



Industrial Compliance

9838 Old Placerville Road Suite 100 Sacramento, CA 95827-3559
916/369-8971 FAX 916/369-8370

November 29, 1995

IC Project No. 05100535

Ms. Jennifer Eberle
Alameda County Health Care Services Agency
Department of Environmental Health
Division of Hazardous Materials
1131 Harbor Bay Parkway
Alameda, California 94501

**Re: Third Quarter 1995 Ground Water Monitoring Report
Southern Pacific Transportation Company
1399 Wood Street - Oakland, California**

Dear Ms. Eberle:

Industrial Compliance (IC), on behalf of Southern Pacific Transportation Company (SPTCo), has prepared the attached Third Quarter 1995 Ground Water Monitoring Report for the SPTCo site located at 1399 Wood Street, Oakland, California.

If you have any questions regarding this report, please contact the undersigned at (510) 238-9540 or (916) 369-8971.

Sincerely,

INDUSTRIAL COMPLIANCE

James B. Ackerman
Project Geologist

Richard L. Bateman, R.G.
Principal Hydrogeologist

JBA/RLB/dao

Attachment

- cc: Mr. John Moe, Southern Pacific Transportation Company (with attachment)
- Mr. Darrell J. Maxey, Oakland Program Office, Southern Pacific Transportation Company (with attachment)
- Ms. Gina Kathuria, California Regional Water Quality Control Board, San Francisco Region (with attachment)

i880-311.ltr/11-29-95/u/kwriph/keydata/i-880/letters

NOV 30 PM 11 55
ENVIRONMENTAL
TECHNOLOGY

Denver • Phoenix • Kansas City • Dallas • Houston • Los Angeles • Sacramento • Little Rock • Knoxville





Industrial Compliance

9838 Old Placerville Road Suite 100 Sacramento, CA 95827-3559
916/369-8971 FAX 916/369-8370

**THIRD QUARTER 1995
GROUND WATER MONITORING REPORT**

**Southern Pacific Transportation Company
1399 Wood Street
Oakland, California**

IC Project No. 05100535

Prepared For:

**Southern Pacific Transportation Company
One Market Plaza
San Francisco, CA 94105**

November 29, 1995

Denver • Phoenix • Kansas City • Dallas • Houston • Los Angeles • Sacramento • Little Rock • Knoxville

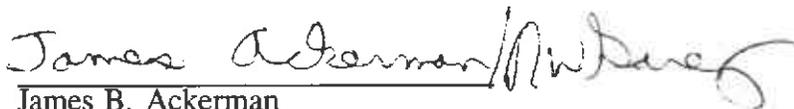
A Subsidiary of SP Environmental Systems, Inc.



**THIRD QUARTER 1995
GROUND WATER MONITORING REPORT**

**Southern Pacific Transportation Company
1399 Wood Street
Oakland, California**

Prepared By:



James B. Ackerman
Project Geologist

Reviewed By:



Richard L. Bateman, R.G.
Principal Hydrogeologist

TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	FIELD INVESTIGATION	3
2.1	Monitoring Well Water Level Data	3
2.2	Monitoring Well Purging	3
2.3	Monitoring Well Sampling	6
2.4	Quality Assurance/Quality Control	8
3.0	ANALYTICAL RESULTS	9
4.0	DISCUSSION	12
5.0	GLOSSARY OF ACRONYMS	16

FIGURES

Figure 1	Site Location Map	2
Figure 2	Contour Map of Ground Water Elevation, September, 1995	5
Figure 3	Estimated Lateral Extent of TPH as Gasoline in Ground Water,	13
Figure 4	Hydrographs of Ground Water Elevation	15

TABLES

Table 1	Ground Water Elevation Data	4
Table 2	Ground Water Purge Characterization Data, September, 1995	7
Table 3	Ground Water Analytical Results	10

APPENDICES

Appendix A	Ground Water Elevation Measurement and Purge Characterization and Sample Logs
Appendix B	Chain-of-Custody Document
Appendix C	Analytical Laboratory Reports, Ground Water Samples
Appendix D	Ground Water Elevation Contour Maps, Previous Monitoring Events

1.0 INTRODUCTION

Industrial Compliance (IC), on behalf of Southern Pacific Transportation Company (SPTCo), is conducting quarterly ground water monitoring at the SPTCo property located at 1399 Wood Street, Oakland, California (Figure 1). This report presents third quarter 1995 ground water monitoring results. Third quarter water level measurement and ground water sampling activities occurred on September 27, 1995. The third quarter 1995 monitoring is the sixth quarterly monitoring event for the site.



Approximate Scale in Feet
 0 2000

Figure 1
Site Location Map
Southern Pacific Transportation Company
1399 Wood Street
Oakland, California

Reference:
 USGS 7.5 Minute Topographic Map
 Oakland West Quadrangle
 California



Industrial Compliance

A Subsidiary of SP
 Environmental Systems, Inc.



2.0 FIELD INVESTIGATION

This section discusses the procedures and protocol used for the collection of monitoring well water level data and ground water samples for laboratory analyses.

2.1 Monitoring Well Water Level Data

On September 27, 1995, prior to conducting any ground water sampling, the depth to ground water was measured in all three monitoring wells on site. All measurements were taken relative to a surveyed reference point of known elevation at the top of each well casing, using a water level probe with an accuracy of 0.01 feet. The ground water elevation measurement log is included in Appendix A. Monitoring well ground water elevation data for this quarter are summarized in Table 1. Figure 2 is a ground water elevation contour map for this quarter. Ground water elevations for the third quarter of 1995 ranged from 3.18 to 3.61 feet above mean sea level (MSL). The direction of ground water flow is to the northeast. The local hydraulic gradient, as calculated from the September 27, 1995 water level data, is approximately 0.004.

2.2 Monitoring Well Purging

After measurement of the ground water level in monitoring wells MW-1 and MW-3, the saturated well volume was calculated by subtracting the depth to ground water from the total depth of the well and multiplying the resultant length by the number of gallons per foot of casing. Prior to sample collection, three saturated well volumes were purged from each of the wells by hand-bailing. During purging, ground water characterization data consisting of temperature, electrical conductivity and pH, were measured from the initial water removed from the well, and at least three times during purging. The ground water in each well was assumed to be representative of the formation after a minimum of three well volumes were



TABLE 1
GROUND WATER ELEVATION DATA

Monitoring Well ^a	Date Measured	Time Measured	Top of Casing Elevation ^b (feet MSL)	Depth to Ground Water ^c (feet TOC)	Ground Water Elevation ^d (feet MSL)
MW-1	06/29/94	0900	7.74	3.36	4.38
	09/30/94	1000	7.71 ^e	4.56	3.15
	12/19/94	0825		1.48	6.23
	03/27/95	0807		1.24	6.47
	06/28/95	0905		2.82	4.89
	09/27/95	0717		4.10	3.61
MW-2	06/29/94	0900		7.00	3.94
	09/30/94	1015	4.04		2.96
	12/19/94	0809	2.06		4.94
	03/27/95	0815	1.64		5.36
	06/28/95	1010	2.58		4.42
	09/27/95	0754	3.60		3.40
MW-3	06/29/94	0900	7.43	3.50	3.84
	09/30/94	1030	7.32 ^e	4.52	2.80
	12/19/94	0810		7.32	4.36
	03/27/95	0810		3.42	3.90
	06/28/95	1015		3.34	3.98
	09/27/95	0801		4.14	3.18

a See Figure 2 for approximate location of monitoring wells.

b Top of casing elevation is the elevation, in feet above mean sea level, of a point marked on the top of the well casing (generally north side) which has been surveyed by a licensed surveyor.

c Depth to ground water measured from top of casing.

