Consulting Engineers
and Geoscientists

GeoEngineers

Results of Ground Water Monitoring and Sampling
July and October 1996
Former Unocal Service Station 4165
Snohomish, Washington

December 10, 1996

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For

Unocal ERS - West Region

GeoEngineers

File No. 9161-394-04-1150

GeoEngineers

December 10, 1996

Consulting Engineers and Geoscientists
Offices in Washington, Oregon, and Alaska

Unocal ERS - West Region
P.O. Box 76
Seattle, Washington 98111

Attention: Mr. Leigh Carlson

Results of Ground Water
Monitoring and Sampling
July and October 1996
Former Unocal Service Station 4165
Snohomish, Washington
File No. 9161-394-04

INTRODUCTION

This letter summarizes the results of our July and October 1996 ground water monitoring and sampling at former Unocal Service Station 4165. The site is located at 202 Avenue "D," northwest of the intersection between Second Street and Avenue "D" in Snohomish, Washington. The Ecology (Washington State Department of Ecology) UST (underground storage tank) site number is 008443 and the LUST (leaking UST) incident number for the site is 8443. The site layout, former service station facilities and monitoring well locations are shown in Figure 1.

AGRA E&E (AGRA Earth & Environmental, Inc., formerly RZA AGRA, Inc.) provided environmental services at the site from 1990 to 1994. GeoEngineers has provided monitoring services at the site since January 1995. The results of previous studies and monitoring efforts are summarized in reports that are on file at Unocal.

The purpose of our services from July to October 1996 was to monitor ground water conditions beneath the site. Depths to ground water were measured in monitoring wells MW-1 through MW-3, and ground water samples were obtained from MW-1 through MW-3 on July 23 and from MW-1 and MW-2 on October 15. A field duplicate sample also was obtained from MW-1 in July and October 1996. GeoEngineers' scope of services completed for these activities is presented in Attachment A. Our ground water sampling procedures are described in Attachment B. The depths to ground water and ground water elevations in MW-1 through MW-3 for this reporting period and the last two monitoring events (four monitoring events total) are

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summarized in Table 1. The inferred direction of shallow ground water flow and ground water elevations of the monitoring wells in October 1996, based on our measurements, are shown in Figure 1. The ground water analytical results for MW-1 through MW-3 for this reporting period and the last two sampling events (four events total) are summarized in Table 2 and Figure 2. The laboratory reports and our review of the laboratory QA/QC (quality assurance and quality control) program are included in Attachment C.

SUMMARY OF MONITORING RESULTS

- Ground water was present in the three monitoring well casings at depths ranging from approximately 8 to 10.5 feet below the ground surface during this reporting period. The depths to ground water measured during July 1996 generally are consistent with previous data. The depths to ground water measured in October 1996 are approximately 1 to 2 feet greater than one year ago, in October 1995.
- The apparent direction of shallow ground water flow was to the southwest on both occasions, which is consistent with the ground water flow direction during previous monitoring episodes.
- Benzene and/or xylenes were detected at concentrations exceeding the MTCA (Model Toxics Control Act) Method A cleanup levels in the July 1996 sample from MW-1 and in the duplicate from MW-1. BETX (benzene, ethylbenzene, toluene, and xylenes) compounds either were not detected or were detected at concentrations less than the MTCA Method A cleanup levels in the remaining samples obtained during this reporting period.
- The sum of gasoline- and diesel-range hydrocarbon concentrations exceeded the MTCA Method A cleanup level of 1.0 mg/l (milligrams per liter) in the July and October 1996 samples from MW-1 and MW-2. Petroleum hydrocarbons were not detected in the July 1996 sample from MW-3.
- Based on the chemical analytical results from this reporting period, petroleum contaminant concentrations generally are decreasing in samples obtained from MW-1 and MW-2.
- Ground water does not appear to be contaminated in the vicinity of upgradient monitoring well MW-3.

FUTURE MONITORING

- GeoEngineers will continue to obtain ground water samples from monitoring wells MW-1 and MW-2 on a quarterly basis and from MW-3 on a semiannual basis for chemical analysis of BETX and petroleum hydrocarbons. The results of the next reporting period (January and April 1997) will be summarized in our next report to Unocal.

LIMITATIONS

We have prepared this report for use by Unocal. This report may be made available to regulatory agencies. This report is not intended for use by others and the information contained herein is not applicable to other sites. Our interpretation of subsurface conditions is based on field observations and chemical analytical data from discrete locations.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted practices in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

We appreciate the opportunity to provide these services to Unocal. Please contact us if you have questions regarding our ongoing studies at the site.

Respectfully submitted,

GeoEngineers, Inc.

Lisa J. Bona
Project Geologist

Julia Fowler, P.E.
Associate

LJB:JF:wd
Document ID: 9161394.R4

Attachments

Two copies submitted

cc: Mr. Wally Moon
Washington State Dept. of Ecology
Northwest Regional Office
3190 - 160th Ave. SE
Bellevue, WA 98008-5452

TABLE 1
GROUND WATER ELEVATIONS
FORMER UNOCAL SERVICE STATION 4165
SNOHOMISH, WASHINGTON

Monitoring Well[1]	Date Measured	Depth to Ground Water from Casing Rim (feet)	Ground Water Elevation[2] (feet)
MW-1	01/24/96	5.51	95.47
	04/24/96	7.38	94.50
	07/23/96	**9.37**	**88.74**
	10/15/96	**10.12**	**87.99**
MW-2	01/24/96	3.92	95.75
	04/24/96	4.89	95.04
	07/23/96	**7.83**	**91.56**
	10/15/96	**8.24**	**91.35**
MW-3	01/24/96	4.12	95.75
	04/24/96	4.83	95.04
	07/23/96	**8.30**	**91.57**
	10/15/96	**8.63**	**91.24**

Notes:

[1]Approximate locations of monitoring wells are shown in Figures 1 and 2.

[2]Elevations are measured relative to a temporary benchmark determined by AGRA E&E, with an assumed elevation of 100.00 feet. The benchmark location is unknown.

Bold indicates that measurement was taken during current reporting period.

Document ID: 161394L1.WK1

TABLE 2
SUMMARY OF GROUND WATER CHEMICAL ANALYTICAL DATA
MONITORING WELLS
FORMER UNOCAL SERVICE STATION 4165
SNOHOMISH, WASHINGTON

Monitoring Well[1]	Date Sampled	BETX[2] (µg/l) B	E	T	X	Gasoline-range Hydrocarbons[3] (mg/l)	Diesel-range Hydrocarbons[4] (mg/l)	Heavy Oil-range Hydrocarbons[4] (mg/l)
MW-1	01/24/96	66	540	99	3,800	36	2.6	1.7
DUP,12496[5]	01/24/96	62	520	84	3,700	36	--	--
	04/24/96	<2.0	25	<2.0	140	19	1.6	<0.75
DUP/042496[5]	04/24/96	16	22	4.1	130	16	--	--
	07/23/96	**9.35**	**32.1**	**6.19**	**94.3**	**7.950**	**0.648**	**<0.750**
D072396[5]	**07/23/96**	**<2.50**	**24.7**	**<2.50**	**72.3**	**7.430**	**--**	**--**
	10/15/96	**<0.500**	**4.91**	**1.89**	**10.1**	**1.750**	**0.321[6]**	**<0.750[6]**
D101596[5]	**10/15/96**	**<0.500**	**5.01**	**1.86**	**10.2**	**1.730**	**--**	**--**
MW-2	01/24/96	1.9	3.5	<0.5	6.2	5.6	0.58	<0.75
	04/24/96	1.6	4.4	2.9	7.1	6.3	0.53	<0.75
	07/23/96	**<2.50**	**2.92**	**2.61**	**<5.00**	**3.710**	**0.458**	**<0.750**
	10/15/96	**<1.00**	**2.58**	**2.57**	**4.47**	**4.190**	**0.427**	**<0.750**
MW-3	01/24/96	<0.5	<0.5	<0.5	<1.0	<0.05	<0.25	<0.75
	04/24/96	--	--	--	--	--	--	--
	07/23/96	**<0.500**	**<0.500**	**<0.500**	**<1.00**	**<0.0500**	**<0.250**	**<0.750**
	10/15/96	**--**	**--**	**--**	**--**	**--**	**--**	**--**
MTCA Method A Cleanup Levels		5	40	30	20	1.0[7]		

Notes:

[1]Approximate monitoring well locations are shown in Figures 1 and 2.

[2]B = benzene, E = ethylbenzene, T = toluene, X = total xylenes. Analyzed by EPA Method 8020.

[3]Analyzed by Ecology Method WTPH-G.

[4]Analyzed by Ecology Method WTPH-D extended.

[5]Sample was a field duplicate obtained from MW-1.

[6]The laboratory reported a malfunction in equipment during this analysis. Results or detection limits should be considered estimated.

[7]The MTCA Method A ground water cleanup level for the sum of gasoline-, diesel- and heavy oil-range hydrocarbon concentrations is 1 mg/l if carbon ranges are distinctly quantified using gas chromatography methods.

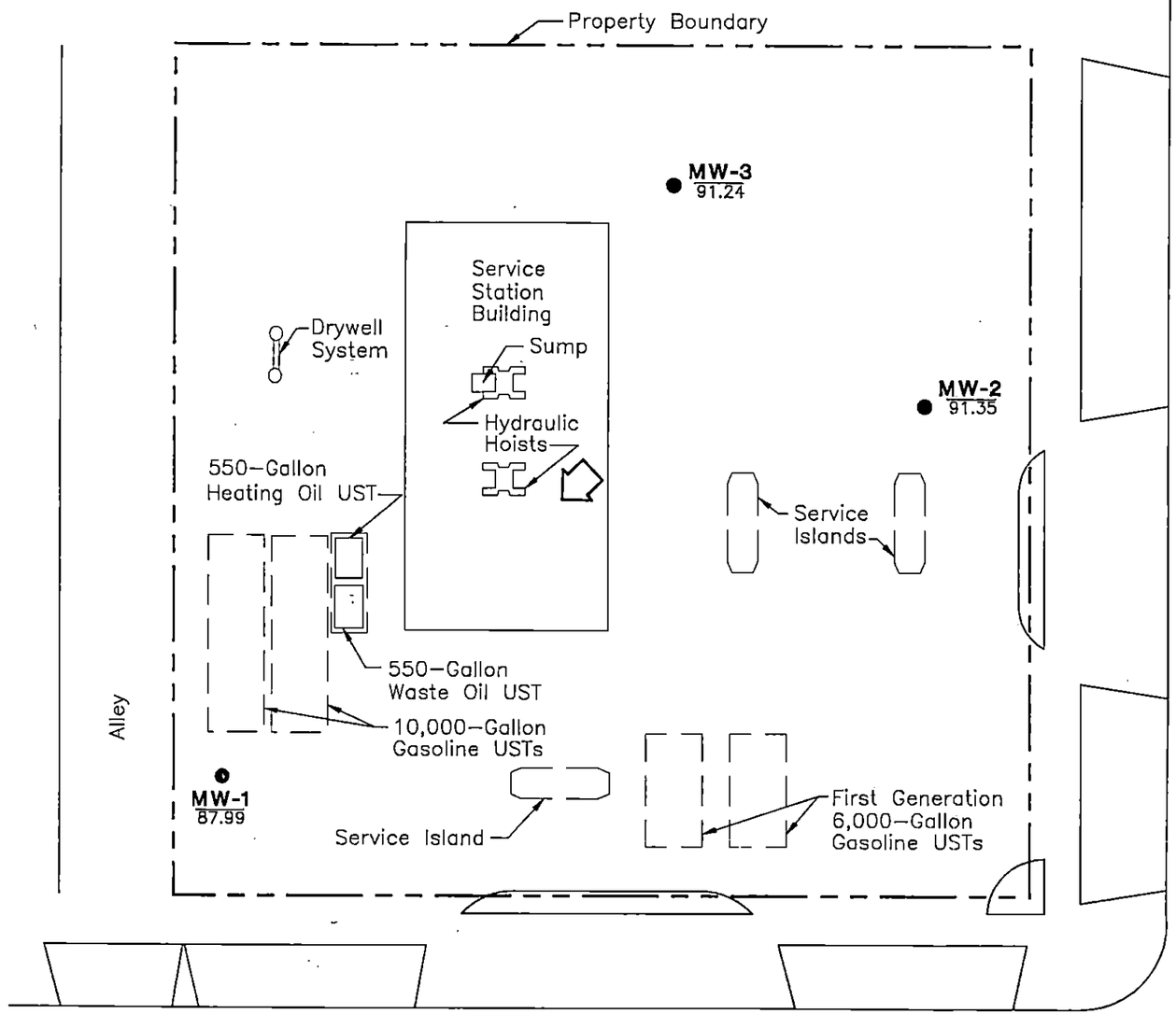
µg/l = micrograms per liter; mg/l = milligrams per liter; "--" = not tested.

