

SUL 2 4 2001

July 5, 2001 G-R #180203

TO:

Mr. David B. De Witt

Tosco Marketing Company

2000 Crow Canyon Place, Suite 400

San Ramon, California 94583

FROM:

Deanna L. Harding

Project Coordinator

Gettler-Ryan Inc.

6747 Sierra Court, Suite J Dublin, California 94568 CC:

Mr. Glen Matteucci

ERI, Inc.

73 Digital Drive, Suite 100

Novato, California 94949

RE:

Former Tosco 76 SS #0843

1629 Webster Street Alameda, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	June 29, 2001	Groundwater Monitoring and Sampling Report Second Quarter - Event of May 23, 2001

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 *July 19, 2001*, this report will be distributed to the following:

cc: Ms. Eva Chu, Alameda County Dept., of Environmental Health, 1131 Harbor Bay Parkway, Alameda, CA 94502

Enclosure

trans/0843.dbd



ENVIRONMENTAL RESOLUTIONS, INC.



July 13, 2001 ERI 2023QSR.L18

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, Second Quarter 2001.

Mr. Morse:

At the request of Tosco Marketing Company (Tosco), Environmental Resolutions, Inc. (ERI) is submitting the attached second quarter 2001 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

Tosco Program Manager

Attachments: Second Quarter 2001 Quarterly Summary Reports

cc:

Mr. Dave DeWitt, Tosco

Mr. Ed Ralston, Tosco

Mr. David Camille, Tosco

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

Mr. Mamdouh Awwad, 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. Geoffrey A. Fiedler, R.G., City of Berkeley Planning & Economic Development Department-Toxics Management Division

Mr. Bradley Mark, San Rafael Fire Department

Ms. Jacqueline Bertaina, Napa County Department of Environmental Management



June 29, 2001 G-R Job #180203

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

RE: Second Quarter Event of May 23, 2001

Groundwater Monitoring & Sampling Report Former Tosco 76 Service Station #0843 1629 Webster Street Alameda, California

Dear Mr. De Witt:

This report documents the most recent groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R) at the referenced site. All field work was conducted in accordance with G-R Standard Operating Procedure - Groundwater Sampling (attached).

Static groundwater levels were measured and all wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in 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.

Sincerely,

Deanna L. Harding

Project Coordinator

Hagop Kevork P.E. No. C55734

Figure 1:

Potentiometric Map

Figure 2:

Concentration Map

Table 1:

Groundwater Monitoring Data and Analytical Results Groundwater Analytical Results - Oxygenate Compounds

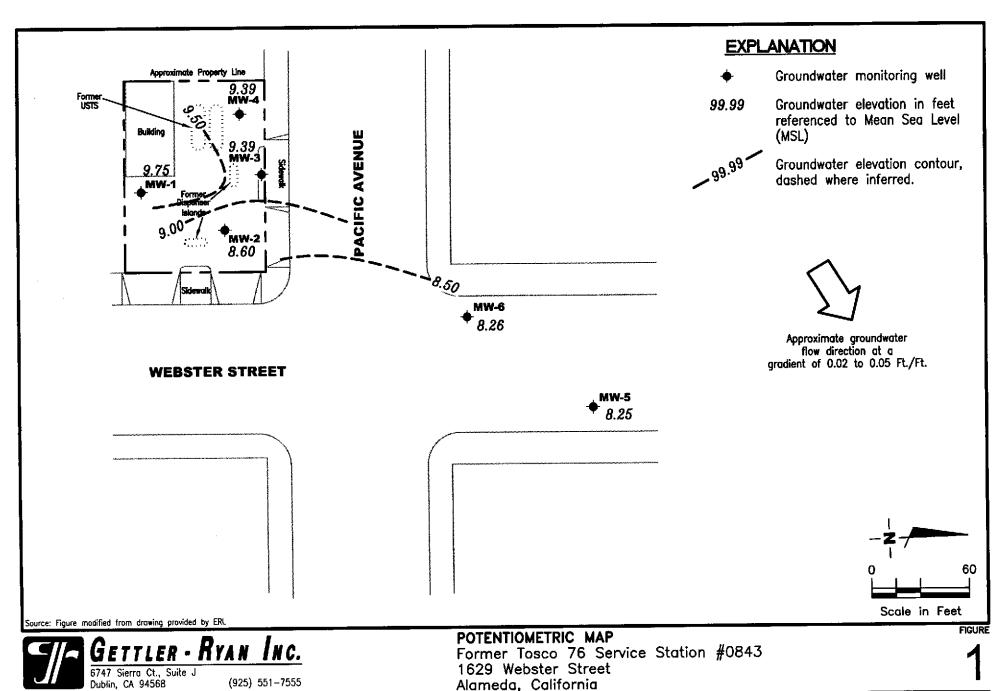
Table 2: Attachments:

Standard Operating Procedure - Groundwater Sampling

Field Data Sheets

0843.qml

Chain of Custody Document and Laboratory Analytical Reports



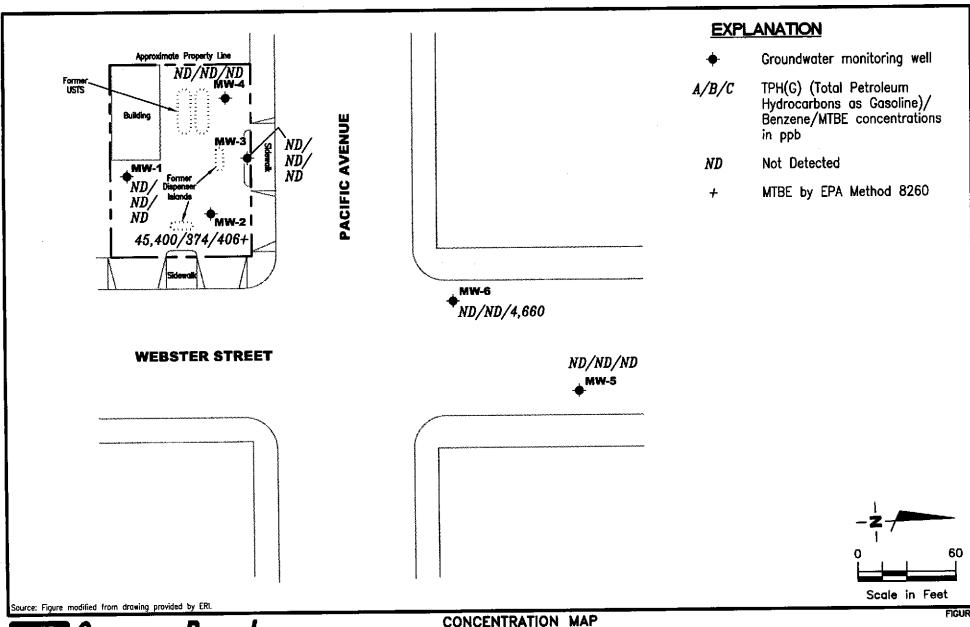
PROJECT NUMBER 180203

REVIEWED BY

DATE

May 23, 2001

REVISED DATE



GETTLER - RYAN INC.
6747 Sierra Ct., Suite J
Dublin, CA 94568 (925) 551-7555

Former Tosco 76 Service Station #0843 1629 Webster Street Alameda, California

REVISED DATE

PROJECT NUMBER REVIEWED BY 180203

May 23, 2001

Table 1
Groundwater Monitoring Data and Analytical Results

Former Tosco 76 Service Station #0843 1629 Webster Street Alameda, California

				Alameda, C			E	X	MTBE
WELL ID/	DATE	DTW	GWE	TPH-G	B	T (ppb)	E (ppb)	(ppb)	(ppb)
TOC* (ft.)		(ft.)	(msl)	(ppb)	(ppb)	<u> </u>	Abba)	W.E.	rr H
MW-1				7		• • •	NID	4.06	23.9^{2}
16.18	03/05/991			86.6 ³	ND	2.04	ND	4.06	ND/ND ²
	06/03/99	6.24	9.94	ND	ND	ND	ND	ND	ND/ND ²
	09/02/99	7.19	8.99	ND	ND	ND	ND	ND	
	12/14/99	8.07	8.11	ND	ND	ND	ND	ND	ND
	03/14/00	5.47	10.71	ND	ND	ND	ND	ND	ND
	05/31/00	6.22	9.96	ND	ND	ND	ND	ND	ND
	08/29/00	6.82	9.36	ND	ND	ND	ND	ND	ND
	12/01/00	7.54	8.64	ND	ND	ND	ND	ND	ND
	03/17/01	5.73	10.45	ND	ND	ND	ND	ND	ND
	05/23/01	6.43	9.75	ND	ND	ND	ND	ND	ND
	t			24.400	2.070	7,710	2,340	8,240	8,460 ²
MW-2	03/05/99 ^t			34,400	2,070	7,710	2,510	7,320	6,460/8,800 ²
15.57	06/03/99	5.96	9.61	51,200 ⁴	1,820		1,400	3,700	4,000/3,720 ²
	09/02/99	6.85	8.72	17,000 ⁵	1,000	3,100	4,500	17,000	9,100/11,000 ²
	12/14/99	7.65	7.92	83,000 ⁵	3,000	22,000		7,300	5,700/8,700 ²
	03/14/00	5.26	10.31	31,000 ⁵	1,600	4,600	2,300	2,060	$2,500/1,670^2$
	05/31/00	5.60	9.97	9,970 ⁵	598	1,030	487	1,900	$1,800/1,300^2$
	08/29/00	6.35	9.22	7,900 ⁵	390	1,500	280		6,220/3,790 ²
	12/01/00	7.06	8.51	87,500 ⁵	1,860	17,400	5,590	19,400	321/433 ²
	03/17/01	5.98	9.59	4,310 ⁵	371	59.0	280	682	⁷ ND/406 ²
	05/23/01	6.97	8.60	45,400 ⁵	374	4,490	2,790	10,900	ND/400
BASE T	03/05/99 ¹			135 ³	ND	ND	ND	4.84	2.46 ²
MW-3	05/05/99	5.57	9.54	ND	ND	ND	ND	ND	5.23/12.7 ²
15.11			9.5 4 8.61	ND	ND	ND	ND	ND	13/11.0 ²
	09/02/99	6.50 7.28	7.83	ND	ND	ND	ND	ND	ND
	12/14/99			ND	ND	ND	ND	ND	$7.2/6.3^2$
	03/14/00	4.87	10.24	ND	ND	ND	ND	ND	ND
	05/31/00	5.58	9.53	ND	ND	ND	110		

Table 1
Groundwater Monitoring Data and Analytical Results

Former Tosco 76 Service Station #0843 1629 Webster Street Alameda, California

WELL ID/	DATE	DTW	GWE	TPH-G	В	T	E	X	MTBE
TOC* (ft.)		(fi.)	(msl)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
3.001.0.7 - A	00/00/00	6.06	9.05	ND	ND	ND	ND	ND	ND
MW-3 (cont)	08/29/00		8.35	ND	ND	ND	ND	ND	ND
	12/01/00	6.76	10.02	ND	ND	ND	ND	ND	ND
	03/17/01	5.09	9.39	ND ND	ND	ND	ND	ND	ND
	05/23/01	5.72	7.37	1473	1417		2 182		
MANU A	03/05/99 ¹			ND	ND	ND	ND	2.44	25.2 ²
MW-4	06/03/99	5.45	9.72	ND	ND	ND	ND	ND	ND/3.96 ²
15.17	09/02/99	5.45 6.48	8.69	ND	ND	ND	ND	ND	$23/27.0^2$
	12/14/99	7.27	7.90	ND	ND	ND	ND	ND	200/270 ²
	03/14/00	4.67	10.50	ND	ND	ND	ND	ND	46/49 ²
	05/31/00	5.48	9.69	ND	ND	ND	ND	ND	ND
	08/29/00	6.10	9.07	ND	ND	ND	ND	ND	$6.1/3.2^2$
	12/01/00	6.79	8.38	ND	ND	ND	NĐ	ND	152/101 ²
	03/17/01	5.01	10.16	ND	ND	ND	ND	ND	ND
	05/23/01	5.78	9.39	ND	ND	ND	ND	ND	ND
MW-5	12/14/99	6.45	6.89	ND	ND	ND	ND	ND	3.5/3.8 ²
13.34	03/14/00	4.46	8.88	ND	ND	ND	ND	ND	ND
1000	05/31/00	5.18	8.16	ND	ND	ND	ND	ND	ND
	08/29/00	5.46	7.88	ND	ND	ND	ND	ND	ND
	12/01/00	5.95	7.39	ND	ND	ND	ND	ND	ND
	03/17/01	5.36	7.98	ND	ND	ND	ND	ND	ND
	05/23/01	5.09	8.25	ND	ND	ND	ND	ND	ND
), TEN	ND	11,000/18,000 ²
MW-6	12/14/99	6.64	7.44	ND	ND	ND	ND ND ⁷	ND ⁷	19,000/21,000
14.08	03/14/00	4.72	9.36	ND ⁷	ND ⁷	ND ⁷		ND ⁷	19,000/21,000
	05/31/00	5.28	8.80	ND^7	ND^7	ND ⁷	ND ⁷		$\frac{13,200}{270/400^2}$
	08/29/00	5.39	8.69	ND	ND	ND	ND	ND	Z/0/400

Table 1
Groundwater Monitoring Data and Analytical Results
Former Tosco 76 Service Station #0843

1629 Webster Street
Alameda, California

WELL ID/ TOC* (ft.)	DATE	DTW (ft.)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
****		•		*					_
MW-6 (cont)	12/01/00	6.11	7.97	ND	ND	ND	ND	ND	6,330/3,640 ²
(20)	03/17/01	6.02	8.06	18,700 ⁵	2,950	989	1,040	3,000	$10,200/11,500^2$
	05/23/01	5.82	8.26	ND ⁷	ND ⁷	ND ⁷	ND ⁷	ND ⁷	4,660 ⁸
m t Di. d	03/05/99 ¹			ND	ND	ND	ND	ND	ND^2
Trip Blank				ND	ND	ND	ND	ND	ND
TB-LB	06/03/99			ND	ND	ND	ND	ND	ND
	09/02/99			ND	ND	ND	ND	ND	ND
	12/14/99			ND	ND	ND	ND	ND	ND
	03/14/00			ND ND	ND	ND	ND	ND	ND
	05/31/00				ND	ND	ND	ND	ND
	08/29/00			ND			ND	ND	ND
	12/01/00			ND	ND	ND			
	03/17/01			ND	ND	ND	ND	ND	ND
	05/23/01			ND	ND	ND	ND	ND	ND

