


Anticipated First Quarter 1993 Activities:

- Blaine Tech Services (BTS) of San Jose, CA, the new sampling contractor, will visit the site to assess whether ground water has recovered and sample the wells if ground water is encountered in the wells.
- WA will submit a report presenting the results of the first quarter 1993 ground water sampling and ground water depth measurements. The report will include tabulated chemical analytic results and a ground water elevation contour map.

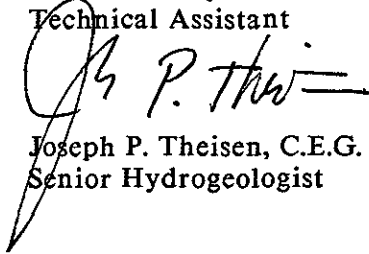
Please call if you have any questions.



Sincerely,
Weiss Associates



J. Michael Asport
Technical Assistant



Joseph P. Theisen, C.E.G.
Senior Hydrogeologist

JMA/JPT:jma

J:\SHELL\600\613QMFES.WP

Attachments: Figures
A - EMCON Associates Ground Water Monitoring Report

cc: Dan Kirk, Shell Oil Company, P.O. Box 5278, Concord, CA 94520
Tom Callaghan, Water Quality Control Board, San Francisco Bay Region, 2101 Webster Street, Oakland, CA 94612

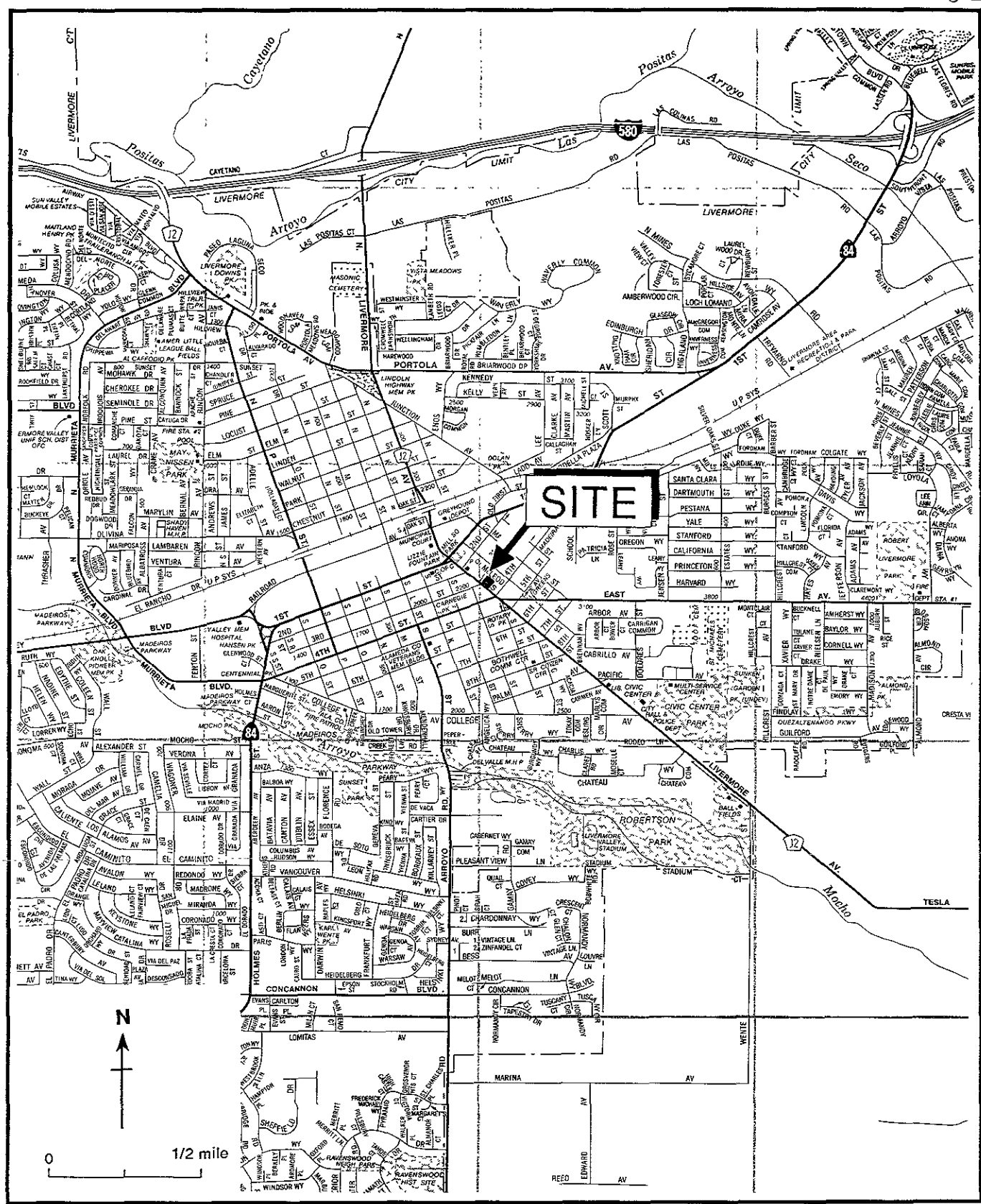
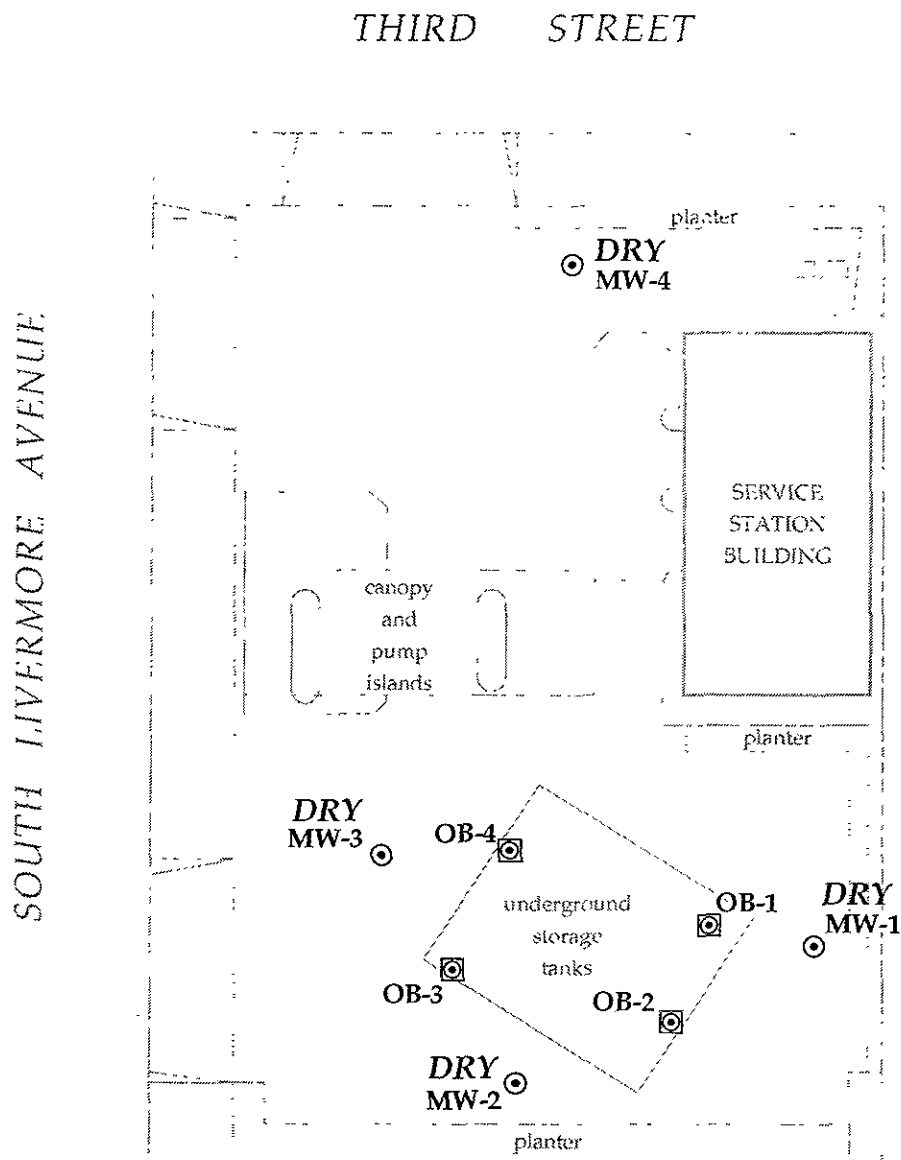


