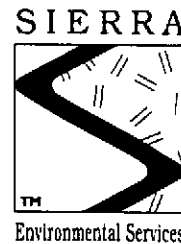


STD 3760



November 22, 1995

Jon Legallet
Telegraph Business Properties
1401 Griffith Street
San Francisco, CA 94124

Re: Telegraph Business Park
5427 Telegraph Avenue
Oakland, California
SES Project #4-719-04

Dear Mr. Legallet:

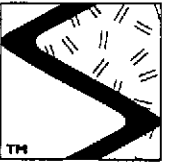
Sierra Environmental Services (SES) is pleased to submit this report summarizing the results of the ground water sampling at Telegraph Business Park, located at 5427 Telegraph Avenue in Oakland, California (Figure 1, Appendix A).

On October 25, 1995, SES personnel visited the site. Water levels were measured in all wells and all wells were checked for the presence of free-phase hydrocarbons. Free-phase hydrocarbons were not present in any of the site wells. Water level data are shown in Table 1 (Appendix B) and ground water elevation contours are included on Figure 2 (Appendix A).

Ground water samples were collected from MW-1, MW-2 and MW-3 on October 25, 1995 in accordance with SES Standard Operating Procedure - Ground Water Sampling (Appendix C). All analyses were performed by Superior Analytical Laboratory, of Martinez, California. Analytic results for ground water are presented in Tables 2, 3 and 4 (Appendix B). The chain of custody document and laboratory analytic reports are presented in Appendix D. SES is not responsible for laboratory omissions or errors.

Ground water samples were additionally analyzed for cadmium, chromium, copper, lead, nickel and zinc to meet discharge requirements. Ms. Molly Ong with the East Bay Municipal Utility District requested these metals to be analyzed for a ground water discharge permit. The analytic report showed low detectable levels of chromium, copper, nickel, and zinc. Analytic results are summarized in Table 4 (Appendix B.).

NOV 22 1995
SIERRA ENVIRONMENTAL SERVICES
1401 GRIFFITH STREET
SAN FRANCISCO, CA 94124



SIERRA


Jon Legallet
November 22, 1995
SES Project #4-719-04

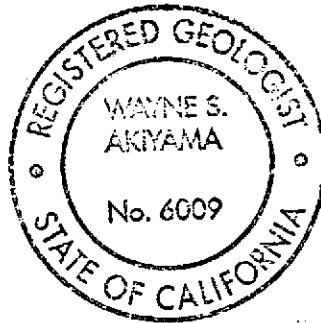
Page 2

Thank you for allowing us to provide services to Telegraph Business Properties. Please call if you have any questions.

Sincerely,
Sierra Environmental Services


David M. Beardsley
Senior Technician


Wayne S. Akiyama R.G. R.E.A.
Senior Hydrogeologist #6009

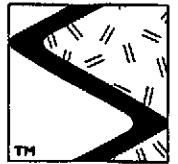


DMB/WSA

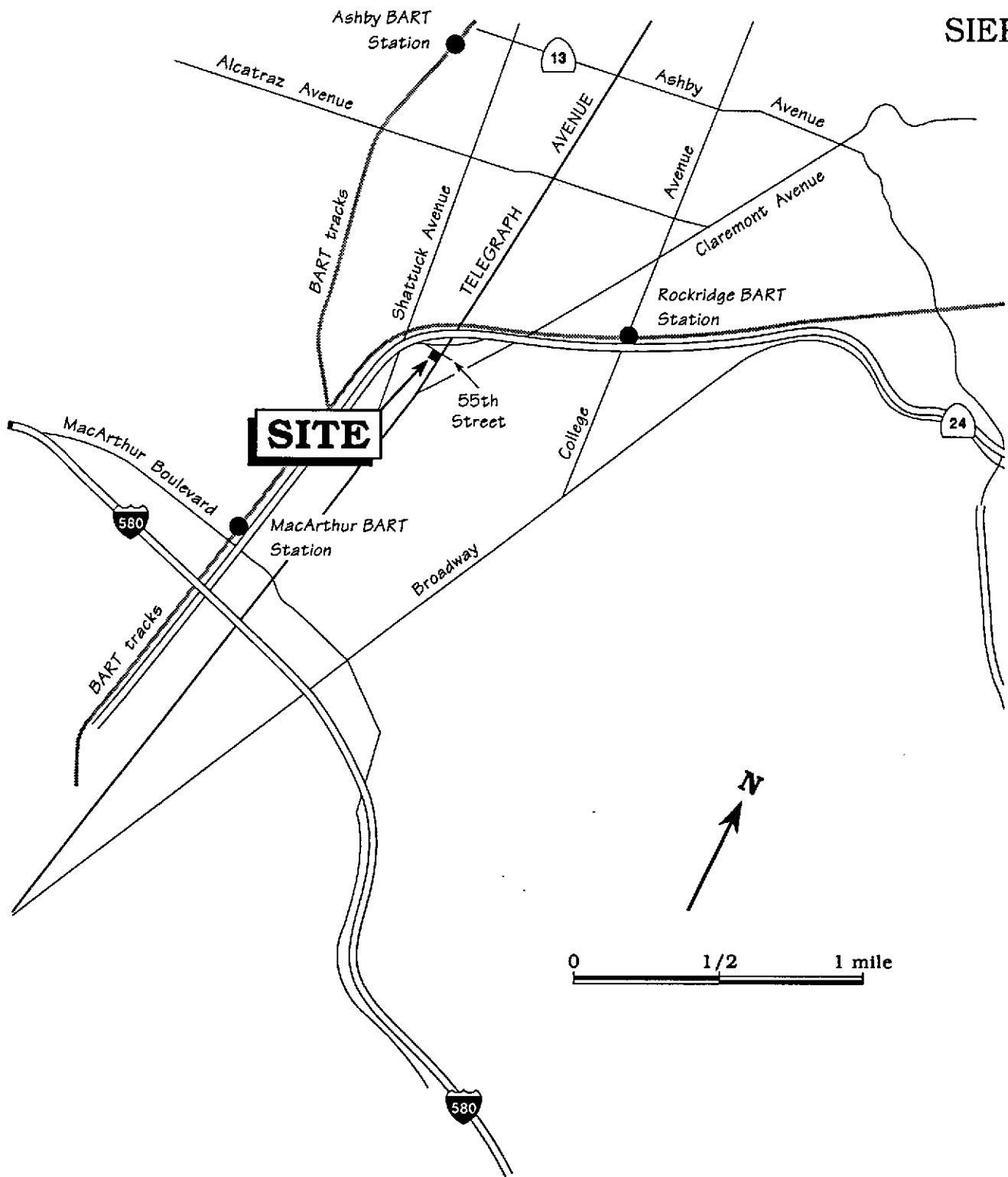
71904QM.NO5

Appendices A - Figures
B - Tables
C - SES Standard Operating Procedure
D - Chain of Custody Document and Laboratory Analytic Reports
E - Water Sampling Forms

cc: Susan Hugo - Alameda County Health Care Services Agency

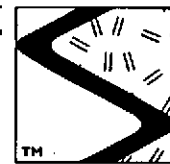


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Base map ref: California State Automobile Association (AAA)

Figure 1. Site Location Map - Telegraph Business Park, 5427 Telegraph Avenue, Oakland, California



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TELEGRAPH AVENUE

55TH STREET

Approximate ground water flow direction at a gradient of .032 ft/ft

HIGHWAY 24 (elevated)

Caltrans Property

residence residence

BUILDING

former 10,000 gal. gasoline tank

former 5,000 gal. Stoddard Solvent tanks

107.45 MW-2

parking

former tank IIIA
former tank IIIB
102.85 MW-3

former tank IIA
former tank IIB

former tank IIC
former tank IID


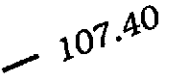
BUILDING

parking

communication tower

sidewalk

EXPLANATION

-  **MW-3** Monitoring well
- 107.45** Ground water elevation, in feet
-  **107.40** Ground water elevation contour, dashed where inferred, queried where uncertain

