ALTON GEOSCIENCE

May 12, 1999

RECEIVED
MAY 17 1999
ENV. COMPLIANCE

Tosco Marketing Company
2000 Crow Canyon Place, Suite 400
San Ramon, California 94583

ATTN: MR. DAVID DEWITT

SITE: TOSCO (UNOCAL) 76 SERVICE STATION 5325
3220 LAKESHORE AVENUE
OAKLAND, CALIFORNIA

RE: DUAL-PHASE VACUUM EXTRACTION EVENT REPORT

Dear Mr. DeWitt:

Please find enclosed the results of a Dual-Phase Extraction Event conducted at Tosco (Unocal) 76 Service Station 5325, located at 3220 Lakeshore Avenue, Oakland, California. The contents of this report include:

Summary Sheet

Figure:	Site Plan
Tables:	(1) Dual-Phase Vacuum Extraction Data
	(2) Well Data
Charts:	(1) Influent TPH Concentrations and Total Vapor-Phase Hydrocarbons Recovered Versus Time
	(2) Benzene and MtBE Vapor Concentrations Versus Time for U-1
	(3) Benzene and MtBE Vapor Concentrations Versus Time for U-2
Appendix:	Dual-Phase Vacuum Extraction Field Sheets and Analytical Laboratory Data Sheets

If you have any questions please call me at ~~(925) 606-9150~~, extension 104.
925 688 1200

Sincerely,

Tom Seeliger
Project Manager

p:/projects/tosco/5325/5325r2.mts

255325 SS X

X TRANS

3 4

99 OCT 19 PM 4:07

PROTECTION

30A Lindbergh Avenue
Livermore, California 94550
(510) 606-9150 • FAX (510) 606-9260

Alton Geoscience, Inc.

Dual-Phase Extraction Test Report

Summary Sheet

Tosco (Unocal) 76 Service Station 5325
3220 Lakeshore Avenue
Oakland, California

BAAQMD# NA
NPDES# NA

DUAL-PHASE EXTRACTION PERFORMANCE

Date(s) of Event(s):	4/5-4/10/99
Total Operating Hours:	120.0
Technology Used:	High-vacuum liquid-ring pump with Thermal Oxidizer
Extraction Wells with Max/Min Vapor Concentration (ppmv):	TCW (1370 / 110) U-1 (10460 / 560) U-2 (7140 / 2000)
Max/Min Flow Rate for Extraction Wells (cfm):	TCW (68.5 / 22.3) U-1 (25.7 / 10.5) U-2 (27 / 13.3)
Max/Min Vacuum for Extraction Wells (in Hg):	TCW (25.5 / 8.5) U-1 (23 / 16.5) U-2 (21 / 13)
Total Recovery Volume by Vapor (gallons/pounds):	26.75 / 167.44
Total Recovery Volume by Water (gallons):	13,580 #

LABORATORY ANALYSIS OF GROUND WATER SAMPLES

Sample Date(s): 4/5 & 4/10/99
Well Number (s): TCW, U-1, U-2

Well ID	Date	Time Sampled	Sample Result (µg/L)					
			TPH-g	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MtBE
TCW	4/5/99		N.D.	850	750	710	3,200	12,000
TCW	4/10/99	13:25	N.D.	N.D.	N.D.	N.D.	N.D.	150,000
U-1	4/5/99		91,000	310	970	1,500	2,300	7,600
U-1	4/10/99	13:15	15,000	58	130	41	7,300	9,000
U-2	4/5/99		28,000	1,300	N.D.	690	2,700	37,000
U-2	4/10/99	13:20	29,000	480	1,800	600	4,900	14,000

LABORATORY ANALYSIS OF VAPOR SAMPLES

Sample Date(s): 4/5 - 4/10/99
Well Number (s): U-1, U-2, TCW

Well ID	Date	Time Sampled	Sample Result (ppmv)					
			TPH-g	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MtBE
U-1	4/5/99	13:10	1,800	34	37	16	110	120
U-1	4/6/99	13:00	440	81	12	9.4	51	30
U-1	4/9/99	13:00	390	5.3	12	6.9	37	17
U-1	4/10/99	12:00	2,000	44	98	28	130	190
U-2	4/6/99	14:10	51	0.19	0.93	1.2	7.2	N.D.
U-2	4/9/99	13:05	2,700	59	96	35	170	240
U-2	4/10/99	12:45	460	6.3	14	11	60	24
TCW	4/10/99	7:00	210	1.2	5.0	4.6	28	120
U-3 (U-1 & U-2 composite)	4/7/99	13:00	340	85	77	44	190	360

ADDITIONAL INFORMATION:

= The 13,580 gallons of water generated during the 4/5-4/10/99 dual-phase extraction event was removed from the site by vacuum truck.

ppmv	= parts per million by volume
cfm	= cubic feet per minute
in Hg	= inches of mercury
TPH-g	= total petroleum hydrocarbons as gasoline
MtBE	= Methyl tert-Butyl Ether
µg/L	= micrograms per liter
N.D.	= non detect

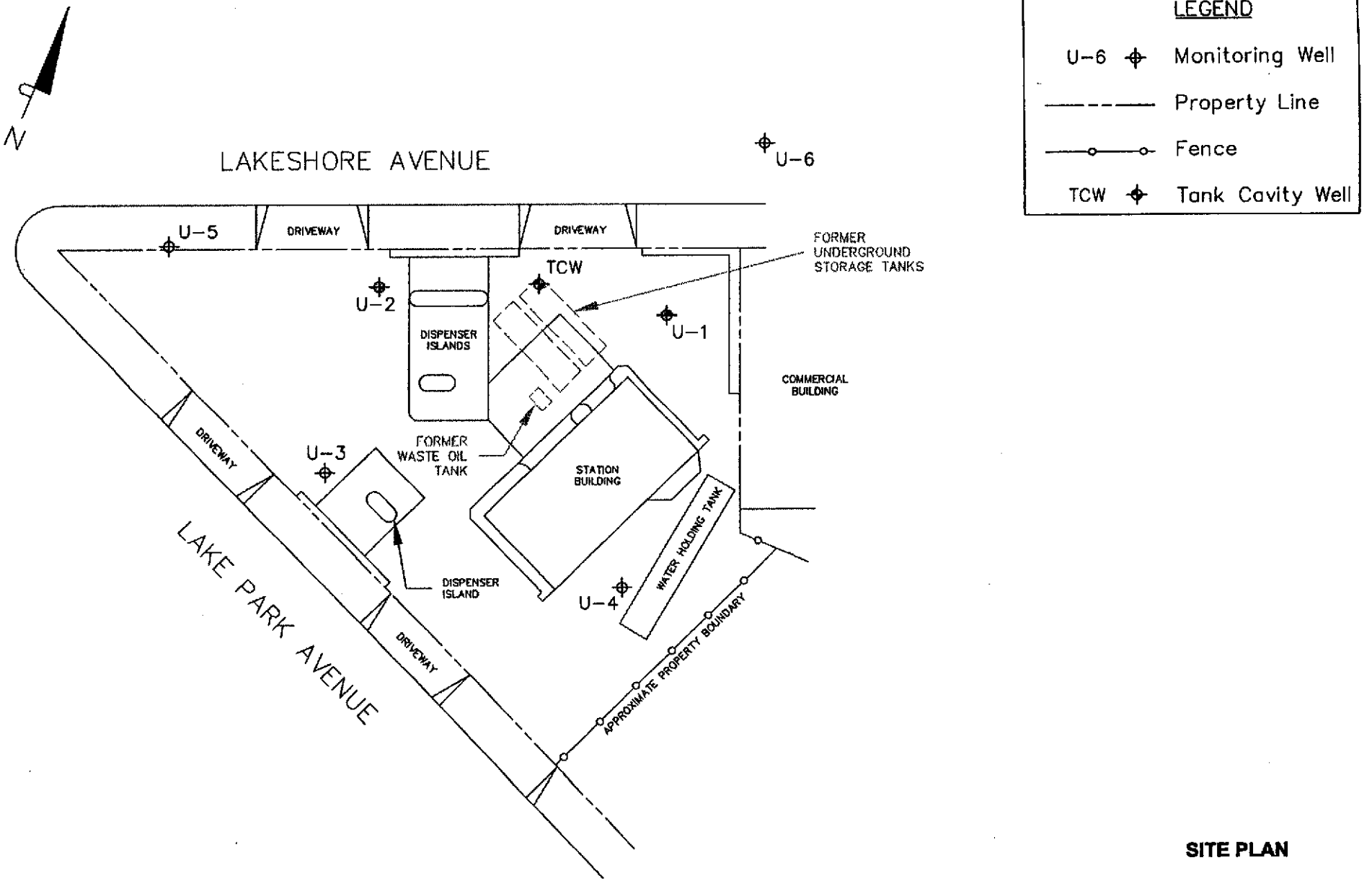
Prepared by: Christopher K. Smiga

Approved by: Tracy Walker, RG

REGISTERED GEOLOGIST ★ TRACY WALKER ★ No. 6808 Exp 10/31/99 STATE OF CALIFORNIA

Alton Project No: 41-0202-01

Submittal Date: 6-May-99



NOTES:
TCW = tank cavity well.

ALTON GEOSCIENCE
Livermore, California

SCALE (FEET)
0 40 80

SOURCE: MPDS Services, Inc. and Gettler-Ryan, Inc.

SITE PLAN

Tosco (Unocal) Service Station
No. 5325
3220 Lakeshore Avenue
Oakland, California

FIGURE 1

Table 1
MOBILE TREATMENT SYSTEM VACUUM EXTRACTION DATA
Tosco (Unocal) 76 Service Station 5325
4/5/99 - 4/10/99

10/60

DATE & TIME	OPERATING TIME (HOURS)	TOTAL SYSTEM MEASUREMENTS					
		INLET BLOWER VACUUM (IN OF Hg)	COMBINED WELL FLOW (CFM)	AVERAGE CONCENTRATION (undiluted) (PPMV)	CUMULATIVE MASS OF TPH RECOVERED (POUNDS)	CUMULATIVE MASS OF TPH RECOVERED (GAL.)*	EXTRACTION WELL(S) OPEN
4/5/99 13:00	0	16.5	25.7	8,140	0.00	0.00	U-1
4/5/99 13:10	0.17	20.0	25.3	10,460	0.66	0.10	U-1
4/5/99 13:30	0.5	22.5	23.2	7,370	1.85	0.30	U-1
4/5/99 14:00	1.0	20.0	22.8	6,630	3.19	0.51	U-1
4/5/99 14:30	1.5	21.5	22.7	6,400	4.43	0.71	U-1
4/5/99 14:45	1.75	25.5	22.3	610	4.75	0.76	TCW
4/5/99 15:00	2.0	20.5	22.0	6,800	5.09	0.81	U-1
4/5/99 15:30	2.5	20.5	20.4	6,130	6.23	1.00	U-1
4/5/99 16:00	3.0	21.5	19.7	5,720	7.22	1.15	U-1
4/5/99 16:30	3.5	22.0	18.3	4,580	8.03	1.28	U-1
4/5/99 17:00	4.0	22.0	17.5	4,420	8.70	1.39	U-1
4/5/99 17:30	4.5	22.0	17.7	3,790	9.30	1.49	U-1
4/5/99 18:00	5.0	21.5	17.9	4,230	9.90	1.58	U-1
4/5/99 18:30	5.5	20.5	18.3	4,170	10.53	1.68	U-1
4/5/99 19:00	6.0	20.5	18.1	3,620	11.12	1.78	U-1
4/5/99 19:30	6.5	21.5	19.3	3,670	11.68	1.87	U-1
4/5/99 20:00	7.0	21.0	18.9	3,750	12.27	1.96	U-1
4/5/99 20:30	7.5	20.0	18.6	3,700	12.85	2.05	U-1
4/5/99 21:00	8.0	20.0	17.9	3,540	13.40	2.14	U-1
4/5/99 21:30	8.5	20.0	19.5	3,630	13.96	2.23	U-1
4/5/99 22:00	9.0	21.0	17.8	3,500	14.51	2.32	U-1
4/5/99 22:30	9.5	21.0	16.0	3,450	15.00	2.40	U-1
4/5/99 23:00	10.0	19.5	19.5	3,210	15.49	2.47	U-1
4/5/99 23:30	10.5	19.5	19.0	3,220	16.01	2.56	U-1
4/6/99 0:00	11.0	20.5	18.3	3,170	16.50	2.64	U-1
4/6/99 0:30	11.5	19.5	20.5	3,120	17.01	2.72	U-1
4/6/99 1:00	12.0	20.0	19.5	3,180	17.53	2.80	U-1
4/6/99 1:30	12.5	19.5	20.5	3,090	18.05	2.88	U-1
4/6/99 2:00	13.0	20.5	18.3	3,010	18.55	2.96	U-1

