

ENVIRONMENTAL RESOLUTIONS, INC.

January 15, 2001 ERI 2023QSR.L16

Mr. Steve Morse California Regional Water Quality Control Board San Francisco Bay Region 1515 Clay Street, Suite 1400 Oakland, California 94612

Subject:

Tosco Marketing Company, Quarterly Summary Reports, Fourth Quarter 2000.

Mr. Morse:

At the request of Tosco Marketing Company (Tosco), Environmental Resolutions, Inc. (ERI) is submitting the attached fourth quarter 2000 summary reports for various Tosco facilities at which ERI is performing ongoing environmental work within the San Francisco Bay Region. Please call me at (415) 382-5994 with any questions.

Sincerely,

Environmental Resolutions, Inc.

Glenn L. Matteucci

Program Project Manager

Attachments:

Fourth Quarter 2000 Quarterly Summary Reports

cc:

Mr. Dave DeWitt, Tosco

Mr. Ed Ralston, Tosco

Mr. Jake Madden, San Mateo County Department of Health Services

Ms. Cheri D. McCaulou, City and County of San Francisco Department of Public Health Bureau of Environmental Health Management

Mr. Ted Trenholm, Alameda County Water District

Ms. Eva Chu, Alameda County Department of Environmental Health Services

Mr. Amir Gholami, Alameda County Department of Environmental Health Services

Mr. Bill Mitchell, City of Berkeley Planning & Economic Development Department Toxics Management Division

Mr. Geoffery A. Fielder, R.G., City of Berkeley Planning & Economic Development Department-Toxics Management Division

Mr. Bradley Mark, San Rafael Fire Department

Ms. Misty Kaltreider, Solano County Department of Environmental Management

Ms. Jaqueline Bertaina, Napa County Department of Environmental Management

TRANSMITTAL

January 9, 2001 G-R #180225

TO:

Mr. David B. De Witt

Tosco Marketing Company

2000 Crow Canyon Place, Suite 400

San Ramon, California 94583

CC: Mr. Glen Matteucci

ERI, Inc.

73 Digital Drive, Suite 100

Novato, California

FROM:

Deanna L. Harding

Project Coordinator

Gettler-Ryan Inc.

6747 Sierra Court, Suite J Dublin, California 94568

Tosco 76 Service Station #1156

4276 MacArthur Boulevard

Oakland, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	December 8, 2000	Groundwater Monitoring and Sampling Report Fourth Quarter Event of October 3, 2000

COMMENTS:

This report is being sent to you for your review/comment, prior to being distributed on your behalf. If no comments are received by January 22, 2001, this report will be distributed to the following:

Enclosure

Ms. Eva Chu, Alameda County Health Care Services, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502 Mr. Bob Hale, Alameda County Public Works Agency, Water Resources Section, 951 Turner Court, Suite 300, ::Hayward, CA 94545

trans/1156.dbd

December 8, 2000

G-R Job #180225

Mr. David B. De Witt Tosco Marketing Company 2000 Crow Canyon Place, Suite 400 San Ramon, California 94583

RE: Fourth Quarter 2000 Groundwater Monitoring & Sampling Report

Tosco 76 Service Station #1156 4276 MacArthur Boulevard Oakland, California

Dear Mr. De Witt:

This report documents the quarterly groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On October 3, 2000, field personnel monitored and sampled four wells (MW-1 through MW-4) at the above referenced site.

Static groundwater levels were measured and all wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in any of the wells. Static water level data and groundwater elevations are summarized in Table 1. A Potentiometric Map is included as Figure 1.

Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating. Procedure - Groundwater Sampling (attached). The field data sheets are also attached. The samples were analyzed by Sequoia Analytical. Analytical results are summarized in Tables 1 and 2. A Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical reports are also attached.

No. 6882

OF CALL

Sincerely,

Deanna L. Harding Project Coordinator

III X II I

Douglas J. Lee

Senior Geologist, R.G. No. 6882

Figure 1:

Potentiometric Map

Figure 2:

Concentration Map

Table 1:

Groundwater Monitoring Data and Analytical Results

Table 2:

Groundwater Analytical Results

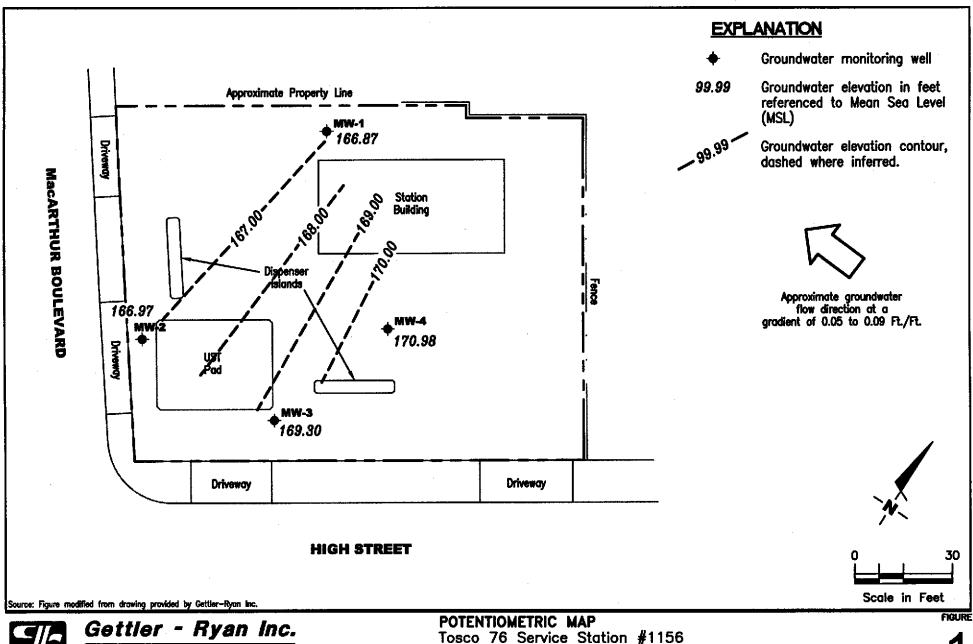
Attachments:

Standard Operating Procedure - Groundwater Sampling

Field Data Sheets

Chain of Custody Document and Laboratory Analytical Reports

1156.qml



REVIEWED BY

6747 Sierra Ct., Suite J **Dublin. CA 94568**

(925) 551-7555

Tosco 76 Service Station #1156 4276 MacArthur Boulevard Oakland, California

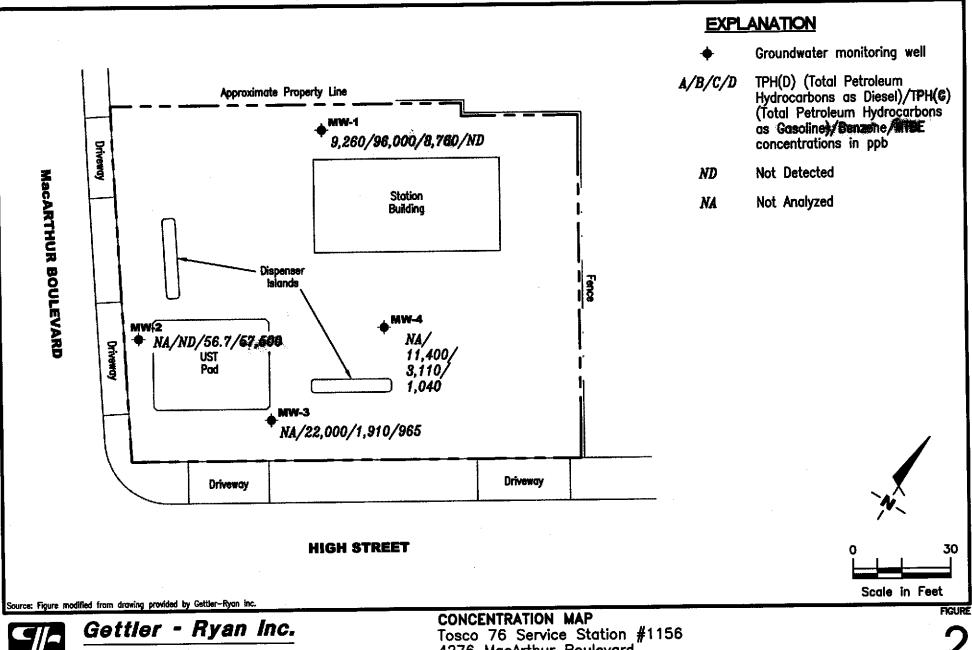
REVISED DATE

DATE

October 3, 2000

PROJECT NUMBER 180225

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PROJECT NUMBER

180225

6747 Sierro Ct., Suite J Dublin, CA 94568

REVIEWED BY

(925) 551-7555

Tosco 76 Service Station #1156 4276 MacArthur Boulevard Oakland, California

DATE

October 3, 2000

REVISED DATE

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Table 1
Groundwater Monitoring Data and Analytical Results