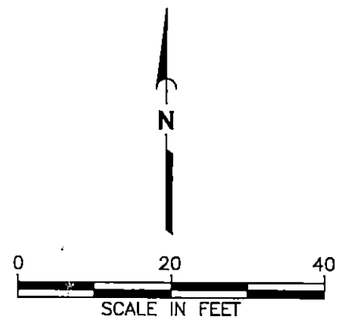
Shading indicates that analyte was detected at a concentration greater than the MTCA Method A ground water cleanup level.

Bold indicates that sample was obtained during current reporting period.

Laboratory analyses during the current reporting period performed by North Creek Analytical of Bothell, Washington. Laboratory reports for the current reporting period are provided in Attachment C.

Document ID: 161394L2.WK1





EXPLANATION:

MW-1 87.99 ● MONITORING WELL INSTALLED BY AGRA E & E, INC. GROUND WATER ELEVATION (FEET) ON 10/15/96

GENERAL DIRECTION OF GROUND WATER FLOW ON 10/15/96

UST UNDERGROUND STORAGE TANK

Notes: 1. The locations of all features shown are approximate.
2. All site facilities were removed in 1991 and 1992.

Reference: Drawing entitled "Service Station #4165, General Arrangement, Avenue D & Second St., Snohomish, WA.," by Unocal, revision dated 12/31/87.

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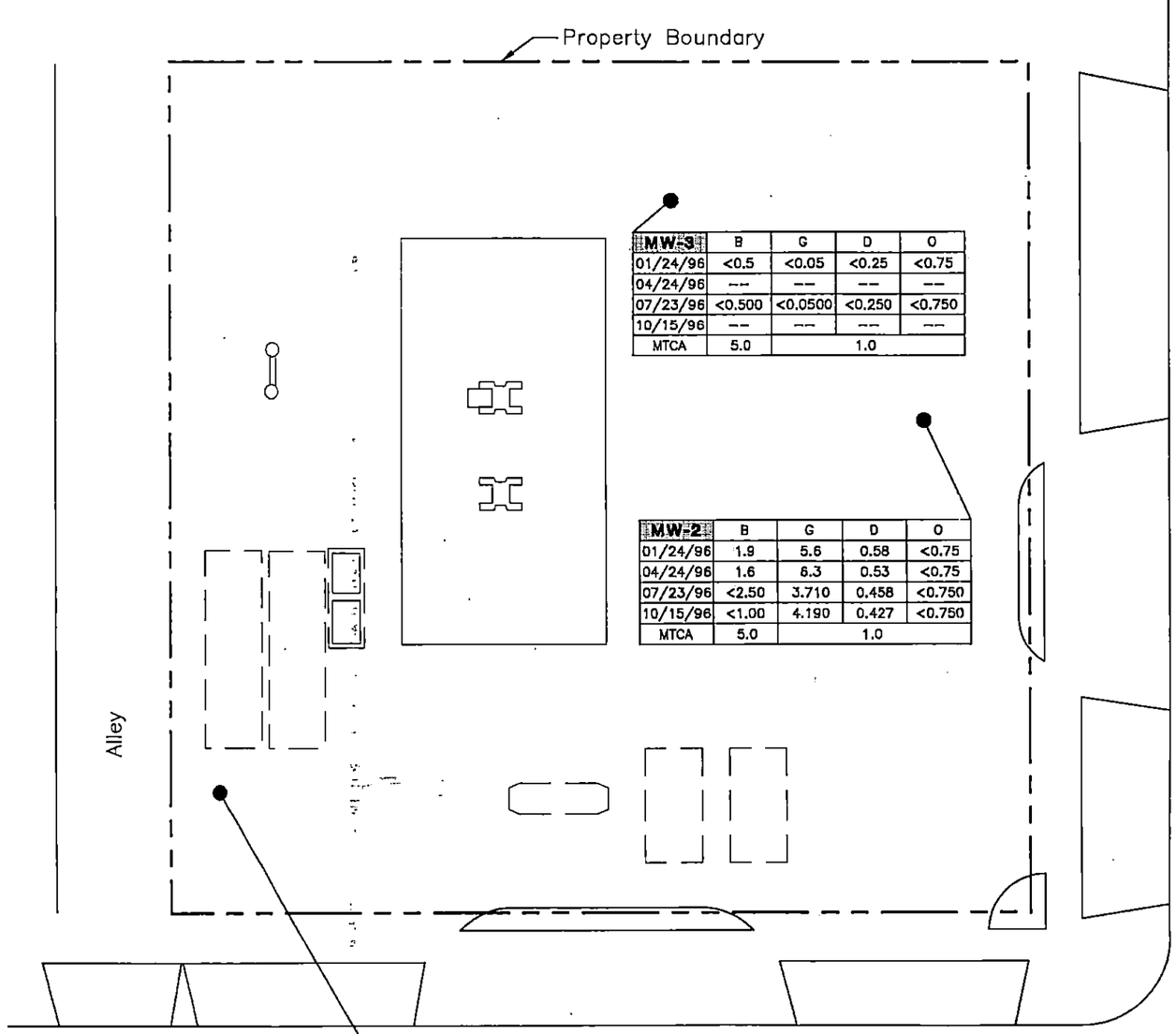
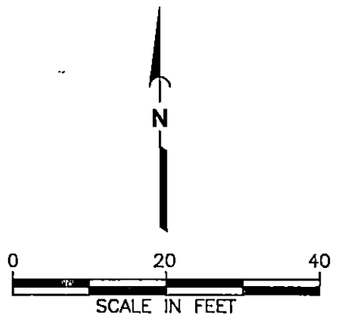
GROUND WATER ELEVATIONS ON 10/15/96

FIGURE 1

11/04/96 D:\0161\394\0161394A.DWG LJB:HLA





EXPLANATION:

MW-1● MONITORING WELL INSTALLED BY AGRA E & E, INC.

B BENZENE (μg/l) BY EPA METHOD 8020

G GASOLINE-RANGE HYDROCARBONS (mg/l) BY ECOLOGY METHOD WTPH-G

D DIESEL-RANGE HYDROCARBONS (mg/l) BY ECOLOGY METHOD WTPH-D EXTENDED

O HEAVY OIL-RANGE HYDROCARBONS (mg/l) BY ECOLOGY METHOD WTPH-D EXTENDED

-- NOT ANALYZED

MTCA MODEL TOXICS CONTROL ACT METHOD A GROUND WATER CLEANUP LEVELS

Notes:
1. The locations of all features shown are approximate.
2. See Figure 1 for site facilities identification.
3. Benzene was detected in the sample duplicate at a concentration of 16 μg/1.
4. Results or detection limit should be considered estimated. See Table 2 and Attachment C for explanation.

Reference: Drawing entitled "Service Station #4165, General Arrangement, Avenue D & Second St., Snohomish, WA.," by Unocal, revision dated 12/31/87.

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CONCENTRATIONS OF PETROLEUM-RELATED HYDROCARBONS IN GROUND WATER

FIGURE 2

11/04/96 D:\0161\394\0161394B.DWG LJB:HLA

ATTACHMENT A

ATTACHMENT A

SCOPE OF SERVICES

The purpose of our services was to monitor ground water conditions beneath the site. Our specific scope of services for this monitoring period is summarized below:

1. Measure the depths to ground water in monitoring wells MW-1 through MW-3. Calculate water table elevations relative to the AGRA E&E assumed site datum, and estimate the ground water flow direction.
2. Obtain ground water samples from monitoring wells MW-1 through MW-3 on July 23, 1996, and from MW-1 and MW-2 on October 15, 1996. Submit the samples for analytical testing of BETX by EPA Method 8020; gasoline-range hydrocarbons by Ecology Method WTPH-G; and diesel- and heavy oil-range hydrocarbons by Ecology Method WTPH-D extended.
3. Dispose of purge and decontamination water generated from ground water sampling during this reporting period at GeoEngineers' sanitary sewer connection in accordance with Metro Discharge Authorization Number 393.
4. Evaluate the field and laboratory data with regard to existing regulatory concerns.

ATTACHMENT B

ATTACHMENT B

FIELD PROCEDURES

GROUND WATER ELEVATIONS

The depths to the ground water table relative to the three monitoring well casing rims were measured. The measurements were made using an electric water level indicator. The electric indicator was cleaned with a Liquinox solution wash and a distilled water rinse prior to use in each well. Ground water elevations were calculated by subtracting the water table depth from the casing rim elevations. The field data are presented in Table 1.

GROUND WATER SAMPLING

Ground water samples were obtained using a new disposable bailer and clean bailing rope after at least three well volumes of water were removed from the well casing. The water samples were transferred in the field to laboratory-prepared sample containers and kept cool during transport to the testing laboratory. The sample containers were filled completely to eliminate headspace in the container. Hydrochloric acid (a preservative) was present in the bottles used for collection of water samples for analysis of BETX and gasoline-range hydrocarbons. Chain-of-custody procedures were followed in transporting the water samples to the testing laboratory.

PURGE AND DECONTAMINATION WATER

Based on chemical analytical results for purge and decontamination water obtained on April 24, 1996, the BETX, and fats, oil and grease concentrations of the purge water are in compliance with GeoEngineers' Metro disposal permit criteria. The water from the July and October 1996 sampling events (approximately 32 gallons) was transported to GeoEngineers' Redmond facility for disposal in the sanitary sewer connection in July and October 1996.

ATTACHMENT C

ATTACHMENT C

CHEMICAL ANALYTICAL PROGRAM

ANALYTICAL METHODS

Chain-of-custody procedures were followed during the transport of the field samples to the analytical laboratory. The samples were held in cold storage pending extraction and/or analysis. The analytical results, analytical methods reference and laboratory QA/QC (quality assurance/ quality control) records are attached. The analytical results also are summarized in the text, Table 2 and Figure 2 of this report.