Figure 1. Site Location Map - Shell Service Station WIC #204-4380-0303, 318 South Livermore Avenue, Livermore, California



EXPLANATION

- ⊙ MW-1 Monitoring well
- ⊠ OB-1 Tank backfill well
- DRY** Ground water elevation (all wells are dry)

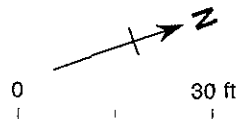


Figure 2. Monitoring Well Locations and Ground Water Elevations - November 13, 1992 - Shell Service Station WIC #204-4380-0303, 318 South Livermore Avenue, Livermore, California

ATTACHMENT A
GROUND WATER MONITORING REPORT AND ANALYTIC REPORT



EMCON
ASSOCIATES

Consultants in Wastes
Management and
Environmental Control

December 15, 1992
Project: 0G67-073.01
WIC#: 204-4380-0303

Mr. David Elias
Weiss Associates
5500 Shellmound Street
Emeryville, California 94608-2411

Re: Fourth quarter 1992 ground-water monitoring report, Shell Oil
Company, 318 S. Livermore Avenue, Livermore, California

Dear Mr. Elias:

This letter presents the results of the fourth quarter 1992 ground-water monitoring event for the Shell Oil Company (Shell) site located at 318 S. Livermore Avenue, Livermore, California (figure 1). Fourth quarter monitoring was conducted on November 13, 1992. Wells MW-1 through MW-4 are sampled quarterly; wells OB-1 through OB-4 are not sampled.

GROUND-WATER LEVEL SURVEY

A water-level survey preceded the purging and sampling of the monitoring wells. The wells included in the survey are identified in figure 2 (supplied by Weiss Associates). During the survey, wells MW-1 through MW-4 and OB-1 through OB-4 were measured for depth to water, floating product thickness, and total depth. All eight wells were observed to be dry during fourth quarter monitoring. Results of the fourth quarter water-level survey, and available data from four previous surveys, are summarized in table 1.

SAMPLING AND ANALYSIS

Wells MW-1 through MW-4 were dry and could not be sampled during fourth quarter monitoring.

ANALYTICAL RESULTS

Available historical analytical results are summarized in table 2.

0G6707301B.DOC



Mr. David Elias
December 15, 1992
Page 2

Project 0G67-073.01
WIC# 204-4380-0303

If you have any questions, please call.