Tosco 76 Service Station #1156 4276 MacArthur Boulevard Oakland, California

					Product				т	E	X	MTBE
WELL ID/	DATE	DTW	S.L.	GWE	Thickness	TPH(D)	TPH(G)	B (ppb)	(ppb)	(ppb)	(ppb)	(ppb)
TOC*(fl.)		(fl.)	(ft. bgs.)	(msl)	(ppb)	(ppb)	(ppb)	(2//2/			\$0000000 of the account	
MW-1												_
174.86	07/20/99 ⁵	7.50	5.0-25.0	167.36		16,000 ²	120,000	11,000	27,000	3,300	18,000	ND
174.00	09/28/99	8.75		166.11	<0.01	2,410 ²	6,020 ⁶	1,030	1,040	68.5	412	321/333 ³
	01/07/00	9.05		165.83**	0.02	7,870 ^{2,4}	72,700 ⁶	7,410	13,900	2,070	9,620	ND¹
	03/31/00	7.18		167.68	0.00	$3,600^2$	92,000 ⁶	10,000	23,000	3,200	14,000	ND¹
	07/14/00	7.68		167.18	0.00	8,580 ²	108,000 ⁶	8,250	18,700	3,750	17,800	ND¹
	10/03/00	7.99		166.87	0.00	9,260 ²	96,000 ⁶	8,760	20,000	3,350	15,600	ND ¹
MW-2										1	1	
173.01	07/20/99	5.40	5.0-25.0	167.61			ND¹	ND^1	ND ¹	ND ¹	ND	4,500/11,000 ^{3,4}
	09/28/99	5.60		167.41	0.00		1,390 ⁶	124	ND	62.9	43.1	5,280/6,150 ³
	01/07/00	5.92		167.09	0.00		1,450 ⁶	99.0	ND ¹	23.8	16.0	33,100
	03/31/00	5.23		167.78	0.00		ND^1	42	ND ¹	ND ¹	ND ¹	17,000
	07/14/00	5.52		167.49	0.00		ND	44.7	ND	ND ¹	ND	66,500
	10/03/00	6.04		166.97	0.00		ND¹	56.7	ND ¹	ND ¹	ND ¹	57,500
2011 0												
MW-3	07/00/00	8.50	5.0-25.0	169.94			1,000	76	52	79	76	330
178.44	07/20/99	8.30 8.31	J.V-2J.U	170.13	0.00		1,860 ⁶	174	95.4	71.8	135	443/288 ³
	09/28/99	8.56		169.88	0.00	- 	28,400 ⁶	2,450	3,090	1,560	3,910	1,940
	01/07/00	8.42		170.02	0.00		26,000 ⁶	1,300	2,900	2,600	3,500	2,800
	03/31/00	8.42 8.61		169.83	0.00		24,500 ⁶	1,850	2,630	2,750	3,900	548
	07/14/00			169.83	0.00	••	22,000 ⁶	1,910	2,020	2,400	2,680	965
	10/03/00	9.14		107.30	U. UU		,,	-,	_,	-,	•	

Table 1
Groundwater Monitoring Data and Analytical Results

Tosco 76 Service Station #1156 4276 MacArthur Boulevard Oakland, California

WELL ID/ TOC* (ft.)	DATE	DTW (fl.)	5.I. (fl. bgs.)	GWE (msl)	Product Thickness (pph)	TPH(D)	TPH(G)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-4												
179.10	07/20/99	7.40	5.0-25.0	171.70			69	2.7	0.77	ND	7.1	100
.,,,,,	09/28/99	7.19		171.91	0.00		4,050 ⁶	1,250	72.0	51.3	133	416/459 ³
	01/07/00	8.98		170.12	0.00		7,010 ⁶	2,260	167	271	276	764
	03/31/00	7.26		171.84	0.00		5,500 ⁶	1,800	230	330	400	1,000
	07/14/00	7.67		171.43	0.00		7,940 ⁶	2,810	332	450	247	1,530
	10/03/00	8.12		170.98	0.00		11,400 ⁶	3,110	437	519	816	1,040
Trip Blank			•									
TB-LB	07/20/99	••			-			-				
	09/28/99	-					ND	ND	ND	ND	ND	ND
	01/07/00						ND	ND	ND	ND	ND	ND
	03/31/00						ND	ND	ND	ND	ND	ND
	07/14/00				-		ND	ND	NĎ	ND	ND	ND
	10/03/00						ND	ND	ND	ND	ND	ND

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco 76 Service Station #1156 4276 MacArthur Boulevard Oakland, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to September 28, 1999, were compiled from reports prepared by Environmental Resolutions, Inc.

TOC = Top of Casing

B = Benzene

(ppb) = Parts per billion

(ft.) = Feet

T = Toluene

ND = Not Detected

DTW = Depth to Water

E = Ethylbenzene

- = Not Measured/Not Analyzed

S.I. = Screen Interval

X = Xylenes

(ft. bgs.) = Feet Below Ground Surface

MTBE = Methyl tertiary butyl ether

GWE = Groundwater Elevation

(msl) = Mean sea level

TPH(D) = Total Petroleum Hydrocarbons as Diesel

TPH(G) = Total Petroleum Hydrocarbons as Gasoline

- * TOC elevations are based on City of Oakland Benchmark No. 3967, (Elevation = 174.40 feet, msl).
- ** GWE has been corrected due to the presence of free product; correction factor: [(TOC DTW) + (Product Thickness x 0.77)].
- Detection limit raised. Refer to analytical reports.
- Laboratory report indicates unidentified hydrocarbons C9-C24.
- 3 MTBE by EPA Method 8260.
- 4 Laboratory analyzed sample past EPA recommended holding time.
- Total Recoverable Petroleum Oil was ND.
- 6 Laboratory report indicates gasoline C6-C12.

Table 2
Groundwater Analytical Results
Tosco 76 Service Station #1156

4276 MacArthur Boulevard
Oakland, California

7/20/99 9/28/99 1/07/00 3/31/00 7/14/00	(pph) ND ⁶	(ppb) 11,000 ³ 333 -	(ppb) ND ⁶ 	(ppb) ND ⁶	(ppb) ND ⁶	(ppb) ND¹ ND⁴	(ppb) ND² ND⁵
9/28/99 1/07/00 3/31/00	ND ⁶	333	ND ⁶	 ND ⁶		ND⁴	
9/28/99 1/07/00 3/31/00		333		ND^6	ND ⁶		ND ⁵
1/07/00 3/31/00							
3/31/00						ND ^{7,8}	ND ⁹
						-11	ND ¹⁰
77/14/00						ND ¹²	ND ¹³
0/03/00	ue.		••		••	ND ¹⁵	ND ¹⁴
9/28/99	ND ⁶	6,150	ND^6	ND ⁶	ND^6	· 	
9/28/99	ND ⁶	288	ND ⁶	ND ⁶	8.80		
9/28/99	ND ⁶	459	ND ⁶	ND ⁶	ND ⁶		
9	7/28/99 7/28/99	7/28/99 ND ⁶	ND ⁶ 6,150	ND ⁶ 6,150 ND ⁶ 6,28/99 ND ⁶ 288 ND ⁶	ND ⁶ 6,150 ND ⁶	ND ⁶ 6,150 ND ⁶ ND ⁶ ND ⁶ ND ⁶ ND ⁶ 8.80	ND ⁶ ND

Table 2

Groundwater Analytical Results

Tosco 76 Service Station #1156 4276 MacArthur Boulevard Oakland, California

EXPLANATIONS:

Groundwater analytical results prior to September 28, 1999, were compiled from reports prepared by Environmental Resolutions, Inc.

TBA = Tertiary butyl alcohol

TAME = Tertiary amyl methyl ether

(ppb) = Parts per billion

MTBE = Methyl tertiary butyl ether

EDB = 1,2-Dibromoethane

ND = Not Detected

DIPE = Di-isopropyl ether

HVOCs = Halogenated Volatile Organic Compounds

-- = Not Analyzed

ETBE = Ethyl tertiary butyl ether

SVOCs = Semi-Volatile Organic Compounds

- All HVOCs were ND except for Chlorobenzene at 12 ppb; 1,2-Dichlorobenzene (1,2-DCB) at 3.9 ppb; 1,1-Dichloroethane (1,1-DCA) at 2.0 ppb; 1,2-Dichloroethane (1,2-DCA) at 20 ppb; cis-1,2-Dichloroethane (cis-1,2-DCE) at 3.6 ppb; and 1,2-Dichloropropane (1,2-DCP) at 0.92 ppb.
- All SVOCs were ND except for Benzyl alcohol at 37 ppb; 2,4-Dimethylphenol at 140 ppb; 2-Methylnaphthalene at 240 ppb; 4-Methylphenol at 27 ppb; and Naphthalene at 600 ppb.
- 3 Laboratory analyzed sample past EPA recommended holding time.
- All HVOCs were ND except for Benzene at 6,130 ppb; Ethylbenzene at 1,590 ppb; Naphthalene at 534 ppb; Toluene at 11,900 ppb; 1,2,4-Trimethylbenzene at 1,240 ppb; 1,3,5-Trimethylbenzene at 318 ppb; and Total Xylenes at 7,360 ppb.
- All SVOCs were ND (with a raised detection limit) except for 2,4-Dimethylphenol at 13.6 ppb; 2-Methylphenol at 87.4 ppb; 2-Methylphenol at 26.4; 4-Methylphenol at 35.6; and Naphthalene at 292 ppb.
- 6 Detection limit raised. Refer to analytical reports.
- All HVOCs were ND (with a raised detection limit) except for Benzene at 8,380 ppb; Ethylbenzene at 2,380 ppb; Naphthalene at 1,050 ppb; n-Propylbenzene at 371 ppb; Toluene at 17,600 ppb; 1,2,4-Trimethylbenzene at 2,210 ppb; 1,3,5-Trimethylbenzene at 597 ppb; and Total Xylenes at 10,800 ppb.
- 8 EPA Method 8260A for HVOCs.
- All SVOCs were ND (with a raised detection limit) except for 2-Methylnaphthalene at 315 ppb and Naphthalene at 615 ppb.
- All SVOCs were ND except for Bis(2-ethylhexyl)phthalate at 10 ppb; 1,2-DCB at 6.2 ppb; 2-Methylnaphthalene at 73 ppb; 2-Methylphenol at 31 ppb; 4-Methylphenol at 18 ppb; and Naphthalene at 140 ppb. Laboratory report indicates all SVOCs were analyzed outside the EPA recommended holding time.
- 11 Laboratory did not analyze for HVOCs.
- All HVOCs were ND (with a raised detection limit) except for Tetrachloroethene at 334 ppb.
- All SVOCs were ND (with a raised detection limit) except for 2-Methylnaphthalene at 300 ppb and Naphthalene at 690 ppb.
- All SVOCs were ND (with a raised detection limit) except for Benzoic acid at 362 ppb, Bis(2-ethylhexyl)phthalate at 51.6 ppb, 2-Methylnaphthalene at 98.1 ppb, 4-Methylphenol at 28.9 ppb, and Naphthalene at 361 ppb.
- 15 All HVOCs were ND (with a raised detection limit).