ANALYTICAL DATA REVIEW

The laboratory maintains an internal quality assurance program as documented in its laboratory quality assurance manual. The laboratory uses a combination of blanks, surrogate recoveries, duplicates, matrix spike recoveries, matrix spike duplicate recoveries, blank spike recoveries and blank spike duplicate recoveries to evaluate the validity of the analytical results. The laboratory also uses data quality goals for individual chemicals or groups of chemicals based on the long-term performance of the test methods. The data quality goals were included in the laboratory reports. The laboratory compared each group of samples with the existing data quality goals and noted any exceptions in the laboratory report. The data quality exceptions documented by the laboratory in the laboratory reports were reviewed by GeoEngineers using the applicable data validation guidelines from the following documents: "Guidance Document for the Assessment of RCRA Environmental Data Quality" draft dated 1988; "National Functional Guidelines for Organic Data Review" draft dated 1991; and "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses" dated 1988.

ANALYTICAL DATA REVIEW SUMMARY

No data quality exceptions were documented in the laboratory report or noted during our review, with the following exception. The laboratory indicated that a malfunction of equipment occurred during the October 1996 WTPH-D extended analysis of MW-1. As a result, the surrogate recovery was slightly lower than the acceptable limit for quality assurance. The data should be considered estimated. However, based on our data quality review, it is our opinion that the data are of acceptable quality for their intended use.

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PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

9161-394-04

GeoEngineers, Inc.	Client Project ID:	UNOCAL Snohomish, #4165	Sampled: Apr 24, 1996
8410 154th Avenue N.E.	Sample Matrix:	Water	Received: Apr 25, 1996
Redmond, WA 98052	Analysis Method:	EPA 8020	Analyzed: May 2-3, 1996
Attention: Lisa Bona	First Sample #:	B604454-01	Reported: May 8, 1996

BTEX DISTINCTION

Sample Number	Sample Description	Benzene µg/L (ppb)	Toluene µg/L (ppb)	Ethyl Benzene µg/L (ppb)	Xylenes µg/L (ppb)	Surrogate Recovery %
B604454-01	MW-1	N.D. R.L. = 2.0	N.D. R.L. = 2.0	25	140	133
B604454-02	MW-2	1.6	2.9	4.4	7.1	147
B604454-03	DUP/042496	16	4.1	22	130	136
B604454-04	P/042496	1.1	5.9	12	48	S-2
BLK050296	Method Blank	N.D.	N.D.	N.D.	N.D.	88
Reporting Limits:		**0.50**	**0.50**	**0.50**	**1.0**	

4-Bromofluorobenzene surrogate recovery control limits are 59 - 144 %.
Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL In

Laura Dutton
Project Manager

Please Note:
S-2 = The Surrogate Recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.

PURGE WATER TRACKING SHEET

Job Number: 9161-394-04 Date: 4-24-96 Location: Snohomish

Last drum sample date: 1/96 & 4/96

Next required drum sample: 10/96

Amount of water bailed: 14.5 GALLONS

Into Metro system? ___yes X no _____# gallons

Any drums on site? X yes ___no 14.5 # gallons Sampled today? YES
reason?

WELL MAINTENANCE
Wells that need:

Repair MW-1 : REPLACE MONUMENT HEAD

New caps _____

New locks _____

Miscellaneous _____
_____

PURGE WATER TRACKING SHEET

Job Number: 9161-394-04

Client: & UNOCAL

Site Location: SNOHOMISH

Last Drum Sample: 7-21-95 96

Next Required Drum Sample: 1/96

Project Manager: LISA BOWA

Person Discharging: KEVIN P. CARVER

Number of Gallons Discharged:

Date Discharged:

Sheen on Water? ___yes ✓no

Any Odors? ___yes ✓no

Turbidity? ✓yes ___no

PLEASE ROUTE PURGE WATER TRACKING SHEET AND ANALYTICAL DATA TO DAC. THANKS.

One composite sample analyzed for FOG by 413.2 and BETX by 8020 is required twice a year per site.

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PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Correspondence to: 18939 - 120th Ave. NE, #101, Bothell, WA 98011

Geo Engineers - Redmond	Project: UNOCAL #4165	Sampled: 7/23/96
8410 154th Ave NE	Project Number: #9161-394-04	Received: 7/24/96
Redmond, WA 98052	Project Manager: Lisa Bona	Reported: 8/1/96

Project Summary

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW-1	B607414-01	Water	7/23/96
MW-2	B607414-02	Water	7/23/96
MW-3	B607414-03	Water	7/23/96
D072396	B607414-04	Water	7/23/96

GeoEngineers

AUG 0 5 1996

Routing ☑ ☐

File

North Creek Analytical, Inc.

Laura Dutton

Laura L Dutton, Project Manager

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Gasoline Hydrocarbons (Toluene to Dodecane) and BTEX by WTPH-G and EPA 8020A

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-1			**B607414-01**				Water	
Gasoline Range Hydrocarbons	6070752	7/31/96	8/1/96		250	7950	ug/l (ppb)	
Benzene	"	"	"		2.50	9.35	"	
Toluene	"	"	"		2.50	6.19	"	
Ethylbenzene	"	"	"		2.50	32.1	"	
Xylenes (total)	"	"	"		5.00	94.3	"	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*110*	%	
Surrogate: 4-BFB (PID)	"	"	"	*53.0-136*		*98.8*	"	
MW-2			**B607414-02**				Water	
Gasoline Range Hydrocarbons	6070752	7/31/96	8/1/96		250	3710	ug/l (ppb)	
Benzene	"	"	"		2.50	ND	"	
Toluene	"	"	"		2.50	2.61	"	
Ethylbenzene	"	"	"		2.50	2.92	"	
Xylenes (total)	"	"	"		5.00	ND	"	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*102*	%	
Surrogate: 4-BFB (PID)	"	"	"	*53.0-136*		*91.9*	"	
MW-3			**B607414-03**				Water	
Gasoline Range Hydrocarbons	6070752	7/31/96	8/1/96		50.0	ND	ug/l (ppb)	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		1.00	ND	"	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*71.9*	%	
Surrogate: 4-BFB (PID)	"	"	"	*53.0-136*		*78.1*	"	
D072396			**B607414-04**				Water	
Gasoline Range Hydrocarbons	6070752	7/31/96	7/31/96		250	7430	ug/l (ppb)	
Benzene	"	"	"		2.50	ND	"	
Toluene	"	"	"		2.50	ND	"	
Ethylbenzene	"	"	"		2.50	24.7	"	
Xylenes (total)	"	"	"		5.00	72.3	"	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*113*	%	
Surrogate: 4-BFB (PID)	"	"	"	*53.0-136*		*96.2*	"	

North Creek Analytical, Inc.

Laura Dutton

Laura L Dutton, Project Manager

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8410 154th Ave NE	Project Number:	#9161-394-04	Received: 7/24/96
Redmond, WA 98052	Project Manager:	Lisa Bona	Reported: 8/1/96

Diesel Hydrocarbons (C12-C24) and Heavy Oil (C24-C40) by WTPH-D (extended)

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-1			B607414-01				Water	
Diesel Range Hydrocarbons	6070697	7/26/96	7/29/96		0.250	**0.648**	mg/l (ppm)	1
Heavy Oil Range Hydrocarbons	"	"	"		0.750	ND	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*72.2*	*%*	
MW-2			B607414-02				Water	
Diesel Range Hydrocarbons	6070697	7/26/96	7/30/96		0.250	**0.458**	mg/l (ppm)	1
Heavy Oil Range Hydrocarbons	"	"	"		0.750	ND	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*81.5*	*%*	
MW-3			B607414-03				Water	
Diesel Range Hydrocarbons	6070697	7/26/96	7/30/96		0.250	ND	mg/l (ppm)	
Heavy Oil Range Hydrocarbons	"	"	"		0.750	ND	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*81.8*	*%*	

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Correspondence to: 18939 - 120th Ave. NE, #101, Bothell, WA 98011

Geo Engineers - Redmond	Project:	UNOCAL #4165	Sampled: 7/23/96
8410 154th Ave NE	Project Number:	#9161-394-04	Received: 7/24/96
Redmond, WA 98052	Project Manager:	Lisa Bona	Reported: 8/1/96

Gasoline Hydrocarbons (Toluene to Dodecane) and BTEX by WTPH-G and EPA 8020A
Quality Control

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 6070752	**Date Prepared: 7/31/96**									
Blank	**6070752-BLK1**				**Water**					
Gasoline Range Hydrocarbons	7/31/96			ND	ug/l (ppb)	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	1.00				
Surrogate: 4-BFB (FID)	"	*16.0*		*14.9*	"	*50.0-150*	*93.1*			
Surrogate: 4-BFB (PID)	"	*16.0*		*15.2*	"	*53.0-136*	*95.0*			
Blank Spike	**6070752-BS1**				**Water**					
Gasoline Range Hydrocarbons	7/31/96	500		511	ug/l (ppb)	63.0-127	102			
Surrogate: 4-BFB (FID)	"	*16.0*		*18.1*	"	*50.0-150*	*113*			
Duplicate	**6070752-DUP1**		**B607341-04**		**Water**					
Gasoline Range Hydrocarbons	7/31/96		ND	ND	ug/l (ppb)			45.0		2
Surrogate: 4-BFB (FID)	"	*16.0*		*11.8*	"	*50.0-150*	*73.8*			
Duplicate	**6070752-DUP2**		**B607341-12**		**Water**					
Gasoline Range Hydrocarbons	7/31/96		ND	ND	ug/l (ppb)			45.0		2
Surrogate: 4-BFB (FID)	"	*16.0*		*10.6*	"	*50.0-150*	*66.3*			
Matrix Spike	**6070752-MS1**		**B607341-05**		**Water**					
Benzene	7/31/96	10.0	ND	10.1	ug/l (ppb)	62.0-126	101			
Toluene	"	10.0	ND	9.26	"	72.0-120	92.6			
Ethylbenzene	"	10.0	ND	9.12	"	69.0-129	91.2			
Xylenes (total)	"	30.0	ND	27.9	"	73.0-126	93.0			
Surrogate: 4-BFB (PID)	"	*16.0*		*12.8*	"	*53.0-136*	*80.0*			
Matrix Spike Dup	**6070752-MSD1**		**B607341-05**		**Water**					
Benzene	7/31/96	10.0	ND	10.6	ug/l (ppb)	62.0-126	106	13.5	4.83	
Toluene	"	10.0	ND	9.31	"	72.0-120	93.1	8.70	0.539	
Ethylbenzene	"	10.0	ND	8.70	"	69.0-129	87.0	13.6	4.71	
Xylenes (total)	"	30.0	ND	25.4	"	73.0-126	84.7	16.3	9.34	
Surrogate: 4-BFB (PID)	"	*16.0*		*12.8*	"	*53.0-136*	*80.0*			

North Creek Analytical, Inc.

Laura Dutton

Laura L Dutton, Project Manager

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Correspondence to: 18939 - 120th Ave. NE, #101, Bothell, WA 98011

Geo Engineers - Redmond	Project:	UNOCAL #4165	Sampled: 7/23/96
8410 154th Ave NE	Project Number:	#9161-394-04	Received: 7/24/96
Redmond, WA 98052	Project Manager:	Lisa Bona	Reported: 8/1/96

Diesel Hydrocarbons (C12-C24) and Heavy Oil (C24-C40) by WTPH-D (extended)
Quality Control

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes
Batch: 6070697	**Date Prepared: 7/26/96**									
Blank	**6070697-BLK1**				**Water**					
Diesel Range Hydrocarbons	7/29/96			ND	mg/l (ppm)	0.250				
Heavy Oil Range Hydrocarbons	"			ND	"	0.750				
Surrogate: 2-FBP	"	*0.344*		*0.267*	"	*50.0-150*	*77.6*			
Blank Spike	**6070697-BS1**				**Water**					
Diesel Range Hydrocarbons	7/29/96	2.04		1.74	mg/l (ppm)	54.0-121	85.3			
Surrogate: 2-FBP	"	*0.344*		*0.272*	"	*50.0-150*	*79.1*			
Duplicate	**6070697-DUP1**		**B607415-11**		**Water**					
Diesel Range Hydrocarbons	7/29/96		0.414	0.374	mg/l (ppm)			44.0	10.2	
Surrogate: 2-FBP	"	*0.648*		*0.563*	"	*50.0-150*	*86.9*			
Duplicate	**6070697-DUP2**		**B607421-04**		**Water**					
Diesel Range Hydrocarbons	7/29/96		0.394	0.305	mg/l (ppm)			44.0	25.5	
Surrogate: 2-FBP	"	*0.648*		*0.558*	"	*50.0-150*	*86.1*			

North Creek Analytical, Inc.

