SDMS DOCID# 1121052

Delta Project No: L094-032-3

UST UNIT

VALVOLINE OIL GROUNDWATER MONITORING UPDATE REPORT
SECOND QUARTER 1997
JULY 15, 1997

I-03240
7/25/97
NB

Facility No.: Valvoline Address: 9520 John Street, Santa Fe Springs, California

Valvoline Engineer/Phone No.: Jason Jacobs/(606) 357-2271

Consulting Co./Contact Person/Phone No.: Delta Environmental/Matt Nusenow/ (714) 362-3077

Primary Agency/Contact Person/Regulatory ID No.: Regional Water Quality Control Board-Los Angeles Region/Al Novak/I-3240

Other Agencies to Receive Copies: None

WORK PERFORMED THIS QUARTER (Second - 1997):

1. Conducted groundwater monitoring and sampling (see attached data).

97 JUL 23 PM 1:11
LOS ANGELES

WORK PROPOSED FOR THE NEXT QUARTER (Third - 1997):

1. Submit Groundwater Monitoring Update Report.
2. Conduct groundwater monitoring and sampling. If results are similar to this quarters results, Delta will prepare a request for closure letter.

Current Phase of Project: Groundwater Monitoring

Frequency of Sampling: GW - Quarterly

Frequency of Monitoring: GW - Quarterly

Permits for Discharge (No.): N/A

Approx. Depth to Groundwater: 25.60 to 34.62 feet Measured X Estimated _

Groundwater Gradient: 0.020 to 0.0088 ft/ft (Magnitude) West/South (Direction)

Attachments:

Summary of Quarterly Groundwater Sampling Results
Site Map with Soil Boring and Well Locations (Figure 1)
Groundwater Elevation Contour Map (Figure 2)
Groundwater Analyses Map (Figure 3)
Historical Groundwater Monitoring Data (Table 1)
Historical Groundwater Analytical Results (Table 2)
Groundwater Sample Field Data Sheets
Laboratory Reports and Chain-of-Custody Documents

SUMMARY OF QUARTERLY GROUNDWATER SAMPLING RESULTS
VALVOLINE OIL FACILITY
9520 JOHN STREET
SANTA FE SPRINGS, CALIFORNIA
DELTA PROJECT NO. L094-032-3

Enclosed please find the data collected by Delta Environmental Consultants, Inc. (Delta) during groundwater sampling activities at the Valvoline Oil Facility, located in Santa Fe Springs, California. The sampling activities included the collection of groundwater samples and static water level measurements. The data evaluation was performed by either a Delta geologist or engineer under the supervision of a California Registered Civil Engineer or California Registered Geologist.

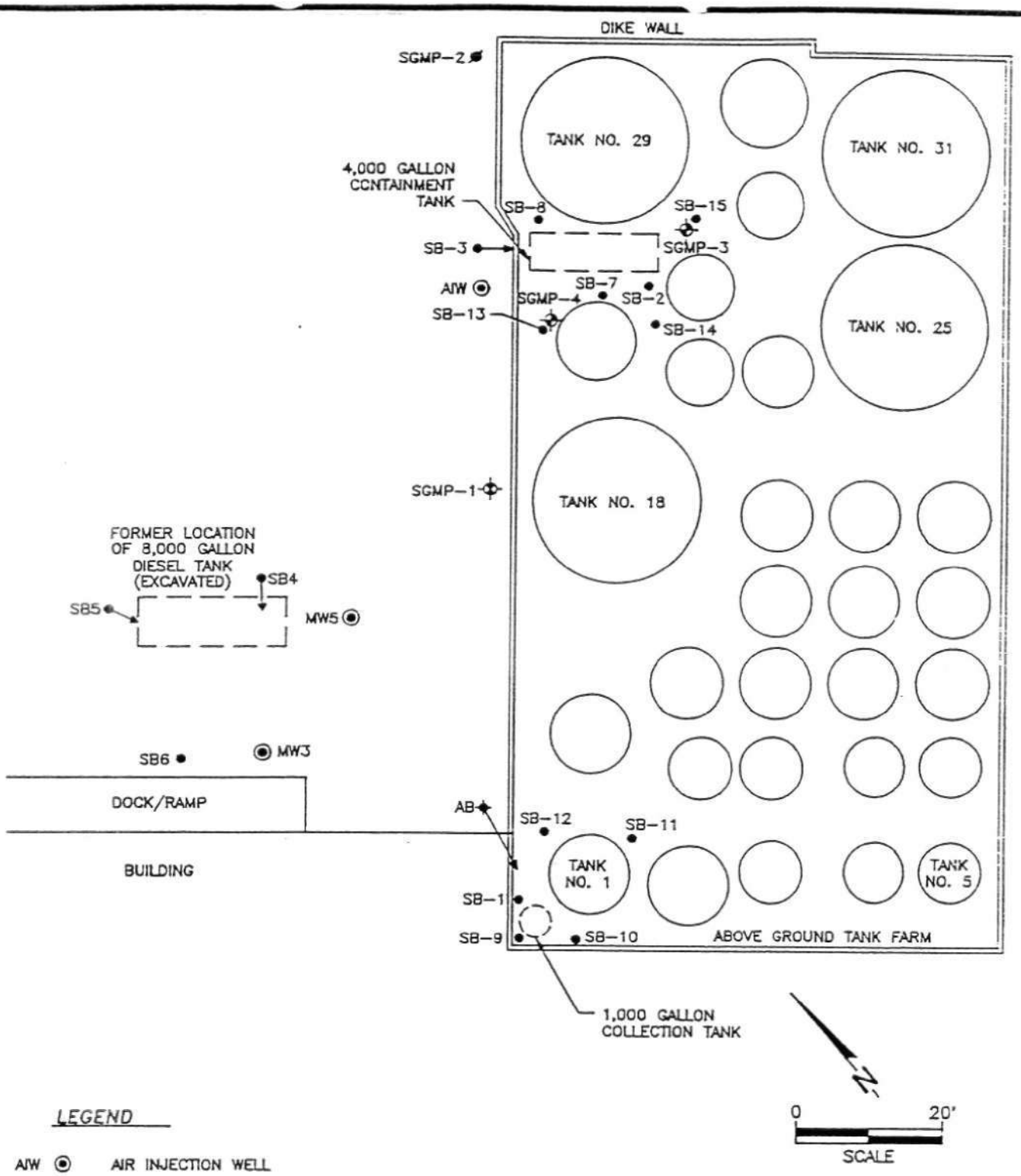
If you have any questions or comments concerning this correspondence, please contact the undersigned at (714) 362-3077.