Table 1
MOBILE TREATMENT SYSTEM VACUUM EXTRACTION DATA
Tosco (Unocal) 76 Service Station 5325
4/5/99 - 4/10/99

DATE & TIME	OPERATING TIME (HOURS)	TOTAL SYSTEM MEASUREMENTS					
		INLET BLOWER VACUUM (IN OF Hg)	COMBINED WELL FLOW (CFM)	AVERAGE CONCENTRATION (undiluted) (PPMV)	CUMULATIVE MASS OF TPH RECOVERED (POUNDS)	CUMULATIVE MASS OF TPH RECOVERED (GAL) *	EXTRACTION WELL(S) OPEN
4/6/99 2:30	13.5	21.0	17.9	3,030	19.00	3.04	U-1
4/6/99 3:00	14.0	21.0	15.0	2,990	19.41	3.10	U-1
4/6/99 3:30	14.5	21.0	17.0	3,020	19.81	3.16	U-1
4/6/99 4:00	15.0	20.5	19.3	2,970	20.26	3.24	U-1
4/6/99 4:30	15.5	21.0	16.0	3,050	20.70	3.31	U-1
4/6/99 5:00	16.0	21.0	17.3	2,990	21.12	3.37	U-1
4/6/99 5:30	16.5	21.0	16.7	2,990	21.55	3.44	U-1
4/6/99 6:00	17.0	21.0	18.7	2,970	21.98	3.51	U-1
4/6/99 6:30	17.5	21.0	18.2	2,970	22.44	3.58	U-1
4/6/99 7:00	18.0	20.5	19.2	2,910	22.90	3.66	U-1
4/6/99 7:30	18.5	21.5	18.0	2,880	23.34	3.73	U-1
4/6/99 8:00	19.0	20.5	18.3	2,890	23.78	3.80	U-1
4/6/99 8:30	19.5	22.0	17.1	2,800	24.20	3.87	U-1
4/6/99 9:00	20.0	20.0	15.7	2,680	24.57	3.93	U-1
4/6/99 9:30	20.5	20.0	15.9	2,720	24.93	3.98	U-1
4/6/99 10:00	21.0	20.0	16.8	2,670	25.29	4.04	U-1
4/6/99 10:30	21.5	21.5	17.6	2,640	25.67	4.10	U-1
4/6/99 11:00	22.0	20.5	18.3	2,630	26.06	4.16	U-1
4/6/99 11:30	22.5	20.5	19.4	2,510	26.47	4.23	U-1
4/6/99 12:00	23.0	21.0	18.7	2,470	26.86	4.29	U-1
4/6/99 12:30	23.5	20.5	19.9	2,460	27.26	4.35	U-1
4/6/99 13:00	24.0	20.0	18	2,480	27.65	4.42	U-1
4/6/99 13:30	24.5	21.0	18.2	2,390	28.01	4.47	U-1
4/6/99 14:00	25.0	21.0	18.2	2,370	28.37	4.53	U-1
4/6/99 14:30	25.5	21.0	18.9	2,340	28.73	4.59	U-1
4/6/99 15:00	26.0	20.0	17.4	2,280	29.08	4.65	U-1
4/6/99 15:30	26.5	19.5	18.6	2,320	29.43	4.70	U-1
4/6/99 16:00	27.0	19.5	18.2	2,310	29.78	4.76	U-1
4/6/99 16:30	27.5	19.0	19	2,270	30.14	4.81	U-1

Table 1
MOBILE TREATMENT SYSTEM VACUUM EXTRACTION DATA
Tosco (Unocal) 76 Service Station 5325
4/5/99 - 4/10/99

DATE & TIME	OPERATING TIME (HOURS)	TOTAL SYSTEM MEASUREMENTS					
		INLET BLOWER VACUUM (IN OF Hg)	COMBINED WELL FLOW (CFM)	AVERAGE CONCENTRATION (undiluted) (PPMV)	CUMULATIVE MASS OF TPH RECOVERED (POUNDS)	(GAL) *	EXTRACTION WELL(S) OPEN
4/6/99 17:00	28.0	20.0	16.4	2,220	30.47	4.87	U-1
4/6/99 17:30	28.5	20.5	16.1	2,180	30.76	4.91	U-1
4/6/99 18:00	29.0	22.0	17.3	2,130	31.06	4.96	U-1
4/6/99 18:30	29.5	19.5	16.8	2,180	31.37	5.01	U-1
4/6/99 19:00	30.0	21.5	15	2,210	31.66	5.06	U-1
4/6/99 19:30	30.5	18.5	16.4	2,140	31.94	5.10	U-1
4/6/99 20:00	31.0	20.0	16.0	2,150	32.23	5.15	U-1
4/6/99 20:30	31.5	19.5	21.1	2,200	32.57	5.20	U-1
4/6/99 21:00	32.0	22.5	17.0	2,030	32.90	5.26	U-1
4/6/99 21:30	32.5	21.0	17.0	2,120	33.19	5.30	U-1
4/6/99 22:00	33.0	22.0	21.0	2,100	33.53	5.36	U-1
4/6/99 22:30	33.5	20.5	20.0	2,090	33.88	5.41	U-1
4/6/99 23:00	34.0	21.5	15.9	2,000	34.19	5.46	U-1
4/6/99 23:30	34.5	20.0	17.0	2,010	34.46	5.51	U-1
4/7/99 0:00	35.0	20.5	19.5	1,990	34.77	5.55	U-1
4/7/99 0:30	35.5	20.5	17.0	1,990	35.07	5.60	U-1
4/7/99 1:00	36.0	21.0	17.0	2,000	35.35	5.65	U-1
4/7/99 1:30	36.5	20.0	20.5	1,950	35.66	5.70	U-1
4/7/99 2:00	37.0	19.0	19.5	1,960	35.98	5.75	U-1
4/7/99 2:30	37.5	15.5	26.5	4,720	36.62	5.85	U-2
4/7/99 3:00	38.0	15.0	28.0	4,250	37.64	6.01	U-2
4/7/99 3:30	38.5	15.0	29.0	4,820	38.71	6.18	U-2
4/7/99 4:00	39.0	15.0	26.0	4,840	39.82	6.36	U-2
4/7/99 4:30	39.5	15.0	20.5	4,940	40.76	6.51	U-2
4/7/99 5:00	40.0	15.0	21.0	4,890	41.61	6.65	U-2
4/7/99 5:30	40.5	15.0	26.0	2,690	42.35	6.76	U-2
4/7/99 6:00	41.0	15.0	25.4	4,540	43.12	6.89	U-2
4/7/99 6:30	41.5	15.0	24.6	4,370	44.05	7.04	U-2
4/7/99 7:00	42.0	17.0	25.6	4,420	44.96	7.18	U-2

Table 1
MOBILE TREATMENT SYSTEM VACUUM EXTRACTION DATA
Tosco (Unocal) 76 Service Station 5325
4/5/99 - 4/10/99

DATE & TIME	OPERATING TIME (HOURS)	TOTAL SYSTEM MEASUREMENTS					
		INLET BLOWER VACUUM (IN OF Hg)	COMBINED WELL FLOW (CFM)	AVERAGE CONCENTRATION (undiluted) (PPMV)	CUMULATIVE MASS OF TPH RECOVERED (POUNDS)	CUMULATIVE MASS OF TPH RECOVERED (GAL) *	EXTRACTION WELL(S) OPEN
4/7/99 7:30	42.5	15.0	21.9	5,440	45.94	7.34	U-2
4/7/99 8:00	43.0	19.5	19.9	5,780	46.91	7.49	U-1, U-2
4/7/99 8:30	43.5	18.5	18.5	5,680	47.83	7.64	U-1, U-2
4/7/99 9:00	44.0	19.0	19.4	6,240	48.76	7.79	U-1, U-2
4/7/99 9:30	44.5	19.5	19.6	6,380	49.79	7.95	U-1, U-2
4/7/99 10:00	45.0	20.0	18.4	6,570	50.81	8.12	U-1, U-2
4/7/99 10:30	45.5	19.5	20.2	5,320	51.76	8.27	U-1, U-2
4/7/99 11:00	46.0	19.0	18.9	5,840	52.67	8.41	U-1, U-2
4/7/99 12:00	47.0	19.5	17.1	6,070	54.45	8.70	U-1, U-2
4/7/99 13:00	48.0	19.5	18.6	6,540	56.32	9.00	U-1, U-2
4/7/99 14:00	49.0	19.5	18.2	5,820	58.21	9.30	U-1, U-2
4/7/99 15:00	50.0	19.5	18.3	6,300	60.05	9.59	U-1, U-2
4/7/99 16:00	51.0	18.5	18.7	4,790	61.76	9.87	U-1, U-2
4/7/99 17:00	52.0	18.0	19.2	5,080	63.31	10.11	U-1, U-2
4/7/99 18:00	53.0	18.0	17.2	4,710	64.79	10.35	U-1, U-2
4/7/99 19:00	54.0	18.0	20.0	5,120	66.31	10.59	U-1, U-2
4/7/99 20:00	55.0	18.0	17.0	5,330	67.92	10.85	U-1, U-2
4/7/99 21:00	56.0	18.0	23.0	4,710	69.59	11.12	U-1, U-2
4/7/99 22:00	57.0	20.0	19.0	5,440	71.36	11.40	U-1, U-2
4/7/99 23:00	58.0	18.0	22.7	5,350	73.23	11.70	U-1, U-2
4/8/99 0:00	59.0	18.0	20.8	5,260	75.15	12.00	U-1, U-2
4/8/99 1:00	60.0	17.0	24.0	5,300	77.11	12.32	U-1, U-2
4/8/99 2:00	61.0	18.0	25.0	5,100	79.23	12.66	U-1, U-2
4/8/99 3:00	62.0	18.0	23.0	5,380	81.32	12.99	U-1, U-2
4/8/99 4:00	63.0	18.0	23.0	5,510	83.40	13.32	U-1, U-2
4/8/99 5:00	64.0	18.0	22.0	6,160	85.59	13.67	U-1, U-2
4/8/99 6:00	65.0	18.0	23.5	6,520	87.98	14.05	U-1, U-2
4/8/99 7:00	66.0	18.0	23.0	6,410	90.48	14.45	U-1, U-2
4/8/99 8:00	67.0	21.0	22.0	6,080	92.82	14.83	U-1, U-2

Table 1
MOBILE TREATMENT SYSTEM VACUUM EXTRACTION DATA
Tosco (Unocal) 76 Service Station 5325
4/5/99 - 4/10/99

DATE & TIME	OPERATING TIME (HOURS)	TOTAL SYSTEM MEASUREMENTS					
		INLET BLOWER VACUUM (IN OF Hg)	COMBINED WELL FLOW (CFM)	AVERAGE CONCENTRATION (undiluted) (PPMV)	CUMULATIVE MASS OF TPH RECOVERED (POUNDS)	CUMULATIVE MASS OF TPH RECOVERED (GAL) *	EXTRACTION WELL(S) OPEN
4/8/99 9:00	68.0	19.0	22.0	5,740	94.98	15.17	U-1, U-2
4/8/99 10:00	69.0	19.0	20.5	5,830	97.02	15.50	U-1, U-2
4/8/99 11:00	70.0	19.0	19.5	5,500	98.91	15.80	U-1, U-2
4/8/99 12:00	71.0	19.0	20.5	5,010	100.65	16.08	U-1, U-2
4/8/99 13:00	72.0	18.0	20.5	4,150	102.21	16.33	U-1, U-2
4/8/99 14:00	73.0	20.0	21.0	4,370	103.68	16.56	U-1, U-2
4/8/99 15:00	74.0	19.0	21.5	4,570	105.26	16.82	U-1, U-2
4/8/99 16:00	75.0	18.5	22.0	4,300	106.87	17.07	U-1, U-2
4/8/99 17:00	76.0	17.0	19.5	4,350	108.36	17.31	U-1, U-2
4/8/99 18:00	77.0	18.5	20.3	4,530	109.83	17.54	U-1, U-2
4/8/99 19:00	78.0	18.5	21.9	4,620	111.43	17.80	U-1, U-2
4/8/99 20:00	79.0	18.5	20.4	3,860	112.92	18.04	U-1, U-2
4/8/99 21:00	80.0	19.0	20.5	4,410	114.33	18.26	U-1, U-2
4/8/99 22:00	81.0	18.0	21.3	2,300	115.49	18.45	U-1, U-2
4/8/99 23:00	82.0	18.0	22.6	4,920	116.81	18.66	U-1, U-2
4/9/99 0:00	83.0	17.5	21.9	4,590	118.57	18.94	U-1, U-2
4/9/99 1:00	84.0	18.5	20.5	4,440	120.16	19.19	U-1, U-2
4/9/99 2:00	85.0	18.0	20.0	4,580	121.68	19.44	U-1, U-2
4/9/99 3:00	86.0	17.5	20.9	4,350	123.20	19.68	U-1, U-2
4/9/99 4:00	87.0	18.0	20.5	3,290	124.51	19.89	U-1, U-2
4/9/99 5:00	88.0	17.5	21.8	4,740	125.92	20.12	U-1, U-2
4/9/99 6:00	89.0	18.0	20.0	4,850	127.59	20.38	U-1, U-2
4/9/99 7:00	90.0	18.0	21.1	4,830	129.24	20.65	U-1, U-2
4/9/99 8:00	91.0	18.0	20.2	4,640	130.87	20.91	U-1, U-2
4/9/99 9:00	92.0	18.5	22.8	4,820	132.56	21.18	U-1, U-2
4/9/99 10:00	93.0	18.0	21.5	4,630	134.30	21.45	U-1, U-2
4/9/99 11:00	94.0	19.5	20.3	4,530	135.89	21.71	U-1, U-2
4/9/99 12:00	95.0	20.0	21.8	3,860	137.36	21.94	U-1, U-2
4/9/99 13:00	96.0	18.0	19.2	4,610	138.80	22.17	U-1, U-2