Very truly yours,

EMCON Associates



David Larsen
Environmental Sampling Coordinator



Orrin Childs
Environmental Sampling Supervisor

DL/OC:dl

Attachments: Table 1 - Monitoring well field measurement data
Table 2 - Summary of analytical results
Figure 1 - Site location map
Figure 2 - Monitoring well locations

Table 1
Monitoring Well Field Measurement Data
Fourth Quarter 1992

Shell Station: 318 South Livermore Avenue
Livermore, California
WIC #: 204-4380-0303

Date: 12/15/92
Project Number: G67-73.01

Well Desig- nation	Water Level Field Date	TOC Elevation (ft-MSL)	Depth to Water (feet)	Ground- water Elevation (ft-MSL)	Total Well Depth (feet)	Floating Product Thickness (feet)	Water Sample Field Date	pH (std. units)	Electrical Conductivity (micromhos/cm)	Temperature (degrees F)	Turbidity (NTU)
MW-1	09/28/90	496.08	44.75	451.33	54.4	NR	10/02/90	NR	NR	NR	NR
MW-1	11/06/90	496.08	45.61	450.47	54.4	NR	11/06/90	NR	NR	NR	NR
MW-1	12/07/90	496.08	45.82	450.26	NR	NR	12/07/90	NR	NR	NR	NR
MW-1	09/02/92	496.08	DRY	DRY	54.4	ND	09/02/92	DRY	DRY	DRY	DRY
MW-1	11/13/92	496.08	DRY	DRY	54.4	ND	11/13/92	DRY	DRY	DRY	DRY
MW-2	09/28/90	495.49	44.18	451.31	52.3	NR	10/02/90	NR	NR	NR	NR
MW-2	11/06/90	495.49	44.98	450.51	52.3	NR	11/06/90	NR	NR	NR	NR
MW-2	12/07/90	495.49	45.32	450.17	NR	NR	12/07/90	NR	NR	NR	NR
MW-2	09/02/92	495.49	DRY	DRY	52.4	ND	09/02/92	DRY	DRY	DRY	DRY
MW-2	11/13/92	495.49	DRY	DRY	52.4	ND	11/13/92	DRY	DRY	DRY	DRY
MW-3	09/28/90	494.80	44.15	450.65	51.6	NR	10/02/90	NR	NR	NR	NR
MW-3	11/06/90	494.80	44.93	449.87	51.6	NR	11/06/90	NR	NR	NR	NR
MW-3	12/07/90	494.80	45.56	449.24	NR	NR	12/07/90	NR	NR	NR	NR
MW-3	09/02/92	494.80	DRY	DRY	51.7	ND	09/02/92	DRY	DRY	DRY	DRY
MW-3	11/13/92	494.80	DRY	DRY	51.7	ND	11/13/92	DRY	DRY	DRY	DRY
MW-4	09/28/90	494.33	44.27	450.06	54.7	NR	10/02/90	NR	NR	NR	NR
MW-4	11/06/90	494.33	45.12	449.21	54.7	NR	11/06/90	NR	NR	NR	NR
MW-4	12/07/90	494.33	45.97	448.36	NR	NR	12/07/90	NR	NR	NR	NR
MW-4	09/02/92	494.33	50.61	443.72	54.8	ND	09/02/92	6.61	918	69.6	>200
MW-4	11/13/92	494.33	DRY	DRY	54.8	ND	11/13/92	DRY	DRY	DRY	DRY

TOC = top of casing
ft-MSL = elevation in feet, relative to mean sea level
std. units = standard pH units
micromhos/cm = micromhos per centimeter
degrees F = degrees Fahrenheit
NTU = nephelometric turbidity units
NR = Not reported; data not available
DRY = Ground water not detected
ND = None detected

Table 1
Monitoring Well Field Measurement Data
Fourth Quarter 1992

Shell Station: 318 South Livermore Avenue
Livermore, California
WIC #: 204-4380-0303

Date: 12/15/92
Project Number: G67-73.01

Well Desig- nation	Water Level Field Date	TOC Elevation (ft-MSL)	Depth to Water (feet)	Ground- water Elevation (ft-MSL)	Total Well Depth (feet)	Floating Product Thickness (feet)	Water Sample Field Date	pH (std. units)	Electrical Conductivity (micromhos/cm)	Temperature (degrees F)	Turbidity (NTU)
OB-1	09/28/90	NR	NR	NR	NR	NR	10/02/90	NR	NR	NR	NR
OB-1	11/06/90	NR	NR	NR	NR	NR	11/06/90	NR	NR	NR	NR
OB-1	12/07/90	NR	NR	NR	NR	NR	12/07/90	NR	NR	NR	NR
OB-1	09/02/92	NR	12.81	NR	12.9	ND	09/02/92	NA	NA	NA	NA
OB-1	11/13/92	NR	DRY	NR	12.9	ND	11/13/92	NA	NA	NA	NA
OB-2	09/28/90	NR	NR	NR	NR	NR	10/02/90	NR	NR	NR	NR
OB-2	11/06/90	NR	NR	NR	NR	NR	11/06/90	NR	NR	NR	NR
OB-2	12/07/90	NR	NR	NR	NR	NR	12/07/90	NR	NR	NR	NR
OB-2	09/02/92	NR	13.74	NR	13.9	ND	09/02/92	NA	NA	NA	NA
OB-2	11/13/92	NR	DRY	NR	14.0	ND	11/13/92	NA	NA	NA	NA
OB-3	09/28/90	NR	NR	NR	NR	NR	10/02/90	NR	NR	NR	NR
OB-3	11/06/90	NR	NR	NR	NR	NR	11/06/90	NR	NR	NR	NR
OB-3	12/07/90	NR	NR	NR	NR	NR	12/07/90	NR	NR	NR	NR
OB-3	09/02/92	NR	12.82	NR	12.9	ND	09/02/92	NA	NA	NA	NA
OB-3	11/13/92	NR	DRY	NR	12.9	ND	11/13/92	NA	NA	NA	NA
OB-4	09/28/90	NR	NR	NR	NR	NR	10/02/90	NR	NR	NR	NR
OB-4	11/06/90	NR	NR	NR	NR	NR	11/06/90	NR	NR	NR	NR
OB-4	12/07/90	NR	NR	NR	NR	NR	12/07/90	NR	NR	NR	NR
OB-4	09/02/92	NR	11.75	NR	11.9	ND	09/02/92	NA	NA	NA	NA
OB-4	11/13/92	NR	DRY	NR	12.0	ND	11/13/92	NA	NA	NA	NA

TOC = top of casing
ft-MSL = elevation in feet, relative to mean sea level
std. units = standard pH units
micromhos/cm = micromhos per centimeter
degrees F = degrees Fahrenheit
NTU = nephelometric turbidity units
NR = Not reported; data not available
ND = None detected
NA = Not analyzed
DRY = Ground water not detected

Table 2
 Summary of Analytical Results
 Fourth Quarter 1992
 milligrams per liter (mg/l) or parts per million (ppm)

Shell Station: 318 South Livermore Avenue
 Livermore, California
 WIC #: 204-4380-0303

Date: 12/15/92
 Project Number: G67-73.01

Sample Designation	Water Sample Field Date	TPH-g (mg/l)	Benzene (mg/l)	Toluene (mg/l)	Ethyl-benzene (mg/l)	Total Xylenes (mg/l)
MW-1	10/02/90	<0.03	<0.0003	<0.0003	<0.0003	<0.0003
MW-1	11/06/90	NR	NR	NR	NR	NR
MW-1	12/07/90	NR	NR	NR	NR	NR
MW-1	09/02/92	DRY	DRY	DRY	DRY	DRY
MW-1	11/13/92	DRY	DRY	DRY	DRY	DRY
MW-2	10/02/90	<0.03	<0.0003	<0.0003	<0.0003	<0.0003
MW-2	11/06/90	NR	NR	NR	NR	NR
MW-2	12/07/90	NR	NR	NR	NR	NR
MW-2	09/02/92	DRY	DRY	DRY	DRY	DRY
MW-2	11/13/92	DRY	DRY	DRY	DRY	DRY
MW-3	10/02/90	<0.03	<0.0003	<0.0003	<0.0003	<0.0003
MW-3	11/06/90	NR	NR	NR	NR	NR
MW-3	12/07/90	NR	NR	NR	NR	NR
MW-3	09/02/92	DRY	DRY	DRY	DRY	DRY
MW-3	11/13/92	DRY	DRY	DRY	DRY	DRY
MW-4	10/02/90	<0.03	<0.0003	<0.0003	<0.0003	<0.0003
MW-4	11/06/90	NR	NR	NR	NR	NR
MW-4	12/07/90	NR	NR	NR	NR	NR
MW-4	09/02/92	0.063	<0.0005	<0.0005	<0.0005	<0.0005
MW-4	11/13/92	DRY	DRY	DRY	DRY	DRY
MW-4D	09/02/92	0.067	<0.0005	<0.0005	<0.0005	<0.0005
FB	09/02/92	<0.05	<0.0005	<0.0005	<0.0005	<0.0005

TPH-g = total petroleum hydrocarbons as gasoline
 NR = Not reported; data not available
 DRY = Ground water not detected

Table 2
Summary of Analytical Results
Fourth Quarter 1992
milligrams per liter (mg/l) or parts per million (ppm)

Shell Station: 318 South Livermore Avenue
Livermore, California
WIC #: 204-4380-0303

Date: 12/15/92
Project Number: G67-73.01

Sample Designation	Water Sample Field Date	TPH-g (mg/l)	Benzene (mg/l)	Toluene (mg/l)	Ethyl- benzene (mg/l)	Total Xylenes (mg/l)
TB	09/02/92	<0.05	<0.0005	<0.0005	<0.0005	<0.0005

