPA method 6010 (ICP) for soils, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples

º EPA extraction methods 1311(TCLP), 3010/3020(water,TTLC), 3040(organic matrices,TTLC), 3050(solids,TTLC); STLC - CA Title 22

<sup>&</sup>lt;sup>(e)</sup> DISTLC extractions are performed using STLC methodology except that deionized water is substituted for citric acid buffer as the extraction fluid. DISTLC results are not applicable to STLC regulatory limits.

<sup>#</sup> surrogate diluted out of range; N/A means surrogate not applicable to this analysis

<sup>&</sup>amp; reporting limit raised due to matrix interference

i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.

TPH (gas)

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# **QC REPORT**

# EPA 8015m + 8020

Date: 11/15/01	Extractio	n: TTLC			Matrix:	Soil		
	Concentration: mg/kg					%Recovery		
Compound	Sample	MS	MSD	Amount Spiked	MS	MSD	RPD	
SampleID: 111401					Instrume	<u>nt:</u> Go	C-3	
Surrogate1	ND	107.000	109.000	100.00	107	109	1.9	
Xylenes	ND	0.338	0.339	0.30	113	113	0.3	
Ethylbenzene	ND	0.111	0.113	0.10	111	113	1.8	
Toluene	ND	0.112	0.114	0.10	112	114	1.8	
Benzene	ND	0.107	0.109	0.10	107	109	1.9	
мтве	ND	0.087	880.0	0.10	87	88	1.1	
					1		f	

ND

0.927 0.920

1.00

0.8

% Re covery 
$$= \frac{(MS-Sample)}{AmountSpiked} \cdot 100$$
 $(MS-MSD)$ 

# **QC REPORT**

### EPA 8015m + 8020

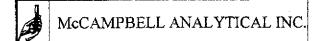
Date: 11/16/01

Extraction: TTLC

Matrix: Soil

E 40 ( ) ( ) ( ) ( )							
		Concentration: mg/kg					
Compound	Sample	MS	MSD	Amount Spiked	MS	MSD	RPD
SampleID: 111401					Instrumer	<u>it</u> GC-2	2 A
Surrogate1	ND	103.000	103.000	100.00	103	103	0.0
TPH (diesel)	ND	136.000	136.000	150.00	91	91	0.0

% Re covery = 
$$\frac{(MS-Sample)}{AmountSpiked} \cdot 100$$



# **QC REPORT**

EPA 8015m + 8020

Date: 11/16/01	Extraction	: TTLC			Matrix:	Soil	
	Concentration: mg/kg					%Recovery	
Compound	Sample	MS	MSD	Amount Spiked	MS	MSD	RPD
<u>SampleID:</u> 112601		-			Instrume	nt: M	B-1
Oil & Grease	ND	19.800	20.000	20.80	95	96	1.0

% Re covery =  $\frac{(MS-Sample)}{AmountSpiked} \cdot 100$ RPD= $\frac{(MS-MSD)}{(MS+MSD)} \cdot 2\cdot 100$ 

# **QC REPORT**

VOCs (EPA 8240/8260)

Extraction: N/A

Matrix: Soil

Date: 1/20/01	Extraction	ii IWA			MIGUIA.	3011	
	Concentration: ug/kg				%Recovery		
Compound	Sample	MS	MSD	Amount Spiked	MS	MSD	RPD
SampleID: 110901					Instrumer	nt: GC	-10
Surrogate	ND	106.0	107.0	100.00	106	107	0.9
Toluene	ND	49.5	49.0	50.00	99	98	1.0
Benzene	ND	50.5	50.5	50.00	101	101	0.0
Chlorobenzene	ND	52.5	52.0	50.00	105	104	1.0
Trichloroethene	ND	37.5	37.0	50.00	75	74	1.3
1,1-Dichloroethene	ND	52.5	52.5	50.00	105	105	0.0

 $\% \text{ Re covery} = \frac{\left( MS - Sample \right)}{AmountSpiked} \cdot 100$ 

 $RPD = \frac{(MS - MSD)}{(MS + MSD)} 2.100$ 

RPD means Relative Percent Deviation

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# **QC REPORT**

# LUFT

Date: 11/16/01

Extraction: TTLC

Matrix: Soil

Concentration: mg/kg					%Recovery	
Sample	MS	MSD	Amount Spiked	MS	MSD	RPD
				Instrumer	<u>nt:</u> P-1	AA
ND	106.9	103.1	100.00	107	103	3.6
ND	5.5	5.2	5.00	111	104	6.3
ND	5.0	5.1	5.00	100	103	2.8
ND	4.7	4.4	5.00	94	87	6.9
ND	5.5	4.9	5.00	111	98	12.2
ND	4.9	4.9	5.00	99	97	1.6
ND	5.0	4.9	5.00	100	97	2.4
	ND ND ND ND ND	ND         106.9           ND         5.5           ND         5.0           ND         4.7           ND         5.5           ND         4.7           ND         4.9	ND         106.9         103.1           ND         5.5         5.2           ND         5.0         5.1           ND         4.7         4.4           ND         5.5         4.9           ND         4.9         4.9	ND         106.9         103.1         100.00           ND         5.5         5.2         5.00           ND         5.0         5.1         5.00           ND         4.7         4.4         5.00           ND         5.5         4.9         5.00           ND         4.9         4.9         5.00	Sample         MS         MSD         Amount Spiked         MS           Instrumer           ND         106.9         103.1         100.00         107           ND         5.5         5.2         5.00         111           ND         5.0         5.1         5.00         100           ND         4.7         4.4         5.00         94           ND         5.5         4.9         5.00         111           ND         4.9         4.9         5.00         99	Sample         MS         MSD         Amount Spiked         MS         MSD           Instrument: P-1             ND         106.9         103.1         100.00         107         103           ND         5.5         5.2         5.00         111         104           ND         5.0         5.1         5.00         100         103           ND         4.7         4.4         5.00         94         87           ND         5.5         4.9         5.00         111         98           ND         4.9         4.9         5.00         99         97