Laura Dutton

Laura L Dutton, Project Manager

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Correspondence to: 18939 - 120th Ave. NE, #101, Bothell, WA 98011

Geo Engineers - Redmond	Project:	UNOCAL #4165	Sampled: 7/23/96
8410 154th Ave NE	Project Number:	#9161-394-04	Received: 7/24/96
Redmond, WA 98052	Project Manager:	Lisa Bona	Reported: 8/1/96

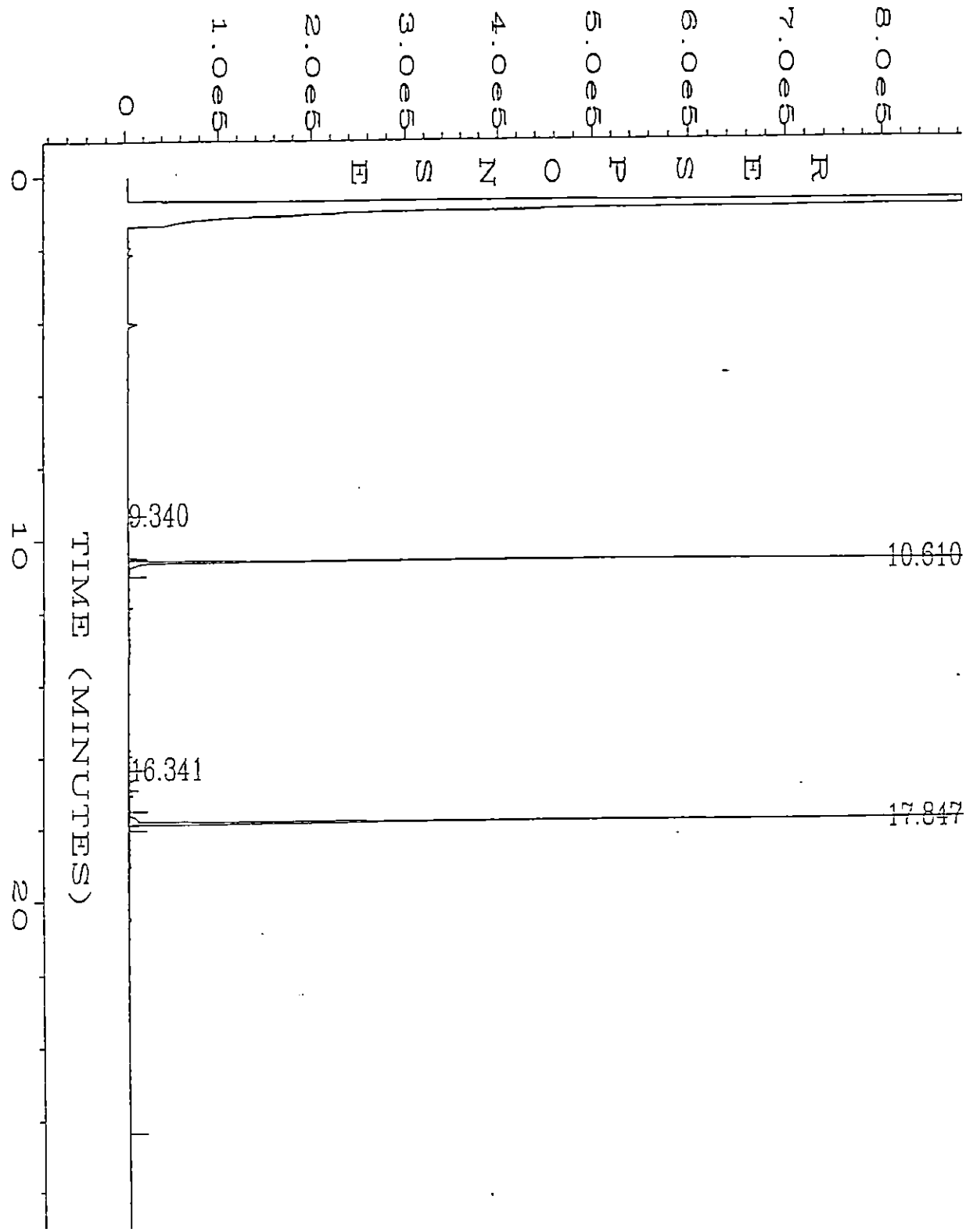
Notes

#	Note
1	This sample appears to contain volatile gasoline range organics.
2	RPD values are not reported at sample concentrations less than 10 times the reporting limit.

North Creek Analytical, Inc.

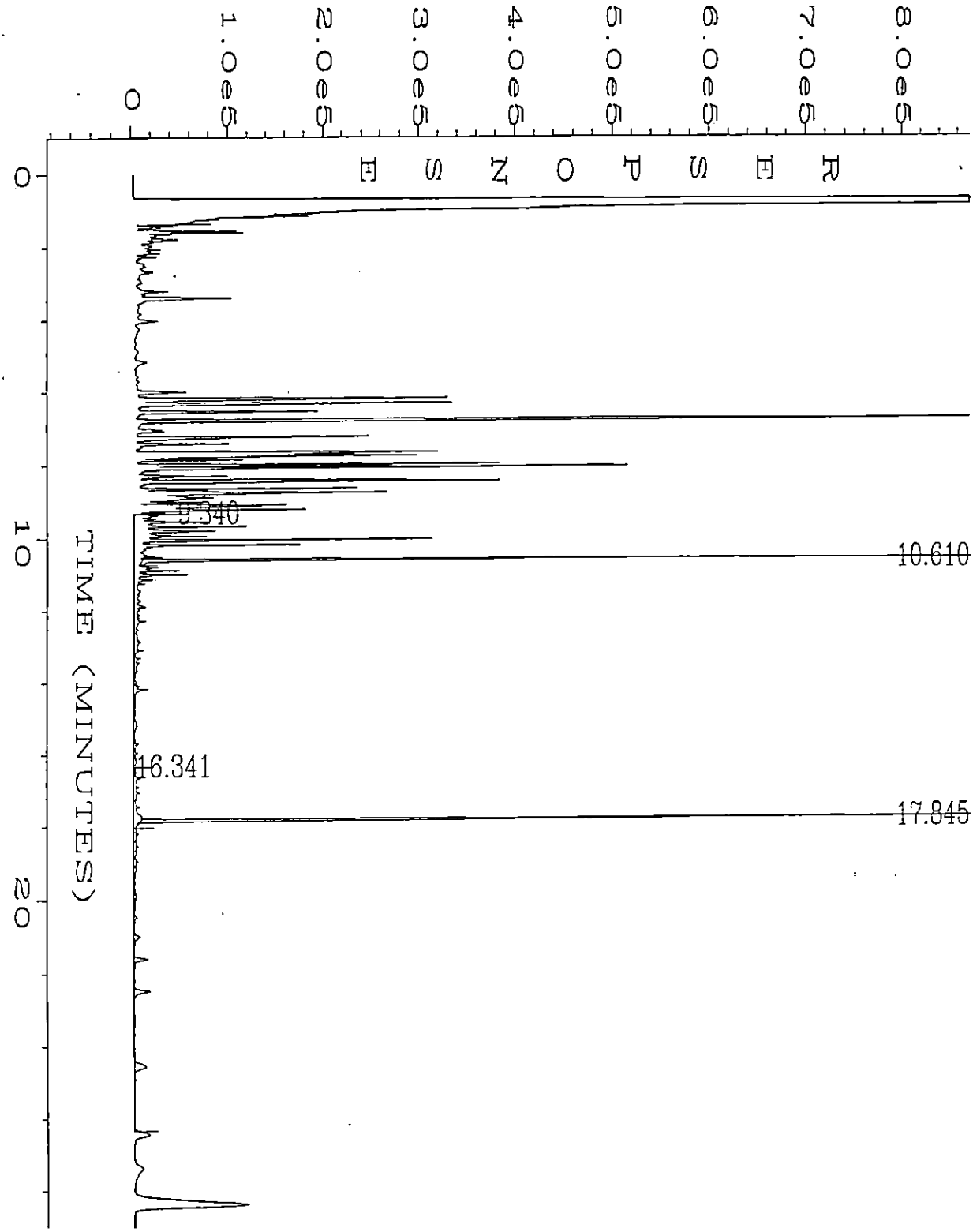
**Refer to end of report for text of notes.*

Laura L Dutton, Project Manager



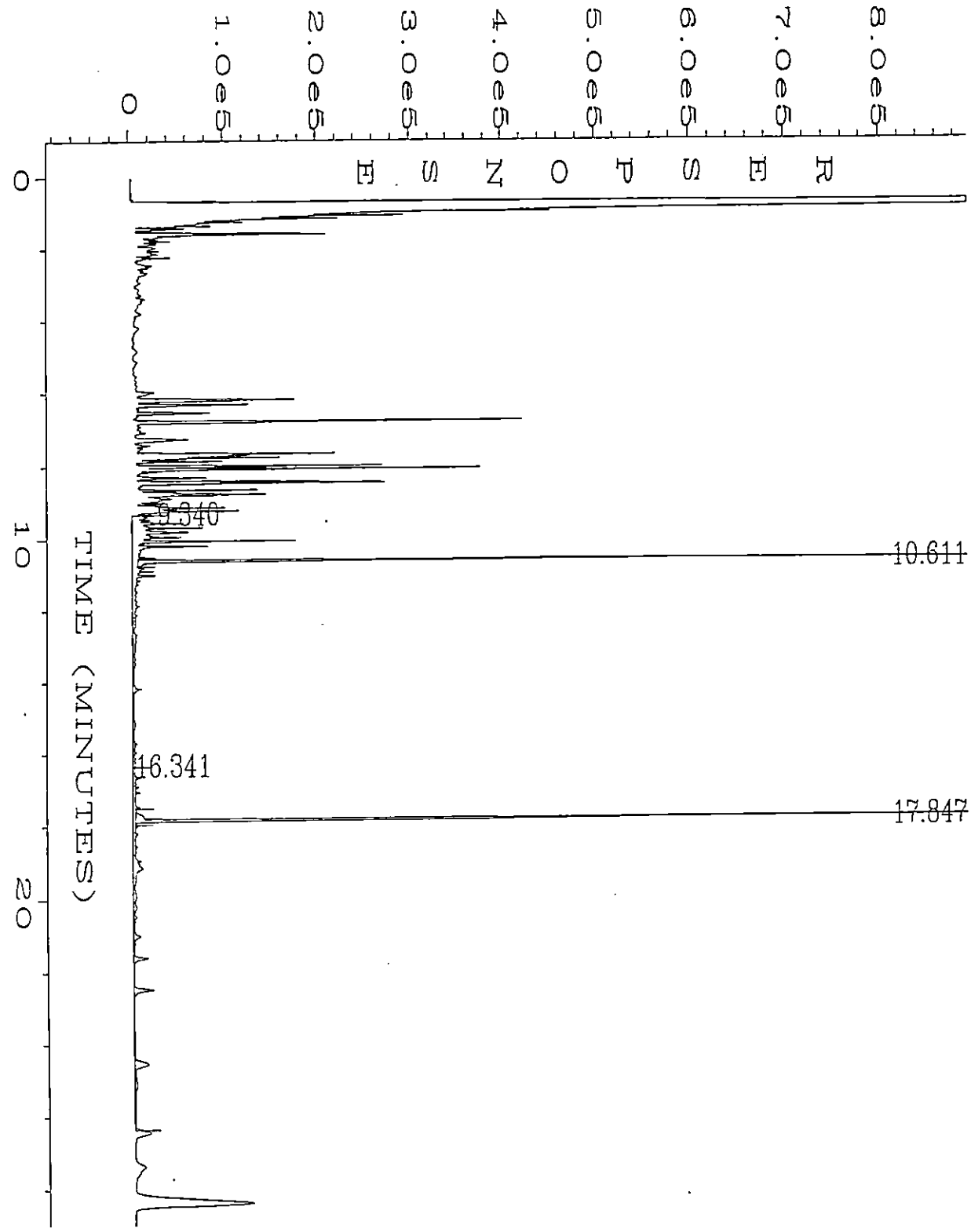
Data File Name : C:\HPCHEM\3\DATA\JUL29\052R0501.D
Operator : AD
Instrument : FUBAR
Sample Name : 6070697-BLK1 W
Run Time Bar Code:
Acquired on : 29 Jul 96 07:31 PM
Report Created on: 30 Jul 96 08:23 AM