TPH-g = total petroleum hydrocarbons as gasoline

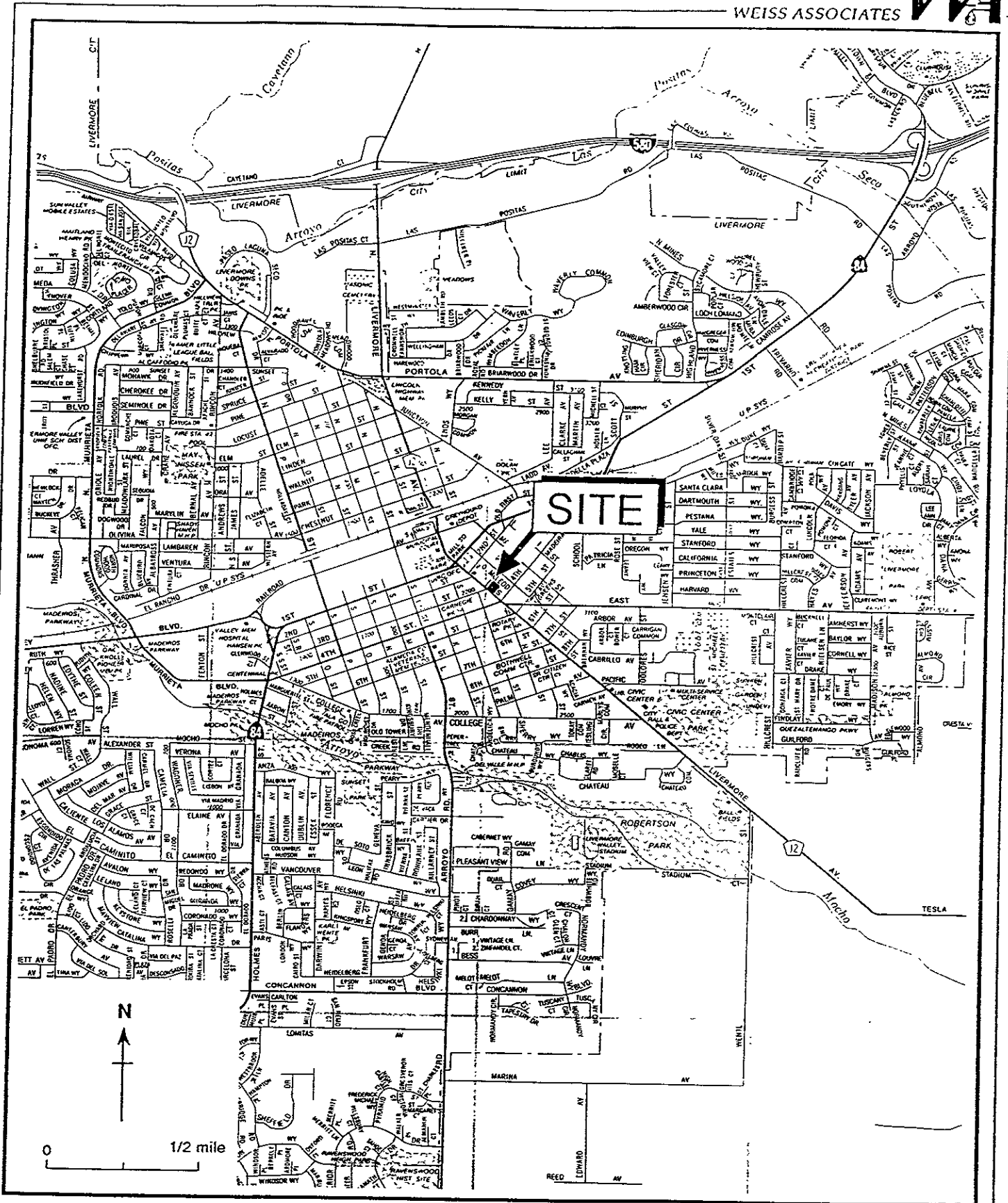
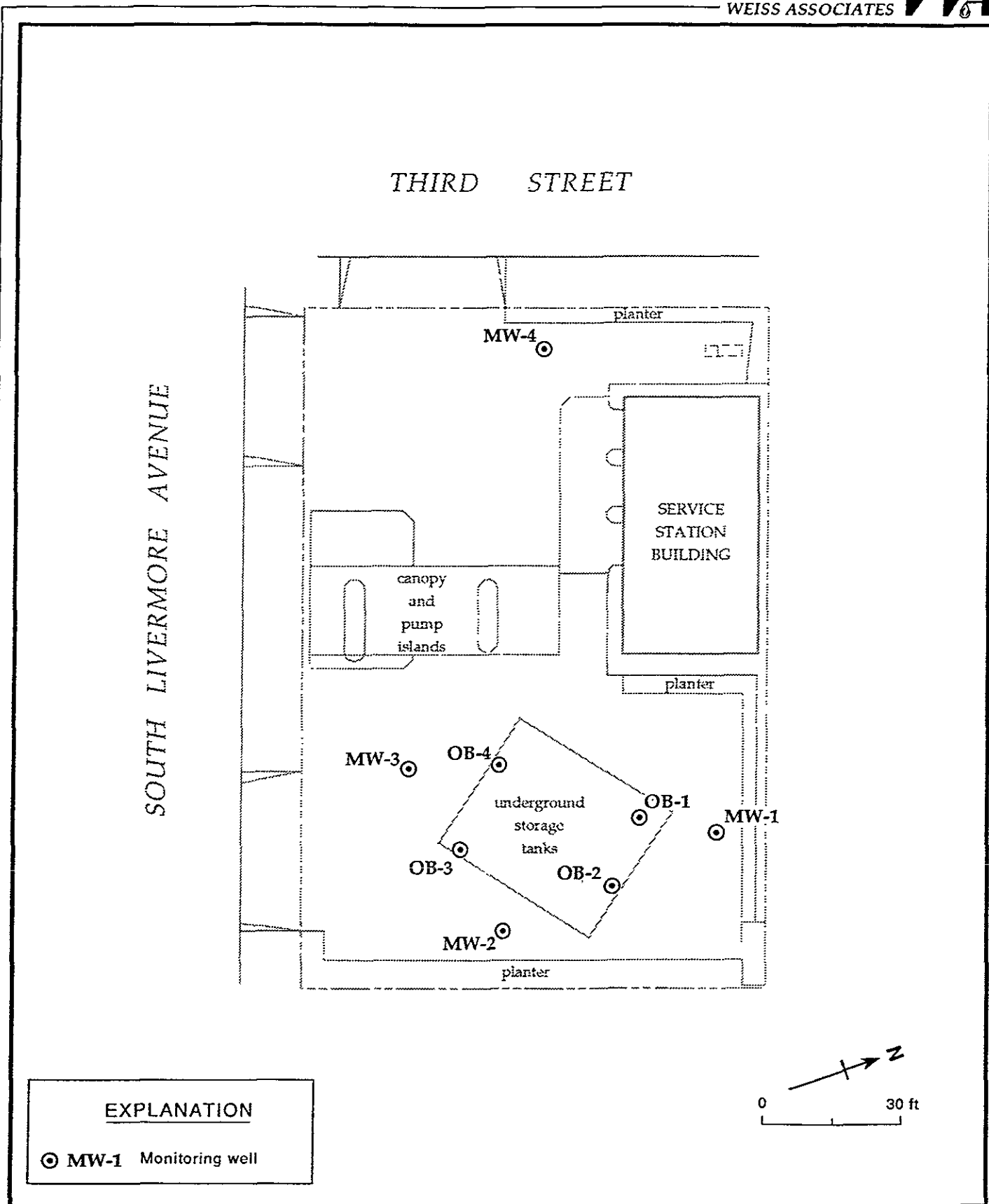


