EXXON COMPANY, U.S.A.

POST OFFICE BOX 4032 • CONCORD, CA 94524-2032

ENVIRONMENTAL ENGINEERING

W. Y. WANG
SENIOR ENVIRONMENTAL ENGINEER

17 October, 1991

Former Exxon RAS 7-3006
720 High Street
Oakland, California

Mr. Larry Seto
Alameda County Health Agency
Division of Hazardous Materials
80 Swan Way, Suite 200
Oakland, California 94621

Dear Mr. Seto:

Attached for your review and comment is the **Letter Report on Groundwater Monitoring for Third Quarter 1991** for the above referenced former Exxon station in Oakland. The report, prepared by RESNA/Applied GeoSystems of Fremont, California, details the results of the September, 1991 ground water monitoring well sampling event.

Please note that Exxon continues to hand-bail free phase product as a interim migration control measure for the site. A ground water remediation work plan was submitted to the County for review on 14 october, 1991.

Should you have any questions, comments, or require additional information, please do not hesitate to contact me at (510) 246-8768.

Sincerely,

William Y. Wang

WYW:ss
0651E.3
Attachments

c - w/attachment:
Mr. L. Feldman - San Francisco Bay Region Water Quality Control Board
Mr. V. A. Sevier

w/o attachment:
Mr. D. J. Bertoch
Mr. P. J. Brininstool
Mr. J. R. Hastings
Mr. M. E. Detterman - RESNA/Applied GeoSystems, Fremont

Applied GeoSystems, Inc.
A RESNA Company

RESNA
Environmental Solutions
Through Applied Science,
Engineering & Construction

42501 Albrae Street, Suite 100
Fremont, CA 94538
Phone: (415) 651-1906
Fax: (415) 651-8647

LETTER REPORT
on
GROUNDWATER MONITORING
FOR THIRD QUARTER 1991
at
Exxon Station No. 7-3006
720 High Street
Oakland, California

RESNA/AGS Job No. 87042-9

SITE CONTACTS

Site Name: Exxon Station No. 7-3006
Site Address: 720 High Street
Oakland, California 94601
(415) 533-6066

Owner: Victor Chu

Exxon's Environmental Engineer:

Bill Wang
Senior Environmental Engineer
Environmental Engineering, Marketing Department
Exxon Company, U.S.A.
2300 Clayton Road
Concord, California 94520
(415) 246-8768

Consultant: RESNA Industries (RESNA)
42501 Albrae Street, Suite 100
Fremont, California 94538
(415) 651-1906

SITE BACKGROUND

The site is located at 720 High Street, in a predominantly industrial area of Oakland, California (Site Vicinity Map, Plate P-1). It is bounded on the northwest by High Street, on the southwest by Coliseum Way, on the northeast by a former dry-cleaning facility, and on the south by Alameda Avenue. RESNA, formerly Applied GeoSystems (AGS), drilled borings B-14 through B-20 in November 1989 and drilled borings B-21 through B-30 in November 1990. AGS installed groundwater monitoring wells MW-2 through MW-9 in September 1987, MW-1 in May 1988, MW-10 through MW-13 in November 1989, and MW-14 and MW-15 in November 1990. The locations of the borings, wells, and pertinent site facilities are shown on the Generalized Site Plan, Plate P-2.

GROUNDWATER GRADIENT AND FLOW DIRECTION

The monitoring wells at this site are constructed in various permeable zones; for continuity, the groundwater elevation data from wells constructed in the shallow gravel were used to estimate the difference in groundwater elevation across the site on August 7 and September 17, 1991 (Table 2). The ground-water elevation contours are shown on the Groundwater Elevation Maps, Plates P-3 and P-4. Plates P-3 and P-4 suggest that ground water flowed toward the southwest with estimated gradient of 0.02. This is consistent with previous flow directions and gradient results. Plates P-3 and P-4, when compared to previous results, suggest that the groundwater level and gradient in the northern portion of the site may be affected by the open excavation on the adjacent site.

ANALYTICAL METHODS AND RESULTS OF GROUNDWATER SAMPLES

Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by Environmental Protection Agency (EPA) modified Method 8015 and for benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 602. Samples were analyzed at Pace laboratory in Novato, California (Hazardous Waste Testing Laboratory Certification No. 1211). Copies of Chain of Custody Records and Analysis Reports are attached.

In wells with detectable hydrocarbons, concentrations of TPHg ranged from 0.45 to 82 parts per million (ppm), and benzene concentrations ranged from 0.029 to 22 ppm. In general, concentrations of gasoline hydrocarbons decreased compared to the June 1991 results (Table 3). To illustrate the distribution of hydrocarbons, concentration maps were prepared for TPHg and benzene (Plates P-5 and P-6). The maps suggest that dissolved hydrocarbons are mainly found beneath the southwestern half of the site, with the highest concentrations northwest of the former main service island and in the vicinity of the former fuel tanks.

REMEDIATION OF GROUNDWATER

Ground-water wells with floating product have been periodically bailed. A groundwater recovery system is being evaluated for construction.

RECOMMENDATIONS

We recommend that copies of this report be sent to

- Mr. Larry Seto, Alameda County Health Agency, Department of Environmental Health, 80 Swan Way, Room 200, Oakland, California 94621, and

- Mr. Lester Feldman, California Regional Water Quality Control Board, San Francisco Bay Region, 2101 Webster Street, Suite 500, Oakland, California 94612.

Please call if you have any questions.

Sincerely,
Applied GeoSystems

Rasmi El-Jurf
Project Engineer

Mark E. Detterman
Project Manager

Dan Wynne
C.E.G. 1569

Enclosures:
Results of Subjective Evaluation of Water Samples, Table 1
Summary of Groundwater Elevations, Table 2
Results of Latest Groundwater Analyses, Table 3
Results of Groundwater Analyses, Table 4
Site Vicinity Map, Plate P-1
Generalized Site Plan, Plate P-2
Groundwater Elevation Map (August 7, 1991), Plate P-3
Groundwater Elevation Map (September 17, 1991), Plate P-4
Concentration of TPHg in Groundwater, Plate P-5
Concentration of Benzene in Groundwater, Plate P-6
Field Procedures
Chain of Custody Records and Certified Analysis Reports

Submitted: October 9, 1991
Revised: October 14, 1991

TABLE 1
RESULTS OF SUBJECTIVE EVALUATION OF WATER SAMPLES
(page 1 of 6)

Date	Depth to Water (ft)	Floating Product (ft)	Sheen	Emulsion
MW-1				
04/25/89	7.55	NONE	NONE	NONE
04/27/89	10.16	NONE	SLIGHT	NONE
09/06/89	10.88	NONE	SLIGHT	NONE
09/22/89	11.06	NONE	NONE	NONE
11/01/89	10.82	NONE	NONE	NONE
11/15/89	11.07	NONE	NONE	NONE
12/06/89	10.33	NONE	NONE	NONE
02/20/90	8.81	NONE	NONE	NONE
04/19/90	9.33	NONE	NONE	NONE
07/03/90	8.44	NONE	NONE	NONE
07/26/90	8.99	NONE	NONE	NONE
08/20/90	9.50	NONE	NONE	NONE
09/19/90	9.99	NONE	NONE	NONE
11/27/90	10.62	NONE	NONE	NONE
01/17/91	10.31	NONE	NONE	NONE
03/26/91	7.97	NONE	NONE	NONE
05/02/91	8.88	NONE	NONE	NONE
06/20/91	9.62	NONE	NONE	NONE
08/07/91	10.20	NONE	NONE	NONE
09/17/91	10.40	NONE	NONE	NONE
MW-2				
04/25/89	9.27	2.16	N/A	NONE
07/19/89	10.81	1.56	N/A	NONE
07/27/89	10.18	0.13	N/A	HEAVY
09/06/89	10.89	0.09	N/A	SLIGHT
09/22/89	11.56	0.56	N/A	SLIGHT
11/01/89	10.85	0.09	N/A	NONE
11/15/89	11.05	0.07	N/A	NONE
12/06/89	10.23	0.13	N/A	NONE
02/20/90	8.86	0.29	N/A	NONE
04/19/90	9.09	0.10	N/A	NONE
07/03/90	8.75	0.05	N/A	NONE
07/26/90	8.71	0.10	N/A	NONE
08/20/90	9.25	0.02	N/A	NONE
09/19/90	9.79	0.02	N/A	NONE
11/27/90	10.40	0.07	N/A	NONE
01/17/91	10.03	0.05	N/A	NONE
03/26/91	8.98	0.08	N/A	NONE
05/02/91	8.73	0.02	N/A	NONE
06/20/91	9.11	0.02	N/A	NONE
08/07/91	10.00	0.04	N/A	NONE
09/17/91	10.11	0.02	N/A	NONE

TABLE 1
RESULTS OF SUBJECTIVE EVALUATION OF WATER SAMPLES
(page 2 of 6)

Date	Depth to Water (ft)	Floating Product (ft)	Sheen	Emulsion
MW-3				
04/25/89	7.57	0.08	N/A	NONE
07/19/89	10.33	0.66	N/A	NONE
07/27/89		covered by soil		
09/06/89	11.22	0.07	N/A	SLIGHT
09/22/89	11.38	0.28	N/A	SLIGHT
11/01/89	10.90	0.01	N/A	NONE
11/15/89	11.18	0.11	N/A	NONE
12/06/89	10.29	NONE	SLIGHT	NONE
02/20/90	8.73	0.04	N/A	NONE
04/19/90	9.20	0.09	N/A	NONE
07/03/90	8.50	0.03	N/A	NONE
07/26/90	8.58	0.04	N/A	NONE
08/20/90	9.21	0.01	N/A	NONE
09/19/90	10.02	0.35	N/A	NONE
11/27/90	10.72	0.42	N/A	NONE
01/17/91	10.05	0.10	N/A	NONE
03/26/91	7.65	0.10	N/A	NONE
05/02/91	8.54	0.03	N/A	NONE
06/20/91	8.89	0.03	N/A	NONE
08/07/91	9.99	0.03	N/A	NONE
09/17/91	10.32	0.22	N/A	NONE
MW-4				
04/25/89	7.26	0.16	N/A	NONE
07/19/89	10.32	0.72	N/A	NONE
07/27/89		covered by soil		
09/06/89	11.40	0.07	N/A	SLIGHT
09/22/89	11.64	0.19	N/A	SLIGHT
11/01/89	11.00	NONE	SLIGHT	NONE
11/15/89	11.18	0.10	N/A	NONE
12/06/89	10.25	NONE	SLIGHT	NONE
02/20/90	8.40	NONE	N/A	NONE
04/19/90	9.04	0.03	N/A	NONE
07/03/90	8.00	---	N/A	MODERATE
07/26/90	8.57	0.04	N/A	NONE
08/20/90	9.08	0.01	N/A	NONE
09/19/90	9.76	0.03	N/A	NONE
11/27/90	10.83	0.09	N/A	NONE
01/17/91	9.96	0.20	N/A	NONE
03/26/91	6.20	0.09	N/A	NONE
05/02/91	7.50	0.04	N/A	NONE
06/20/91	7.79	0.04	N/A	NONE
08/07/91	9.81	0.05	N/A	NONE
09/17/91	10.02	0.10	N/A	NONE

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TABLE 1
RESULTS OF SUBJECTIVE EVALUATION OF WATER SAMPLES
(page 3 of 6)

Date	Depth to Water (ft)	Floating Product (ft)	Sheen	Emulsion
MW-5				
04/25/89	8.06	0.32	NONE	NONE
07/18/89		well destroyed		
MW-6				
04/25/89	8.02	NONE	NONE	NONE
09/06/89	13.64	0.08	N/A	SLIGHT
09/22/89	13.79	0.07	N/A	SLIGHT
11/01/89	12.78	NONE	SLIGHT	NONE
11/15/89	12.91	NONE	SLIGHT	NONE
12/06/89	11.84	NONE	NONE	NONE
02/20/90	9.08	NONE	NONE	NONE
04/19/90	9.72	NONE	NONE	NONE
07/03/90	8.00	NONE	NONE	NONE
07/26/90	8.70	NONE	NONE	NONE
08/20/90	9.62	NONE	NONE	NONE
09/19/90	10.25	NONE	MODERATE	NONE
11/27/90	10.82	NONE	SLIGHT	NONE
01/17/91	9.93	NONE	NONE	NONE
03/26/91	8.45	NONE	NONE	NONE
05/02/91	8.90	NONE	NONE	NONE
06/20/91	9.47	NONE	SLIGHT	NONE
08/07/91	10.10	NONE	SLIGHT	NONE
09/17/91	10.21	NONE	SLIGHT	NONE
MW-7				
04/25/89	8.66	NONE	NONE	NONE
09/06/89	11.72	NONE	SLIGHT	NONE
09/22/89	11.89	NONE	NONE	NONE
12/06/89	10.46	NONE	NONE	NONE
02/20/90	8.44	NONE	NONE	NONE
04/19/90	9.54	NONE	NONE	NONE
07/03/90	7.45	NONE	NONE	NONE
07/26/90	8.08	NONE	NONE	NONE
08/20/90	8.82	NONE	NONE	NONE
09/19/90	9.01	NONE	NONE	NONE
11/27/90	9.54	NONE	NONE	NONE
01/17/91	8.50	NONE	NONE	NONE
03/26/91	5.92	NONE	NONE	NONE
05/02/91	7.72	NONE	NONE	NONE
06/20/91	8.19	NONE	NONE	NONE
08/07/91	8.70	NONE	NONE	NONE
09/17/91	8.77	NONE	NONE	NONE

TABLE 1
RESULTS OF SUBJECTIVE EVALUATION OF WATER SAMPLES
(page 4 of 6)

Date	Depth to Water (ft)	Floating Product (ft)	Sheen	Emulsion
MW-8				
04/25/89	8.31	0.66	N/A	NONE
07/19/89	10.97	1.25	N/A	NONE
07/27/89	10.34	0.08	N/A	HEAVY
09/06/89	11.09	0.17	N/A	SLIGHT
09/22/89	11.58	0.36	N/A	SLIGHT
11/01/89	11.03	NONE	NONE	NONE
11/15/89	11.25	0.01	N/A	NONE
12/06/89	10.30	NONE	SLIGHT	NONE
02/20/90	8.00	0.01	N/A	NONE
04/19/90	8.50	NONE	NONE	NONE
07/03/90	7.55	NONE	NONE	NONE
07/26/90	7.86	NONE	NONE	NONE
08/20/90	8.92	NONE	NONE	NONE
09/19/90	9.55	NONE	NONE	NONE
11/27/90	10.29	0.01	N/A	NONE
01/17/91	9.97	NONE	HEAVY	NONE
03/26/91	8.45	NONE	MODERATE	NONE
05/02/91	8.85	NONE	LIGHT	NONE
06/20/91	9.45	NONE	SLIGHT	NONE
08/07/91	10.00	NONE	SLIGHT	NONE
09/17/91	10.11	NONE	SLIGHT	NONE
MW-9				
04/25/89	8.25	NONE	NONE	NONE
09/06/89		covered by soil		
09/22/89		covered by soil		
12/06/89	10.12	NONE	NONE	NONE
02/20/90	9.38	NONE	NONE	NONE
04/19/90	9.40	NONE	NONE	NONE
07/03/90	8.79	NONE	NONE	NONE
07/26/90	8.70	NONE	NONE	NONE
08/20/90	9.09	NONE	NONE	NONE
09/19/90	9.52	NONE	NONE	NONE
11/27/90	9.89	NONE	NONE	NONE
01/17/91		covered by soil		
03/26/91		covered by soil		
05/02/91	9.10	NONE	NONE	NONE
06/20/91	8.76	NONE	NONE	NONE
08/07/91	9.37	NONE	NONE	NONE
09/17/91	9.57	NONE	NONE	NONE

TABLE 1
RESULTS OF SUBJECTIVE EVALUATION OF WATER SAMPLES
(page 5 of 6)

Date	Depth to Water (ft)	Floating Product (ft)	Sheen	Emulsion
MW-10				
12/06/89	10.46	NONE	NONE	NONE
02/20/90	8.12	NONE	NONE	NONE
04/19/90	8.54	NONE	NONE	NONE
07/03/90	7.88	NONE	NONE	NONE
07/26/90	8.19	NONE	NONE	NONE
08/20/90	10.33	NONE	NONE	NONE
09/19/90	9.49	NONE	NONE	NONE
11/27/90	9.89	NONE	NONE	NONE
01/17/91	9.19	NONE	NONE	NONE
03/26/91	7.48	NONE	NONE	NONE
05/02/91	8.16	NONE	NONE	NONE
06/20/91	8.75	NONE	NONE	NONE
08/07/91	9.53	NONE	NONE	NONE
09/17/91	9.72	NONE	NONE	NONE
MW-11				
12/06/89	10.62	NONE	NONE	NONE
02/20/90	9.20	NONE	NONE	NONE
04/19/90	9.80	NONE	NONE	NONE
07/03/90	8.90	NONE	NONE	NONE
07/26/90	9.36	NONE	NONE	NONE
08/20/90	9.90	NONE	NONE	NONE
09/19/90	10.39	NONE	NONE	NONE
11/27/90	10.97	NONE	NONE	NONE
01/17/91	10.76	NONE	NONE	NONE
03/26/91	8.80	NONE	NONE	NONE
05/02/91	9.38	NONE	NONE	NONE
06/20/91	10.16	NONE	NONE	NONE
08/07/91	10.69	NONE	NONE	NONE
09/17/91	10.80	NONE	NONE	NONE
MW-12				
12/06/89	8.00	NONE	NONE	NONE
02/20/90	6.33	NONE	NONE	NONE
04/19/90	7.18	NONE	NONE	NONE
07/03/90	7.41	NONE	NONE	NONE
07/26/90	6.54	NONE	NONE	NONE
08/20/90	7.23	NONE	NONE	NONE
09/19/90	7.77	NONE	NONE	NONE
11/27/90	8.15	NONE	NONE	NONE
01/17/91	8.06	NONE	NONE	NONE
03/26/91	7.21	NONE	NONE	NONE
05/02/91	7.60	NONE	SLIGHT	NONE
06/20/91	8.02	NONE	SLIGHT	NONE
08/07/91	8.25	NONE	SLIGHT	NONE
09/17/91	8.20	NONE	SLIGHT	NONE

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TABLE 1
RESULTS OF SUBJECTIVE EVALUATION OF WATER SAMPLES
(page 6 of 6)

Date	Depth to Water (ft)	Floating Product (ft)	Sheen	Emulsion
MW-13				
12/06/89	9.35	NONE	NONE	NONE
02/20/90	7.73	NONE	NONE	NONE
04/19/90	8.68	NONE	NONE	NONE
07/03/90	8.00	NONE	NONE	NONE
07/26/90	7.95	NONE	NONE	NONE
08/20/90	8.66	NONE	NONE	NONE
09/19/90	9.13	NONE	NONE	NONE
11/27/90	9.49	NONE	NONE	NONE
01/17/91	9.61	NONE	NONE	NONE
03/26/91	9.25	NONE	NONE	NONE
05/02/91	9.31	NONE	NONE	NONE
06/20/91	9.73	NONE	NONE	NONE
08/07/91		WELL NOT ACCESSABLE		
09/17/91	9.72	NONE	NONE	NONE
MW-14				
11/27/90	9.88	NONE	NONE	NONE
01/17/91	9.13	NONE	NONE	NONE
03/26/91	8.51	NONE	NONE	NONE
05/02/91	8.45	NONE	NONE	NONE
06/20/91	8.38	NONE	NONE	NONE
08/07/91	9.04	NONE	NONE	NONE
09/17/91	9.14	NONE	NONE	NONE
MW-15				
11/27/90	8.67	NONE	NONE	NONE
01/17/91	8.03	NONE	NONE	NONE
03/26/91		covered by soil		
05/02/91	7.09	NONE	NONE	NONE
06/20/91	7.06	NONE	NONE	NONE
08/07/91	7.59	NONE	NONE	NONE
09/17/91	7.89	NONE	NONE	NONE

N/A = Not applicable.

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TABLE 2
SUMMARY OF GROUNDWATER ELEVATIONS

Well Number	Casing Elevation (ft)	Depth to Water (ft)	Ground-Water Elevation (ft)
August 7, 1991			
MW-1	12.87	10.20	2.67
MW-7	14.84	8.70	6.14
MW-10	14.05	9.53	4.52
MW-12	12.61	8.25	4.36
MW-13	WELL NOT ACCESSABLE		
MW-14	15.18	9.04	6.14
MW-15	13.73	7.59	6.14
September 17, 1991			
MW-1	12.87	10.40	2.47
MW-7	14.84	8.77	6.07
MW-10	14.05	9.72	4.33
MW-12	12.61	8.20	4.41
MW-13	14.20	9.79	4.41
MW-14	15.18	9.14	6.04
MW-15	13.73	7.89	5.84

Casing elevations were surveyed by a certified surveyor, Ron Archer, to mean sea level.

TABLE 3
RESULTS OF LATEST GROUNDWATER ANALYSES
September 17, 1991

Well No.	Sample No.	TPHg ppm	Benzene ppm	Toluene ppm	Ethyl-benzene ppm	Xylenes ppm	TPHd ppm	TOG ppm	VOC ppm
MW-1	W-10-MW1	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--
MW-2				free product					
MW-3				free product					
MW-4				free product					
MW-6	W-10-MW6	17	4.5	0.16	0.89	3.1	--	--	--
MW-7	W-09-MW7	2.4	0.39	0.01	0.015	0.018	--	--	--
MW-8	W-10-MW8	57	14	7.8	3.1	12	--	--	--
MW-9	W-10-MW9	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--
MW-10	W-10-MW10	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--
MW-11	W-11-MW11	<0.050	<0.0005	0.0007	<0.0005	<0.0005	--	--	--
MW-12	W-08-MW12	82	22	18	3.9	16	--	--	--
MW-13	W-10-MW13	40	11	6.5	2.4	8.1	--	--	--
MW-14	W-09-MW14	0.45	<0.0005	<0.0005	0.0032	0.0023	--	--	--
MW-15	W-08-MW15	0.49	0.029	0.0017	0.033	0.0013	--	--	--

TPHg = Total petroleum hydrocarbons as gasoline; TPHd = Total petroleum hydrocarbons as diesel;
TOG = Total oil and grease; VOC = Volatile organic compounds; and < = Less than the method detection limit
*: W-10-MW1 = water sample - depth to water in feet - well number

TABLE 4
RESULTS OF GROUNDWATER ANALYSES
(page 1 of 5)

Date	Sample No.	TPHg ppm	B ppm	T ppm	E ppm	X ppm	TPHd ppm	TOG ppm	VOC ppm
MW-1									
05/88	W-11-MW1*	0.240	0.090	0.005	0.015	0.025	–	--	ND
12/89	W-11-MW1	0.63	0.012	0.0056	0.0037	0.025	0.24	--	--
04/90	W-09-MW1	<0.020	<0.0005	<0.00050	<0.00050	<0.00050	<0.10	--	--
07/90	W-11-MW1	0.13	0.006	<0.00050	<0.00050	<0.00050	0.16	--	--
11/90	W-10-MW1	<0.050	0.0007	<0.00050	<0.00050	<0.00050	<0.10	--	--
03/91	W-07-MW1	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	--	--
06/91	W-10-MW1	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	--	--
09/91	W-10-MW1	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--
MW-2									
09/87	W-25-MW2	1.445	0.233	0.81	0.056	0.209	--	--	--
05/88	free product								
12/89	free product								
04/90	free product								
07/90	free product								
11/90	free product								
03/91	free product								
06/91	free product								
09/91	free product								
MW-3									
09/87	W-25-MW3	2.101	0.360	1.062	0.068	0.298	0.66	--	--
05/88	W-14-MW3	8.7	3.98	0.28	0.24	0.6	--	--	--
12/89	free product								
04/90	free product								
07/90	free product								
11/90	free product								
03/91	free product								
06/91	free product								
09/91	free product								

See notes on page 5 of 5.

TABLE 4
RESULTS OF GROUNDWATER ANALYSES
(page 2 of 5)

Date	Sample No.	TPHg ppm	B ppm	T ppm	E ppm	X ppm	TPHd ppm	TOG ppm	VOC ppm
MW-4									
09/87	W-25-MW4	0.925	0.070	0.007	0.010	0.016	0.74	--	--
05/88	free product								
12/89	free product								
04/90	free product								
07/90	emulsion								
11/90	free product								
03/91	free product								
06/91	free product								
09/91	free product								
MW-5									
09/87	W-25-MW5	26.66	0.56	1.71	1.58	7.15	37.22	--	--
05/88	free product								
07/89	well destroyed								
MW-6									
05/88	W-15-MW6	29.3	12.82	0.55	1.44	5.50	--	--	--
12/89	W-18-MW6	9.0	0.37	0.013	0.0026	0.43	4.8	--	--
04/90	W-30-MW6	27	3.0	0.12	0.49	2.1	26	--	--
07/90	W-30-MW6	30	5.5	1.4	1.2	3.1	13	--	--
11/90	W-10-MW6	15	4.4	0.12	0.8	2.3	7.6	--	--
03/91	W-08-MW6	55	10	0.38	1.6	6.9	<0.10	--	--
06/91	sheen								
09/91	W-10-MW6	17	4.5	0.16	0.89	3.1	--	--	--

See notes on page 5 of 5.

TABLE 4
RESULTS OF GROUNDWATER ANALYSES
(page 3 of 5)

Date	Sample No.	TPHg ppm	B ppm	T ppm	E ppm	X ppm	TPHd ppm	TOG ppm	VOC ppm
MW-7									
09/87	W-25-MW7	1.531	0.258	0.002	<0.002	0.042	2.79	--	ND
05/88	W-15-MW7	--	0.300**	<0.010**	<0.010**	<0.010**	0.190	--	ND
12/89	W-11-MW7	1.70	0.22	0.0053	0.0050	0.0086	2.5	<5	ND
04/90	W-10-MW7	2.7	0.22	0.0086	0.0070	0.020	3.5	--	ND
07/90	W-17-MW7	2.5	0.38	0.013	0.016	0.035	0.91	--	ND
11/90	W-09-MW7	2.3	0.63	0.016	0.032	0.029	1.3	--	0.0024■
03/91	W-06-MW7	3.5	0.42	0.018	0.017	0.027	<0.10	--	ND
06/91	W-08-MW7	3.1	0.27	0.0088	0.033	0.019	<0.10	--	--
09/91	W-09-MW7	2.4	0.39	0.01	0.015	0.018	--	--	--
MW-8									
09/87	W-25-MW8	1.325	0.081	0.074	0.042	0.182	--	--	--
05/88	free product								
12/89	W-11-MW8	42	2.6	0.63	0.21	3.7	34	--	--
04/90	W-14-MW8	49	2.1	0.82	1.1	4.8	53	--	--
07/90	W-23-MW8	44	4.0	1.5	2.0	6.3	32	--	--
11/90	free product								
03/91	sheen								
06/91	sheen								
09/91	W-10-MW8	57	14	7.8	3.1	12	--	--	--
MW-9									
05/88	W-14-MW9	<0.05	<0.0005	0.001	<0.001	<0.001	--	--	ND
12/89	W-14-MW9	0.1	0.0018	0.0037	0.0014	0.0088	0.11	<5	ND
04/90	W-10-MW9	<0.020	<0.00050	<0.00050	<0.00050	<0.00050	<0.10	--	ND
07/90	W-10-MW9	<0.020	<0.00050	<0.00050	<0.00050	<0.00050	<0.10	--	ND
11/90	W-09-MW9	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	--	ND
03/91	covered by soil								
06/91	W-09-MW9	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	--	--
09/91	W-10-MW9	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--

See notes on page 5 of 5.

TABLE 4
RESULTS OF GROUNDWATER ANALYSES
(page 4 of 5)

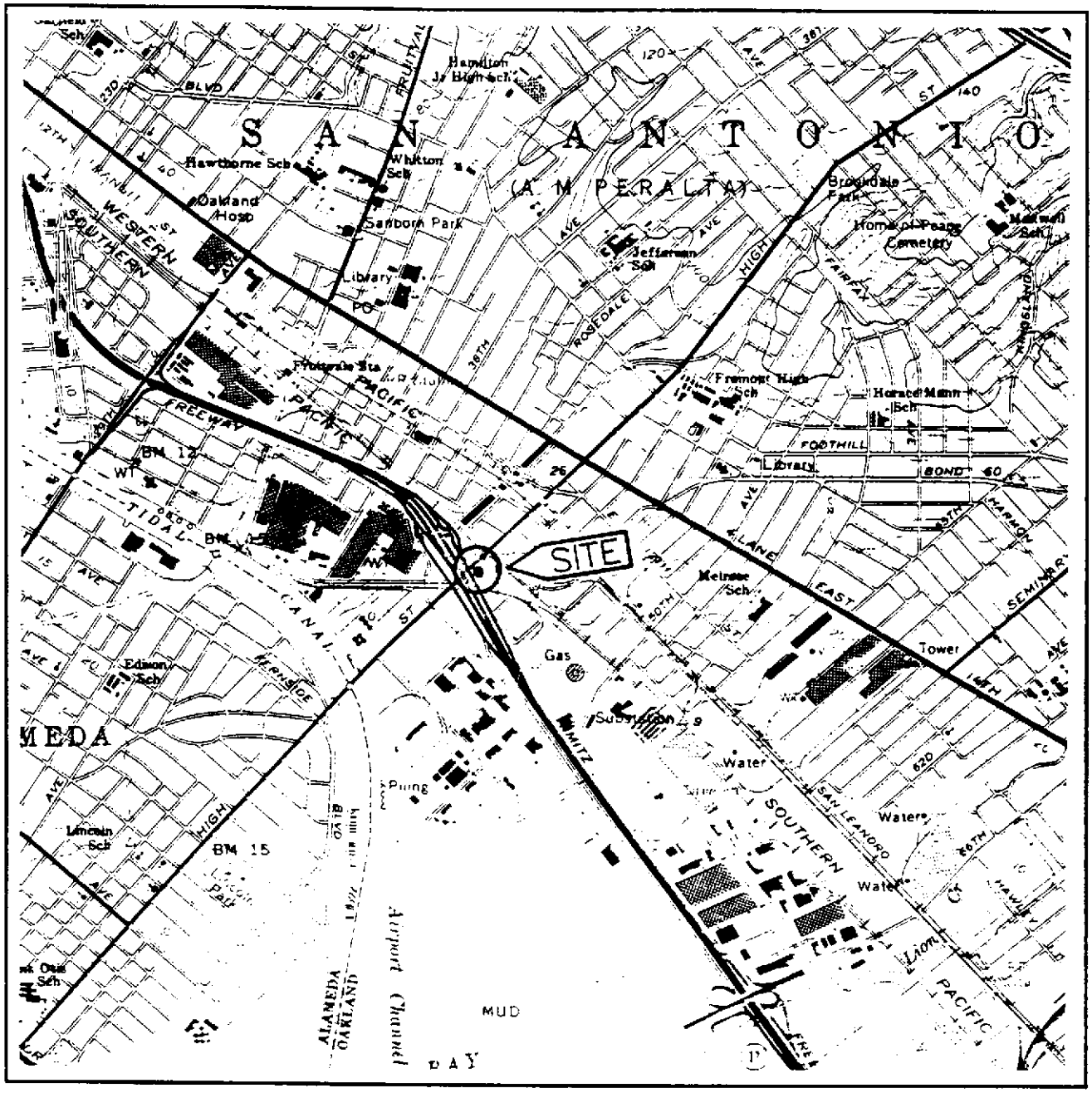
Date	Sample No.	TPHg ppm	B ppm	T ppm	E ppm	X ppm	TPHd ppm	TOG ppm	VOC ppm
MW-10									
12/89	W-12-MW10	0.32	0.0037	0.014	0.0056	0.032	<0.10	--	--
04/90	W-09-MW10	<0.020	<0.00050	<0.00050	<0.00050	<0.00050	<0.10	--	ND
07/90	W-11-MW10	<0.020	<0.00050	<0.00050	<0.00050	<0.00050	<0.10	--	--
11/90	W-09-MW10	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	--	--
03/91	W-07-MW10	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	--	--
06/91	W-09-MW10	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	--	--
09/91	W-10-MW10	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	--	--
MW-11									
12/89	W-11-MW11	0.078	0.0059	0.00063	<0.0005	48	<0.10	--	--
04/90	W-12-MW11	<0.020	<0.00050	<0.00050	<0.00050	<0.00050	<0.10	--	--
07/90	W-12-MW11	<0.020	<0.00050	<0.00050	<0.00050	<0.00050	<0.10	--	--
11/90	W-10-MW11	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	--	--
03/91	W-08-MW11	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	--	--
06/91	W-10-MW11	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	--	--
09/91	W-11-MW11	<0.050	<0.0005	0.0007	<0.0005	<0.0005	--	--	--
MW-12									
12/89	W-08-MW12	85	6.7	6.3	1.8	7.8	40	--	--
04/90	W-07-MW12	110	6.6	7.4	1.8	11	97	--	--
07/90	W-08-MW12	92	11	11	3.1	13	50	--	--
11/90	W-08-MW12	69	11	10	3.1	12	31	--	--
03/91	W-08-MW12	100	15	16	2.4	11	<0.10	--	--
06/91	sheen								
09/91	W-08-MW12	82	22	18	3.9	16	--	--	--

See notes on page 5 of 5.

TABLE 4
RESULTS OF GROUNDWATER ANALYSES
(page 5 of 5)

Date	Sample No.	TPHg ppm	B ppm	T ppm	E ppm	X ppm	TPHd ppm	TOG ppm	VOC ppm
MW-13									
12/89	W-10-MW13	52	2.1	2.0	1.4	6.1	31	--	--
04/90	W-09-MW13	59	1.8	1.5	1.4	7.2	54	--	--
07/90	W-10-MW13	53	4.5	3.1	2.2	7.8	26	--	--
11/90	W-09-MW13	20	4.5	1.1	0.88	3.3	1.6	--	--
03/91	W-09-MW13	72	10	8.3	1.7	6.9	<0.10	--	--
06/91	W-10-MW13	44	5.6	3.1	0.75	2.6	<0.10	--	--
09/91	W-10-MW13	40	11	6.5	2.4	8.1	--	--	--
MW14									
11/90	W-09-MW14	0.39	<0.0005	<0.0005	0.0036	0.0037	0.12	--	--
03/91	W-07-MW14	0.20	<0.0005	0.0015	0.0008	0.0036	<0.10	--	--
06/91	W-08-MW14	0.11	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	--	--
09/91	W-09-MW14	0.45	<0.0005	<0.0005	0.0032	0.0023	--	--	--
MW-15									
11/90	W-08-MW15	2.7	0.21	0.0055	0.6	0.25	0.34	--	--
03/91	covered by soil								
06/91	W-07-MW15	0.38	<0.0005	<0.0005	<0.0005	0.0013	<0.10	--	--
09/91	W-08-MW15	0.49	0.0029	0.0017	0.033	0.0013	--	--	--

TPHg = Total petroleum hydrocarbons as gasoline
BTEX = Benzene, toluene, ethylebenzene, and total xylenes constituents
TPHd = Total petroleum hydrocarbons as diesel
TOG = Total oil and grease
< = Not detected at method detection limit (stated)
■ = Chloromethane
ND = No VOC detected other than BTEX
* = W-10-MW1 = water sample - depth - well number
** = Analyzed by Environmental Protection Agency Method 624 (volatile organic compounds)



Source: U.S. Geological Survey
7.5–Minute Quadrangle
Oakland East, California

N

Approximate Scale

2000 1000 0 2000 4000

feet

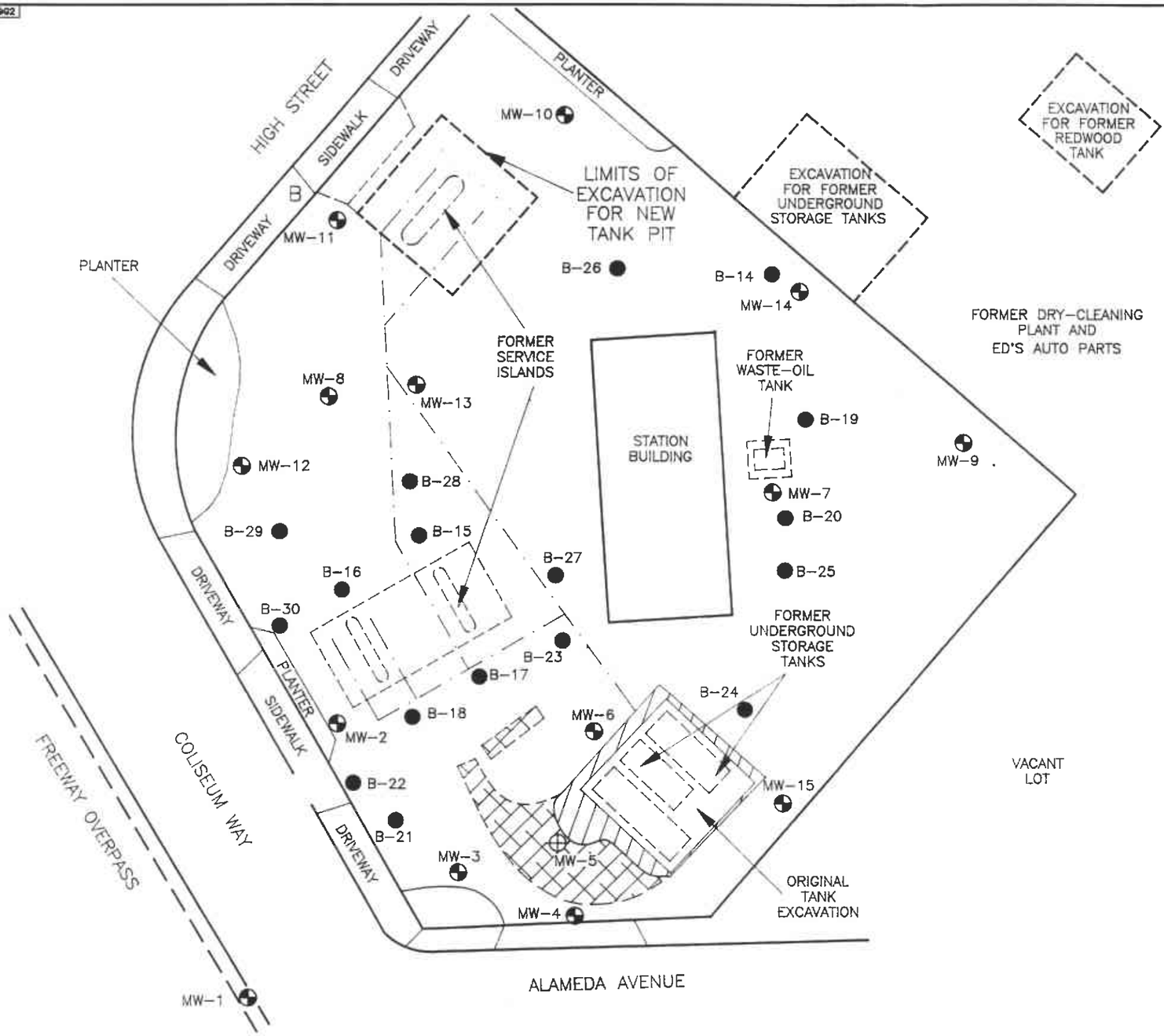
Applied GeoSystems

PROJECT NO. 87042-9

SITE VICINITY MAP
Exxon Station No. 7-3006
720 High Street
Oakland, California

PLATE
P - 1

87042992



— · — = Product piping trenches

▨ = Area excavated in 1987

▨ = Area excavated by Applied GeoSystems in July 1989

B-30 ● = Soil boring drilled by Applied GeoSystems

MW-15 ◒ = Monitoring well installed by Applied GeoSystems

MW-5 ⊕ = Monitoring well (destroyed) installed by Applied GeoSystems

N

Approximate Scale

30 15 0 30 60

feet

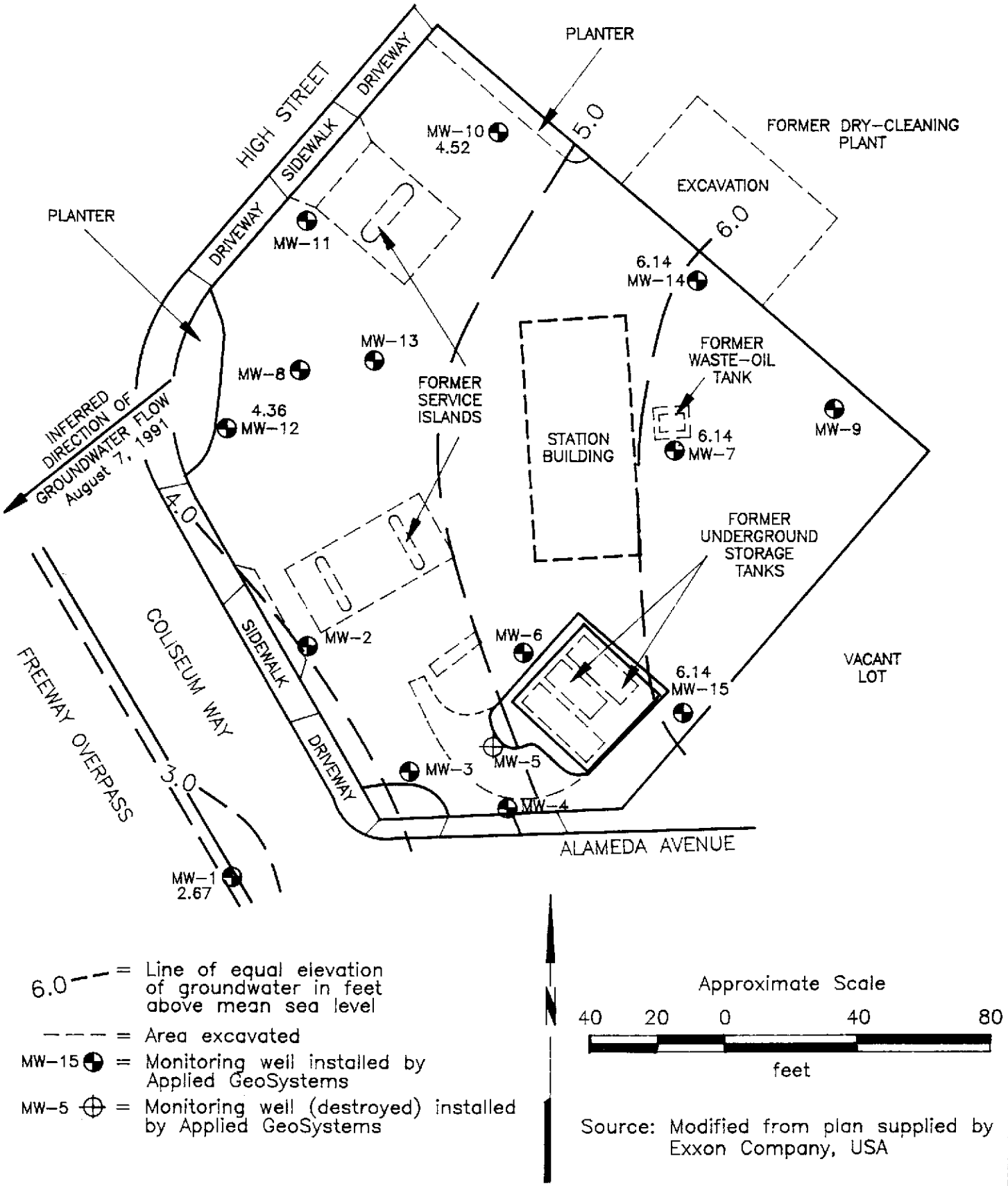
Source: Modified from plan supplied by Exxon Company, USA

Applied GeoSystems

PROJECT NO. 87042-9

GENERALIZED SITE PLAN
Exxon Station No. 7-3006
720 High Street
Oakland, California

PLATE
P-2



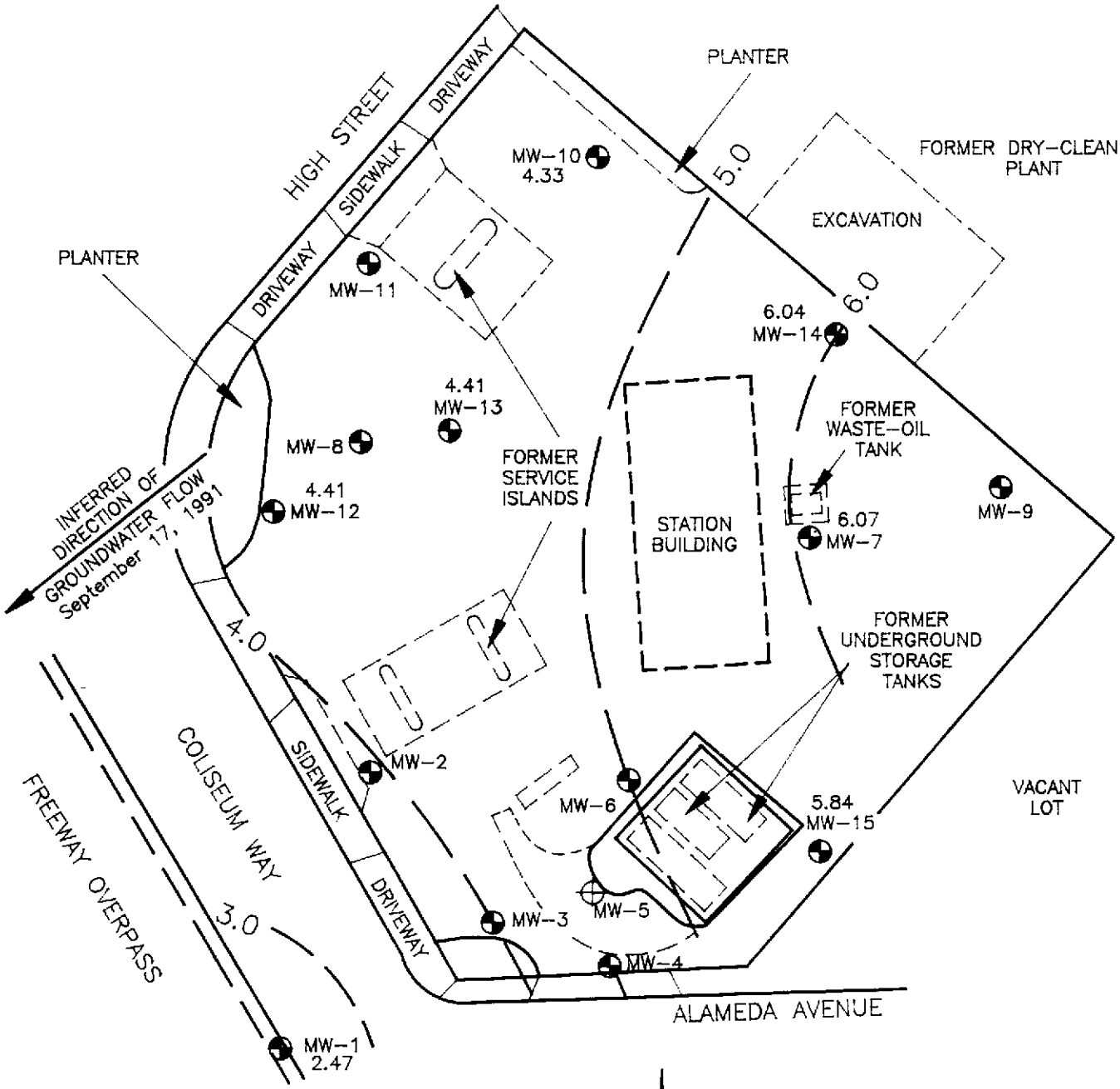
Source: Modified from plan supplied by Exxon Company, USA

Applied GeoSystems

PROJECT NO. 87042-9

GROUNDWATER ELEVATION MAP
August 7, 1991
Exxon Station No. 7-3006
720 High Street
Oakland, California

PLATE
P-3



6.0 = Line of equal elevation of groundwater in feet above mean sea level

= Area excavated

MW-15 = Monitoring well installed by Applied GeoSystems

MW-5 = Monitoring well (destroyed) installed by Applied GeoSystems

Approximate Scale

40 20 0 40 80

feet

Source: Modified from plan supplied by Exxon Company, USA

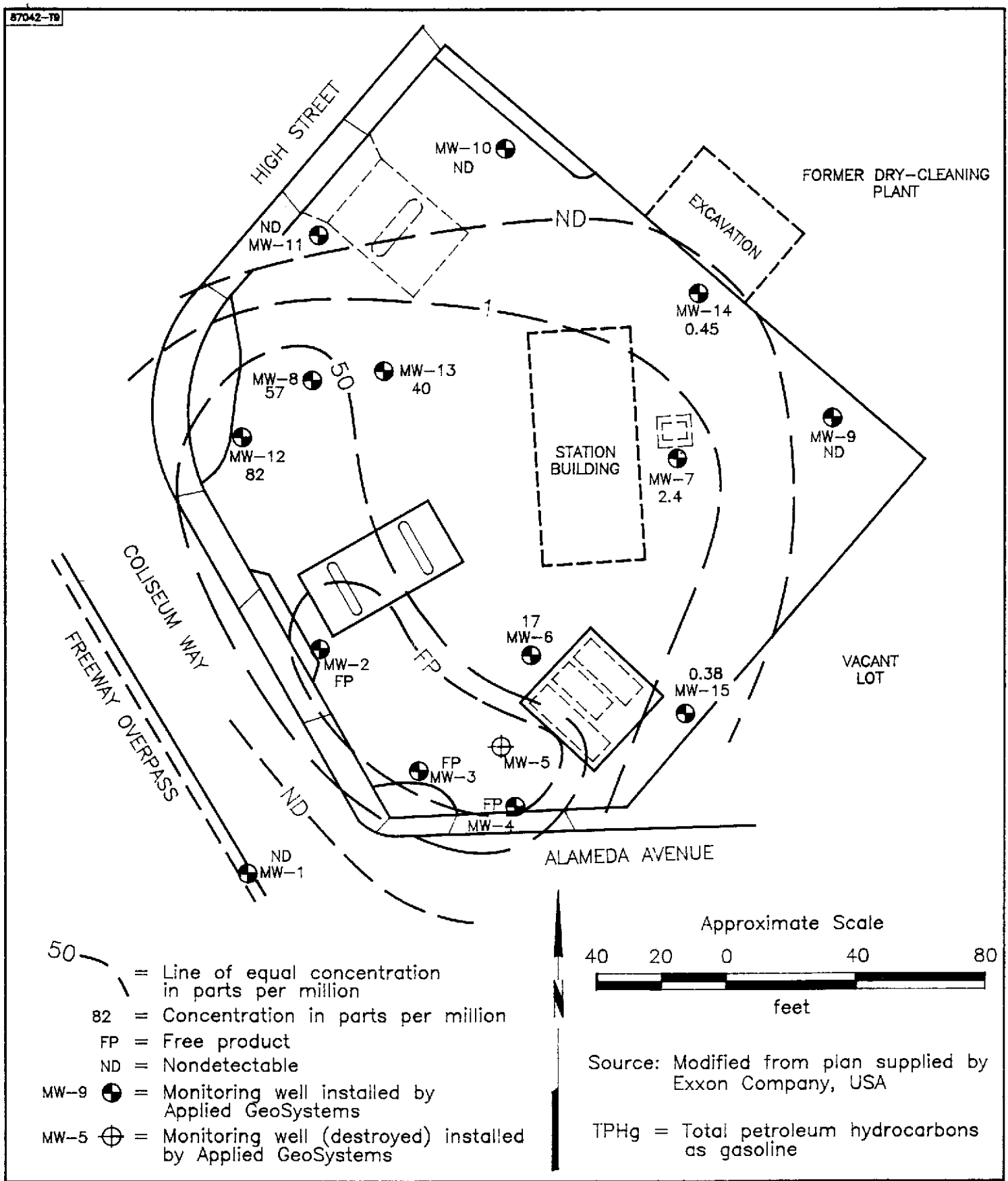
Applied GeoSystems

PROJECT NO. 87042-9

GROUNDWATER ELEVATION MAP
September 17, 1991
Exxon Station No. 7-3006
720 High Street
Oakland, California

PLATE

P-4

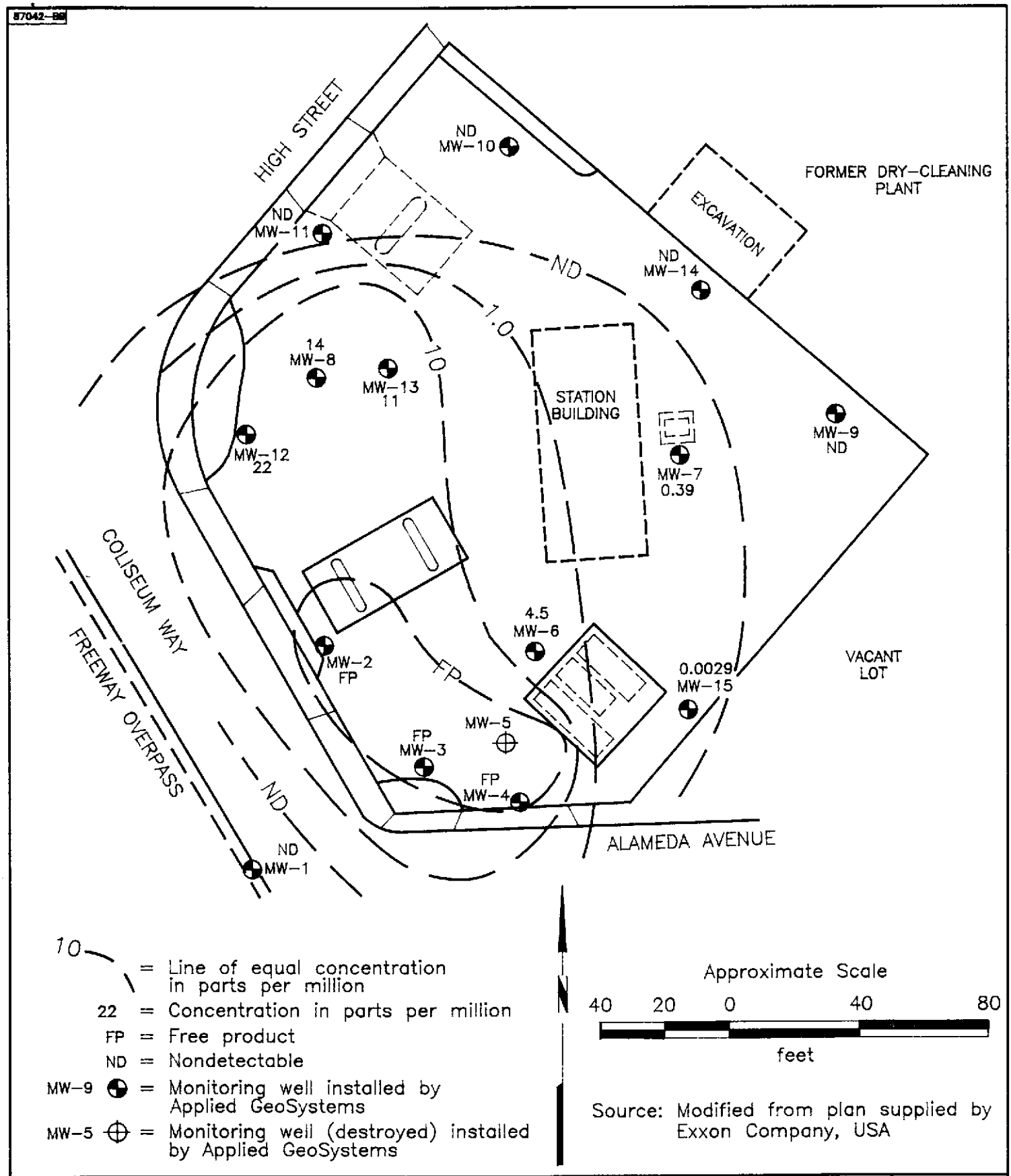


Applied GeoSystems

PROJECT NO. 87042-9

CONCENTRATION OF TPHg IN GROUNDWATER
Exxon Station No. 7-3006
720 High Street
Oakland, California

PLATE
P-5



Applied GeoSystems

PROJECT NO. 87042-9

CONCENTRATION OF BENZENE IN GROUNDWATER
Exxon Station No. 7-3006
720 High Street
Oakland, California

PLATE
P-6

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REPORT OF LABORATORY ANALYSIS

September 29, 1991

Mr. Rasmi Aljurf
Resna - Applied Geosystems
41674 Christy Street
Fremont, CA 94538

RE: PACE Project No. 410923.502
Client Reference: Exxon 7-3006

Dear Mr. Aljurf:

Enclosed is the report of laboratory analyses for samples received September 23, 1991.

If you have any questions concerning this report, please feel free to contact us.

Sincerely,

Carol Reid

Carol Reid
Project Manager

Enclosures

11 Digital Drive
Novato, CA 94949
TEL: 415-883-6100
FAX: 415-883-2673

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THE ASSURANCE OF QUALITY

REPORT OF LABORATORY ANALYSIS

Resna - Applied Geosystems
41674 Christy Street
Fremont, CA 94538

September 29, 1991
PACE Project Number: 410923502

Attn: Mr. Rasmi Aljurf

Client Reference: Exxon 7-3006

PACE Sample Number:			70 0091748	
Date Collected:			09/17/91	
Date Received:			09/23/91	
Client Sample ID:			W-10-MW1	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/24/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	ND	09/24/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/24/91
Benzene	ug/L	0.5	ND	09/24/91
Toluene	ug/L	0.5	ND	09/24/91
Ethylbenzene	ug/L	0.5	ND	09/24/91
Xylenes, Total	ug/L	0.5	ND	09/24/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

Mr. Rasmi Aljurf
Page 2

September 29, 1991
PACE Project Number: 410923502

Client Reference: Exxon 7-3006

PACE Sample Number:			70 0091756	
Date Collected:			09/17/91	
Date Received:			09/23/91	
Client Sample ID:			W-9-MW14	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/24/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	450	09/24/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/24/91
Benzene	ug/L	0.5	ND	09/24/91
Toluene	ug/L	0.5	ND	09/24/91
Ethylbenzene	ug/L	0.5	3.2	09/24/91
Xylenes, Total	ug/L	0.5	2.3	09/24/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

Mr. Rasmi Aljurf
Page 3

September 29, 1991
PACE Project Number: 410923502

Client Reference: Exxon 7-3006

PACE Sample Number:			70 0091764	
Date Collected:			09/17/91	
Date Received:			09/23/91	
Client Sample ID:			W-10-MW9	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/24/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	ND	09/24/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/24/91
Benzene	ug/L	0.5	ND	09/24/91
Toluene	ug/L	0.5	ND	09/24/91
Ethylbenzene	ug/L	0.5	ND	09/24/91
Xylenes, Total	ug/L	0.5	ND	09/24/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

September 29, 1991
PACE Project Number: 410923502

Client Reference: Exxon 7-3006

PACE Sample Number:			70 0091772	
Date Collected:			09/17/91	
Date Received:			09/23/91	
Client Sample ID:			W-10-MW10	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/24/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	ND	09/24/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/24/91
Benzene	ug/L	0.5	ND	09/24/91
Toluene	ug/L	0.5	ND	09/24/91
Ethylbenzene	ug/L	0.5	ND	09/24/91
Xylenes, Total	ug/L	0.5	ND	09/24/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

Mr. Rasmi Aljurf
Page 5

September 29, 1991
PACE Project Number: 410923502

Client Reference: Exxon 7-3006

PACE Sample Number:			70 0091780	
Date Collected:			09/17/91	
Date Received:			09/23/91	
Client Sample ID:			W-11-MW11	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/24/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	ND	09/24/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/24/91
Benzene	ug/L	0.5	ND	09/24/91
Toluene	ug/L	0.5	0.7	09/24/91
Ethylbenzene	ug/L	0.5	ND	09/24/91
Xylenes, Total	ug/L	0.5	ND	09/24/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

Mr. Rasmi Aljurf
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September 29, 1991
PACE Project Number: 410923502

Client Reference: Exxon 7-3006

PACE Sample Number:			70 0091799	
Date Collected:			09/18/91	
Date Received:			09/23/91	
Client Sample ID:			W-9-MW7	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/24/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	250	2400	09/24/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/24/91
Benzene	ug/L	2.5	390	09/24/91
Toluene	ug/L	2.5	10	09/24/91
Ethylbenzene	ug/L	2.5	15	09/24/91
Xylenes, Total	ug/L	2.5	18	09/24/91

MDL Method Detection Limit

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REPORT OF LABORATORY ANALYSIS

Mr. Rasmi Aljurf
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September 29, 1991
PACE Project Number: 410923502

Client Reference: Exxon 7-3006

PACE Sample Number:			70 0091802	
Date Collected:			09/18/91	
Date Received:			09/23/91	
Client Sample ID:			W-8-MW15	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/24/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	490	09/24/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/24/91
Benzene	ug/L	0.5	29	09/24/91
Toluene	ug/L	0.5	1.7	09/24/91
Ethylbenzene	ug/L	0.5	33	09/24/91
Xylenes, Total	ug/L	0.5	1.3	09/24/91

MDL Method Detection Limit

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REPORT OF LABORATORY ANALYSIS

Mr. Rasmi Aljurf
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September 29, 1991
PACE Project Number: 410923502

Client Reference: Exxon 7-3006

Parameter	Units	MDL		DATE ANALYZED
PACE Sample Number:			70 0091810	
Date Collected:			09/18/91	
Date Received:			09/23/91	
Client Sample ID:			W-10-MW13	
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/24/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	10000	40000	09/24/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/24/91
Benzene	ug/L	100	11000	09/24/91
Toluene	ug/L	100	6500	09/24/91
Ethylbenzene	ug/L	100	2400	09/24/91
Xylenes, Total	ug/L	100	8100	09/24/91

MDL Method Detection Limit

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REPORT OF LABORATORY ANALYSIS

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September 29, 1991
PACE Project Number: 410923502

Client Reference: Exxon 7-3006

PACE Sample Number:			70 0091829	
Date Collected:			09/18/91	
Date Received:			09/23/91	
Client Sample ID:			W-10-MW8	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/24/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	10000	57000	09/24/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/24/91
Benzene	ug/L	100	14000	09/24/91
Toluene	ug/L	100	7800	09/24/91
Ethylbenzene	ug/L	100	3100	09/24/91
Xylenes, Total	ug/L	100	12000	09/24/91

MDL Method Detection Limit

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REPORT OF LABORATORY ANALYSIS

Mr. Rasmi Aljurf
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September 29, 1991
PACE Project Number: 410923502

Client Reference: Exxon 7-3006

PACE Sample Number:			70 0091837	
Date Collected:			09/18/91	
Date Received:			09/23/91	
Client Sample ID:			W-8-MW12	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/24/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	12000	82000	09/24/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/24/91
Benzene	ug/L	120	22000	09/24/91
Toluene	ug/L	120	18000	09/24/91
Ethylbenzene	ug/L	120	3900	09/24/91
Xylenes, Total	ug/L	120	16000	09/24/91

MDL Method Detection Limit

11 Digital Drive
Novato, CA 94949
TEL: 415-883-6100
FAX: 415-883-2673

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REPORT OF LABORATORY ANALYSIS

Mr. Rasmi Aljurf
Page 11

September 29, 1991
PACE Project Number: 410923502

Client Reference: Exxon 7-3006

Parameter	Units	MDL		DATE ANALYZED
PACE Sample Number:			70 0091845	
Date Collected:			09/18/91	
Date Received:			09/23/91	
Client Sample ID:			W-10-MW6	
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/25/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	500	17000	09/25/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/25/91
Benzene	ug/L	5.0	4500	09/25/91
Toluene	ug/L	5.0	160	09/25/91
Ethylbenzene	ug/L	5.0	890	09/25/91
Xylenes, Total	ug/L	5.0	3100	09/25/91

MDL Method Detection Limit

These data have been reviewed and are approved for release.

Mark A. Valentini

Mark A. Valentini, Ph.D.
Regional Director

11 Digital Drive
Novato, CA 94949
TEL: 415-883-6100
FAX: 415-883-2673

REPORT OF LABORATORY ANALYSIS

QUALITY CONTROL DATA

Client Reference: Exxon 7-3006

TPH GASOLINE/BTEX
Batch: 70 06358
Samples: 70 0091845

METHOD BLANK:

Parameter	Units	MDL	Method Blank
TOTAL FUEL HYDROCARBONS, (LIGHT):			-
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-
Benzene	ug/L	0.5	ND
Toluene	ug/L	0.5	ND
Ethylbenzene	ug/L	0.5	ND
Xylenes, Total	ug/L	0.5	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	350	92%	94%	2%
Benzene	ug/L	0.5	40.0	94%	96%	2%
Toluene	ug/L	0.5	40.0	95%	97%	2%
Ethylbenzene	ug/L	0.5	40.0	99%	100%	1%
Xylenes, Total	ug/L	0.5	120	105%	106%	0%

MDL Method Detection Limit
ND Not detected at or above the MDL.
RPD Relative Percent Difference

Mr. Rasmi Aljurf
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QUALITY CONTROL DATA

September 29, 1991
PACE Project Number: 410923502

Client Reference: Exxon 7-3006

TPH GASOLINE/BTEX
Batch: 70 06372
Samples: 70 0091748, 70 0091756, 70 0091764, 70 0091772, 70 0091780
70 0091799, 70 0091802, 70 0091810, 70 0091829, 70 0091837

METHOD BLANK:

Parameter	Units	MDL	Method Blank
TOTAL FUEL HYDROCARBONS, (LIGHT):			-
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-
Benzene	ug/L	0.5	ND
Toluene	ug/L	0.5	ND
Ethylbenzene	ug/L	0.5	ND
Xylenes, Total	ug/L	0.5	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	350	93%	95%	2%
Benzene	ug/L	0.5	40	97%	107%	9%
Toluene	ug/L	0.5	40	98%	108%	9%
Xylenes, Total	ug/L	0.5	120	108%	118%	8%

MDL Method Detection Limit
ND Not detected at or above the MDL.
RPD Relative Percent Difference

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EXXON COMPANY, U.S.A.
P.O. Box 4415, Houston, TX 77210-4415
CHAIN OF CUSTODY

Consultant Name: RESNA
Address:
Project Contact: RASMI ALJURF   Project #: 87042-9
Phone #: 415) 659-0404   Fax #:
Consultant Work Release #: 90041965
Exxon Contact: ~~GARY GIBSON~~ BILL WANG   Phone #: 415) 246-8768
Site RAS #: 7-3006
Site Location: HIGH ST. OAKLAND CA.
Laboratory Work Release #: 91135904

Sampled by (please print): Eric Twitty   Date Sampled: 9/17 & 9/18/91
Sampler Signature: [signature]

Sample Description	Collection Date/Time	Matrix	Prsv.	# of Cont.	SOIL TPH/GAS/BTEX EPA 8015/8020	SOIL TPH/Diesel EPA 8015	SOIL Organic Lead DHS Method	WATER TPH/GAS/BTEX EPA 8015/602	WATER TPH/Diesel EPA 8015	WATER Organic Lead DHS Method	TRPH EPA 418.1	Total Oil & Grease SM 5520				Remarks
W-10-MW1	9/17/91 5:15		HCl ICE	3				\							9174.8	
W-9-MW14	9/17/91 4:45		↑	3				\							75.6	
W-10-MW9	9/17/91 4:30			3				\							76.4	rec'd 6 3@4:30 3@2:40
W-10-MW10	9/17/91 2:40			3				\							77.2	none rec'd ↑
W-11-MW11	9/17/91 3:15			3				\							78.0	voas rec'd labelled ⇉
W-9-MW7	11:00 9/18/91			3				\							79.9	none rec'd W11-MW-
W-8-MW15	11:30 9/18/91			3				\							80.2	
W-10-MW13	12:45 9/18/91			3				\							81.0	
W-10-MW8	1:45 9/18/91		↓	3				\							82.9	
W-8-MW12	2:30 9/18/91		HCl ICE	3				\							83.7	

Cooler No. 9/2

Relinquished by/Affiliation	Accepted by/Affiliation	Date	Time
[signature] Resna	Ed [signature] - Pace 9/21/91 1010	9/20/91	2:00
Ed [signature] - Pace	Steph Matzo PACE	9/23/91	1125

Cooler Seal Intact
☐ Yes
☐ No

Turnaround Time (circle choice)
24 hr.
48 hr.
72 hr.
96 hr.
5 workday (standard)

Shipment Method

Shipment Date

Additional Comments:
Talked c̄ Rasmi Aljurf regarding mislabeling - he stated to go by the times, and match them accordingly. [initials] 9-23-91

Distribution: White - Original   Yellow - Exxon   Pink - Lab   Goldenrod - Consultant Field Staff

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EXXON COMPANY, U.S.A.
P.O. Box 4415, Houston, TX 77210-4415
CHAIN OF CUSTODY

Consultant Name: RESNA
Address:
Project Contact: RASMI ALJURF   Project #: 87042-9
Phone #: 415)659-0404   Fax #:
Consultant Work Release #: 90041965

Exxon Contact: ~~GARY GIBSON~~ BILL WANG   Phone #: 415)246-8768
Site RAS #: 7-3006
Site Location: HIGH ST. OAKLAND CA.
Laboratory Work Release #:

Sampled by (please print): Eric Twitty   Date Sampled: 9/17-18/91
Sampler Signature: [signature]

Sample Description	Collection Date/Time	Matrix	Prsv.	# of Cont.	SOIL: TPH/GAS/BTEX EPA 8015/8020	SOIL: TPH/Diesel EPA 8015	SOIL: Organic Lead DHS Method	WATER: TPH/GAS/BTEX EPA 8015/602	WATER: TPH/Diesel EPA 8015	WATER: Organic Lead DHS Method	TRPH EPA 418.1	Total Oil & Grease SM 5520					Remarks
W-10-MW6	3:30 9/18/91		HCl ICE	3				✓									9184.5
912																	

Cooler No.

Cooler Seal Intact
☐ Yes
☐ No

Turnaround Time (circle choice)
24 hr.
48 hr.
72 hr.
96 hr.
5 workday (standard)

Relinquished by/Affiliation	Accepted by/Affiliation	Date	Time
[signature] RESNA	[signature] Pace 9/23/91	9/20/91	2:00
[signature] Pace	Steph Matz 9/23/91 PACE	9/23/91	1125

Shipment Method

Shipment Date

Additional Comments:
rec'd 3 voas marked W11-MW-7 - Rasmi said they were actually W-11-MW-11 per time recorded on voas [initials] 9-23-91

Distribution: White - Original   Yellow - Exxon   Pink - Lab   Goldenrod - Consultant Field Staff

410923.S02