Table 1
MOBILE TREATMENT SYSTEM VACUUM EXTRACTION DATA
Tosco (Unocal) 76 Service Station 5325
4/5/99 - 4/10/99

DATE & TIME	OPERATING TIME (HOURS)	TOTAL SYSTEM MEASUREMENTS					EXTRACTION WELL(S) OPEN
		INLET BLOWER VACUUM (IN OF Hg)	COMBINED WELL FLOW (CFM)	AVERAGE CONCENTRATION (undiluted) (PPMV)	CUMULATIVE MASS OF TPH RECOVERED (POUNDS)	(GAL) *	
4/9/99 14:00	97.0	19.0	21.4	4,150	140.28	22.41	U-1, U-2
4/9/99 15:00	98.0	19.0	20.2	4,360	141.75	22.64	U-1, U-2
4/9/99 16:00	99.0	19.5	20.0	4,120	143.17	22.87	U-1, U-2 & TCW
4/9/99 16:30	99.5	8.5	68.2	2,210	144.33	23.06	U-1, U-2 & TCW
4/9/99 17:00	100.0	8.0	74.0	2,300	145.66	23.27	U-1, U-2 & TCW
4/9/99 18:00	101.0	7.0	66.5	1,380	147.81	23.61	U-1, U-2 & TCW
4/9/99 19:00	102.0	7.0	65.0	1,370	149.31	23.85	U-1, U-2 & TCW
4/9/99 20:00	103.0	7.0	64.4	1,330	150.76	24.08	U-1, U-2 & TCW
4/9/99 21:00	104.0	7.0	64.0	1,670	152.36	24.34	U-1, U-2 & TCW
4/9/99 22:00	105.0	7.0	61.0	1,130	153.82	24.57	U-1, U-2 & TCW
4/9/99 23:00	106.0	7.5	64.0	1,120	154.99	24.76	U-1, U-2 & TCW
4/10/99 0:00	107.0	7.0	63.5	1,150	156.19	24.95	U-1, U-2 & TCW
4/10/99 1:00	108.0	7.0	62.5	1,150	157.39	25.14	U-1, U-2 & TCW
4/10/99 2:00	109.0	7.0	63.0	1,130	158.58	25.33	U-1, U-2 & TCW
4/10/99 3:00	110.0	7.0	63.0	1,110	159.76	25.52	U-1, U-2 & TCW
4/10/99 4:00	111.0	7.5	65.0	740	160.74	25.68	U-1, U-2 & TCW
4/10/99 5:00	112.0	7.0	64.0	520	161.41	25.79	U-1, U-2 & TCW
4/10/99 6:00	113.0	6.0	64.5	510	161.96	25.87	U-1, U-2 & TCW
4/10/99 7:00	114.0	7.5	64.0	510	162.51	25.96	U-1, U-2 & TCW
4/10/99 8:00	115.0	17.0	20.5	2,320	163.50	26.12	U-1, U-2
4/10/99 9:00	116.0	17.0	21.2	2,350	164.31	26.25	U-1, U-2
4/10/99 10:00	117.0	17.0	20.6	2,310	165.12	26.38	U-1, U-2
4/10/99 11:00	118.0	17.5	21.4	2,250	165.92	26.50	U-1, U-2
4/10/99 12:00	119.0	17.0	20.2	2,230	166.69	26.63	U-1, U-2
4/10/99 13:00	120.0	19.0	15.0	2,860	167.44	26.75	U-2
			TOTAL MASS OF TPH RECOVERED		167.44	26.75	
			TOTAL WATER RECOVERED (GAL)		13,580		

IN OF HG = inches of mercury
CFM = cubic feet per minute
* = Based on HC density of 6.26 pounds/gallon.
PPMV = parts per million by volume
GAL = gallons

Table 2

WELL DATA

Tosco (Unocal) 76 Service Station 5325

4/5/99 - 4/10/99

Time	Inlet Blower Vacuum (Inches of H20)	Observation Wells: Wellhead Vacuum (Inches of H2O) / DTW (feet)			Hydrocarbon Vapor Concentration (PPMV)			COMMENTS
		TCW	U-2	U-4	TCW	U-1	U-2	
4/5/99 13:00	224.73	*	*	*	*	8140	*	* = Indicates readings not taken
4/5/99 13:10	272.40	*	*	*	*	10460	*	PPMV = Parts per million by volume
4/5/99 13:30	306.45	*	*	*	*	7370	*	DTW = Depth to water
4/5/99 14:00	272.40	*	*	*	*	6630	*	
4/5/99 14:30	292.83	*	*	*	*	6400	*	
4/5/99 14:45	347.31	*	*	*	610		*	
4/5/99 15:00	279.21	*	*	*	*	6800	*	
4/5/99 15:30	279.21	*	0	* / 8.31	*	6130	*	
4/5/99 16:00	292.83	*	0	* / 8.31	*	5720	*	
4/5/99 16:30	299.64	*	0	* / 8.31	*	4580	*	
4/5/99 17:00	299.64	*	0	* / 8.31	*	4420	*	
4/5/99 17:30	299.64	*	0	* / 8.31	*	3790	*	
4/5/99 18:00	292.83	*	0	* / 8.31	*	4230	*	
4/5/99 18:30	279.21	*	*	*	*	4170	*	
4/5/99 19:00	279.21	*	0	* / 8.31	*	3620	*	
4/5/99 19:30	292.83	*	*	*	*	3670	*	
4/5/99 20:00	286.02	*	0	* / 8.31	*	3750	*	
4/5/99 20:30	272.40	*	*	*	*	3700	*	
4/5/99 21:00	272.40	*	0	* / 8.31	*	3540	*	
4/5/99 21:30	272.40	*	*	*	*	3630	*	
4/5/99 22:00	286.02	*	0	* / 8.25	*	3500	*	
4/5/99 22:30	286.02	*	*	*	*	3450	*	
4/5/99 23:00	265.59	*	0	* / 8.23	*	3210	*	
4/5/99 23:30	265.59	*	*	*	*	3220	*	
4/6/99 0:00	279.21	*	0	* / 8.23	*	3170	*	
4/6/99 0:30	265.59	*	*	*	*	3120	*	
4/6/99 1:00	272.40	*	0	* / 8.23	*	3180	*	
4/6/99 1:30	265.59	*	*	*	*	3090	*	
4/6/99 2:00	279.21	*	0	* / 8.23	*	3010	*	
4/6/99 2:30	286.02	*	*	*	*	3030	*	
4/6/99 3:00	286.02	*	0	* / 8.23	*	2990	*	
4/6/99 3:30	286.02	*	*	*	*	3020	*	
4/6/99 4:00	279.21	*	0	* / 8.23	*	2970	*	
4/6/99 4:30	286.02	*	*	*	*	3050	*	
4/6/99 5:00	286.02	*	0	* / 8.25	*	2990	*	

Table 2

WELL DATA

Tosco (Unocal) 76 Service Station 5325

4/5/99 - 4/10/99

Time	Inlet Blower Vacuum (Inches of H20)	Observation Wells: Wellhead Vacuum (Inches of H2O) / DTW (feet)			Hydrocarbon Vapor Concentration (PPMV)			COMMENTS
		TCW	U-2	U-4	TCW	U-1	U-2	
4/6/99 5:30	286.02	*	*	*	*	2990	*	
4/6/99 6:00	286.02	*	*	*	*	2970	*	
4/6/99 6:30	286.02	*	0	* / 8.26	*	2970	*	
4/6/99 7:00	279.21	*	*	*	*	2910	*	
4/6/99 7:30	292.83	*	0	* / 8.28	*	2880	*	
4/6/99 8:00	279.21	*	*	*	*	2890	*	
4/6/99 8:30	299.64	*	*	*	*	2800	*	
4/6/99 9:00	272.40	0	*	*	*	2680	*	
4/6/99 9:30	272.40	0.02	*	*	*	2720	*	
4/6/99 10:00	272.40	0.02	*	*	*	2670	*	
4/6/99 10:30	292.83	0.03	*	*	*	2640	*	
4/6/99 11:00	279.21	0.025	*	*	*	2630	*	
4/6/99 11:30	279.21	0	*	*	*	2510	*	
4/6/99 12:00	286.02	0.02	*	*	*	2470	*	
4/6/99 12:30	279.21	0.015	*	*	*	2460	*	
4/6/99 13:00	272.40	0.015	*	*	*	2480	*	
4/6/99 13:30	286.02	0.025	*	*	*	2390	*	
4/6/99 14:00	286.02	0.005	*	*	*	2370	*	
4/6/99 14:30	286.02	*	*	*	*	2340	*	
4/6/99 15:00	272.40	0.03	*	*	*	2280	*	
4/6/99 15:30	265.59	*	*	*	*	2320	*	
4/6/99 16:00	265.59	0.03	*	*	*	2310	*	
4/6/99 16:30	258.78	*	*	*	*	2270	*	
4/6/99 17:00	272.40	0.035	*	*	*	2220	*	
4/6/99 17:30	279.21	*	*	*	*	2180	*	
4/6/99 18:00	299.64	0.035	*	*	*	2130	*	
4/6/99 18:30	265.59	*	*	*	*	2180	*	
4/6/99 19:00	292.83	0.035	*	*	*	2210	*	
4/6/99 19:30	251.97	*	*	*	*	2140	*	
4/6/99 20:00	272.40	0.035	*	*	*	2150	*	
4/6/99 20:30	265.59	*	*	*	*	2200	*	
4/6/99 21:00	306.45	0.035	*	*	*	2030	*	
4/6/99 21:30	286.02	*	*	*	*	2120	*	
4/6/99 22:00	299.64	0.035	*	*	*	2100	*	
4/6/99 22:30	279.21	*	*	*	*	2090	*	
4/6/99 23:00	292.83	0.035	*	*	*	2000	*	
4/6/99 23:30	272.40	*	*	*	*	2010	*	
4/7/99 0:00	279.21	0.025	*	*	*	1990	*	
4/7/99 0:30	279.21	*	*	*	*	1990	*	
4/7/99 1:00	286.02	0.025	*	*	*	2000	*	
4/7/99 1:30	272.40	*	*	*	*	1950	*	