ANALYTICAL METHODS:

EPA Method 8260 for Oxygenate Compounds

EPA Method 8010 for HVOCs

EPA Method 8270 for SVOCs

STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. Prior to sample collection, the type of analysis to be performed is determined. Loss prevention of volatile compounds is controlled and sample preservation for subsequent analysis is maintained.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, temperature, pH and electrical conductivity are measured. If purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. The measurements are taken a minimum of three times during the purging. Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Tosco Marketing Company, the purge water and decontamination water generated during sampling activities is transported to Tosco - San Francisco Area Refinery, located in Rodeo, California.

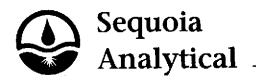
Client/ Facility #	6		Job#:	180225	
	6 Markethu	<u></u>	Date:	10-3-00	
	bland, cA		Sampl	er: Joe	
Well ID	ww-1	Well (Condition:	o.k.	
Well Diameter	2:n	•	ness:	. Amount Bi	75-
Total Depth	25.15 +	Volu			<u>₹</u> " = 0.66
Depth to Water	7.99 +	Face	or (VF)	6" = 1.50	12" = 5.50
·	17.16 × v	FQ.17	2.92 X 3 (case)	rolume) = Estimated Pr	urge Volume:
Purge Equipment:	Disposable Bailer Bailer Stack	· .	Sampling Equipment:	Osposable Ba	
	Suction	₹,		Pressure Baile Grab Sample	
Starting Time:	Other:		<u> </u>	other.	-
	11:15 11:40	Am 1	Weather Condition Water Color:	is: clear	
Sampling Time: Purging Flow Rate Did well de-water Time V	11:15 11:40	Condi	Weather Condition Water Color:	ion: Volum	
Sampling Time: Purging Flow Rate Did well de-water Time V	11:15 11:40 e:	Condo	Weather Condition Water Color:	Jone Clear Volume DXO. (mg/L)	ne:
Sampling Time: Purging Flow Rate Did well de-water Time V	11:15 11:40 11:40 17:40	Condo	Weather Condition Water Color: Sediment Descript If yes: Time: Sectivity Particular Color Particular Co	Jone Clear Volume DXO. (mg/L)	ne:
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Sampling Time: Purging Flow Rate Did well de-water Time V	11:15 11:40 e:	Condinguity of the condinguity o	Weather Condition Water Color: Sediment Descript If yes: Time: Temper Order 7 7 7 7 7 7 7 7 7 7 7 7 7	THON LABORATORY	ORP Alkalinity (mV) (ppm)
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Client/ Facility # <u> /_\$</u>	6		Job#	1802	25
	76 Mac Arthur	Blook.	Date	10-3-0	<i>3</i>
City:	t(and		Samı	oler: <u>Joe</u>	
Weil ID	Ww. 2	Well	Condition:	0.K	29-
Well Diameter	2 in	-	rocarbon	Amount 8	A
Total Depth	25.45 +	F	kness:	in (product/we	
Depth to Water	6.04 +		tor (VF)	6 = 1.50	_
	19.41 ×	vF 0.17	= <u>5.30</u> x 3 (case	volume) = Estimated P	urge Volume: 10 (cal.)
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:	_	Sampling Equipment	Disposable Bailer Pressure Baile Grab Sample Other:	r. Er
Camalina Time	- 1 /	0		, -	
	12115 te:t =		Sediment Descrip	orion: NeAk	
Purging Flow Rate	te:	con	Sediment Descrip	when inoire	ne:
Purging Flow Rate Did well de-wate Time	volume pH (gal.)	Соль	Sediment Description of the Se	Volume D.O. F (mg/L)	ORP Alkalimity
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Client/ Facility #	6		Job#:	180225		·
Address: 42	76 Machith	ur Blue	Date:	10-3-00		
City: 02			Sample	r. Soe		
City.						
Well ID	mw-3_	Well (Condition:	0,6.		<u>. </u>
Well Diameter	2		carbon	Amount Bail	- 0	(rel)
Total Depth	25.05 +	Volu	re 2" = 0.17		4" = 12" = 5.50	0.66
Depth to Water	9.14	l rad	ər (VŦ)	,		
	15.91 x v	F 0.17	2.70 x 3 (case w	olume) = Estimated Pur	ge Volume:	Ze Sees
Purge Equipment:	Disposable Bailer Bailer		Sampling Equipment:	Disposable Bail	er	
	Stzck Stietion	•		Bailer Pressure Bailer		
_	Grundfos			Grab Sample		
•	Other:		·	70.2.1		
Starting Time: Sampling Time: Purging Flow Rat	12:30 12:55@	<u>w</u> 1	Sediment Descript	clear	 	(cal.)
Did well de-wate	er?	- .	If yes; Time:	Volum	e:	;
Time	Volume pH (g21_)	dmh	uctivity, 1/1) Temperos/cm	(mg/L)	ORP (mV)	(ppm)
12:40	2.5 7.10	- 4 .1	$\frac{11}{95} \frac{75}{75}$	3.1 *		
12:43	5 7.06 8.4 7.12	3.	97 74	1.8		
					· · · · · · · · · · · · · · · · · · ·	
SAMPLE ID	(#) - CONTAINER	LABOF REFRIG.	RATORY INFORMA PRESERV. TYPE	LABORATORY	ANAL.	rses
MW-37	3404	Y	HCL	Sequoia	TPHG, BTE	C,MTEE
			<u> </u>			
	 					
		<u></u>	<u> </u>			
COMMENTS:						
						

Client/ Facility #	56		Job#:	18022	5	
42	76 Nachitha	e Rle	J. Date:	10-3-0	,	
		7 5.4.				
City: Oa	tland		Samp	oler: Joe	<u> </u>	
Well ID .	mw-4	Wei	Condition:	0.K-		
Well Diameter	$\phantom{aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa$	-	rocarbon A	Amount Ba	Action .	· ·
Total Depth	25.30 +	1	kness:		4" = 0.6ô	
Depth to Water	8.12 =	Fac	zer (VF)	6 = 150	12" = 5.50	
	17.18 ×	VF <u>σ.1</u>	_2.92 X 3 (ceso	volume) = Estimated Pu	urgo Volume: 9 lo	: =1_1
Purge Equipment:	Disposable Bailer Bailer		Sampling Equipment	: Disposable Ba	iler .	,
	Stack	•		Bailer	_	
	Section Grundfos	•		Pressure Baile Grab Sample	:f	
•	Other:			Other:	_	
	·	·	1,5			
Starting Time: Sampling Time: Purging Flow Rat	/a:3 //:0 te:		Sediment Descrip	rion: <u>· none</u>	Odor 423	
Did well de-wate	er?	_	If yes; Time:	Volun	ne:	
Time 1	Volume pH (gal.)	ματι	ductivity (N) Temp hos/cm X	F (mg/L)	ORP Alkali (mV) (pp:	. •
10:48	3 7.17	<u> </u>	16 7	3.2		
10:50	6 7.27	_	<u> </u>	<u> </u>		
10:50	9 7.30	ک_ ک	.19 7	4.0		
		LABO	RATORY INFORM			
SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES	
arw-4	3 YOA	<u>Y</u>	HCL	Sequoia	TPHG, BTEX, MTBG	
			 	-		
 	 	<u> </u>				긕
1	<u> </u>	J			1	1
COMMENTS: .						
	= 10= 44		·			
		•				

Chain-of-Custody-Record Mc Dave Dewitt Foolilly Number Tosco (76) 55 # 1156 Contact (Name) _ Foothly Address 4276 Martithur, Oakland, CA. Laboratory Name Sequoia Analytical Consultant Project Number_ Consultant Name Gettler-Rvan Inc. (G-R Inc.) Laboratory Release Number Samples Collected by (Name) TOEA JERIAN Address 6747 Sierra Court, Suite J. Dublin, CA 94568 Trece Marketing Company 2000 Crow Caryon FL, Ste. 400 San Ramon, Calfornia 94583 Project Contact (Name) Deanna L. Harding (Phone) 510-551-7555 (Fox Number) 510-551-7888 Signature ___ DO NOT BILL Analyses To Be Performed TB-LB ANALYSIS HVOC'S by 8010 Grab Composite Discrete TPH Gar+ BTEX WATER N Purgachia Holocut (3010) 80 1 1 Off and Gream (5520) 5 SVOCIS 111 IPH Diesel (8015) 8 60 C Remarks 300L سی HCC 01 TB-LB NOA Srot ZAM, 11:40 02 MW-1 03 12:15 1cvs MW-2 12:55 31.4 1 WW.3 ろいれ 11:03 MW-4 Date/Three Turn Around Time (Circle Choloe) Hdi Received By (Signoture) Date/Time 3 50 Organization Relinquished By (Signature) Organization 10.3,00 24 Hre. G-R Inc. 48 Hrs. Organization Date/Time Received By (Signature) Organization Date/Time 6 Days 10 Days Relinquished By (Signature) Date/Time Recieved For Laboratory By (Signature) Date/Time Organization As Contracted