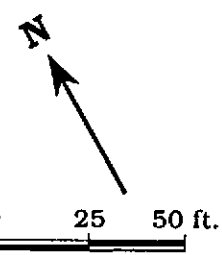


Figure 2. Monitoring Well Location and Ground Water Elevation Contour Map - October 25, 1995 - Telegraph Business Park, 5427 Telegraph Avenue, Oakland, California



Table 1. Water Level Data and Well Construction Details - Telegraph Business Park, 5427 Telegraph Avenue, Oakland, California

Well ID	Date Measured	DTW (ft)	TOC (ft)	GWE (msl)	Product Thickness* (ft)	Screen Interval	Sand Pack Interval	Bentonite/Grout Interval
						←-----feet below grade-----→		
MW-1	1/5/94	6.40	115.05	108.65	0	5 - 20	4 - 20	0 - 4
	2/1/94	5.93		109.12	0			
	3/2/94	5.09		109.96	0			
	4/6/94	5.85		109.20	0			
	5/4/94	6.37		108.68	0			
	6/3/94	6.95		108.10	0			
	7/7/94	7.00		108.05	0			
	8/3/94	7.30		107.75	0			
	9/7/94	7.70		107.35	0			
	10/11/94	7.62		107.43	0			
	1/20/95	4.78		110.27	0			
	4/7/95	5.96		109.09	0			
	7/26/95	7.19		107.86	0			
	10/25/95	7.74		107.31	0			
MW-2	1/5/94	9.42	117.60	108.18	0	7 - 27	6 - 27	0 - 6
	2/1/94	9.15		108.45	0			
	3/2/94	9.55		108.05	0			
	4/6/94	9.09		108.51	0			
	5/4/94	9.18		108.42	0			
	6/3/94	9.44		108.16	0			
	7/7/94	10.21		107.39	0			
	8/3/94	10.96		106.64	0			
	9/7/94	10.20		107.40	0			
	10/11/94	10.18		107.42	0			
	1/20/95	8.64		108.96	0			
	4/7/95	9.84		107.76	0			
	7/26/95	10.55		107.05	0			
	10/25/95	10.15		107.45	0			
MW-3	1/5/94	10.14	115.33	105.19	0	5 - 20	4 - 20	0 - 4
	2/1/94	8.92		106.41	0			
	3/2/94	7.56		107.58	0			
	4/6/94	10.24		104.90	0			
	5/4/94	9.67		105.47	0			
	6/3/94	10.38		104.76	0			



Table 1. Water Level Data and Well Construction Details - Telegraph Business Park, 5427 Telegraph Avenue, Oakland, California

Well ID	Date Measured	DTW (ft)	TOC (ft)	GWE (msl)	Product Thickness* (ft)	Screen Interval	Sand Pack Interval	Bentonite/Grout Interval
						<-----feet below grade----->		
	7/7/94	11.55		103.59	0			
	8/3/94	11.76		103.38	0			
	9/7/94	12.20		102.94	0			
	10/11/94	12.02		103.12	0			
MW-3	1/20/95	6.47		108.67	0			
(cont)	4/7/95	7.98		107.16	0			
	7/26/95	11.33		103.81	0			
	10/25/95	12.29		102.85	0			

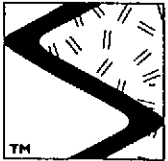
EXPLANATION:

DTW = Depth to water
 TOC = Top of casing elevation
 GWE = Ground water elevation
 msl = Measurements referenced relative to mean sea level

NOTES:

All top of casing elevations were surveyed by Ronald C. Miller, Professional Engineer #15816 on January 13, 1994.

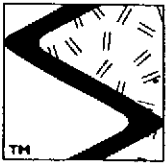
- * Product thickness was measured with an MMC flexi-dip interface probe.
- 1 Well resurveyed March 4, 1994 by Ronald C. Miller, Professional Engineer #15816.



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Table 2. Analytic Results for Ground Water - Petroleum Hydrocarbons - Telegraph Business Park, 5427 Telegraph Avenue, Oakland, California

Sample ID	Date Sampled	Analytic Method	TPH(D)	Stoddard Solvent	O&G	←-----ppb----->			
						B	T	E	X
B-1	12/13/93	LUFT	1,200	93,000	---	---	---	---	---
B-2	12/13/93	LUFT	4,000	1,400,000	---	---	---	---	---
B-3	12/13/93	LUFT	3,700	780,000	---	---	---	---	---
B-4	12/13/93	LUFT	90	15,000	---	---	---	---	---
B-5	12/14/93	LUFT	100	1,600	---	---	---	---	---
B-6	12/14/93	LUFT	460	9,000	---	---	---	---	---
B-7	12/14/93	LUFT	390	18,000	---	---	---	---	---
B-8	12/14/93	LUFT	<50	<50	---	---	---	---	---
B-9	12/14/93	LUFT	<50	60	---	---	---	---	---
B-10	11/30/94	LUFT/5520/602	---	120,000	<10,000	<0.3	<0.3	<0.3	<0.3
B-11	11/30/94	LUFT/5520/602	---	210	<10,000	<0.3	<0.3	<0.3	<0.3
B-12	11/30/94	LUFT/5520/602	---	150	<10,000	<0.3	<0.3	<0.3	<0.3
B-13	11/30/94	LUFT/5520/602	---	220	<10,000	2.3	0.80	<0.3	4
B-14	11/30/94	LUFT/5520/602	---	150	<10,000	<0.3	<0.3	<0.3	0.80
B-15	1/23/95	LUFT/5520/602	---	9,100	<10,000	40	<3.0	60	<3.0
B-16	1/23/95	LUFT/5520/602	---	52 ¹	<13,000	<0.3	<0.3	<0.3	1.3
B-17	1/23/95	LUFT/5520/602	---	<50	<10,000	<0.3	<0.3	<0.3	<0.3



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Table 2. Analytic Results for Ground Water - Petroleum Hydrocarbons - Telegraph Business Park, 5427 Telegraph Avenue, Oakland, California (continued)