Figure 1. Site Location Map - Shell Service Station WIC #204-4380-0303, 318 South Livermore Avenue, Livermore, California



EXPLANATION

⊙ MW-1 Monitoring well

Figure 2. Monitoring Well Locations - Shell Service Station WIC #204-4380-0303, 318 South Livermore Avenue, Livermore, California

EMCON Associates - Ground Water Sampling and Analysis Request Form

PROJECT NAME : **SHELL OIL COMPANY**
 318 S. Livermore Ave., Livermore, CA

WIC#: 204-4380-0303
 MOH#: MOH-90649
 EMCON Project # : 0G67-073.01

DATE SUBMITTED : 13-Nov-92 *8-12:30*

Authorized By: *[Signature]*
 Date: *11-12-92*

SPECIAL INSTRUCTIONS / CONSIDERATIONS :

Quarterly Monitoring - Second Month of the Quarter

Perform a water level survey prior to sampling (see Shell SOP).
Well survey points are top of well casings.

Replace all locks with new 2357 long-neck locks. Bring bolt cutters.
 All wells need new locking well caps.

Use Anametrix bottles for lead samples, don't use CAS bottles.
 Field filter the lead samples, bring a filter barrel.

Wells MW-1, MW-2, and MW-3 were dry last quarter.

Submit samples to Anametrix for analysis.

Lead Consultant: Weiss Associates
 Lead Contact: David Elias
 Phone Number: (510) 547-5420
 Report Due: 18-Dec-92

Shell Engineer: Dan Kirk
 Phone Number: (510) 675-6169

Site Contact: _____

Site Phone#: _____

Well Locks: Replace w/ 2357-L

Well ID or Source	Casing Diameter (inches)	Casing Length (feet)	Floating Product (feet)	Scheduled Purging Equipment	Analyses Requested	
MW-1	4.0	53.5	ND	PVC Bailer	TPH-Gasoline, BTEX 3 -VOAs (HCl) Dissolved Lead by 7421 1-500 ml LPE (HNO3)* Field Measurements: pH, EC, Temp., Turbidity (NTU) (Measure NTU at casing volume intervals; not a stabilization parameter)	
MW-2	4.0	53.0	ND	PVC Bailer		
MW-3	4.0	51.5	ND	PVC Bailer		
MW-4	4.0	55.0	ND	PVC Bailer		
Above wells in any order <i>Complete 11-13-92 BB</i>						
MW-4D	[Duplicate - Well MW-4; 3-VOAs (HCl)]				TPH-Gasoline, BTEX 3 -VOAs (HCl)	
TB	[Trip Blank; 3-VOAs (HCl)]					
FB	[Field Blank; 3-VOAs (HCl)]					
OB-1	<table border="1"><tr><td>4"</td></tr></table>	4"	12.9	ND	NA	Depth to Water Floating Product Thickness Total Depth
4"						
OB-2	<table border="1"><tr><td>6"</td></tr></table>	6"	13.9	ND	NA	
6"						
OB-3	<table border="1"><tr><td>4"</td></tr></table>	4"	12.9	ND	NA	
4"						
OB-4	<table border="1"><tr><td>6"</td></tr></table>	6"	11.9	ND	NA	
6"						

Laboratory Instructions:

Detection Limits: TPH-G = 0.05 ppm
 BTEX = 0.0005 ppm
 Dis. Pb = ppm

Anametrix Reference #: *1485-5*

ND = None Detected IP = Intermittent Product † = Dedicated * Field Filtered

EMCON Associates - Drum Inventory Record

0G67-073.01

318 S. Livermore Ave., Livermore, CA

11-13-92

Project No

Location

Date

Shell Oil Company

B.S.