Page Number : 1
Vial Number : 52
Injection Number : 1
Sequence Line : 5
Instrument Method: TPHE.MTH
Analysis Method : TPHE.MTH



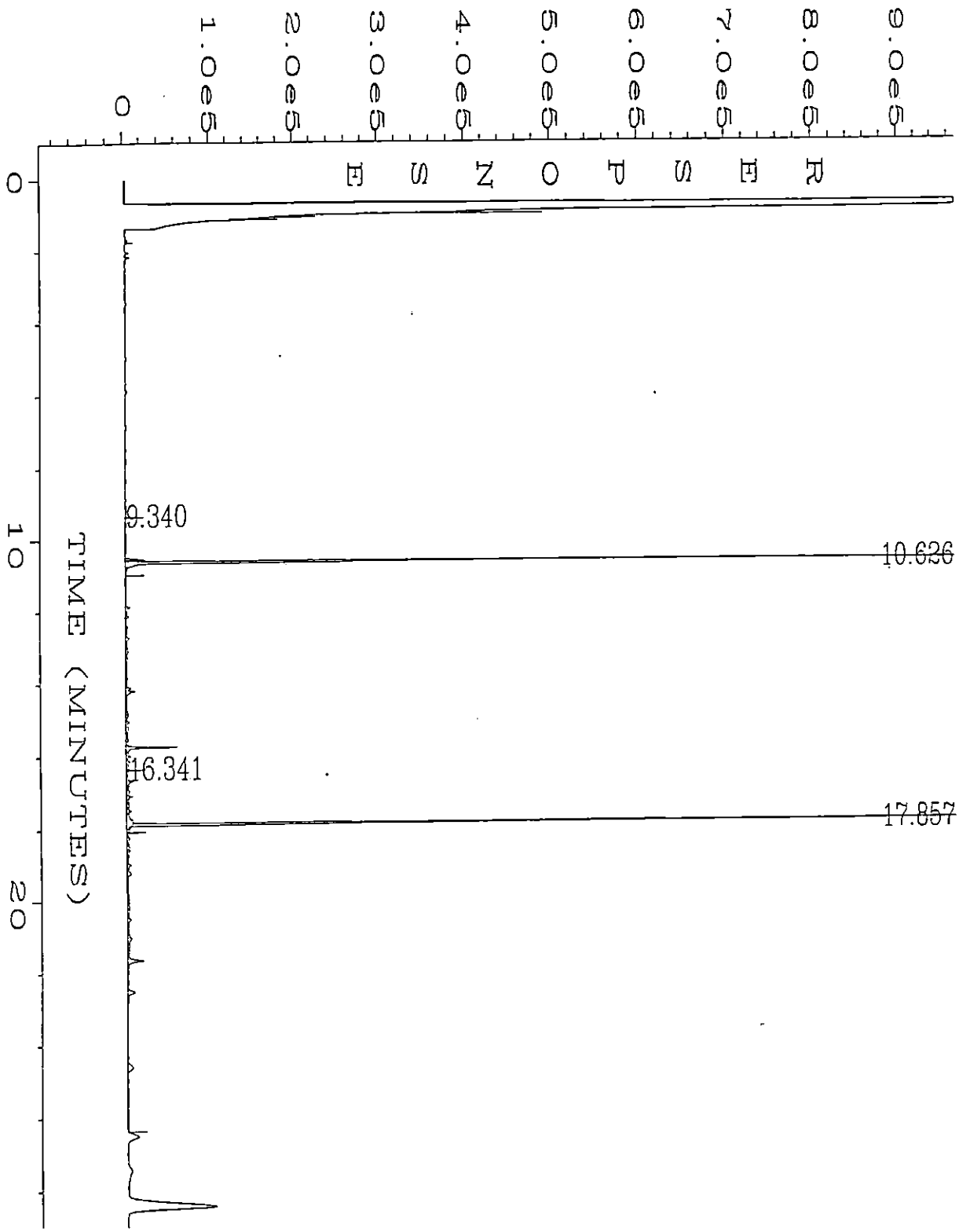
Data File Name : C:\HPCHEM\3\DATA\JUL29\055R0501.D
Operator : AD
Instrument : FUBAR
Sample Name : 607414-01 W
Run Time Bar Code:
Acquired on : 29 Jul 96 09:25 PM
Report Created on: 30 Jul 96 08:27 AM

Page Number : 1
Vial Number : 55
Injection Number : 1
Sequence Line : 5
Instrument Method: TPHE.MTH
Analysis Method : TPHE.MTH



Data File Name : C:\HPCHEM\3\DATA\JUL29\056R0501.D
Operator : AD
Instrument : FUBAR
Sample Name : 607414-02 W
Run Time Bar Code:
Acquired on : 30 Jul 96 06:38 AM
Report Created on: 30 Jul 96 08:28 AM

Page Number : 1
Vial Number : 56
Injection Number : 1
Sequence Line : 5
Instrument Method: TPHE.MTH
Analysis Method : TPHE.MTH



Data File Name : C:\HPCHEM\3\DATA\JUL29\057R0701.D
Operator : AD
Instrument : FUBAR
Sample Name : 607414-03 W
Run Time Bar Code:
Acquired on : 30 Jul 96 07:52 AM
Report Created on: 30 Jul 96 01:46 PM

Page Number : 1
Vial Number : 57
Injection Number : 1
Sequence Line : 7
Instrument Method: TPHE.MTH
Analysis Method : TPHE.MTH

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UNOCAL CHAIN OF CUSTODY REPORT

B607414

UNOCAL INFORMATION

Facility Number: 4165
Site Address: NW 2ND ST & DAVE
City, State, ZIP: SNOHOMISH, WA
Site Release Number:
Unocal Manager: LEIGH CARLSON
CERT INFO: (check one) o Evaluation (o Remediation)
o Detection o Demolition o Closure o Miscellaneous

CONSULTANT INFORMATION

Firm: GEI Project Number: 9161-394-04
Address: REDMOND, WA
Phone: 206) 861-6000 Fax: 861-6050
Project Manager: LISA BONA
Sample Collection by: PAUL CRAIG

Chain of Custody Record #:

Quality Assurance Data Level: [A] [X]
A: Standard Summary
B: Standard + Chromatograms
Laboratory Turnaround Days: [10] [5] [3] [2] [1]

o Oregon o Washington Hydrocarbon Methods

SAMPLE IDENTIFICATION	SAMPLING DATE / TIME	MATRIX (W,S,O)	# OF CONTAINERS	TPH-HCID	TPH-Gas	BTEX (EPA 8020 Mod.)	TPH-Gas + BTEX	TPH-Diesel	TPH-Diesel Extended	TPH-418.1	Halogen. Volatiles (EPA 8010)	Aromatic Volatiles (EPA 8020)	Pesticides/PCBs or PCBs Only	GC/MS Volatiles (EPA 8240/8260)	GC/MS SemiVols. (EPA 8270)	PAHs by HPLC (EPA 8310)	Lead: Total or Dissolved	TCLP Metals (8)	NCA SAMPLE NUMBER
1. MW-1	7-23-96 0605	W	3				X		X										B607414-01
2. MW-2	7-23-96 0620	"	3				X		X										-02
3. MW-3	7-23-96 0645	"	3				X		X										-03
4. D072396	7-23-96	"	2				X												-04
5.																			
6.																			
7.																			
8.																			
9.																			
10.																			

Relinquished by:	Firm:	Date & Time	Received by:	Firm:	Date & Time
1.	GEI	7/23/96 1220	R D Kelley	NCA	7/24/96 1500
2.					
3.					

Final Report Approval

Were all requested results provided? yes no Define
Were results within requested turnaround? yes no "No"
Final Approval Signature: on back

Page 1 of 1

Comments:

Rev. 2/94

Distribution: White - Laboratory Yellow - Consultant Photocopy - Unocal

Date: Close

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Geo Engineers - Redmond	Project:	UNOCAL #4165	Sampled: 10/15/96
8410 154th Ave NE	Project Number:	#9161-394-04	Received: 10/15/96
Redmond, WA 98052	Project Manager:	Lisa Bona	Reported: 10/30/96 08:31

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW-1	B610296-01	Water	10/15/96
MW-2	B610296-02	Water	10/15/96
D101596	B610296-03	Water	10/15/96

GeoEngineers

NOV 04 1996

Routing .....

File .....

North Creek Analytical, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Laura L Dutton, Project Manager

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Geo Engineers - Redmond	Project:	UNOCAL #4165	Sampled: 10/15/96
8410 154th Ave NE	Project Number:	#9161-394-04	Received: 10/15/96
Redmond, WA 98052	Project Manager:	Lisa Bona	Reported: 10/30/96 08:31

Gasoline Hydrocarbons (Toluene to Dodecane) and BTEX by WTPH-G and EPA 8020A
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-1			B610296-01				Water	
Gasoline Range Hydrocarbons	1060838	10/29/96	10/29/96		50.0	1750	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	1.89	"	
Ethylbenzene	"	"	"		0.500	4.91	"	
Xylenes (total)	"	"	"		1.00	10.1	"	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*124*	%	
Surrogate: 4-BFB (PID)	"	"	"	*53.0-136*		*81.9*	"	
MW-2			B610296-02				Water	
Gasoline Range Hydrocarbons	1060838	10/29/96	10/29/96		100	4190	ug/l	
Benzene	"	"	"		1.00	ND	"	
Toluene	"	"	"		1.00	2.57	"	
Ethylbenzene	"	"	"		1.00	2.58	"	
Xylenes (total)	"	"	"		2.00	4.47	"	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*			%	*1*
Surrogate: 4-BFB (PID)	"	"	"	*53.0-136*		*90.0*	"	
D101596			B610296-03				Water	
Gasoline Range Hydrocarbons	1060838	10/29/96	10/29/96		50.0	1730	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	1.86	"	
Ethylbenzene	"	"	"		0.500	5.01	"	
Xylenes (total)	"	"	"		1.00	10.2	"	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*121*	%	
Surrogate: 4-BFB (PID)	"	"	"	*53.0-136*		*83.1*	"	

North Creek Analytical, Inc.