DELTA ENVIRONMENTAL CONSULTANTS, INC.

John E. Huff, P.E.
California Registered Civil Engineer No. 36615

7/15/97
Date

REGISTERED PROFESSIONAL ENGINEER
JOHN E. HUFF
No. C036615
Exp. 6-00
CIVIL
STATE OF CALIFORNIA

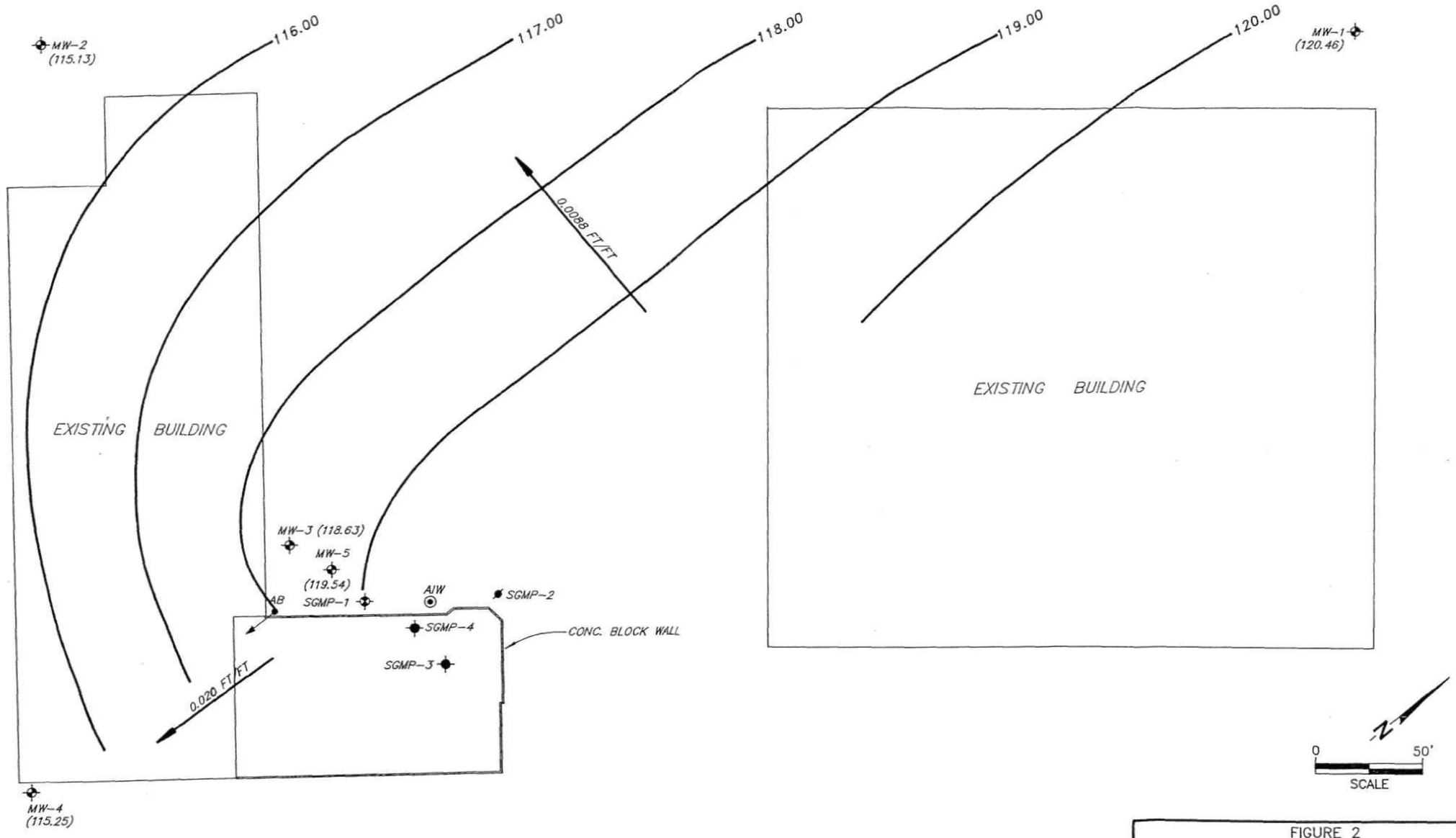


LEGEND

AIW	AIR INJECTION WELL
SGMP-2	NESTED SOIL GAS MONITORING POINT
SGMP-3	SOIL GAS MONITORING POINT – 1"
SGMP-1	SOIL GAS MONITORING POINT – 2"
SB-4	SLANT BORING (ENGINEERING SCIENCE)
SB-1	SOIL BORING (ENGINEERING SCIENCE)
AB	ANGLE WELL
MW5	GROUNDWATER MONITORING WELL

FIGURE 1
SITE MAP WITH SOIL BORING AND WELL LOCATIONS
VALVOLINE OIL
9520 JOHN STREET
SANTA FE SPRINGS, CA.

PROJECT NO. L094-032	DRAWN BY K. MARTIN	Delta Environmental Consultants, Inc.
FILE NO. 4-032-19	PREPARED BY J. HUFF	
DATE 15 JAN 96 / REV. 0	REVIEWED BY	