Friday

Client

Sampler

Day of Week

DRUM NUMBER OR ID	WELL OR SOURCE ID(s)	TYPE OF MATERIAL	AMOUNT OF MATERIAL IN DRUM	DATE ACCUMULATED OR GENERATED
1 & only	AA Empty			

Sketch locations of drums, include drum ID's

COMMENTS:

Number of Drums From This Event 0

Total Number of Drums At Site 1

**FIELD REPORT
DEPTH TO WATER / FLOATING PRODUCT SURVEY**

PROJECT #: OG67-073.01

STATION ADDRESS : 318 S. Livermore Ave, Livermore

DATE : 11-13-92

Shell WIC #: 204-4380-0303

FIELD TECHNICIAN : B. Stafford

DAY : Friday

DTW Order	WELL ID	Well Box Seal	Well Lid Secure	Gasket	Lock	Locking Well Cap	FIRST DEPTH TO WATER (feet)	SECOND DEPTH TO WATER (feet)	DEPTH TO FLOATING PRODUCT (feet)	FLOATING PRODUCT THICKNESS (feet)	WELL TOTAL DEPTH (feet)	COMMENTS
	MW-1	cracked	Yes	None	2357	Yes	Dry	Dry	ND	ND	54.4	New 2357 long neck lock & 4" LWC installed
	MW-2	OK	Yes	None	2357	Yes	Dry	Dry	ND	ND	52.4	New L.W.C. & L.W. 2357 lock installed. 4"
	MW-3	OK	Yes	OK	2357	Yes	Dry	Dry	ND	ND	51.7	new 2357 lock installed
	MW-4	OK	Yes	OK	2357	Yes	Dry	Dry	ND	ND	54.8	new 2357 lock installed
	OB-1	OK	Yes	None OK	2357	Yes	Dry	Dry	ND	ND	12.9	new 4" LWC & 2357 long Neck lock installed.
	OB-2	OK	Yes	OK	None	NO	Dry	Dry	ND	ND	14.0	Twist on 6" lid. Needs 6" LWC.
	OB-3	OK	NO	OK	2357	Yes	Dry	Dry	ND	ND	12.9	new 4" L.W.C & 2357 L.W. lock installed. Hold down bolts gone.
	OB-4	OK	Yes	OK	None	NO	11.76	11.76	ND	ND	12.0	Twist on 6" lid. Needs 6" L.W.C. ID = 5 5/8"

WELL SURVEY POINTS ARE TOP OF WELL CASINGS (TOC)



EMCON ASSOCIATES

WATER SAMPLE FIELD DATA SHEET

Rev. 2, 5/91

PROJECT NO: OG67-073.01

SAMPLE ID: MW-2

PURGED BY: B. Stafford

CLIENT NAME: ZD4-4380-0303

SAMPLED BY: B. Stafford

LOCATION: 318 S. Livermore Ave.

Livermore, CA

TYPE: Ground Water Surface Water Treatment Effluent Other

CASING DIAMETER (inches): 2 3 4 4.5 6 Other

CASING ELEVATION (feet/MSL): <u>NR</u>	VOLUME IN CASING (gal.): <u>NA</u>
DEPTH TO WATER (feet): <u>Dry</u>	CALCULATED PURGE (gal.): <u>NA</u>
DEPTH OF WELL (feet): <u>52.4</u>	ACTUAL PURGE VOL (gal.): <u>NA</u>

DATE PURGED: <u>11-13-92</u>	Start (2400 Hr) <u>NA</u>	End (2400 Hr) <u>NA</u>
DATE SAMPLED: <u>11-13-92</u>	Start (2400 Hr) <u>NA</u>	End (2400 Hr) <u>NA</u>

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. ($\mu\text{mhos}/\text{cm} @ 25^\circ \text{C}$)	TEMPERATURE ($^\circ \text{F}$)	COLOR (visual)	TURBIDITY (visual)
<u>No readings or sample. Well was dry.</u>						
D. O. (ppm): <u>NA</u>	ODOR: <u>NDae</u>			COLOR (COBALT 0-100): <u>NA</u>	TURBIDITY (NTU 0-200): <u>NR</u>	

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, XDUP-1): NR

PURGING EQUIPMENT

SAMPLING EQUIPMENT

- | | | | |
|---|--|--|--|
| <input type="checkbox"/> 2" Bladder Pump | <input checked="" type="checkbox"/> Bailer (Teflon®) | <input type="checkbox"/> 2" Bladder Pump | <input type="checkbox"/> Bailer (Teflon®) |
| <input type="checkbox"/> Centrifugal Pump | <input checked="" type="checkbox"/> Bailer (PVC) | <input type="checkbox"/> DDL Sampler | <input checked="" type="checkbox"/> Bailer (Stainless Steel) |
| <input type="checkbox"/> Submersible Pump | <input type="checkbox"/> Bailer (Stainless Steel) | <input type="checkbox"/> Dipper | <input type="checkbox"/> Submersible Pump |
| <input type="checkbox"/> Well Wizard™ | <input type="checkbox"/> Dedicated | <input type="checkbox"/> Well Wizard™ | <input type="checkbox"/> Dedicated |
| Other: _____ | | Other: _____ | |

WELL INTEGRITY: OK LOCK #: 2357

REMARKS: New 4" H.W.C. installed & 2357 long neck lock.

Meter Calibration: Date: 11-13-92 Time: _____ Meter Serial #: _____ Temperature $^\circ \text{F}$: _____

(EC 1000 _____ / _____) (DI _____) (pH 7 _____ / _____) (pH 10 _____ / _____) (pH 4 _____ / _____)

Location of previous calibration: NA

Signature: [Signature] Reviewed By: [Signature] Page 2 of 4



EMCON ASSOCIATES

WATER SAMPLE FIELD DATA SHEET

Rev. 2, 5/91

PROJECT NO: 0667-073.D1
PURGED BY: B. Stafford
SAMPLED BY: B. Stafford

SAMPLE ID: MW-3
CLIENT NAME: ZD4-4380-0303
LOCATION: 318 S. Livermore Ave.
Livermore, CA

