



# AEGIS ENVIRONMENTAL, INC.

1050 Melody Lane, Suite 160, Roseville, CA 95678



916 • 782-2110 / 916 • 969-2110 / FAX 916 • 786-7830

OCT 17 1991

October 14, 1991

Mr. Larry Seto  
Alameda County Department of Health Services  
Hazardous Materials Program  
80 Swan Way, Room 200  
Oakland, California 94621

Subject: **Quarterly Groundwater Monitoring Letter Report**  
E. C. Buehrer & Associates, Inc.  
1061 Eastshore Highway, Albany, California

Dear Mr. Seto:

Aegis Environmental, Inc. (Aegis), is pleased to provide this letter report documenting the results of quarterly groundwater monitoring, from June through August 1991, at the subject site (Figure 1). The monitoring included monthly collection of depth-to-groundwater measurements and quarterly collection of groundwater samples from eight groundwater monitoring wells (wells MW-1 through MW-8) located on site (Figure 2). This report is based, in part, on information obtained by Aegis from E. C. Buehrer & Associates, Inc., and is subject to modification as newly acquired information may warrant.

## SITE DESCRIPTION

The E. C. Buehrer & Associates, Inc., site is an active site consisting of two buildings. The large building along the western boundary of the site contains office space (about 25 percent) and work bays for equipment repair (about 75 percent). The small building along the southern boundary of the site is utilized as a welding and machine shop, and a spray painting booth. Details of the site's current facilities, including tanks and utilities were presented by Aegis in a report titled "Problem Assessment Report" dated August 1, 1991. The project site is located in an industrial area of Albany.

90-007D.RPT

GEOLOGISTS • ENGINEERS • GROUND WATER SCIENTISTS

## **BACKGROUND**

On April 24 and 25, 1990, Aegis drilled and sampled four soil borings. Four wells, MW-1 through MW-4, were installed and sampled on the site, "Hydrogeological Investigation Results Report" (Aegis, June 12, 1990). On April 2 and 3, 1991, Aegis drilled and sampled nine soil borings, four of which were installed as groundwater monitoring wells, MW-5 through MW-8.

Aegis began a program of monthly measurement of depths-to-groundwater and quarterly sampling of groundwater following the initial well installations. The first groundwater samples were collected in April 1990. Quarterly monitoring and sampling has continued since then and was expanded to include all eight wells in August 1991.

Wells MW-1 through MW-4 were abandoned on August 15, 1991. The wells were abandoned under the supervision of Aegis personnel.

## **GROUNDWATER MONITORING**

### **Groundwater**

On August 12, 1991, Aegis personnel collected measurements of the depths-to-groundwater in wells MW-1 through MW-8. Over the past 3 months, since May 8, 1991, groundwater elevations have decreased in all wells an average of 0.86-feet (Figures 3 and 4). The changes in groundwater elevations range from 0.31 to 2.42 feet (Table 1). On the basis of the August 12, 1991, measurements, groundwater is estimated to flow to the east (Figure 5) at an average gradient of approximately 0.003-feet (0.3 percent). For July 18, 1991, the flow direction was estimated to be to the northeast.

Previous groundwater levels are summarized in Table 1. All groundwater elevation measurements were made from the referenced wellhead elevations, measured to the nearest 0.01 foot, and conducted according to the Aegis standard operating procedures (SOP) included as Attachment 1. Figure 5 is a potentiometric surface map of the shallow water-bearing zone on August 12, 1991.

## Water Sampling and Analysis

On August 12, 1991, Aegis personnel collected groundwater samples from the eight wells on site. The samples were collected according to the Aegis SOP included as Attachment 1, and delivered under chain-of-custody to NET Pacific, Inc., of Santa Rosa, California, a state-certified analytical laboratory. The samples were analyzed for concentrations of: a) total oil & grease by EPA Method 9070; b) benzene, ethylbenzene, toluene, and total xylenes by EPA Method 602; c) total petroleum hydrocarbons (TPH) (purgeable) as gasoline and mineral spirits by Method GC FID/5030 (gas chromatograph - flame ionization detector/5030); and d) extractable petroleum hydrocarbons, TPH as diesel and motor oil, by Method GC FID/3510 (Table 2). Concentrations of TPH as gasoline, and benzene reported in Table 2 are also shown on Figure 6. In addition, groundwater samples from well MW-8 were analyzed for drinking water standards. These analyses tested for total coliform bacteria, specific conductance, chloride, nitrate as nitrogen, iron, and manganese (Table 3). The analytical reports and chain-of-custody form are included in Attachment 2.

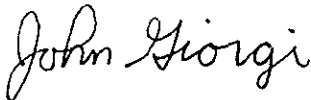
**REMARKS/SIGNATURES**

The interpretations and conclusions contained in this letter report represent our professional opinions. These opinions are based on currently available information and were developed in accordance with currently accepted geologic, hydrogeologic, and engineering practices at this time and for this specific site. Other than this, no warranty is implied or intended.

This letter report has been prepared solely for the use of E. C. Buehrer, Inc. Any reliance on this report by third parties shall be at such parties sole risk. The work described herein was performed under the direct supervision of the professional geologist, registered with the State of California, whose signature appears below.

If you have any questions or concerns, please call us at (916) 782-2110.