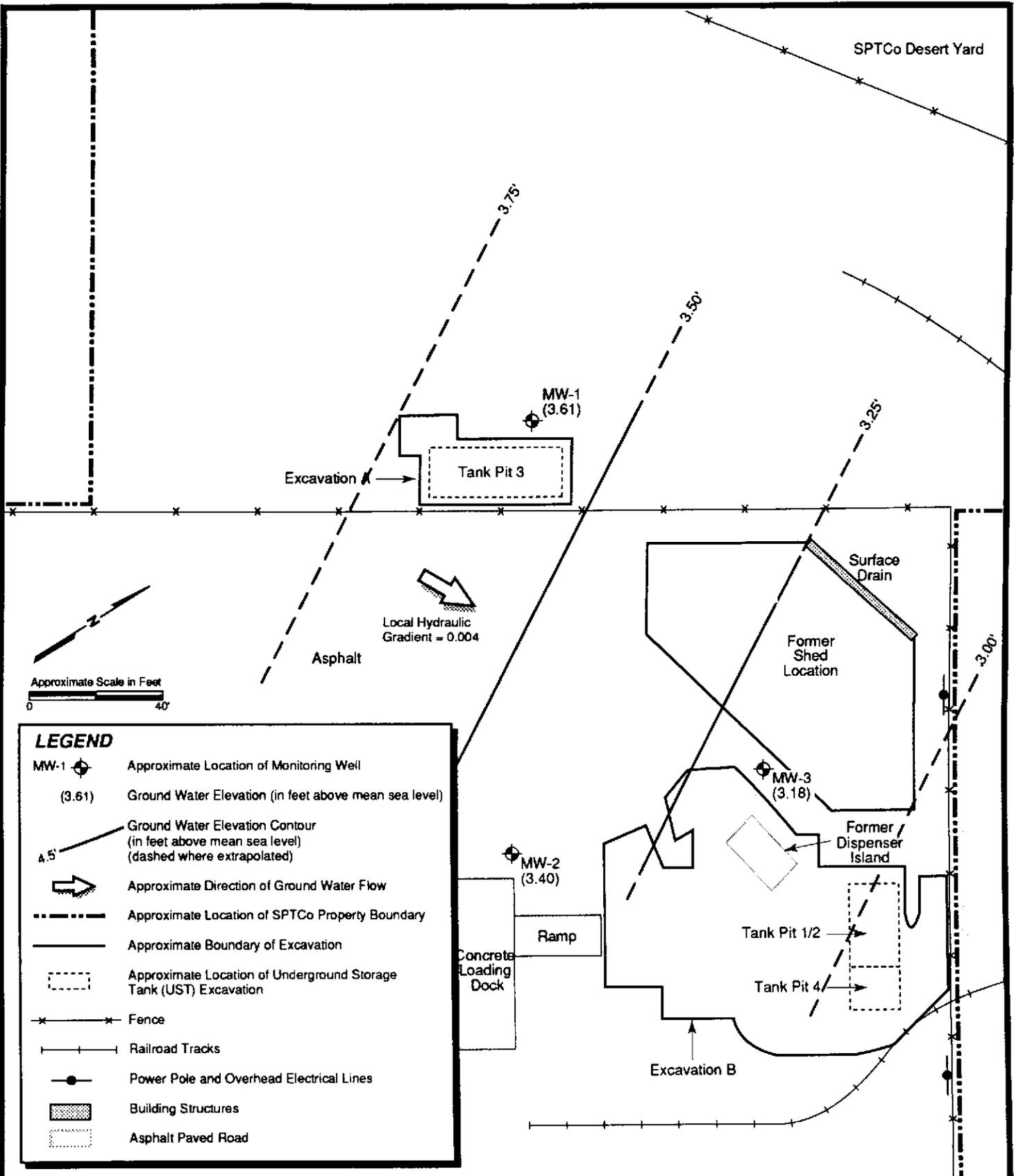
d Ground water elevation calculated by subtracting the depth to ground water from the top of casing elevation.

e Well resurveyed in September of 1994.

MSL Mean sea level

TOC Top of casing





LEGEND

- MW-1 Approximate Location of Monitoring Well
- (3.61) Ground Water Elevation (in feet above mean sea level)
- 3.75 Ground Water Elevation Contour (in feet above mean sea level) (dashed where extrapolated)
- Approximate Direction of Ground Water Flow
- Approximate Location of SPTCo Property Boundary
- Approximate Boundary of Excavation
- Approximate Location of Underground Storage Tank (UST) Excavation
- Fence
- Railroad Tracks
- Power Pole and Overhead Electrical Lines
- Building Structures
- Asphalt Paved Road

Industrial Compliance
 A Subsidiary of SP Environmental Systems, Inc.

Project No.: 05100535 Date: 11/1/95

Drawn By: Patti Decker Checked By: Richard Bateman

**CONTOUR MAP OF GROUND WATER ELEVATION
 SEPTEMBER, 1995
 SOUTHERN PACIFIC TRANSPORTATION COMPANY
 1399 WOOD STREET
 OAKLAND, CALIFORNIA**

Figure:	2
Page:	5
Scale:	as shown

removed and consecutive parameter readings were within 10 percent. After purging was completed, each well was allowed to recover to at least 90 percent of the pre-purge water level prior to sampling. Purge water was collected in 55-gallon Department of Transportation approved drums. Purge water was subsequently disposed of at the SPTCo water treatment plant located in the West Oakland Yard, after analytical results from the ground water sampling indicated that the purge water met treatment plant influent requirements. Ground water purge characterization data are summarized in Table 2. Purge characterization logs are included in Appendix A. A new meter was used this quarter to measure electrical conductivity and results were recorded in millisiemens per centimeter. These data can be converted to micromhos per centimeter by multiplying by 1,000.

2.3 Monitoring Well Sampling

Ground water samples were collected from monitoring wells MW-1 and MW-3 using new, disposable polyethylene bailers. Per recently authorized changes to the monitoring program for this site (Alameda County letter to SPTCo dated June 27, 1995), MW-2 was not sampled. Ground water samples were collected from MW-1 and MW-3 in laboratory-supplied bottles of appropriate volumes and with required preservatives for the intended analyses. Volatile organic analysis (VOA) sample bottles were filled to capacity, sealed with Teflon-lined lids, and checked for air bubbles. If air bubbles were detected, the vial was reopened, additional sample water added, and the vial resealed.

After sample collection was completed, each sample was labeled with a unique sample number, the site name, date of collection, time of collection, initials of collector, and any other pertinent information. The samples were then placed in a chilled ice chest for transport to Chromalab, Inc. Environmental Services (Chromalab) for analysis. A chain-of-custody form was completed concurrent with sample collection and accompanied the samples upon



TABLE 2
GROUND WATER PURGE CHARACTERIZATION DATA
SEPTEMBER 1995

Monitoring Well ^a	Date Measured	Purge Volume (gallons)	Electrical Conductivity (mS/cm)	Temperature (°C)	Field pH (units)
MW-1	09/27/95	0	1.47	20.1	7.11
		6	1.47	20.4	7.06
		12	1.40	21.3	7.18
		19	1.39	21.4	7.15
MW-2	09/27/95	NS	NS	NS	NS
MW-3	09/27/95	0	1.29	20.3	7.11
		6	1.30	20.5	7.14
		12	1.29	20.9	7.20
		18	1.28	20.2	7.23

a See Figure 2 for approximate location of monitoring wells.

mS/cm Millisiemens per centimeter (multiply by 1,000 to convert to micromhos per centimeter)

°C Degrees Celsius

NS Not Sampled

Note: Purge characterization logs included in Appendix A.



transport to the laboratory. Sample logs are included in Appendix A. The chain-of-custody document is included as Appendix B.