November 15, 2000

Deanna Harding Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568

RE: Tosco(4)/L010014

Dear Deanna Harding

Enclosed are the results of analyses for sample(s) received by the laboratory on October 3, 2000. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Latonya Pelt Project Manager

CA ELAP Certificate Number 12360





Project: Tosco(4)

Project Number: Tosco (76) SS#1156

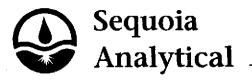
Project Manager: Deanna Harding

Sampled: 10/3/00

Received: 10/3/00 Reported: 11/15/00

ANALYTICAL REPORT FOR L010014

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
TB-LB	L010014-01	Water	10/3/00
MW-1	L010014-02	Water	10/3/00
MW-2	L010014-03	Water	10/3/00
MW-3	L010014-04	Water	10/3/00
MW-4	L010014-05	Water	10/3/00



Gettler-Ryan/Geostrategies(1)	Project: Tosco(4)	Sampled: 10/3/00
6747 Sierra Court, Suite J	Project Number: Tosco (76) SS#1156	Received: 10/3/00
Dublin, CA 94568	Project Manager: Deanna Harding	Reported: 11/15/00

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - San Carlos

	Batch	Date	Date	Surrogate	Reporting			
Analyte	Number	Prepared	Analyzed	Limits	Limit	Result	Units	Notes*
TB-LB			L0100	1 <u>4-01</u>			<u>Water</u>	
Purgeable Hydrocarbons as Gasoline	0100071	10/14/00	10/14/00		50.0	ND	ug/l	
Benzene	n	**	**		0.500	ND	H	
Toluene	H	п .	**		0.500	ND	н	
Ethylbenzene	#	H	. H	•	0.500	ND	н	
Xylenes (total)	н	н	R		0.500	ND	"	
Methyl tert-butyl ether	**		Ħ		5.00	ND	#	
Surrogate: a,a,a-Trifluorotoluene	W .	H	Ħ	70.0-130		92.7	%	
<u>MW-1</u>			<u>L0100</u>	14-02			<u>Water</u>	_
Purgeable Hydrocarbons as Gasoline	0100075	10/16/00	10/16/00		25000	96000	ug/l	1
Benzene	Ħ	Ħ	"		250	8760	π	
Toluene	et	Ħ	#		250	20000		
Ethylbenzene	**	17	**		250	3350	**	
Xylenes (total)	n	11	п		250	15600	Ħ	
Methyl tert-butyl ether	#	М	#		2500	ND	71	
Surrogate: a,a,a-Trifluorotoluene	#	n	"	70.0-130		91.1	%	
MW-2			L0100	14.63			Water	
Purgeable Hydrocarbons as Gasoline	0100075	10/16/00	10/16/00	11-05	2500	ND	ug/l	
Benzene	0100073	"	#		25.0	56.7	H .	
Toluene	н .	n	44		25.0	ND		
Ethylbenzene	17	n	н		25.0	ND		
Xylenes (total)	**	н	#		25.0	ND	н	
Methyl tert-butyl ether	н		**		1000	57500	Ħ	2
Surrogate: a,a,a-Trifluorotoluene		H		70.0-130		128	%	
omitogano. a,a,a 1191aoi otoracito								
<u>MW-3</u>			<u>L0100</u>	<u>14-04</u>			<u>Water</u>	
Purgeable Hydrocarbons as Gasoline	0100075	10/16/00	10/16/00		5000	22000	ug/l	1
Benzene	Ħ	**	H		50.0	1910	Ħ	
Toluene	77	Ħ	Ħ		50.0	2020	**	
Ethylbenzene	#1	Ħ	Ħ		50.0	2400	n	
Xylenes (total)	Ħ	•	Ħ		50.0	2680	#	
Methyl tert-butyl ether			Ħ		500	965		
Surrogate: a,a,a-Trifluorotoluene	*	н	n	70.0-130		100	%	
MW-4			T_0104)14-0 <u>5</u>			Water	
Purgeable Hydrocarbons as Gasoline	0100075	10/16/00	10/16/00	/ 17-U J	5000	11400	ug/l	1
Benzene	# 0100073	10/10/00	#		50.0	3110		-
Toluene	 H		н		50.0	437	m	
	'' #	"	,,		50.0	519	н	
Ethylbenzene Variance (total)	11	" #				816		
Xyienes (total)	••				50.0	010		

Sequoia Analytical - San Carlos





Project: Tosco(4)

Project Manager: Deanna Harding

Project Number: Tosco (76) SS#1156

Sampled: 10/3/00

Received: 10/3/00 Reported: 11/15/00

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - San Carlos

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-4 (continued)			L0100	14-0 <u>5</u>			Water	+
Methyl tert-butyl ether	0100075	10/16/00	10/16/00	•	500	1040	ug/l	
Surrogate: a,a,a-Trifluorotoluene	H	п	<i>a</i>	70.0-130		120	%	



Project: Tosco(4) Project Number: Tosco (76) SS#1156 Project Manager: Deanna Harding

Sampled: 10/3/00 Received: 10/3/00

Reported: 11/15/00

Volatile Organic Compounds by EPA Method 8010B Sequoia Analytical - San Carlos

	Batch	Date	Date	Surrogate	Reporting			
Analyte	Number	Prepared	Analyzed	Limits	Limit	Result	Units	Notes*
								
<u>MW-1</u>			<u>L0100</u>	<u>14-02</u>			Water	
Freon 113	0100012	10/4/00	10/4/00		1000	ND	ug/l	
Bromodichloromethane	н	17	H		500	ND	м	
Bromoform	e	n	H		500	ND	#	
Bromomethane	17	11	Ħ		1000	ND	**	
Carbon tetrachloride	Ħ		n		500	ND	H	
Chlorobenzene	**		п		500	ND	Ħ	
Chloroethane	11	n	ŧI		1000	ND	**	
2-Chloroethylvinyl ether	#	н	11		5000	ND	11	
Chloroform	н .	н .	IF		500	ND	Ħ	
Chloromethane	ы	Ħ	#		1000	ND	Ħ	
Dibromochloromethane	Ħ	ŧŧ	11		500	ND	H	
1,3-Dichlorobenzene	**	n	#		500	ND	H	•
1,4-Dichlorobenzene	н	**	H		500	ND		
1,2-Dichlorobenzene	n	*	17		500	ND		
1,1-Dichloroethane	17 .	IF	Ħ		500	ND	н	
1,2-Dichloroethane	11	la .	n		500	ND	п	
1.1-Dichloroethene	m	н	н		500	ND	#	
cis-1,2-Dichloroethene	м	41	н		500	ND	Ħ	
trans-1,2-Dichloroethene	н	11	Ħ		500	ND	**	
1,2-Dichloropropane	#	Ħ	H		500	ND	n	
cis-1,3-Dichloropropene	п	н	77		500	ND	Ħ	
trans-1,3-Dichloropropene	**	**	n		500	ND	97	
Methylene chloride		17	**		5000	ND	**	
1,1,2,2-Tetrachloroethane		н	н		500	ND	17	
Tetrachloroethene		H			500	ND	н,	
1,1,1-Trichloroethane	e	н	•		500	ND	n	
1,1,2-Trichloroethane	•	*1	•		500	ND	m	
Trichloroethene	n	Ħ	я		500	ND	п	
Trichlorofluoromethane		#	TT .		500	ND	•	
Vinyl chloride	**	•	11		500	ND	H	
		n	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	70.0-130	300	74.4	%	
Surrogate: 1-Chloro-2-fluorobenzene	••	-		/0.0-130	•	/ T.T	70	