**Refer to end of report for text of notes and definitions*

Laura Dutton

Laura L Dutton, Project Manager

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Geo Engineers - Redmond	Project:	UNOCAL #4165	Sampled: 10/15/96
8410 154th Ave NE	Project Number:	#9161-394-04	Received: 10/15/96
Redmond, WA 98052	Project Manager:	Lisa Bona	Reported: 10/30/96 08:31

Diesel Hydrocarbons (C12-C24) and Heavy Oil (C24-C40) by WTPH-D (extended)
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-1			B610296-01				Water	2
Diesel Range Hydrocarbons	1060585	10/21/96	10/23/96		0.250	**0.321**	mg/l	
Heavy Oil Range Hydrocarbons	"	"	"		0.750	ND	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*48.0*	%	3
MW-2			B610296-02				Water	2
Diesel Range Hydrocarbons	1060585	10/21/96	10/23/96		0.250	**0.427**	mg/l	
Heavy Oil Range Hydrocarbons	"	"	"		0.750	ND	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*89.5*	%	

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Geo Engineers - Redmond	Project:	UNOCAL #4165	Sampled: 10/15/96
8410 154th Ave NE	Project Number:	#9161-394-04	Received: 10/15/96
Redmond, WA 98052	Project Manager:	Lisa Bona	Reported: 10/30/96 08:31

Gasoline Hydrocarbons (Toluene to Dodecane) and BTEX by WTPH-G and EPA 8020A/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1060838	**Date Prepared: 10/29/96**					**Extraction Method: EPA 5030**				
Blank	1060838-BLK1									
Gasoline Range Hydrocarbons	10/29/96			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	1.00				
Surrogate: 4-BFB (FID)	"	*16.0*		*10.4*	"	*50.0-150*	*65.0*			
Surrogate: 4-BFB (PID)	"	*16.0*		*9.92*	"	*53.0-136*	*62.0*			
Blank Spike	1060838-BS1									
Gasoline Range Hydrocarbons	10/29/96	500		451	ug/l	63.0-127	**90.2**			
Surrogate: 4-BFB (FID)	"	*16.0*		*14.9*	"	*50.0-150*	*93.1*			
Duplicate	1060838-DUP1		B610296-01							
Gasoline Range Hydrocarbons	10/29/96		1750	1740	ug/l			45.0	< 1.00	
Surrogate: 4-BFB (FID)	"	*16.0*		*16.0*	"	*50.0-150*	*100*			
Duplicate	1060838-DUP2		B610417-01							
Gasoline Range Hydrocarbons	10/29/96		ND	ND	ug/l			45.0	4	
Surrogate: 4-BFB (FID)	"	*16.0*		*9.76*	"	*50.0-150*	*61.0*			
Matrix Spike	1060838-MS1		B610417-01							
Benzene	10/29/96	10.0	ND	9.30	ug/l	62.0-126	**93.0**			
Toluene	"	10.0	ND	10.1	"	72.0-120	**101**			
Ethylbenzene	"	10.0	ND	10.1	"	69.0-129	**101**			
Xylenes (total)	"	30.0	ND	30.4	"	73.0-126	**101**			
Surrogate: 4-BFB (PID)	"	*16.0*		*14.6*	"	*53.0-136*	*91.3*			
Matrix Spike Dup	1060838-MSD1		B610417-01							
Benzene	10/29/96	10.0	ND	9.61	ug/l	62.0-126	**96.1**	13.5	**3.28**	
Toluene	"	10.0	ND	10.2	"	72.0-120	**102**	8.70	< 1.00	
Ethylbenzene	"	10.0	ND	10.2	"	69.0-129	**102**	13.6	< 1.00	
Xylenes (total)	"	30.0	ND	30.9	"	73.0-126	**103**	16.3	**1.96**	
Surrogate: 4-BFB (PID)	"	*16.0*		*14.6*	"	*53.0-136*	*91.3*			

North Creek Analytical, Inc.

**Refer to end of report for text of notes and definitions*

Laura Dutton

Laura L Dutton, Project Manager

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Geo Engineers - Redmond	Project: UNOCAL #4165	Sampled: 10/15/96
8410 154th Ave NE	Project Number: #9161-394-04	Received: 10/15/96
Redmond, WA 98052	Project Manager: Lisa Bona	Reported: 10/30/96 08:31

Diesel Hydrocarbons (C12-C24) and Heavy Oil (C24-C40) by WTPH-D (extended)/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1060585	**Date Prepared: 10/21/96**					**Extraction Method: EPA 3520/600 Series**				
Blank	1060585-BLK1									
Diesel Range Hydrocarbons	10/23/96			ND	mg/l	0.250				
Heavy Oil Range Hydrocarbons	"			ND	"	0.750				
Surrogate: 2-FBP	"	*0.344*		*0.318*	"	*50.0-150*	*92.4*			
Blank Spike	1060585-BS1									
Diesel Range Hydrocarbons	10/22/96	2.04		1.95	mg/l	54.0-121	95.6			
Surrogate: 2-FBP	"	*0.344*		*0.295*	"	*50.0-150*	*85.8*			
Duplicate	1060585-DUP1		B610297-02							4
Diesel Range Hydrocarbons	10/23/96		ND	ND	mg/l			44.0		
Surrogate: 2-FBP	"	*0.648*		*0.671*	"	*50.0-150*	*104*			
Duplicate	1060585-DUP2		B610297-03							4
Diesel Range Hydrocarbons	10/23/96		0.266	ND	mg/l			44.0		
Surrogate: 2-FBP	"	*0.648*		*0.596*	"	*50.0-150*	*92.0*			

North Creek Analytical, Inc.

**Refer to end of report for text of notes and definitions.*

Laura Dutton

Laura L Dutton, Project Manager

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PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Geo Engineers - Redmond	Project:	UNOCAL #4165	Sampled: 10/15/96
8410 154th Ave NE	Project Number:	#9161-394-04	Received: 10/15/96
Redmond, WA 98052	Project Manager:	Lisa Bona	Reported: 10/30/96 08:31

Notes and Definitions

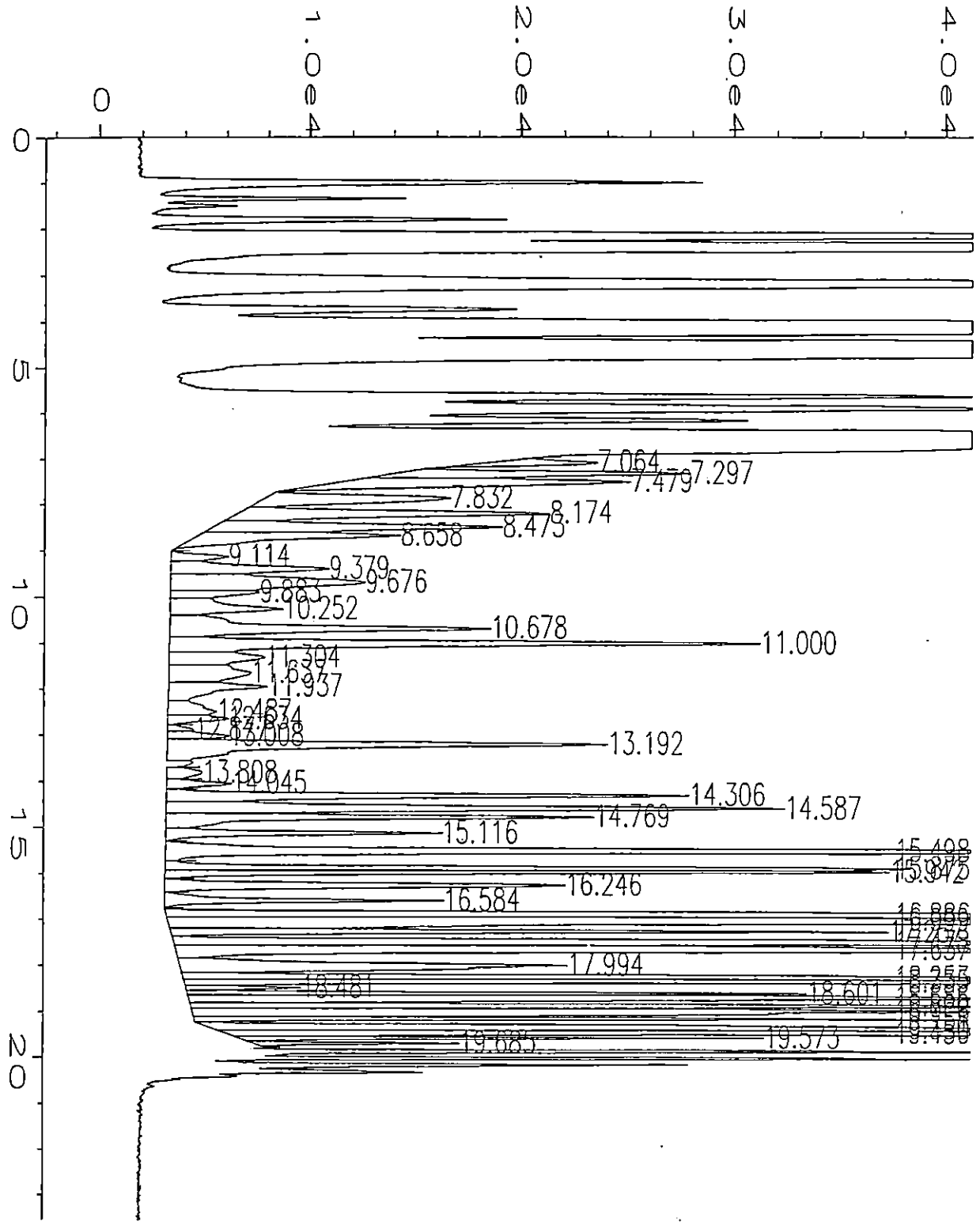
#	Note
1	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.
2	This sample appears to contain volatile gasoline range organics.
3	The surrogate recovery for this sample is outside method recommended control limits due to a cracked flask inadvertently used during sample extraction. The flask was discarded as soon as the anomaly was discovered. Results should be considered estimated.
4	Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit.
ND	Analyte NOT DETECTED at or above the reporting limit
DET	Analyte DETECTED
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical, Inc.