Table 1

Groundwater Monitoring Data and Analytical Results

Former Tosco 76 Service Station #0843 1629 Webster Street Alameda, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to June 3, 1999, were compiled from reports prepared by ERI, 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

GWE = Groundwater Elevation

X = Xylenes

(msl) = Mean sea level

MTBE = Methyl tertiary butyl ether

TPH-G = Total Petroleum Hydrocarbons as Gasoline

- * TOC elevations are based on USC&GS Benchmark WEB PAC 1947 R 1951; (Elevation = 14.054 feet).
- B,T,E,X by EPA Method 8260.
- ² MTBE by EPA Method 8260.
- 3 Laboratory report indicates weathered gasoline C6-C12.
- Laboratory report indicates chromatogram pattern C6-C12.
- 5 Laboratory report indicates gasoline C6-C12.
- 6 Laboratory report indicates sample was analyzed 03/28/00 but required reanalysis at a dilution. The dilution was analyzed outside of the EPA recommended holding time.
- Detection limit raised. Refer to analytical reports.
- 8 Laboratory did not perform analysis for MTBE by EPA Method 8260 as requested on the Chain of Custody for 8020 MTBE hits.

Table 2
Groundwater Analytical Results - Oxygenate Compounds

Former Tosco 76 Service Station #0843 1629 Webster Street Alameda, California

WELL ID	DATE	ETHANOL	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB
		(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
MW-1	09/02/99	ND	ND	ND	ND	ND	ND		
		,	1		vest	lave	ND^1		
MW-2	09/02/99	ND ¹	ND ¹	3,720	ND ¹	ND ^t		ND ^I	ND ¹
	12/14/99	ND ¹	ND ^t	11,000	ND¹	ND ¹	ND ¹	ND ^t	ND ¹
	03/14/00	ND!	1,300	8,700	ND¹	ND	ND ¹		
	05/31/00	ND^1	ND^1	1,670	ND^1	ND	ND^1	ND^1	ND ¹
	08/29/00	ND	250	1,300	ND	ND	ND	ND	ND
	12/01/00	ND^1	ND^1	3,790	ND^1	ND!	ND ¹	ND ¹	ND ¹
	03/17/01	ND^1	\mathbf{ND}^1	433	14.8	ND^1	ND^1	ND ¹	ND ¹
	05/23/01	\mathbf{ND}^1	ND^1	406	ND^1	ND^1	ND ¹	\mathbf{ND}^1	ND ¹
MW-3	09/02/99	ND	ND	11.0	ND	ND	ND		
	03/14/00			6.3					
MW-4	09/02/99	ND	ND	27.0	ND	ND	ND		
	12/14/99			270					
	03/14/00			49					
	08/29/00			3.2					
MW-5	12/14/99			3.8					
MW-6	12/14/99			18,000					
	03/14/00			$21,000^2$					
	08/29/00			400	**				
	03/17/01	ND^1	ND^1	11,500	ND^1	ND^1	ND^1	219	ND^1
	05/23/01 ³		••	· 	••		••		

Table 2

Groundwater Analytical Results - Oxygenate Compounds

Former Tosco 76 Service Station #0843 1629 Webster Street Alameda, California

EXPLANATIONS:

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

TBA = Tertiary butyl alcohol

MTBE = Methyl tertiary butyl ether

DIPE = Di-isopropyl ether

ETBE = Ethyl tertiary butyl ether

TAME = Tertiary amyl methyl ether

1,2-DCA = 1,2-Dichloroethane

EDB = 1,2-Dibromoethane

(ppb) = Parts per billion

-- = Not Analyzed

ND = Not Detected

Detection limit raised. Refer to analytical reports.

Laboratory report indicates sample was analyzed 03/28/00 but required reanalysis at a dilution. The dilution was analyzed outside of the EPA recommended holding time.

Laboratory did not perform analysis for oxygenates as requested on the Chain of Custody, on all 8020 MTBE hits.

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.

ent/ cility # <u>08</u>	43		_ Job#:	180203		
July #	29 Webster	et .	Date:	5-23-01		
dress: _ 1 6	Ly WESSTEE		- ,	50c		
y:Al	emeda, CA		Sampler			
		 		0.k		•
Well ID	ww-1_	Well Co	ndition:			
ell Diameter	2 _{in}	Hydroc Thickne	The second second	Amount Baile		10#1
tal Depth	20.05	Volum	2* = 0.17	3" = 0.38 6" = 1.50	. 4" == (12" = 5.80	0.66
epth to Water	6.43 4					
	13.62 x v	F <u>017</u> =	2.32 X 3 (case vol	ume) = Estimated Purg	ge Volume:	للبوز
Purge quipment:	Disposable Bailer Bailer	-	Sampling Equipment:	Disposable Baile Bailer		Z
dorbineur:	Stack			Pressure Bailer		
	Suction Grundfos	•		-Grab Sample		
	Other:		0.	ther:		
			· · · · · · · · · · · · · · · · · · ·	. Hot	· · · · · · · · · · · · · · · · · · ·	
Starting Time: Sampling Time:	7: N 7:20 A.m (7:20	<u>)</u> v	/eather Conditions /ater Color:	00	Odor	1e
Sampling Time: Purging Flow Ra	7!20 A.m (7:20	<u>)</u> v	later Color:	ea		10al
Sampling Time: Purging Flow Ra	7:20 A.m (7:20 ste:	H	later Color:	on: Volume		
Sampling Time: Purging Flow Ra Did well de-wat	7!20 A.m (7:20 site:	H	Vater Color: dediment Description yes; Time: crivity Compensation Tempers s/cm X	on: Volume ature D.O. (mg/L)	ORP	Alkalinity
Sampling Time: Purging Flow Ra Did well de wat Time	7:20 A.m (7:20 ste:	Condu	rediment Description yes; Time: — ctivity (**) Temper se/cm X F	on: Volume ature D.O. (mg/L)	ORP	Alkalinity
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Sampling Time: Purging Flow Ra Did well de wat Time 7:07	7!20 A.m (7:20 ste: 1 m volume pH (gal.) 2:5 7.91 7.49 7.49	Condu Condu LABOR REFRIG.	Atter Color: _C. Jediment Description yes; Time: ctivity C Temper s/cm X F G 73./ 73./ 73./ ATORY INFORMA PRESERV. TYPE	TION LABORATORY	ORP (mV)	Alkalinity (ppm)
Sampling Time: Purging Flow Ra Did well de-wat Time 7:07 7:09 7:11	7:20 A.m (7:20 ste:	Condu pmho	ATORY INFORMA	TION	ORP (mV)	Alkalinity (ppm)
Sampling Time: Purging Flow Ra Did well de-wat Time 7:07 7:09 7:11	7!20 A.m (7:20 ste: 1 m volume pH (gal.) 2:5 7.91 7.49 7.49	Condu Condu LABOR REFRIG.	Atter Color: _C. Jediment Description yes; Time: ctivity C Temper s/cm X F G 73./ 73./ 73./ ATORY INFORMA PRESERV. TYPE	TION LABORATORY	ORP (mV)	Alkalinity (ppm)
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lient/ acility # <u> </u>	3		Job#:	180203		
ddress: 162	9 Webster	<u>st.</u>	Date:	5-23-6	,	
city: Ale	meda, CA	·•	Sampler	- 50c		
Well ID	mw-2	Well (Condition:	0.4		· ·
Vell Diameter	2-in	-	carbon	Amount Ba	7.	(onl.)
Fotal Depth Depth to Water	20.25 # 6.97#	Volu	me 2° = 0.17 or (VF)		4" -	= 0.66
zepar to vrace.	13.28 ×	r <u>0.17</u>	2.26 x 3 (case vol	ume) = Estimated P	, :amuloV agru	7 (gel.)
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:	-	Sampling Equipment: O	Oisposable Bailer Pressure Baile Grab Sample	er	· .
=	9:05 9:26 A.m (9:26	<u> </u>	Weather Conditions Water Color: Sediment Description If yes; Time:	on:	Odor:	1 i'l d
	Solume pH (gal.) 5 7.18 7 7.23	Cond pml	hictivity C Temper	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
SAMPLE ID	(#) - CONTAINER	LABO	RATORY INFORMA PRESERV. TYPE	TION LABORATORY		Yses
MW-2	3404	Y	HCL	Seq.		EX, MTBE
	2V0A	A	11 -	-	16)0xy	1,2 DCA/EC
•						
	•					

				_		
lient/ acility # <u>084</u>			000	180203		·
162	9 Webster	st.		5-23-01		
ddress:			Sampler:	50c		
city: Ald	smess, CA.					
	. 3			>-K		
Well ID	$-m\omega-3$	Well Con	ndition:			
Vell Diameter	2-in	Hydroca	L	Amount Baile		(gal_)
ASII DISINCIO	19.90 #	Thicknes				0.66
otal Depth		Volume Factor (S = 1.50 1	2" = 5.80	
Depth to Water	5.72 4					
	113	0.17 -2	41 x 3 (case volu	me) = Estimated Purp	e Volume: 7	·) (ost)
	14.10 × VI	· <u>V····</u>		_	_	
Purge	Disposable Bailer		Sampling Equipment:	Disposable Baile	<u></u>	2
Equipment:	Bailer * Stack	-		Bailer Pressure Bailer		•
	Suction	•		.Grab Sample		
	Grundfos		Ot	her:		
	Other:		-			
	Other:					
Conting Time:	7:28		leather Conditions	Hot		0 N P
Starting Time:	7:28	<u> </u>	leather Conditions	Hot	Odor. A.C	pre
Sampling Time:	7:28 7:50Am (7:50		leather Conditions:	Hot ear) N @
Sampling Time: Purging Flow Ra	7:28	_ \text{ \ \text{ \ \etx{ \text{ \text{ \text{ \text{ \text{ \text{ \text{ \text{ \ \text{ \	leather Conditions: later Color: lediment Description f yes; Time:	Hot ear		(Qzl_)
Sampling Time: Purging Flow Ra Did well de-wat	7:28 7:50 A m (7:50 er?) W	leather Conditions: later Color: lediment Description lyes; Time: ledivity \(\text{Temper} \)	Hot	orp	igal) ; Alkalimity
Sampling Time: Purging Flow Ra	7:28 7:50 A m (7:50 nte:	. Something of the conduction	leather Conditions: later Color: lediment Description i yes; Time: ledivity ^ Temper	Hot On: Volume anne D.O. (mg/L)	s:	(Qzl_)
Sampling Time: Purging Flow Ra Did well de-wat	7:28 7:50 A m (7:50 nte:	Condu	leather Conditions: later Color:	Hot On: Volume D.O. (mg/L)	orp	igal) ; Alkalimity
Sampling Time: Purging Flow Ra Did well de-wat	7:28 7:50 A-m (7:50 te:	Condu	leather Conditions: later Color:	Hot On: Volume Inc. (mg/L)	orp	igal) ; Alkalimity
Sampling Time: Purging Flow Ra Did well de-wat Time 7:35	7:28 7:50 A m (7:50 nte:	Condu	leather Conditions: later Color:	Hot On: Volume Inc. (mg/L)	orp	igal) ; Alkalimity
Sampling Time: Purging Flow Ra Did well de-wat Time 7:35	7:28 7:50 A m (7:50 nte:	Condu	leather Conditions: later Color:	Hot On: Volume Inc. (mg/L)	orp	igal) ; Alkalimity
Sampling Time: Purging Flow Ra Did well de-wat Time 7:35	7:28 7:50 A m (7:50 nte:	Condu	leather Conditions: later Color:	Hot On: Volume Inc. (mg/L)	orp	igal) ; Alkalimity
Sampling Time: Purging Flow Ra Did well de-wat Time 7:35	7:28 7:50 A m (7:50 nte:	Condus	leather Conditions: later Color:	Hot ea / Volume D.O. (mg/i.) / -3	ORP (mV)	Alleslimity (ppm)
Sampling Time: Purging Flow Ra Did well de-wat Time 7:35 7:37 7:39	7:28 7:50 A-m (7:50 te: 1 operation of the ph (gal.) 2:5 7:48 5 7:55 7:56	Condus punho 10.3 10.3	leather Conditions: later Color:	TION LABORATORY	ORP (mV)	Alkalimity (ppm)
Sampling Time: Purging Flow Ra Did well de-wat Time 7:35 7:37 7:39	7:28 7:50 A m (7:50 nte: 1 op pH (gal.) 2:5 7:48 7:55 7:56	Condus	leather Conditions: later Color:	Hot On: Volume D.O. (mg/L) /	ORP (mV)	Alleslimity (ppm)
Sampling Time: Purging Flow Ra Did well de-wat Time 7:35 7:37 7:39	7:28 7:50 A m (7:50 nte: 1 op pH (gal.) 2:5 7:48 7:55 7:56	Condain punho 10.3	Veather Conditions: Vater Color:	TION LABORATORY	ORP (mV)	Alkalimity (ppm)
Sampling Time: Purging Flow Ra Did well de-wat Time 7:35 7:37 7:39	7:28 7:50 A m (7:50 nte: 1 op pH (gal.) 2:5 7:48 7:55 7:56	Condain punho 10.3	Veather Conditions: Vater Color:	TION LABORATORY	ORP (mV)	Alkalimity (ppm)
Sampling Time: Purging Flow Ra Did well de-wat Time 7:35 7:37 7:39	7:28 7:50 A m (7:50 nte: 1 op pH (gal.) 2:5 7:48 7:55 7:56	Condain punho 10.3	Veather Conditions: Vater Color:	TION LABORATORY	ORP (mV)	Alkalimity (ppm)
Sampling Time: Purging Flow Ra Did well de-wat Time 7:35 7:37 7:39	7:28 7:50 A-m (7:50 te: 1 operate: 1 operat	Condain punho 10.3	Veather Conditions: Vater Color:	TION LABORATORY	ORP (mV)	Alkalimity (ppm)

Client/ Facility # 0 8	43		Job#:			
Address: 16	29 Webster	<u>st.</u>	Date:	5-23-0	<u> </u>	
City: Al	smedz, CA		Sample	er: <u>50 c</u>		
Well ID	mw-4	Well	Condition:	0.6		<u> </u>
Well Diameter		•	ocarbon	Amount Bai	75.7	<u> </u>
Total Depth	19.80 #	Volu	me 2" = 0.1	7 3° = 0.38 6° = 1.50	4" = 0 12" = 5.80	.66
Depth to Water	5-78 +	Fac	or (VF)	0 = 130	15 = 270	
	14.02 x	/F <u>0.17</u>	2.38 x 3 (case v	olume) = Estimated Pur	rge Volume:) lon()
Purge	Disposable Bailer Bailer		Sampling Equipment:	Disposable Bai	ler	7
Equipment:	Stack	- •.	— —	Bailer Pressure Baile	r	
	Suction: Grundfos			Grab Sample		
	Other:					
Starting Time:	8:00		Weather Condition	f	2 1 2 2 2 2	
Sampling Time:	8:70 A-m (8:20	_	Water Color:C		Odor	
•	te: er?	<u> </u>		Volum	le:	(Cal.)
Time	Volume pH (gal.)	Cond	hactivity C Tempe			Alkalinity (ppm)
8:08	2.5 7.26	12	11 74	.0	 •	
8:12 -	$\frac{5}{7.36}$	<u> </u>	64 73	<u> </u>	·	
					 	
		LABO	RATORY INFORMA	ATION		-
SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYS	
MW-4	FONE	Y	HCL	Seq.	TPHG, BTE	1,14 100
				·		
	·			<u> </u>		
COMMENTS:		<u> </u>		:	•	
	•		•			

		FIELD DA	ATA SHEET			
Client/ Facility #	-3			180203 5-23-01		
Address 162	g Webster	<u>st.</u>	Date:			
City: Ald	medz, CA.		Sample:	: 50c		 _
Well ID	mw-s	Well Cor	ndition:	0·k		•
Well Diameter	2 _{in}	Hydroca Thicknes		Amount Baile	: <i></i> _	<u> </u>
Total Depth	20.22 tr	Volume Factor (3° = 0.38 6° = 1.50 I	4" = 2" = 5.80	0.66
Depth to Water			2 - 7	kume) = Estimated Purg	• Vojume:	3 (anl.)
		<u> - 0.11 </u>		luma) = Estimated rung	- 1000m	
Purge Equipment:	Disposable Bailer Bailer	•	Sampling Equipment:	Disposable Baile Bailer		2 -
	Stack Suction Grandfos	<u>.</u>		Pressure Bailer -Grab Sample)ther:		
<u>.</u>	Other:					
Starting Time: Sampling Time:	6:15 A.m (6:1	<u>(z</u>) w	eather Condition later Color: ediment Descrip	ear	Odor: U	one_
Purging Flow Ra	•		yes; Time:		e:	- toal \
Did well de-wat	Volume pH (gal.)	Condu jambo	ctivity (⁷⁾ Temp	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
6:30	7.60 5.5 6.50 6.51	$-\frac{9.3}{9.3}$		12		
<u>6:34</u> -						
		LABOR	ATORY INFORM	NOITA		
· SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	CABORATORIA		Lyses Tex, mtbe
MW-5	3404	Y	HCL	Seq.		
				·	-	
			<u> </u>			
COMMENTS	i:	·			.	
			<u> </u>			

Client/ Facility # <u>08</u> 6	43		Job#:	180203		
Address: 16	29 Webster	st.	Date:	5-23-0	1	
City: Al		-•	Sampl	er: <u>50 e</u>		
Well ID	mw-6	Well (Condition:	0.6	·····	
Well Diameter		-	ocarbon	Amount Ba	7	<u>(pal)</u>
Total Depth	20.15 #	Volu	mc 2° = 0.1			66
Depth to Water	5.82	Face	∞r (VF)	6 = 1.50 	12" = 5.80	
	14.33 x	r <u>0.17</u>	_2.44x3 (case v	olume) = Estimated Pu	nge Volume: _7, :	- loal
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:	· .	Sampling Equipment:	Oisposable Bailer Bailer Pressure Baile Grab Sample Other:	•	<i>y</i>
Purging Flow Rat	8:30 8:55 A.m (8:55 e: 1 a	<u> </u>	Weather Condition Water Color: Sediment Descrip If yes; Time:	lear	Odor: Mila	[gal]
Time \	Volume pH (g21) 2.5 7.41 7.41 7.46	Cond pml	buctivity 7 Temps	D.O. (mg/L)		Alkalinity (ppm)
SAMPLE ID	(#) - CONTAINER	LABOI	RATORY INFORMA PRESERV. TYPE	ATION LABORATORY	ANALYSE	
MW-6	3404	Y	HCL	Seq.	TPHG, BTEX	MTBE
			· ·		-	
-						
COMMENTS:						

Project: Tosco(1)

6747 Sierra Court, Suite J

Project Number: Tosco (Former 76) SS#0843

Reported:

Dublin CA, 94568

Project Manager: Deanna Harding

06/05/01 07:49

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Sequoia Analytical - San Carlos

Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
/23/01 08:55	Received: 0	5/23/01	18:00					
			10	1060010	06/03/01	=		
		n	II.	п	н	**		
				p	Ħ	H	n	
ND					"	11	*	
ND	5.00						11	
ND	5.00	W	#				n	M-0-
4660	250	11	50	#				
7000		70	130		n	"	"	
	5/23/01 08:55 ND ND ND ND ND	Result Limit 5/23/01 08:55 Received: 0 ND 500 ND 5.00 ND 5.00 ND 5.00 ND 5.00 ND 5.00 ND 5.00 ND 5.00	Result Limit Units	Result Limit Units Dilution 5/23/01 08:55 Received: 05/23/01 18:00 ND 500 ug/l 10 ND 5.00 " " ND 5.00 " " ND 5.00 " " ND 5.00 " " 4660 250 " 50	Result Limit Units Dilution Batch	Result Limit Units Dilution Batch Prepared	Result Limit Units Dilution Batch Prepared Analyzed	Result Limit Units Dilution Batch Prepared Analyzed Interest

 $Gettler\hbox{-}Ryan/Geostrategies (1)$

6747 Sierra Court, Suite J Dublin CA, 94568 Project: Tosco(1)

Project Number: Tosco (Former 76) SS#0843

Project Manager: Deanna Harding

Reported:

06/05/01 07:49

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

Analyte	Resu	alt	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
MW-3 (L105181-04) Water	Sampled: 05/23/01 0	7:50 R	eceived: 0	5/23/01 1	8:00					
Purgeable Hydrocarbons as Ga	asoline N	D	50.0	ug/l	1	1060010	06/03/01	06/03/01	DHS LUFT	
Benzene	N.	D	0.500	n	17	H	tr	**	n	•
Toluene	N.	D	0.500		**	n	H	#	11	
Ethylbenzene	N	D	0.500		n		**	u		
Xylenes (total)	N.	D	0.500	₩	**	•	**	**	tr	
Methyl tert-butyl ether	. N	D	5.00	**	11	11	**	ff	n	
Surrogate: a,a,a-Trifluorotolu	ene		97.4 %	70-1	130	"	"	"	"	
MW-4 (L105181-05) Water	Sampled: 05/23/01 0	8:20 R	eceived: 0	5/23/01 1	8:00					
Purgeable Hydrocarbons as Ga	asoline N	D	50.0	ug/l	1	1060010	06/03/01	06/03/01	DHS LUFT	
Benzene	N	D	0.500	h	H	н	"	11	Ħ	
Toluene	N	D	0.500	H	IJ	Ħ	11	Ħ	U	
Ethylbenzene	N	D	0.500	"	n	"	Ħ	Ħ	n	
Xylenes (total)	N	D	0.500	n	"	"	Ħ	vi	n	
Methyl tert-butyl ether	N	D	5.00	11	n	n	"	*		
Surrogate: a,a,a-Trifluorotolu	ene		89.3 %	70-1	130		n	" "	и	
MW-5 (L105181-06) Water	Sampled: 05/23/01 0	6:45 R	Received: 0	5/23/01 1	8:00					
Purgeable Hydrocarbons as Ga	asoline N	D	50.0	ug/l	1	1060010	06/03/01	06/03/01	DHS LUFT	
Benzene	N	D	0.500	11	"	**	11	H	Ħ	
Toluene	N	D	0.500	Ħ	#	и .	*		•	
Ethylbenzene	N	D	0.500	Ħ	11	"	Ħ		v	
Xylenes (total)	N	D	0.500	Ħ	n	#	ħ	**	11	
Methyl tert-butyl ether	N	D	5.00	n		"	H	11	#	
Surrogate: a.a.a-Trifluorotolu	iene		88.6 %	70	130	"	11	"	#	

Project: Tosco(1)

6747 Sierra Court, Suite J

Project Number: Tosco (Former 76) SS#0843 Project Manager: Deanna Harding Reported: 06/05/01 07:49

Dublin CA, 94568

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Sequoia Analytical - San Carlos

		Seq	uota Ana	y acu						1
Analyte		Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
ГВ-LB (L105181-01) Water	Sampled: 0	5/23/01 00:00	Received: 0	5/23/01	18:00					
		ND	50.0	ug/l	1	1060002	06/01/01	06/02/01	DHS LUFT	
Purgeable Hydrocarbons as Gaso	oline	=	0.500	#	n	Ħ	Ħ	**	**	
Benzene		ND	0.500	Ħ	n	**	**	H	**	
Toluene		ND	0.500	**	Ħ	**	Ħ	n	*	
Ethylbenzene		ND	0.500	Ħ	•	Ţī.	91	H	H	
Xylenes (total)		ND	5.00	**	Ħ	π	Ħ	**	P	
Methyl tert-butyl ether		ND						"	"	
Surrogate: a,a,a-Trifluorotolue	ne		95.6 %	70	-130					
MW-1 (L105181-02) Water	Sampled: ():	5/23/01 07:20	Received: 0	5/23/01	18:00					 -
			50.0	ug/l	1	1060010	06/03/01	06/03/01	DHS LUFT	
Purgeable Hydrocarbons as Gas	soline	ND	0.500	H FB/1	- n		H	**	H	
Benzene		ND	0.500		11	Ħ	Ħ	**	11	
Toluene		ND	0.500	n		*	17	m	#	
Ethylbenzene		ND	0.500		**	н	#1	*	•	
Xylenes (total)		ND		Ħ	n			**	"	
Methyl tert-butyl ether		ND	5.00				,,	"	· · · · · · · · · · · · · · · · · · ·	
Surrogate: a,a,a-Trifluorotolue	ene		87.9 %		0-130					
MW-2 (L105181-03) Water	Sampled:	05/23/01 09:26	Received:	05/23/01	1 18:00					P-01
		45400	5000	ug/l	100	1060010		06/03/01	DHS LUFT	17-01
Purgeable Hydrocarbons as C	Jasonne	374	50.0	*	n	**	"			
Benzene		4490	50.0	Ħ	n				#	
Toluene		2790	50.0	**	u	Ħ	н	H	# #	
Ethylbenzene		10900	50.0	н	n	н	'n	"	*	
Xylenes (total)		ND	500	*	н	**				
Methyl tert-butyl ether			91.6%		70-130			#	r	
Surrogate: a,a,a-Trifluorotolu	iene		91.0 %	•	, U-1 20					

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

Dublin CA, 94568

Project: Tosco(1)

Project Number: Tosco (Former 76) SS#0843

Project Manager: Deanna Harding

Reported: 06/05/01 07:49

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-LB	L105181-01	Water	05/23/01 00:00	05/23/01 18:00
MW-1	L105181-02	Water	05/23/01 07:20	05/23/01 18:00
MW-2	L105181-03	Water	05/23/01 09:26	05/23/01 18:00
MW-3	L105181-04	Water	05/23/01 07:50	05/23/01 18:00
MW-4	L105181-05	Water	05/23/01 08:20	05/23/01 18:00
MW-5	L105181-06	Water	05/23/01 06:45	05/23/01 18:00
MW-6	L105181-07	Water	05/23/01 08:55	05/23/01 18:00



RECEIVED

JUN 0 7 2500

GETTLEK-KYAN INC.

June 05, 2001

Deanna Harding Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568 RE: Tosco(1) / L105181

Enclosed are the results of analyses for samples received by the laboratory on 05/23/01. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Latonya Pelt Project Manager

CA ELAP Certificate Number 2360

atonya K. Pelt

VIIMIII......

6747 Sierra Court, Suite J

Dublin CA, 94568

Project: Tosco(1)

Project Number: Tosco (Former 76) SS#0843

Project Manager: Deanna Harding

Reported:

06/05/01 07:49

Volatile Organic 8 Oxygenated Compounds by EPA Method 8260B

Sequoia Analytical - San Carlos

	·							
Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
09:26	Received: 0	5/23/01	18:00					
				1050101	05/25/01	05/25/01	EPA 8260B	
ND	33300	ug/l	33.33		H	7	Ħ	
ND	66.7		"			m	n	
ND	66.7	"		Ħ			#	
			n	₩	•			
		11	n	Ħ	H			
_		11	Ħ	**	11	#		
			n	Ħ			11	
ND				*	n	Ħ	1)	
ND	3330						н	
	97.2%	70	5-114	"	"		"	
	102 %	. 88	8-110	"	"	"		
	ND ND ND ND ND ND ND ND A06 ND	Color Colo	Result Limit Units 109:26 Received: 05/23/01 ND 33300 ug/l ND 66.7 " ND 66.7 " ND 66.7 " 406 66.7 " ND 3330 " 97.2 % 76	Result Limit Units Dilation 1 09:26 Received: 05/23/01 18:00 ND 33300 ug/l 33.33 ND 66.7 " " ND 66.7 " " ND 66.7 " " 406 66.7 " " ND 66.7 " " ND 3330 " " 97.2 % 76-114 "	ND 33300 ug/l 33.33 1050101	ND 33300 ug/l 33.33 1050101 05/25/01 ND 66.7 ND 66.7 ND 66.7 ND 66.7 ND 66.7 ND 66.7 ND 66.7 ND 66.7 ND 66.7 ND 3330 97.2 % 76-114	ND 33300 ug/l 33.33 1050101 05/25/01 05/25/01 ND 66.7 " " " " " " " " " " " " " " " " " "	ND 33300 ug/l 33.33 1050101 05/25/01 05/25/01 EPA 8260B