Table 2

WELL DATA

Tosco (Unocal) 76 Service Station 5325

4/5/99 - 4/10/99

Time	Inlet Blower Vacuum (Inches of H20)	Observation Wells: Wellhead Vacuum (Inches of H2O) / DTW (feet)			Hydrocarbon Vapor Concentration (PPMV)			COMMENTS
		TCW	U-2	U-4	TCW	U-1	U-2	
4/7/99 2:00	258.78	0.015	*	*	*	1960	*	
4/7/99 2:30	204.30	*	*	*	*	*	4780	
4/7/99 3:00	204.30	*	*	*	*	*	4890	
4/7/99 3:30	204.30	*	*	*	*	*	4850	
4/7/99 4:00	204.30	*	*	*	*	*	4940	
4/7/99 4:30	204.30	*	*	*	*	*	4970	
4/7/99 5:00	204.30	*	*	*	*	*	4650	
4/7/99 5:30	204.30	*	*	*	*	*	2000	
4/7/99 6:00	204.30	*	*	*	*	*	2210	
4/7/99 6:30	204.30	*	*	*	*	*	4250	
4/7/99 7:00	231.54	*	*	*	*	*	3040	
4/7/99 7:30	204.30	*	*	*	*	*	4960	
4/7/99 8:00	265.59	*	*	*	*	1720	5820	
4/7/99 8:30	251.97	*	*	*	*	4070	5830	
4/7/99 9:00	258.78	*	*	*	*	1770	5890	
4/7/99 9:30	265.59	*	*	*	*	3820	6680	
4/7/99 10:00	272.40	*	*	*	*	1170	6680	
4/7/99 10:30	265.59	*	*	*	*	3080	6610	
4/7/99 11:00	258.78	*	*	*	*	4320	6730	
4/7/99 12:00	265.59	*	*	*	*	2020	6530	
4/7/99 13:00	265.59	*	*	*	*	4140	6770	
4/7/99 14:00	265.59	*	*	*	*	2070	6840	
4/7/99 15:00	265.59	*	*	*	*	1110	7020	
4/7/99 16:00	251.97	*	*	*	*	1210	6140	
4/7/99 17:00	245.16	*	*	*	*	1590	4760	
4/7/99 18:00	245.16	*	*	*	*	1150	5330	
4/7/99 19:00	245.16	*	*	*	*	1580	5880	
4/7/99 20:00	245.16	*	*	*	*	1370	5600	
4/7/99 21:00	245.16	*	*	*	*	1730	5850	
4/7/99 22:00	272.40	*	*	*	*	1380	5590	
4/7/99 23:00	245.16	*	*	*	*	1640	5840	
4/8/99 0:00	245.16	*	*	*	*	1590	5700	
4/8/99 1:00	231.54	*	*	*	*	1700	5350	
4/8/99 2:00	245.16	*	*	*	*	1710	5400	
4/8/99 3:00	245.16	*	*	*	*	1450	6230	
4/8/99 4:00	245.16	*	*	*	*	1540	6030	
4/8/99 5:00	245.16	*	*	*	*	1410	7140	
4/8/99 6:00	245.16	*	*	*	*	1510	5780	
4/8/99 7:00	245.16	*	*	*	*	1180	6540	
4/8/99 8:00	286.02	*	*	*	*	1780	6720	
4/8/99 9:00	258.78	*	*	*	*	1350	6930	

Table 2

WELL DATA

Tosco (Unocal) 76 Service Station 5325

4/5/99 - 4/10/99

Time	Inlet Blower Vacuum (Inches of H20)	Observation Wells: Wellhead Vacuum (Inches of H2O) / DTW (feet)			Hydrocarbon Vapor Concentration (PPMV)			COMMENTS
		TCW	U-2	U-4	TCW	U-1	U-2	
4/8/99 10:00	258.78	*	*	*	*	1820	6500	
4/8/99 11:00	258.78	*	*	*	*	1450	6280	
4/8/99 12:00	258.78	*	*	*	*	1080	4790	
4/8/99 13:00	245.16	*	*	*	*	1060	4600	
4/8/99 14:00	272.40	*	*	*	*	1250	4780	
4/8/99 15:00	258.78	*	*	*	*	1160	5060	
4/8/99 16:00	251.97	*	*	*	*	1160	4980	
4/8/99 17:00	238.35	*	*	*	*	1170	5080	
4/8/99 18:00	251.97	*	*	*	*	1250	5240	
4/8/99 19:00	251.97	*	*	*	*	890	5420	
4/8/99 20:00	251.97	*	*	*	*	1110	3450	
4/8/99 21:00	258.78	*	*	*	*	960	3970	
4/8/99 22:00	245.16	*	*	*	*	680	2210	
4/8/99 23:00	245.16	*	*	*	*	920	5030	
4/9/99 0:00	238.35	*	*	*	*	1310	4360	
4/9/99 1:00	251.97	*	*	*	*	810	4740	
4/9/99 2:00	245.16	*	*	*	*	1000	4840	
4/9/99 3:00	238.35	*	*	*	*	930	4720	
4/9/99 4:00	245.16	*	*	*	*	1350	3230	
4/9/99 5:00	238.35	*	*	*	*	1270	4660	
4/9/99 6:00	245.16	*	*	*	*	1340	5090	
4/9/99 7:00	245.16	*	*	*	*	1470	4860	
4/9/99 8:00	245.16	*	*	*	*	1830	5550	
4/9/99 9:00	251.97	*	*	*	*	1110	5720	
4/9/99 10:00	245.16	*	*	*	*	1370	5650	
4/9/99 11:00	265.59	*	*	*	*	1250	5300	
4/9/99 12:00	272.40	*	*	*	*	1100	4340	
4/9/99 13:00	245.16	*	*	*	*	1210	5030	
4/9/99 14:00	258.78	*	*	*	*	1170	4450	
4/9/99 15:00	258.78	*	*	*	*	1260	4840	
4/9/99 16:00	265.59	*	*	*	1310	1190	4620	
4/9/99 16:30	115.77	*	*	*	1340	1910	5000	
4/9/99 17:00	108.96	*	*	*	1370	1220	5260	
4/9/99 18:00	95.34	*	*	*	1020	1420	4020	
4/9/99 19:00	95.34	*	*	*	790	810	4600	
4/9/99 20:00	95.34	*	*	*	630	1060	4320	
4/9/99 21:00	95.34	*	*	*	620	980	4220	
4/9/99 22:00	95.34	*	*	*	620	890	4400	
4/9/99 23:00	102.15	*	*	*	500	1120	4460	
4/10/99 0:00	95.34	*	*	*	380	1020	4520	
4/10/99 1:00	95.34	*	*	*	390	890	4410	

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Table 2

WELL DATA

Tosco (Unocal) 76 Service Station 5325

4/5/99 - 4/10/99

Time	Inlet Blower Vacuum (Inches of H20)	Observation Wells: Wellhead Vacuum (Inches of H2O) / DTW (feet)			Hydrocarbon Vapor Concentration (PPMV)			COMMENTS
		TCW	U-2	U-4	TCW	U-1	U-2	
4/10/99 2:00	95.34	*	*	*	380	1130	4460	
4/10/99 3:00	95.34	*	*	*	420	1080	3140	
4/10/99 4:00	102.15	*	*	*	360	640	2940	
4/10/99 5:00	95.34	*	*	*	190	710	2870	
4/10/99 6:00	81.72	*	*	*	150	620	2710	
4/10/99 7:00	102.15	*	*	*	110	560	2600	
4/10/99 8:00	231.54	*	*	*	*	770	2530	
4/10/99 9:00	231.54	*	*	*	*	750	2680	
4/10/99 10:00	231.54	*	*	*	*	720	2730	
4/10/99 11:00	238.35	*	*	*	*	690	2650	
4/10/99 12:00	231.54	*	*	*	*	710	2600	
4/10/99 13:00	258.78	*	*	*	*	*	2860	

Influent TPH Concentrations and Total Vapor-Phase Hydrocarbons Recovered Versus Time

