Terranext 9838 Old Placerville Road, Suite 100 Sacramento, CA 95827-3559

March 18, 1996

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: Fourth Quarter 1995 Ground Water Monitoring Report
Southern Pacific Transportation Company
1399 Wood Street
Oakland, California

Dear Ms. Eberle:

Terranext (formerly Industrial Compliance), on behalf of Southern Pacific Transportation Company (SPTCo), has prepared the attached Fourth Quarter 1995 Ground Water Monitoring Report for the SPTCo site located at 1399 Wood Street, Oakland, California. The fourth quarter 1995 monitoring is the seventh quarterly monitoring event for the site.

Regarding continuing work at the 1399 Wood Street site, we are in receipt of your approval (letter dated March 6, 1996) of the *Workplan for Ground Water Grab Sampling* as submitted by Terranext and dated February 23, 1996. As you have requested, analyses for benzene, toluene, ethylbenzene and xylenes will be run on ground water grab samples collected downgradient from both Excavation A and Excavation B. The workplan will be implemented in late March 1996 or during the first week of April 1996. A report on the results of the ground water grab sampling will be submitted to the Alameda County Health Care Services Agency within 30 to 45 days of the completion of field work.

In your March 6, 1996 letter, you also requested copies of quarterly monitoring reports for the 1399 Wood Street site for the fourth quarter of 1995 and the first quarter of 1996. The fourth quarter 1995 monitoring report is transmitted herewith. Per discussions with your office, first quarter 1996 monitoring has not been conducted pending results of the ground water grab sampling activity.

Telephone: 916 369•8971 Facsimile: 916 369•8370 www.terranext.com

If you have any questions regarding the enclosed report or the ground water grab sampling work, please contact either of the undersigned at (510) 238-9540 or (916) 369-8971 or Mr. John Moe of SPTCo at (415) 541-2557.

Sincerely,

TERRANEXT

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 (without attachment)

TerraNext 9838 Old Placerville Road, Suite 100 Sacramento, CA 95827-3559

FOURTH QUARTER 1995 GROUND WATER MONITORING REPORT

Southern Pacific Transportation Company
1399 Wood Street
Oakland, California

really 1st Q 96.

Project No. 05100535

Prepared For:

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

March 18, 1996

Telephone: 916 369-8971 Facsimile: 916 369-8370 www.terranext.com

FOURTH 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

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APPENDICES

1.0 INTRODUCTION

Terranext (formerly Industrial Compliance), 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 fourth quarter 1995 ground water monitoring results. Due to scheduling conflicts during the second half of December 1995, fourth quarter water level measurement and ground water sampling activities occurred on January 3, 1996. The fourth quarter 1995 monitoring is the seventh quarterly monitoring event for the site.

Reference:
U.S.G.S. 7.5 Minute Series (Topographic)
Oakland West Quadrangle
California
Dated: 1959, revised: 1980

Project No.: 05100535	Figure No: 1
Scale: As Above	Page No.: 2
File No.: SITEMAP	Drawn By: Patti Decker
Date: 02/19/96	Approved By: Richard Bateman

Terranext

SITE LOCATION MAP

SOUTHERN PACIFIC TRANSPORTATION COMPANY
1399 WOOD STREET
OAKLAND, CALIFORNIA

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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 January 3, 1996, 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 fourth quarter of 1995 ranged from 4.05 to 6.01 feet above mean sea level (MSL). The direction of ground water flow is to the east. The local hydraulic gradient, as calculated from the January 3, 1996 water level data, is approximately 0.008.

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
	01/03/96	0855		1.70	6.01
MW-2	06/29/94	0900	7.00	3.94	3.06
	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
	01/03/96	0830		2.60	4.40
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
	01/03/96	0840		3.27	4.05

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.

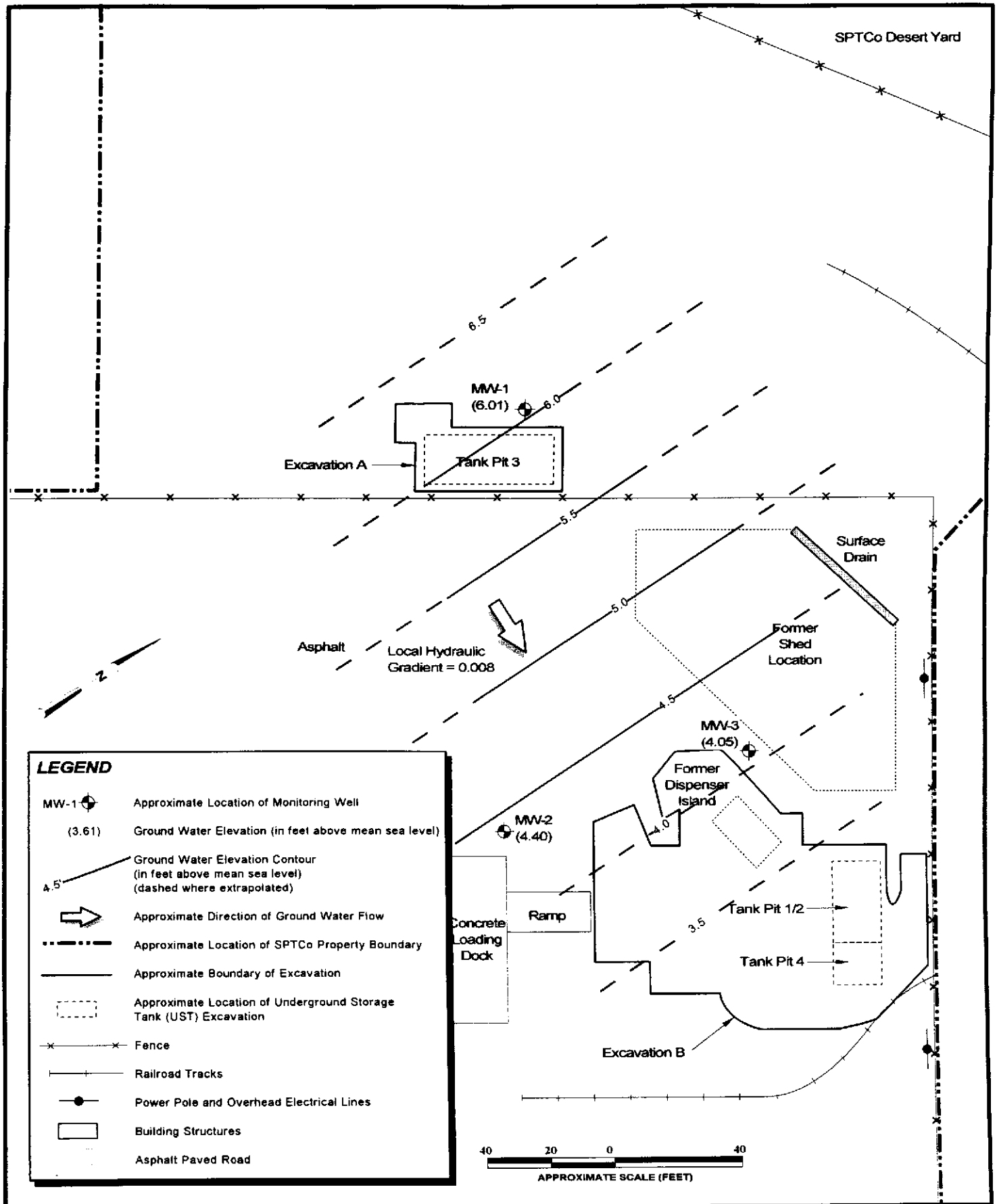
c Depth to ground water measured from top of casing.