Laura Dutton

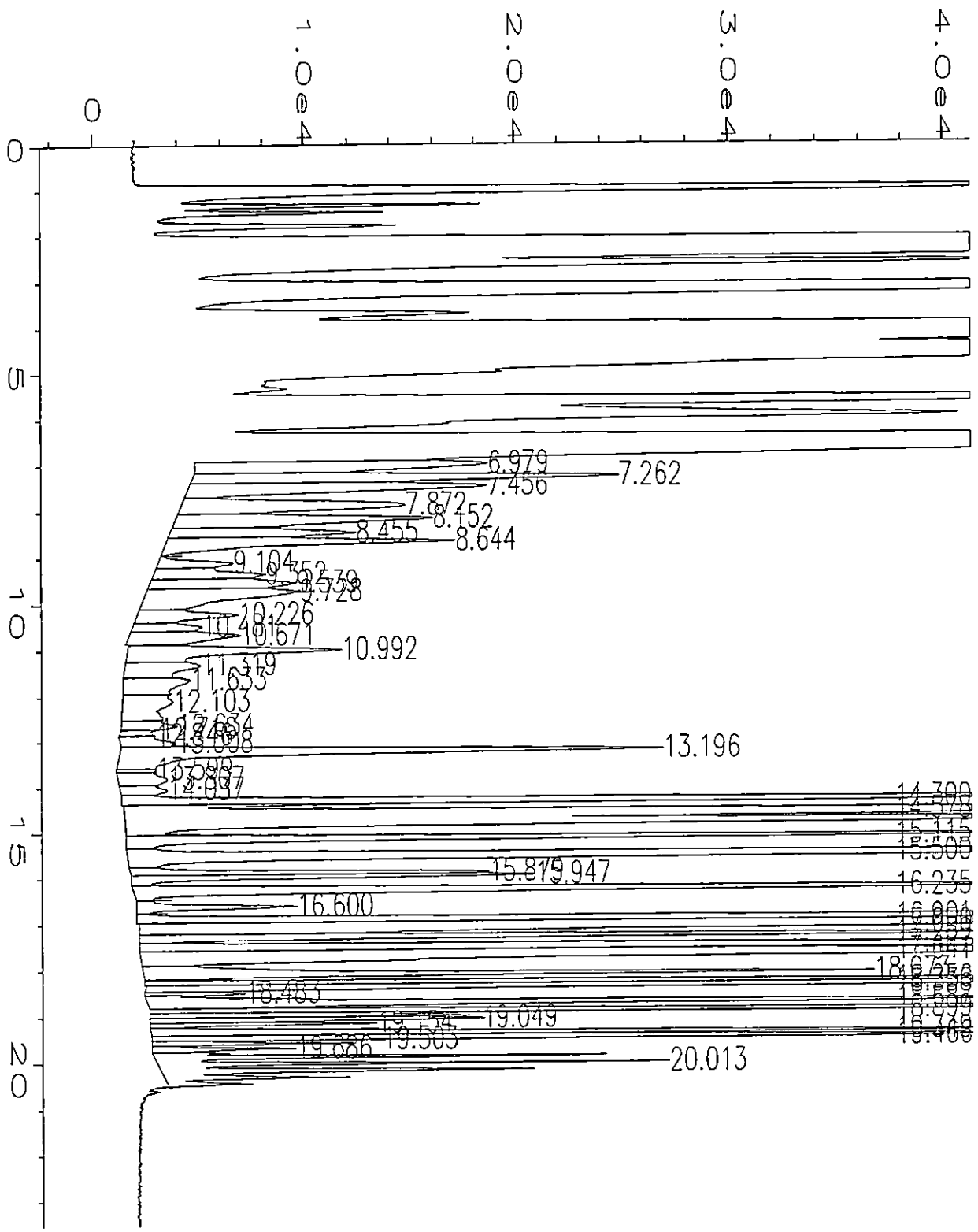
Laura L Dutton, Project Manager

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132



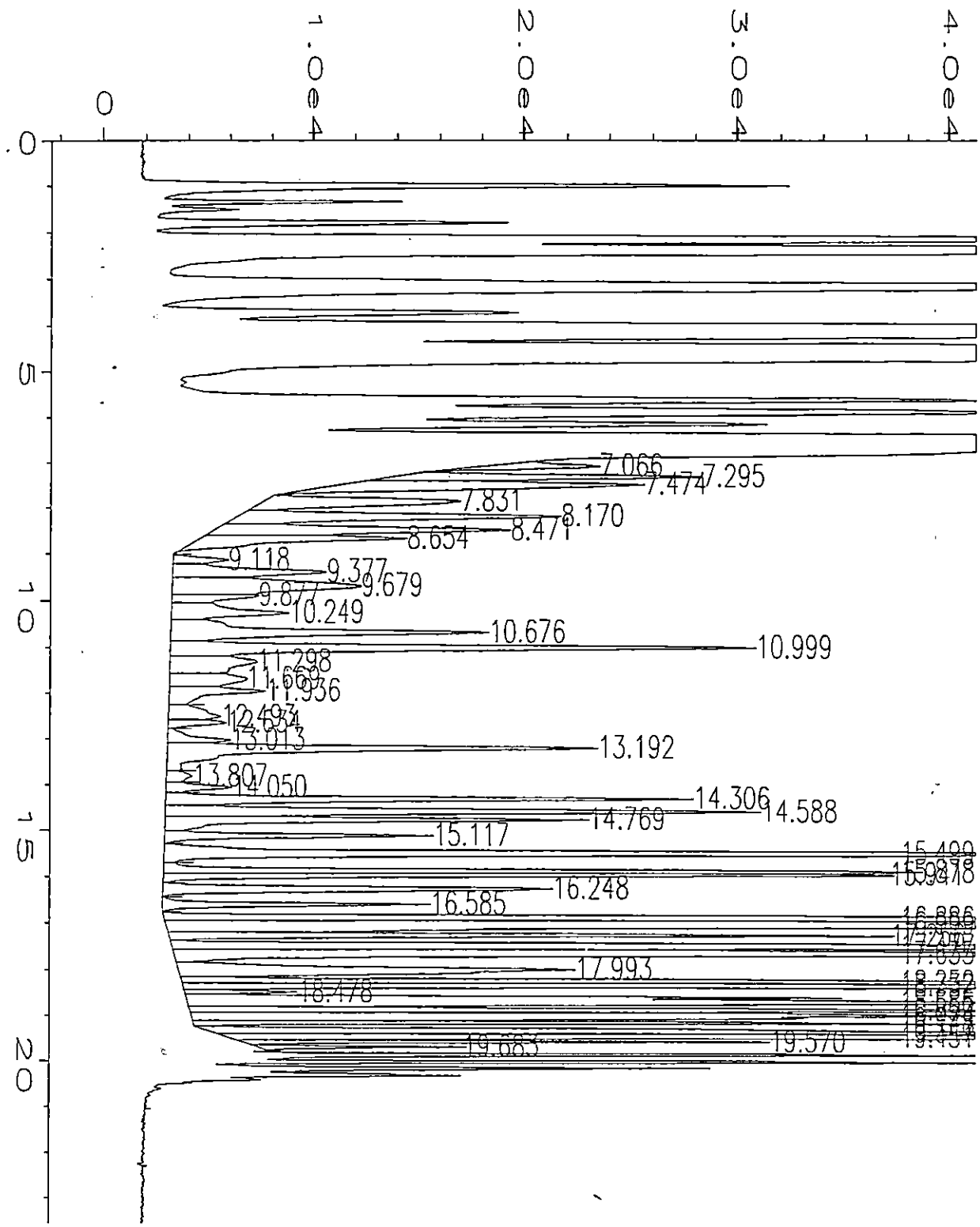
Data File Name : C:\HPCHEM\4\DATA\102996\005F0101.D
Operator :
Instrument : GC#4
Sample Name : b610296-01
Run Time Bar Code:
Acquired on : 29 Oct 96 08:29 AM
Report Created on: 29 Oct 96 08:52 AM
Sample Info : 5 ml

Page Number : 1
Vial Number : 5
Injection Number : 1
Sequence Line : 1
Instrument Method: WA-WATER.MTH
Analysis Method : WA-WATER.MTH



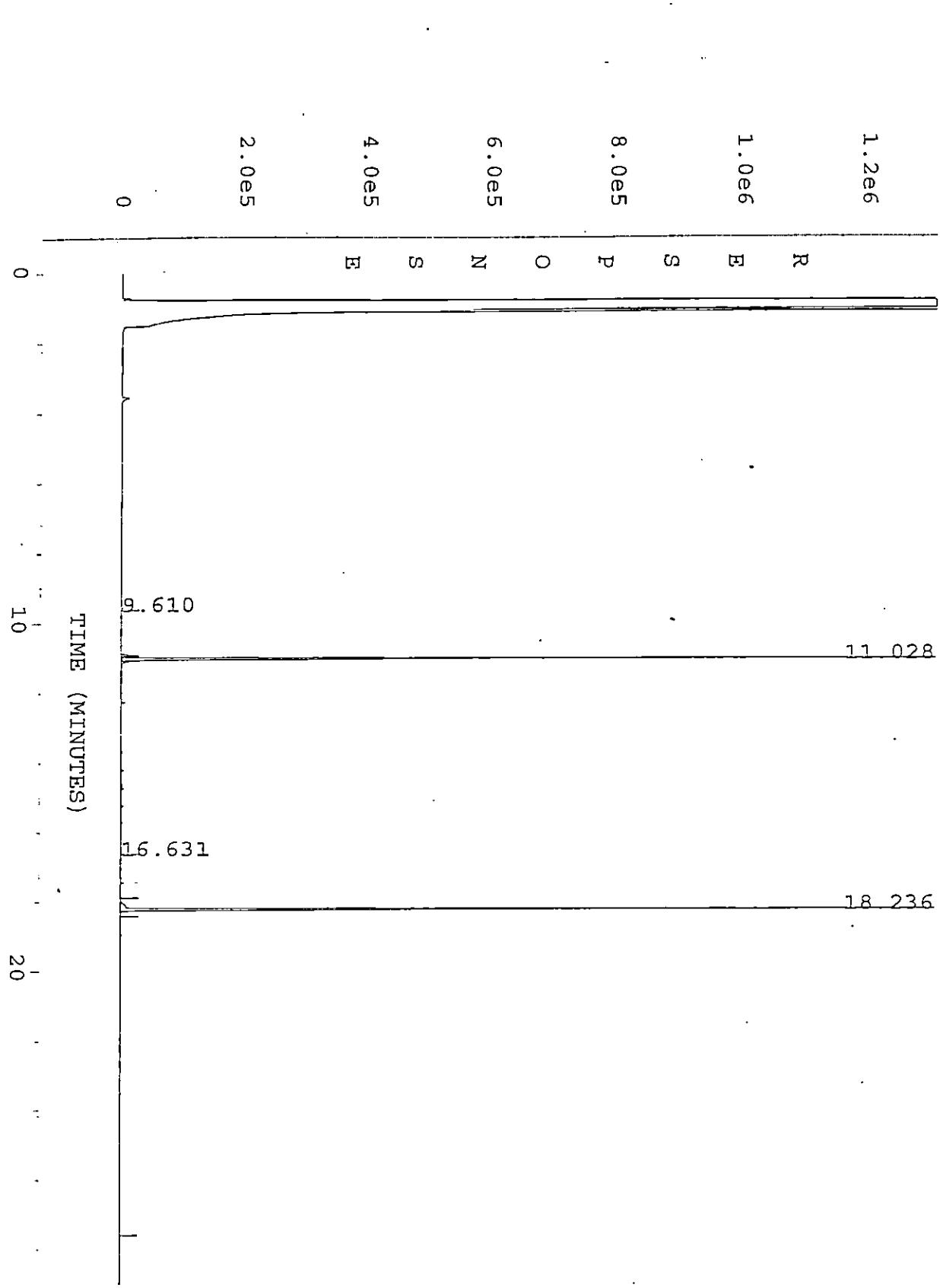
Data File Name : C:\HPCHEM\4\DATA\102996\009F0101.D
Operator :
Instrument : GC#4
Sample Name : b610296-02 r1
Run Time Bar Code:
Acquired on : 29 Oct 96 10:33 AM
Report Created on: 29 Oct 96 03:29 PM

Page Number : 1
Vial Number : 9
Injection Number : 1
Sequence Line : 1
Instrument Method: WA-WATER.MTH
Analysis Method : WA-WATER.MTH