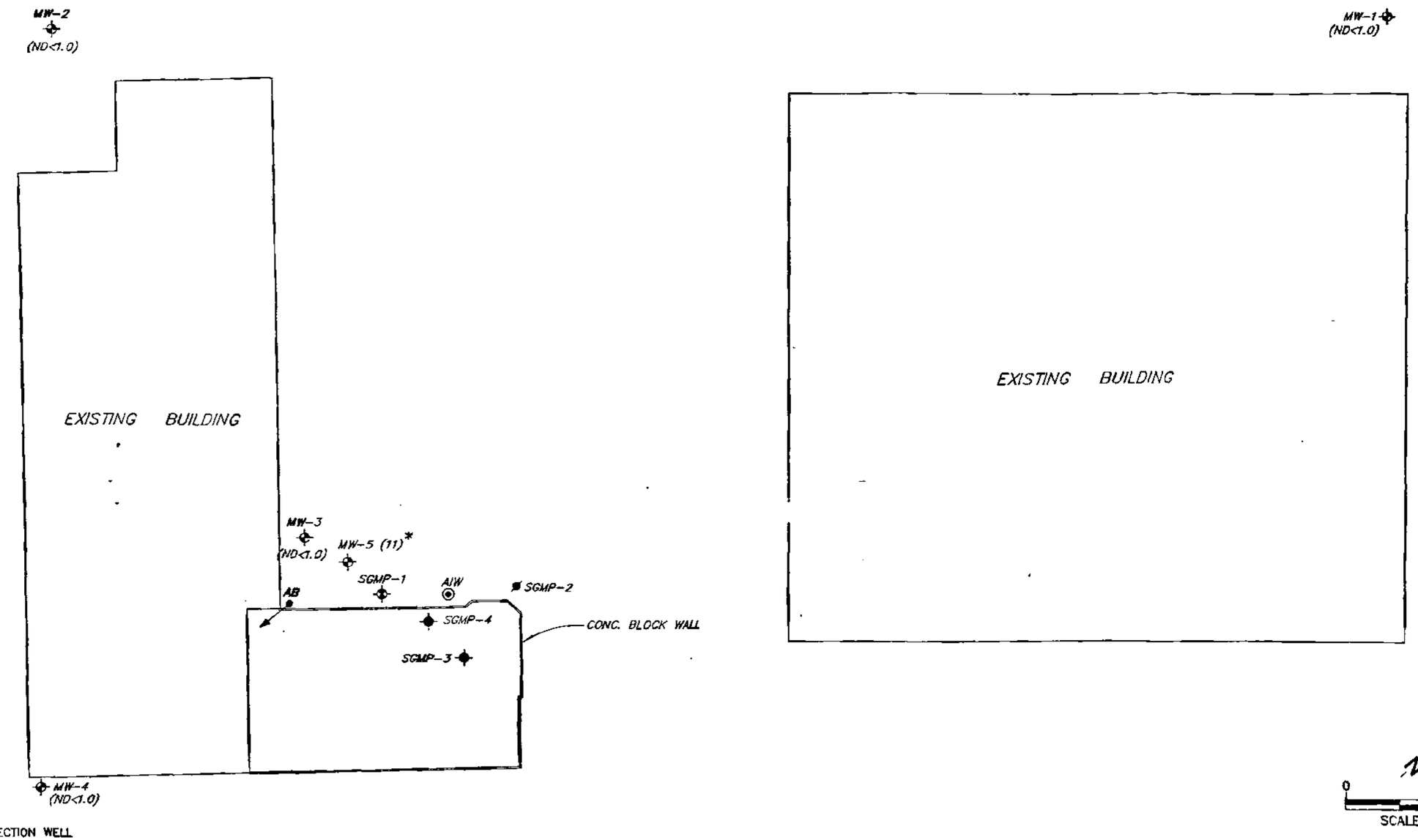


LEGEND

AIW	AIR INJECTION WELL	(117.69)	GROUNDWATER ELEVATION RELATIVE TO MEAN SEA LEVEL
SGMP-2	NESTED SOIL GAS MONITORING POINT	117.00	GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL: 1.00 FOOT)
SGMP-3	SOIL GAS MONITORING POINT – 1"	0.029 FT/FT	GENERAL DIRECTION OF GROUNDWATER FLOW AND GRADIENT
SGMP-1	SOIL GAS MONITORING POINT – 2"	MW-2	GROUNDWATER MONITORING WELL LOCATION
AB	ANGLE BORING/WELL		

FIGURE 2
GROUNDWATER ELEVATION CONTOUR MAP
JUNE 27, 1997
VALVOLINE OIL
9520 JOHN STREET
SANTA FE SPRINGS, CA.

PROJECT NO. L094-032	DRAWN BY K. MARTIN	Delta Environmental Consultants, Inc.
FILE NO. 4-032-21	PREPARED BY M. NUSENOW	
DATE 10 JUL 97 / REV. 0	REVIEWED BY	



LEGEND

AIW	AIR INJECTION WELL		
SGMP-2	NESTED SOIL GAS MONITORING POINT		
SGMP-3	SOIL GAS MONITORING POINT – 1"	MW-2	GROUNDWATER MONITORING WELL LOCATION
SGMP-1	SOIL GAS MONITORING POINT – 2"	ND<1.0	NOT DETEDTED. DETECTION LIMIT FOLLOWS LESS THAN SYMBOL
AB	ANGLE BORING/WELL		
(1.2)	TOTAL RECOVERABLE PETROLEUM HYDROCARBONS BY EPA METHOD 418.1		
*	TOTAL PETROLEUM HYDROCARBONS BY EPA METHOD 8015		

NOTE: ALL CONCENTRATIONS REPORTED IN MILLIGRAMS PER LITER (ppm)

FIGURE 3
GROUNDWATER ANALYSES MAP
JUNE 30, 1997
VALVOLINE OIL
9520 JOHN STREET
SANTA FE SPRINGS, CA.