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



Project No.: 05100535	Figure No.: 2
Scale: As Above	Page No.: 5
File No.: q1gw96f02	Drawn By: Patti Decker
Date: 02/19/96	Approved By: Richard Bateman

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CONTOUR MAP OF GROUND WATER ELEVATION

JANUARY, 1996
SOUTHERN PACIFIC TRANSPORTATION COMPANY
1399 WOOD STREET
OAKLAND, CALIFORNIA

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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 wastewater 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.

2.3 Monitoring Well Sampling

Ground water samples were collected from monitoring wells MW-1 and MW-3 using new, disposable polyethylene bailers. MW-2 was not sampled this quarter due to changes to the monitoring program authorized by Alameda County in a letter to SPTCo dated June 27, 1995. 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 transport to the laboratory. Sample logs are included in Appendix A. The chain-of-custody document is included as Appendix B.

TABLE 2
GROUND WATER PURGE CHARACTERIZATION DATA
JANUARY 1996

Monitoring Well[a]	Date Measured	Purge Volume (gallons)	Electrical Conductivity (mS/cm)	Temperature (°C)	Field pH (units)
MW-1	01/03/96	8	NM	15.9	7.72
		15	NM	15.7	7.60
		20	NM	15.9	7.49
		24	NM	15.7	7.22
MW-2	01/03/96	NS	NS	NS	NS
MW-3	01/03/96	0	NM	15.8	6.63
		7	NM	16.8	6.69
		14	NM	17.8	6.71
		21	NM	17.3	6.69

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

NM Conductivity not measured due to meter malfunction.

Note: Purge characterization logs included in Appendix A.

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

Fourth 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 fourth quarter 1995 analytical results:

* TPH-G was detected in MW-3 at a concentration of 470 micrograms per liter (μg/L).

* Benzene, toluene, and xylenes were detected in MW-3 at concentrations of 3.4 μg/L, 1.4 μg/L and 3.4 μg/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 fourth 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
	01/03/96	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	NS	NS	NS	NS	NS	NS	NS	NS	NS
	01/03/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
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
	01/03/96	**470**	NA	**3.4**	**1.4**	**<0.5**	**3.4**	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			
Duplicate (MW-1)	01/03/96	NA	<50	NA	NA	NA	NA	NA	NA	NA
Equipment Blank	01/03/96	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA
Trip Blank	01/03/96	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA
Cal DHS MCLs[g]		NE	NE	1	150	700	1,750	0.5	NE	500[h]

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, July, 1995, Compilation of Water Quality Goals).

h California DHS secondary (recommended) MCL for drinking water (California RWQCB, July, 1995, 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.

PCBs Polychlorinated biphenyls

NA Not analyzed.

NE No MCL established.

NS Not sampled.