Tosco (Unocal) 76 Service Station 5325 4/5/99 - 4/10/99

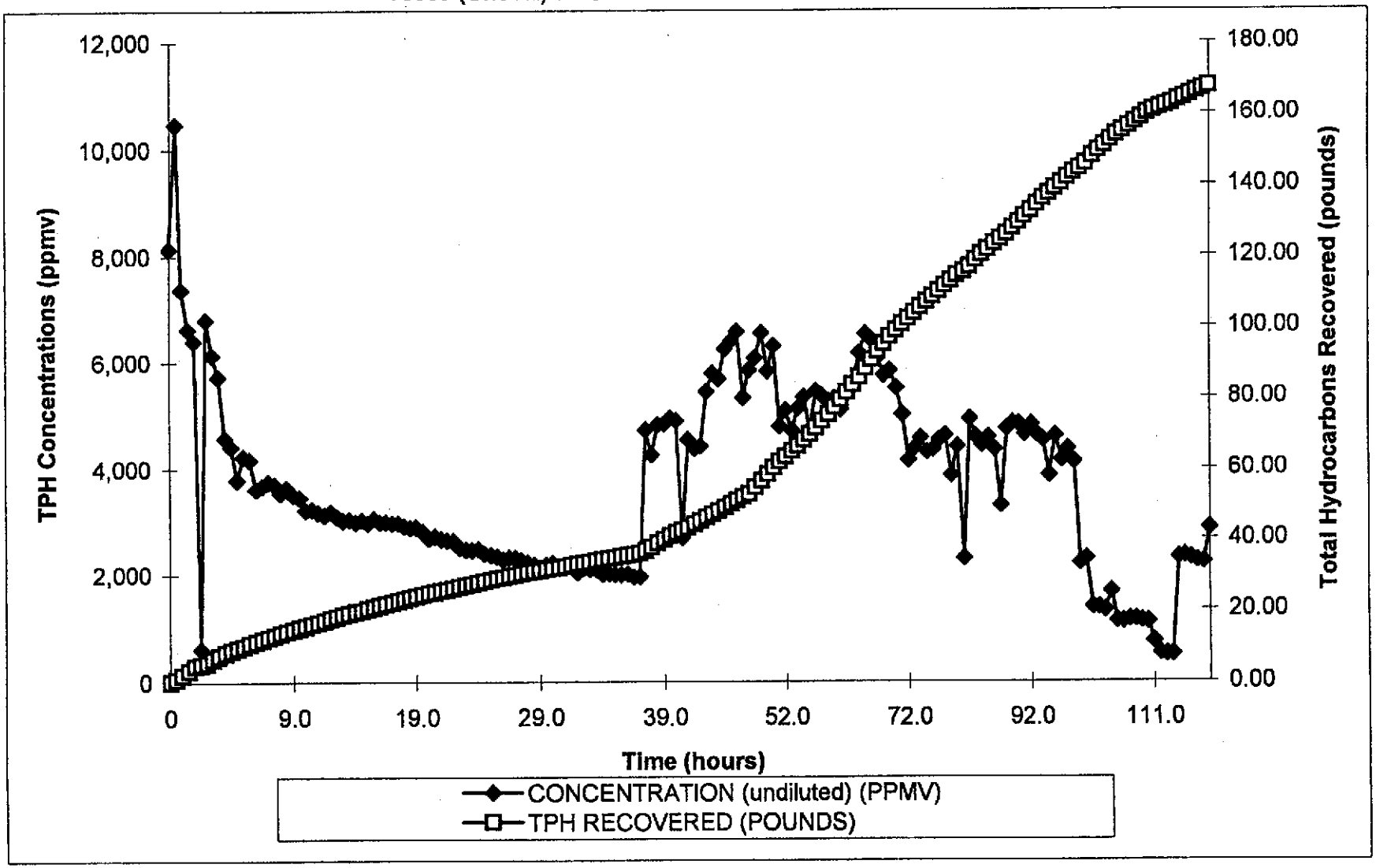

CHART 1

Benzene and MTBE Vapor Concentrations Versus Time for U-1

Tosco (Unocal) 76 Service Station 5325

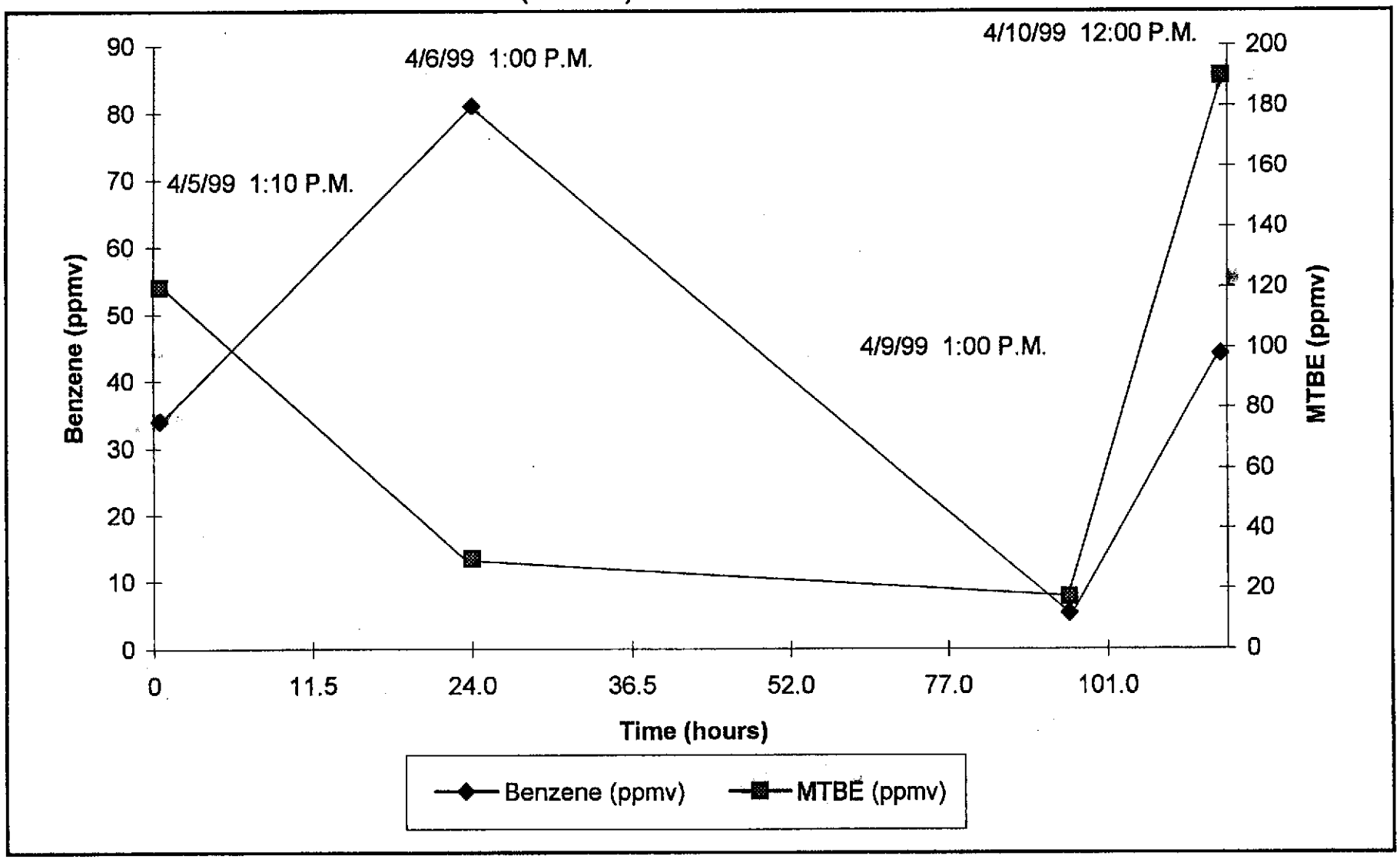

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CHART 2

Benzene and MTBE Vapor Concentrations Versus Time for U-2

Tosco (Unocal) 76 Service Station 5325

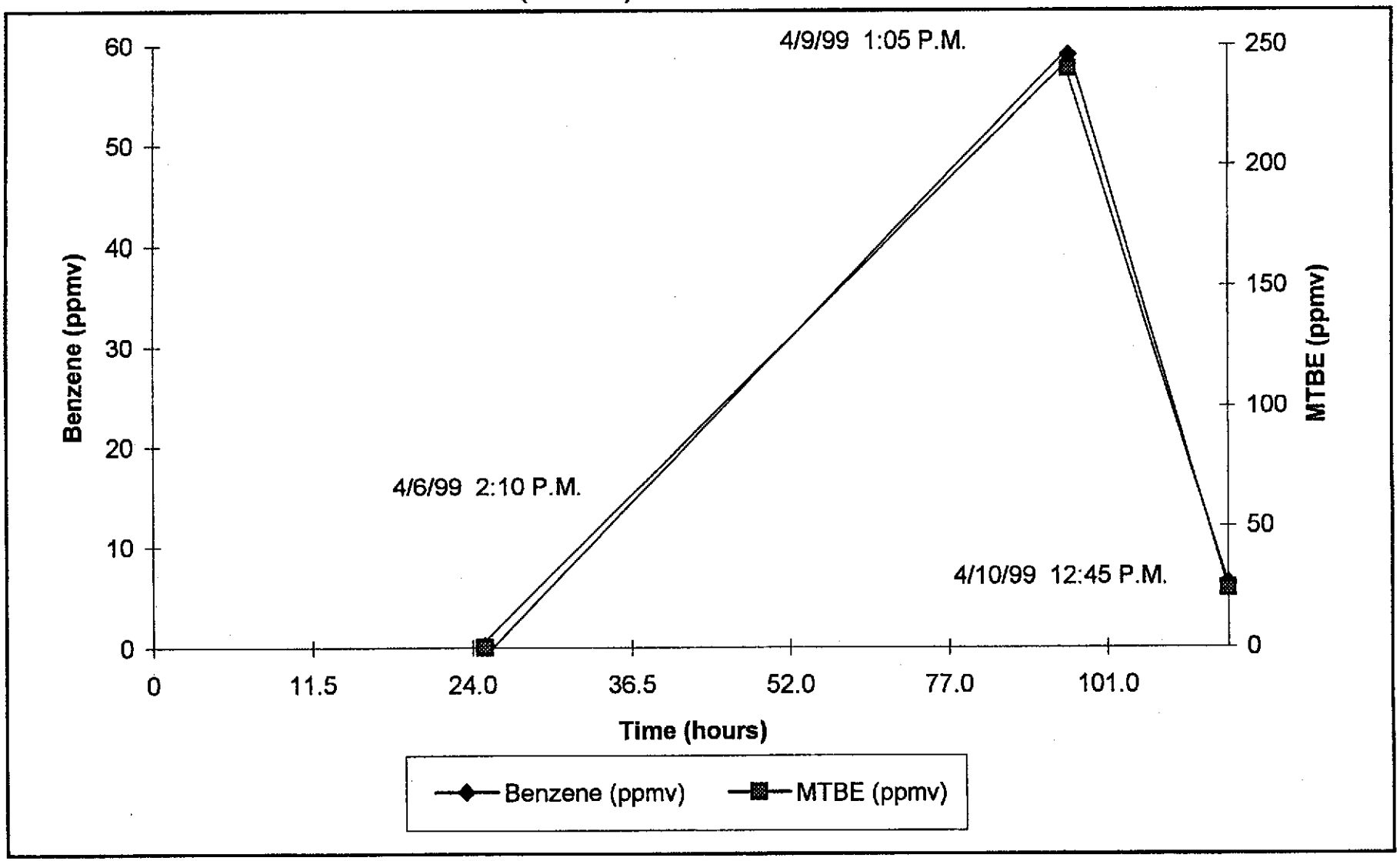

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CHART 3

Dual-Phase Vacuum Extraction Field Sheet

Project No.: 41-203-01
Task No.: 101
Technician: D.Y. K.D.

Client: Tosco (Unocal)
Site: 5325
Date: 4-5-95

	Cumulative Wells and System Operation								Extraction Well # 1				Extraction Well # 2				Extraction Well # 3				Extraction Well # 4			
Well ID									V-1				V-2				TCW							
DTW (ft)									8.57				6.9				5.86							
Depth to FP (ft)									H/T				N/T				H/T							
Screen Int. (ft)																	TOTAL DEPTH							
Casing Diam. (in)																	15.10							
DO (mg/L)																								
Time	Total Well Flow Rate (cfm)	Total Well Inf. Conc. (ppmv)	Total Well Vacuum (in. of Hg)	System Flowrate (cfm)	System Inf. Conc. (ppm)	System Temp (deg. F)	System Eff. Conc. (ppmv)	Extraction wells open	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)
1:00	25.7	8140	16.5					#1				6'												
1:10	25.3	10460	20			1310																		
1:30	23.2	7570	22.5																					
2:00	22.8	6630	20																					
2:30	22.7	6900	21.5																					
2:45	-							#3									22.3	610	25.5	8'				
3:00	22.0	6800	20.5					#1												6'				
3:30	20.4	6130	20.5																					
4:00	19.7	5720	21.5				0																	
4:30	18.3	4580	22																					
5:00	17.5	4420	22																					
5:30	17.7	3790	22																					
6:00	17.9	4230	21.5																					
6:30	18.3	4170	20.5																					
7:00	18.1	3620	20.5																					
7:30	19.3	3670	21.5																					
8:00	18.9	3750	21.0																					
8:30	18.6	3700	20.0																					
9:00	17.9	3540	20.0																					
9:30	19.5	3630	20.0																					
10:00	17.8	3500	21.0																					
10:30	16.0	3450	21.0																					
11:00	19.5	3210	19.5																					
11:30	19.0	3220	19.5																					
12:00	18.3	3170	20.5																					

Notes: MULTIPLE BEGINNING 37180 ENDING

Oakmts.xls
Entered Data
GM

2.1

Dual-Phase Vacuum Extraction Field Sheet

Project No.: 41-203-01
Task No.: 101
Technician: K.D DY

Client: Tosco (UNOCAL)
Site: 5325
Date: 4-6-99

	Cumulative Wells and System Operation								Extraction Well # 1				Extraction Well # 2				Extraction Well # 3				Extraction Well # 4			
Well ID									U-1				U-2											
DTW (ft)									8.57				6.9											
Depth to FP (ft)									N/T				N/T											
Screen Int. (ft)																								
Casing Diam. (in)																								
DO (mg/L)																								
Time	Total Well Flow Rate (cfm)	Total Well Inf. Conc (ppmv)	Total Well Vacuum (in. of Hg)	System Flowrate (cfm)	System Inf. Conc (ppm)	System Temp (deg. F)	System Eff. Conc. (ppmv)	Extraction wells open	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)
12:30	20.5	3120	19.5					#1																
1:00	19.5	3180	20.0																					
1:30	20.5	3090	19.5																					
2:00	18.3	3010	20.5																					
2:30	17.9	3030	21.0																					
3:00	15.0	2990	21.0																					
3:30	17.0	3020	21.0																					
4:00	19.3	2970	20.5																					
4:30	16.0	3050	21.0																					
5:00	17.3	2990	21.0																					
5:30	16.7	2990	21.0																					
6:00	18.7	2770	21.0																					
6:30	18.2	2970	21																					
7:00	19.2	2910	20.5																					
7:30	18.0	2880	21.5																					
8:00	18.3	2890	20.5																					
8:30	17.1	2800	22																					
9:00	15.7	2680	20																					
9:30	15.9	2720	20																					
10:00	16.8	2670	20																					
10:30	17.6	2640	21.5																					
11:00	18.3	2630	20.5																					
11:30	19.4	2510	20.5																					
12:00	18.7	2470	21																					
12:30	19.9	2460	20.5																					

Notes:

enclosed data-Gm
oakmts.xls

Dual-Phase Vacuum Extraction Field Sheet

Project No.: 41-203-01
Task No.: 101
Technician: D.Y. K.D.

Client: Tosco (UNOCAL)
Site: 5325
Date: 4-6,7-99

	Cumulative Wells and System Operation								Extraction Well # 1				Extraction Well # 2				Extraction Well # 3				Extraction Well # 4			
Well ID									U-1				U-2											
DTW (ft)																								
Depth to FP (ft)																								
Screen Int (ft)																								
Casing Diam (in)																								
DO (mg/L)																								
Time ( )	Total Well Flow Rate (cfm)	Total Well Inf Conc. (ppmv)	Total Well Vacuum (in. of Hg)	System Flowrate (cfm)	System Inf Conc (ppm)	System Temp (deg. F)	System Eff. Conc. (ppmv)	Extraction wells open	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)
1:00	18.0	2180	20					#1																
1:30	18.2	2310	21																					
2:00	18.2	2370	21																					
2:30	18.9	2340	#1																					
3:00	17.4	2280	20																					
3:30	18.6	2320	19.5																					
4:00	18.2	2310	19.5																					
4:30	19.0	2270	19																					
5:00	16.4	2220	20																					
5:30	16.1	2180	20.5																					
6:00	17.3	2130	22.0																					
6:30	16.8	2180	19.5																					
7:00	15.0	2310	21.5																					
7:30	16.4	2140	18.5																					
8:00	16.0	2150	20.0																					
8:30	21.1	2200	19.5																					
9:00	17.0	2030	22.5																					
9:30	17.0	2120	21.0																					
10:00	21.0	2100	22.0																					
10:30	20.0	2090	20.5																					
11:00	15.9	2000	21.5																					
11:30	17.0	2010	20.0																					
12:00	19.5	1990	20.5																					
12:30	17.0	1990	20.5																					
1:00	17.0	2000	21.0																					