% Re covery = 
$$\frac{(MS-Sample)}{AmountSpiked}$$
 · 100

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

# **ENGEO**

**INCORPORATED** 

2401 Crow Canyon Road Suite 200

San Ramon, CA 94583

Phone: (925) 838-1600

Fax (925) 838-7425

# **CHAIN OF CUSTODY RECORD**

83716<sup>#</sup>

Keith Nowell (Letal Harld)  Sample number Date Time Matrix Container Number Size Vative Preservative T- 1 11/15/01 9:54 Soil 1 2"x 6" None X X X X X X X X X X X X X X X X X X X	83718 MARKS/ 83719 OUIRED 83720 IMITS 83720
1- 1 11/15/01 9:54 Soil 1 2"x 6" None X X X X X X	QUIRED 03/1
1- 1 11/15/01 9:54 Soil 1 2"x 6" None X X X X X X	MOIKET.
1- 1 11/15/01 9:54 Soil 1 2"x 6" None X X X X X X	IMITS 83720
1- 1 11/15/01 9:54 Soil 1 2"x 6" None X X X X X X	
1- 1 11/15/01 9:54 Soil 1 2"x 6" None X X X X X X	8372
4 2 11/15/01 9:55 Soil 1 2"x 6" None HOLD- analy	
<u> </u>	sis pending 8372
2- 1 11/15/01 11:26 Soil 1 2"x 6" None X X X X X X	
2- 22 11/15/01 11:27 Soil 1 2"x 6" None . X X X HOLD analy	sis pending 837
3- 11 11/15/01 13:03 Soil 1 2"x 6" None X X X X X	
3- 2 11/15/01 13:04 Soil 1 2"x 6" None HOLD analy	sis pending 8372
4- 1 11/15/01 10:51 Soil 1 2"x 6" None X X X X X	·
4-2 11/15/01 10:52 Soil 1 2"x 6" None HOLD analy	8372
5- 1 11/15/01 11:06 Soil 1 2"x 6" None X X X X X	
5- 2. 11/15/01 11:07 Soil 1 2"x 6" None HOLD analy	sis pending 837
0 21 11/2/01 11.12 501 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
6- \$2 11/15/01 11:13 Soil 1 2"x 6" None HOLD analy 7- 1 11/15/01 12:39 Soil 1 2"x 6" None X X X X X X	
	8372
<del>▗▗▗▝▗▗▗▗▗▗▗</del> ▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗	sis pending
	8372
	sis pending
X= 5d per	KN 8372
29	<u>.</u>
	8373
LINQUISHED BY: DATE / TIME RECEIVED BY: RELINQUISHED BY: DATE / TIME RECEIVED BY:	
PRESERVATION VOAS   08G   METALS   OTHER	
LINQUISHED BY:  DATE / TIME CONDITION APPROPRIALE  DATE / TIME RECEIVED BY:	
HEAD SPACE ABSENTCONTAINERS	
Standard TAT. Run Silica Gel Cleanup on TEPH and O&G. Repor	t TEPH as Diesel
MUL DUTOR and Motor Oil.	

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ENGEO Incorporated	Client Project ID: #5403.3.001.01;	Date Sampled: 11/15/01	
2401 Crow Canyon Rd., Ste 200	AAA Truck Parts	Date Received: 11/15/01	
San Ramon, CA 94583	Client Contact: Keith Nowell	Date Extracted: 11/15/01	
	Client P.O:	Date Analyzed: 11/15/01	

11/22/01

#### Dear Keith:

#### Enclosed are:

- 1). the results of 3 samples from your #5403.3.001.01; AAA Truck Parts project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Edward Hamilton, Lab Director

ENGEO Incorporated	Client Project ID: #5403.3.001.01;	Date Sampled: 11/15/01
2401 Crow Canyon Rd., Ste 200	AAA Truck Parts	Date Received: 11/15/01
San Ramon, CA 94583	Client Contact: Keith Nowell	Date Extracted: 11/16/01
	Client P.O:	Date Analyzed: 11/16/01

#### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline \*

Lab ID	Client ID	Matrix	TPH(g) <sup>+</sup>	% Recovery Surrogate
83731	GW-1	w	ND	104
83732	GW-2	W	ND	107
83733	GW-3	W	2200,a	119
otherwise sta	Limit unless ated; ND means	W	50 ug/L	
not detected above the reporting limit		S	1.0 mg/kg	

<sup>\*</sup> water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts

<sup>\*</sup>The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.



<sup>\*</sup> cluttered chromatogram; sample peak coelutes with surrogate peak

ENGEO Incorporated	Client Project ID: #5403.3.001.01;	Date Sampled: 11/15/01	
2401 Crow Canyon Rd., Ste 200	AAA Truck Parts	Date Received: 11/15/01	
San Ramon, CA 94583	Client Contact: Keith Nowell	Date Extracted: 11/15/01	
	Client P.O:	Date Analyzed: 11/16/01	

# Diesel Range (C10-C23) and Oil-Range (C18+) Extractable Hydrocarbons as Diesel and Motor Oil with Silica Gel Clean Up\*

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID Client	ID Matrix	TPH(d) <sup>+</sup>	TPH(mo) <sup>+</sup>	% Recovery Surrogate
83731 GW-	1 W	1900,g	9500	85
83732 GW-	2 W	110,b,g	ND	96
83733 GW-	3 W	1500,g,d	2200	101
Reporting Limit unless othe tated; ND means not detected	rwise W	50 ug/L	250 ug/L	
the reporting limit	S	1.0 mg/kg	5.0 mg/kg	

<sup>\*</sup>water samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/L.