Project: Tosco(4) Project Number: Tosco (76) SS#1156

Sampled: 10/3/00 Received: 10/3/00

Project Manager: Deanna Harding

Reported: 11/15/00

Semivolatile Organic Compounds by EPA Method 8270C Sequoia Analytical - Petaluma

	Batch	Date	Date	Specific	Reporting			
Analyte	Number	Prepared	Analyzed	Method	Limit	Result	Units	Notes*
MW-1			L0100	14.02			<u>Water</u>	
Acenaphthene	0100193	10/9/00	11/9/00	EPA 8270C	10.0	ND	ug/l	
Acenaphthylene	0100133	10/9/00	11/3/00	EPA 8270C	10.0	ND	n GEAT	
Acchaphunylene Anthracene	4	7	11	EPA 8270C EPA 8270C	10.0	ND	н	
Anunacene Benzidine	11		#	EPA 8270C	50.0	ND	н	
Benzoic acid	**	 N	11/12/00	EPA 8270C EPA 8270C	200	362	n	
	#7				10.0	ND	н	
Benzo (a) anthracene		11	11/9/00	EPA 8270C EPA 8270C	10.0	ND	#	
Benzo (b+k) fluoranthene (total)		" #I	" It		10.0	ND	п	
Benzo (g,h,i) perylene	"		H	EPA 8270C	10.0		lt .	
Benzo (a) pyrene	**			EPA 8270C		ND	н	
Benzyl alcohol	"	" **	" H	EPA 8270C	20.0	ND	#	
Bis(2-chloroethoxy)methane		" #	" H	EPA 8270C	10.0	ND	TT	
Bis(2-chloroethyl)ether		n		EPA 8270C	10.0	ND		
Bis(2-chloroisopropyl)ether				EPA 8270C	10.0	ND	" R	
Bis(2-ethylhexyl)phthalate		11		EPA 8270C	13.8	51.6		
4-Bromophenyl phenyl ether	•	*1	el	EPA 8270C	10.0	ND		
Butyl benzyl phthalate		þ	н	EPA 8270C	10.0	ND	# -	
4-Chloroaniline	₩		4	EPA 8270C	20.0	ND	**	
4-Chloro-3-methylphenol	41	m	t t	EPA 8270C	20.0	ND	**	
2-Chloronaphthalene	П	,	Ħ	EPA 8270C	10.0	ND	**	
2-Chlorophenol	Ħ		Ħ	EPA 8270C	10.0	ND	tt	
4-Chlorophenyl phenyl ether	Ħ	7	n .	EPA 8270C	10.0	ND	11	
Chrysene	7	*	Ħ	EPA 8270C	10.0	ND	Ħ	
Dibenz (a,h) anthracene	n	#	11	EPA 8270C	10.0	ND	#	
Dibenzofuran	*	н	n	EPA 8270C	10.0	ND	**	
Di-n-butyl phthalate	m	Ħ	*	EPA 8270C	10.0	ND	n	•
1,2-Dichlorobenzene	m	#		EPA 8270C	10.0	ND	**	
1,3-Dichlorobenzene	и	#	H	EPA 8270C	10.0	ND	**	
1,4-Dichlorobenzene	И	11	н	EPA 8270C	10.0	ND	10.	
3,3'-Dichlorobenzidine		Ħ		EPA 8270C	20.0	ND	11	
2,4-Dichlorophenol		Ħ		EPA 8270C	10.0	ND	11	
Diethyl phthalate	M	**	м	EPA 8270C	10.0	ND	10	
2,4-Dimethylphenol	#	н	н	EPA 8270C	10.0	ND	#	
Dimethyl phthalate	*		н	EPA 8270C	10.0	ND		
4,6-Dinitro-2-methylphenol	**	n	#	EPA 8270C	50.0	ND	11	
2,4-Dinitrophenol	#	a ,	n	EPA 8270C	50.0	ND	н	
2,4-Dinitrotoluene	n	₩	Ħ	EPA 8270C	10.0	ND	m	
2,6-Dinitrotoluene	ır	•	**	EPA 8270C	10.0	ND	н	
Di-n-octyl phthalate		#	11	EPA 8270C	10.0	ND	н	
1,2-Diphenylhydrazine		#	Ħ	EPA 8270C	20.0	ND	H.	
Fluoranthene		#	n	EPA 8270C	10.0	ND	**	
		 #	11	EPA 8270C	10.0	ND	#	
Fluorene	•		•	EFA 62/0C	10.0	ND		

Sequoia Analytical - San Carlos



Project: Tosco(4)
Project Number: Tosco (76) SS#1156
Project Manager: Deanna Harding

Sampled: 10/3/00 Received: 10/3/00 Reported: 11/15/00

Semivolatile Organic Compounds by EPA Method 8270C Sequoia Analytical - Petaluma

MW-1 (continued) Hexachlorobenzene Hexachlorobutadiene	Number 0100193	10/9/00	Analyzed L0100 11/9/00	Method 14-02	Limit	Result	Units	Notes*
Hexachlorobenzene	H			14-02			TV-400	
Hexachlorobenzene	H			<u>14-02</u>				
	H		11/9/00				Water	
Llouischlausbyste diene	н	H		EPA 8270C	10.0	ND	ug/l	
			e	EPA 8270C	10.0	ND		
Hexachlorocyclopentadiene		IF .	Ħ	EPA 8270C	10.0	ND	н	
Hexachloroethane	u	H	11	EPA 8270C	10.0	ND	п	
Indeno (1,2,3-cd) pyrene	41	M	n	EPA 8270C	10.0	ND	Ħ	
Isophorone	11	m	TT .	EPA 8270C	10.0	ND	#	
2-Methylnaphthalene	n	я	n	EPA 8270C	10.0	98.1	н	
2-Methylphenol	**	त्त	H	EPA 8270C	10.0	ND	Ħ	
4-Methylphenol	H	Ħ	Ħ	EPA 8270C	10.0	28.9	11	
Naphthalene	Ħ	Ħ	11/12/00	EPA 8270C	40.0	361	Ħ	
2-Nitroaniline		**	11/9/00	EPA 8270C	50.0	ND	49	
3-Nitroaniline	n	**	*	EPA 8270C	50.0	ND	#	
4-Nitroaniline	81	**	•	EPA 8270C	50.0	ND	17	
Nitrobenzene	Ħ	u u	н	EPA 8270C	10.0	ND	H ·	
2-Nitrophenol	Ħ	10	77	EPA 8270C	10.0	ND	π	
4-Nitrophenol	Ħ	17	Ħ	EPA 8270C	50.0	ND	Ħ	
N-Nitrosodimethylamine	n	m	Ħ	EPA 8270C	20.0	ND	**	
N-Nitrosodiphenylamine	Ħ	П	11	EPA 8270C	10.0	ND	10	
N-Nitrosodi-n-propylamine		Ħ	Ħ	EPA 8270C	10.0	ND	н	
Pentachlorophenol	н	ч	n	EPA 8270C	50.0	ND	11	
Phenanthrene		Ħ	**	EPA 8270C	10.0	ND	Ħ	
Phenol	Ħ	Ħ	11	EPA 8270C	10.0	ND		
Pyrene	#	11	n	EPA 8270C	10.0	ND	n	
Pyridine	**		ts .	EPA 8270C	10.0	ND	н	
1,2,4-Trichlorobenzene	**	н	н	EPA 8270C	10.0	ND	н	
2,4,5-Trichlorophenol	Ħ	H	н	EPA 8270C	10.0	ND	m	
2,4,6-Trichlorophenol	11	H	**	EPA 8270C	10.0	ND	u	
Surrogate: 2-Fluorophenol	. ,,	"	n	15-103		10.2	%	3
Surrogate: Phenol-d6	*	n	n	18-115		29.3	"	-
Surrogate: Nitrobenzene-d5	Ħ	H	n	39-103		50.9	n	
Surrogate: 2-Fluorobiphenyl	#	π	"	40-124		56.4	H	
Surrogate: 2,4,6-Tribromophenol	,,	n	#	11-142		88.0	*	
Surrogate: Terphenyl-d14	п		n	56-139	•	99.3	"	





Project: Tosco(4)

Project Number: Tosco (76) SS#1156

Project Manager: Deanna Harding

Sampled: 10/3/00

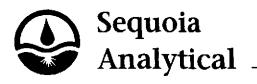
Received: 10/3/00

Reported: 11/15/00

Diesel Hydrocarbons (C9-C24) by DHS LUFT Sequoia Analytical - Morgan Hill

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>MW-1</u>			<u>L0100</u>	14-02			Water	
Diesel Range Hydrocarbons	0J09001	10/9/00	10/12/00	DHS LUFT	200	9260	ug/l	4
Surrogate: n-Pentacosane	W	п	#	50-150		126	%	