Notes:

entered AM

Dual-Phase Vacuum Extraction Field Sheet

Project No.: 41-203-01
Task No.: 101
Technician: KD + GM

Client: Tosco (Unocal)
Site: 5325
Date: 4-7-99

	Cumulative Wells and System Operation								Extraction Well # 1				Extraction Well # 2				Extraction Well # 3				Extraction Well # 4			
Well ID	41 & 42																							
DTW (ft)									41				42											
Depth to FP (ft)																								
Screen Int. (ft)																								
Casing Diam. (in)																								
DO (mg/L)																								
Time	Total Well Flow Rate (cfm)	Total Well Inf. Conc. (ppmv)	Total Well Vacuum (in. of Hg)	H2O System Flowrate (gal)	System Inf. Conc (ppm)	System Temp (deg. F)	System Eff. Conc. (ppmv)	Extraction wells open	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)
1:30	20.5	1450	20.-																					
2:00	19.5	19600	19.-																					
2:30	26.5	4720	15.-					#2					22.3	4780	16.5	7.30								
3:00	28.10	4250	15.-										22.0	4890	15.-									
3:30	25.0	4820	15.-										27.0	4850	16.-									
4:00	26.0	4840	15.-										26.0	4940	15.-									
4:30	20.5	4940	15.-										21.5	4970	15.-									
5:00	21.0	4880	15.-										20.5	4650	16.-									
5:30	26.0	2690	15.-										21.0	2000	15.-									
6:00	25.4	4540	15.-										21.0	2260	15.-									
6:30	20.26	4370	15.-										20.6	4250	15.-									
7:00	25.6	4420	17.-										20.9	3040	16.-		* Seal U-2 casing							
7:30	21.9	5440	15.-	38700				#1					20.1	4960	13.-									
8:00	19.9	5780	19.5	38720				#1 & #2	18.8	1720	20.5		21.6	5820	13.5		* U1 & U2 (opened U1)							
8:30	18.5	5680	18.5	38750					16.8	4070	21.5		14.6	5830	17.5									
9:00	19.4	6240	19.0	38750					15.1	1770	20.5		15.8	5890	18.0									
9:30	19.6	6380	19.5	38770					20.4	3820	21.0		18.8	6680	18.5									
10:00	18.4	6570	20	38770					15.9	1170	21.5		16.3	6680	18.0									
10:30	20.2	5320	19.5	38820					20.9	3080	18.5		14.1	6610	18.5									
11:00	18.9	5840	19.0	38830					15.9	4320	23.0		13.8	6730	18.0									
12:00	17.1	6070	19.5	38870					15.9	2020	20.0		13.7	6530	18.0									
1:00	18.6	6540	19.5	38900					16.1	4140	22.0		13.9	6770	18.5									
2:00	18.2	5820	19.5	38900					14.5	2070	17.5		13.4	6840	19.0									
3:00	18.3	6300	19.5	38930					20.1	1110	22.5		14.6	7020	18.0									
4:00	18.7	4290	19.5	38960					16.8	1140	20.5		14.0	6140	17.5									

Notes:

totals entered GM

p.4

Dual-Phase Vacuum Extraction Field Sheet

Project No.: 41-0103-01
Task No.: 101
Technician: GM & CS

Client: Tosco
Site: 5325
Date: 4/7/99 4-8-99

	Cumulative Wells and System Operation								Extraction Well # 1				Extraction Well # 2				Extraction Well # 3				Extraction Well # 4			
Well ID																								
DTW (ft)	U1 & U2								U1				U2											
Depth to FP (ft)																								
Screen Int (ft)																								
String Diam (in)																								
DO (mg/L)																								
Time	Total Well Flow Rate (cfm)	Total Well Inf. Conc. (ppmv)	Total Well Vacuum (in. of Hg)	1120 System Flowrate (cfm)	System Inf. Conc (ppm)	System Temp (deg. F)	System Eff. Conc. (ppmv)	Extraction wells open	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)
500	19.2	5080	18.0	39980				1&2	20.2	1590	20.0	6.10	17.6	4760	19.5	7.3'								
600	17.2	4710	18.0						17.8	1150	21.0		14.4	5330	19.5									
700	20.0	5120	18.0						19.0	1580	19.0		15.5	5890	19.0									
800	17.0	5330	18.0						14.0	1370	20.0		15.0	5600	21.0									
900	23.0	4710	18.0						11.0	1730	21.0		14.5	5850	20.0									
1000	19.0	5440	20.0						12.0	1380	19.0		15.0	5590	18.0									
1100	22.7	5350	18.0						10.5	1640	22.0		15.5	5840	19.0									
1200	20.8	5260	18.0						17.0	1590	18.0		14.0	5700	19.0									
100	24.0	5300	17.0						15.5	1700	20.0		14.0	5330	21.0									
200	25.0	5100	18.0						16.0	1710	19.0		14.0	5400	20.0									
300	23.0	5380	18.0	39947					15.0	1450	20.0		14.3	6230	19.5									
400	23.0	5510	18.0						15.0	1540	19.0		14.5	6030	18.5									
500	~~22.0~~	6160	~~23.0~~						14.0	1410	20.0		16.0	7140	19.0									
600	23.5	6520	18.0						15.0	1510	19.0		15.7	5780	18.0									
700	23.0	6410	18.0						15.0	1180	21.0		15.0	6540	17.0									
800	22.0	6080	21.0						12.0	1280	23.0	-	14.0	6720	18.0									
900	22.0	5740	19.0	39560					12.0	1350	19.0	7.3'	14.4	6930	18.0									
1000	20.5	5830	19.-	39520					12.5	1820	21.-		15.5	6500	18.0									
1100	19.5	5500	19.-	39560					11.0	1450	21.-		14.1	6260	17.0									
1200	20.5	5010	19.-	39620					13.4	1080	21.-		15.4	4790	17.5									
100	20.5	4150	18.0	39660					11.8	1060	23.-		15.1	4980	18.0									
200	21.-	4370	20.-	39670					11.3	1250	18.-		14.1	4780	19.-									
300	21.5	4570	19.-	39670					13.5	1160	20.-		14.5	5060	17.5									
400	22.0	4300	18.5	39780	39730				14.3	1160	19.-		15.0	4980	19.-									
500	19.5	4350	17.-	39760					13.-	1170	20.-		14.5	5080	19.-									

Notes:

Totals Entered

P.5

Dual-Phase Vacuum Extraction Field Sheet

Project No.: 41-0203-01
Task No.: 101
Technician: SDY

Client: Tosco
Site: 5325
Date: 4-8,9-99

	Cumulative Wells and System Operation								Extraction Well # 1				Extraction Well # 2				Extraction Well # 3				Extraction Well # 4			
Well ID									V-1				V-2				TCW Sub w/ Stinger							
DTW (ft)																								
Depth to FP (ft)																								
Screen Int (ft)																								
Casing Diam. (in)																								
DO (mg/L)																								
Time	Total Well Flow Rate (cfm)	Total Well Inf. Conc. (ppmv)	Total Well Vacuum (in. of Hg)	System Flowrate (cfm)	System Inf. Conc. (ppmv)	System Temp. (deg. F)	System Eff. Conc. (ppmv)	Extraction wells open	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)
6:00	20.3	4530	18.5	47~~00~~ 8000				17	13.4	1250	19		15.3	5240	18.5									
7:00	19.7	4620	18.5						13.8	890	20		13.8	5470	18									
8:00	20.4	3860	18.5						14.3	1110	20		13.3	5450	18									
9:00	20.5	4410	19						13.7	960	19.5		14.8	5170	18									
10:00	21.3	2300	18						15.4	680	20.5		14.9	2240	18.5									
11:00	22.6	4920	18						15.2	920	19		15.2	5030	18									
12:00	21.9	4530	17.5						15.5	1310	18		14.0	4360	18									
1:00	20.5	4440	18.5						15.0	810	18		13.4	4740	18									
2:00	20.0	4580	18						14.9	1000	18		13.5	4840	18									
3:00	20.9	4350	17.5						14.7	930	18		13.5	4720	18									
4:00	20.5	3290	18						12.9	1350	18.5		14.9	3230	18									
5:00	21.8	4740	17.5						13.7	270	19		14.6	4660	18									
6:00	20.0	4850	18						14.5	1340	18.5		13.4	5010	18.5									
7:00	21.1	4830	18	8000					14.7	1470	18		14.4	4860	18									
8:00	20.2	4640	18	8400					13.9	1330	18.5		14.1	5550	17.5									
9:00	22.5	4820	18.5	8800					13.2	1110	20		13.9	5720	18									
10:00	21.5	4630	18.0	9300					14.2	1370	19.5		15.5	5460	18.5							40360	FM	MTS
11:00	20.3	4530	19.5	9800					14.8	1250	18.0		13.9	5300	18.5									
12:00	21.8	5860	20.0	10400					12.9	1100	19.5		13.8	4340	18.0							40400		
1:00	19.2	4610	18.0	11000					13.8	1210	20.5		13.7	5030	18.0			* Sub not flowing				~~40500~~ 40450		
2:00	21.4	4150	19.0	11600					13.5	1170	17.5		14.8	4450	18.5							40460		
3:00	20.2	4360	19.0	12000					13.8	1260	20.5		13.6	4840	19.0							40480		
4:00	68.0	4126	19.5	—				123	12.9	1190	19.5	8.3	13.9	4620	18.5	9.0	61.0	1310	9.5					
4:30	68.2	2220	6.5	13000					16.5	1910	18.0		15.8	5000	18.5		60.4	1340	9.0		40530	TCW on line		
5:00	74.0	2300	8.0	13200					12.8	1220	19.5		16.3	5260	19.0		68.5	1370	9.0		40550			

Notes: 6:00 SUBMERSIBLE PULLING H2O FROM TCW

entered

Dual-Phase Vacuum Extraction Field Sheet

Project No.: 41-0203-01
Task No.: 101
Technician: KD

Client: Tosco
Site: 5325
Date: 4-9-99, 4-10-

	Cumulative Wells and System Operation								Extraction Well # 1				Extraction Well # 2				Extraction Well # 3				Extraction Well # 4			
Well ID																								
DTW (ft)																								
Depth to FP (ft)																								
Screen Int. (ft)									4-1				4-2				TCW							
Casing Diam. (in)																	-Sub w/ stinger							
DO (mg/L)																								
Time	Total Well Flow Rate (cfm)	Total Well Inf. Conc. (ppmv)	Total Well Vacuum (in. of Hg)	System Flowrate (cfm)	System Inf. Conc. (ppm)	System Temp (deg. F)	System Eff. Conc. (ppmv)	Extraction wells open	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)
6:00	66.5	1380	7.-	13230				1,2,3	15.2	1420	22.-		14.8	4020	19.-		60.-	1020	10.-					
7:00	65.0	1370	7.-	13290	1320				17.0	810	21.-		15.3	4600	19.-		57.5	790	9.-					
8:00	64.5	1330	7.-	13320					14.5	1060	22.-		17.3	4320	21.-		58.5	650	9.5					
9:00	64.0	1670	7.-	13370					17.5	980	21.-		4.5	4720	19.-		59.5	620	9.5					
10:00	64.0	1130	7.-	13430					12.5	890	21.-		14.1	4980	19.-		59.5	620	9.5					
11:00	64.0	1120	7.5	13470					14.0	1120	22.-		15.8	4460	19.-		62.-	500	9.5					
12:00	63.5	1150	7.-	13490					15.0	1020	22.5		16.4	4520	18.-		56.-	380	9.5					
1:00	62.5	1150	7.-	13520					13.5	830	22.5		14.2	4410	19.-		64.-	390	9.5					
2:00	66.0	1130	7.-	13530					13.-	1130	23.-		15.4	4460	19.5		61.-	380	9.5					
3:00	63.0	1110	7.-	13550					13.5	1080	21.-		15.0	3440	17.-		63.-	420	8.5					
4:00	65.0	740	7.5						12.8	640	23.-		15.2	2940	20.-		61.-	360	9.-					
5:00	64.0	520	7.-	13570					13.5	710	22.5		14.5	2430	20.-		57.-	140	9.5					
6:00	64.5	510	6.-	13580					13.5	620	23.-		15.5	2710	18.5		58.-	150	9.5					
7:00	69.0	510	7.5						13.2	520	22		15.5	2600	18.5		58.5	110	9					
8:00	20.5	2320	17					1,2	13.7	770	21		14.7	2530	18.5									
9:00	21.2	2350	17						13.2	750	21		16.1	2680	18.5									
10:00	20.6	2310	17						13.4	720	20.5		14.7	2730	18.5									
11:00	21.4	2250	17.5						13.7	690	20.5		15.6	2650	19.5									
12:00	20.2	2230	17						13.8	710	20.5		15.2	2600	19									
1:00	15.0	2360	19					#2					15.0	2860	19									

Notes: 7:00A SECURED TCW EXTRACTING FROM V-1,2 only.

Form #162 - Effective Date: 2-13-92

V OR EXTRACTION TEST

Project No. 41-203-01
Task No. 101
Start Time.

Site: 5325
Date: 4-5,6,7-99
Stop Time.