Ground water from MW-1 was analyzed for hydrocarbons in the diesel range (C_{13} to C_{22}) by Environmental Protection Agency (EPA) Method 8015 Modified. Ground water from MW-3 was analyzed for total petroleum hydrocarbons as gasoline (TPH-G) by EPA Method 8015 Modified and for benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8020.

2.4 Quality Assurance/Quality Control

To evaluate the integrity of the ground water sampling/analysis process, a duplicate ground water sample was collected from MW-1 using the procedures previously described in Section 2.3. This duplicate was analyzed for the same constituents as the original ground water sample.

To assess the potential for cross-contamination of the ground water samples during transport to the laboratory, one trip blank was prepared by Chromalab prior to sampling and accompanied the ground water samples during shipment to the laboratory. The trip blank was analyzed for TPH-G and BTEX compounds only.

In addition, one equipment blank was prepared by pouring deionized (DI) water through the sampling equipment into the sample bottles. The equipment blank was analyzed for TPH-G, BTEX and diesel range compounds (C_{13} to C_{22}).



3.0 ANALYTICAL RESULTS

Third quarter 1995 ground water samples were analyzed by Chromalab for the suite of constituents listed in Section 2.3. Analytical results are listed in Table 3. Analytical laboratory reports are included as Appendix C. The following is a summary of the third quarter, 1995 analytical results:

- * TPH-G was detected in MW-3 at a concentration of 280 micrograms per liter ($\mu\text{g/L}$).
- * Benzene, toluene, and xylenes were detected in MW-3 at concentrations of 0.7 $\mu\text{g/L}$, 1.6 $\mu\text{g/L}$ and 2.9 $\mu\text{g/L}$ respectively; ethylbenzene was not detected at or above the reporting limit.
- * Hydrocarbons in the diesel range (C_{13} to C_{22}) were not detected in MW-1 at or above the reporting limit.

The analytical results for the duplicate ground water sample collected from MW-1 were consistent with the analytical results for the original sample.

None of the analyzed constituents were detected at or above their respective reporting limits in either the trip blank or the equipment blank.

All laboratory procedures (holding times, methods used, method blanks, documentation, etc.) and subsequent results were monitored throughout the analytical process according to standard quality assurance/quality control (QA/QC) procedures. In addition, all laboratory reports were evaluated as part of QA/QC procedures for ground water monitoring. The analytical data included in this third quarter, 1995 report are considered quantitatively valid.



TABLE 3
GROUND WATER ANALYTICAL RESULTS

Well Location	Date Sampled	Total Petroleum Hydrocarbons ^a (µg/L)		Volatile Organic Compounds ^b (µg/L)				PCBs ^c (µg/L)	Sodium Chloride ^d (mg/L)	Total Dissolved Solids ^e (mg/L)
		Gasoline	Diesel	Benzene	Toluene	Ethylbenzene	Xylenes			
MW-1	06/29/94	<50	<50	<0.5	<0.5	<0.5	<0.5	<1.0	40	410
	09/30/94	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	NA	630
	12/19/94	<50	160 ^f	<0.5	<0.5	<0.5	<0.5	<0.5	40	510
	03/27/95	<50	97	<0.5	<0.5	<0.5	<0.5	<0.5	110	550
	06/28/95	NA	130	NA	NA	NA	NA	NA	NA	NA
	09/27/95	NA	<50	NA	NA	NA	NA	NA	NA	NA
MW-2	06/29/94	<50	<50	<0.5	<0.5	<0.5	<0.5	<1.0	48	680
	09/30/94	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	NA	670
	12/19/94	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	35	900
	03/27/95	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	38	670
	06/28/95	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/27/95	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	06/29/94	110	<50	<0.5	0.9	<0.5	0.8	<1.0	60	850
	09/30/94	160	<50	0.8	1.6	<0.5	2.3	<0.5	NA	880
	12/19/94	410	<50	5.1	4.5	<0.5	3.6	<0.5	49	1020
	03/27/95	290	<50	2.4	1.2	<0.5	2.8	<0.5	38	810
	06/28/95	280	NA	1.3	1.2	<0.5	1.8	NA	NA	NA
	09/27/95	280	NA	0.7	1.6	<0.5	2.9	NA	NA	NA
Duplicate (MW-1)	09/27/95	NA	<50	NA	NA	NA	NA	NA	NA	NA



TABLE 3 (continued)
GROUND WATER ANALYTICAL RESULTS

Well Location	Date Sampled	Total Petroleum Hydrocarbons ^a (µg/L)		Volatile Organic Compounds ^b (µg/L)				PCBs ^c (µg/L)	Sodium Chloride ^d (mg/L)	Total Dissolved Solids ^e (mg/L)
		Gasoline	Diesel	Benzene	Toluene	Ethylbenzene	Xylenes			
Equipment Blank	09/27/95	<50	<50	<0.5	<0.5	<0.5	<0.7	NA	NA	NA
Trip Blank	09/27/95	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA
Cal DHS MCLs ^g		NE	NE	1	100 ^h	680	1,750	0.5 ⁱ	NE	500

a Analyzed by EPA Method 8015 Modified (June 29, 1994 samples analyzed by EPA Method 8260 Modified).

b Analyzed by EPA Method 8020 (June 29, 1994 samples analyzed by EPA Method 8260 Modified).

c Analyzed by EPA Method 608 Modified.

d Analyzed by EPA Method 8020.

e Analyzed by EPA Method 160.1

f Non-typical diesel chromatographic pattern.

g California Department of Health Services (DHS) Maximum Contaminant Levels (MCLs) for drinking water (California RWQCB, May, 1993, Compilation of Water Quality Goals).

h California DHS action level for drinking water (California RWQCB, May, 1993, Compilation of Water Quality Goals).

i U.S. Environmental Protection Agency (USEPA) MCLs for drinking water (California RWQCB, May, 1993, Compilation of Water Quality Goals).

µg/L Micrograms per liter

mg/L Milligrams per liter

< Symbol indicates constituents not detected above method detection or reporting limits as noted.

NA Not analyzed.

NS Not sampled.

NE No MCL established.



4.0 DISCUSSION

Based on data collected during the third quarter, 1995 ground water monitoring event at the 1399 Wood Street site (Table 3), the chemical compounds present in site ground water consist primarily of petroleum hydrocarbons in the gasoline range. Figure 3 depicts the estimated lateral extent of TPH-G in ground water. Gasoline impacted ground water is limited to the area around the former location of the fuel dispensing island, as indicated by the detection of gasoline hydrocarbons in monitoring well MW-3 only. This quarter none of the analyzed constituents were detected at a concentration which exceeds the California Department of Health Services (DHS) maximum contaminant level (MCL) for drinking water.

Table 3 summarizes ground water analytical data collected during this and all previous sampling events. A review of these analytical data shows that during past sampling events, TPH-G and BTEX compounds have been detected in MW-3 but have not been detected in MW-1 or MW-2. The concentration of TPH-G this quarter falls within the range of results from previous monitoring events (110 $\mu\text{g/L}$ to 410 $\mu\text{g/L}$). In MW-3, concentrations of benzene (0.7 $\mu\text{g/L}$) have decreased this quarter in comparison with the analytical results of the previous three quarters (5.1 $\mu\text{g/L}$, 2.4 $\mu\text{g/L}$, 1.3 $\mu\text{g/L}$), while the concentration of toluene (1.6 $\mu\text{g/L}$) and xylenes (2.9 $\mu\text{g/L}$) for this quarter remain within the range of results for previous monitoring events (0.9 to 4.5 $\mu\text{g/L}$ and 0.8 to 3.6 $\mu\text{g/L}$, respectively). Ethylbenzene has not been detected in MW-3 during any sampling event.

Ground water elevation contour maps for all previous monitoring events are included in Appendix D. Table 1 lists all ground water elevation data collected to date. A comparison of ground water elevation data collected during the third quarter, 1995 sampling event with ground water elevations measured during the previous sampling event, indicates a decrease in ground water elevations in all wells. The average decrease for all the wells is 1.03 feet.