Sample ID	Date Sampled	Analytic Method	TPH(D)	Stoddard Solvent	O&G	←-----ppb----->			
						B	T	E	X
MW-1	1/5/94	LUFT/602	500	1,000	6,300*	3.3	1.6	<0.3	6
	4/6/94	LUFT/602/5520	800	1,400	<5,000	5.6	4.5	<0.3	11
	7/7/94	LUFT/602/5520	400	1,200	8,300*	1.5	0.80	<0.3	1.9
	10/11/94	LUFT/602/5520	<5.0	700	<5,000	<0.3	<0.3	<0.3	<0.3
	1/20/95	LUFT/602	---	1,500	---	3.9	2	<0.3	3.9
	4/7/95	602/5030	2,500	500	---	3.2	1.1	<0.3	1.7
	7/26/95 ^{2,3}	8015/8020	---	1500	---	3.1	3.2	12	16
	10/25/95	8015/8020	---	660	---	0.6	1.4	20	14
	MW-2	1/5/94	LUFT/602	200	35,000	<5,000	12	38	<3.0
4/6/94		LUFT/602/5520	2,200	94,000	15,600	21	22	<6.0	110
7/7/94		602	---	---	---	16	16	<1.5	1,510
7/11/94		LUFT/5520	800	43,000	14,500*	---	---	---	---
10/11/94		LUFT/5520/602	<5.0	31,000	<5,000	17	13	14	0.3
1/20/95		LUFT/602	---	26,000	---	18	13	12	50
4/7/95		602/5030	900	70,000	---	17.5	11	<0.6	74.6
7/26/95		8015/8020	---	21,000	---	17	<0.5	26	94
10/25/95		8015/8020	---	38,000	---	63	70	440	1100
MW-3		1/5/94	LUFT/5520/602	70	1,100	<5,000	180	20	85
	4/6/94	LUFT/5520/602	<50	1,000	<5,000	140	13	60	<12
	7/7/94	602	---	---	---	120	7.5	8.0	<3.0
	7/11/94	LUFT/5520	270	1,000	<5,000*	---	---	---	---
	10/11/94	LUFT/5520/602	<5.0	1,100	<5,000	200	11	23	<0.3
	1/20/95	LUFT/602	---	2,100	---	36	3.5	4.8	<0.3
	4/7/95	602/5030	90	600	---	32.7	1.7	4.7	1.9
	7/26/95 ³	8015/8020	---	1,200	---	98	3.2	12	16
	10/25/95	8015/8020	---	2,300	---	32	3.4	4.7	9.6
Trip Blank TB-LB	1/5/94	602	---	---	---	<0.3	<0.3	<0.3	<0.3
	4/6/94	602	---	---	---	<0.3	<0.3	<0.3	<0.6
	7/7/94	602	---	---	---	<0.3	<0.3	<0.3	<0.3
	10/11/94	602	---	---	---	<0.3	<0.3	<0.3	<0.3
	11/30/94	602	---	---	---	<0.3	<0.3	<0.3	<0.3
	1/20/95	LUFT/602	---	<50	---	<0.3	<0.3	<0.3	<0.3
	1/23/95	LUFT/602	---	<50	---	<0.3	<0.3	<0.3	<0.3
	4/7/95	602	---	---	---	<0.3	<0.3	<0.3	<0.3



Table 2. Analytic Results for Ground Water - Petroleum Hydrocarbons - Telegraph Business Park, 5427 Telegraph Avenue, Oakland, California (continued)

Sample ID	Date Sampled	Analytic Method	TPH(D)	Stoddard Solvent	O&G	←-----ppb-----→			
						B	T	E	X
	7/26/95	8020	---	---	---	<0.5	<0.5	<0.5	<0.5
	10/25/95	8020	---	---	---	<0.5	<0.5	<0.5	<0.5
Bailer Blank									
BB	1/5/94	602	---	---	---	<0.3	<0.3	<0.3	<0.3
	4/6/94	602	---	---	---	<0.3	0.8	<0.3	<0.6
	7/11/94	602	---	---	---	<0.3	<0.3	<0.3	<0.3
	11/30/94	602	---	---	---	<0.3	<0.3	<0.3	<0.3
	1/20/95	LUFT/602	---	<50	---	<0.3	<0.3	<0.3	<0.3
	1/23/95	LUFT/602	---	<50	---	<0.3	<0.3	<0.3	<0.3
	4/7/95	602	---	---	---	<0.3	<0.3	<0.3	<0.3
	7/26/95	8020	---	---	---	<0.5	<0.5	<0.5	<0.5
	10/25/95	8020	---	---	---	<0.5	<0.5	<0.5	<0.5

EXPLANATION:

TPH(D) = Total Petroleum Hydrocarbons as Diesel
 O&G = Oil and Grease
 B = Benzene
 T = Toluene
 E = Ethylbenzene
 X = Xylenes
 ppb = Parts per billion
 --- = Not analyzed/Not applicable

ANALYTIC LABORATORY:

Samples were analyzed by Percision Analytical Laboratory, of Richmond, California, prior to July 1995.

Samples were analyzed by Chromolab Environmental Services, of Pleasanton, California July 26, 1995.

Samples were analyzed by Superior Analytical Laboratory of Martinez, California from October, 1995 to present.

ANALYTIC METHODS:

LUFT = Department of Health Services LUFT Manual Method for TPH(D), Stoddard Solvent, and O&G
 602 = EPA Method 602 for BTEX
 5520 = Standard Methods Method 5520 F for non-polar O&G

NOTES:

- * This result represents both naturally occurring organics and petroleum hydrocarbons due to its analysis by Standard Methods Method 5520B.
- ¹ Stoddard gas range hydrocarbon does not match with stoddard gas standard.
- ² Unknown hydrocarbons in the diesel range were observed in sample.
- ³ Unknown compounds in the motor oil range were observed in sample.



Table 3. Analytic Results for Ground Water - Volatile Organic Compounds - Telegraph Business Park, 5427 Telegraph Avenue, Oakland, California

Sample ID	Date Sampled	Analytic Method	VC	1,1-DCA	t-1,2-DCE	c-1,2-DCE	C	1,2-DCA	TCE	PCE	1,2-DCB	Other HVOCs	Other VOCs
B-10	11/30/94	8240	<2	<3	<3	<3	<3	<2	<3	<2	<4	---	ND ¹⁰
B-11	11/30/94	8240	<2	<3	<3	<3	<3	<2	<3	<2	<4	---	ND ¹⁰
B-12	11/30/94	8240	<2	<3	<3	<3	<3	<2	<3	<2	<4	---	ND ¹⁰
B-13	11/30/94	8240	430	32	7.9	810	<3	<2	340	360	<4	---	ND ¹⁰
B-14	11/30/94	8240	<2	12	<3	35	<3	<2	21	59	<4	---	ND ¹⁰
B-15	1/23/95	8240	<2	<3	<3	<3	<3	<2	<3	<2	<4	---	ND ¹⁰
B-16	1/23/95	8240	<2	<3	<3	<3	<3	<2	8	290	<4	---	ND ¹⁰
B-17	1/23/95	8240	<2	<3	<3	14	<3	<2	13	53	<4	---	ND ¹⁰
MW-1	1/5/94	8010	<1	<0.3	<0.2	0.44	0.35	<0.2	<0.3	<2	0.36	ND ¹	---
	4/6/94	8010	<1	<0.3	<0.2	0.32	<0.2	<0.2	<0.3	<2	0.21	ND ⁴	---
	7/7/94	8010	<1	<0.2	<0.2	<0.2	<0.1	<0.5	<0.2	<2	<0.2	ND ⁷	---
	10/11/94	8240	<2	<3	<3	<3	<3	<2	<3	<2	<4	---	ND ¹⁰
	1/20/95	8240	<2	<3	<3	<3	<3	<2	<3	<2	<1	---	ND ¹¹
	4/7/95	8010	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	ND ¹⁴	---
	7/26/95	8010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND ¹⁴	---
	10/25/95	8010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	---
MW-2	1/5/94	8010	<1	10	1.1	130	5.6	2.7	2.6	<2	0.90	ND ²	---
	4/6/94	8010	<1	0.40	<0.2	4.3	<0.2	<0.2	<0.3	<2	0.80	ND ⁵	---
	7/7/94	8010	<1	3.4	<0.2	15	<0.1	0.60	0.60	<2	0.40	ND ⁸	---
	10/11/94	8240	<2	<3	<3	31	<3	<2	<3	<2	<4	---	ND ¹⁰
	1/20/95	8240	<2	5	<3	14	<3	<2	<3	<2	<1	---	ND ¹¹
	4/7/95	8010	4.9	4.3	<0.5	18	<0.5	1.4	<0.5	0.8	<0.5	ND ^{12,14}	---
	7/26/95	8010	8.1	5.1	<0.5	20	<0.5	<0.5	<0.5	1.6	<0.5	ND ¹⁴	---
	10/25/95	8010	17	5.4	<0.5	40	<0.5	<0.5	1.7	9.4	<0.5	ND ¹⁶	-
MW-3	1/5/94	8010	<1	0.70	<0.2	5.2	1.3	0.20	<0.3	<2	1.5	ND ³	---
	4/6/94	8010	<1	0.40	<0.2	4.2	<0.2	<0.2	<0.3	<2	0.80	ND ⁶	---
	7/7/94	8010	<1	0.30	<0.2	2.9	<0.1	<0.5	<0.2	<2	1.3	ND ⁹	---
	10/11/94	8240	<2	<3	<3	<3	<3	<2	<3	<2	<4	---	ND ¹⁰



Table 3. Analytic Results for Ground Water - Volatile Organic Compounds - Telegraph Business Park, 5427 Telegraph Avenue, Oakland, California

Sample ID	Date Sampled	Analytic Method	VC	1,1-DCA	t-1,2-DCE	c-1,2-DCE	C	1,2-DCA	TCE	PCE	1,2-DCB	Other HVOCs	Other VOCs
←-----ppb-----→													
MW-3	1/20/95	8240	<2	<3	<3	6	<3	<2	<3	<2	1	---	ND ¹¹
	4/7/95	8010	8.8	<0.5	<0.5	13	<0.5	0.7	<0.5	<0.5	2	ND ^{13,14}	---
	7/26/95	8010	9.6	<0.5	<0.5	6.3	<0.5	<0.5	<0.5	<0.5	<0.5	ND ¹⁵	---
	10/25/95	8010	4.2	<0.5	<0.5	4.1	<0.5	<0.5	<0.5	<0.5	1.6	ND ¹⁷	---

EXPLANATION:

VC = Vinyl Chloride
 1,1-DCA = 1,1-Dichloroethane
 t-1,2-DCE = trans-1,2-Dichloroethene
 c-1,2-DCE = cis-1,2-Dichloroethene
 C = Chloroform
 1,2-DCA = 1,2-Dichloroethane
 TCE = Trichloroethene
 PCE = Tetrachloroethene
 1,2-DCB = 1,2-Dichlorobenzene
 HVOCs = Halogenated Volatile Organic Compounds
 VOCs = Volatile Organic Compounds
 ppb = Parts per billion
 ND = Not detected

ANALYTIC LAB:

All samples analyzed by Chromolab Environmental Services, of Pleasanton, California.

ANALYTIC METHODS:

8010 = EPA Method 8010 for HVOCs
 8240 = EPA Method 8240 for VOCs

NOTES:

- ¹ 1,4-Dichlorobenzene was detected at 0.34 ppb. Other HVOCs not detected at detection limits of 0.2 to 2.0 ppb.
- ² 1,2-Dichloropropene, T-1,3-Dichloropropene, and 1,4-Dichlorobenzene were detected at 18, 1.0 and 1.0 ppb, respectively. Other HVOCs not detected at detection limits of 0.2 to 2.0 ppb.
- ³ Chlorobenzene and 1,4-Dichlorobenzene were detected at 0.70 and 0.30 ppb, respectively. Other HVOCs not detected at detection limits of 0.2 to 2.0 ppb.
- ⁴ 1,4-Dichlorobenzene was detected at 0.21 ppb. Other HVOCs not detected at detection limits of 0.2 to 2.2 ppb.
- ⁵ Chlorobenzene was detected at 1.7 ppb. Other HVOCs not detected at detection limits of 0.2 to 2.2 ppb.
- ⁶ Chlorobenzene was detected at 1.6 ppb. Other HVOCs not detected at detection limits of 0.2 to 2.2 ppb.
- ⁷ 1,4-Dichlorobenzene was detected at 0.26 ppb. Other HVOCs not detected at detection limits of 0.2 to 2.0 ppb.
- ⁸ 1,2-Dichloropropene, tetrachloroethene and 1,4-Dichlorobenzene were detected at 6.5, 1.4 and 0.34 ppb, respectively. Other HVOCs not detected at detection limits of 0.2 to 2.0 ppb.
- ⁹ Other HVOCs not detected at detection limits of 0.2 to 2.0 ppb.
- ¹⁰ Benzene, toluene, ethylbenzene and xylene results are included on Table 1. Other VOCs not detected at detection limits of 2 to 50 ppb.
- ¹¹ Benzene, toluene, ethylbenzene and xylene results are included on Table 1. Other VOCs not detected at detection limits of 1 to 7 ppb.
- ¹² 1,2-dichloropropane was detected at 8.0 ppb.
- ¹³ Chlorobenzene was detected at 7.3 ppb.
- ¹⁴ Other HVOCs were not detected at a detection limit of 0.5 ppb.
- ¹⁵ Chlorobenzene was detected at 4.0 ppb.
- ¹⁶ 1,2 Dichloropropane was detected at 9.0 ppb.



Table 4. Analytic Results for Water - Metals - Telegraph Business Park - 5427 Telegraph Avenue, Oakland, California

Sample ID	Date Sampled	Analytic Method	Cadmium	Chromium	Copper	Nickel	Lead	Zinc
MW-1	10/25/95	6010	<0.005	0.04	0.03	0.013	<0.05	0.03
MW-2	10/25/95	6010	<0.005	0.04	0.023	0.047	<0.05	0.026
MW-3	10/25/95	6010	<0.005	0.05	0.03	0.08	<0.05	0.08

ANALYTICAL METHODS:

NOTES:

- 7130 = EPA Method 7130 for Cadmium
- 7190 = EPA Method 7190 for Chromium
- 7520 = EPA Method 7520 for Nickel
- 7420 = EPA Method 7420 for Lead
- 7950 = EPA Method 7950 for Zinc



SIERRA

APPENDIX C
SIERRA ENVIRONMENTAL SERVICES
STANDARD OPERATING PROCEDURES



SES STANDARD OPERATING PROCEDURE

GROUND WATER SAMPLING - QUARTERLY MONITORING

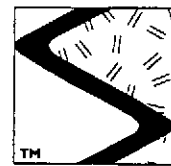
The following describes sampling procedures used by SES field personnel to collect and handle ground water samples. Before samples are collected, careful consideration is given to the type of analysis to be performed so that precautions are taken to prevent loss of volatile components or contamination of the sample, and to preserve the sample for subsequent analysis. Wells will be sampled no less than 24 hours after well development. Collection methods specific to ground water sampling are presented below.

Prior to sampling, each well is checked for the presence of free-phase hydrocarbons using an MMC flexi-dip interface probe. Product thickness (measured to the nearest 0.01 foot) is noted on the sampling form. Water level measurements are also made using either a water level meter or the interface probe. The water level measurements are also noted on the sampling form.

Prior to sampling, each well is purged of a minimum of three well casing volumes of water using a steam-cleaned PVC bailer, or a pre-cleaned pump. Temperature, pH and electrical conductivity are measured during purging. Purging is continued until these parameters have stabilized for consecutive readings.

Ground water samples are collected from the wells with Teflon bailers. The bailer are cleaned with a Liquinox solution then double rinsed to remove any residuales. The water samples are decanted into the appropriate container for the analysis to be performed. Pre-preserved sample containers may be used or the analytic laboratory may add preservative to the sample upon arrival. Duplicate samples are collected from each well as a back-up sample and/or to provide quality control. The samples are labeled to include the project number, sample ID, date, preservative, and the field person's initials. The samples are placed in polyethylene bags and in an ice chest (maintained at 4°C with blue ice or ice) for transport under chain of custody to the laboratory.

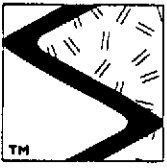
The chain of custody form includes the project number, analysis requested, sample ID, date analysis and the SES field person's name. The form is signed and dated (with the transfer time) by each person who yields or receives the samples beginning with the field personnel and ending with the laboratory personnel.



SIERRA

A trip blank and bailer blank accompanies each sampling set, or 5% trip blanks and 5% bailer blanks are included for sets of greater than 20 samples. The bailer blank is prepared by pouring previously boiled water into a steam-cleaned Teflon bailer prior to sampling a well. The trip and bailer blanks are analyzed for some or all of the same compounds as the ground water samples.

GWS-QMP2.SOP



SIERRA

APPENDIX D
CHAIN OF CUSTODY DOCUMENT AND
LABORATORY ANALYTIC REPORTS

DILL DIRECT: JOHN LEGALLET
 NORMANDY ASSOCIATES

Chain-of-Custody Record

~~2873~~
 2873

Facility No. TELEGRAPH BUSINESS PARK
 Facility Address TELEGRAPH AVE, OAKLAND
 Consultant Project Number 4-719-04
 Consultant Name SIERRA ENVIRONMENTAL SERVICES
 Address P.O. Box 2546, Martinez, CA 94553
 Project Contact (Name) WAYNE AKIYAMA
 (Phone) (510) 370-1280
 (FAX Number) (510) 370-7959

Client Contact (Name) JOHN LEGALLET
 (Company) NORMANDY ASSOC.
 (Phone) _____
 Laboratory Name SAL
 Samples Collected by (Name) DAVID BEARDSLEY
 Collection Date 10-25-95
 Signature [Signature]

Laboratory Number	Sample Identification	# size of Container(s)	Matrix S = Soil W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (yes or no)	ANALYSIS TO BE PERFORMED										Remarks						
								BTEX + TOLUENE (602/8020 + 8015/5030)	TPH DISTILLABLES (8015/3550/3510) 5030	Oil and Grease (Non-polar) (5520 B/E/F)	Halogenated Hydrocarbons (6017/8010)	Volatile Organic Compounds (624/8240)	Total Lead (AA)	Metals: Cd, Cr, Ni, Pb, Zn (6010/6011) & Cu	Organic lead (DHS LUFT)									
TB	2 40ml VOA	W	D	-	HCl	Y	✓																	
BB	2 40ml VOA	W	D	-	HCl	Y	✓																	ANALYSIS IN ORDER
MW3	3 40ml VOA	W	D	0940	HCl	Y	✓																	
MW3	2 40ml VOA	W	D	0940	-	Y																		
MW-2	3 40ml VOA	W	D	1025	HCl	Y	✓																	
MW-2	3 40ml VOA	W	D	1025	-	Y																		
MW-2	3 40ml VOA	W	D	1055	HCl	Y	✓																	
MW-2	2 40ml VOA	W	D	1055	-	Y																		

Relinquished By (Signature) <u>[Signature]</u>	Organization <u>SSES</u>	Date/Time <u>10/25/95 1455</u>	Received By (Signature) _____	Organization _____	Date/Time _____	Turn Around Time (Circle One) 24 hours 48 hours 5 days <u>10 days</u> As Contracted
Relinquished By (Signature) _____	Organization _____	Date/Time _____	Received By (Signature) _____	Organization _____	Date/Time _____	
Relinquished By (Signature) _____	Organization _____	Date/Time _____	Received for Laboratory by (Signature) <u>[Signature]</u>	Organization _____	Date/Time <u>10/25/95 14:55</u>	

Sierra Environmental - Martinez
P.O. Box 2546
Martinez, CA 94553

Date: November 20, 1995

Attn: WAYNE AKIYAMA

Laboratory Number : 20413

Project Number/Name : 4-719-04

This report has been reviewed and
approved for release.



Senior Chemist
Account Manager

Sierra Environmental - Martinez
Attn: WAYNE AKIYAMA

Project 4-719-04
Reported on November 20, 1995

Volatile Aromatic Hydrocarbons by EPA SW-846 Method 5030/8020

Chronology

Laboratory Number 20413

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
TB	10/25/95	10/25/95	11/01/95	11/01/95	BK011.19	01
BB	10/25/95	10/25/95	11/01/95	11/01/95	BK011.19	02
MW-3	10/25/95	10/25/95	11/01/95	11/01/95	BK011.19	03
MW-1	10/25/95	10/25/95	11/01/95	11/01/95	BK011.19	04
MW-2	10/25/95	10/25/95	11/01/95	11/01/95	BK011.19	05

QC Samples

QC Batch #	QC Sample ID	TypeRef.	Matrix	Extract.	Analyzed
BK011.19-02	MW-12	MS 20392-03	Water	11/01/95	11/01/95
BK011.19-03	MW-12	MSD 20392-03	Water	11/01/95	11/01/95
BK011.19-01	Method Blank	MB	Water	11/01/95	11/01/95

Volatile Aromatic Hydrocarbons by EPA SW-846 Method 5030/8020

LAB ID	Sample ID	Matrix	Dil. Factor	Moisture
20413-01	TB	Water	1.0	-
20413-02	BB	Water	1.0	-
20413-03	MW-3	Water	5.0	-
20413-04	MW-1	Water	1.0	-

R E S U L T S O F A N A L Y S I S

Compound	20413-01		20413-02		20413-03		20413-04	
	Conc.	RL	Conc.	RL	Conc.	RL	Conc.	RL
	ug/L		ug/L		ug/L		ug/L	
Benzene	ND	0.5	ND	0.5	32	2.5	0.6	0.5
Toluene	ND	0.5	ND	0.5	3.4	2.5	1.4	0.5
Ethyl Benzene	ND	0.5	ND	0.5	4.7	2.5	20	0.5
Xylenes	ND	0.5	ND	0.5	9.6	2.5	14	0.5

>> Surrogate Recoveries (%) <<

Trifluorotoluene (SS)	107	110	81	232I
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Sierra Environmental - Martinez
Attn: WAYNE AKIYAMA

Project 4-719-04
Reported on November 20, 1995

Volatile Aromatic Hydrocarbons by EPA SW-846 Method 5030/8020

LAB ID	Sample ID	Matrix	Dil. Factor	Moisture
20413-05	MW-2	Water	1.0	-

R E S U L T S O F A N A L Y S I S

Compound	20413-05 Conc. RL ug/L	
Benzene	63	0.5
Toluene	70	0.5
Ethyl Benzene	440	0.5
Xylenes	1100	0.5

>> Surrogate Recoveries (%) <<

Trifluorotoluene (SS) 284I

Volatile Aromatic Hydrocarbons by EPA SW-846 Method 5030/8020

Quality Assurance and Control Data

Laboratory Number: 20413

Method Blank(s)

BK011.19-01

Conc. RL

ug/L

Benzene	ND	0.5
Toluene	ND	0.5
Ethyl Benzene	ND	0.5
Xylenes	ND	0.5

>> Surrogate Recoveries (%) <<

Trifluorotoluene (SS) 110

Volatile Aromatic Hydrocarbons by EPA SW-846 Method 5030/8020

Quality Assurance and Control Data

Laboratory Number: 20413

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
For Water Matrix (ug/L)						
BK011.19 02 / 03 - Sample Spiked: 20392 - 03						
Benzene	ND	20	19/19	95/95	65-125	0
Toluene	ND	20	21/21	105/105	65-125	0
Ethyl Benzene	ND	20	22/21	110/105	65-125	5
Xylenes	ND	60	66/63	110/105	65-125	5
>> Surrogate Recoveries (%) <<						
Trifluorotoluene (SS)				106/109	50-150	

I - The surrogate recovery was high due to the presence of interfering compounds in the sample.

Definitions:

ND = Not Detected
 RL = Reporting Limit
 NA = Not Analysed
 RPD = Relative Percent Difference
 ug/L = parts per billion (ppb)
 mg/L = parts per million (ppm)

ug/kg = parts per billion (ppb)
 mg/kg = parts per million (ppm)

Sierra Environmental - Martinez
Attn: WAYNE AKIYAMA

Project 4-719-04
Reported on November 20, 1995

Total Extractable Petroleum Hydrocarbons
by EPA SW-846 Method 8015M

Chronology

Laboratory Number 20413

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
MW-3	10/25/95	10/25/95	11/01/95	11/11/95	BK011.21	03
MW-1	10/25/95	10/25/95	11/01/95	11/11/95	BK011.21	04
MW-2	10/25/95	10/25/95	11/01/95	11/18/95	BK011.21	05

QC Samples

QC Batch #	QC Sample ID	TypeRef.	Matrix	Extract.	Analyzed
BK011.21-01	Method Blank	MB	Water	11/09/95	11/09/95
BK011.21-02	Laboratory Spike	LS	Water	11/01/95	11/09/95
BK011.21-03	Laboratory Spike Duplicate	LSD	Water	11/01/95	11/09/95

Sierra Environmental - Martinez
 Attn: WAYNE AKIYAMA

Project 4-719-04
 Reported on November 20, 1995

Total Extractable Petroleum Hydrocarbons
 by EPA SW-846 Method 8015M

LAB ID	Sample ID	Matrix	Dil. Factor	Moisture
20413-03	MW-3	Water	1.0	-
20413-04	MW-1	Water	1.0	-
20413-05	MW-2	Water	10.0	-

R E S U L T S O F A N A L Y S I S

Compound	20413-03		20413-04		20413-05	
	Conc.	RL	Conc.	RL	Conc.	RL
	ug/L		ug/L		ug/L	
Stoddard	2300	50	660	50	38000	500
>> Surrogate Recoveries (%) << Tetracosane	76		75		78	

Total Extractable Petroleum Hydrocarbons
by EPA SW-846 Method 8015M

Quality Assurance and Control Data

Laboratory Number: 20413
Method Blank(s)

BK011.21-01
Conc. RL
ug/L

Stoddard	ND	50
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>> Surrogate Recoveries (%) <<
Tetracosane 57

Total Extractable Petroleum Hydrocarbons
by EPA SW-846 Method 8015M

Quality Assurance and Control Data

Laboratory Number: 20413

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
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For Water Matrix ()

BK011.21 02 / 03 - Laboratory Control Spikes

||SUSurrogate Recoveries (%)

Tetracosane

70/70

50-150

Definitions:

ND = Not Detected

RL = Reporting Limit

NA = Not Analysed

RPD = Relative Percent Difference

ug/L = parts per billion (ppb)

mg/L = parts per million (ppm)

ug/kg = parts per billion (ppb)

mg/kg = parts per million (ppm)

Sierra Environmental Shipping address
Attn: WAYNE AKIYAMA

Project 4-719-04
Reported on November 7, 1995

EPA SW-846 Method 6010 and/or 7000 Series Total Metals

Chronology

Laboratory Number 20413

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
MW-3	10/25/95	10/25/95	11/03/95	11/03/95	BK031.44	03
MW-1	10/25/95	10/25/95	11/03/95	11/03/95	BK031.44	04
MW-2	10/25/95	10/25/95	11/03/95	11/03/95	BK031.44	05

QC Samples

QC Batch #	QC Sample ID	TypeRef.	Matrix	Extract.	Analyzed
BK031.44-01	Method Blank	MB	Water	11/03/95	11/03/95
BK031.44-02	Laboratory Spike	LS	Water	11/03/95	11/03/95
BK031.44-03	Laboratory Spike Duplicate	LSD	Water	11/03/95	11/03/95
BK031.44-04	L-1	MS 20399-03	Water	11/03/95	11/03/95
BK031.44-05	L-1	MSD 20399-03	Water	11/03/95	11/03/95

Sierra Environmental Shipping address
Attn: WAYNE AKIYAMA

Project 4-719-04
Reported on November 7, 1995

EPA SW-846 Method 6010 and/or 7000 Series Total Metals

LAB ID	Sample ID	Matrix	Dil.Factor	Moisture
20413-03	MW-3	Water	1.0	-
20413-04	MW-1	Water	1.0	-
20413-05	MW-2	Water	1.0	-

R E S U L T S O F A N A L Y S I S

Compound	20413-03		20413-04		20413-05	
	Conc.	RL	Conc.	RL	Conc.	RL
	mg/L		mg/L		mg/L	
Cadmium (SW-846 6010)	ND	0.005	ND	0.005	ND	0.005
Chromium (SW-846 6010)	0.05	0.01	0.04	0.01	0.04	0.01
Copper (SW-846 6010)	0.03	0.02	ND	0.02	0.023	0.02
Lead (SW-846 6010)	ND	0.05	ND	0.05	ND	0.05
Nickel (SW-846 6010)	0.08	0.02	0.13	0.02	0.047	0.02
Zinc (SW-846 6010)	0.08	0.02	0.03	0.02	0.26	0.02

EPA SW-846 Method 6010 and/or 7000 Series Total Metals

Quality Assurance and Control Data

Laboratory Number: 20413
Method Blank(s)

BK031.44-01
Conc. RL
mg/L

Cadmium (SW-846 6010)	ND	0.005
Chromium (SW-846 6010)	ND	0.01
Copper (SW-846 6010)	ND	0.02
Lead (SW-846 6010)	ND	0.05
Nickel (SW-846 6010)	ND	0.02
Zinc (SW-846 6010)	ND	0.02

EPA SW-846 Method 6010 and/or 7000 Series Total Metals

Quality Assurance and Control Data

Laboratory Number: 20413

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
For Water Matrix (mg/L)						
BK031.44 02 / 03 - Laboratory Control Spikes						
Cadmium (SW-846 6010)		1	1/0.99	100/99	75-125	1
Chromium (SW-846 6010)		1	1.04/1.02	104/102	75-125	2
Copper (SW-846 6010)		1	1.04/1.02	104/102	75-125	2
Lead (SW-846 6010)		1	1/1	100/100	75-125	0
Nickel (SW-846 6010)		1	1.05/1.04	105/104	75-125	1
Zinc (SW-846 6010)		1	1/0.99	100/99	75-125	1
For Water Matrix (mg/L)						
BK031.44 04 / 05 - Sample Spiked: 20399 - 03						
Cadmium (SW-846 6010)	0	1	0.89/0.88	89/88	75-125	1
Chromium (SW-846 6010)	0.37	1	1.3/1.3	93/93	75-125	0
Copper (SW-846 6010)	0.21	1	1.1/1.1	89/89	75-125	0
Lead (SW-846 6010)	0	1	0.88/0.87	88/87	75-125	1
Nickel (SW-846 6010)	0.27	1	1.2/1.1	93/83	75-125	11
Zinc (SW-846 6010)	0.68	1	1.6/1.5	92/82	75-125	11

R - MS and/or MSD recoveries were out of control limits. LCS / LCSD recoveries were within acceptable limits.

Definitions:

ND = Not Detected

RL = Reporting Limit

NA = Not Analysed

RPD = Relative Percent Difference

ug/L = parts per billion (ppb)

mg/L = parts per million (ppm)

ug/kg = parts per billion (ppb)

mg/kg = parts per million (ppm)

Sierra Environmental
Attn: WAYNE AKIYAMA

Project 4-719-04
Reported on November 8, 1995

Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

Chronology

Laboratory Number 20413

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
MW-3	10/25/95	10/25/95	11/07/95	11/07/95	BK071.08	03
MW-1	10/25/95	10/25/95	11/07/95	11/07/95	BK071.08	04
MW-2	10/25/95	10/25/95	11/07/95	11/07/95	BK071.08	05

QC Samples

QC Batch #	QC Sample ID	TypeRef.	Matrix	Extract.	Analyzed
BK071.08-01	Method Blank	MB	Water	11/07/95	11/07/95
BK071.08-02	Laboratory Spike	LS	Water	11/07/95	11/07/95
BK071.08-03	D-7	MS 20428-03	Water	11/07/95	11/07/95
BK071.08-04	D-7	MSD 20428-03	Water	11/07/95	11/07/95

Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

LAB ID	Sample ID	Matrix	Dil. Factor	Moisture
20413-03	MW-3	Water	1.0	-
20413-04	MW-1	Water	1.0	-
20413-05	MW-2	Water	1.0	-