	Extraction Well	Observation Wells				
Well I.D.	V-1	V-2	V-4	TCW		
Distance (feet)			DTW			
Casing Dia. (inches)						
Screen Interval (ft)						

Time (min)	Flow Rate (cfm)	HC Conc. (ppm)	Vacuum (inch H20)				
0:00 3:30		6 FT	~~0~~	8.31			
0:05 4:00			~~0~~	8.31			
0:10 4:30			~~0~~	8.31			
0:15 5:00			~~0~~	8.31			
0:20 5:30			~~0~~	8.31			
0:25 6:00			~~0~~	8.31			
0:30 7:00			~~0~~	8.31			
0:35 8:00			~~0~~	8.31			
0:40 9:00			~~0~~	8.31			
0:45 10:00			~~0~~	8.25			
0:50 11:00			~~0~~	8.23			
0:55 12:00			~~0~~	8.23			
1:00 1:00			~~0~~	8.23			
1:10 2:00			~~0~~	8.23			
1:20 3:00			~~0~~	8.23			
1:30 4:00			~~0~~	8.23			
1:40 5:00			~~0~~	8.25			
1:50 6:00			~~0~~	8.26			
2:00 7:30			~~0~~	8.28			
2:30			—	—			
3:00 ~~9:00~~			—	—	~~0~~		
3:30 9:00			—	—	.02		
4:00 9:30			—	—	.02		
4:30 10:00			—	—	.03		
5:00 10:30			—	—	.025		
6:00 11:00			—	—	~~0~~		
7:00 11:30			—	—	.02		
8:00 12:00			—	—	.015		
9:00 12:30			—	—	.015		
10:00 1:00			—	—	.025		
12:00 1:30			—	—	.005		
14:00 2:00			—	—	.03		
16:00 3:00			—	—	.03		
18:00 4:00			—	—	.035		
20:00 5:00			—	—	.035		
25:00 6:00			—	—	.035		
30:00 7:00			—	—	.035		
40:00 8:00			—	—	.035		
50:00 9:00			—	—	.035		
60:00 10:00			—	—	.025		
70:00 11:00			—	—	.025		
80:00 12:00			—	—	.015		
90:00 1:00							
100:00 2:00							

Sequoia Analytical

1 Chesapeake Drive, Redwood City, C 63, (650) 364-9600, FAX (650) 364-9233
[illegible]4 N. Wiget Lane, Walnut Creek, CA [illegible]98, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342
1551 Industrial Road, San Carlos, CA 94070-4111, (650) 232-9600, FAX (650) 232-9612

Alton Geoscience	Client Project ID:	Tosco 5325	Sampled: Apr 5, 1999
30-A Lindbergh Ave.	Sample Matrix:	Water	Received: Apr 6, 1999
Livermore, CA 94550	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: Apr 29, 1999
Attention: Tom Seeliger	First Sample #:	904-0473	

QC Batch Number:

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX / MTBE

Analyte	Reporting Limit µg/L	Sample I.D. 904-0473 U-1	Sample I.D. 904-0474 U-2	Sample I.D. 904-0475 TCW
Purgeable Hydrocarbons	50	91,000	28,000	N.D.
Benzene	0.50	310	1,300	850
Toluene	0.50	970	N.D.	750
Ethyl Benzene	0.50	1,500	690	710
Total Xylenes	0.50	2,300	2,700	3,200
MTBE	2.5	7,600	37,000	12,000
Chromatogram Pattern:		Gasoline	Gasoline	Gasoline

Quality Control Data

Report Limit Multiplication Factor:	400	100	100
Date Analyzed:	4/12/99	4/12/99	4/12/99
Instrument Identification:	HP-2	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	103	107	101

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager

9040473.ALT <1>

Sequoia Analytical

) Chesapeake Drive, Redwood City, C 63, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA .98, (925) 988-9600, FAX (925) 988-9673
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1551 Industrial Road, San Carlos, CA 94070-4111, (650) 232-9600, FAX (650) 232-9612

Alton Geoscience	Client Project ID:	Tosco 5325	Sampled: Apr 5-6, 1999
30-A Lindbergh Ave.	Sample Matrix:	Air	Received: Apr 6, 1999
Livermore, CA 94550	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: Apr 29, 1999
Attention: Tom Seeliger	First Sample #:	904-0476	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX/MTBE

Analyte	Reporting Limit PPMV	Sample I.D. 904-0476 U-1	Sample I.D. 904-0477 U-2	Sample I.D. 904-0478 U-1
Purgeable Hydrocarbons	2.4	1,800	51	440
Benzene	0.016	34	0.19	8 1
Toluene	0.013	37	0.93	12
Ethyl Benzene	0.012	16	1.2	9.4
Total Xylenes	0.012	110	7.2	51
MTBE	0.69	120	N.D.	30
Chromatogram Pattern:		Gasoline	Gasoline	Gasoline

Quality Control Data

Report Limit Multiplication Factor:	250	5.0	100
Date Analyzed:	4/8/99	4/8/99	4/8/99
Instrument Identification:	HP-2	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	125	104	122

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager

9040473.ALT <2>

Sequoia Analytical

) Chesapeake Drive
-04 N. Wiget Lane
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1455 McDowell Blvd. North, Ste. D
1551 Industrial Road

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Walnut Creek, CA 98 (925) 988-9600 FAX (925) 988-9673
Sacramento, CA 95834 (916) 921-9600 FAX (916) 921-0100
Petaluma, CA 94954 (707) 792-1865 FAX (707) 792-0342
San Carlos, CA 94070-4111 (650) 232-9600 FAX (650) 232-9612

Alton Geoscience
30-A Lindbergh Ave.
Livermore, CA 94550
Attention: Tom Seeliger

Client Project ID: Tosco 5325
Matrix: Vapor

QC Sample Group: 9904153

Reported: Apr 29, 1999

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	100NGBTEX	100NGBTEX	100NGBTEX	100NGBTEX
		0	0	0
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:				
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/7/99	4/7/99	4/7/99	4/7/99
Analyzed Date:	4/7/99	4/7/99	4/7/99	4/7/99
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	2.0	2.0	2.0	6.0
Result:	1.9			
MS % Recovery:	95	0	0	0
Dup. Result:	1.8			
MSD % Recov.:	90	0	0	0
RPD:	5.4	#DIV/0!	#DIV/0!	#DIV/0!
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	2LCS041299	2LCS041299	2LCS041299	2LCS041299
Prepared Date:	4/12/99	4/7/99	4/7/99	4/7/99
Analyzed Date:	4/12/99	4/7/99	4/7/99	4/7/99
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	2.0 ug/L	2.0 ug/L	2.0 ug/L	6.0 ug/L
LCS Result:	1.8	1.7	1.8	5.7
LCS % Recov.:	90	85	90	85

MS/MSD LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

Sequoia Analytical

) Chesapeake Drive, Redwood City, C 63, (650) 364-9600, FAX (650) 364-9233
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1551 Industrial Road, San Carlos, CA 94070-4111, (650) 232-9600, FAX (650) 232-9612

Alton Geoscience
30-A Lindbergh Ave.
Livermore, CA 94550
Attention: Tom Seeliger

Client Project ID: Tosco 5325
Matrix: Liquid

QC Sample Group: 9904153

Reported: Apr 29, 1999

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC040899 802002A	GC040899 802002A	GC040899 802002A	GC040899 802002A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	9040049	9040049	9040049	9040049
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/8/99	4/8/99	4/8/99	4/8/99
Analyzed Date:	4/8/99	4/8/99	4/8/99	4/8/99
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Result:	40	37	38	120
MS % Recovery:	200	185	190	200
Dup. Result:	23	20	21	67
MSD % Recov.:	115	100	105	110
RPD:	54	60	58	57
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	2LCS040899	2LCS040899	2LCS040899	2LCS040899
Prepared Date:	4/8/99	4/8/99	4/8/99	4/8/99
Analyzed Date:	4/8/99	4/8/99	4/8/99	4/8/99
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
LCS Result:	18	17	18	58
LCS % Recov.:	90	85	90	97

MS/MSD LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

SEQUOIA ANALYTICAL
CHAIN OF CUSTODY

☐ 680 Chesapeake Drive • Redwood City, CA 94063 • (650) 364-9600 FAX (650) 364-9233
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☐ 404 N. Wiget Lane • Walnut Creek, CA 94598 • (510) 988-9600 FAX (510) 988-9673

Company Name: ACTON GEOSCIENCES	Project Name: TOSCO 5325
Address: [redacted] 30A LINDBERGH AVE	Billing Address (if different):
City: LIVERMORE State: CA. Zip Code: 94550	9904153
Telephone: 925-606-9150 FAX #: 925-606-9260	P.O. #:
Report To: TOM SCHLIGER Sampler: DAVID YORK	QC Data: ☑ Level D (Standard) ☐ Level C ☐ Level B ☐ Level A

Turnaround Time: ~~☐ 10 Working Days~~ ☐ 7 Working Days ☐ 5 Working Days ☐ 3 Working Days ☐ 2 Working Days ☐ 24 Hours ☐ 2 - 8 Hours

☐ Drinking Water ☐ Waste Water ☐ Other

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	TPH-G	BTEX/MTBE	Comments
1. U-1 TOSCO 5325	4-5-99	H2O	4	VOA	9040473	X	X	
2. U-2					9040474	X	X	
3. TCW					9040475	X	X	
4. U-1	4-5-99 1:10P	AIR	1	TEDLAR	9040476	X	X	
5. U-2	4-6-99 2:10A		1		9040477	X	X	
6. U-1	4-6-99 1:00P		1		9040478	X	X	
7.								
8.								
9.								
10.								

Relinquished By:	Date: 4-6-99	Time: 1:55P	Received By:	Date: 4/6/99	Time: 1335
Relinquished By:	Date: 4/6/99	Time: 1450	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab:	Date: 4/6/99	Time: 14:50

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment_____ Page ___ of ___

Pink - Client
Yellow - Sequoia
White - Sequoia

Sequoia Analytical

680 C[illegible]eake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Alton Geoscience	Client Project ID:	Tosco 5325	Sampled: Apr 7, 1999
30-A Lindbergh Ave.	Sample Matrix:	Air	Received: Apr 7, 1999
Livermore, CA 94550	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: Apr 13, 1999
Attention: Tom Seeliger	First Sample #:	904-0481	

QC Batch Number: GC040799

802002A

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX / MTBE

Analyte	Reporting Limit ppmv	Sample I.D. 904-0481 U-3
Purgeable Hydrocarbons	2.4	340
Benzene	0.016	85
Toluene	0.013	77
Ethyl Benzene	0.012	44
Total Xylenes	0.012	190
MTBE	0.69	360

Chromatogram Pattern: Gasoline

Quality Control Data

Report Limit Multiplication Factor:	100
Date Analyzed:	4/8/99
Instrument Identification:	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	270 *

APR 2 9 1999

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Please Note:
* Surrogate recovery above control limit due to coelution.

Julianne Fegley
Project Manager

9040481.ALT <1>

Sequoia Analytical

680 Cl. ...eake Drive, Redwood City, CA 94065, (650) 364-9600, FAX (650) 364-9233
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Alton Geoscience
30-A Lindbergh Ave.
Livermore, CA 94550
Attention: Tom Seeliger

Client Project ID: Tosco 5325
Matrix: Vapor
QC Sample Group: 904-0481

Reported: Apr 13, 1999

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC040799 802002A	GC040799 802002A	GC040799 802002A	GC040799 802002A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	100NG BTEX	100NG BTEX	100NG BTEX	100NG BTEX
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/7/99	4/7/99	4/7/99	4/7/99
Analyzed Date:	4/7/99	4/7/99	4/7/99	4/7/99
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	2.0 µg/L	2.0 µg/L	2.0 µg/L	6.0 µg/L
Result:	1.9	1.8	1.7	5.8
MS % Recovery:	95	90	85	97
Dup. Result:	1.8	1.7	1.8	5.7
MSD % Recov.:	90	85	90	95
RPD:	5.4	5.7	5.7	1.7
RPD Limit:	0-20	0-20	0-20	0-20

LCS #:	2LCS040899	2LCS040899	2LCS040899	2LCS040899
Prepared Date:	4/8/99	4/8/99	4/8/99	4/8/99
Analyzed Date:	4/8/99	4/8/99	4/8/99	4/8/99
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	2.0 µg/L	2.0 µg/L	2.0 µg/L	6.0 µg/L
LCS Result:	18	17	18	58
LCS % Recov.:	90	85	90	97

MS/MSD LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

SEQUOIA ANALYTICAL
CHAIN OF CUSTODY

❑ 680 Chesapeake Drive • Redwood City, CA 94063 • (650) 364-9600 FAX (650) 364-9233
❑ 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 FAX (916) 921-0100
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❑ 1455 McDowell Blvd. North, Suite D • Petaluma, CA 94954 • (707) 792-1865 FAX (707) 792-0342

Company Name: Alton Geoscience	Project Name: Tosco 5325
Mailing Address: 30A Lindbergh Ave	Billing Address (if different):
City: Livermore State: CA Zip Code: 94550	9904156
Telephone: 925 606 9150 FAX #: 606-9260	P.O. #:
Report To: Tom Seeligson Sampler: George Montross	QC Data: ❑ Level D (Standard) ❑ Level C ❑ Level B ❑ Level A

Turnaround Time:
❑ 10 Working Days ❑ 3 Working Days ❑ 2 - 8 Hours
☒ 7 Working Days ❑ 2 Working Days
❑ 5 Working Days ❑ 24 Hours

Alton STAT

❑ Drinking Water
❑ Waste Water
❑ Other

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	A-TPH-G	BTEX/MTBE	Comments
1. V-3 *	4/7/99/300	Air	1	Tedlar	9040481	X	X	* Composite
2.								Sample of
3.								V-1 and V-2
4.								as per George
5.								Montross 4/8/99
6.								gm
7.								
8.								
9.								
10.								