PROJECT NO. L094-032	DRAWN BY K. MARTIN	Delta Environmental Consultants, Inc.
FILE NO. 4-032-20	PREPARED BY M. NUSENOW	
DATE 10 JUL 97 / REV. 0	REVIEWED BY	

TABLE 1
HISTORICAL GROUNDWATER MONITORING DATA
VALVOLINE OIL FACILITY
SANTA FE SPRINGS, CALIFORNIA
DELTA PROJECT NO. L094-032-3

WELL NO.	DATE	TOP OF CASING ELEVATION* (feet)	DEPTH TO GROUNDWATER (feet)	GROUNDWATER ELEVATION (feet)
MW-1	4/29/88	146.06	39.91	106.15
	7/18/90		41.11	104.95
	5/5/91		40.46	105.60
	7/9/91		40.92	105.14
	10/10/91		39.76	106.30
	1/10/92		38.98	107.08
	7/7/92		35.98	110.08
	5/20/93		29.70	116.36
	12/2/93		27.78	118.28
	5/24/94		26.54	119.52
	01/9/951		31.65	114.41
	7/6/95		25.20	120.86
	12/19/95		27.53	118.53
	6/27/97		25.60	120.46
MW-2	4/29/88	149.75	51.43	98.32
	7/18/90		53.73	96.02
	5/5/91		52.47	97.28
	7/9/91		51.90	97.85
	10/10/91		51.82	97.93
	1/10/92		21.09	128.66
	7/7/92		47.97	101.78
	5/20/93		40.46	109.29
	12/2/93		36.95	112.80
	5/24/94		35.24	114.51
	1/9/95		38.23	111.52
	7/6/95		33.63	116.12
	12/19/95		35.67	114.08
	6/27/97		34.62	115.13
MW-3	4/29/88	148.13	42.81	105.32
	7/18/90		44.41	103.72
	5/5/91		43.84	104.29
	7/9/91		43.26	104.87
	10/10/91		43.15	104.98
	1/10/92		42.40	105.73
	7/7/92		39.45	108.68
	5/20/93		33.55	114.58
	12/2/93		31.50	116.63
	5/24/94		30.05	118.08
	1/9/95		32.65	115.48
	7/6/95		28.42	119.71
	12/19/95		30.44	117.69