R E S U L T S O F A N A L Y S I S

Compound	20413-03		20413-04		20413-05	
	Conc. ug/L	RL	Conc. ug/L	RL	Conc. ug/L	RL
Chloromethane	ND	0.5	ND	0.5	ND	0.5
Vinyl Chloride	4.2	0.5	ND	0.5	17	0.5
Bromomethane	ND	0.5	ND	0.5	ND	0.5
Chloroethane	ND	0.5	ND	0.5	ND	0.5
Trichlorofluoromethane	ND	0.5	ND	0.5	ND	0.5
1,1-Dichloroethene	ND	0.5	ND	0.5	ND	0.5
Dichloromethane	ND	3	ND	3	ND	3
t-1,2-Dichloroethene	ND	0.5	ND	0.5	ND	0.5
1,1-Dichloroethane	ND	0.5	ND	0.5	5.4	0.5
c-1,2-Dichloroethene	4.1	0.5	ND	0.5	40	0.5
Chloroform	ND	0.5	ND	0.5	ND	0.5
1,1,1-Trichloroethane	ND	0.5	ND	0.5	ND	0.5
Carbon tetrachloride	ND	0.5	ND	0.5	ND	0.5
1,2-Dichloroethane	ND	0.5	ND	0.5	ND	0.5
Trichloroethene	ND	0.5	ND	0.5	1.7	0.5
c-1,3-Dichloropropene	ND	0.5	ND	0.5	ND	0.5
1,2-Dichloropropane	ND	0.5	ND	0.5	9.0	0.5
t-1,3-Dichloropropene	ND	0.5	ND	0.5	ND	0.5
Bromodichloromethane	ND	0.5	ND	0.5	ND	0.5
1,1,2-Trichloroethane	ND	0.5	ND	0.5	ND	0.5
Tetrachloroethene	ND	0.5	ND	0.5	9.4	0.5
Dibromochloromethane	ND	0.5	ND	0.5	ND	0.5
Chlorobenzene	1.7	0.5	ND	0.5	ND	0.5
Bromoform	ND	0.5	ND	0.5	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5	ND	0.5	ND	0.5
1,3-Dichlorobenzene	ND	0.5	ND	0.5	ND	0.5
1,2-Dichlorobenzene	1.6	0.5	ND	0.5	ND	0.5
1,4-Dichlorobenzene	ND	0.5	ND	0.5	ND	0.5

>> Surrogate Recoveries (%) <<

4-Bromofluorobenzene	100	97	56
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Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

Quality Assurance and Control Data

Laboratory Number: 20413

Method Blank(s)

BK071.08-01

Conc. RL

ug/L

Chloromethane	ND	0.5
Vinyl Chloride	ND	0.5
Bromomethane	ND	0.5
Chloroethane	ND	0.5
Trichlorofluoromethane	ND	0.5
1,1-Dichloroethene	ND	0.5
Dichloromethane	ND	3
t-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
c-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
c-1,3-Dichloropropene	ND	0.5
1,2-Dichloropropane	ND	0.5
t-1,3-Dichloropropene	ND	0.5
Bromodichloromethane	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5

>> Surrogate Recoveries (%) <<

4-Bromofluorobenzene 94

Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

Quality Assurance and Control Data

Laboratory Number: 20413

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
For Water Matrix (ug/L)						
BK071.08 02 / - Laboratory Control Spikes						
1,1-Dichloroethene		20	19	95	50-189	
Trichloroethene		20	19	95	53-161	
Chlorobenzene		20	19	95	57-171	
>> Surrogate Recoveries (%) <<						
4-Bromofluorobenzene				99	50-125	
For Water Matrix (ug/L)						
BK071.08 03 / 04 - Sample Spiked: 20428 - 03						
1,1-Dichloroethene	ND	20	14/15	70/75	50-189	7
Trichloroethene	ND	20	15/15	75/75	53-161	0
Chlorobenzene	ND	20	17/16	85/80	57-171	6
>> Surrogate Recoveries (%) <<						
4-Bromofluorobenzene				113/105	50-125	

Definitions:

ND = Not Detected
 RL = Reporting Limit
 NA = Not Analysed
 RPD = Relative Percent Difference
 ug/L = parts per billion (ppb)
 mg/L = parts per million (ppm)

ug/kg = parts per billion (ppb)
 mg/kg = parts per million (ppm)



APPENDIX E
WATER SAMPLING FORMS



WATER SAMPLING DATA

Job Name THE BUSINESS PARK Job Number 4-719-04 Sampler DMB
 Well Number TB Date 10-25-95 Well Diameter _____
 Sample Point Location/Description _____ Well Depth (spec.) _____
 Depth to Water (static) _____ Well Depth (sounded) _____
 Initial height of water in casing _____ Volume _____ gallons
 Volume to be purged _____ gallons
 Purged With _____ Sampled With _____
 Pumped or Bailed Dry? Yes No Time _____ After _____ gallons
 Water level at sampling _____ Percent Recovery _____

Formulas/Conversions
 r = well radius in ft
 h = ht of water col. in ft
 vol. in cyl. = $\pi r^2 h$
 7.48 gal/ft³
 V_2 " casing = 0.163 gal/ft
 V_3 " casing = 0.367 gal/ft
 V_4 " casing = 0.653 gal/ft
 $V_{4.5}$ " casing = 0.826 gal/ft
 V_6 " casing = 1.47 gal/ft
 V_8 " casing = 2.61 gal/ft

CHEMICAL DATA

Purge Time		Purge Volume (gal.)	Cumulative (gal.)	pH	Temp (°C)	Specific Conductance	
Start	Stop					Measurement	x umhos/cm
/							
/							
/							
/							
/							

SAMPLES COLLECTED Time _____ Total volume purged (gal.) _____
 Water color _____ Odor _____
 Description of sediments or material in sample: _____
 Additional Comments: TRIP BLANK

Sample ID	# of Cont.	Container Type	Filtered (size, u)	Preservative (type)	Refrig. (Y/N)	Lab (Init)	Analysis Requested
TB	2	1	-	HCl	Y	SAL	BEA

Container Type Codes: 1 = 40 ml clear VOA/Teflon septa; 2 = Brown glass/teflon lined cap (specify size);
 3 = Clear glass/teflon lined cap (specify size); 4 = Polyethylene/polyethylene cap (specify size);
 5 = Other _____; 6 = Other _____



WATER SAMPLING DATA

Job Name TLE. BUSINESS PARK

Job Number 4790A

Sampler DMB

Well Number BB

Date 10-25-95

Well Diameter _____

Sample Point Location/Description _____

Well Depth (spec.) _____

Depth to Water (static) _____

Well Depth (sounded) _____

Initial height of water in casing _____

Volume _____ gallons

Volume to be purged _____ gallons

Purged With _____

Sampled With _____

Pumped or Bailed Dry? Yes No

Time _____ After _____ gallons

Water level at sampling _____

Percent Recovery _____

Formulas/Conversions
 r = well radius in ft
 h = ht of water col. in ft
 vol. in cyl. = $\pi r^2 h$
 7.48 gal/ft³
 $V_{2"}$ casing = 0.163 gal/ft
 $V_{3"}$ casing = 0.367 gal/ft
 $V_{4"}$ casing = 0.653 gal/ft
 $V_{4.5"}$ casing = 0.826 gal/ft
 $V_{6"}$ casing = 1.47 gal/ft
 $V_{8"}$ casing = 2.61 gal/ft

CHEMICAL DATA

Purge Time		Purge Volume (gal.)	Cumulative (gal.)	pH	Temp (°C)	Specific Conductance	
Start	Stop					Measurement	x umhos/cm
/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/

SAMPLES COLLECTED Time _____ Total volume purged (gal.) _____

Water color _____ Odor _____

Description of sediments or material in sample: _____

Additional Comments: BAILER BLANK

Sample ID	# of Cont.	Container Type	Filtered (size, u)	Preservative (type)	Refrig. (Y/N)	Lab (Init)	Analysis Requested
BB	2	1	—	HCl	Y	SAL	BT BTEX