**AEGIS ENVIRONMENTAL, INC.**



John Giorgi  
Staff Geologist

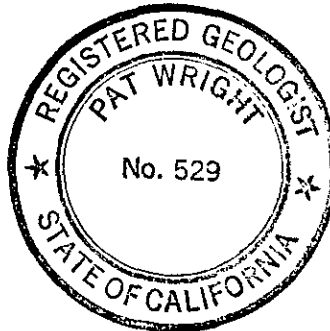


Pat Wright  
CRG #529

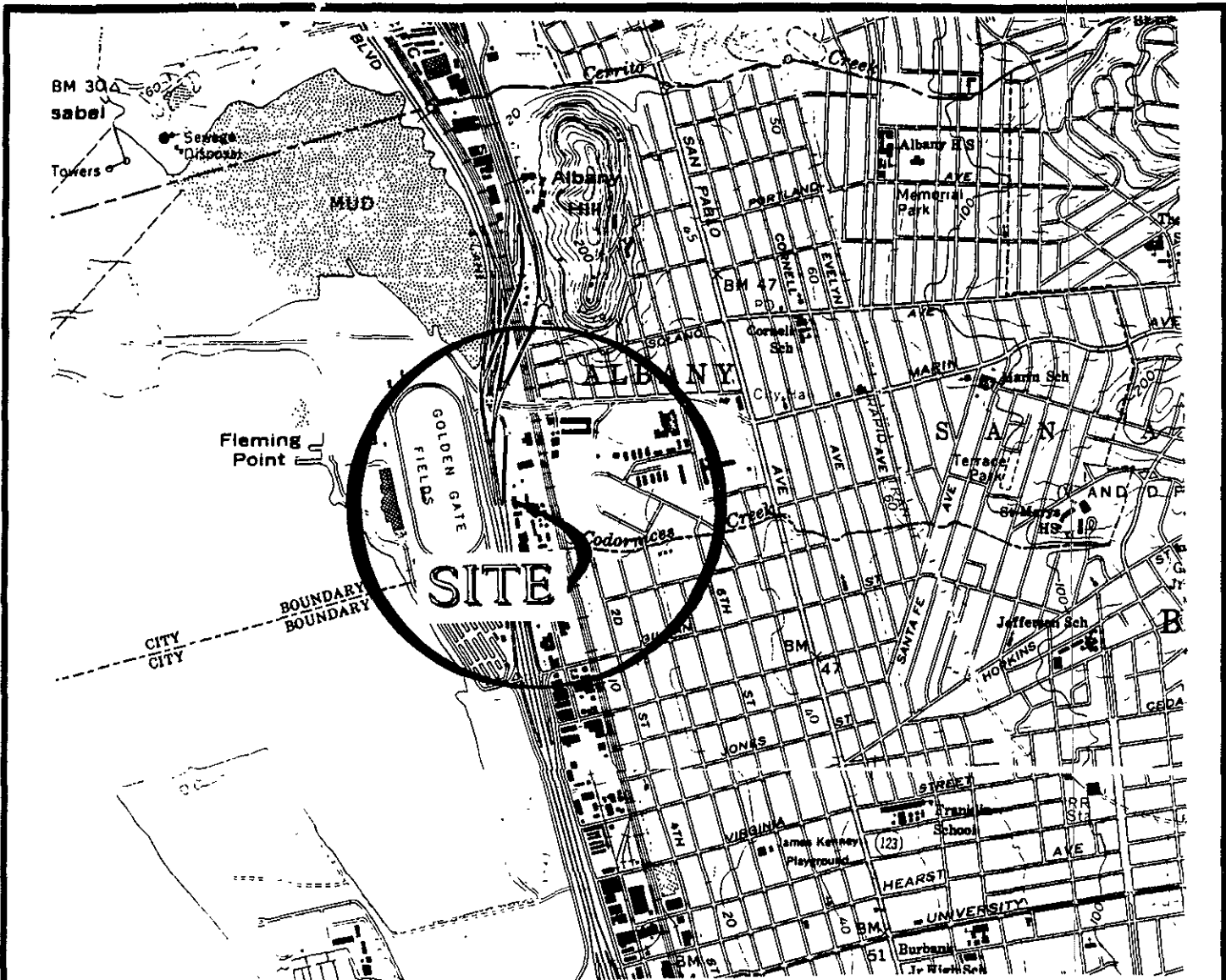
10-14-91  
Date

JG/PW/law

cc: Lester Feldman, Regional Water Quality Control Board  
Brian H. Garber, Aegis Environmental, Inc.



## FIGURES



SCALE: 1" = 2,000'

0 2,000



**GENERAL NOTES:**

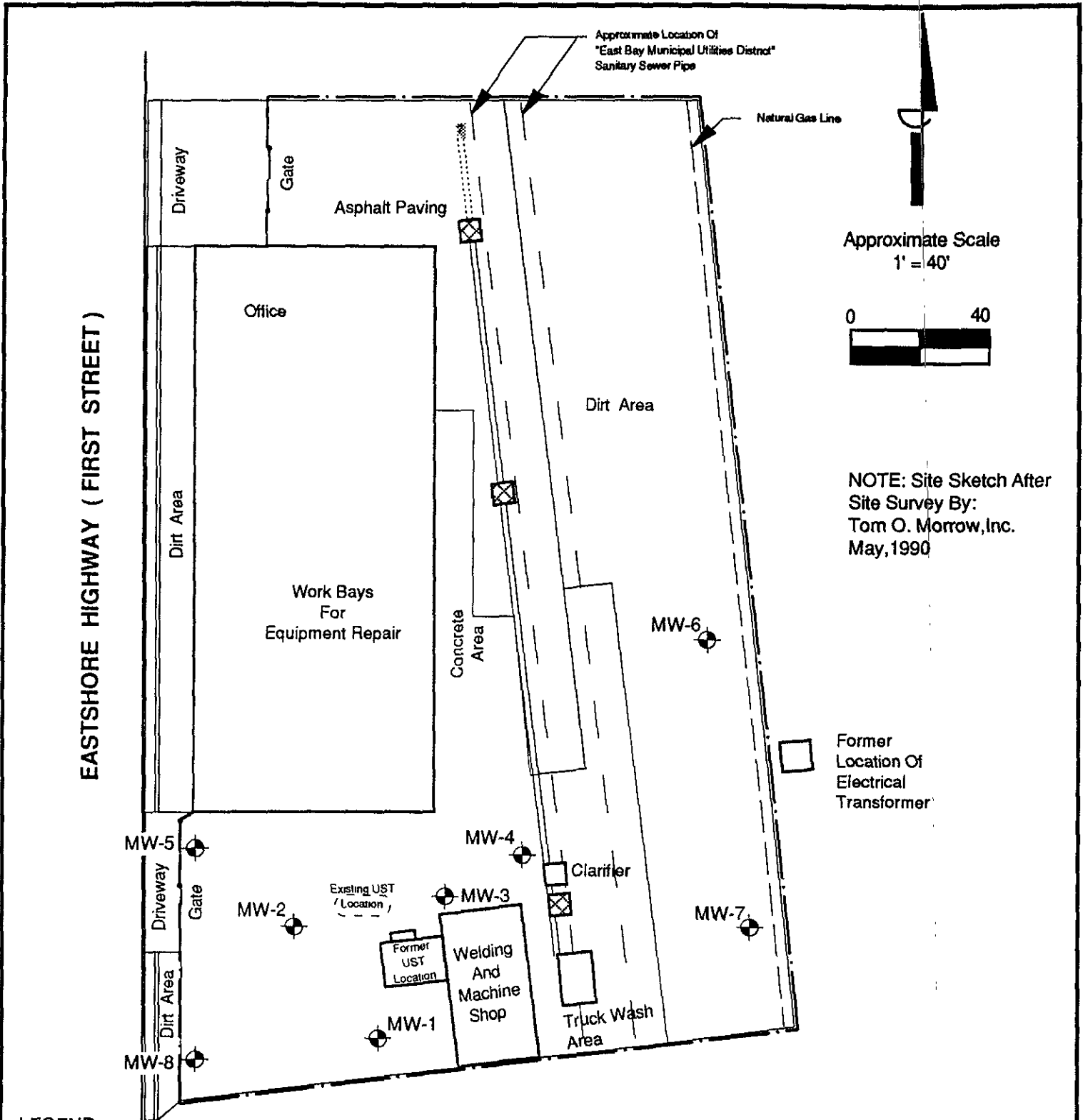
BASE MAP FROM USGS  
7.5 MINUTE  
TOPOGRAPHIC  
RICHMOND & OAKLAND  
WEST, CA.



**FIGURE 1**  
**SITE LOCATION MAP**  
**E. C. Buehrer Associates, Inc.**  
**1061 Eastshore Highway**  
**Albany, Ca.**

**AEGIS Job Number 90-007**

**DRAWN BY: Ed Bernard**      **DATE: April 8, 1991**  
**REVIEWED BY: L Braybrooks**      **DATE: April 14, 1991**







Approximate Scale  
1" = 40'



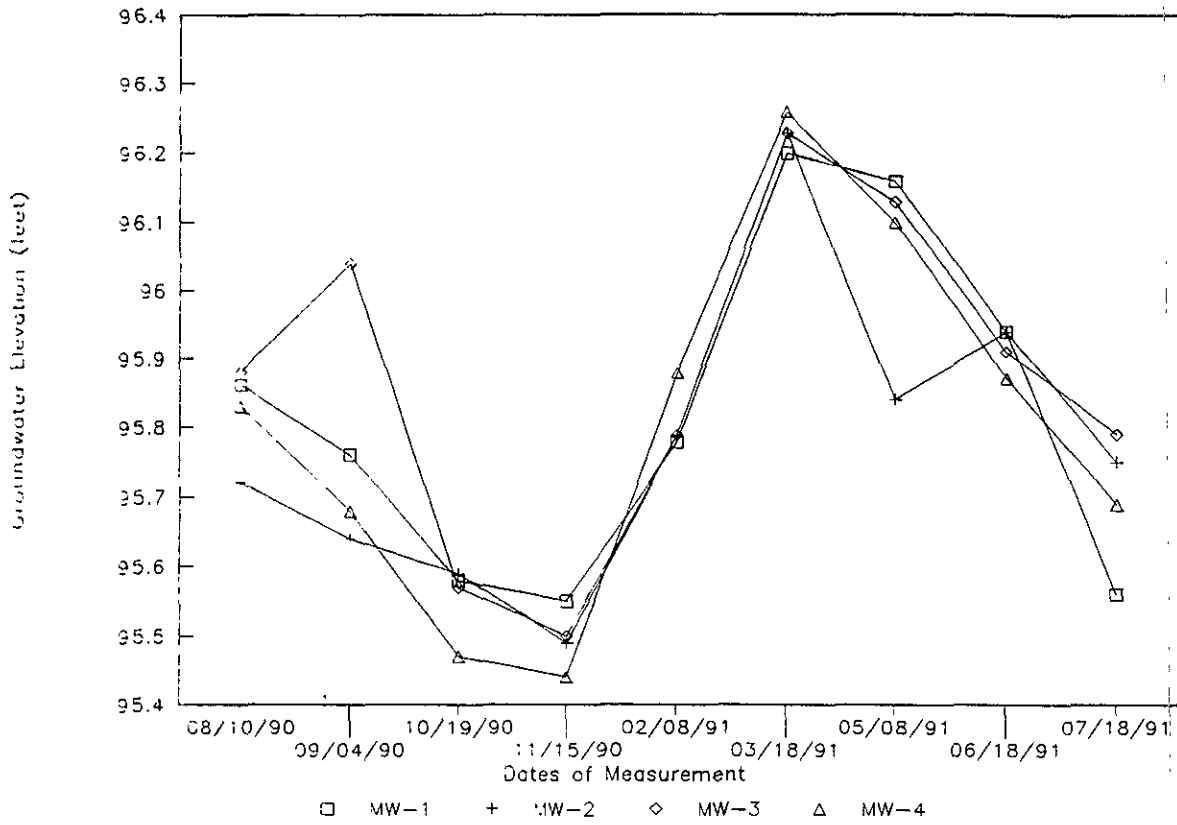
NOTE: Site Sketch After  
Site Survey By:  
Tom O. Morrow, Inc.  
May, 1990

Former  
Location Of  
Electrical  
Transformer

**LEGEND**

-  Monitoring Well
-  Fence
-  Drainage Grate
-  Storm Sewer Pipe

<p><b>FIGURE 2 SITE MAP</b></p> <p><b>E. C. Buehrer Associates, Inc.</b>  <b>1061 Eastshore Highway</b>  <b>Albany, Ca.</b></p>	
<p><b>AEGIS Job Number 90-007</b></p>	
<p><b>DRAWN BY: Dennis Hada</b></p>	<p><b>DATE: July 26, 1991</b></p>
<p><b>REVIEWED BY:</b></p>	<p><b>DATE:</b></p>



**FIGURE 3**  
**GROUNDWATER ELEVATION HYDROGRAPH**  
 E. C. Buehrer Associates, Inc.  
 1061 Eastshore Highway  
 Albany, Ca.

AEGIS Job Number 90-007

DRAWN BY: Dennis Hada

DATE: September 14, 1991

REVIEWED BY:

DATE:



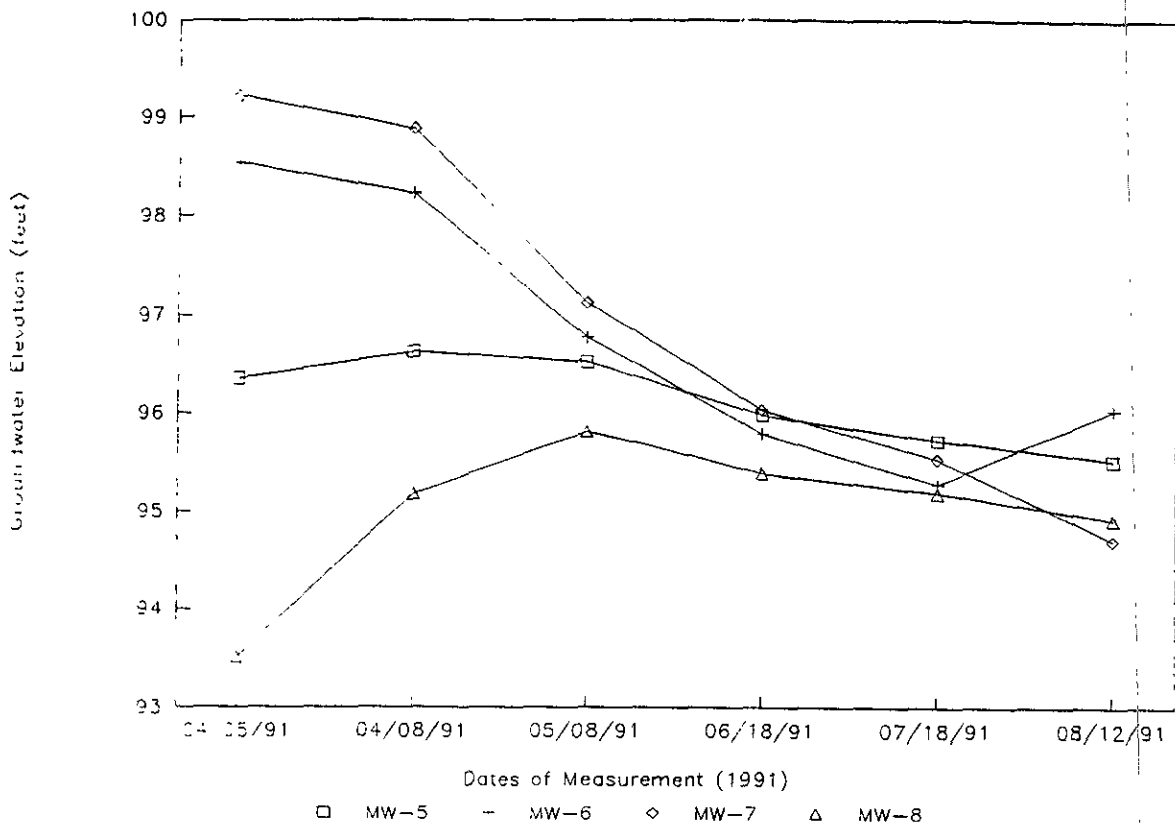


FIGURE 4  
 GROUNDWATER ELEVATION HYDROGRAPH  
 E. C. Buehrer Associates, Inc.  
 1061 Eastshore Highway  
 Albany, Ca.

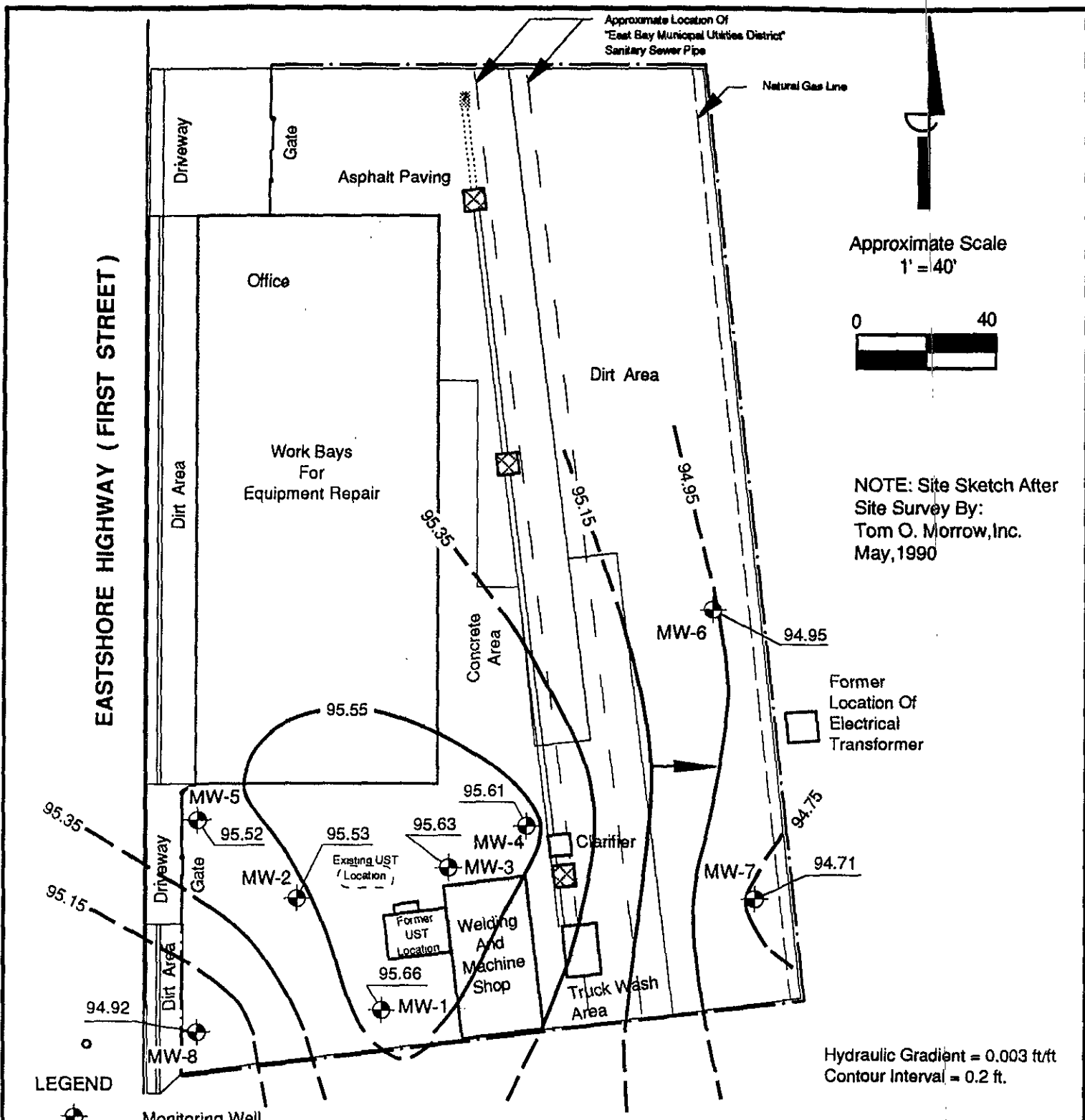
AEGIS Job Number 90-007

DRAWN BY: Dennis Hada

DATE: September 14, 1991

REVIEWED BY:

DATE:



- LEGEND**
- Monitoring Well
  - Fence
  - Drainage Gate
  - Storm Sewer Pipe
  - Potentiometric Surface Contour Line (Dashed Where Inferred)
  - 95.66 Groundwater Elevation in Feet
  - Estimated Direction of Groundwater Flow

**FIGURE 5**  
**POTENTIOMETRIC SURFACE MAP**  
 (August 12, 1991)  
 E. C. Buehrer Associates, Inc.  
 1061 Eastshore Highway  
 Albany, Ca.  
 AEGIS Job Number 90-007

**DRAWN BY:** Dennis Hada                      **DATE:** September 14, 1991  
**REVIEWED BY:**                                      **DATE:**



**TABLES**

**TABLE 1**

**GROUNDWATER ELEVATION DATA**

**1061 EASTSHORE HIGHWAY, ALBANY, CALIFORNIA**  
**(All measurements in feet)**

Well No.	Date	Time	Reference Elevation	Depth-to-Groundwater	Groundwater Elevation
MW-1	06/07/90	13:25	99.51	3.35	96.16
	06/07/90	17:00		3.32	96.19
	08/10/90	10:05		3.65	95.86
	09/04/90	13:05		3.75	95.76
	10/19/90	11:50		3.93	95.58
	11/15/90	11:00		3.96	95.55
	02/08/91	13:30		3.73	95.78
	03/18/91	12:00		3.31	96.20
	03/18/91	15:05		3.30	96.21
	05/08/91	11:15		3.35	96.16
	06/18/91	12:25		3.57	95.94
	07/18/91	13:35		3.95	95.56
	08/12/91	11:20		3.85	95.66
	MW-2	06/07/90		13:20	99.52
06/07/90		16:55	3.24	96.28	
08/10/90		10:20	3.80	95.72	
09/04/90		13:20	3.88	95.64	
10/19/90		11:45	3.93	95.59	
11/15/90		10:55	4.03	95.49	
02/08/91		13:40	3.73	95.79	
03/18/91		11:55	3.29	96.23	
03/18/91		15:00	3.27	96.25	
05/08/91		11:00	3.68	95.84	
06/18/91		12:10	3.58	95.94	
07/18/91		13:20	3.77	95.75	
08/12/91		11:05	3.99	95.53	

**TABLE 1 (CONTINUED)**

**GROUNDWATER ELEVATION DATA**

**1061 EASTSHORE HIGHWAY, ALBANY, CALIFORNIA**  
**(All measurements in feet)**

Well No.	Date	Time	Reference Elevation	Depth-to-Groundwater	Groundwater Elevation
MW-3	06/07/90	13:15	99.60	3.43	96.17
	06/07/90	16:50		3.42	96.18
	08/10/90	10:10		3.72	95.88
	09/04/90	13:10		3.56	96.04
	10/19/90	11:55		4.03	95.57
	11/15/90	11:05		4.10	95.50
	02/08/91	13:50		3.81	95.79
	03/18/91	12:05		3.37	96.23
	03/18/91	15:10		3.35	96.25
	05/08/91	11:10		3.47	96.13
	06/18/91	12:20		3.69	95.91
	07/18/91	13:30		3.81	95.79
	08/12/91	11:15		3.97	95.63
MW-4	06/07/90	13:10	99.20	2.90	96.30
	06/07/90	16:45		3.01	96.19
	08/10/90	10:15		3.37	95.83
	09/04/90	13:15		3.52	95.68
	10/19/90	12:00		3.73	95.47
	11/15/90	11:10		3.76	95.44
	02/01/91	14:00		3.32	95.88
	03/18/91	12:10		2.94	96.26
	03/18/91	15:15		2.87	96.33
	05/08/91	11:05		3.10	96.10
	06/18/91	12:15		3.33	95.87
	07/18/91	13:35		3.51	95.69
	08/12/91	11:10		3.59	95.61
MW-5	04/05/91	13:30	99.14	2.79	96.35
	04/08/91	10:35		2.52	96.62
	05/08/91	10:45		2.62	96.52
	06/18/91	12:05		3.15	95.99
	07/18/91	13:15		3.42	95.72
	08/12/91	11:00		3.62	95.52

**TABLE 1 (CONTINUED)**

**GROUNDWATER ELEVATION DATA**

**1061 EASTSHORE HIGHWAY, ALBANY, CALIFORNIA**  
**(All measurements in feet)**

Well No.	Date	Time	Reference Elevation	Depth-to-Groundwater	Groundwater Elevation
MW-6	04/05/91	13:20	100.76	2.22	98.54
	04/08/91	10:20		2.53	98.23
	05/08/91	10:35		3.99	96.77
	06/18/91	11:55		4.97	95.79
	07/18/91	13:05		5.48	95.28
	08/12/91	10:50		5.81	94.95
MW-7	04/05/91	13:25	101.52	2.30	99.22
	04/08/91	10:30		2.63	98.89
	05/08/91	10:30		4.39	97.13
	06/18/91	11:50		5.48	96.04
	07/18/91	13:00		5.99	95.53
	08/12/91	10:40		6.81	94.71
MW-8	04/05/91	13:35	99.64	6.13	93.51
	04/08/91	10:40		4.46	95.18
	05/08/91	10:40		3.82	95.82
	06/18/91	12:00		4.25	95.39
	07/18/91	13:10		4.45	95.19
	08/12/91	10:50		4.72	94.92

**TABLE 2**  
**GROUNDWATER ANALYTICAL LABORATORY RESULTS**

1061 EASTSHORE HIGHWAY, ALBANY, CALIFORNIA  
(All results in milligrams per liter, parts-per-million)

Sample ID	Date	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Total Petroleum Hydrocarbons		Total Oil & Grease	Total Petroleum Hydrocarbons	
						Gasoline	Diesel		Motor Oil	Mineral Spirits
MW-1	04/27/90	0.0035	0.0034	0.0010	0.0058	0.260	---	---	<<	---
	08/10/90	<	<	<	0.0005	0.680	<	<<	---	---
	11/15/90	0.0015	<	<	0.0020	0.330	<	<<	<<	---
	02/08/91	0.0075	<	0.00066	0.00070	0.430	---	---	0.600	---
	05/08/91	<	<	<	<	0.180	---	---	<<	<<
	08/12/91	0.001	<	0.0006	0.0007	0.05	0.26	<<	<<	<<
MW-2	04/27/90	<	<	<	<	0.220	---	---	<<	---
	08/10/90	<	<	<	<	0.640	<	<<	---	---
	11/15/90	<	<	<	<	0.210	<	<<	<<	---
	02/08/91	<	<	<	<	0.480	---	---	0.700	---
	05/08/91	<	0.0006	<	<	0.220	---	---	<<	<<
	08/12/91	<	<	<	<	<	0.26	<<	<<	<<
MW-3	04/27/90	0.0290	0.0006	<	0.0013	0.230	---	---	<<	---
	08/10/90	<	<	<	<	0.690	<	<<	---	---
	11/15/90	0.0009	<	<	<	0.260	<	<<	<<	---
	02/08/91	0.0049	<	<	<	0.470	---	---	0.700	---
	05/08/91	0.0010	0.0010	<	<	0.230	---	---	<<	0.100
	08/12/91	<	<	<	<	0.09	0.27	<<	<<	<<
<b>Detection Limit</b>		*	*	*	*	*	*	5.0	0.5	0.05

NOTES: \*,< = Below detection limits per "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites" (August 10, 1990) Practical Quantitation Reporting Limits. (PQL for BTEX = 0.0005ppm, TPH as gasoline and diesel = 0.05 ppm).  
 << = Below the indicated detection limit labelled in the analytical laboratory results reports.  
 --- = Not analyzed.



TABLE 2 (CONTINUED)

GROUNDWATER ANALYTICAL LABORATORY RESULTS

1061 EASTSHORE HIGHWAY, ALBANY, CALIFORNIA  
(All results in milligrams per liter, parts-per-million)

Sample ID	Date	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Total Petroleum Hydrocarbons		Total Oil & Grease	Total Petroleum Hydrocarbons	
						Gasoline	Diesel		Motor Oil	Mineral Spirits
MW-4	04/27/90	0.0021	<	0.0009	0.0039	0.220	0.260	0.870	0.870	---
	08/10/90	0.0017	<	<	<	0.080	0.700	---	---	---
	11/15/90	0.0025	<	<	<	0.580	0.360	<<	<	---
	02/08/91	0.0013	<	<	<	0.090	0.350	0.600	0.600	---
	05/08/91	<	<	<	<	<	0.150	<<	<	0.050
	08/12/91	0.0013	<	<	<	<	0.280	<<	1.000	<<
MW-5	04/08/91	<	0.0018	0.0006	0.0010	<	0.220	<<	<<	<<
	08/12/91	<	<	<	<	<	0.140	<<	<<	<<
MW-6	04/08/91	<	0.0018	0.0018	0.0010	<	0.210	<<	<<	0.150
	08/12/91	<	<	<	<	<	0.160	<<	<<	<<
MW-7	04/08/91	<	0.0014	0.0014	0.0008	<	<	<<	<<	<<
	08/12/91	<	<	<	<	<	0.070	<<	<<	<<
MW-8	04/08/91	<	0.0016	0.0016	0.0001	<	<	<<	<<	<<
	08/12/91	<	<	<	<	<	<	<<	<<	<<
Detection Limits		*	*	*	*	*	*	5.0	0.5	0.05

NOTES: \* < = Below detection limits per "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites" (August 10, 1990) Practical Quantitation Reporting Limits. (PQL for BTEX = 0.0005 ppm, TPH as gasoline and diesel = 0.05 ppm).  
 << = Below the indicated detection limit labelled in the analytical laboratory results reports.  
 --- = Not analyzed.

TABLE 3

GROUNDWATER ANALYTICAL LABORATORY RESULTS  
DRINKING WATER STANDARDS

1061 EASTSHORE HIGHWAY, ALBANY, CALIFORNIA

(All results in milligrams per liter, parts-per-million, unless otherwise indicated)

Sample ID	Date	Fecal Coliform (MPN/100)	Conductivity ( $\mu$ hos/cm)	Chloride	Nitrate as Nitrogen	Total Oil & Grease	Iron	Manganese
MW-8	08/12/91	<2.2	54,000	22,000	0.050	<<	2.5	4.6

NOTES:

- MPN/100 = Most probable number of bacteria per one hundred milliliters of sample.
- $\mu$ hos/cm = Micromhos per centimeter.
- << = Below the indicated detection limit labelled in the analytical laboratory results reports.

See laboratory data sheets for reporting limits.



NATIONAL  
ENVIRONMENTAL  
TESTING, INC.

NET Pacific, Inc.  
435 Tesconi Circle  
Santa Rosa, CA 95401  
Tel: (707) 526-7200  
Fax: (707) 526-9623

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SEP 06 1991

Ans'd LWB

Larry Braybrooks  
Aegis Environmental Inc.  
1050 Melody Lane, Ste 160  
Roseville, CA 95678

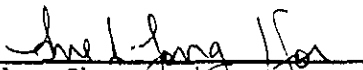
Date: 08-30-91  
NET Client Acct. No: 654  
NET Pacific Log No: 9198  
Received: 08-13-91 0830

Client Reference Information

1061 Eastshore Hwy Albany, Project: 90-007

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

  
Jules Skamatrack  
Laboratory Manager

Enclosure(s)



Client Acct: 654  
 Client Name: Aegis Environmental Inc.  
 NET Log No: 9198

Date: 08-30-91  
 Page: 2

NET Pacific, Inc.

Ref: 1061 Eastshore Hwy Albany, Project: 90-007

SAMPLE DESCRIPTION: MW-1 08-12-91  
 LAB Job No: (-94406 )

Parameter	Method	Reporting Limit	Results	Units
Oil & Grease(Total)	EPA9070	5	ND	mg/L
PETROLEUM HYDROCARBONS				
VOLATILE (WATER)				
DILUTION FACTOR *				
DATE ANALYZED				
METHOD GC FID/5030				
as Gasoline		0.05	0.05	mg/L
as Mineral Spirits		0.05	ND	mg/L
METHOD 602				
DILUTION FACTOR *				
DATE ANALYZED				
Benzene		0.5	1.0	ug/L
Ethylbenzene		0.5	ND	ug/L
Toluene		0.5	0.6	ug/L
Xylenes, total		0.5	0.7	ug/L
PETROLEUM HYDROCARBONS				
EXTRACTABLE (WATER)				
DILUTION FACTOR *				
DATE EXTRACTED				
DATE ANALYZED				
METHOD GC FID/3510				
as Diesel		0.05	0.26	mg/L
as Motor Oil		0.5	ND	mg/L

**NET**

NET Pacific, Inc.

Client Acct: 654  
Client Name: Aegis Environmental Inc.  
NET Log No: 9198Date: 08-30-91  
Page: 3

Ref: 1061 Eastshore Hwy Albany, Project: 90-007

SAMPLE DESCRIPTION: MW-2 08-12-91  
LAB Job No: (-94407 )

Parameter	Method	Reporting Limit	Results	Units
Oil & Grease(Total)	EPA9070	5	ND	mg/L
PETROLEUM HYDROCARBONS			--	
VOLATILE (WATER)			--	
DILUTION FACTOR *			1	
DATE ANALYZED			08-18-91	
METHOD GC FID/5030			--	
as Gasoline		0.05	ND	mg/L
as Mineral Spirits		0.05	ND	mg/L
METHOD 602			--	
DILUTION FACTOR *			1	
DATE ANALYZED			08-18-91	
Benzene		0.5	ND	ug/L
Ethylbenzene		0.5	ND	ug/L
Toluene		0.5	ND	ug/L
Xylenes, total		0.5	ND	ug/L
PETROLEUM HYDROCARBONS			--	
EXTRACTABLE (WATER)			--	
DILUTION FACTOR *			1	
DATE EXTRACTED			08-14-91	
DATE ANALYZED			08-19-91	
METHOD GC FID/3510			--	
as Diesel		0.05	0.26	mg/L
as Motor Oil		0.5	ND	mg/L



Client Acct: 654  
 Client Name: Aegis Environmental Inc.  
 NET Log No: 9198

Date: 08-30-91  
 Page: 4

NET Pacific, Inc.

Ref: 1061 Eastshore Hwy Albany, Project: 90-007

SAMPLE DESCRIPTION: MW-3 08-12-91  
 LAB Job No: (-94408 )

Parameter	Method	Reporting Limit	Results	Units
Oil & Grease(Total)	EPA9070	5	ND	mg/L
PETROLEUM HYDROCARBONS			--	
VOLATILE (WATER)			--	
DILUTION FACTOR *			1	
DATE ANALYZED			08-18-91	
METHOD GC FID/5030			--	
as Gasoline		0.05	0.09	mg/L
as Mineral Spirits		0.05	ND	mg/L
METHOD 602			--	
DILUTION FACTOR *			1	
DATE ANALYZED			08-18-91	
Benzene		0.5	ND	ug/L
Ethylbenzene		0.5	ND	ug/L
Toluene		0.5	ND	ug/L
Xylenes, total		0.5	ND	ug/L
PETROLEUM HYDROCARBONS			--	
EXTRACTABLE (WATER)			--	
DILUTION FACTOR *			1	
DATE EXTRACTED			08-14-91	
DATE ANALYZED			08-19-91	
METHOD GC FID/3510			--	
as Diesel		0.05	0.27	mg/L
as Motor Oil		0.5	ND	mg/L



Client Acct: 654  
 Client Name: Aegis Environmental Inc.  
 NET Log No: 9198

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NET Pacific, Inc.

Ref: 1061 Eastshore Hwy Albany, Project: 90-007

SAMPLE DESCRIPTION: MW-4 08-12-91  
 LAB Job No: (-94409 )

Parameter	Method	Reporting Limit	Results	Units
Oil & Grease(Total)	EPA9070	5	ND	mg/L
PETROLEUM HYDROCARBONS			--	
VOLATILE (WATER)			--	
DILUTION FACTOR *			1	
DATE ANALYZED			08-18-91	
METHOD GC FID/5030			--	
as Gasoline		0.05	ND	mg/L
as Mineral Spirits		0.05	ND	mg/L
METHOD 602			--	
DILUTION FACTOR *			1	
DATE ANALYZED			08-18-91	
Benzene		0.5	1.3	ug/L
Ethylbenzene		0.5	ND	ug/L
Toluene		0.5	ND	ug/L
Xylenes, total		0.5	ND	ug/L
PETROLEUM HYDROCARBONS			--	
EXTRACTABLE (WATER)			--	
DILUTION FACTOR *			1	
DATE EXTRACTED			08-14-91	
DATE ANALYZED			08-19-91	
METHOD GC FID/3510			--	
as Diesel		0.05	0.28	mg/L
as Motor Oil		0.5	1.0	mg/L



Client Acct: 654  
 Client Name: Aegis Environmental Inc.  
 NET Log No: 9198

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NET Pacific, Inc.

Ref: 1061 Eastshore Hwy Albany, Project: 90-007

SAMPLE DESCRIPTION: MW-5 08-12-91  
 LAB Job No: (-94410 )

Parameter	Method	Reporting Limit	Results	Units
Oil & Grease(Total)	EPA9070	5	ND	mg/L
PETROLEUM HYDROCARBONS			--	
VOLATILE (WATER)			--	
DILUTION FACTOR *			1	
DATE ANALYZED			08-18-91	
METHOD GC FID/5030			--	
as Gasoline		0.05	ND	mg/L
as Mineral Spirits		0.05	ND	mg/L
METHOD 602			--	
DILUTION FACTOR *			1	
DATE ANALYZED			08-18-91	
Benzene		0.5	ND	ug/L
Ethylbenzene		0.5	ND	ug/L
Toluene		0.5	ND	ug/L
Xylenes, total		0.5	ND	ug/L
PETROLEUM HYDROCARBONS			--	
EXTRACTABLE (WATER)			--	
DILUTION FACTOR *			1	
DATE EXTRACTED			08-14-91	
DATE ANALYZED			08-19-91	
METHOD GC FID/3510			--	
as Diesel		0.05	0.14	mg/L
as Motor Oil		0.5	ND	mg/L





Client Acct: 654  
 Client Name: Aegis Environmental Inc.  
 NET Log No: 9198

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NET Pacific, Inc.

Ref: 1061 Eastshore Hwy Albany, Project: 90-007

SAMPLE DESCRIPTION: MW-6 08-12-91  
 LAB Job No: (-94411 )

Parameter	Method	Reporting Limit	Results	Units
Oil & Grease(Total)	EPA9070	5	ND	mg/L
PETROLEUM HYDROCARBONS				
VOLATILE (WATER)				
DILUTION FACTOR *				
DATE ANALYZED				
METHOD GC FID/5030				
as Gasoline		0.05	ND	mg/L
as Mineral Spirits		0.05	ND	mg/L
METHOD 602				
DILUTION FACTOR *				
DATE ANALYZED				
Benzene		0.5	ND	ug/L
Ethylbenzene		0.5	ND	ug/L
Toluene		0.5	ND	ug/L
Xylenes, total		0.5	ND	ug/L
PETROLEUM HYDROCARBONS				
EXTRACTABLE (WATER)				
DILUTION FACTOR *				
DATE EXTRACTED				
DATE ANALYZED				
METHOD GC FID/3510				
as Diesel		0.05	0.16	mg/L
as Motor Oil		0.5	ND	mg/L

**NET**

NET Pacific, Inc.

Client Acct: 654  
Client Name: Aegis Environmental Inc.  
NET Log No: 9198Date: 08-30-91  
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Ref: 1061 Eastshore Hwy Albany, Project: 90-007

SAMPLE DESCRIPTION: MW-7 08-12-91  
LAB Job No: (-94412 )

Parameter	Method	Reporting Limit	Results	Units
Oil & Grease(Total)	EPA9070	5	ND	mg/L
PETROLEUM HYDROCARBONS			--	
VOLATILE (WATER)			--	
DILUTION FACTOR *			1	
DATE ANALYZED			08-18-91	
METHOD GC FID/5030			--	
as Gasoline		0.05	ND	mg/L
as Mineral Spirits		0.05	ND	mg/L
METHOD 602			--	
DILUTION FACTOR *			1	
DATE ANALYZED			08-18-91	
Benzene		0.5	ND	ug/L
Ethylbenzene		0.5	ND	ug/L
Toluene		0.5	ND	ug/L
Xylenes, total		0.5	ND	ug/L
PETROLEUM HYDROCARBONS			--	
EXTRACTABLE (WATER)			--	
DILUTION FACTOR *			1	
DATE EXTRACTED			08-14-91	
DATE ANALYZED			08-19-91	
METHOD GC FID/3510			--	
as Diesel		0.05	0.07	mg/L
as Motor Oil		0.5	ND	mg/L



Client Acct: 654  
 Client Name: Aegis Environmental Inc.  
 NET Log No: 9198

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NET Pacific, Inc.