MW-1 (NA)

Excavation A

Tank Pit 3

Surface Drain

Former Shed Location

Asphalt

Approximate Scale in Feet
0 40'

LEGEND

- MW-1 Approximate Location of Monitoring Well
- <50 Concentration of Total Petroleum Hydrocarbons (TPH) as Gasoline (in micrograms per liter)
- <50 Approximate Extent of TPH-impacted Ground Water (dashed where inferred)
- - - - - Approximate Location of SPTCo Property Boundary
- Approximate Boundary of Excavation
- Approximate Location of Underground Storage Tank (UST) Excavation
- x — x — Fence
- + — + — Railroad Tracks
- ● — Power Pole and Overhead Electrical Lines
- Building Structures
- Asphalt Paved Road

MW-2 (NA)

Ramp

Concrete Loading Dock

MW-3 (280)

Former Dispenser Island

Tank Pit 1/2

Tank Pit 4

Excavation B

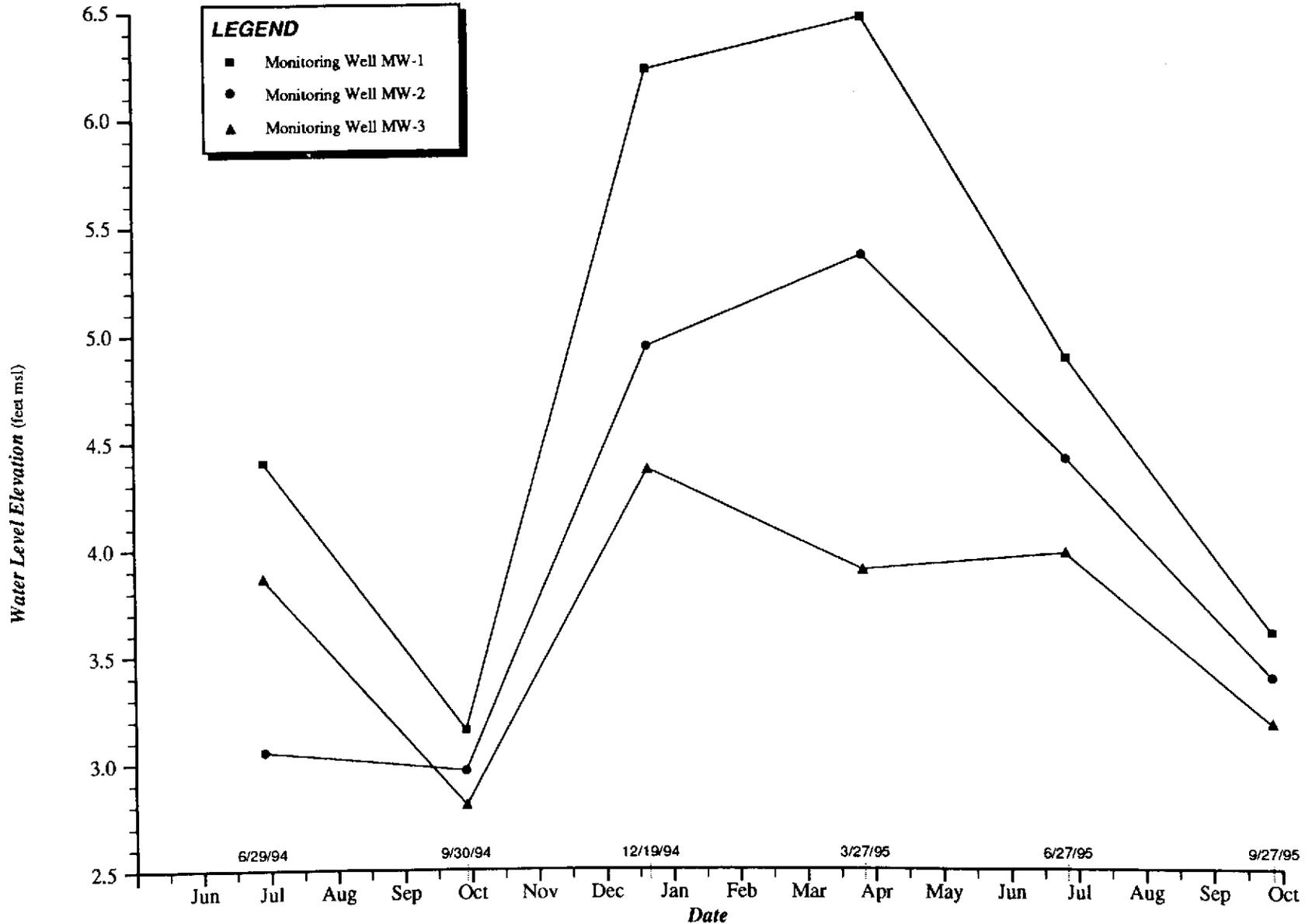
	Industrial Compliance	
	A Subsidiary of SP Environmental Systems, Inc.	
Project No.: 05100535	Date:	11/01/95
Drawn By: Patti Decker	Checked By:	Richard Bateman

ESTIMATED LATERAL EXTENT OF TPH AS GASOLINE IN GROUND WATER
SEPTEMBER, 1995
SOUTHERN PACIFIC TRANSPORTATION COMPANY
1399 WOOD STREET
OAKLAND, CALIFORNIA

Figure:	3
Page:	13
Scale:	as shown

The local hydraulic gradient for the third quarter, 1995 was calculated to be 0.004 which is a decrease relative to the calculated gradient for June, 1995 of 0.008. The direction of ground water flow to the northeast has remained relatively consistent since September (third quarter) of 1994. The observed decrease in ground water elevations this quarter is most likely due to seasonal variation. Figure 4 shows hydrographs of ground water elevation for all monitoring wells.





	Project No.: 05100535	Date: 11/01/95
	Drawn By: Patti Decker	Checked By: Richard Bateman

**HYDROGRAPHS OF GROUND WATER ELEVATION
SOUTHERN PACIFIC TRANSPORTATION COMPANY
1399 WOOD STREET
OAKLAND, CALIFORNIA**

Figure: **4**
Page No.: **15**
Scale: **as shown**

5.0 GLOSSARY OF ACRONYMS

BTEX	Benzene, toluene, ethylbenzene and xylenes
DHS	Department of Health Services
DI	Deionized
EPA	Environmental Protection Agency
IC	Industrial Compliance
MCL	Maximum contaminant level
MSL	Mean sea level
QA/QC	Quality Assurance/Quality Control
SPTCo	Southern Pacific Transportation Company
TPH-G	Total petroleum hydrocarbons as gasoline
VOA	Volatile organic analysis
$\mu\text{g/L}$	Micrograms per liter



APPENDIX A

**GROUND WATER ELEVATION MEASUREMENT AND
PURGE CHARACTERIZATION AND SAMPLE LOGS**



GROUND WATER ELEVATION MEASUREMENT LOG

Sheet 1 of 1

Project Name: 1399 WOOD ST Project No. 05100535 Task/Phase: 01 / 98000
 Date: 9-27-95 Equipment: WATER LEVEL 1400000 Weather: SCNCLY

Well Number	Reference Elevation (feet-MSL)	Time (military)	Depth to Water (feet)	Depth to Product (feet)	Total Depth (feet)	PT (feet)	PT x 0.8 (feet)	Adjusted DTW (feet)	Ground Water Elevation (feet-MSL)
MW-1	7.71	717	4.10	-	13.70	-	-		3.61
MW-2	7.00	754	3.60	-	14.10	-	-		3.40
MW-3	7.32	801	4.14	-	14.10	-	-		3.18
Comments:									

- 1 Adjusted depth to water = DTW - (PT x 0.8)
- 2 Ground water elevation = Reference elevation - Adjusted DTW
- MSL Mean sea level
- DTW Depth to water (to 0.01 foot)
- PT Product thickness (0.01 foot)

Signature Mike Endicott



Industrial Compliance

A Subsidiary of SP Environmental Systems, Inc.