Container Type Codes: 1 = 40 ml clear VOA/Teflon septa; 2 = Brown glass/teflon lined cap (specify size);
 3 = Clear glass/teflon lined cap (specify size); 4 = Polyethylene/polyethylene cap (specify size);
 5 = Other _____; 6 = Other _____



WATER SAMPLING DATA

Job Name TELEPHONE BUSINESS PARK Job Number 4-719-04 Sampler DMB
 Well Number MW-1 Date 10-25-95 Well Diameter 2"
 Sample Point Location/Description NORTH SIDE BLD. Well Depth (spec.) _____
 Depth to Water (static) 7.74 Well Depth (sounded) 19.10
 Initial height of water in casing 11.20 Volume 1.85 gallons
 Volume to be purged 5.5 gallons
 Purged With DISP. BALLER Sampled With DISP. BALLER
 Pumped or Bailed Dry? Yes No Time _____ After _____ gallons
 Water level at sampling _____ Percent Recovery _____

Formulas/Conversions
 r = well radius in ft
 h = ht of water col. in ft
 vol. in cyl. = $\pi r^2 h$
 7.48 gal/ft^3
 $V_{2"} \text{ casing} = 0.163 \text{ gal/ft}$
 $V_{3"} \text{ casing} = 0.367 \text{ gal/ft}$
 $V_{4"} \text{ casing} = 0.653 \text{ gal/ft}$
 $V_{4.5"} \text{ casing} = 0.826 \text{ gal/ft}$
 $V_{6"} \text{ casing} = 1.47 \text{ gal/ft}$
 $V_{8"} \text{ casing} = 2.61 \text{ gal/ft}$

CHEMICAL DATA

Purge Time		Purge Volume (gal.)	Cumulative (gal.)	pH	Temp ^{°F}	Specific Conductance	
Start	Stop					Measurement	x umhos/cm
10:04							
10:06		2	2	6.56	63°	1230	
	10:09	2	4	6.58	63°	1300	
	10:12	2	6		63°		

SAMPLES COLLECTED Time 1025 Total volume purged (gal.) 6
 Water color CLOUDY GREY Odor ORGANIC
 Description of sediments or material in sample: LIGHT-MOD TURBIDITY
 Additional Comments: _____

Sample ID	# of Cont.	Container Type	Filtered (size, u)	Preservative (type)	Refrig. (Y/N)	Lab (Init)	Analysis Requested
MW-1	3	1	-	HCl	Y	SAL	BE BTEX
MW-1	2	2	-	-	Y	SAL	SPOOLED SOLUTION Hazardous Wastes

Container Type Codes: 1 = 40 ml clear VOA/Teflon septa; 2 = Brown glass/teflon lined cap (specify size);
 3 = Clear glass/teflon lined cap (specify size); 4 = Polyethylene/polyethylene cap (specify size);
 5 = Other _____; 6 = Other _____



WATER SAMPLING DATA

Job Name Tree Business Park Job Number 4-719-04 Sampler DUB
 Well Number MW-2 Date 10-25-95 Well Diameter 2"
 Sample Point Location/Description CAITANS Property Line Well Depth (spec.) _____
 Depth to Water (static) 10.15 Well Depth (sounded) 26.15
 Initial height of water in casing 16.0 Volume 2.6 gallons
 Volume to be purged _____ 7.8 gallons
 Purged With DISP BAILED Sampled With DISP. BAILED
 Pumped or Bailed Dry? Yes No Time _____ After _____ gallons
 Water level at sampling _____ Percent Recovery _____

Formulas/Conversions
 r = well radius in ft
 h = ht of water col. in ft
 vol. in cyl. = $\pi r^2 h$
 7.48 gal/ft³
 V_{2"} casing = 0.163 gal/ft
 V_{3"} casing = 0.367 gal/ft
 V_{4"} casing = 0.653 gal/ft
 V_{4.5"} casing = 0.826 gal/ft
 V_{6"} casing = 1.47 gal/ft
 V_{8"} casing = 2.61 gal/ft

CHEMICAL DATA

Purge Time		Purge Volume (gal.)	Cumulative (gal.)	pH	Temp (°C)	Specific Conductance	
Start	Stop					Measurement	x umhos/cm
10:40							
	10:44	3	3	6.59	63°	1470	
	10:48	3	6	6.57	63°	1560	
	10:51	2	8	6.57	63°	1590	

SAMPLES COLLECTED Time 10:55 Total volume purged (gal.) 8
 Water color CLOUDY GREY Odor SOAWAY COUL STRONG
 Description of sediments or material in sample: LIGHT TURBIDITY
 Additional Comments: _____

Sample ID	# of Cont.	Container Type	Filtered (size, u)	Preservative (type)	Refrig. (Y/N)	Lab (Init)	Analysis Requested
MW-2	3	1	-	HCl	Y	SAL	BE BTEX
MW-2	2	2	-	-	Y	SAL	STANDARD SOLENT Unmeasured hydrocarbons

Container Type Codes: 1 = 40 ml clear VOA/Teflon septa; 2 = Brown glass/teflon lined cap (specify size);
 3 = Clear glass/teflon lined cap (specify size); 4 = Polyethylene/polyethylene cap (specify size);
 5 = Other _____; 6 = Other _____



WATER SAMPLING DATA

Job Name TRE BRASS PAK Job Number 4-719-04 Sampler PMB
 Well Number MW-3 Date 10-25-95 Well Diameter 2"
 Sample Point Location/Description WEST SIDE OF BLD. Well Depth (spec.) _____
 Depth to Water (static) 12.29 Well Depth (sounded) 19.90
 Initial height of water in casing 7.61 Volume 1.24 gallons
 Volume to be purged 5.72 gallons
 Purged With DISP. BAILEY Sampled With DISP. BAILEY
 Pumped or Bailed Dry? Yes No Time _____ After _____ gallons
 Water level at sampling _____ Percent Recovery _____

Formulas/Conversions
 r = well radius in ft
 h = ht of water col. in ft
 vol. in cyl. = $\pi r^2 h$
7.48 gal/ft³
 $V_{1/2}$ casing = 0.163 gal/ft
 $V_{1/4}$ casing = 0.367 gal/ft
 $V_{1/8}$ casing = 0.653 gal/ft
 $V_{1/4}$ casing = 0.826 gal/ft
 $V_{1/2}$ casing = 1.47 gal/ft
 $V_{3/4}$ casing = 2.61 gal/ft

CHEMICAL DATA

Purge Time		Purge Volume (gal.)	Cumulative (gal.)	pH	Temp (°F)	Specific Conductance	
Start	Stop					Measurement	x umhos/cm
0923							
	0925	2	2	6.80	63°	0820	
	0926	1	3	6.67	63°	0870	
	0932	1	4	6.67	63	0820	

SAMPLES COLLECTED Time 0940 Total volume purged (gal.) 4
 Water color CLOUDY GREY Odor SLIGHT HYDROGEN
 Description of sediments or material in sample: LIGHT - MED TURBIDITY
 Additional Comments: LIGHT GREEN ON WATER - SLIGHT OIL - NO PRODUCT.

Sample ID	# of Cont.	Container Type	Filtered (size, u)	Preservative (type)	Refrig. (Y/N)	Lab (Init)	Analysis Requested
MW-3	3	1	-	IC1	Y	SAL	BTEX
MW-3	2	2	-	-	Y	SAL	STANDARD SCHEM Halogenated Hydro

Container Type Codes: 1 = 40 ml clear VOA/Teflon septa; 2 = Brown glass/teflon lined cap (specify size);
 3 = Clear glass/teflon lined cap (specify size); 4 = Polyethylene/polyethylene cap (specify size);
 5 = Other _____; 6 = Other _____