TYPE: Ground Water Y Surface Water _____ Treatment Effluent _____ Other _____
CASING DIAMETER (inches): 2 _____ 3 _____ 4 Y 4.5 _____ 6 _____ Other _____

CASING ELEVATION (feet/MSL): NR VOLUME IN CASING (gal.): NA
DEPTH TO WATER (feet): Dry CALCULATED PURGE (gal.): NA
DEPTH OF WELL (feet): 51.7 ACTUAL PURGE VOL (gal.): NA

DATE PURGED: 11-13-92 Start (2400 Hr) NA End (2400 Hr) NA
DATE SAMPLED: 11-13-92 Start (2400 Hr) NA End (2400 Hr) NA

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
<u>No readings or sample. Well was dry.</u>						
D. O. (ppm):	<u>NA</u>	ODOR:	<u>None</u>		<u>NA</u>	<u>NR</u>
					(COBALT 0 - 100)	(NTU 0 - 200)

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, XDUP-1): NR

PURGING EQUIPMENT

SAMPLING EQUIPMENT

- | | | | |
|---|---|--|---|
| <input type="checkbox"/> 2" Bladder Pump | <input type="checkbox"/> Bailer (Teflon®) | <input type="checkbox"/> 2" Bladder Pump | <input type="checkbox"/> Bailer (Teflon®) |
| <input type="checkbox"/> Centrifugal Pump <u>NA</u> | <input type="checkbox"/> Bailer (PVC) | <input type="checkbox"/> DDL Sampler <u>NA</u> | <input type="checkbox"/> Bailer (Stainless Steel) |
| <input type="checkbox"/> Submersible Pump | <input type="checkbox"/> Bailer (Stainless Steel) | <input type="checkbox"/> Dipper | <input type="checkbox"/> Submersible Pump |
| <input type="checkbox"/> Well Wizard™ | <input type="checkbox"/> Dedicated | <input type="checkbox"/> Well Wizard™ | <input type="checkbox"/> Dedicated |
| Other: _____ | | Other: _____ | |

WELL INTEGRITY: OK LOCK #: 2357

REMARKS: New 2357 L.V. lock installed.

Meter Calibration: Date: 11-13-92 Time: _____ Meter Serial #: _____ Temperature °F: _____
(EC 1000 _____ / _____) (DI _____) (pH 7 _____ / _____) (pH 10 _____ / _____) (pH 4 _____ / _____)
Location of previous calibration: NA

Signature: B. Stafford Reviewed By: OCF Page 3 of 4



EMCON ASSOCIATES

WATER SAMPLE FIELD DATA SHEET

Rev. 2, 5/91

PROJECT NO: OG67-073.01

SAMPLE ID: MLW-4

PURGED BY: B. Stafford

CLIENT NAME: ZD4-4380-0303

SAMPLED BY: B. Stafford

LOCATION: 318 S. Livermore Ave.
Livermore, CA

TYPE: Ground Water ✓ Surface Water _____ Treatment Effluent _____ Other _____

CASING DIAMETER (inches): 2 _____ 3 _____ 4 ✓ 4.5 _____ 6 _____ Other _____

CASING ELEVATION (feet/MSL):	<u>NR</u>	VOLUME IN CASING (gal.):	<u>NA</u>
DEPTH TO WATER (feet):	<u>Dry</u>	CALCULATED PURGE (gal.):	<u>NA</u>
DEPTH OF WELL (feet):	<u>54.8</u>	ACTUAL PURGE VOL (gal.):	<u>NA</u>

DATE PURGED:	<u>11-13-92</u>	Start (2400 Hr)	<u>NA</u>	End (2400 Hr)	<u>NA</u>
DATE SAMPLED:	<u>11-13-92</u>	Start (2400 Hr)	<u>NA</u>	End (2400 Hr)	<u>NA</u>

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
<u>No readings or sample well was dry.</u>						

D. O. (ppm): NA ODOR: None NA NR
(COBALT 0 - 100) (NTU 0 - 200)

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, XDUP-1): NR

PURGING EQUIPMENT

SAMPLING EQUIPMENT

- | | | | | |
|---|-----------|---|--|---|
| <input type="checkbox"/> 2" Bladder Pump | <u>NA</u> | <input type="checkbox"/> Bailer (Teflon®) | <input type="checkbox"/> 2" Bladder Pump | <input type="checkbox"/> Bailer (Teflon®) |
| <input type="checkbox"/> Centrifugal Pump | <u>NA</u> | <input type="checkbox"/> Bailer (PVC) | <input type="checkbox"/> DDL Sampler <u>NA</u> | <input type="checkbox"/> Bailer (Stainless Steel) |
| <input type="checkbox"/> Submersible Pump | <u>NA</u> | <input type="checkbox"/> Bailer (Stainless Steel) | <input type="checkbox"/> Dipper | <input type="checkbox"/> Submersible Pump |
| <input type="checkbox"/> Well Wizard™ | <u>NA</u> | <input type="checkbox"/> Dedicated | <input type="checkbox"/> Well Wizard™ | <input type="checkbox"/> Dedicated |
| Other: _____ | | | Other: _____ | |

WELL INTEGRITY: OK LOCK #: 2357

REMARKS: New 2357 L.N. lock installed.

Meter Calibration: Date: 11-13-92 Time: _____ Meter Serial #: _____ Temperature °F: _____
 (EC 1000 _____ / _____) (DI _____) (pH 7 _____ / _____) (pH 10 _____ / _____) (pH 4 _____ / _____)

Location of previous calibration: NA

Signature: Bart Stafford Reviewed By: [Signature] Page 4 of 4