PURGE CHARACTERIZATION AND SAMPLE LOG

Project Number: 05100535 Project Name: 1399 WOOD ST Date: 9-27-95

Well Number: MW-1 Sampler: MIKE ENDICOTT Weather: SUNNY

Military Time	904	908	913	919	930		
Gallons Purged	0	6	12	19			Depth to bottom (DB): <u>13.70</u>
Purge Rate	—	—	—	—			Depth to water (DW): <u>4.10</u>
pH	7.11	7.06	7.18	7.15	S		Height of water column (H) = DB - DW: <u>9.6</u>
Conductivity	1.47	1.47	1.40	1.39	M		One casing volume (CV) = H x multiplier: <u>6.0</u>
Temperature (C)	20.1	20.4	21.3	21.4	P		Three casing volumes (3CV): <u>19.0</u>
Salinity (0/00)	—	—	—	—	L		Multipliers = 2" well = 0.16 gallons/foot
Turbidity	CLEAR	CLEAR	CLEAR	CLEAR	E		4" well = 0.65 gallons/foot
Color	CLEAR	LT BRN	LT BRN	LT BRN			6" well = 1.47 gallons/foot
Water Level Casing							8" well = 2.61 gallons/foot
Calibration	pH:						S.C.:

Sample #	Quantity	Volume	Type	Preserv.	Analysis	Lab	Sample Equip.	Purge Equip.	Field Comments
MW-1	1	1 LT	AMBER	NONE	TOTAL DIESEL	CHROM	DISP BAILER	TEFLON BAILER	
MW-1D	1	1 LT	AMBER	NONE	TOTAL DIESEL	CHROM	DISP BAILER	TEFLON BAILER	
TRIP	2	40ML	WQA	HCL	BTEX TPH GAS	CHROM			LAB PREPARED TRIP BLANK

Cleaning: WASHED TEFLON BAILER WITH ALCOHOL / RINSED WITH DI WATER

Comments:

Sampler's Signature: Mike Endicott

APPENDIX B
CHAIN-OF-CUSTODY DOCUMENT



CHAIN-OF-CUSTODY RECORD

P.O. Box 24374 Oakland CA 94623-1374

No. 20856

INDUSTRIAL COMPLIANCE • 9898 OLD PLACERVILLE ROAD, SUITE 100 • SACRAMENTO, CA 95827-3559 • Phone 916-369-8971 • FAX 916-369-8370

PROJECT NAME 1399 WOOD ST		PROJECT LOCATION OAKLAND, CA	
PROJ. NO. 05100535	PROJECT CONTACT JAMES ACKERMAN	PROJECT TELEPHONE NO. (510) 238 9540	
CLIENT'S REPRESENTATIVE		PROJECT MANAGER/SUPERVISOR CARL TAYLOR	

IPA - GASOLINE/BTEX BOLS
IPA DIESEL BOLS *

ANALYSIS DESIRED
(INDICATE SEPARATE CONTAINERS)

UBM #: 9509056 REF: 2
CLIENT: INDCOMP-OAI
DATE: 10/04/95
REF #: 24105

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED													
1	MW-1	9-27	930			WATER FROM MONITORING WELLS	1		X												
2	MW-3		845			↓	2	X													
3	MW-ID		930			DUPPLICATE WATER SAMPLE	1		X												
4	EQUIP		830			EQUIPMENT BLANK	3	X	X												
5	TRIP		900			LAB PREPARED TRIP BLANK	2	X													
6																					
7																					
8																					
9																					
10																					

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME	REMARKS
1	5	<i>Mike Endicott</i>	<i>P. Murphy</i>	9/28/95	1217	5 DAY T.A.T
2						* C13 - C22 RANGE COMPOUNDS
3						P.O.# 00876
4						SAMPLER'S NAME: <i>MIKE ENDICOTT</i> SAMPLER'S SIGNATURE: <i>Mike Endicott</i>

APPENDIX C
ANALYTICAL LABORATORY REPORTS
GROUND WATER SAMPLES



CHROMALAB, INC.

Environmental Services (SDB)

October 3, 1995

Submission #: 9509358

INDUSTRIAL COMPLIANCE-OAKLAND

Atten: Carl Taylor

Project: 1399 WOOD ST.
Received: September 27, 1995

Project#: 05100535

re: 3 samples for C13-C22 Range Compounds analysis.
Method: EPA 3510/8015M

Sampled: September 27, 1995 Matrix: WATER Extracted: September 29, 1995
Run: 8699-K Analyzed: September 30, 1995

Spl #	Sample ID	C13 - C22 (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE RESULT (%)
104560	MW-1	N.D.	50	N.D.	69
104561	MW-1D	N.D.	50	N.D.	69
104564	EQUIP	N.D.	50	N.D.	69


Kayvan Kimyai
Chemist


Ali Kharfazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

October 5, 1995

Submission #: 9509358

INDUSTRIAL COMPLIANCE-OAKLAND

Atten: Carl Taylor

Project: 1399 WOOD ST.

Project#: 05100535

Received: September 27, 1995

re: 3 samples for Gasoline and BTEX analysis.

Method: EPA 5030/8015M/602/8020

Sampled: September 27, 1995 Matrix: WATER

Run: 8706-2

Analyzed: October 1, 1995

Spl #	Sample ID	Gasoline (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)
104562	MW-3	0.28	0.7	1.6	N.D.	2.9
104563	TRIP	N.D.	N.D.	N.D.	N.D.	N.D.

Sampled: September 27, 1995 Matrix: WATER

Run: 8706-2

Analyzed: October 1, 1995

Spl #	Sample ID	Gasoline (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)
104564	EQUIP	N.D.	N.D.	N.D.	N.D.	N.D.
For above sample:		DET LIMIT OF XYLENES=0.7UG/L				