Analyte					*					
Date Spike Sample Analyzed Level Result Result Units Recov. Limits Limi	Total Purgeah	le Hydrocart					SLUFT/Quality	v (Svijeta)		
Analyte			Sequo	a Analytica	l - San Cai	(0.85)	all the second second			
Analyte		Date	Spike	Sample	OC		Reporting Limit	Recov.	RPD	RPD
Date Prepared: 10/14/09 Date Prepared: 1	Analyte		_	-		Units				1
Purgeable Hydrocarbons as Gasoline 10/14/00 ND ug/l 50.0		: mary nou		1100000						
Blank 10/14/00	Batch: 0100071	Date Prepa	red: 10/14	<u>/00</u>		Extrac	tion Method: EP.	A 5030B	[P/T]	
Benzene	Blank									
Benzene	Purgeable Hydrocarbons as Gasoline	10/14/00			ND	ug/l	50.0			
Ethylbenzene " ND	Benzene	H			ND	н	0.500			
Xylenes (total) " " 0.500 Methyl tert-buryl ether " 10.0 8.24 " 70.0-130 82.4	Toluene	Ħ			ND	ч	0.500			
Methyl tert-butyl ethet " 10.0 8.24 " 70.0-130 82.4	Ethylbenzene	**			ND	Ħ	0.500			
Surrogate: a,a,a-Trifluorotoluene " 10.0 8.24 " 70.0-130 82.4	Xylenes (total)	Ħ			ND	н	0.500			
LCS	Methyl tert-butyl ether	Ħ			ND	Ħ	5.00			
Detail	Surrogate: a,a,a-Trifluorotoluene	"	10.0		8.24	H	70.0-130	82.4		
Detail	1.00	04000== ~-	34							
Toluene			_		0.00	л	70.0.120	00.0		
Ethylbenzene										
Xylenes (total)										
Surrogate: a,a,a-Trifluorotoluene										
LCS										
Purgeable Hydrocarbons as Gasoline 10/14/00 250 223 ug/l 70.0-130 89.2	Surrogaie. a,a,u-1/graoroiotaene		10.0		9.33		70.0-130	73.3		
Purgeable Hydrocarbons as Gasoline 10/14/00 250 223 ug/l 70.0-130 89.2	LCS	0100071-B	S2							
Matrix Spike 0100071-MS1 L010026-06 L010026-06 L0100071-MS1 L010026-06 L010026-06 L0100071-MS1 L010026-06 L010026-06 L0100071-MSD1 L010026-06 L0100026-06 L010026-06 L0100	Purgeable Hydrocarbons as Gasoline				223	ug/l	70.0-130	89.2		
Purgeable Hydrocarbons as Gasoline 10/15/00 250 ND 203 ug/l 60.0-140 81.2	Surrogate: a,a,a-Trifluorotoluene				8.89		70.0-130	88.9		
Purgeable Hydrocarbons as Gasoline 10/15/00 250 ND 203 ug/l 60.0-140 81.2	Manada Calles	0100081 34		010002 02						
Matrix Spike Dup 0100071-MSD1 L010026-06 Purgeable Hydrocarbons as Gasoline 10/15/00 250 ND 209 ug/l 60.0-140 83.6 25.0 2.91 Surrogate: a,a,a-Triftuorotoluene " 10.0 9.08 " 70.0-130 90.8 Batch: 0100075 Date Prepared: 10/16/00 Extraction Method: EPA 5030B [P/T] Blank 0100075-BLK1 Purgeable Hydrocarbons as Gasoline 10/16/00 ND ug/l 50.0 Benzene " ND " 0.500 Toluene " ND " 0.500 Ethylbenzene " ND " 0.500					202		60.0.140	Q1 7		
Matrix Spike Dup 0100071-MSD1 L010026-06 Purgeable Hydrocarbons as Gasoline 10/15/00 250 ND 209 ug/l 60.0-140 83.6 25.0 2.91 Surrogate: a,a,a-Trifluorotoluene " 10.0 9.08 " 70.0-130 90.8 Batch: 0100075 Date Prepared: 10/16/00 Extraction Method: EPA 5030B [P/T] Blank 0100075-BLK1 ND ug/l 50.0 Purgeable Hydrocarbons as Gasoline 10/16/00 ND " 0.500 Benzene " ND " 0.500 Toluene " ND " 0.500 Ethylbenzene " ND " 0.500				עא						
Purgeable Hydrocarbons as Gasoline 10/15/00 250 ND 209 ug/l 60.0-140 83.6 25.0 2.91	Surrogaie: a,a,a-1rijiuoroioiuene		10.0		y. 26		70.0-130	92.0		·
Purgeable Hydrocarbons as Gasoline 10/15/00 250 ND 209 ug/l 60.0-140 83.6 25.0 2.91	Matrix Spike Dup	0100 <u>071-M</u>	SD1 L	010026-06		٠				
Surrogate: a,a,a-Trifluorotoluene " 10.0 9.08 " 70.0-130 90.8 Batch: 0100075 Date Prepared: 10/16/00 Extraction Method: EPA 5030B [P/T] Blank 0100075-BLK1 Purgeable Hydrocarbons as Gasoline 10/16/00 ND ug/l 50.0 Benzene " ND " 0.500 Toluene " ND " 0.500 Ethylbenzene " ND " 0.500	Purgeable Hydrocarbons as Gasoline			ND	209	ug/l	60.0-140	83.6	25.0	2.91
Blank 0100075-BLK1 Purgeable Hydrocarbons as Gasoline 10/16/00 ND ug/l 50.0 Benzene " ND " 0.500 Toluene " ND " 0.500 Ethylbenzene " ND " 0.500	Surrogate: a,a,a-Trifluorotoluene	*	10.0		9.08	H	70.0-130	90.8	•	· · · · ·
Blank 0100075-BLK1 Purgeable Hydrocarbons as Gasoline 10/16/00 ND ug/l 50.0 Benzene " ND " 0.500 Toluene " ND " 0.500 Ethylbenzene " ND " 0.500	Databa 0100075	D 4. D	. 3 10/1/			T		A 6020TD	CD ATT	
Purgeable Hydrocarbons as Gasoline 10/16/00 ND ug/l 50.0 Benzene " ND " 0.500 Toluene " ND " 0.500 Ethylbenzene " ND " 0.500	· · · · · · · · · · · · · · · · · · ·			<u>/UU</u>		Extrac	tion Method: Er	A DUJUB	<u> P/1 </u>	
Benzene " ND " 0.500 Toluene " ND " 0.500 Ethylbenzene " ND " 0.500			<u>LK1</u>		ATTS		20.0			
Toluene " ND " 0.500 Ethylbenzene " ND " 0.500	-	10/16/00				ug/1				
Ethylbenzene " ND " 0.500						 M				
·										
	•									
· · ·	• •	**				**				
Methyl text-butyl ether " 5.00 Surrogate: a,a,a-Trifluorotoluene " 10.0 12.8 " 70.0-130 128			10.0					128		·
ынгодыны ырын-териногологиясие 10,0 12,0 /V,U=13V 120	Darrogue. G.G.G-11graviviviaene		10.0		12,0		/V.V-130	120		
LCS 0100075-BS1	LCS	0100075-B	<u>\$1</u>							
	Benzene	10/16/00	10.0		9.21	ug/l	70.0-130	92.1		
	Toluene	11	10.0		8.64	n	70.0-130	86.4		
1001 1001 1001 1001 1001 1001 1001 100										
	· · 				5,0 .		, 0.0 .50			





	Date	Spike	Sample	QC		Reporting Limit	Recov.	RPD	RPD	
Analyte	Analyzed	Level	Result	Result	Units	Recov. Limits	<u>%</u>	Limit	%	Notes*
LCS (continued)	01000 <u>75-BS</u>	<u>81</u>								
Ethylbenzene	10/16/00	10.0		8.72	ug/l	70.0-130	87.2			
Xylenes (total)	я	30.0		26.5		70.0-130	88.3			
Surrogate: a,a,a-Trifluorotoluene	n	10.0		10.7	~	70.0-130	107			
LCS	0100075-BS	_								
Purgeable Hydrocarbons as Gasoline	10/16/00	250		244	.ug/l	70.0-130	97.6		_	
Surrogate: a,a,a-Trifluorotoluene	H	10.0		10.2	"	70.0-130	102			
Matrix Spike	0100075-M	<u>S1 L</u>	01011 8-01							
Benzene	10/16/00	10.0	ND	9.91	ug/l	60.0-140	99.1			
Toluene	M	10.0	ND	9.20	11	60.0-140	92.0			
Ethylbenzene	7	10.0	ND	9.22	**	60.0-140	92.2			
Xylenes (total)	•	30.0	ND_	27.8	#	60.0-140	92.7			
Surrogate: a,a,a-Trifluorotoluene	n .	10.0		9.43	*	70.0-130	94.3			
Matrix Spike Dup	0100075-M	SD1 L	<u>010118-01</u>							
Benzene	10/17/00	10.0	ND	11.6	ug/l	60.0-140	116	25.0	15.7	
Tolu ene	п	10.0	ND	10.7	н	60.0-140	107	25.0	15.1	
Ethylbenzene	*	10.0	ND	10.6		60.0-140	106	25.0	13.9	
Xylenes (total)	H	30.0	ND	32.0	м	60.0-140	107	25.0	14.3	
Surrogate: a,a,a-Trifluorotoluene		10.0		10.7	17	70.0-130	107			

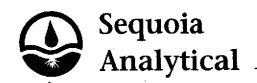




Batch: 0100012 Date Prepared: 10/3/00 Extraction Method: EPA 5030 Blank 0100012-BLK1 Freon 113 10/3/00 ND ug/l 1.00 Bromodichloromethane " ND " 0.500 Bromoform " ND " 0.500 Bromomethane " ND " 1.00	6 Limit	RPD % Notes*
Analyte Analyzed Level Result Result Units Recov. Limits Batch: 0100012 Date Prepared: 10/3/00 Extraction Method: EPA 503 Blank 0100012-BLK1 Freon 113 10/3/00 ND ug/l 1.00 Bromodichloromethane " ND " 0.500 Bromoform " ND " 0.500 Bromomethane " ND " 1.00	6 Limit	% Notes*
Blank 0100012-BLK1 Freon 113 10/3/00 ND ug/l 1.00 Bromodichloromethane " ND " 0.500 Bromoform " ND " 0.500 Bromomethane " ND " 1.00	<u>)B [P/T]</u>	
Blank 0100012-BLK1 Freon 113 10/3/00 ND ug/l 1.00 Bromodichloromethane " ND " 0.500 Bromoform " ND " 0.500 Bromomethane " ND " 1.00		
Bromodichloromethane " 0.500 Bromoform " ND " 0.500 Bromomethane " ND " 1.00		
Bromonethane " ND " 0.500 Bromomethane " ND " 1.00		
Bromomethane " ND " 1.00		
· 		
Carbon tetrachloride " 0.500		
Chlorobenzene " ND " 0.500		
Chloroethane " ND " 1.00		
2-Chloroethylvinyl ether " ND " 5.00		
Chloroform " ND " 0.500		
Chloromethane " ND " 1.00		
Dibromochloromethane " ND " 0.500		
1,3-Dichlorobenzene " ND " 0.500		
1,4-Dichlorobenzene " ND " 0.500		
1,2-Dichlorobenzene " ND " 0.500		
1,1-Dichloroethane " ND " 0.500		
1,2-Dichloroethane " ND " 0.500		
1,1-Dichloroethene " ND " 0.500		
cis-1,2-Dichloroethene " ND " 0.500		
trans-1,2-Dichloroethene " ND " 0.500		
1,2-Dichloropropane " ND " 0.500		
cis-1,3-Dichloropropene " ND " 0.500		
trans-1,3-Dichloropropene " ND " 0.500		
Methylene chloride " ND " 5.00		
1,1,2,2-Tetrachloroethane " ND " 0.500		
Tetrachloroethene " ND " 0.500		
1,1,1-Trichloroethane " ND " 0.500		
1,1,2-Trichloroethane " ND " 0.500		
Trichloroethene " ND " 0.500		
Trichlorofluoromethane " ND " 0.500		
Vinyl chloride " ND " 0.500		
Surrogate: 1-Chloro-2-fluorobenzene " 10.0 7.71 " 70.0-130 77	1	
Blank 0100012-BLK2		
Freon 113 10/4/00 ND ug/l 1.00		
Bromodichloromethane " ND " 0.500		
Bromoform " ND " 0.500		
Bromomethane " ND " 1.00		
Carbon tetrachloride " ND " 0.500		
Chlorobenzene " ND " 0.500		
Chloroethane " ND " 1.00		