TABLE 1
HISTORICAL GROUNDWATER MONITORING DATA
VALVOLINE OIL FACILITY
SANTA FE SPRINGS, CALIFORNIA
DELTA PROJECT NO. L094-032-3

WELL NO.	DATE	TOP OF CASING ELEVATION* (feet)	DEPTH TO GROUNDWATER (feet)	GROUNDWATER ELEVATION (feet)
	6/27/97		29.50	118.63
MW-4	4/29/88	148.11	51.79	96.32
	7/18/90		53.31	94.80
	5/5/91		52.77	95.34
	7/9/91		52.40	95.71
	10/10/91		51.74	96.37
	1/10/92		50.98	97.13
	7/7/92		47.81	100.30
	5/20/93		39.76	108.35
	12/2/93		36.17	111.94
	5/24/94		34.34	113.77
	1/9/95		37.16	110.95
	7/6/95		32.75	115.36
	12/19/95		34.42	113.69
	6/27/97		32.86	115.25
MW-5	7/6/95	148.26	28.54	119.72
	12/19/95		30.56	117.70
	6/27/97		28.72	119.54

* = Top of casing surveyed by Azimuth Boundary Specialists relative to mean sea level.

TABLE 2
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
VALVOLINE OIL FACILITY
SANTA FE SPRINGS, CALIFORNIA
DELTA PROJECT NO. L094-032-3

WELL NO	DATE	TPHd	TRPH	TCE	PCE	1,2-DCE	XYLENES	1,1,1-TCA	ETHYLBENZENE	TCFM
		(mg/L)		(µg/L)						
MW-1	4/29/88	NA	0.5	12	90	ND	ND	ND	ND	ND
	4/18/90	NA	ND	170	110	ND	ND	ND	ND	ND
	5/8/91	NA	ND	NA	NA	NA	NA	NA	NA	NA
	7/9/91	NA	ND	NA	NA	NA	NA	NA	NA	NA
	10/10/91	NA	ND	39	34	ND	ND	ND	ND	ND
	1/10/92	NA	ND	100	66	ND	ND	ND	ND	ND
	7/7/92	NA	ND	15	12	ND	ND	ND	ND	ND
	5/20/93	NA	ND	6	8	ND	ND	ND	ND	ND
	12/2/93	NA	ND	9	10	ND	ND	ND	ND	ND
	5/24/94	NA	ND	21	19	ND	ND	ND	ND	6
	1/10/95	NA	ND	NA	NA	NA	NA	NA	NA	NA
	7/6/95	NA	ND	NA	NA	NA	NA	NA	NA	NA
	12/19/95	NA	ND	NA	NA	NA	NA	NA	NA	NA
	6/30/97	NA	ND	NA	NA	NA	NA	NA	NA	NA
MW-2	4/29/88	NA	0.7	5	30	ND	ND	ND	ND	ND
	4/18/90	NA	ND	4.9	11	ND	ND	ND	ND	ND
	5/8/91	NA	ND	NA	NA	NA	NA	NA	NA	NA
	7/9/91	NA	ND	NA	NA	NA	NA	NA	NA	NA
	10/10/91	NA	ND	5	10	ND	ND	ND	ND	ND
	1/10/92	NA	ND	ND	9	ND	ND	ND	ND	ND
	7/7/92	NA	ND	ND	9	ND	ND	ND	ND	ND
	5/20/93	NA	ND	ND	13	ND	ND	ND	ND	ND
	12/2/93	NA	ND	98	130	ND	ND	ND	ND	ND
	5/24/94	NA	ND	28	36	ND	ND	ND	ND	ND
	1/10/95	NA	ND	NA	NA	NA	NA	NA	NA	NA
	7/6/95	NA	ND	NA	NA	NA	NA	NA	NA	NA
	12/19/95	NA	ND	NA	NA	NA	NA	NA	NA	NA
	6/30/97	NA	ND	NA	NA	NA	NA	NA	NA	NA
MW-3	4/29/88	NA	2	20	20	ND	ND	ND	ND	ND
	4/18/90	NA	ND	5	7.5	4.1	ND	2.9	ND	ND
	5/8/91	NA	ND	NA	NA	NA	NA	NA	NA	NA
	7/9/91	NA	ND	NA	NA	NA	NA	NA	NA	NA
	10/10/91	NA	1	8	10	45	ND	ND	ND	ND
	1/10/92	NA	ND	10	24	30	ND	6	ND	ND
	7/7/92	NA	ND	11	76	6	ND	ND	ND	ND
	5/20/93	NA	ND	9	120	ND	ND	ND	ND	ND
	12/2/93	NA	ND	68	120	ND	ND	ND	ND	ND
	5/24/94	NA	ND	28	46	ND	ND	ND	ND	ND
	1/10/95	ND	ND	NA	NA	NA	NA	NA	NA	NA
	7/6/95	NA	1.5	ND	ND	ND	ND	ND	ND	ND
	12/19/95	NA	1.2	NA	NA	NA	NA	NA	NA	NA