Project: Tosco(1)

6747 Sierra Court, Suite J

Project Number: Tosco (Former 76) SS#0843

Spike

Reported:

Dublin CA, 94568

Project Manager: Deanna Harding

06/05/01 07:49

RPD

%REC

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

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1060002 - EPA 5030B (P/T)										
Blank (1060002-BLK1)				Prepared &	& Analyz	01				
Purgeable Hydrocarbons as Gasoline	ND	50.0	ug/l							
Benzene	ND	0.500	Ħ							
Toluene	ND	0.500	ir							
Ethylbenzene	ND	0.500	11							
Xylenes (total)	ND	0.500	*							
Methyl tert-butyl ether	ND	5.00	-							
Surrogate: a,a,a-Trifluorotoluene	8.67		н	10.0		86.7	70-130			
LCS (1060002-BS1)				Prepared o	& Analyz	ed: 06/01/	01			
Benzene	7.73	0.500	ug/l	10.0		77.3	70-130			
Toluene	7.72	0.500	H	10.0		77.2	70-130			
Ethylbenzene	7.70	0.500	-	10.0		77.0	70-130			
Xylenes (total)	23.4	0.500		30.0		78.0	70-130			
Surrogate: a,a,a-Trifluorotoluene	9.24		"	10.0		92.4	70-130			
LCS (1060002-BS2)				Prepared	& Analyz	ed: 06/01/				
Purgeable Hydrocarbons as Gasoline	251	50.0	ug/l	250		100	70-130			
Surrogate: a,a,a-Trifluorotoluene	9.13		n	10.0		91.3	70-130			
Matrix Spike (1060002-MS1)	Sou	rce: L10517	8-07	Prepared:	06/01/01	Analyzeo	1: 06/02/01			
Purgeable Hydrocarbons as Gasoline	286	50.0	ug/l	250	ND	114	60-140			
Surrogate: a,a,a-Trifluorotoluene	9.09		"	10.0		90.9	70-130			
Matrix Spike Dup (1060002-MSD1)	Sou	rce: L10517	78-07	Prepared:	06/01/01	Analyze	1: 06/02/01			
Purgeable Hydrocarbons as Gasoline	282	50.0	ug/l	250	ND	113	60-140	1.41	25	
Surrogate: a,a,a-Trifluorotoluene	9.37		Ħ	10.0		93.7	70-130			,

Project: Tosco(1)

6747 Sierra Court, Suite J

Project Number: Tosco (Former 76) SS#0843

Reported: 06/05/01 07:49

Dublin CA, 94568

Project Manager: Deanna Harding

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

Batch 1060010 - EPA 5030B (P/T) Blank (1060010-BLK1) Purgeable Hydrocarbons as Gasoline Benzene Toluene Ethylbenzene Xylenes (total) Methyl tert-butyl ether Surrogate: a,a,a-Trifluorotoluene Blank (1060010-BLK2) Purgeable Hydrocarbons as Gasoline Benzene Toluene Ethylbenzene Xylenes (total)	ND ND ND ND ND ND	50.0 0.500 0.500	Units ug/l	Level Prepared	Result	%REC	Limits	RPD	Limit	Notes
Blank (1060010-BLK1) Purgeable Hydrocarbons as Gasoline Benzene Toluene Ethylbenzene Xylenes (total) Methyl tert-butyl ether Surrogate: a,a,a-Trifluorotoluene Blank (1060010-BLK2) Purgeable Hydrocarbons as Gasoline Benzene Toluene Ethylbenzene	ND ND ND	0.500 0.500		Prepared	& Analyz					
Purgeable Hydrocarbons as Gasoline Benzene Toluene Ethylbenzene Xylenes (total) Methyl tert-butyl ether Surrogate: a,a,a-Triftuorotoluene Blank (1060010-BLK2) Purgeable Hydrocarbons as Gasoline Benzene Toluene Ethylbenzene	ND ND ND	0.500 0.500		Prepared	& Analyz	ad: 06/02/0				
Purgeable Hydrocarbons as Gasoline Benzene Toluene Ethylbenzene Xylenes (total) Methyl tert-butyl ether Surrogate: a,a,a-Triftuorotoluene Blank (1060010-BLK2) Purgeable Hydrocarbons as Gasoline Benzene Toluene Ethylbenzene	ND ND ND	0.500 0.500			<u>-</u>	JG. 00/02/0	<u> </u>	<u></u>		
Benzene Toluene Ethylbenzene Xylenes (total) Methyl tert-butyl ether Surrogate: a,a,a-Trifluorotoluene Blank (1060010-BLK2) Purgeable Hydrocarbons as Gasoline Benzene Toluene Ethylbenzene	ND ND	0.500	Ħ							
Toluene Ethylbenzene Xylenes (total) Methyl tert-butyl ether Surrogate: a,a,a-Triftuorotoluene Blank (1060010-BLK2) Purgeable Hydrocarbons as Gasoline Benzene Toluene Ethylbenzene	ND									
Ethylbenzene Xylenes (total) Methyl tert-butyl ether Surrogate: a,a,a-Triftuorotoluene Blank (1060010-BLK2) Purgeable Hydrocarbons as Gasoline Benzene Toluene Ethylbenzene			*							
Xylenes (total) Methyl tert-butyl ether Surrogate: a,a,a-Trifluorotoluene Blank (1060010-BLK2) Purgeable Hydrocarbons as Gasoline Benzene Toluene Ethylbenzene	ND	0.500	н							
Methyl tert-butyl ether Surrogate: a,a,a-Triftuorotoluene Blank (1060010-BLK2) Purgeable Hydrocarbons as Gasoline Benzene Toluene Ethylbenzene	112	0.500	**							
Surrogate: a,a,a-Triftuorotoluene Blank (1060010-BLK2) Purgeable Hydrocarbons as Gasoline Benzene Toluene Ethylbenzene	ND	5.00	"						 	
Blank (1060010-BLK2) Purgeable Hydrocarbons as Gasoline Benzene Toluene Ethylbenzene	10.9		"	10.0		109	70-130			
Purgeable Hydrocarbons as Gasoline Benzene Toluene Ethylbenzene				Prepared	& Analyz	zed: 06/03/0)1			
Benzene Toluene Ethylbenzene	ND	50.0	ug/l							
Toluene Ethylbenzene	ND	0.500	,,							
Ethylbenzene	ND	0.500								
•	ND	0.500	#							
XVIETES (TOTAL)	ND	0.500	n							
· ·	ND	5.00	97							
Methyl tert-butyl ether	9.70		, n	10.0		97.0	70-130			
Surrogate: a,a,a-Trifluorotoluene	,,,,			_	10 4	d- 06/02/	'n t			
LCS (1060010-BS1)					a Analy	zed: 06/02/ 84.9	70-130			
Benzene	8.49	0.500	ug/l	10.0	•	82.8	70-130			
Toluene	8.28	0.500	"	10.0		86.3	70-130			
Ethylbenzene	8.63	0.500		10.0		86.3	70-130			
Xylenes (total)	25.9	0.500	"	30.0						
Surrogate: a,a,a-Trifluorotoluene	10.9	- <u>-</u> -	"	10.0		109	70-130			
				Prepare	d & Analy	zed: 06/02	/01			
LCS (1060010-BS2)	213	50.0	ug/l	250		85.2	70-130			
Purgeable Hydrocarbons as Gasoline Surrogate: a,a,a-Trifluorotoluene	10.8			10.0		108	70-130	_		