Sequoia Analytical - San Carlos





- Volatile Organic Compounds by EPA Method 8010B/Quality Control Sequoia Analytical - San Carlos RPD Reporting Limit Recov. Date Spike Sample QC Recov. Limits Limit % Notes* Analyte Result Result Units Analyzed Level Blank (continued) 0100012-BLK2 5.00 ND 2-Chloroethylvinyl ether ug/l 10/4/00 0.500 Chloroform ND 1.00 Chloromethane ND 0.500 ND Dibromochloromethane 0.500 1.3-Dichlorobenzene ND 0.5001,4-Dichlorobenzene ND 0.500 1.2-Dichlorobenzene ND 0.500 1.1-Dichloroethane ND 0.500 1.2-Dichloroethane ND 0.5001,1-Dichloroethene ND 0.500 cis-1,2-Dichloroethene ND 0.500 trans-1.2-Dichloroethene ND 1,2-Dichloropropane ND 0.500 ND cis-1,3-Dichloropropene 0.5000.500 trans-1,3-Dichloropropene ND 5.00 Methylene chloride ND 0.500 1,1,2,2-Tetrachloroethane ND 0.500 Tetrachloroethene ND 0.500 1,1,1-Trichloroethane ND 1.1.2-Trichloroethane ND 0.500 0.500 Trichloroethene ND 0.500 Trichlorofluoromethane ND 0.500 Vinyl chloride ND 89.4 Surrogate: 1-Chloro-2-fluorobenzene 10.0 8.94 70.0-130 0100012-BLK3 Blank ND 1.00 Freon 113 10/5/00 ug/l ND 0.500 Bromodichloromethane 0.500 Bromoform ND 1.00 Bromomethane ND 0.500Carbon tetrachloride ND 0.500ND Chlorobenzene ND 1.00 Chloroethane 5.00 ND 2-Chloroethylvinyl ether 0.500 Chloroform ND 1.00 Chloromethane ND 0.500 ND Dibromochloromethane 0.500 ND 1,3-Dichlorobenzene 0.500 ND 1,4-Dichlorobenzene 0.500 1.2-Dichlorobenzene ND ND 0.5001,1-Dichloroethane

Sequoia Analytical - San Carlos





Volatile Organic Compounds by EPA Method 8010B/Quality Control . Sequoia Ababytical - San Carles

	Date	Spike	Sample	QC		Reporting Limit	Recov.	RPD	RPD	
Analyte	Analyzed	Level	Result	Result	Units	Recov. Limits	%	Limit	<u>%</u>	Notes*
Blank (continued)	0100012-BI	ж3								
1,2-Dichloroethane	10/5/00			ND	ug/l	0.500				
1,1-Dichloroethene	H			ND	n	0.500				
cis-1,2-Dichloroethene	n			ND	n	0.500				
trans-1,2-Dichloroethene	н			ND	n	0.500				
1,2-Dichloropropane	п			ND	n	0.500				
cis-1,3-Dichloropropene	Ħ			ND	H	0.500				
trans-1,3-Dichloropropene	**			ND		0.500				
Methylene chloride	**			ND	н	5.00				
1,1,2,2-Tetrachloroethane	п			ND	H	0.500				
Tetrachioroethene	π			ND	M	0.500				
1,1,1-Trichloroethane	#			ND	•	0.500				
1,1,2-Trichloroethane	47			ND	w	0.500				
Trichloroethene	11			ND	H	0.500				
Trichlorofluoromethane	ч			ND		0.500				
Vinyl chloride	11			ND	M	0.500				
Surrogate: 1-Chloro-2-fluorobenzene	H	10.0		8.80	n	70.0-130	88.0			
LCS	0100012-BS	21								
Chlorobenzene	10/3/00	10.0		8.82	ug/l	70.0-130	88.2			
1,1-Dichloroethene	#	10.0		9.92	e e	65.0-135	99.2			
Trichloroethene	n	10.0		9.16	m	70.0-130	91.6			
Surrogate: I-Chloro-2-fluorobenzene	n	10.0		10.2	#	70.0-130	102			
LCS	0100012-BS	27								
Chlorobenzene	10/4/00	10.0		8.27	ug/l	70.0-130	82.7			
1,1-Dichloroethene	H	10.0		9.36	H	65.0-135	93.6			
Trichloroethene		10.0		9.35	*	70.0-130	93.5			
Surrogate: 1-Chloro-2-fluorobenzene	м	10.0		9.26	п	70.0-130	92.6			
LCS	0100012-BS	22								
Chlorobenzene	10/5/00	10.0		8.93	ug/l	70.0-130	89.3			
1,1-Dichloroethene	10/5/00 m	10.0		9.75	44	65.0-135	97.5			
Trichloroethene		10.0		10.0	**	70.0-130	100			
Surrogate: 1-Chloro-2-fluorobenzene	· #	10.0		9.59	. <i>P</i>	70.0-130	95.9	·		
Matrix Spike	0100012-M	21 T <i>i</i>	009215-08							
Chlorobenzene	10/3/00	10.0	ND	9.21	ug/l	60.0-140	92.1			
1,1-Dichloroethene	10/3/00 #	10.0	ND	10.4	4. GB.1	60.0-140	104			
Trichloroethene	*1	10.0	ND	9.34	# - *	60.0-140	93.4			
Surrogate: 1-Chloro-2-fluorobenzene		10.0	עוו	9.05	п	70.0-130	90.5			

Sequoia Analytical - San Carlos





Gettler-Ryan/Geostrategies(1)
6747 Sierra Court, Suite J
Project Number: Tosco(4)
Project Number: Tosco (76) SS#1156
Project Manager: Deanna Harding
Reported: 10/3/00
Received: 10/3/00
Reported: 11/15/00

nains i annance na mar agus air a chair a Vo ann agus air agus agus agus agus agus agus air	latile Organi	the same of the sa	nds by EPA a Analytica	and the second second second second	2000	nality Control				
Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov.	RPD Limit	RPD %	Notes*
Matrix Spike Dup	0100012-M		009215-08	100001						
Chlorobenzene	10/4/00	10.0	ND	9.88	ug/l	60.0-140	98.8	25.0	7.02	
1,1-Dichloroethene		10.0	ND	10.8	ทั	60.0-140	108	25.0	3.77	
Trichloroethene	П	10.0	ND	9.84	11	60.0-140	98.4	25.0	5.21	
Surrogate: 1-Chloro-2-fluorobenzene	н	10.0		9.66	Ħ	70.0-130	96.6			





Spike

Date

Project Manager: Deanna Harding

Project: Tosco(4)

Sample

Project Number: Tosco (76) SS#1156

Sampled: Received:

Reporting Limit Recov.

10/3/00 10/3/00

RPD

RPD

Reported: 11/15/00

USemivolatile Organic Compounds by EPA Method 8270C/Quality Contro Sequoia Analytical - Petalum

<u>QC</u>

	Date	Spike	Sambic	Ųυ		rebotting runnt	ICCCO.	IG D	MD	
Analyte	Analyzed	Level	Result	Result	Units	Recov. Limits	%	Limit	%	Notes*
Batch: 0100193	Date Prepa	red: 10/9/	м		Extrac	tion Method: EP.	A 3520B			
Blank	0100193-B		22							
Acenaphthene	11/8/00	<u> </u>		ND	ug/l	10.0				
Acenaphthylene	H			ND	11	10.0				
Anthracene	н			ND	n	10.0				
Benzidine	•			ND	н	50.0				
Benzoic acid	•			ND		50.0				
Benzo (a) anthracene	н			ND	н	10.0				
Benzo (b+k) fluoranthene (total)	π			ND	n	10.0				
Benzo (g,h,i) perylene	Ħ			ND	н	10.0				
Benzo (a) pyrene	**			ND	Ħ	10.0				
Benzyl alcohol				ND	*	20.0				
Bis(2-chloroethoxy)methane	n			ND	Ħ	10.0				
Bis(2-chloroethyl)ether	H			ND	11	10.0				
Bis(2-chloroisopropyl)ether	n			ND	n	10.0				
Bis(2-ethylhexyl)phthalate	м			ND	Ħ	13.8				
4-Bromophenyl phenyl ether	w			ND	H	10.0				
Butyl benzyl phthalate	n			ND	m	10.0				
4-Chloroaniline	#			ND	**	20.0				
4-Chloro-3-methylphenol	Ħ			ND	**	20.0				
2-Chloronaphthalene	**			ND	ч	10.0				
2-Chlorophenol	H			ND	Ħ	10.0				
4-Chlorophenyl phenyl ether	H			ND	M	10.0				
Chrysene	n			ND	**	10.0				
Dibenz (a,h) anthracene	m			ND	Ħ	10.0				
Dibenzofuran	#1			ND	Ħ	10.0				
Di-n-butyl phthalate	11			ND	r	10.0				
1,2-Dichlorobenzene	Ħ			ND	IP .	10.0				
1,3-Dichlorobenzene	11			ND		10.0				
1,4-Dichlorobenzene	#			ND	•	10.0				
3,3'-Dichlorobenzidine	*			ND		20.0				
2,4-Dichlorophenol	11			ND	n	10.0				
Diethyl phthalate	n			ND	*	10.0				
2,4-Dimethylphenol	H			ND	#	10.0				
Dimethyl phthalate	n			ND	п	10.0				
4,6-Dinitro-2-methylphenol	•			ND	#	50.0				
2,4-Dinitrophenol	n			ND	#	50.0				
2,4-Dinitrotoluene	•		-	ND	*	10.0				
2,6-Dinitrotoluene	я			ND	Ħ	10.0				
Di-n-octyl phthalate	н			ND	Ħ	10.0				
1,2-Diphenylhydrazine	#			ND	m	20.0				
Fluoranthene	₩ '			ND		10.0				