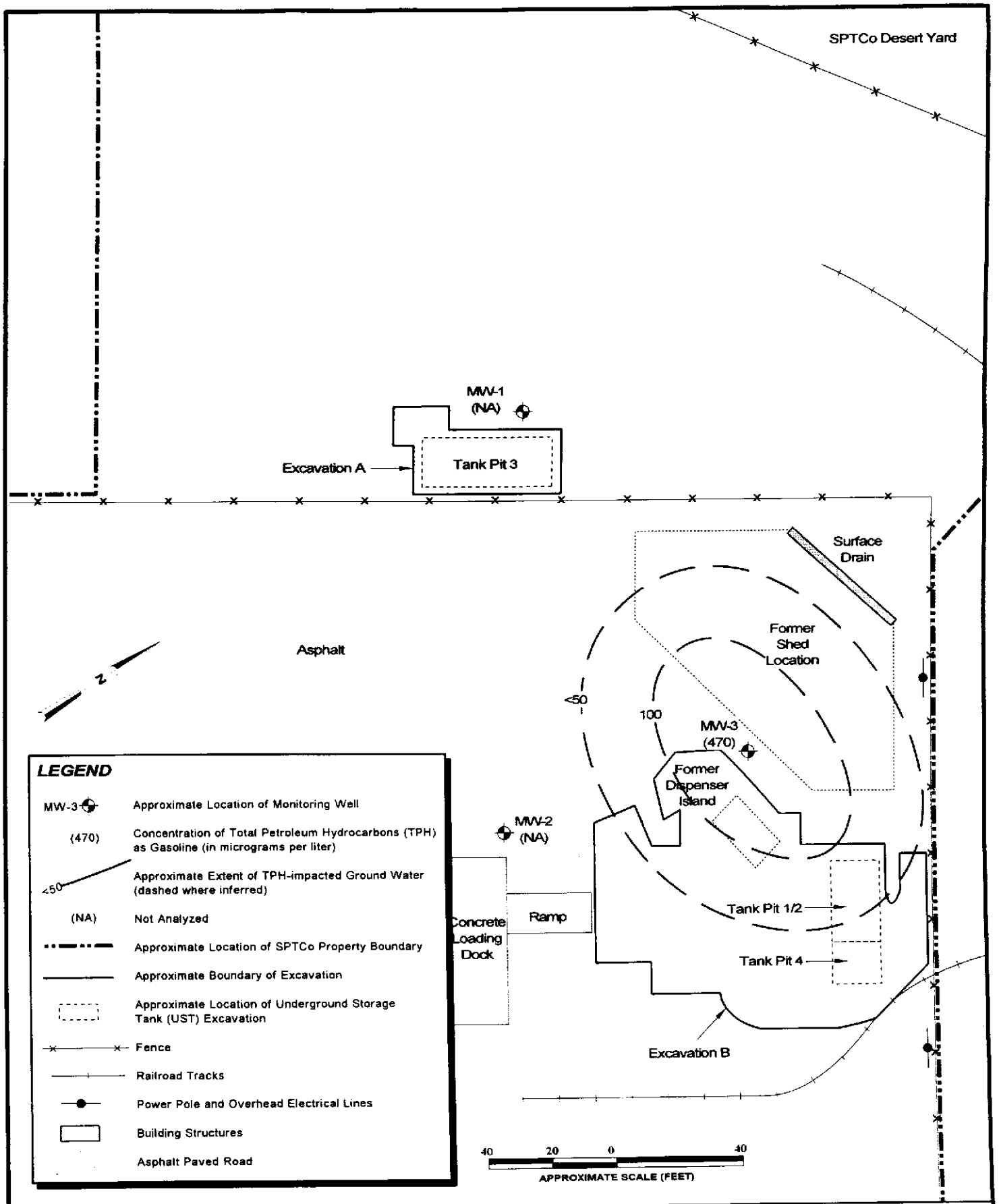
4.0 DISCUSSION

Based on data collected during the fourth quarter 1995 ground water monitoring event at the 1399 Wood Street site (Table 3), the chemical compounds present in 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 benzene was the only analyzed constituent detected at a concentration which exceeded the California Department of Health Services (DHS) maximum contaminant level (MCL) for drinking water. Benzene was detected in MW-3 at a concentration of 3.4 μg/L, while the DHS MCL for benzene is 1 μg/L. Total dissolved solids data from previous quarterly monitoring indicates that shallow ground water beneath the site is not of drinking water quality.

Table 3 summarizes ground water analytical data collected during this and all previous sampling events. A review of these 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 in MW-3 this quarter (470 μg/L) is at the upper end of the range of results from previous monitoring events (110 μg/L to 410 μg/L). In MW-3, concentrations of benzene (3.4 μg/L), toluene (1.6 μg/L) and xylenes (2.9 μg/L) for this quarter remain within the range of results for previous monitoring events (0.8 μg/L to 5.1 μg/L, 0.9 μg/L to 4.5 μg/L and 0.8 μg/L to 3.6 μg/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



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Scale: As Above	Page No.: 13
File No.: q1gw96f03	Drawn By: Patti Decker
Date: 02/19/96	Approved By: Richard Bateman

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ESTIMATED LATERAL EXTENT OF TPH AS GASOLINE IN GROUND WATER

JANUARY, 1996

SOUTHERN PACIFIC TRANSPORTATION COMPANY

1399 WOOD STREET

OAKLAND, CALIFORNIA

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of ground water elevation data collected during the fourth quarter 1995 sampling event with ground water elevations measured during the previous sampling event, indicates an increase in ground water elevations in all wells. The average increase for all the wells is 1.42 feet. The local hydraulic gradient for the fourth quarter 1995 was calculated to be 0.008 which is an increase relative to the calculated gradient for September, 1995 of 0.004. The direction of ground water flow (to the east) has changed slightly from a northeast flow direction the previous quarter. The observed increase 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.

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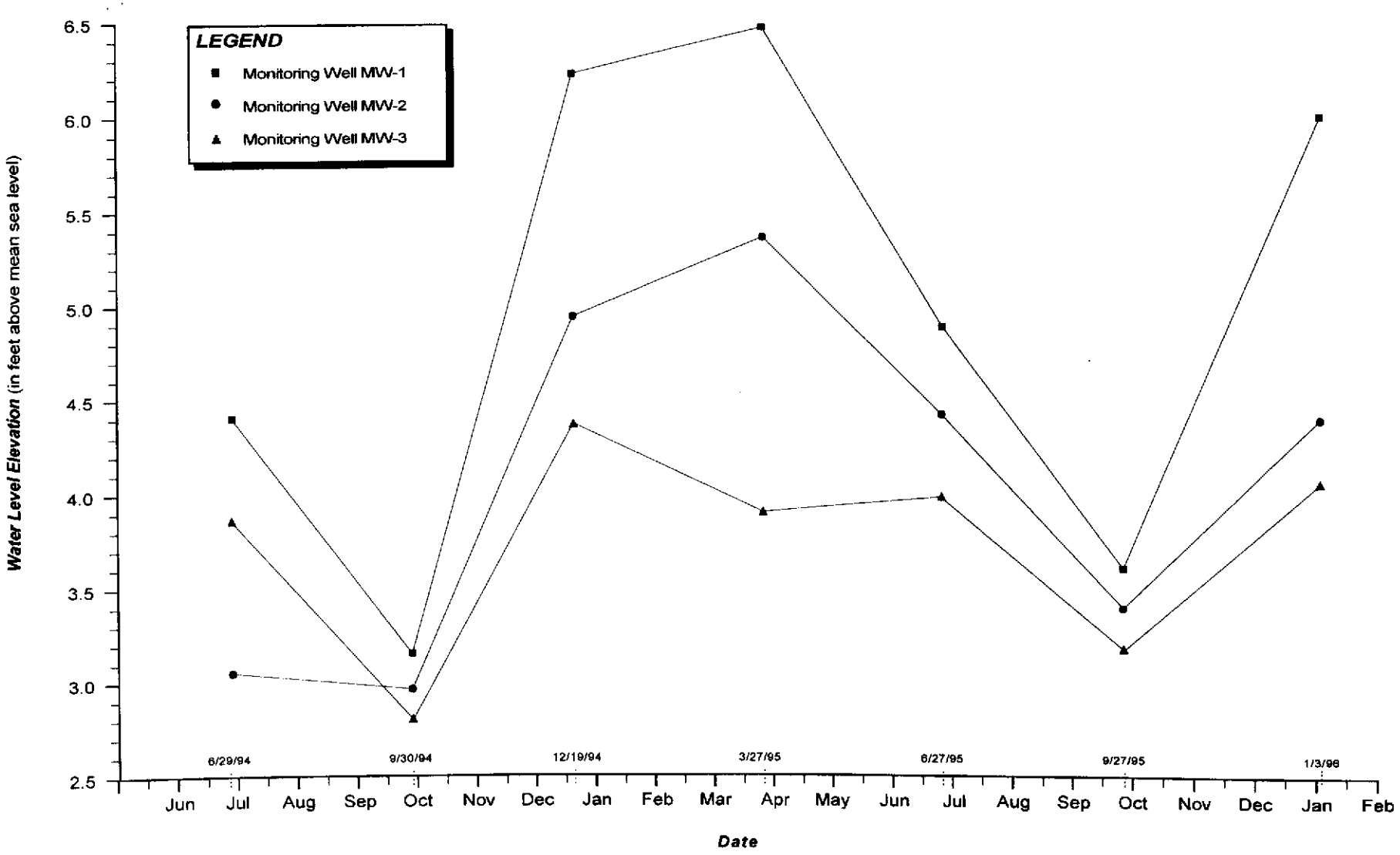

Project No.: 05100535	Figure No.: 4
Scale: As Above	Page No.: 15
File No.: Q495F04	Drawn By: Patti Decker
Date: 02/19/96	Approved By: Richard Bateman

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HYDROGRAPHS OF GROUND WATER ELEVATION

SOUTHERN PACIFIC TRANSPORTATION COMPANY
1399 WOOD STREET
OAKLAND, CALIFORNIA

5.0 GLOSSARY OF ACRONYMS

BTEX	Benzene, toluene, ethylbenzene and xylenes
DHS	Department of Health Services
DI	Deionized
EPA	Environmental Protection Agency
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
μg/L	Micrograms per liter

APPENDIX A

GROUND WATER ELEVATION MEASUREMENT AND PURGE CHARACTERIZATION AND SAMPLE LOGS

GROUND WATER ELEVATION MEASUREMENT LOG

Project Name: 1399 Wood St Project No. 05100535 Task/Phase: 01 / 98000

Date: 1-3-95 Equipment: Solinst Probe Weather: Overcast

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[1] (feet)	Ground Water Elevation[2] (feet-MSL)
MW1	7.71	0855	1.70	—	13.70	—	—	1.70	6.01
MW2	7.00	0830	2.60	—	14.10	—	—	2.60	4.40
MW3	7.32	0840	3.27	—	14.10	—	—	3.27	4.05
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 [signature]

Industrial Compliance
A Subsidiary of SP Environmental Systems, Inc.

PURGE CHARACTERIZATION AND SAMPLE LOG

Project Number: 05100535 Project Name: 1399 WOOD ST. Date: 1-3-95

Well Number: MW 1 Sampler: J. ROTH Weather: OVERCAST

Military Time	0900	0905	0912	0918	0925	0935
Gallons Purged	8	15	20	24	S	D
Purge Rate	—	—	—	—	S	4
pH	7.72	7.60	7.49	7.22	A	P
Conductivity *	—	—	—	—	M	L
Temperature (C)	15.9	15.7	15.9	15.7	P	1
Salinity (0/00)	—	—	—	—	L	C
Turbidity	LOW	LOW	LOW	LOW	E	A
Color	CLR	CLR	CLR	CLR	D	T
Water Level Casing						E
Calibration	pH:					

Depth to bottom (DB): 13.70
Depth to water (DW): 1.70
Height of water column (H) = DB - DW: 12.00
One casing volume (CV) = H x multiplier: 7.8
Three casing volumes (3CV): 23.4
Multipliers = 2" well = 0.16 gallons/foot
4" well = 0.65 gallons/foot
6" well = 1.47 gallons/foot
8" well = 2.61 gallons/foot
S.C.:

Sample #	Quantity	Volume	Type	Preserv.	Analysis	Lab	Sample Equip.	Purge Equip.	Field Comments
MW 1	1	1 LT	AMBER	NONE	DIESEL	CHROM	DISP. BAILER	TEF. BAILER	
MW 1D	1	1 LT	AMBER	NONE	DIESEL	CHROM	DISP. BAILER	TEF. BAILER	
EQUIPMENT	2	40 ml	VOA	HCl	GAS/BTEX	CHROM	TEF. BAILER	—	
Cleaning:	WASHED BAILER IN TPS & RINSED W/ DI WATER								
Comments:	*CONDUCTIVITY METER MALFUNCTION								

Sampler's Signature:

Industrial Compliance

A Subsidiary of SF Environmental Systems, Inc.

PURGE CHARACTERIZATION AND SAMPLE LOG

Project Number: 05100535 Project Name: 1399 Wood St. Date: 1-3-95

Well Number: MW 3 Sampler: J. ROTH Weather: OVERCAST

Military Time	1002	1007	1012	1016	1025	
Gallons Purged	0	7	14	21	S	
Purge Rate	—	—	—	—	A	
pH	6.63	6.69	6.71	6.69	M	
Conductivity *	—	—	—	—	P	
Temperature (C)	15.8	16.8	17.8	17.3	L	
Salinity (0/00)	—	—	—	—	E	
Turbidity	LOW	LOW	LOW	LOW	D	
Color	CLR	CLR	CLR	CLR		
Water Level Casing						
Calibration	pH:					

Depth to bottom (DB): 14.10

Depth to water (DW): 3.27

Height of water column (H) = DB - DW: 10.83

One casing volume (CV) = H x multiplier: 7.0

Three casing volumes (3CV): 21.0

Multipliers = 2" well = 0.16 gallons/foot

4" well = 0.65 gallons/foot

6" well = 1.47 gallons/foot

8" well = 2.61 gallons/foot

S.C.:

Sample #	Quantity	Volume	Type	Preserv.	Analysis	Lab	Sample Equip.	Purge Equip.	Field Comments
MW 3	2	40ml	VOA	HCl	GAS/BTEX	CHROM	DEP. BAILER	TEF BAILER	

Cleaning: WASHED BAILER IN TSP + RINSED W/ DI WATER

Comments: *CONDUCTIVITY METER MALFUNCTION

Sampler's Signature: J. Roth

APPENDIX B

CHAIN-OF-CUSTODY DOCUMENT

019/115492-115496

CHAIN-OF-CUSTODY RECORD

25806

P.O. Box 24374 Oakland CA 94623-1374

No. 20888

INDUSTRIAL COMPLIANCE • ~~9866 OLD PLACERVILLE ROAD, SUITE 100 • SACRAMENTO, CA 95827-3559~~ 510-238-3540 510-238-9145 • Phone ~~916-369-8971~~ • FAX ~~916-369-8370~~

PROJECT NAME	PROJECT LOCATION
1399 Wood St.	Oakland, CA

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
05100 635	James Ackerman	510/238-9540

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
	Carl Taylor

SUBM #: 9601019 REP: GC
CLIENT: INDCOMP-OAK
DUE: 01/10/96
REF #:25806

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) TPH Gas/BTXE	TPH Diesel 8015*	REMARKS
1	MW 1	1-3-96	0925		X	Monitor Well # 1	1		X	
2	MW 3	1-3-96	1025		X	Monitor Well # 3	2	X		
3	MW 1D	1-3-96	0935		X	Duplicate of MW 1	1		X	
4	EQUIP	1-3-96	0945		X	Equipment Blank	3	X	X	
5	TRIP	1-3-96	—		X	Trip Blank	2	X		
6										
7										
8										
9										
10										

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-5	Jeff Smith	Robin Lock	1/3/96	13:32
2	1-5	Robin Lock	Mimi Pak	1/3/96	1645
3					
4					

REMARKS

* C_{13} – C_{22} Range Compounds

5 Day TAT

P.O. # 60876

SAMPLER'S NAME: Jeff Roth

SAMPLER'S SIGNATURE: Jeff Smith

LAB COPY

APPENDIX C

ANALYTICAL LABORATORY REPORTS
GROUND WATER SAMPLES

CHROMALAB, INC.