Relinquished By: George Montross	Date: 4/7/99	Time: 1325	Received By:	Date: 4/7/99	Time: 1325
Relinquished By:	Date: 4/7/99	Time: 1705	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab:	Date: 4/8/99	Time: 855

Were Samples Received in Good Condition? ❑ Yes ❑ No Samples on Ice? ❑ Yes ❑ No Method of Shipment_____

Pink - Client
Yellow - Sequoia
White - Sequoia

Sequoia Analytical

680 C[illegible]peake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Alton Geoscience	Client Project ID:	Tosco 5325	Sampled: Apr 9, 1999
30-A Lindbergh Ave.	Sample Matrix:	Water	Received: Apr 9, 1999
Livermore, CA 94550	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: Apr 19, 1999
Attention: Tom Seeliger	First Sample #:	904-0764	

QC Batch Number: GC040799 GC040799
802002A 802002A

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX / MTBE AS PPMV

Analyte	Reporting Limit ppmv	Sample I.D. 904-0764 U-1	Sample I.D. 904-0765 U-2
Purgeable Hydrocarbons	2.4	390	2,700
Benzene	0.016	5.3	59
Toluene	0.013	12	96
Ethyl Benzene	0.012	6.9	35
Total Xylenes	0.012	37	170
MTBE	0.69	17	240
Chromatogram Pattern:		Gasoline	Gasoline

Quality Control Data

Report Limit Multiplication Factor:	50	500
Date Analyzed:	4/12/99	4/12/99
Instrument Identification:	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	125	127

APR 2 9 1999

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager

Sequoia Analytical

680 Ch[illegible]eake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Alton Geoscience
30-A Lindbergh Ave.
Livermore, CA 94550
Attention: Tom Seeliger

Client Project ID: Tosco 5325
Matrix: Vapor
QC Sample Group: 9040764-765

Reported: Apr 19, 1999

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC040799	GC040799	GC040799	GC040799
	802002A	802002A	802002A	802002A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	100NG BTEX	100NG BTEX	100NG BTEX	100NG BTEX
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/7/99	4/7/99	4/7/99	4/7/99
Analyzed Date:	4/7/99	4/7/99	4/7/99	4/7/99
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	2.0 µg/L	2.0 µg/L	2.0 µg/L	6.0 µg/L
Result:	1.9	1.8	1.7	5.8
MS % Recovery:	95	90	85	97
Dup. Result:	1.8	1.7	1.8	5.7
MSD % Recov.:	90	85	90	95
RPD:	5.4	5.7	5.7	1.7
RPD Limit:	0-20	0-20	0-20	0-20
LCS #:	2LCS041299	2LCS041299	2LCS041299	2LCS041299
Prepared Date:	4/12/99	4/12/99	4/12/99	4/12/99
Analyzed Date:	4/12/99	4/12/99	4/12/99	4/12/99
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	2.0 µg/L	2.0 µg/L	2.0 µg/L	6.0 µg/L
LCS Result:	18	17	18	57
LCS % Recov.:	90	85	90	95
MS/MSD LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

SEQUOIA ANALYTICAL
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☐ 1455 McDowell Blvd. North, Suite D • Petaluma, CA 94954 • (707) 792-1865 FAX (707) 792-0342

Company Name: Alton Geoscience	Project Name: Tosco 5325
Mailing Address: 30A Lindbergh Ave	Billing Address (if different):
City: Livermore State: CA Zip Code: 94550	99,04230
Telephone: 925.606.9150 FAX #: 606.9260	P.O. #:
Report To: Tom Seeliger Sampler: George Montross	QC Data: ☐ Level D (Standard) ☐ Level C ☐ Level B ☐ Level A

Turnaround Time: ☐ 10 Working Days ☐ 3 Working Days ☐ 2 - 8 Hours ☒ 7 Working Days ☐ 2 Working Days ☐ 5 Working Days ☐ 24 Hours

☐ Drinking Water ☐ Waste Water ☐ Other

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	TPH-G	BTEX/MTBE	Comments
1. U-1	4/9/99/1300	Air	1	Tedlar	9040764	X	X	
2. U-2	4/9/99/1305	Air	1	Tedlar	9040765	X	X	
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								

Relinquished By:	Date: 4/9/99	Time: 1330	Received By:	Date: 4/9/99	Time: 1330
Relinquished By:	Date: 4/9/99	Time: 1445	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab:	Date: 4/9/99	Time: 14:45

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment_____ Page ___ of ___

Pink - Client
Yellow - Sequoia
White - Sequoia

Sequoia Analytical

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

Alton Geoscience	Client Project ID: Tosco 5325	Sampled: Apr 10-11, 1999
30-A Lindbergh Ave.	Sample Matrix: Air	Received: Apr 12, 1999
Livermore, CA 94550	Analysis Method: EPA 5030/8015 Mod./8020	Reported: Apr 29, 1999
Attention: Tom Seeliger	First Sample #: 904-0839	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX/MTBE

Analyte	Reporting Limit PPMV	Sample I.D. 904-0839 U-1	Sample I.D. 904-0840 U-2	Sample I.D. 904-0841 TCW	Sample I.D. 904-0845 MW-9	Sample I.D. 904-0846 MW-11	Sample I.D. 904-0847 MW-4
Purgeable Hydrocarbons	2.4	2,000	460	210	490	510	440
Benzene	0.016	44	6.3	1.2	9.4	9.4	2.0
Toluene	0.013	98	14	5.0	2.3	2.9	2.3
Ethyl Benzene	0.012	28	11	4.6	6.7	8.3	6.5
Total Xylenes	0.012	130	60	28	15	17	14
MTBE	0.690	190	24	120	64	64	61
Chromatogram Pattern:		Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline

Quality Control Data

Report Limit Multiplication Factor:	100	25	5.0	10	10	5.0
Date Analyzed:	4/13/99	4/13/99	4/13/99	4/13/99	4/13/99	4/13/99
Instrument Identification:	HP-2	HP-2	HP-2	HP-2	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	177	163	143	161	177	186

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

MAY 10 1999

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager

9040839.ALT <1>

Sequoia Analytical

) Chesapeake Drive, Redwood City, CA 53, (650) 364-9600, FAX (650) 364-9233
-04 N. Wiget Lane, Walnut Creek, CA 98, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
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1551 Industrial Road, San Carlos, CA 94070-4111, (650) 232-9600, FAX (650) 232-9612

Alton Geoscience	Client Project ID:	Tosco 5325	Sampled: Apr 10, 1999
30-A Lindbergh Ave.	Sample Matrix:	Water	Received: Apr 12, 1999
Livermore, CA 94550	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: Apr 29, 1999
Attention: Tom Seeliger	First Sample #:	904-0842	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX / MTBE

Analyte	Reporting Limit µg/L	Sample I.D. 904-0842 U-1	Sample I.D. 904-0843 U-2	Sample I.D. 904-0844 TCW
Purgeable Hydrocarbons	50	15,000	29,000	N.D.
Benzene	0.50	58	480	N.D.
Toluene	0.50	130	1,800	N.D.
Ethyl Benzene	0.50	41	600	N.D.
Total Xylenes	0.50	7,300	4,900	N.D.
MTBE	2.5	9,000	14,000	150,000
Chromatogram Pattern:		Gasoline	Gasoline	Discrete Peaks

Quality Control Data

Report Limit Multiplication Factor:	20	100	2000.0
Date Analyzed:	4/16/99	4/16/99	4/16/99
Instrument Identification:	HP-5	HP-5	HP-5
Surrogate Recovery, %: (QC Limits = 70-130%)	87	83	93

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Julianne Feegley
Project Manager

9040839.ALT <2>

Sequoia Analytical

580 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
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Alton Geoscience
30-A Lindbergh Ave.
Livermore, CA 94550
Attention: Tom Seeliger

Client Project ID: Tosco 5325
Matrix: Vapor

QC Sample Group: 990-4251

Reported: Apr 29, 1999

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD Batch#:	100NGBTEX	100NGBTEX	100NGBTEX	100NGBTEX
Date Prepared:	4/7/99	4/7/99	4/7/99	4/7/99
Date Analyzed:	4/7/99	4/7/99	4/7/99	4/7/99
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	2.0 ug/L	2.0 ug/L	2.0 ug/L	6.0 ug/L
Matrix Spike % Recovery:	95	90	85	97
Matrix Spike Duplicate % Recovery:	90	85	90	95
Relative % Difference:	5.4	5.7	5.7	1.7
LCS Batch#:	2LCS041399	2LCS041399	2LCS041399	2LCS041399
Date Prepared:	4/13/99	4/13/99	4/13/99	4/13/99
Date Analyzed:	4/13/99	4/13/99	4/13/99	4/13/99
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	85	85	85	95
% Recovery Control Limits:	60-140	60-140	60-140	60-140

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager

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Sequoia Analytical

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Alton Geoscience
30-A Lindbergh Ave.
Livermore, CA 94550
Attention: Tom Seeliger

Client Project ID: Tosco 5325
Matrix: Liquid

QC Sample Group: 9904251

Reported: Apr 29, 1999

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC041699 802005A	GC041699 802005A	GC041699 802005A	GC041699 802005A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	C. Westwater	C. Westwater	C. Westwater	C. Westwater
MS/MSD #:	9040628	9040628	9040628	9040628
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/16/99	4/16/99	4/16/99	4/16/99
Analyzed Date:	4/16/99	4/16/99	4/16/99	4/16/99
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Result:	21	21	20	63
MS % Recovery:	105	105	100	105
Dup. Result:	19	19	18	58
MSD % Recov.:	95	95	90	97
RPD:	10	10	11	8.3
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	5LCS041699	5LCS041699	5LCS041699	5LCS041699
Prepared Date:	4/16/99	4/16/99	4/16/99	4/16/99
Analyzed Date:	4/16/99	4/16/99	4/16/99	4/16/99
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
LCS Result:				
LCS % Recov.:	100	100	1100	105
MS/MSD LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager

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** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

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Company Name: Alton Geoscience	Project Name: Tosco 5325
Mailing Address: 30A Lindbergh Ave.	Billing Address (if different):
City: Livermore State: CA Zip Code: 94550	9904251
Telephone: FAX #:	P.O. #:
Report To: Tom Seliger	Sampler: David York

QC Data: ☒ Level D (Standard) ☐ Level C ☐ Level B ☐ Level A

Turnaround Time: ☒ 10 Working Days ☐ 7 Working Days ☐ 5 Working Days ☐ 3 Working Days ☐ 2 Working Days ☐ 24 Hours ☐ 2 - 8 Hours

☐ Drinking Water ☐ Waste Water ☐ Other

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	TPH-G	BTEX/MTBE	Comments
1. U-2	4-10-99/12:45PM	Air	1	Tedlar	9040839	X	X	
2. U-1	4-10-99/12:00PM	Air	1	"	9040840	X	X	
3. TCW	4-10-99/1:00PM	Air	1	"	9040841	X	X	
4. U-1	4-10-99/1:15PM	H_2O	4	VOA	9040842 A-D	X	X	
5. U-2	4-10-99/1:20PM	H_2O	4	VOA	9040843	X	X	
6. TCW	4-10-99/1:25PM	H_2O	4	VOA	9040844	X	X	
7. MW-9	4-11-99 7:00?	Air	1	Tedlar	9040845	X	X	
8. MW-11	"	"	1	"	9040846	X	X	
9. MW-4	"	"	1	"	9040847	X	X	
10.								

Relinquished By:	Date: 4/11/99	Time: 1018	Received By:	Date: 4/12/99	Time: 1018
Relinquished By:	Date: 4/12/99	Time: 1110	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab:	Date: 4/12/99	Time: 11:10

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment_____

Pink - Client
Yellow - Sequoia
White - Sequoia