DHS Certification No. 1644

Edward Hamilton, Lab Director

<sup>\*</sup> cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

<sup>\*</sup>The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.

ENGEO Inco	orporated		Clie	nt Project ID: #5403.3.001.01;	Date Sampled: 11/15/01
2401 Crow C	Canyon Rd., Ste 2	00	AA	A Truck Parts	Date Received: 11/15/01
San Ramon,	CA 94583		Clie	nt Contact: Keith Nowell	Date Extracted: 11/15/01
			Clie	nt P.O:	Date Analyzed: 11/16/01
EPA methods 41				il & Grease (with Silica Gel Cleass 5520 D/E&F or 503 D&E for solids and	
Lab ID	Client ID	Mat			Grease*
83731	GW-1	W	7		74
83732	GW-2	W	r	1	ND
83733	GW-3	W	,		13
	•				
		1			

* water samples are reported in mg/L,	wipe samples in mg/wipe	e, soil and sludge samples	in mg/kg, and a	II TCLP / STLC	SPLP extra	acts in
mg/L						

h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5vol. % sediment.

W

S



5 mg/L

50 mg/kg

Edward Hamilton, Lab Director

Reporting Limit unless otherwise stated; ND means not detected above the reporting limit

ENGEO Incorporated		Cli	ent Pro	ject ID	: #5403.3.001.01;	Date S	Sampled: 11/15/	01	
2401 Crow Canyon Rd., S	te 20		AA Truc	k Parts	5	Date F	Received: 11/15	/01	
San Ramon, CA 94583		Cli	ent Cor	ntaet: K	Leith Nowell	Date I	Extracted: 11/16	5-11/ <b>2</b> 0/	/01
		Cli	ent P.O	:		Date A	Analyzed: 11/16	5-11/20/	/01
EPA method 8260			Volatile	e Orga	nics By GC/MS			····	
Lab ID	<u> </u>				83731				
Client	ĪD				GW-1				
Matrix					W				
C1			Reportin	ng Limit				Reportin	g Limit
Compound	W		S	Compound		Concentration*	W	S	
Acetone (b)	ne <sup>(b)</sup> ND 5.0 25 trans-1,3-Dichloropropene		ND	1.0	5.0				
Benzene		ND	1.0	5.0	Ethylene dibromide		ND	1.0	5.0
Bromobenzene	1	ND	1.0	5.0	Ethylbenzene		ND	1.0	5.0
Bromochloromethane		ND	1.0	5.0	Hexachlorobutadiene		ND	5.0	25
Bromodichloromethane		ND	1.0	5.0	Iodomethane	·	ND	1.0	5.0
Bromoform		ND	1.0	5.0	Isopropylbenzene		ND	1.0	5.0
Bromomethane		ND	1.0	5.0	p-Isopropyl toluene		ND	1.0	5.0
n-Butyl benzene		ND	1.0	5.0	Methyl butyl ketone (d)		ND	1.0	5.0
sec-Butyl benzene		ND	1.0	5.0	Methylene Chloride <sup>(c)</sup>		ND	1.0	5.0
tert-Butyl benzene		ND	1.0	5.0	Methyl ethyl ketone (1)		ND	2.0	10
Carbon Disulfide		ND	1.0	5.0	Methyl isobutyl ketone		ND	1.0	5.0
Carbon Tetrachloride		ND	1.0	5.0	Methyl tert-Butyl Ether	(MTBE)		1.0	5.0
Chlorobenzene		ND	1.0	5.0	Naphthalene		ND	5.0	25
Chloroethane	ļ <u>.</u>	ND	1.0	5.0	n-Propyl benzene		ND	1.0	5.0
2-Chloroethyl Vinyl Ether (c)		ND	1.0	5.0	Styrene (k)		ND	1.0	5.0
Chloroform		ND	1.0	5.0	1,1,1,2-Tetrachloroethar		ND	1.0	5.0
Chloromethane	<u> </u>	ND	1.0	5.0	1,1,2,2-Tetrachloroethar	ie	ND	1.0	5.0
2-Chlorotoluene	<u> </u>	ND	1.0	5.0	Tetrachloroethene		ND	1.0	5.0
4-Chlorotoluene	ļ	ND	1.0	5.0	Toluene (1)		ND	1.0	5.0
Dibromochloromethane		ND	1.0	5.0	1,2,3-Trichlorobenzene		ND	5.0	25
1,2-Dibromo-3-chloropropane		ND	2.0	10	1,2,4-Trichlorobenzene		ND	5.0	25
Dibromomethane	<del> </del>	ND	1.0	5.0	1,1,1-Trichloroethane		ND	1.0	5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1,1,2-Trichloroethane

Trichlorofluoromethane

1,2,3-Trichloropropane

1,2,4-Trimethylbenzene

1,3,5-Trimethylbenzene

Dibromofluoromethane

4-Bromofluorobenzene

Trichloroethene

Vinyl Acetate (m)

Vinyl Chloride (n)

Xylenes, total (0)

Comments:

Toluene-d8

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1,2-Dichlorobenzene

1,3-Dichlorobenzene

1,4-Dichlorobenzene

1.1-Dichloroethane

1,2-Dichloroethane

1,1-Dichloroethene

cis-1,2-Dichloroethene

1,2-Dichloropropane

1,3-Dichloropropane

2,2-Dichloropropane

1,1-Dichloropropene

cis-1,3-Dichloropropene

trans-1,2-Dichloroethene

Dichlorodifluoromethane

ND

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

Edward Hamilton, Lab Director

ND

ND

ND

ND

ND

ND

ND

ND

ND

Surrogate Recoveries (%)

5.0

5.0

5.0

5.0

5.0

5.0

25

5.0

5.0

118

99

106

1.0

1.0

1.0

1.0

1.0

1.0

5.0

1.0

1.0

<sup>\*</sup>water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

<sup>(</sup>b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

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Telephone: 925-798-1620 Fax: 925-798-1622
<a href="http://www.mccampbell.com">http://www.mccampbell.com</a> E-mail: main@mccampbell.com

ENGEO Incorporated			Clie	nt Proj	ect ID	: #5403.3.001.01;	Date S	Sampled: 11/15/	01	
2401 Crow Canyon Rd., S	te 20			A Truc			Date I	Received: 11/15	/01	
San Ramon, CA 94583			Clie	nt Con	tact: K	eith Nowell	Date I	Extracted: 11/16	-11/20	/01
			Clie	nt P.O	:		Date A	Analyzed: 11/16	i-11/20/	⁄01
			<del></del>	olatile	Orga	nics By GC/MS		· · · · · · · · · · · · · · · · · · ·	••	
EPA method 8260										
Lab ID						83732			· · · · · · · · · · · · · · · · · · ·	
Client	ID					GW-2				
Matrix						W				
	<u> </u>			Reportin	e Limit				Reportin	o I imit
Compound	Con	centratio	n*	W		Compound		Concentration*	W	
A (h)		ND		ļ	S	14.5.13	<del></del>	375		S
Acetone (b)	ļ	ND		5.0	25	trans-1,3-Dichloroprope	me	ND	1.0	5.0
Benzene		ND		1.0	5.0	Ethylene dibromide		ND	1.0	5.0
Bromobenzene	<u></u>	ND		1.0	5.0	Ethylbenzene		ND	1.0	5.0
Bromochloromethane		ND		1.0	5.0	Hexachlorobutadiene		ND	5.0	25
Bromodichloromethane		ND		1.0	5.0	Iodomethane		ND	1.0	5.0
Bromoform		ND		1.0	5.0	Isopropylbenzene		ND	1.0	5.0
Bromomethane		ND		1.0	5.0	p-Isopropyl toluene		ND	1.0	5.0
n-Butyl benzene		ND		1.0	5.0	Methyl butyl ketone (d)		ND	1.0	5.0
sec-Butyl benzene		ND		1.0	5.0	Methylene Chloride(e)		ND	1.0	5.0
tert-Butyl benzene		ND		1.0	5.0	Methyl ethyl ketone (1)		ND	2.0	10
Carbon Disulfide		ND		1.0	5.0	Methyl isobutyl ketone	(g)	ND	1.0	5.0
Carbon Tetrachloride		ND		1.0	5.0	Methyl tert-Butyl Ether	(MTBE)		1.0	5.0
Chlorobenzene		ND		1.0	5.0	Naphthalene	<del></del>	ND	5.0	25
Chloroethane		ND		1.0	5.0	n-Propyl benzene		ND	1.0	5.0
2-Chloroethyl Vinyl Ether(c)		ND		1.0	5.0	Styrene (k)		ND	1.0	5.0
Chloroform		ND		1.0	5.0	1,1,1,2-Tetrachloroethar	ne	ND	1.0	5.0
Chloromethane	ļ	ND		1.0	5.0	1,1,2,2-Tetrachloroethar		ND	1.0	5.0
2-Chlorotoluene		ND		1.0	5.0	Tetrachloroethene		ND	1.0	5.0
4-Chlorotoluene	-	ND		1.0	5.0	Toluene (1)		ND	1.0	5.0
Dibromochloromethane		ND		1.0	5.0	1,2,3-Trichlorobenzene		ND	5.0	2.5
1,2-Dibromo-3-chloropropane	ļ	ND		2.0	10	1,2,4-Trichlorobenzene		ND	5.0	25
Dibromomethane		ND		1.0	5.0	1,1,1-Trichloroethane		ND	1.0	5.0
1,2-Dichlorobenzene	ļ	ND		1.0	5.0	1,1,2-Trichloroethane		ND	1.0	5.0
1,3-Dichlorobenzene		ND		1.0	5.0	Trichloroethene		ND	1.0	5.0
1,4-Dichlorobenzene		ND		1.0	5.0	Trichlorofluoromethane		ND	1.0	5.0
Dichlorodifluoromethane	<b>-</b>	ND		1.0	5.0	1,2,3-Trichloropropane		ND ND	1.0	5.0
1,1-Dichloroethane	ļ	ND	_	1.0	5.0	1,2,4-Trimethylbenzene		ND	1.0	5.0
1,2-Dichloroethane	<b> </b>	ND		1.0	5.0	1,3,5-Trimethylbenzene		ND	1.0	5.0
1,1-Dichloroethene	<del>                                     </del>	ND		1.0	5.0	Vinyl Acetate (m)		ND	5.0	25
cis-1,2-Dichloroethene		ND		1.0	5.0	Vinyl Chloride (ii)		ND	1.0	5.0
trans-1,2-Dichloroethene		ND		1.0	5.0	Xylenes, total (0)		ND ND	1.0	5.0
1,2-Dichloropropane		ND		1.0	5.0	Comments:		1		
1,3-Dichloropropane	<u> </u>	ND		₩	5.0		vvoceto D	ecoveries (%)		
2,2-Dichloropropane	<b> </b>	ND		1.0	5.0	Dibromofluoromethane		ecuveries (70)	3.1	19
1,1-Dichloropropene	<u> </u>	ND		1.0	5.0	Toluene-d8				8
cis-1,3-Dichloropropene		ND ND		1.0	5.0	4-Bromofluorobenzene				8 )6
Us-1,3-Dicilioropropene	ــــــــــــــــــــــــــــــــــــــ	חמ		1.0	3.0	4-promotiuorobenzene			<u> </u>	<i>7</i> 0

<sup>\*</sup>water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

DHS Certification No. 1644

Edward Hamilton, Lab Director

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

<sup>(</sup>b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

ENGEO Incorporated		Clie	ent Proj	iect ID	: #5403.3.001.01;	Date S	Sampled: 11/15/	01	
•			A Truc			Date F	Received: 11/15	/O1	
2401 Crow Canyon Rd., S	te 200					Date	——————————————————————————————————————	701	
San Ramon, CA 94583		Clie	ent Con	ıtact: K	eith Nowell	Date E	Extracted: 11/16	-11/20	/01
		- C11							·
		Che	ent P.O	;		Date A	Analyzed: 11/16	-11/20/	/01
EPA method 8260		7	Volatile	Orga	nics By GC/MS				
				T			<del></del>		
Lab ID					83733				
Client					GW-3				
Matrix					W				
Compound	Concent	retion*	Reportin	g Limit	Compound		Concentration*	Reportin	g Limit
Compound	Concern	a a circui	W	S	Compound		Concentration	W	S
Acetone (b)	ND	<13	5.0	25	trans-1,3-Dichloropropene		ND<2.5	1.0	5.0
Benzene	<del> </del>	110	1.0	5 <sub>9</sub> 0	Ethylene dibromide		ND<2.5	1.0	5.0
Bromobenzene	ND-	<2.5	1.0	5.0	Ethylbenzene		120	1.0	5.0
Bromochloromethane	ND:	<2.5	1.0	5.0	Hexachlorobutadiene		ND<13	5.0	25
Bromodichloromethane	ND		1.0	5.0	Iodomethane		ND<2.5	1.0	5.0
Bromoform	ND		1.0	5.0	Isopropylbenzene		6.5	1.0	5.0
Bromomethane	ND.		1.0	5.0	p-Isopropyl toluene		ND<2.5	1.0	5.0
n-Butyl benzene	ND:		1.0	5.0	Methyl butyl ketone (d)		ND<2.5	1.0	5.0
sec-Butyl benzene	ND.		1.0	5.0	Methylene Chloride <sup>(e)</sup>		ND<2.5	1.0	5.0
tert-Butyl benzene	ND.		1.0	5.0	Methyl ethyl ketone (1)		ND<5.0	2.0	10
Carbon Disulfide	ND		1.0	5.0	Methyl isobutyl ketone (g)		ND<2.5	1.0	5.0
Carbon Tetrachloride	ND		1.0	5.0	Methyl tert-Butyl Ether (M	TRES	110 12.0	1.0	5.0
Chlorobenzene	ND		1.0	5.0	Naphthalene	TDE,	110	5.0	25
Chloroethane	ND:		1.0	5.0	n-Propyl benzene		16	1.0	5.0
2-Chloroethyl Vinyl Ether <sup>(c)</sup>	ND		1.0	5.0	Styrene (k)		ND<2.5	1.0	5.0
Chloroform	ND		1.0	5.0	1,1,1,2-Tetrachloroethane		ND<2.5	1.0	5.0
Chloromethane	ND		1.0	5.0	1,1,2,2-Tetrachloroethane		ND<2.5	1.0	5.0
2-Chlorotoluene	ND:		1.0	5.0	Tetrachloroethene		ND<2.5	1.0	5.0
4-Chlorotoluene	ND.		1.0	5.0	Toluene (1)		14	1.0	5.0
Dibromochloromethane	ND.		1.0	5.0	1,2,3-Trichlorobenzene		ND<13	5.0	25
1,2-Dibromo-3-chloropropane	ND:		2.0	10	1,2,4-Trichlorobenzene		ND<13	5.0	25
Dibromomethane	ND:		1.0	5.0	1,1,1-Trichloroethane		ND<2.5	1.0	5.0
1,2-Dichlorobenzene	ND:		1.0	5.0	1,1,2-Trichloroethane		ND<2.5	1.0	5.0
1.3-Dichlorobenzene	ND-		1.0	5.0	Trichloroethene		ND<2.5	1.0	5.0
1,4-Dichlorobenzene	ND		1.0	5.0	Trichlorofluoromethane		ND<2.5	1.0	5.0
Dichlorodifluoromethane	ND		1.0	5.0	1,2,3-Trichloropropane		ND<2.5	1.0	5.0
1.1-Dichloroethane	ND:		1.0	5.0	1,2,4-Trimethylbenzene		99	1.0	5.0
1,2-Dichloroethane	ND		1.0	5.0	1,3,5-Trimethylbenzene		23	1.0	5.0
1,1-Dichloroethene		<2.5	1.0	5.0	Vinyl Acetate (m)		ND<13	5.0	25
cis-1,2-Dichloroethene		<2.5	1.0	5.0	Vinyl Chloride (0)		ND<2.5	1.0	5.0
trans-1,2-Dichloroethene		<2.5	1.0	5.0	Xylenes, total (0)		230	1.0	5.0
1,2-Dichloropropane	<del> </del>	<2.5	1.0	5.0	Comments:		<u> </u>	J	
1,3-Dichloropropane	2	<2.5	1.0	5.0		ogate Re	coveries (%)		
2,2-Dichloropropane		<2.5	1.0	5.0	Dibromofluoromethane	- B 111	(/0)	1:	29
1,1-Dichloropropene		<2.5	1.0	5.0	Toluene-d8				00
cis-1,3-Dichloropropene		<2.5	1.0	5.0	4-Bromofluorobenzene				16
Til 1,5 Divition opioponio					L . S. SINGINGS BUDIECTIC			أحجب سيدا	

water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

DHS Certification No. 1644

Edward Hamilton, Lab Director

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

<sup>(</sup>b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

Date Sampled: 11/15/01 Client Project ID: #5403.3.001.01; **ENGEO** Incorporated **AAA Truck Parts** Date Received: 11/15/01 2401 Crow Canyon Rd., Ste 200 Date Extracted: 11/15/01 Client Contact: Keith Nowell San Ramon, CA 94583 Date Analyzed: 11/16/01 Client P.O: LUFT Metals\* EPA analytical methods 6010/200.7, 239.2\* % Recovery Nickel Extraction<sup>o</sup> Cadmium Chromium Lead Zinc Client ID Matrix Lab ID Surrogate N/A ND ND ND ND W Dissolved ND 83731 GW-1 ND N/A ND ND ND W Dissolved ND GW-2 83732 ND ND ND N/A Dissolved ND ND 83733 GW-3 W 1.0 TTLC 0.5 mg/kg 0.5 3.0 2.0 S Reporting Limit unless otherwise stated; ND means 0.05 0.05 0.02 0.005 W Dissolved 0.005 mg/L not detected above the reporting limit STLC,

0.05

0.01 mg/L

TCLP

i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.



0.05

0.05

<sup>\*</sup> water samples are reported in mg/L, soil and sludge samples in mg/kg, wipes in ug/wipe and all TCLP / STLC / SPLP extracts in mg/L

<sup>\*</sup> Lead is analysed using EPA method 6010 (ICP) for soils, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples

<sup>&</sup>lt;sup>o</sup> EPA extraction methods 1311(TCLP), 3010/3020(water,TTLC), 3040(organic matrices,TTLC), 3050(solids,TTLC); STLC - CA Title 22

<sup>@</sup> DISTLC extractions are performed using STLC methodology except that deionized water is substituted for citric acid buffer as the extraction fluid. DISTLC results are not applicable to STLC regulatory limits.

surrogate diluted out of range; N/A means surrogate not applicable to this analysis

<sup>\*</sup> reporting limit raised due to matrix interference

# **QC REPORT**

# EPA 8015m + 8020

Date: 11/16/01

Matrix: Water

Date: 11/16/01	•				Matrix:	Water			
		Concent	tration: r	ng/L	%Rec	overy			
Compound	Sample	MS	MSD	Amount Spiked	MS	MSD	RPD		
SampleID: 111401	Extraction:	EPA 5	030		Instrument: GC-3				
Surrogate1	ND	106.0	106.0	100.00	106	106	0.0		
Xylenes	ND	35.3	34.2	30.00	118	114	3.2		
Ethylbenzene	ND	11.5	11.7	10.00	115	117	1.7		
Toluene	ND	11.3	11.7	10.00	113	117	3.5		
Benzene	ND	10.8	10.7	10.00	108	107	0.9		
MTBE	ND	8.2	8.4	10.00	82	84	2.4		
TPH (gas)	ND	88.1	90.9	100.00	88	91	3.0		
SampleID: 111401	Extraction	TTLC			Instrumer	<u>nt:</u> MI	B-1		
Oil & Grease	ND	25.2	25.0	23.70	106	105	8.0		
SampleID: 111401	Extraction	EPA 3	510		Instrumer	<u>nt:</u> GC-	5 A		
Surrogate1	ND	94.0	96.0	100.00	94	96	2.1		
TPH (diesel)	ND	7200.0	7200.0	7500.00	96	96	0.0		

% Re covery = 
$$\frac{(MS-Sample)}{AmountSpiked} \cdot 100$$

$$RPD = \frac{\left(MS - MSD\right)}{\left(MS + MSD\right)} \cdot 2400$$

# **QC REPORT**

VOCs (EPA 8240/8260)

Date: 11/16/01

Extraction: EDA 5030

Matrix: Water

covery	
:	
MSD	RPD
ent: GC	-10
101	1.0
99	2.0
105	1.9
102	0.0
90	0.0
112	2.6
	99 105 102 90

% Re covery = 
$$\frac{(MS-Sample)}{AmountSpiked} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

110 2nd Ave. South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 http://www.mccampbell.com

# **QC REPORT**

# LUFT

Date: 11/16/01	Extraction		Matrix: Water				
		%Rec					
Compound	Sample	MS	MSD	Amount Spiked	MS	MSD	RPD
<u>SampleID:</u> 112601					Instrumer	<u>nt:</u> P-1	AA
Copper	ND	5.5	5.5	5.00	110	110	0.2
Zinc	ND	4.9	5.1	5.00	98	101	4.0
Lead	ND	4.5	4.6	5.00	90	92	2.3
Nickel	ND	5.0	5.1	5.00	99	101	2.4
Chromium	ND	4.9	5.1	5.00	98	101	2.8
Cadmium	ND	4.9	5.1	5.00	98	103	4.4

% Re covery = 
$$\frac{(MS-Sample)}{AmountSpiked} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2.100$$



2401 Crow Canyon Road Suite 200 San Ramon, CA 94583

Phone: (925) 838-1600

Fax (925) 838-7425

# **CHAIN OF CUSTODY RECORD**

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	.,	-			C;	2880	1_	20	N (0)	Co	Ke	ركان	(, / !			_			ı		г		
5403.3.		AAA T	ruck P	arts			JINE 330)	IEL /MO	MATICS , 8020)	CARBONS 10)	SANICS 160)	ORGANICS	REASE (E/F))	(282)		TALS	STV						ARKS/
Keith N		Lectel	Kowa	4)			TPH-GASOLINE (EPA 8015/5030)	TPH- DIESEL / (EPA 8015/3550/3510)	FURGEABLE AROMATICS BTEX (EPA 602, 8020)	FURGEABLE HALOCARBON( (EPA 601,8010)	VOLATILE ORGANICS (BPA 624, 8260)	LATILE ( (EPA 827	L OIL & C	PCBs (EPA 605, 8082)	•	TITLE 26 METALS (17)	LUFT METALS					DETE	UIRED ECTION MITS
MPLE NUMBER	DATE	TIME	MATRIX	CONTAINER NUMBER	CONTAINER SIZE	PRESER- VATIVE	E e	T.	PURGE	FURGEA	VOLA	SEMI VO	TOTAL OIL & GREASE (SWWW 5520 (E/F))	Œ		TIT	7					L.II'	AITS
GW- 1	11/15/01	10:25	Aqueous	3	40 ml	HCl	X				X											VOAs	
GW- 1	11/15/01	10:25	Aqueous	I	1000 ml	None	<u> </u>										X					Plastic	83731
GW- 1	11/15/01	10:25	Aqueous	2	1000 ml	None		X					X				, '					Amber glass	
GW-2	11/15/01	11:55	Aqueous	3	40 ml	HC1	X				X											VOAs	_
GW- 2	11/15/01	11:55	Aqueous	1	1000 ml	None											X					Plastic	83732
GW- 2	11/15/01	11:55	Aqueous	2	1000 ml	None		X	<u></u>				X									Amber glass	_ :- :- :- :- :
GW- 3	11/15/01	13:25	Aqueous	3	40 ml	HCl	X				X											VOAs	<u> </u>
GW- 3	11/15/01	13:25	Aqueous	1	1000 ml	None	<u> </u>										X					Plastic	_ 83733
GW-3	11/15/01	13:25	Aqueous	2	1000 ml	None	<u>                                     </u>	X					X									Amber glass	<u></u>
																<u> </u>							
							<u> </u>			<u> </u>	<u> </u>									<u>.  </u>			
								<u> </u>	<u> </u>		<u> </u>		<u> </u>				<u> </u>			_		, <u></u>	
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YU GDYGE YG AD ADIADILIG	UN CENTRAL TO	APPROPR		file	Red & one	SOLVE	<del> </del>	<u> </u>	<u> </u>	<u> </u>	ļ		<u> </u>			<u> </u>	L				$\perp$		
<del>AD SPACE AE</del>	DEMI V	CONTAIN	RS V	inla	o woon re	evect	↓_	1	<u> </u>	<u> </u>	<u> </u>		ļ			<u> </u>							· <del>-</del>
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LINQUISHED BY			D/	ATE/TIME	RECEIVED BY:				····	RE	ELINOI	ishet	BY:						DATE	TIME	REC	CEIVED BY:	
LINQUISHED BY:	:		D/	ATE / TIME	RECEIVED FOR		RV BY:	Hr	ujes W	<sup>rot</sup>  S		lard						Clean Lab.	up on	TEPI	and	O&G. Report	TEPH as Dies
	<u>.                                    </u>				الداحير	<u> </u>		<u> </u>	<u> </u>														(0)

A P P E N D I X

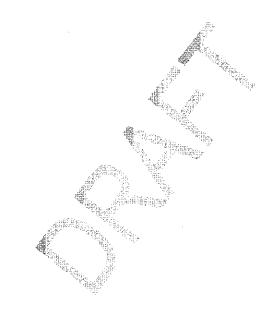
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### APPENDIX D

ENGEO INCORPORATED

Boring Logs, October 2001



				DATE OF BORING: November 15, 2001		OVM	IN P	LACE
DEPTH (FEET)	DEPTH (METERS)	SAMPLE NUMBER	LOG, LOCATION AND TYPE OF SAMPLE	SURFACE ELEVATION: Approx. 13 feet (4 meters)	BLOWS/FT	READING P.I.D. (10.0eV)	DRY UNIT WEIGHT	MOIST.
DEPT	DEPTH	SAMPL	LOG, LOC	DESCRIPTION		(Parts Per million)	(PCF)	% DRY WEIGH
7		1-1		SILTY CLAY (CL), black, very moist, medium plasticity. (Fill)		<1		
	1	1-2		SILTY GRAVEL (GM), greenish gray, very moist to wet, gravel is subangular, predominantly less than , inch. (Fill) SILTY CLAY (CL), greenish gray, very moist, medium plasticity. (Possible fill) CLAYEY coarse SAND/fine GRAVEL (SC/GC), dark brown, very moist. (Possible fill)		<1		
5	2			SILTY CLAY (CL), dark grayish brown, very moist, medium plasticity.				
				SILTY CLAY (CL), becoming dark gray, very moist, medium plasticity.  SILTY CLAY (CL), brown with gray mottling, very moist.		<1		
10	-3			CLAYEY GRAVEL (GC), brown, very moist, gravels to 1/2-inch maximum dimension, subangular.				
	-4			SILTY CLAY (CL), yellowish brown, very moist, abundant carbonates between 10 $^{1}/_{2}$ and 11 feet.		<1		
15	-					<1 <1		**************************************
ļ	-5		/// /// /// ///	CLAYEY SAND (SC), pale brown, wet, sand is predominantly fine grained.	5.0	<1		
20	-6			SiLTY very fine SAND (SM), pale brown, saturated.  Bottom of probe at approximately 20 feet at 10:17.		<1		
	-7			Groundwater encountered at 17.8 feet while probing. Groundwater level at 9 ½ feet upon completion of drilling.				
25	_							
	-8							ļ
30	-9							
E	٨	IGE RPOR	ΞO	AAA TRUCK PARTS 3884 DEPOT ROAD		G NO.: P- BY: K. Nowell	1 COMECKED BY	FIGURI NO.