Environmental Services (SDB)

January 10, 1996 *Submission #:* 9601019

INDUSTRIAL COMPLIANCE-OAKLAND

Atten: Carl Taylor

Project: 1399 WOOD ST. *Project#:* 05100535
Received: January 3, 1996

re: 3 samples for Gasoline and BTEX analysis.
Method: EPA 5030/8015M/602/8020

Sampled: January 3, 1996 *Matrix:* WATER
Run: 10017-4 *Analyzed:* January 8, 1995

Spl #	Sample ID	Gasoline (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)
115494	MW 3	0.47	3.4	1.4	N.D.	3.4
115495	TRIP	N.D.	N.D.	N.D.	N.D.	N.D.
115496	EQUIP	N.D.	N.D.	N.D.	N.D.	N.D.
	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 (%)	89	104	104	106	107

June Zhao
Chemist

Marianne Alexander
Gas/BTEX Supervisor

1220 Quarry Lane • Pleasanton, California 94566-4756
(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

CHROMALAB, INC.
Environmental Services (SDB)

January 5, 1996 *Submission #:* 9601019

INDUSTRIAL COMPLIANCE-OAKLAND

Atten: Carl Taylor

Project: 1399 WOOD ST. *Project#:* 05100535
Received: January 3, 1996

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

Sampled: January 3, 1996 *Matrix:* WATER *Extracted:* January 4, 1996
Run: 9998-K *Analyzed:* January 5, 1996

Spl #	Sample ID	C13 - C22 (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE RESULT (%)
115492	MW 1	N.D.	50	N.D.	91
115493	MW 1D	N.D.	50	N.D.	91

Sampled: January 3, 1996 *Matrix:* WATER *Extracted:* January 4, 1996
Run: 9998-K *Analyzed:* January 6, 1996

Spl #	Sample ID	C13 - C22 (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE RESULT (%)
115496	EQUIP	N.D.	50	N.D.	91