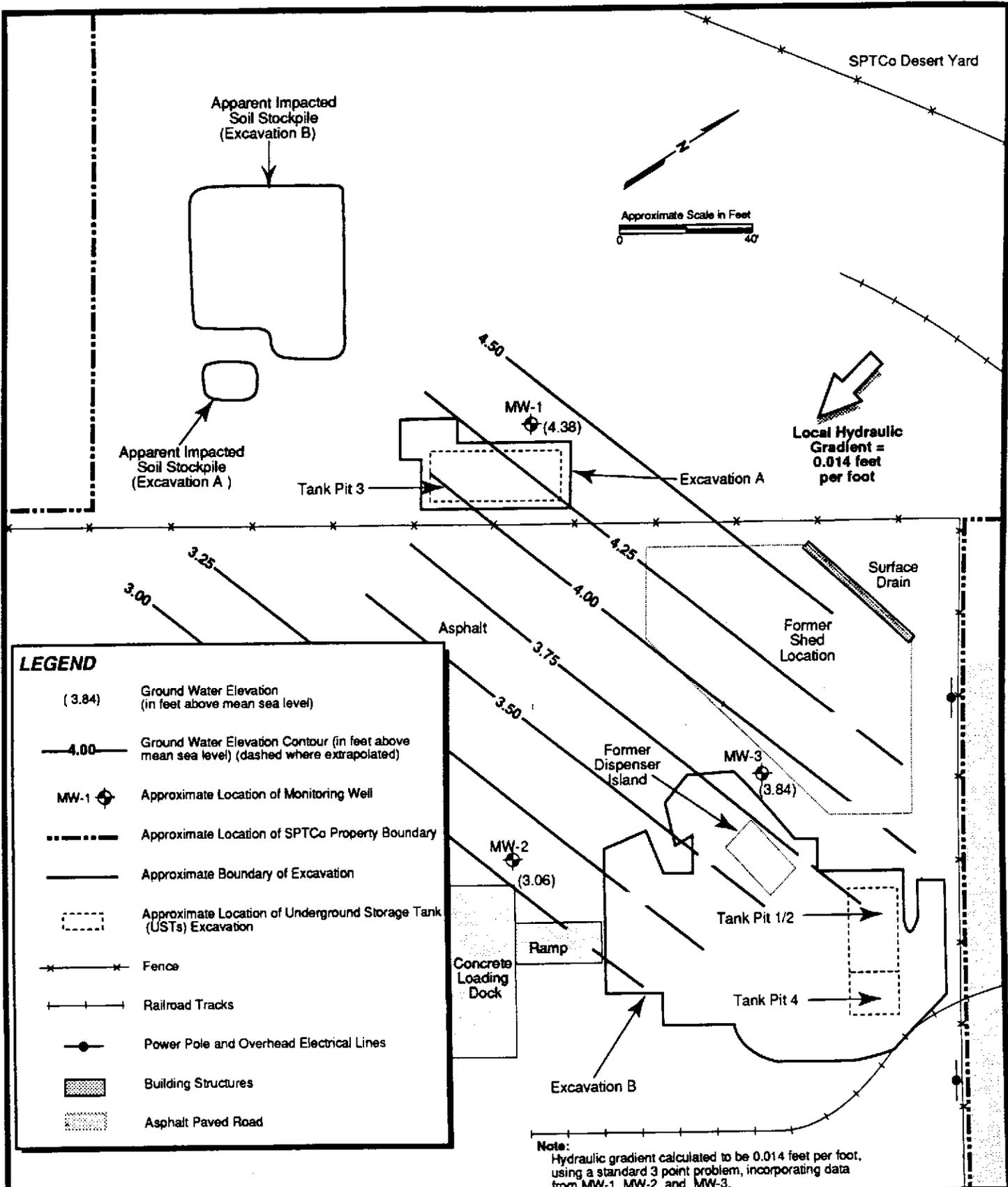
Reporting Limits	0.05	0.5	0.5	0.5	0.5
Blank Result	N.D.	N.D.	N.D.	N.D.	N.D.
Blank Spike Result (%)	93	117	113	118	108

Surinder Sidhu
Surinder Sidhu
Analyst


Ali Kharrazi
Organic Manager

APPENDIX D
GROUND WATER ELEVATION CONTOUR MAPS
PREVIOUS MONITORING EVENTS





LEGEND

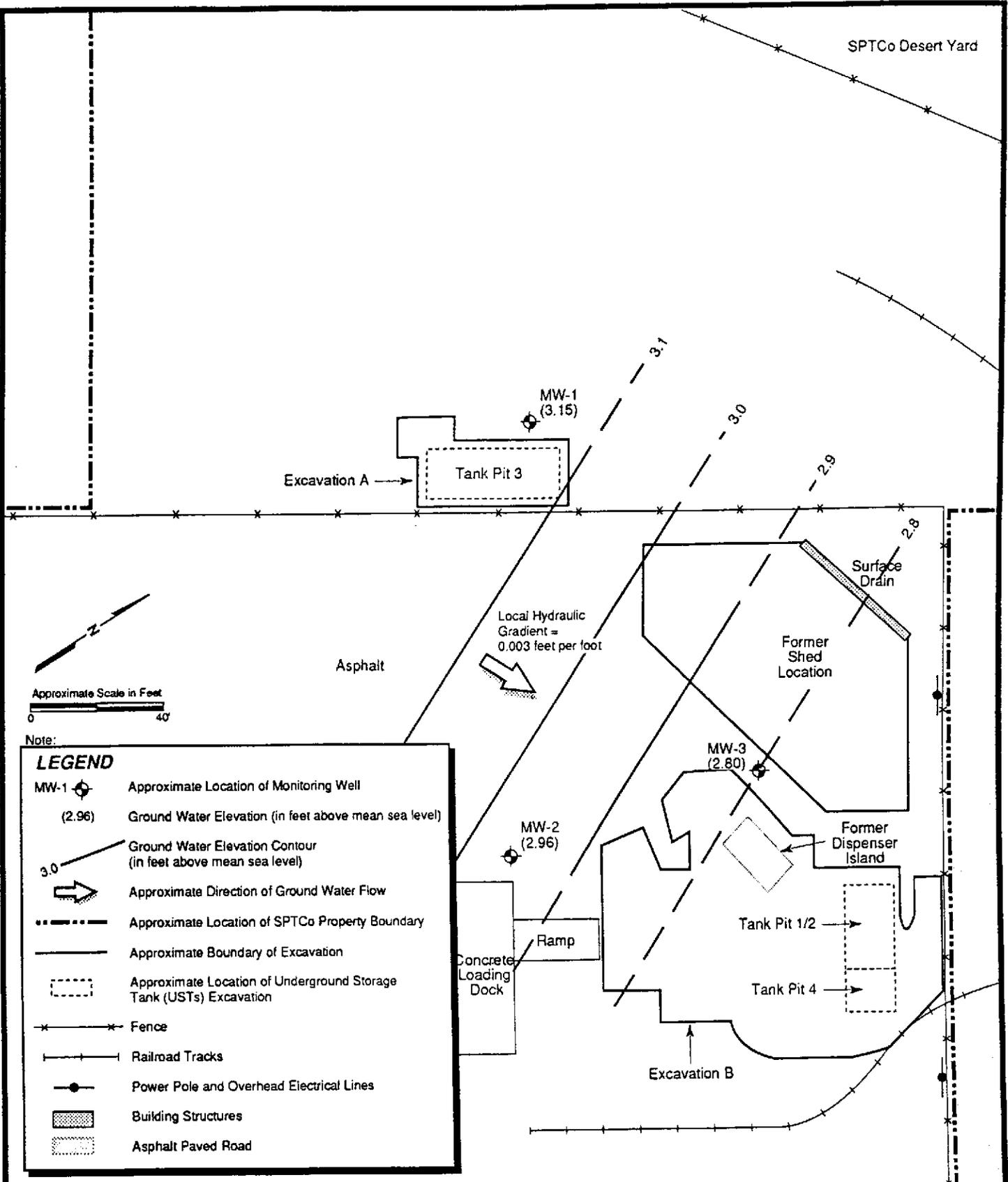
- (3.84) Ground Water Elevation (in feet above mean sea level)
- 4.00 — Ground Water Elevation Contour (in feet above mean sea level) (dashed where extrapolated)
- MW-1 Approximate Location of Monitoring Well
- - - - - Approximate Location of SPTCo Property Boundary
- — — — — Approximate Boundary of Excavation
- - - - - Approximate Location of Underground Storage Tank (USTs) Excavation
- x - x - x - Fence
- | - | - | - Railroad Tracks
- ● - Power Pole and Overhead Electrical Lines
- Building Structures
- Asphalt Paved Road

Note:
 Hydraulic gradient calculated to be 0.014 feet per foot, using a standard 3 point problem, incorporating data from MW-1, MW-2, and MW-3.