Ref: 1061 Eastshore Hwy Albany, Project: 90-007

SAMPLE DESCRIPTION: MW-8 08-12-91  
 LAB Job No: (-94413 )

Parameter	Method	Reporting Limit	Results	Units
Fecal coliform (1x5)	SM908C	2.2	<2.2	MPN/100
Conductivity	120.1	1.0	54,000	umhos/cm
Chloride	EPA300.0	1.0	22,000	mg/L
Nitrate, as N	EPA353.1	0.03	0.050	mg/L
Oil & Grease(Total)	EPA9070	5	ND	mg/L
Iron	6010	0.05	2.5	mg/L
Manganese	6010	0.02	4.6	mg/L
PETROLEUM HYDROCARBONS			--	
VOLATILE (WATER)			--	
DILUTION FACTOR *			1	
DATE ANALYZED			08-18-91	
METHOD GC FID/5030			--	
as Gasoline			0.05	mg/L
as Mineral Spirits			0.05	mg/L
METHOD 602			--	
DILUTION FACTOR *			1	
DATE ANALYZED			08-18-91	
Benzene			0.5	ug/L
Ethylbenzene			0.5	ug/L
Toluene			0.5	ug/L
Xylenes, total			0.5	ug/L
PETROLEUM HYDROCARBONS			--	
EXTRACTABLE (WATER)			--	
DILUTION FACTOR *			1	
DATE EXTRACTED			08-14-91	
DATE ANALYZED			08-19-91	
METHOD GC FID/3510			--	
as Diesel			0.05	mg/L
as Motor Oil			0.5	mg/L



NET Pacific, Inc

Client Acct: 654  
Client Name: Aegis Environmental Inc.  
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QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Diesel	0.05	mg/L	106	ND	94	93	< 1
Motor Oil	0.5	mg/L	106	ND	N/A	N/A	N/A
Gasoline	0.05	mg/L	105	ND	108	113	4.4
Benzene	0.5	ug/L	95	ND	103	106	2.4
Toluene	0.5	ug/L	97	ND	102	104	1.5
Benzene	0.5	ug/L	80	ND	102	85	18
Toluene	0.5	ug/L	88	ND	100	100	< 1

COMMENT: Blank Results were ND on other analytes tested.

Conductivity	1.0	umhos/cm	101	ND	N/A	N/A	< 1
Chloride	1.0	mg/L	100	ND	101	100	1.3
O&G, total	5	mg/L	103	ND	91	92	1.1
O&G, total	5	mg/L	99	ND	100	99	< 1
NO3, as N	0.03	mg/L	98	ND	89	90	1.2
Iron	0.05	mg/L	106	ND	90	95	4.7
Manganese	0.02	mg/L	95	ND	82	88	5.3



NET Pacific, Inc

## KEY TO ABBREVIATIONS and METHOD REFERENCES

- < : Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
- \* : Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).
- ICVS : Initial Calibration Verification Standard (External Standard).
- mean : Average; sum of measurements divided by number of measurements.
- mg/Kg (ppm) : Concentration in units of milligrams of analyte per kilogram of sample, (parts per million).
- mg/L : Concentration in units of milligrams of analyte per liter of sample.
- mL/L/hr : Milliliters per liter per hour.
- MPN/100 mL : Most probable number of bacteria per one hundred milliliters of sample.
- N/A : Not applicable.
- NA : Not analyzed.
- ND : Not detected; the analyte concentration is less than applicable listed reporting limit.
- NTU : Nephelometric turbidity units.
- RPD : Relative percent difference,  $100 \text{ [Value 1 - Value 2] / mean value}$ .
- SNA : Standard not available.
- ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram of sample, (parts per billion).
- ug/L : Concentration in units of micrograms of analyte per liter of sample.
- umhos/cm : Micromhos per centimeter.

### Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

Phone (916) 782 2110  
 FAX (916) 786-7830

# AEGIS Environmental Consultants, Inc.

## Sample Identification/Field Chain of Custody Record

2198

Send results to:  
 Aegis Environmental  
 801 Riverside, Suite C  
 Roseville, CA 95678

Site Address: 1061 EASTSIDE HWY ALBANY CA  
 AEGIS Project #: 90-007  
 Shipped By: AELIS  
 Shipped To: NET  
 Project Manager: LARRY BRYAN BROWN

For Shell Projects Only  
 WIC: \_\_\_\_\_  
 AFE: \_\_\_\_\_  
 ET/DL: \_\_\_\_\_  
 Shell Engineer: \_\_\_\_\_  
 Hazardous Materials Suspected? (yes/no) \_\_\_\_\_

Sampling Point	Location	Field ID#	Date	Sample Type	No. of Containers	Analysis Required
MU-8	1061 E. Side Hwy	MU-8	8-12-91	WATER	4	SEE COMMENTS

(U) 1990 AL WATER  
 8/12/91

Sampler(s) (signature) Brian Avel

Field ID	Relinquished By (signature)	Received By (signature)	Date/Time	Comments
MU-8	Brian Avel	Milly Tarawii	8/13/91	
	Milly Tarawii			

Sealed for shipment by: (signature) Brian Avel Date/Time: 8/13/91 2:00 Shipment Method: LAB PICK UP ONSITE  
 Received for Lab by: (signature) A Lopez Date/Time: 8/13/91 0800 Comments: \* DRINKING WATER STATION  
CHLORIDE, IRON, MANGANESE, NITRATE, SPECIFIC CONDUCTANCE, TOTAL FEU1 BACTERIA

Phone (916) 782-2111  
FAX (916) 782-1330

8/12/91  
CUSTODY SEALED  
@ 1400 MW1 INTERACT

# AEGIS Environmental Consultants, Inc.

## Sample Identification/Field Chain of Custody Record

9198  
Send results to:  
Aegis Environmental  
801 Riverside, Suite C  
Roseville, CA 95678

Site Address: 1061 EASTSHORE HWY ALBANY CA  
AEGIS Project #: 90-007  
Shipped By: AEGIS  
Shipped To: NET  
Project Manager: LARRY BRYAN BROOKS

For Shell Projects Only  
-WIC: \_\_\_\_\_  
-AFE: \_\_\_\_\_  
-CT/DL: \_\_\_\_\_  
Shell Engineer: \_\_\_\_\_  
Hazardous Materials Suspected? (yes/no)

Sampling Point	Location	Field ID#	Date	Sample Type	No. of Containers	Analysis Required
MW-1	1061 E. SHORE HWY	MW-1	8-12-91	WATER	6	* SEE COMMENTS
MW-2	↓	MW-2	↓	↓	↓	
MW-3		MW-3				
MW-4		MW-4				
MW-5		MW-5				
MW-6		MW-6				
MW-7		MW-7				
MW-8		MW-8				

Sampler(s) (signature) Brian Aul

Field ID	Relinquished By (signature)	Received By (signature)	Date/Time	Comments
MW <sup>S</sup> 12345678	<u>Brian Aul</u>	<u>Miky Terasi</u>	<u>8/12/91</u>	
	<u>Miky Terasi</u>			

Sealed for shipment by: (signature) Brian Aul Date/Time: 8/12/91 2:00 Shipment Method: LAD PICK UP ONSITE  
Received for Lab by: (signature) Lopez Date/Time: 8/13/91 03:30 Comments: \* TPH GAS BTEX, 5520 B-OIL + GIZASE, TPH DIESEL 3510 8015 + MINERAL SPIRITS.

Receiving Laboratory: Please return original form after signing for receipt of samples.

White/Original      Yellow/Lab Copy      Pink/File Copy