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				DATE OF BORING: November 15, 2001		OVM	IN P	LACE
DEPTH (FEET)	DEPTH (METERS)	SAMPLENUMBER	LOG, LOCATION AND TYPE OF SAMPLE	SURFACE ELEVATION: Approx. 13 feet (4 meters)	BLOWS/FT	READING P.I.D. (10,0eV)	DRY UNIT WEIGHT	MOIST. CONTEN
DEPT	DEPTH	SAMPLI	LOG, LOC TYPE O	DESCRIPTION		(Parts Per million)	(PCF)	% DRY WEIGHT
0		2-1		Mixture of CLAYEY GRAVEL and SILTY GRAVEL (GC/GM), dark grayish brown, very moist, gravels to approximately $\frac{1}{2}$ inch in size, subangular to subrounded (Fill)				
	-i	2-2		SILTY CLAY (CL), very moist to wet, medium plasticity. (Possible fill)		<1		
5	-			CLAYEY GRAVEL (GC), dark grayish brown, moist, gravels to approximately \\\\/\/\/\/\/\/\/\/\/\/\-inch maximum diameter, subangular to subrounded. (Possible fill)				
	-2			SILTY CLAY (CH), dark grayish brown, moist, high to medium plasticity.		<1		
				SILTY CLAY (CH), becoming grayish brown, very moist, decreasing plasticity.		<1		
10	-3			Mixture of SILTY GRAVEL and CLAYEY GRAVEL (GM/GC), dark brown, very moist, gravels to <sup>2</sup> / <sub>3</sub> -inch maximum dimension, subangular.		<1		
15	-4			SILTY CLAY (CL), grayish brown, very moist, medium plasticity.		<1		,
	-5							
20	-6			∑ SILTY CLAY (CL), pale brown, wet, with fine sand, abundant carbonates between 17.6 and 19 feet.				
				Bottom of probe at approximately 20 feet at 11:50. Groundwater encountered at 19 feet while probing. Groundwater level at 10 feet upon completion of drilling.				
	-7							
25	-8							
	-							
- 30	-9							
_			<u> </u>	A A A CONTINUE DA DEC	BORIN	G NO.: P-	2	FIGUR NO.
E	:/	<b>I</b> GE	<u> </u>	AAA TRUCK PARTS 3884 DEPOT ROAD	<u> </u>	BY: K. Nowell		A C
<u>N</u>	<u>C O</u>	RPOR		HAYWARD, CALIFORNIA	PROJ. NO.:	5403.3.001.0	CIRECKED BY	A

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				DATE OF BORING: November 15, 2001		OVM	IN PI	ACE
DEPTH (FEET)	DEPTH (METERS)	SAMPLE NUMBER	LOG, LOCATION AND TYPE OF SAMPLE	SURFACE ELEVATION: Approx. 12 feet (4 meters)	BLOWS/FT	READING P.I.D. (10.0eV)	DRY UNIT WEIGHT	MOIST.
DEPTH	DEPTH (	SAMPLE	LOG, LOC. TYPE OI	DESCRIPTION		(Parts Per million)	(PCF)	% DRY WEIGHT
0	1	3-1		Mixture of SILTY GRAVEL and CLAYEY GRAVEL (GM/GC), moist, gravels to \(^1/2\)-inch maximum dimension, subangular to subrounded. (Fill)		<1		1
		3-2		CLAYEY medium to coarse SAND (SC), gray, very moist to wet. (Fili)		42.6		
	-1	3-2		Organic SILT (MH), brown, abundant fibrous organics, wet, moderate organic odor.		72.0		
5	-			SILTY CLAY (CH), dark gray, very moist, high to medium plasticity.		<1		i
	-2			SILTY CLAY (CL), dark gray, very moist, medium plasticity.		<1		
10	-3			No recovery between 8 to $10^{-1}/_4$ feet.				
10				SILTY fine to medium SAND (SM), dark gray, saturated.	-			
				SILTY CLAY (CL), dark gray, very moist.				
	-4			Bottom of probe at approximately 12 feet, at 13:15. Groundwater encountered at $11\frac{1}{2}$ feet while probing. Groundwater level at 7.8 feet upon completion of drilling.				
15	-							
	-5				ļ			
	-							
20	-6							
20								
	-7					:		
- 25	;							
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- 30	9							
					BUDIN	G NO.: P-	<u> </u>	FIGURE NO.
E	-/	<b>V</b> GI		AAA TRUCK PARTS 3884 DEPOT ROAD		BY: K. Nowell		NO. Λ 2
1 N	C C	RPOF		□ HAYWARD, CALIFORNIA	PROJ. NO.:	5403.3.001.0	1 8771	AJ

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