Project No.: 05100535	Date: 08/15/94
Drawn By: Patti Decker	Checked By: James G. Jensen

**CONTOUR MAP OF GROUND WATER ELEVATIONS
 WITH HYDRAULIC GRADIENT, JUNE, 1994
 SOUTHERN PACIFIC TRANSPORTATION COMPANY
 1399 WOOD STREET
 OAKLAND, CALIFORNIA**

Figure:	19
Page:	
Scale:	as shown



Note:

LEGEND

- MW-1 Approximate Location of Monitoring Well
- (2.96) Ground Water Elevation (in feet above mean sea level)
- Ground Water Elevation Contour (in feet above mean sea level)
- Approximate Direction of Ground Water Flow
- Approximate Location of SPTCo Property Boundary
- Approximate Boundary of Excavation
- Approximate Location of Underground Storage Tank (USTs) Excavation
- Fence
- Railroad Tracks
- Power Pole and Overhead Electrical Lines
- Building Structures
- Asphalt Paved Road

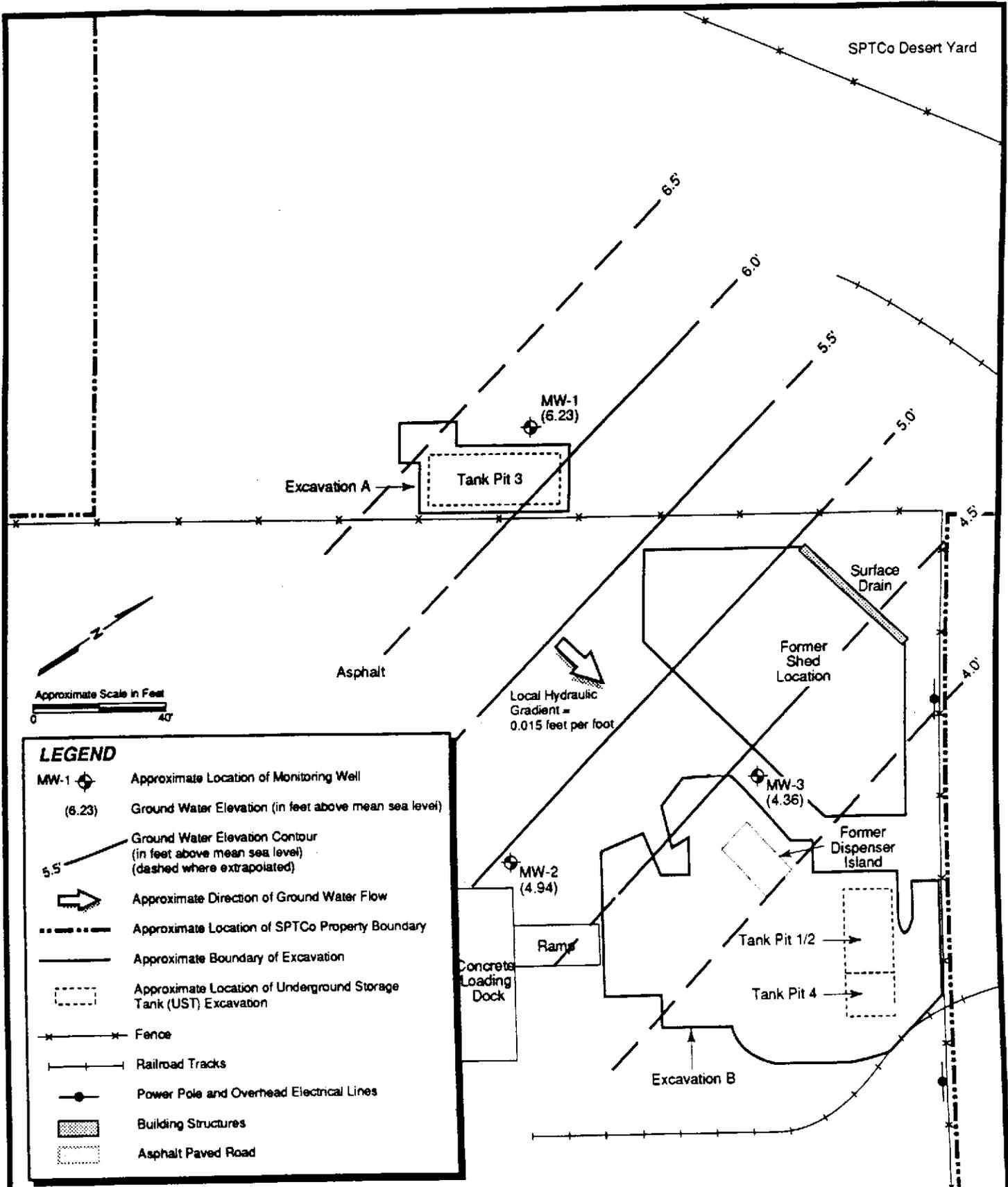
Industrial Compliance
 A Subsidiary of SP Environmental Systems, Inc.

Project No.: 05100535 Date: 01/18/95

Drawn By: Patti Decker Checked By: James Ackerman

**CONTOUR MAP OF GROUND WATER ELEVATIONS
 SEPTEMBER, 1994
 SOUTHERN PACIFIC TRANSPORTATION COMPANY
 1399 WOOD STREET
 OAKLAND, CALIFORNIA**

Figure:	4
Page:	
Scale:	as shown



Approximate Scale in Feet
0 40'

LEGEND

- MW-1 Approximate Location of Monitoring Well
- (6.23) Ground Water Elevation (in feet above mean sea level)
- 5.5 Ground Water Elevation Contour (in feet above mean sea level) (dashed where extrapolated)
- Approximate Direction of Ground Water Flow
- Approximate Location of SPTCo Property Boundary
- Approximate Boundary of Excavation
- Approximate Location of Underground Storage Tank (UST) Excavation
- Fence
- Railroad Tracks
- Power Pole and Overhead Electrical Lines
- Building Structures
- Asphalt Paved Road