6747 Sierra Court, Suite J Dublin CA, 94568

Project: Tosco(1)

Project Number: Tosco (Former 76) SS#0843

Project Manager: Deanna Harding

Reported: 06/05/01 07:49

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

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1060010 - EPA 5030B (P/T)							· · · ·			······································
LCS (1060010-BS3)				Prepared	& Analyza	ed: 06/03/	01			
Benzene	8.80	0.500	ug/l	10.0		88.0	70-130			
Toluene	8.53	0.500		10.0		85.3	70-130			
Ethylbenzene	8.78	0.500	17	10.0		87.8	70-130			
Xylenes (total)	26.3	0.500	11	30.0		87.7	70-130			
Surrogate: a,a,a-Trifluorotoluene	9.36		**	10.0	"	93.6	70-130			
LCS (1060010-BS4)				Prepared	& Analyz	ed: 06/03/	01			
Purgeable Hydrocarbons as Gasoline	246	50.0	ug/l	250		98.4	70-130			
Surrogate: a,a,a-Trifluorotoluene	10.4		n	10.0		104	70-130			
Matrix Spike (1060010-MS1)	Sou	rce: L10517	8-05	Prepared	& Analyz	ed: 06/02/	01		···	
Purgeable Hydrocarbons as Gasoline	212	50.0	ug/l	250	ND	84.8	60-140			
Surrogate: a,a,a-Trifluorotoluene	10.7		"	10.0		107	70-130			
Matrix Spike Dup (1060010-MSD1)	Source: L105178-05			Prepared	& Analyz	•				
Purgeable Hydrocarbons as Gasoline	234	50.0	ug/l	250	ND	93.6	60-140	9.87	25	
Surrogate: a,a,a-Trifluorotoluene	9.34		"	10.0		93.4	70-130			

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

Project: Tosco(1)

Project Number: Tosco (Former 76) SS#0843 Project Manager: Deanna Harding

Reported: 06/05/01 07:49

Volatile Organic 8 Oxygenated Compounds by EPA Method 8260B - Quality Control Sequoia Analytical - San Carlos

		Perceting		Spike	Source		%REC		RPD	
nalyte	Result	Reporting Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
atch 1050101 - EPA 5030B [P/T]				Prepared :	& Analyze	ed: 05/23/0	1			
lank (1050101-BLK1)	ND.	1000	ug/l	11 v p						
thanol	ND ND	2.00	H H							
2-Dibromoethane		2.00	11							
,2-Dichloroethane	ND	2.00	p							
ri-isopropyl ether	ND									
thyl tert-butyl ether	ND	2.00	11							
lethyl tert-butyl ether	ND	2.00	**							
ert-amyl methyl ether	ND	2.00	#							
ert-butyl alcohol	ND	100				012	76-114			
Surrogate: 1,2-Dichloroethane-d4	48.1		*	50.0		96.2	76-114 88-110			÷
Surrogate: Toluene-d8	50.9		н	50.0		102	00-11V			
_				Prepared	& Analyz	zed: 05/24/	01			
Blank (1050101-BLK2)	ND	1000	ug/l							
Ethanol		2.00	# <i>G</i> 1							
1,2-Dibromoethane	ND	2.00	н							
1,2-Dichleroethane	ND	2.00	11							
Di-isopropyl ether	ND	2.00								
Ethyl tert-butyl ether	ND	2.00	**							
Methyl tert-butyl ether	ND		,,							
Tert-amyl methyl ether	ND	2.00	"							
Tert-butyl alcohol	ND	100				93.2	76-114			
Surrogate: 1,2-Dichloroethane-d4	46.6		-	50.0		93.2 103	88-110			
Surrogate: Toluene-d8	51.7		"	50.0		103	00-110			
•				Prepare	d & Analy	zed: 05/25	/01			
Blank (1050101-BLK3)	ND	1000	ug/i					_		
Ethanol		2.00	-							
1,2-Dibromoethane	ND	2.00								
1,2-Dichloroethane	ND									
Di-isopropyl ether	ND	2.00								
Ethyl tert-butyl ether	ND	2.00	,							
Methyl tert-butyl ether	ИD	2.00	•							
Tert-amyl methyl ether	ND	2.00	,							
Tert-butyl alcohol	ND	100	<i></i>				76-114			
Surrogate: 1,2-Dichloroethane-d4	46.6		"	50.0		93.2				
Surrogate: Toluene-d8	53.1		rr	50.0)	106	88-110	,		

6747 Sierra Court, Suite J

Dublin CA, 94568

Project: Tosco(1)

Project Number: Tosco (Former 76) \$\$#0843

Project Manager: Deanna Harding

Reported:

RPD

%REC

06/05/01 07:49

Volatile Organic 8 Oxygenated Compounds by EPA Method 8260B - Quality Control Sequoia Analytical - San Carlos

Reporting

		Keporing		-P						
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1050101 - EPA 5030B [P/T]							_			
LCS (1050101-BS1)				Prepared	& Analyze	ed: 05/23/				
Methyl tert-butyl ether	45.9	2.00	ug/l	50.0		91.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	48.2		"	50.0		96.4	76-114			
Surrogate: Toluene-d8	49.3		n	50.0		98.6	88-110			
LCS (1050101-BS2)				Prepared	& Analyz	ed: 05/24/				
Methyl tert-butyl ether	47.5	2.00	ug/l	50.0		95.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	47.8		7	50.0		95.6	76-114			
Surrogate: Toluene-d8	51.2		"	50.0		102	88-110			
LCS (1050101-BS3)				Prepared	& Analyz	ed: 05/25/	01			
Methyl tert-butyl ether	48.6	2.00	ug/l	50.0		97.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	49.5		н	50.0		99.0	76-114			
Surrogate: Toluene-d8	51.8		n	50.0		104	88-110			
Matrix Spike (1050101-MS1)	Sou	rce: L10514	16-06	Prepared	& Analyz					
Methyl tert-butyl ether	46.5	2.00	ug/l	50.0	ND	93.0	60-140		·	
Surrogate: 1,2-Dichloroethane-d4	51.0		"	50.0		102	76-114			
Surrogate: Toluene-d8	50.6		"	50.0		101	88-110			
Matrix Spike Dup (1050101-MSD1)	Sou	rce: L10514	16-06	Prepared	& Analyz	ed: 05/23	/01			
Methyl tert-butyl ether	49.0	2.00	ug/l	50.0	ND	98.0	60-140	5.24	25	
Surrogate: 1,2-Dichloroethane-d4	50.1		п	50.0		100	76-114			
Surrogate: Toluene-d8	50.5		"	50.0		101	88-110			

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

Project Number: Tosco (Former 76) SS#0843

Project Manager: Deanna Harding

Reported: 06/05/01 07:49

Notes and Definitions

M-04 MTBE was reported from second analysis.

P-01 Chromatogram Pattern: Gasoline C6-C12

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

Relative Percent Difference

RPD