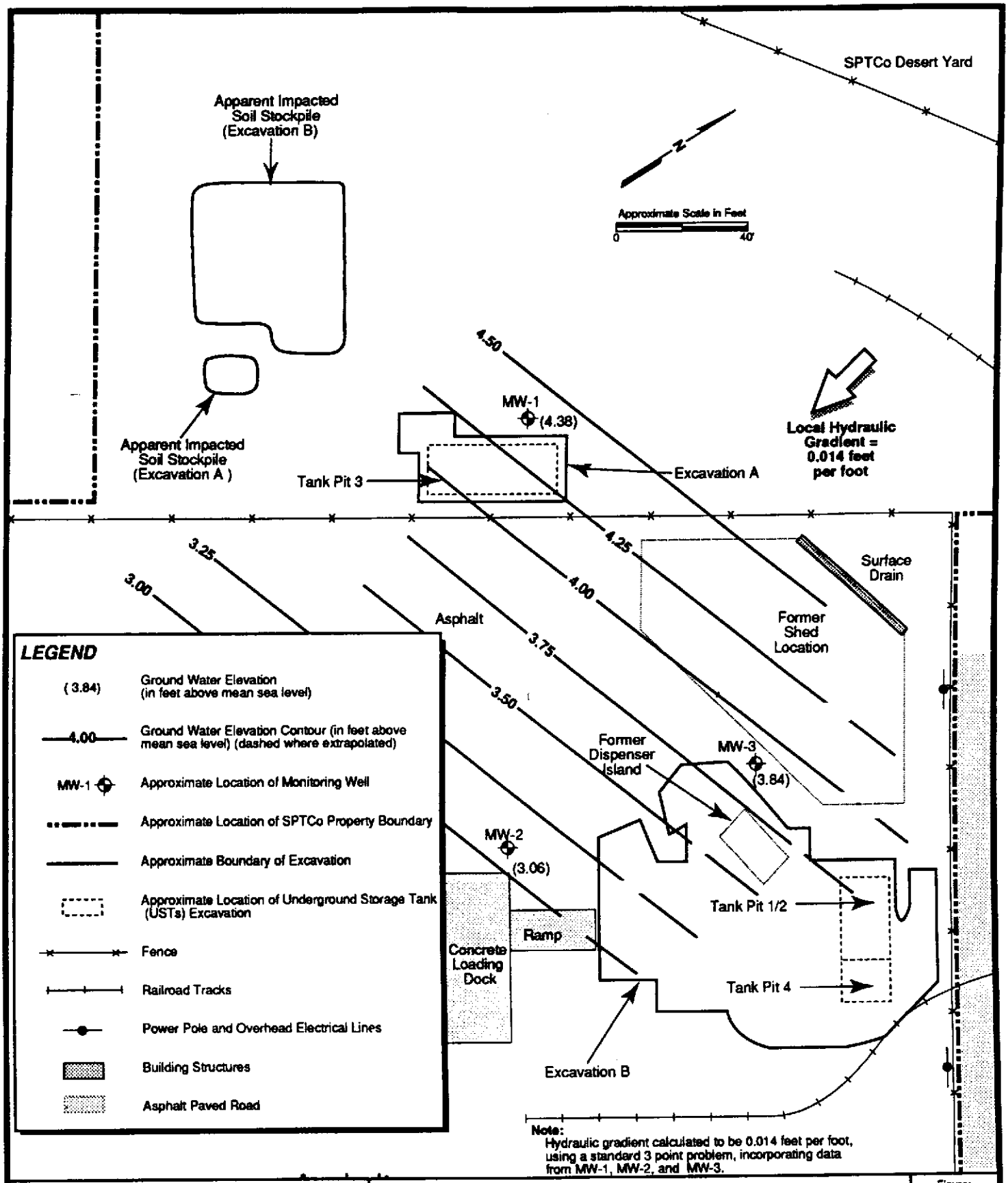
Kayvan Kimyai
Chemist

Alex Tam
Semivolatiles Supervisor

1220 Quarry Lane • Pleasanton, California 94566-4756
(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

APPENDIX D

GROUND WATER ELEVATION CONTOUR MAPS
PREVIOUS MONITORING EVENTS



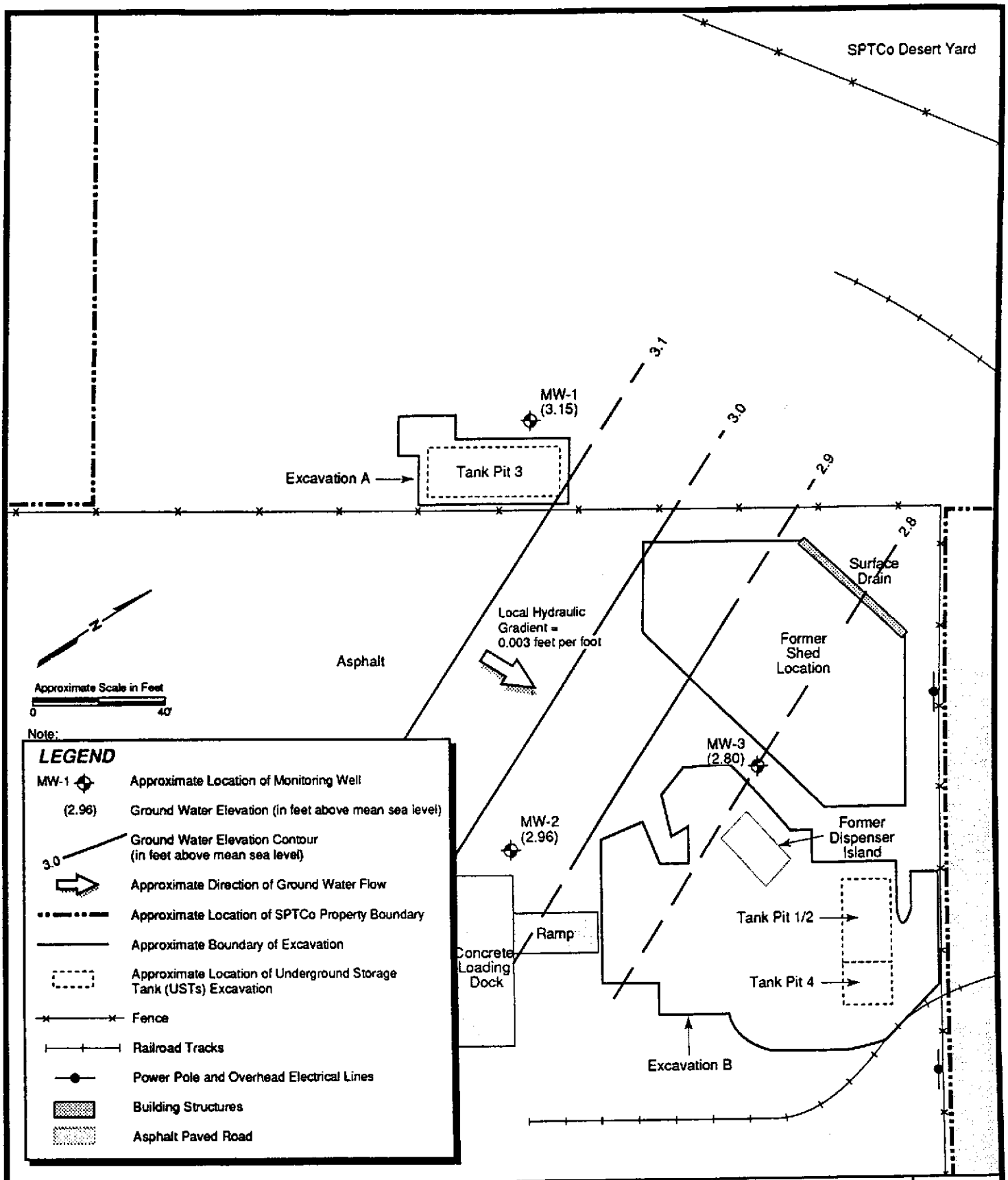
Industrial Compliance
A Subsidiary of SP Environmental Systems, Inc.

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

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

Figure: 19
Page:
Scale: as shown

Oak-535/SRWP.0894/F.19 #100



Industrial Compliance
A Subsidiary of SP Environmental Systems, Inc.

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

Project No.: 05100535	Date: 01/18/95
Drawn By: Patti Decker	Checked By: James Ackerman

Figure: 4
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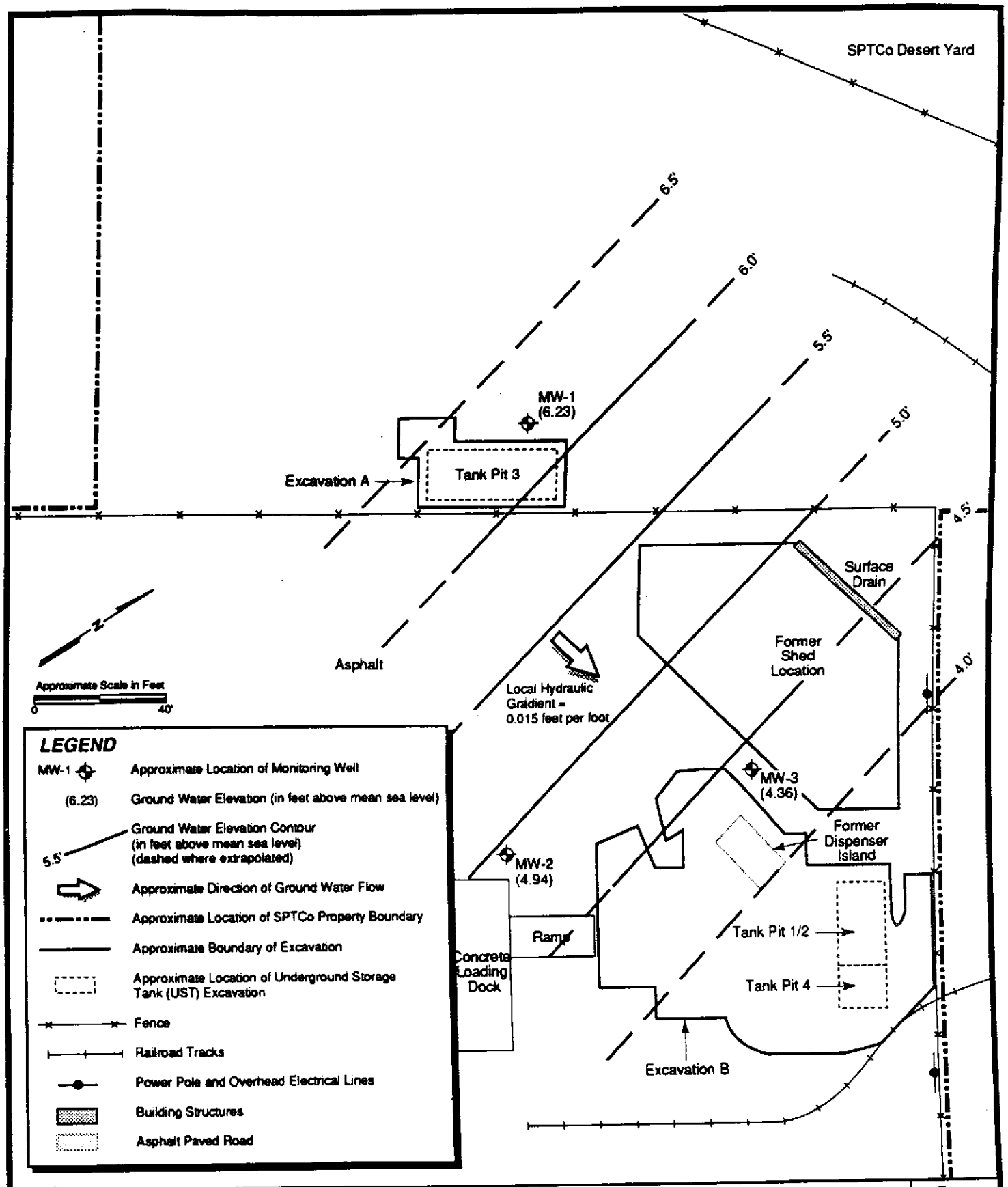
Oak-535/Q394GW/F.04 #300



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
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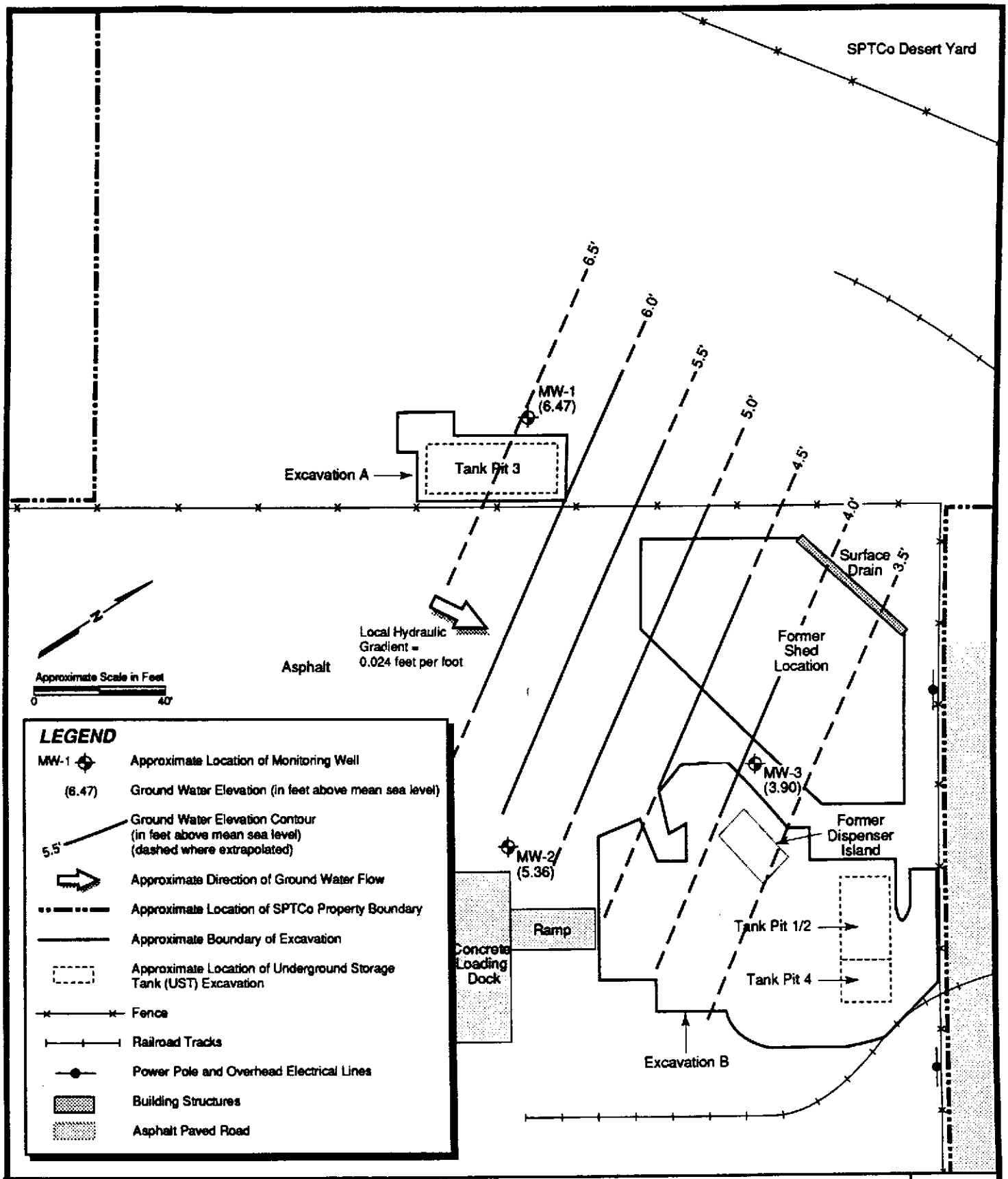
Scale: as shown

Oak-535/O494GW/F.04 #300



Industrial Compliance
A Subsidiary of SP Environmental Systems, Inc.

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

Project No.: 05100535	Date: 05/02/95
Drawn By: Patti Decker	Checked By: Richard Bateman

Figure: 3
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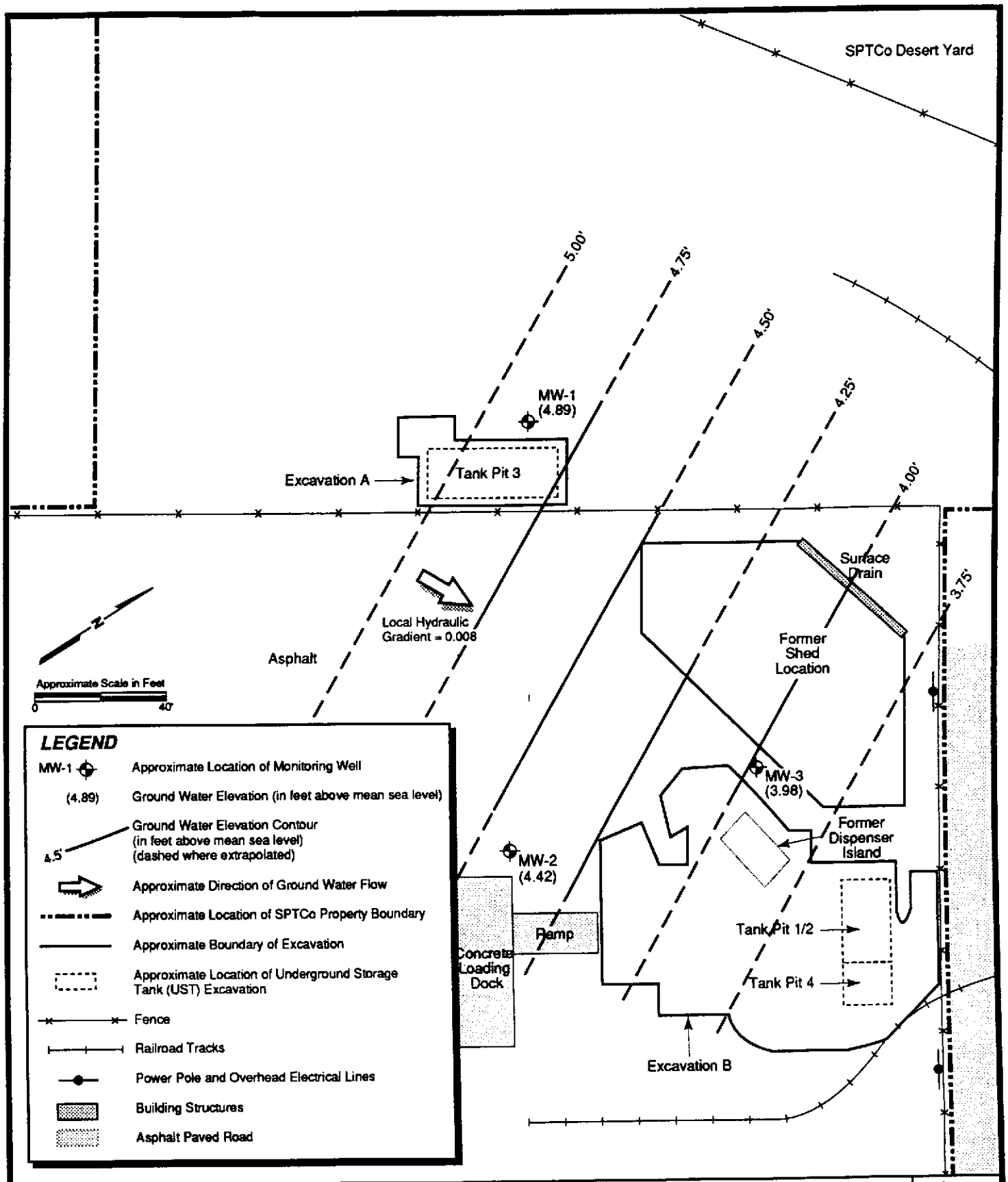
Scale: as shown

Oak-535/Q195GW/F.03 #300



Industrial Compliance
A Subsidiary of SP Environmental Systems, Inc.

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

Project No.: 05100535	Date: 07/26/95
Drawn By: Patti Decker	Checked By: Richard Bateman

Figure: 2
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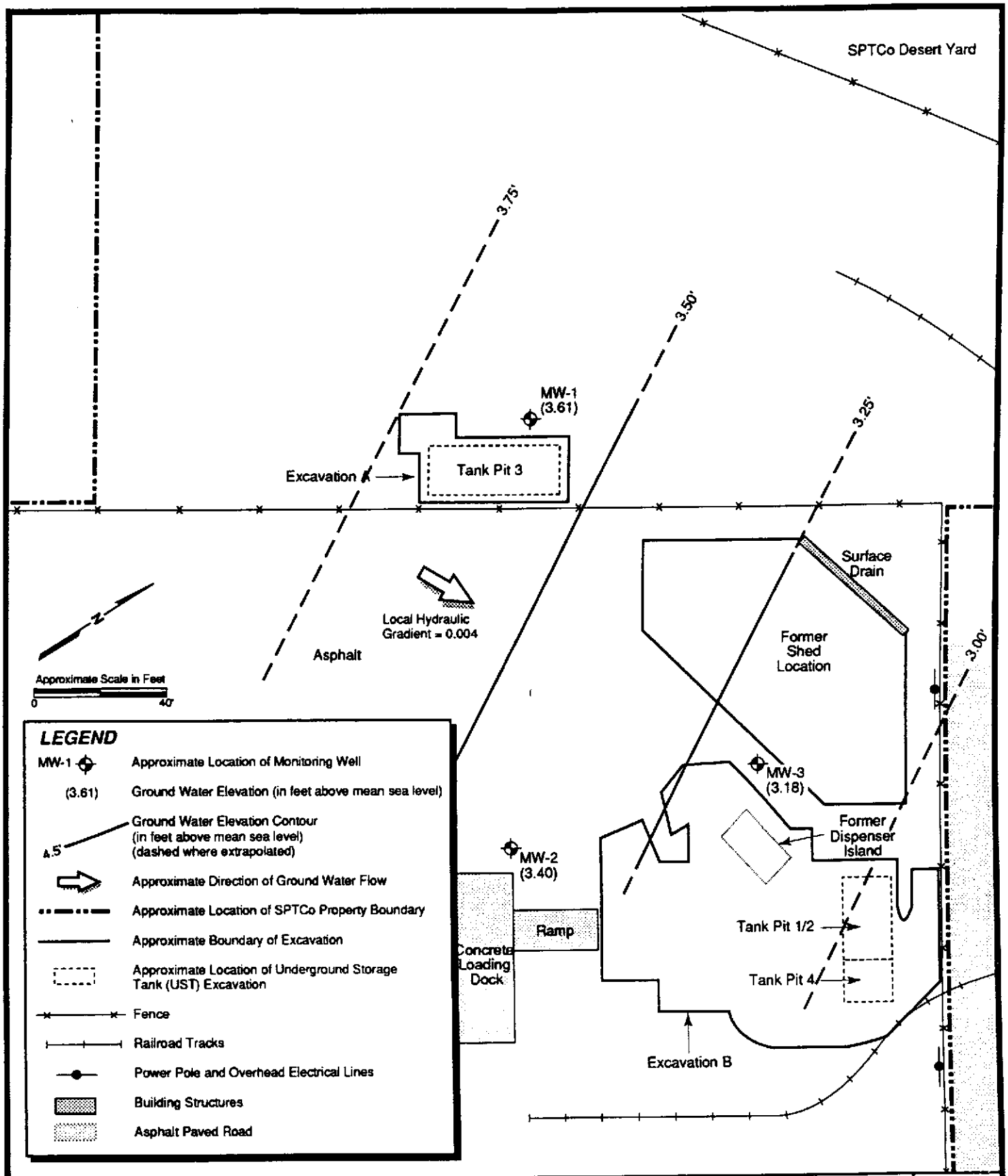
Oak-535/Q295GW/F.02 #301



Industrial Compliance
A Subsidiary of SP Environmental Systems, Inc.

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

Project No.: 05100535	Date: 11/1/95	Figure: 2	
Drawn By: Patti Decker	Checked By: Richard Bateman	Page:	
		Scale: as shown	

Oak-535/0395GW/F.02 #301