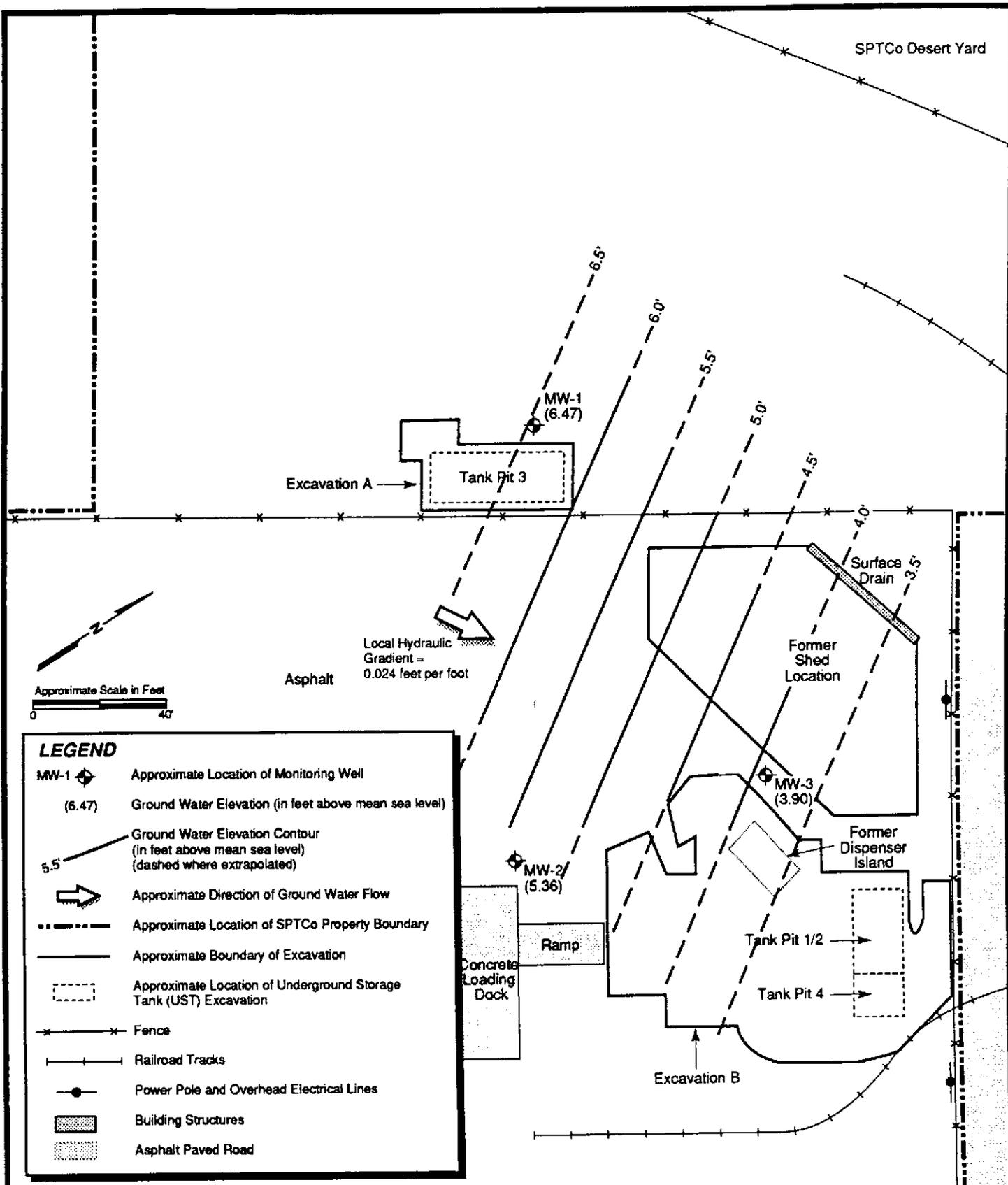


Industrial Compliance
A Subsidiary of SP Environmental Systems, Inc.

**CONTOUR MAP OF GROUND WATER ELEVATION
DECEMBER, 1994
SOUTHERN PACIFIC TRANSPORTATION COMPANY
1399 WOOD STREET
OAKLAND, CALIFORNIA**

Project No.: 05100535	Date: 02/13/95
Drawn By: Patti Decker	Checked By: Richard Bateman

Figure: 4
Page:
Scale: as shown



LEGEND

- MW-1 Approximate Location of Monitoring Well
- (6.47) Ground Water Elevation (in feet above mean sea level)
- 5.5 Ground Water Elevation Contour (in feet above mean sea level) (dashed where extrapolated)
- Approximate Direction of Ground Water Flow
- Approximate Location of SPTCo Property Boundary
- Approximate Boundary of Excavation
- Approximate Location of Underground Storage Tank (UST) Excavation
- Fence
- Railroad Tracks
- Power Pole and Overhead Electrical Lines
- Building Structures
- Asphalt Paved Road

Industrial Compliance
 A Subsidiary of SP Environmental Systems, Inc.

Project No.: 05100535 Date: 05/02/95

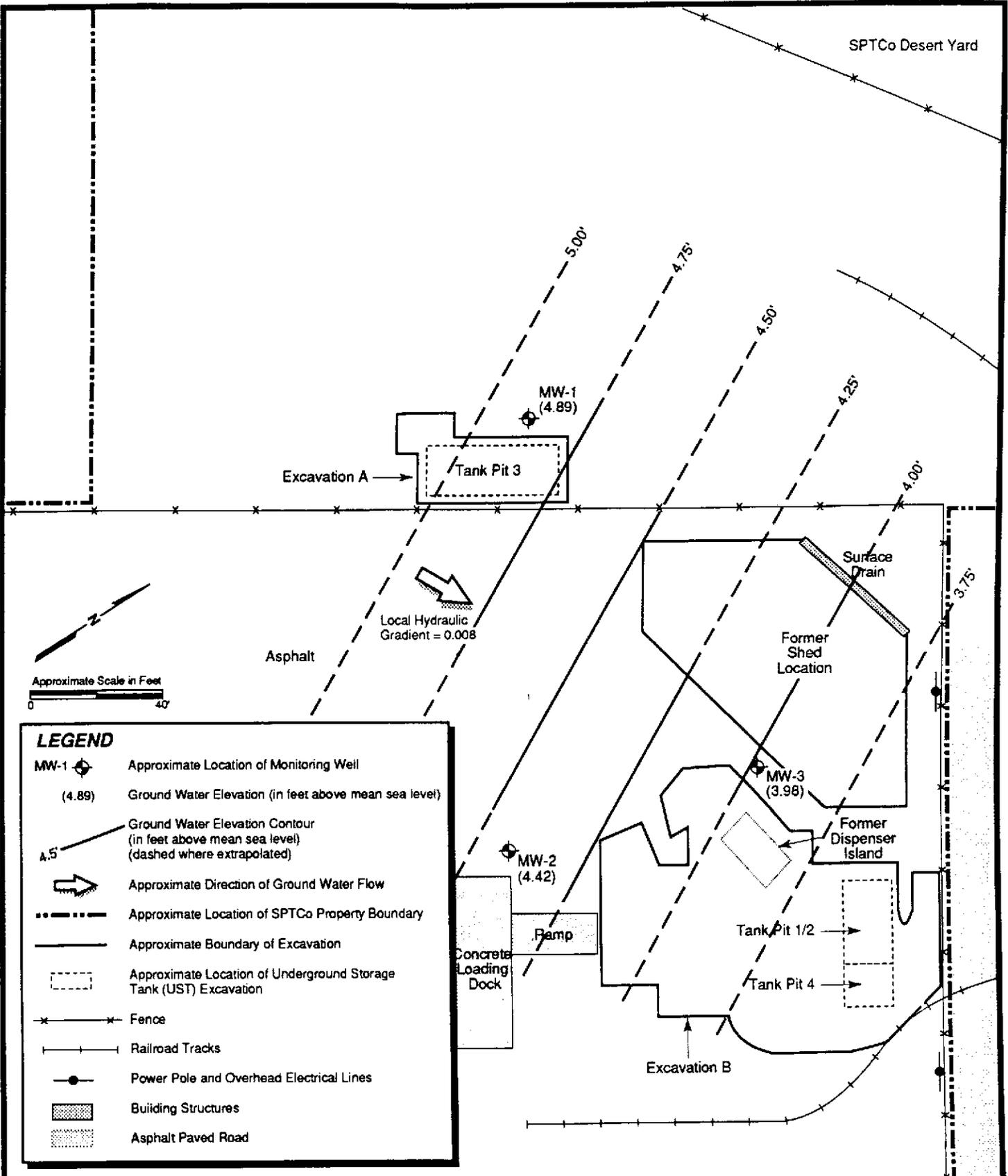
Drawn By: **Patti Decker** Checked By: **Richard Bateman**

CONTOUR MAP OF GROUND WATER ELEVATION
 MARCH, 1995
 SOUTHERN PACIFIC TRANSPORTATION COMPANY
 1399 WOOD STREET
 OAKLAND, CALIFORNIA

Figure: **3**

Page:

Scale: **as shown**



LEGEND

- MW-1 Approximate Location of Monitoring Well
- (4.89) Ground Water Elevation (in feet above mean sea level)
- Ground Water Elevation Contour (in feet above mean sea level) (dashed where extrapolated)
- Approximate Direction of Ground Water Flow
- Approximate Location of SPTCo Property Boundary
- Approximate Boundary of Excavation
- Approximate Location of Underground Storage Tank (UST) Excavation
- Fence
- Railroad Tracks
- Power Pole and Overhead Electrical Lines
- Building Structures
- Asphalt Paved Road

Industrial Compliance
 A Subsidiary of SP Environmental Systems, Inc.

Project No.: 05100535 Date: 07/26/95

Drawn By: Patti Decker Checked By: Richard Bateman

CONTOUR MAP OF GROUND WATER ELEVATION
 JUNE, 1995
 SOUTHERN PACIFIC TRANSPORTATION COMPANY
 1399 WOOD STREET
 OAKLAND, CALIFORNIA

Figure:	2
Page:	
Scale:	as shown