TABLE 2
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
VALVOLINE OIL FACILITY
SANTA FE SPRINGS, CALIFORNIA
DELTA PROJECT NO. L094-032-3

WELL NO	DATE	TPHd	TRPH	TCE	PCE	1,2-DCE	XYLENES	1,1,1-TCA	ETHYLBENZENE	TCFM
		(mg/L)		(µg/L)						
	6/30/97	NA	ND	NA	NA	NA	NA	NA	NA	NA
MW-4	4/29/88	ND	0.6	ND	ND	20	63	ND	ND	ND
	4/18/90	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/8/91	NA	ND	NA	NA	NA	NA	NA	NA	NA
	7/9/91	NA	ND	NA	NA	NA	NA	NA	NA	NA
	10/10/91	NA	ND	ND	ND	7	11	ND	ND	ND
	1/10/92	NA	ND	ND	ND	7	ND	ND	ND	ND
	7/7/92	NA	ND	ND	ND	6	28	ND	11	ND
	5/20/93	NA	ND	ND	ND	7	ND	ND	ND	ND
	12/2/93	NA	ND	ND	ND	14	ND	ND	ND	ND
	5/24/94	NA	ND	ND	ND	9	ND	ND	ND	ND
	1/10/95	NA	ND	NA	NA	NA	NA	NA	NA	NA
	7/6/95	NA	1.5	ND	ND	ND	ND	ND	ND	ND
	12/19/95	NA	1.3	NA	NA	NA	NA	NA	NA	NA
	6/30/97	NA	ND	NA	NA	NA	NA	NA	NA	NA
MW-5	12/19/95	NA	4.6	NA	NA	NA	NA	NA	NA	NA
	6/30/97	NA	11	NA	NA	NA	NA	NA	NA	NA

NOTES:

TPHd	=	Total petroleum hydrocarbons as diesel by Environmental Protection Agency Method 8015 Modified
mg/L	=	Milligrams per liter
TRPH	=	Total recoverable petroleum hydrocarbons by EPA Method 418.1
TCE	=	Trichloroethane
PCE	=	Tetrachloroethane
1,2-DCE	=	1,2-Dichloroethene
1,1,1-TC	=	1,1,1-Trichloroethane
TCFM	=	Trichloroflouromethane
µg/L	=	Micrograms per liter
NA	=	Not analyzed
ND	=	Not detected

Groundwater Sample Field Data Sheets

DELTA ENVIRONMENTAL CONSULTANTS
SAMPLING INFORMATION SHEET

WEATHER CONDITION:

CLOUD COVER: 80 %
WIND SPEED: 0-5 mph
TEMPERATURE: 80 °F

WELL DESCRIPTION:

CASING DIAMETER: 4"
DEPTH TO WATER: 25.60 TIME: 10:45 am
WELL DEPTH: 56.60

PROJECT:

DATE: 6/27/97
CLIENT: Valvoline Oil
LOCATION: 9520 John Street, Santa Fe Springs, CA.
DELTA NO: L054-032
PROJECT MGR.: Matt Nusenow

SAMPLING:

SAMPLING POINT: mw-1
SAMPLE I.D. NO.: mw-1-25 TIME: 12:40 pm
SAMPLES COLLECTED: 418.1
SAMPLE APPEARANCE: Clear W.L 25.60

PURGING METHOD:

☐ VACUUM TRUCK ☒ BAILER 4" ☐ OTHER

[(56.60) - (25.60)] x (.65) x (4) = 81
WELL DEPTH D.T.W .65/4", .17/2" PURGE VOLS. PURGE VOLUME

CLEANING DONE IN FIELD: 3 time Wash

EVACUATION/STABILIZATION TEST DATA

TIME	pH (UNITS)	TEMP. CORRECTED CONDUCTANCE (µS/cm)	TEMPERATURE °F	TURBIDITY (NTUs)	CUMULATIVE VOL. OF H_2O REMOVED FROM WELL (gal)	PUMPING RATE (gpm)
11:30	7.53	1.84	82.3	103	27	
11:57	7.48	1.78	80.9	93.4	54	
12:30	7.52	1.61	79.5	69.0	81	

BAILING START TIME: 11:00 am/pm BAILING FINISH TIME: 12:30 am/pm

COMMENTS: 80% Recharge at 31.80 feet

TRANSPORTATION (THERMAL PRESERVATION): Iced

FORM COMPLETED BY: [signature] SAMPLED BY: [signature]

DELTA ENVIRONMENTAL CONSULTANTS
SAMPLING INFORMATION SHEET

WEATHER CONDITION:

CLOUD COVER: 25%
WIND SPEED: 0-5 mph
TEMPERATURE: 84 °F

WELL DESCRIPTION:

CASING DIAMETER: 4"
DEPTH TO WATER: 34.62 TIME: 1:08 pm
WELL DEPTH: 55.70

PROJECT:

DATE: 6/27/97
CLIENT: Valvoline Oil
LOCATION: 9520 John Street, Santa Fe Springs, CA.
DELTA NO: L094-032
PROJECT MGR.: Matt Nuzman

SAMPLING:

SAMPLING POINT: mw-2
SAMPLE I.D. NO.: mw-2-34 TIME: 2:40 pm
SAMPLES COLLECTED: 418.1
SAMPLE APPEARANCE: Clear W.L. 34.68

PURGING METHOD:

☐ VACUUM TRUCK ☒ BAILER 4" ☐ OTHER

[(55.70) - (34.62)] x (.65) x (4) = 55
WELL DEPTH D.T.W .65/4", .17/2" PURGE VOLS. PURGE VOLUME

CLEANING DONE IN FIELD: 3 fr Wash

EVACUATION/STABILIZATION TEST DATA

TIME	pH (UNITS)	TEMP. CORRECTED CONDUCTANCE (µS/cm)	TEMPERATURE °F	TURBIDITY (NTUs)	CUMULATIVE VOL. OF H_2O REMOVED FROM WELL (gal.)	PUMPING RATE (gpm)
1:40	7.73	1.78	78.7	1000	18	
2:05	7.64	1.83	79.1	371	36	
2:35	7.63	1.78	77.2	224	55	

BAILING START TIME: 1:15 am/pm BAILING FINISH TIME: 2:35 am/pm

COMMENTS: 80% Recovery at 38.84 feet

TRANSPORTATION (THERMAL PRESERVATION): Iced

FORM COMPLETED BY: [signature] SAMPLED BY: [signature]

DELTA ENVIRONMENTAL CONSULTANTS
SAMPLING INFORMATION SHEET

WEATHER CONDITION:

CLOUD COVER: 0 %

WIND SPEED: 0-5 mph

TEMPERATURE: 86 °F

WELL DESCRIPTION:

CASING DIAMETER: 4"

DEPTH TO WATER: 29.50 TIME: 2:55 pm

WELL DEPTH: 52.50

PROJECT:

DATE:	6/27/97
CLIENT:	Valvoline Oil
LOCATION:	9520 John Street Santa Fe Springs, CA.
DELTA NO:	L094-032
PROJECT MGR.:	Matt Nugent

SAMPLING:

SAMPLING POINT mw-3

SAMPLE I.D. NO. mw-3-29 TIME: 4:40 pm

SAMPLES COLLECTED 418.1

SAMPLE APPEARANCE Clear W.L. 29.52

PURGING METHOD:

☐ VACUUM TRUCK ☒ BAILER 4" ☐ OTHER

[(52.50) - (29.50)] x (.65) x (4) = 60

WELL DEPTH D.T.W .65/4", .17/2" PURGE VOLS. PURGE VOLUME

CLEANING DONE IN FIELD 3 Time Wash

EVACUATION/STABILIZATION TEST DATA

TIME	pH (UNITS)	TEMP. CORRECTED CONDUCTANCE (µS/cm)	TEMPERATURE °F	TURBIDITY (NTUs)	CUMULATIVE VOL OF H_2O REMOVED FROM WELL (gal.)	PUMPING RATE (gpm)
3:30	7.87	2.06	80.7	111	20	
4:00	7.86	2.07	80.1	110	40	
4:28	7.90	1.98	78.6	245	60	

BAILING START TIME: 3:00 am/pm BAILING FINISH TIME: 4:28 am/pm

COMMENTS: 80% Recharge at 34.10 feet

TRANSPORTATION (THERMAL PRESERVATION) Iced

FORM COMPLETED BY [signature] SAMPLED BY: [signature]

DELTA ENVIRONMENTAL CONSULTANTS
SAMPLING INFORMATION SHEET

WEATHER CONDITION:

CLOUD COVER: 100 %
WIND SPEED: 0-5 mph
TEMPERATURE: 76 °F

PROJECT:

DATE: 6/27/97
CLIENT: Valvoline Oil
LOCATION: 9520 John Street, Santa Fe Springs, CA.
DELTA NO: L094-032
PROJECT MGR: Matt Nusenow

WELL DESCRIPTION:

CASING DIAMETER: 4"
DEPTH TO WATER: 32.86 TIME: 8:50 am
WELL DEPTH: 60.60

SAMPLING:

SAMPLING POINT: mw-4
SAMPLE I.D. NO. mw-4-32 TIME: 10:30 am
SAMPLES COLLECTED 418.1
SAMPLE APPEARANCE Clear W.L. 32.87

PURGING METHOD:

☐ VACUUM TRUCK ☒ BAILER 4" ☐ OTHER

[(60.60) - (32.86)] x (.65) x (4) = 72
WELL DEPTH D.T.W .65/4"_17/2" PURGE VOLS. PURGE VOLUME

CLEANING DONE IN FIELD 3 Time Wash

EVACUATION/STABILIZATION TEST DATA

TIME	pH (UNITS)	TEMP. CORRECTED CONDUCTANCE (µS/cm)	TEMPERATURE °F	TURBIDITY (NTUs)	CUMULATIVE VOL OF H_2O REMOVED FROM WELL (gal)	PUMPING RATE (gpm)
9:18	7.68	1.93	77.1	39.7	24	
9:47	7.79	1.91	76.7	264	48	
10:18	7.81	1.86	76.7	192	72	

BAILING START TIME: 8:56 am/pm BAILING FINISH TIME: 10:18 am/pm

COMMENTS: 80% Recovery at 38.41 feet

TRANSPORTATION (THERMAL PRESERVATION) Iced

FORM COMPLETED BY [signature] SAMPLED BY: [signature]

DELTA ENVIRONMENTAL CONSULTANTS
SAMPLING INFORMATION SHEET

WEATHER CONDITION:

CLOUD COVER: 0 %
WIND SPEED: 0-5
TEMPERATURE: 82 °F

WELL DESCRIPTION:

CASING DIAMETER: 6"
DEPTH TO WATER: 28.72 TIME: 4:00 pm
WELL DEPTH: 48.40

PROJECT:

DATE:	6/30/97
CLIENT:	[redacted] Valwoline
LOCATION:	9520 John St. Santa Fe Springs CA.
DELTA NO:	L094-032
PROJECT MGR.:	Matt Nusum

SAMPLING:

SAMPLING POINT MW-5
SAMPLE I.D. NO. MW-5-28 TIME: 5:05 pm
SAMPLES COLLECTED 8015 (
SAMPLE APPEARANCE Murky (Dark) W.L. 28.72

PURGING METHOD:

☐ VACUUM TRUCK ☒ BAILER 4" ☐ OTHER

((48.40) - (28.72)) x (.65) x (4) = 51
WELL DEPTH D.T.W .65/4", .17/2" PURGE VOLS. PURGE VOLUME

CLEANING DONE IN FIELD 3 tm wash

EVACUATION/STABILIZATION TEST DATA

TIME	pH (UNITS)	TEMP. CORRECTED CONDUCTANCE (µS/cm)	TEMPERATURE °F	TURBIDITY (NTUs)	CUMULATIVE VOL. OF H_2O REMOVED FROM WELL (gal.)	PUMPING RATE (gpm)
4:28	7.96	1.57	79.6	1000	17	
4:45	8.02	1.69	79.2	987	34	
5:00	7.91	1.68	79.0	867	51	

BAILING START TIME: 4:10 am/pm BAILING FINISH TIME: 5:00 am/pm

COMMENTS: 80% Recharge at

TRANSPORTATION (THERMAL PRESERVATION) Iced.

FORM COMPLETED BY [signature] SAMPLED BY: [signature]

Laboratory Reports and Chain-of-Custody Documents

Del Mar Analytical

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1014 E. Cooley Dr. Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
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Delta Environmental Consultants	Client Project ID: L094-032	Sampled:	Jun 30, 1997
27141 Aliso Creek Rd., Ste. 270	Valvoline	Received:	Jul 1, 1997
Aliso Viejo, CA 92656	Analysis Method: EPA 418.1 (I.R. with clean-up)	Extracted:	Jul 8, 1997
Attention: Matt Nusenow	First Sample #: GG00085	Analyzed:	Jul 8, 1997
		Reported:	Jul 8, 1997

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)

Laboratory Number	Sample Description Water	Petroleum Hydrocarbons mg/L (ppm)
GG00085	MW-2-33	N.D.
GG00086	MW-4-32	N.D.
GG00087	MW-3-28	N.D.
GG00088	MW-1-25	N.D.

Reporting Limit:	**1.0**

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL (ELAP #1197)

Nancy Johnson
Project Manager

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Delta Environmental Consultants	Client Project ID:	L094-032	Sampled: Jun 30, 1997
27141 Aliso Creek Rd., Ste. 270		Valvoline	Received: Jul 1, 1997
Aliso Viejo, CA 92656	Analysis Method:	EPA 3510/CA DHS Mod. 8015	Extracted: Jul 3, 1997
Attention: Matt Nusenow	First Sample #:	GG00089	Analyzed: Jul 7, 1997
			Reported: Jul 8, 1997

EXTRACTABLE FUEL HYDROCARBONS (CA DHS Mod. EPA 8015)

Laboratory Number	Sample Description Water	Extractable Hydrocarbons mg/L (ppm)	Hydrocarbon Type
GG00089	MW-5-28	11	C8-C36

Reporting Limit:	**0.50**

Extractable Hydrocarbons are quantitated against a diesel fuel standard. Hydrocarbons detected by this method range from C8 to C40.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL (ELAP #1197)

Nancy Johnson
Project Manager

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