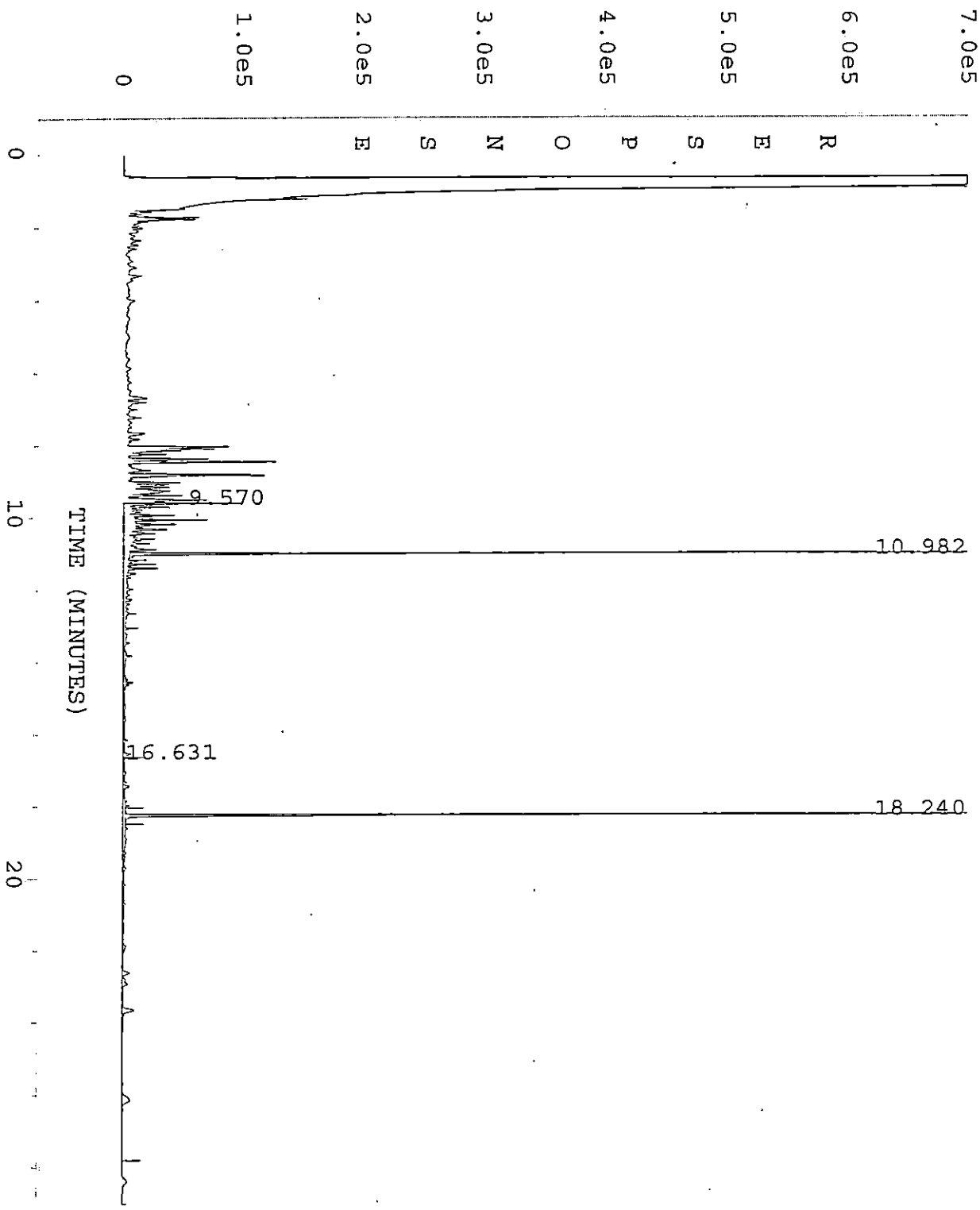
Data File Name : C:\HPCHEM\4\DATA\102996\007F0101.D
Operator :
Instrument : GC#4
Sample Name : b610296-03
Run Time Bar Code:
Acquired on : 29 Oct 96 09:26 AM
Report Created on: 29 Oct 96 09:50 AM
Sample Info : 5 ml

Page Number : 1
Vial Number : 7
Injection Number : 1
Sequence Line : 1
Instrument Method: WA-WATER.MTH
Analysis Method : WA-WATER.MTH



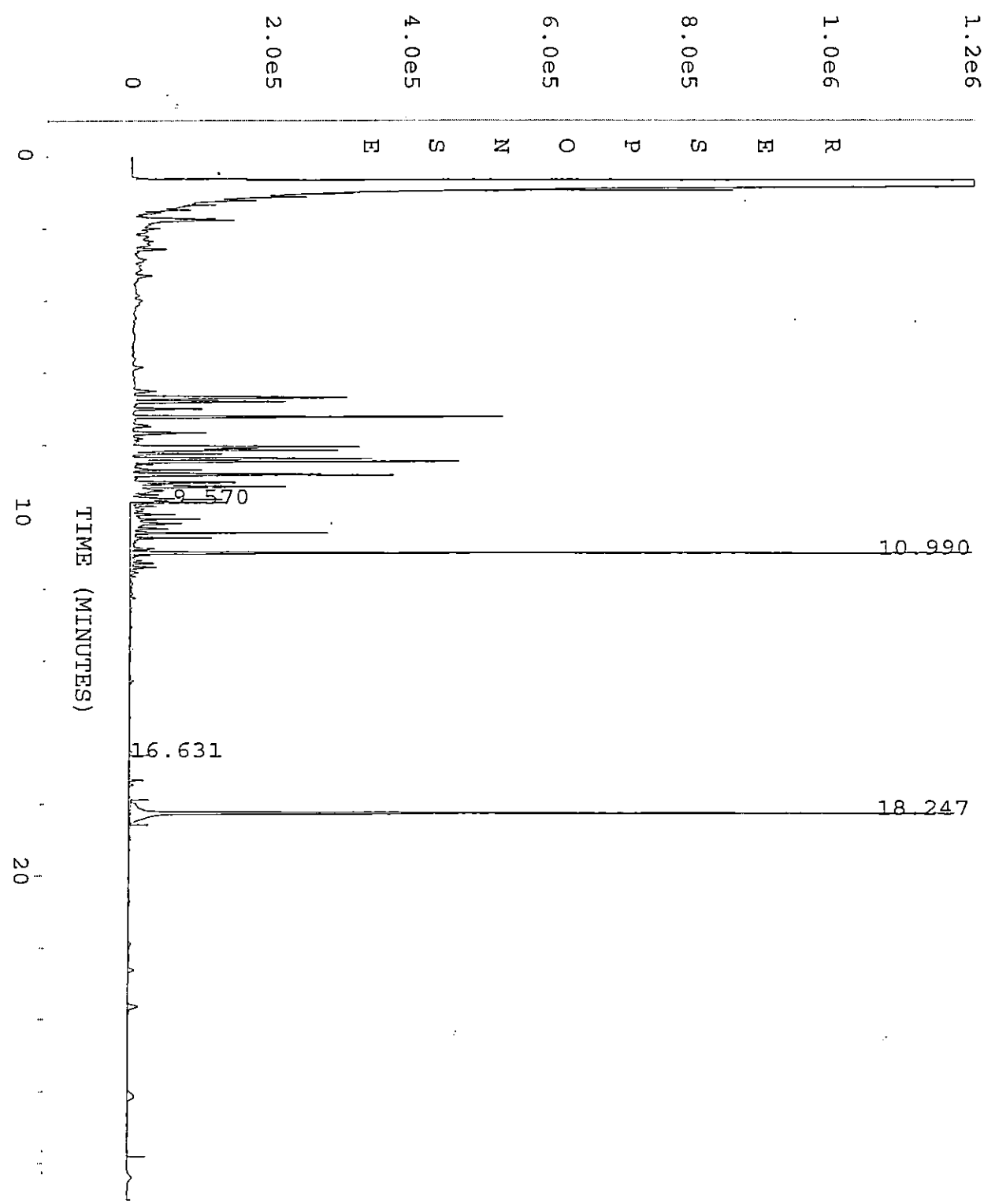
Data File Name : C:\HPCHEM\1\DATA\OCT22\058R1601.D
Operator : TF
Instrument : PHIL
Sample Name : 1060585-BLK1 W
Run Time Bar Code:
Acquired on : 23 Oct 96 10:47 AM
Report Created on: 23 Oct 96 04:09 PM

Page Number : 1
Vial Number : 58
Injection Number : 1
Sequence Line : 16
Instrument Method: TPHE.MTH
Analysis Method : TPHE.MTH



Data File Name : C:\HPCHEM\1\DATA\OCT22\021F1101.D
Operator : TF
Instrument : PHIL
Sample Name : 610296-01 W
Run Time Bar Code:
Acquired on : 23 Oct 96 04:20 AM
Report Created on: 23 Oct 96 08:17 AM

Page Number : 1
Vial Number : 21
Injection Number : 1
Sequence Line : 11
Instrument Method: TPHE.MTH
Analysis Method : TPHE.MTH



Data File Name : C:\HPCHEM\1\DATA\OCT22\022F1101.D
Operator : TF
Instrument : PHIL
Sample Name : 610296-02 W
Run Time Bar Code:
Acquired on : 23 Oct 96 04:59 AM
Report Created on: 23 Oct 96 08:18 AM

Page Number : 1
Vial Number : 22
Injection Number : 1
Sequence Line : 11
Instrument Method: TPHE.MTH
Analysis Method : TPHE.MTH

NORTH CREEK ANALYTICAL

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9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132 (503) 643-9200 FAX 644-2202

UNOCAL CHAIN OF CUSTODY REPORT

B610296

UNOCAL INFORMATION

Facility Number: 4165
Site Address: NW 2ND ST. & D AVE
City, State, ZIP: SNOHOMISH, WA
Site Release Number:
Unocal Manager: LEIGH CARLSON
CERT INFO: (check one) o Evaluation (o Remediation)
o Detection o Demolition o Closure o Miscellaneous

CONSULTANT INFORMATION

Firm: GEE Project Number: 9161-394-04
Address: REDMOND, WA
Phone: 206) 861-6000 Fax: 861-6050
Project Manager: LISA BOMA
Sample Collection by: PAUL CRAIG

Chain of Custody Record #:

Quality Assurance Data Level: [A] [B]
A: Standard Summary
B: Standard + Chromatograms

Laboratory Turnaround Days: [10] [5] [3] [2] [1]

o Oregon o Washington Hydrocarbon Methods

SAMPLE IDENTIFICATION	SAMPLING DATE / TIME	MATRIX (W,S,O)	# OF CONTAINERS	TPH-HCID	TPH-Gas	BTEX (EPA 8020 Mod.)	TPH-Gas + BTEX	TPH-Diesel	TPH-Diesel Extended	TPH-418.1	Halogen. Volatiles (EPA 8010)	Aromatic Volatiles (EPA 8020)	Pesticides/PCBs or PCBs Only	GC/MS Volatiles (EPA 8240/8260)	GC/MS SemiVols. (EPA 8270)	PAHs by HPLC (EPA 8310)	Lead: Total or Dissolved	TCLP Metals (8)	NCA SAMPLE NUMBER
1. MW-1	10-15-96 / 0750	W	3				X		X										B610296-01
2. MW-2	/ 0815		3				X		X										-02
3. D101596	— / —	—	2				X												-03
4.																			
5.																			
6.																			
7.																			
8.																			
9.																			
10.																			

Relinquished by:	Firm:	Date & Time	Received by:	Firm:	Date & Time
1.	GEE	10-15-96 / 1303	RD Kelley	NCA	10/15/96 1303
2.					
3.					

Page 1 of 1
Rev. 2.2, 11/94

Comments:

Distribution: White - Laboratory Yellow - Consultant Photocopy - Unocal

Final Report Approval

Were all requested results provided? [yes] [no] Define
Were results within requested turnaround? [yes] [no] "No"
Final Approval Signature: on back

Firm: Date:

-10 -10