Sequoia Analytical - San Carlos



Gettler-Ryan/Geostrategies(1)
Project: Tosco(4)
6747 Sierra Court, Suite J
Project Number: Tosco (76) SS#1156
Dublin, CA 94568
Project Manager: Deanna Harding

Sampled: 10/3/00 Received: 10/3/00 Reported: 11/15/00

	Date	Spike	Sample	QC		Reporting Limit		RPD	RPD	
Analyte	Analyzed	Level	Result	Result	Units	Recov. Limits	%	Limit	%	Notes
Blank (continued)	0100193-BI	. K 1								
Fluorene	11/8/00			ND	ug/l	10.0		*		
Hexachlorobenzene	1176700			ND	H .	10.0				
Hexachlorobutadiene	n			ND	н	10.0				
Hexachlorocyclopentadiene	n			ND	я	10.0				
Hexachloroethane	н			ND	17	10.0				
Indeno (1,2,3-cd) pyrene	11		•	ND	11	10.0				
* * * * * * * * * * * * * * * * * * * *	**			ND	**	10.0				
Isophorone	#			ND	11	10.0				
2-Methylnaphthalene				ND	10	10.0				
2-Methylphenol	**			ND	н	10.0				
4-Methylphenol				ND	и	10.0				
Naphthalene	-			ND	Ħ	50.0				
2-Nitroaniline				ND		50.0				
3-Nitroaniline				ND	17	50.0				
4-Nitroaniline				ND		10.0				
Nitrobenzene		4		ND	**	10. 0				
2-Nitrophenol				ND	н	50.0				
4-Nitrophenol	<u>"</u>			ND	н	20.0		-		
N-Nitrosodimethylamine				ND	n	10.0				
N-Nitrosodiphenylamine				ND	11	10.0				
N-Nitrosodi-n-propylamine	**			ND	#	50.0				
Pentachlorophenol	,,			ND	**	10.0				
Phenanthrene				ND ND	Ħ	10.0				
Phenol					H	10.0				
Pyrene				ND		10.0				
Pyridine	-			ND	**	10.0				
1,2,4-Trichlorobenzene				ND	**	10.0				
2,4,5-Trichlorophenol	#			ND						
2,4,6-Trichlorophenol	77			ND		10.0 15-103				
Surrogate: 2-Fluorophenol	······in	150		77.5	 #					
Surrogate: Phenol-d6	•	150		83.8	,, ,,	18-115				
Surrogate: Nitrobenzene-d5	•	100		59.1	" #	39-103				
Surrogate: 2-Fluorobiphenyl		100		61.4		40-124				
Surrogate: 2,4,6-Tribromophenol	#	150		80.6	# #	11-142				
Surrogate: Terphenyl-d14	· #	100		93.5	.,	56-139	93.5			
LCS	0100193-B	<u>\$1</u>								
Acenaphthene	11/8/00	100		75.5	ug/l	57.7-120				
4-Chloro-3-methylphenol	н	150		96.8	T .	50.6-116				
2-Chlorophenol	н	150		95.7	n .	28-111				
1,4-Dichlorobenzene	'n	100		58.2	#	28.8-108				
2,4-Dinitrotoluene	Ħ	100		77.6	**	60.2-114	77.6			

Sequoia Analytical - San Carlos



	Date	Spike	Sample	QC	· · · · · · · · · · · · · · · · · · ·	Reporting Limit	Recov.	RPD	RPD	
Analyte	Analyzed	Level	Result	Result	Units	Recov. Limits	%	Limit	%	Notes*
LCS (continued)	0100193-B5	<u>81</u>								
4-Nitrophenol	11/8/00	150		132	ug/l	24.6-148	88.0			
N-Nitrosodi-n-propylamine	н	100		63.0	Ħ	29-1 19	63.0	•		
Pentachlorophenol	Ħ	150		127	#	39.9-131	84.7			
Phenol	Ħ	150		83.3	11	21.8-117	55.5			
Pyrene	11	100		87.2	TT .	52.3-127	87.2			
1,2,4-Trichlorobenzene	# .	100		61.1	#	23.6-131	61.1			
Surrogate: 2-Fluorophenol	n	150	* <u></u>	89.5	#	15-103	59.7			
Surrogate: Phenol-d6	*	150		<i>88.2</i>	"	18-115	58.8			
Surrogate: Nitrobenzene-d5	H	100		70.3	*	<i>39-103</i>	70.3			
Surrogate: 2-Fluorobiphenyl	W	100		74.0	#	40-124	74.0			
Surrogate: 2,4,6-Tribromophenol	Ħ	150		104	"	11-142	69.3			
Surrogate: Terphenyl-d14	•	100		93.0	Ħ	56-139	93.0			
LCS Dup	0100193-B	<u>SD1</u>								
Acenaphthene	11/9/00	100		71.1	ug/l	57.7-120	71.1	26.7	6.00	
4-Chloro-3-methylphenol	**	150		89.5	#	50.6-116	59.7	30.3	7.84	
2-Chlorophenol	π	150		84.8	n	28-111	56.5	38.8	12.1	
1,4-Dichlorobenzene	Ħ	100		44.3	#	28.8-108	44.3	40.7	27.1	
2,4-Dinitrotoluene	n	100		84.1	17	60.2-114	84.1	22.1	8.04	
4-Nitrophenol	n	150		142	#	24.6-148	94.7	43.7	7.30	
N-Nitrosodi-n-propylamine	н	100		58.0	Ħ	29-119	58.0	43.9	8.26	
Pentachlorophenol	П	150		129	H	39.9-131	86.0	32.9	1.56	
Phenol	я	150		78.7	×	21.8-117	52.5	32.6	5.68	
Pyrene	Ħ	100		92.9	-	52.3-127	92.9	24.6	6.33	
1,2,4-Trichlorobenzene	#	100		52.0	#	23.6-131	52.0	48	16.1	
Surrogate: 2-Fluorophenol	"	150		75.8	W	15-103	50.5			
Surrogate: Phenol-d6	. "	150		<i>82.2</i>	H	18-115	54.8			
Surrogate: Nitrobenzene-d5	"	100		64.0	π	<i>39-103</i>	64.0			
Surrogate: 2-Fluorobiphenyl	n	100		70.7	n	40-124	70.7			
Surrogate: 2,4,6-Tribromophenol	H	150		104	*	11-142	69.3			
Surrogate: Terphenyl-d14	*	100		98.3	n	56-139	98.3			





te alyzed te Prepar	Spike Level	Sample Result	QC Result	Units	Recov. Limits	%	T :		
te Prepar					ACCOT. Dillito		Limit	<u>%</u>	Notes
•	Date Prepared: 10/9/00			Extraction Method: EPA 3510B					
<u> </u>	<u>K1</u>		ND	wa/l	50.0				
11/00	100	- <u></u> -	106	#	50-150	106			
09001-BS	<u>51</u>								
11/00	1000		1130	ug/l	60-140	113			
	100	-	124	77	50-150	124			
09001-MS	S1 M	JJ0 094-01					•		
/11/00	1000	111	1200	ug/l	50-150	109			
	100		125	H	50-150	125	,		
	11/00 09001-BS 11/00	11/00 100 09001-BS1 11/00 1000 100 09001-MS1 M 11/00 1000	11/00 100 100 100 1000 100 1000 1000 1000 111	11/00 ND 100 100 100 100 09001-BS1 11/00 1000 1130 100 124 09001-MS1 MJJ0094-01 11/00 1000 111 1200	11/00 ND ug/l 100 106 " 100 100 1130 ug/l 100 124 " 100 1000 111 1200 ug/l	11/00 ND ug/l 50.0 100 106 " 50-150 09001-BS1 11/00 1000 1130 ug/l 60-140 100 124 " 50-150 09001-MS1 MJJ0094-01 11/00 1000 111 1200 ug/l 50-150	11/00 ND ug/l 50.0	11/00 ND ug/l 50.0	11/00 ND ug/l 50.0 100 106 " 50-150 106 09001-BS1 11/00 1000 1130 ug/l 60-140 113 100 124 " 50-150 124 09001-MS1 MJJ0094-01 11/00 1000 111 1200 ug/l 50-150 109



1551 Industrial Road San Carlos, CA 94070-4111 (650) 232-9600 FAX (650) 232-9612 www.sequoialabs.com

Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568

Project Number: Tosco (4)
Project Number: Tosco (76) SS#1156
Project Manager: Deanna Harding

Sampled: 10/3/00 Received: 10/3/00 Reported: 11/15/00

Notes and Definitions

#	Note
1	Chromatogram Pattern: Gasoline C6-C12
2	MTBE was reported from second analysis.
3	Acid surrogate recovery outside of control limits. The data was accepted based on valid recovery of remaining two acid surrogates.
4	Chromatogram Pattern: Unidentified Hydrocarbons C9-C24
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference