6. PROPOSED ALTERNATIVE:

6.1 Description of Proposed Alternative:

Alternative 6 is the proposed alternative for LCA. Contaminated offsite soil in the railroad spur will be removed and disposed of properly. An asphalt cap with a sealant will cover the entire site. SVE and groundwater air sparging will be implemented. The SVE will remove VOCs from subsurface soil and prevent migration of VOCs to the surface and to groundwater. Subsurface VOCs, not captured by the SVE system, that migrate into groundwater, will be removed by air sparging. Air sparging will remove VOCs from groundwater and prevent/minimize offsite migration of groundwater contamination. Bioventing techniques will be implemented to degrade heavy-end petroleum hydrocarbons in soil. Institutional controls will be imposed to address land use, cap maintenance and groundwater monitoring.

6.2 Rationale for Selection of Proposed alternative:

Alternative 6 was selected over other alternatives based on the following reasons:

1. Overall Protection of Human Health and the Environment:

Potential exposure to site contaminants by direct contact, ingestion and surface run-off will be significantly reduced under Alternative 6. Under Alternative 6, potential exposure to site contamination through contact with groundwater will be significantly reduced. Alternative 6 is effective in preventing exposure to site contaminants. Alternative 6 is most effective in preventing offsite migration of contaminants in soil gas and groundwater

2. Compliance with ARARs:

Alternative 6 meets all ARARs requirements including groundwater. Alternatives 1, 3, 4 and 5 may not meet groundwater ARARs, depending on concentrations of COCs and the natural attenuation processes. Alternative 6 through 8 comply with ARARs.

3. Short term Effectiveness:

Alternatives 2 and 3 have less favorable short term impacts because they include excavation of a significant amount of soil contaminated with VOCs and PAHs. Alternatives 4 through 8 have comparable short term impact.

4. Long Term Effectiveness and Permanence:

If properly maintained, the remediation systems (CAP, SVE, and air sparging) are effective in preventing exposure to and/or contact with contaminated soil and groundwater. Alternative 2

has favorable long term effectiveness and permanence if it is technically and economically feasible to remove all site contaminants. Alternative 3 was not selected since residual contamination left in place may degrade groundwater quality. Alternatives 4 and 5 were not selected since they did not account for potential migration of VOCs, not captured by the SVE and/or did not degrade through natural processes, into groundwater. Alternatives 6 through 8 have comparable long term effectiveness and permanence.

Alternative 6 is an effective and reliable mean for meeting the site Remedial Action Objectives

5. Reduction in Toxicity, Mobility or Volume through Treatment:

Alternative 2 is the most favorable in terms of reduction of toxicity, mobility, if it is technically and economically feasible to remove all contaminants. Alternatives 6 through 8 are comparable in terms of reduction of toxicity, mobility and volume. Alternatives 3, 4 and 5 do not reduce mobility of contaminants in groundwater.

6. Implementability:

Alternatives 2 and 3 are least favorable in terms of implementability since special equipment and procedures are required for the large excavation. Alternatives 4 through 8 can be easily implemented with readily available equipment and labor, and are comparable in terms of implementability.

7. Cost:

Alternatives 2 and 3 are least favorable in terms of cost. Alternative 6 is the most favorable among technologies that include groundwater treatment.

8. Regulatory Agencies Acceptance:

Alternative 6 is the most favorable in terms of regulatory acceptance since it is the most effective in removing VOCs from groundwater and minimizes the potential for offsite migration of groundwater contaminants.

It is anticipated that this alternative will be accepted by the regulatory agencies. Regulatory agencies input is considered when making final decision on the remedy. DTSC may modify and/or change the selected remedy based on comments received during the public comment period.

9. Community Acceptance:

It is anticipated that Alternative 6 will be accepted by the community. Community input is considered when making final decision on the remedy. DTSC may modify and/or change the

selected remedy based on comments received during the public comment period

Alternative 6 has the lowest cost-benefit ratio. DTSC has proposed an alternative that will mitigate the threat to human health and the environment, comply with ARARs, meet RAOs, and NCP requirements at the lowest cost.

6.3 Review of Remediation Effectiveness:

After start of operation of remediation systems (SVE and air sparging), DTSC will evaluate site data to assess effectiveness of systems in achieving site RAOs. DTSC will analyze operational parameters (temperature, pressure, flow rate, inlet concentration, exit concentration, etc) to ensure that the systems are operating according to design specifications. Also, DTSC will evaluate contaminant concentrations data in soil gas and groundwater to assess data trends and compare with cleanup goals. DTSC will also assess effectiveness of bioventing in enhancing degradation of the heavy end hydrocarbons in soil.

Based on data evaluation, DTSC will adjust remediation systems as necessary in order to meet the site RAOs and cleanup goals

6.4 Adjustment to Remedial Alternative

6.4.1 Criteria for Shut Down of the SVE System:

- Soil VOCs Cleanup goals established in this RAP may prove difficult or impossible to achieve. In this case, DTSC will use the following performance measures to evaluate VOC remediation activities:

    1. Reduction/contraction of the spatial patterns formed by the VOC iso-concentration lines (isocons) will be demonstrated quantitatively.

    2. Demonstration of overall diminishment of vapor concentrations is necessary. This will essentially be quantifiable with respect to the amplitude of the isocons of the pattern(s) and to the individual points being monitored.

    3. Rebound behavior, as displayed in time series plots, is key. A general asymptotic decreasing trend of time series rebound "tests" of vapor concentrations at the various probes will be demonstrated. This measure provides for reduction to a point of "diminishing returns." The final evaluation will provide "rebound effect" plots, consisting of time/concentration curves for specific probes and variation in inlet concentrations through time from each of the extraction wells.

    4. Modeling will be conducted, as appropriate, to demonstrate that any measured

residual VOC levels (either soil matrix or vapor phase) pose no further threat to ground water.

5. Reflection in long-term near-field groundwater monitoring that remediation has achieved elimination of the VOC threat to ground water.

- The first four performance measures must be met at the time the SVE is being shut down for the final time. The fifth measure will be used to determine if that decision needs to be re-evaluated.

- Cleanup Goals established in Table 1 would be the target cleanup level, but performance measures rather than actual numerical standards would be accepted.

6.4.2 Criteria for Termination of Bioventing:

DTSC will evaluate the effectiveness of bioventing in enhancing degradation of the heavy end hydrocarbons in soil. Bioventing will be terminated when biodegradation products in soil gas indicate that no further degradation can be accomplished through bioventing

6.4.3 Criteria for Termination of Air Sparging

When groundwater concentrations reach the cleanup goals in Table 2, the system will be temporarily shut down. Thereafter, DTSC will continue monitoring for any rebound in contaminant concentration in groundwater. If contaminant concentration rebounds to levels greater than the cleanup goal, then the system will be restarted. If contaminant concentrations remain consistently below the cleanup goals for 3 consecutive years, then the system will be shut down permanently.

Groundwater Cleanup goals established in this RAP may prove difficult or impossible to achieve. If contaminant concentrations remain consistently greater than the cleanup goals and cannot be reduced by further system operation, then DTSC will evaluate whether the residual contamination poses a risk to human health and the environment. If residual contamination does not pose a risk, then the system will be shut down permanently.

6.4.4 Criteria for Imposing Additional Institutional Controls.

If residual contamination cannot be removed by the remediation systems and may pose risk to human health and the environment, then DTSC in cooperation with other state agencies will place additional restrictions on the use of the property and/or the groundwater impacted by site contaminants.

TABLES

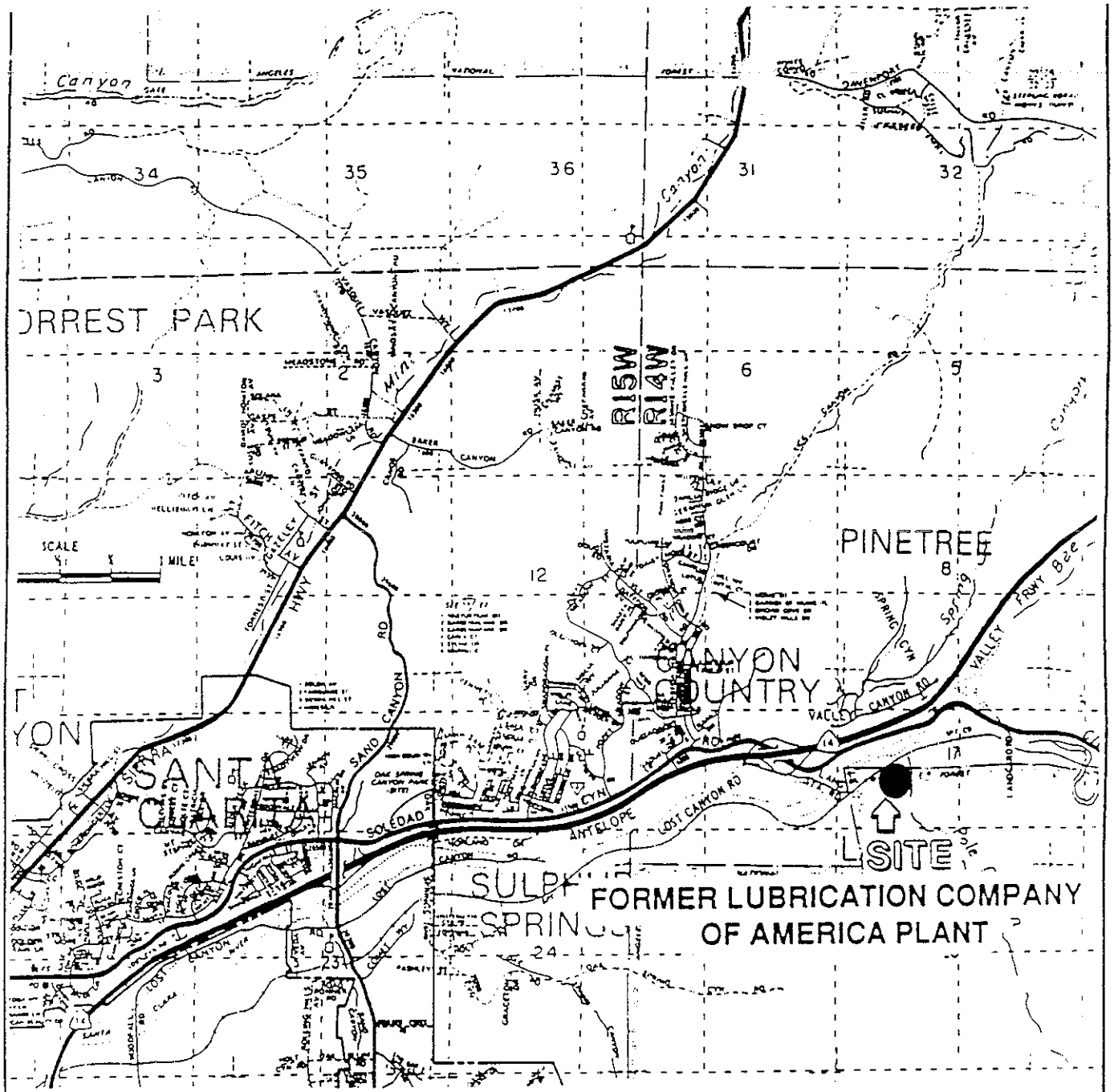
Table 1- Soil Gas Preliminary Cleanup Goals

Compounds Detected in Soil Gas	Preliminary Cleanup Goals (µg/l)
Tetrachloroethane	8 6
Trichloroethene	4 6
Benzene	2 3
1,1- Dichloroethane	2876.2
1,1 Dichloroethene	9.4
cis 1,2 Dichloroethene	70.1
Trans 1,2 Dichloroethene	39.5
Ethylbenzene	182.3
Isopropylbenzene	-
n-Propylbenzene	-
Toluene	374.5
1,1,1 Trichloroethane	198.9
trichlorotrifluoroethane	-
1,2,4 Trimethylbenzene	-
1,3,5 Trimethylbenzene	-
Vinyl Chloride	3
Total Xylenes	7199.7

Table 2- Groundwater Preliminary Cleanup Goal

Compounds Detected	Preliminary Cleanup Goal (µg/l)
Benzene	0.102
1,1 Dichloroethane	0.106
cis 1,2 Dichloroethene	6
Ethylbenzene	700
1,1,2,2 Tetrachloroethane	0.019
1,1,1 Trichloroethane	200
1,1,2 Trichloroethane	3.02
Vinyl Chloride	0.00034
Total Xylene	1750

FIGURES

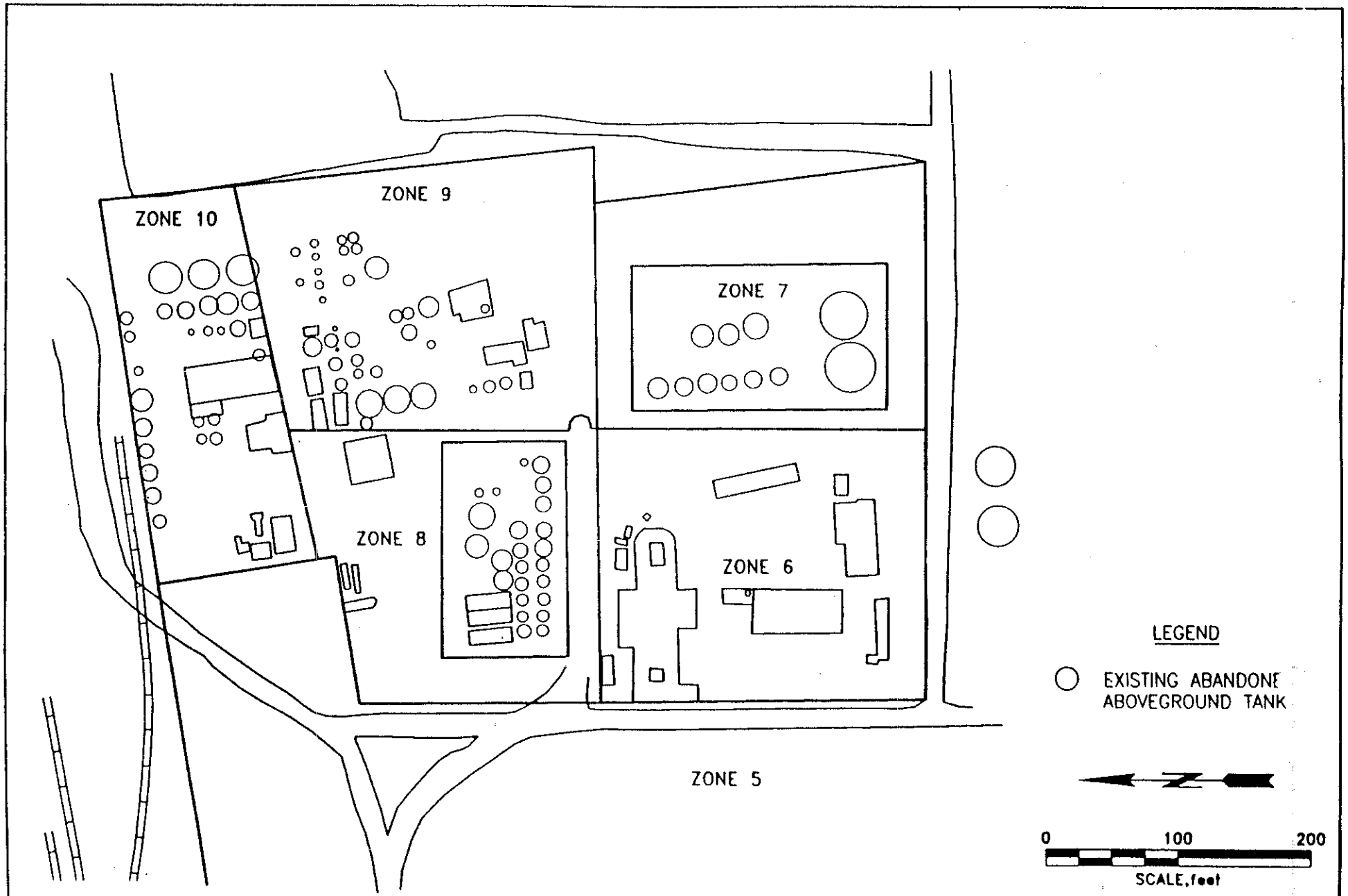


SOURCE: THOMAS BROTHERS MAP
LOS ANGELES COUNTY PG. 125

FIGURE	FORMER LUBRICATION COMPANY OF AMERICA PLANT REMEDIAL INVESTIGATION/FEASIBILITY STUDY
1.1	SITE LOCATION MAP

Figure 1

igure 2



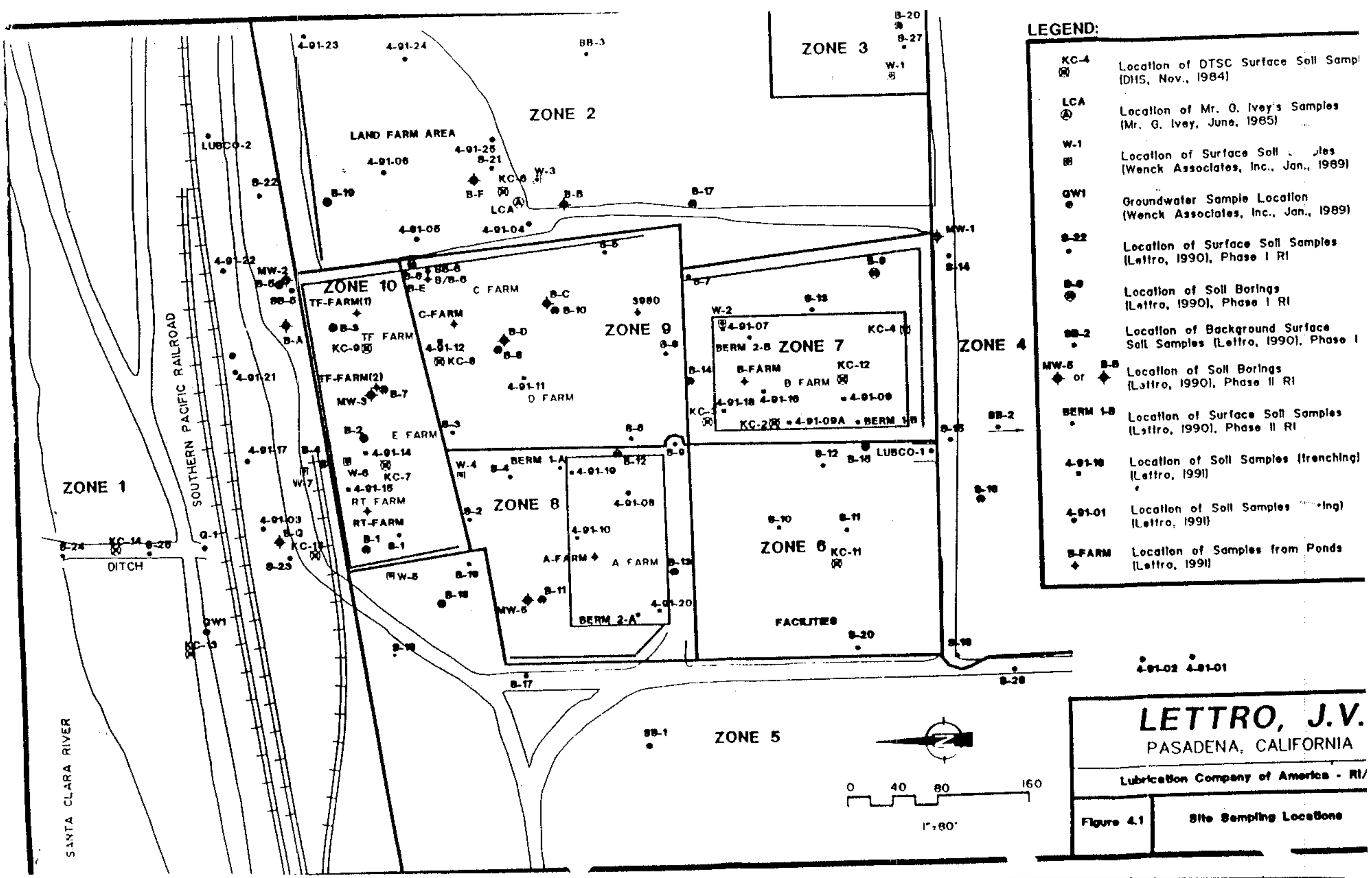
SITE PLAN

Project No.: 974W062	Date: AUG. 1997	Project: THE FORMER LUBRICATING CO. OF AMERICA SITE	Fig.: 1-2

MSI:\97\974W062\PSITE 08/14/97 11:52

Woodward-Clyde Consultants

Figure 3


LEGEND:
KC-4 Location of DTSC Surface Soil Sampl (DHS, Nov., 1984)
LCA Location of Mr. O. Ivey's Samples (Mr. G. Ivey, June, 1985)
W-1 Location of Surface Soil (Wenck Associates, Inc., Jan., 1989)
GW1 Groundwater Sample Location (Wenck Associates, Inc., Jan., 1989)
B-22 Location of Surface Soil Samples (Lettro, 1990), Phase I RI
Location of Soil Borings (Lettro, 1990), Phase I RI
BB-2 Location of Background Surface Soil Samples (Lettro, 1990), Phase I
MW-5 or Location of Soil Borings (Lettro, 1990), Phase II RI
BERM 1-B Location of Surface Soil Samples (Lettro, 1990), Phase II RI
Location of Soil Samples (trenching) (Lettro, 1991)
4-91-01 Location of Soil Samples (Lettro, 1991)
B-FARM Location of Samples from Ponds (Lettro, 1991)
ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5
ZONE 6
ZONE 7
ZONE 8
ZONE 9
ZONE 10
LAND FARM AREA
SOUTHERN PACIFIC RAILROAD
SANTA CLARA RIVER
DITCH
FACILITIES
C FARM
D FARM
E FARM
TF FARM
RT FARM
A FARM
B FARM
LETTRO, J.V.
PASADENA, CALIFORNIA
Lubrication Company of America - RI/
Figure 4.1
Site Sampling Locations
0 40 80 160
1"=80'

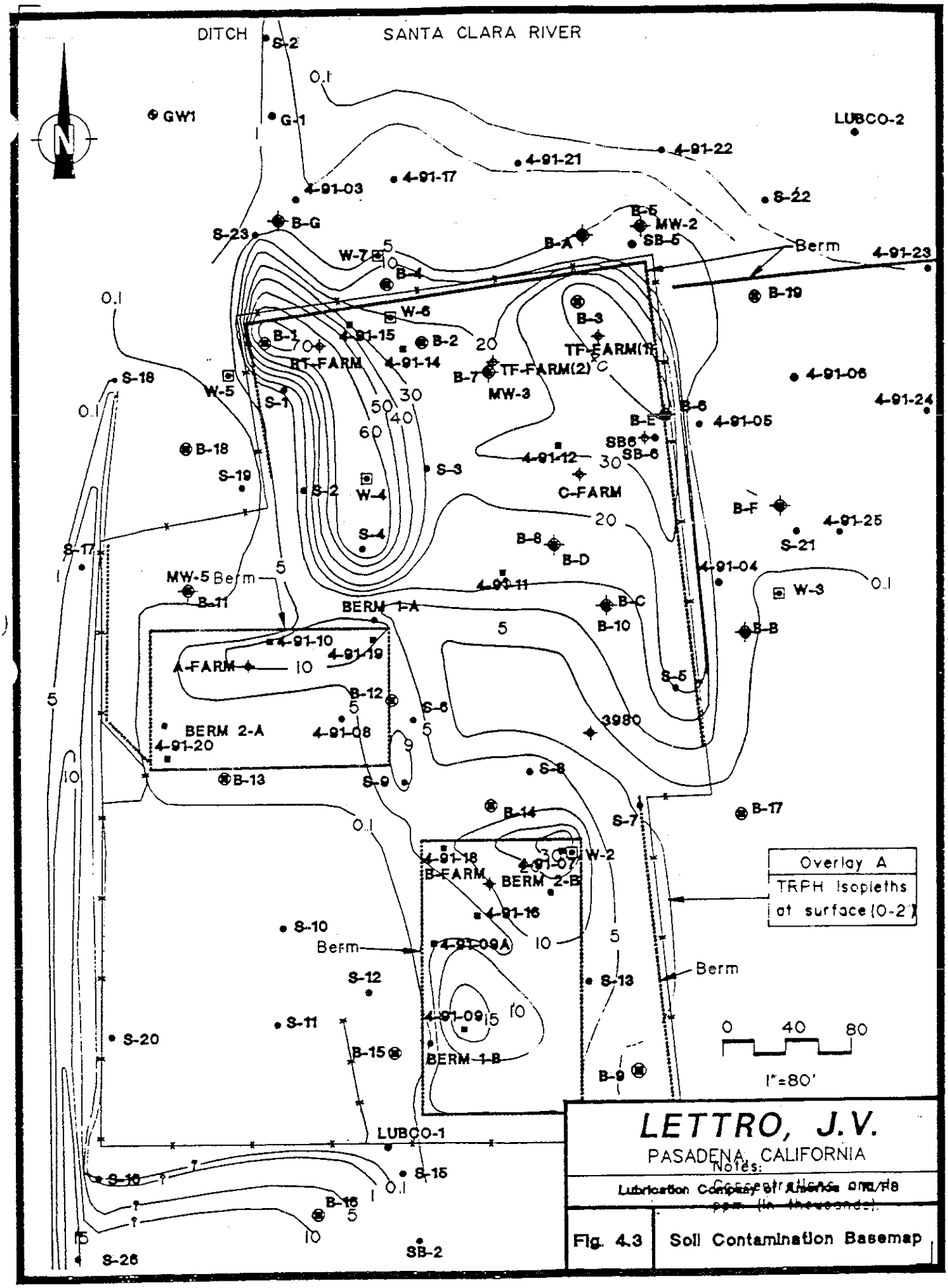

DITCH
SANTA CLARA RIVER
GW1
G-1
LUBCO-2
4-91-22
4-91-21
4-91-17
4-91-03
S-22
S-23
B-G
B-5
MW-2
SB-5
B-A
Berm
4-91-23
W-7
B-4
B-19
W-6
B-3
B-1
4-91-15
B-2
TF-FARM(1)
RT-FARM
4-91-14
TF-FARM(2)
B-7
MW-3
4-91-06
S-18
W-5
S-1
4-91-24
B-E
4-91-05
B-18
SB6
SB-6
4-91-12
S-19
S-2
W-4
S-3
C-FARM
B-F
4-91-25
S-21
S-17
S-4
B-8
B-D
4-91-04
MW-5
Berm
B-11
4-91-11
W-3
BERM 1-A
B-C
B-10
B-B
4-91-10
4-91-19
A-FARM
S-5
B-12
S-6
BERM 2-A
4-91-08
4-91-20
3980
B-13
S-9
S-8
B-14
S-7
B-17
4-91-18
4-91-07
W-2
B-FARM
BERM 2-B
Overlay A
TRPH Isopleths
at surface (0-2')
4-91-16
S-10
Berm
4-91-09A
S-12
S-13
Berm
S-11
4-91-09
S-20
B-15
BERM 1-B
0 40 80
1"=80'
B-9
LUBCO-1
S-16
S-15
B-16
SB-2
S-26
LETTRO, J.V.
PASADENA, CALIFORNIA
Notes:
Concentrations are in
ppm (in thousands)
Fig. 4.3
Soil Contamination Basemap

Figure 4

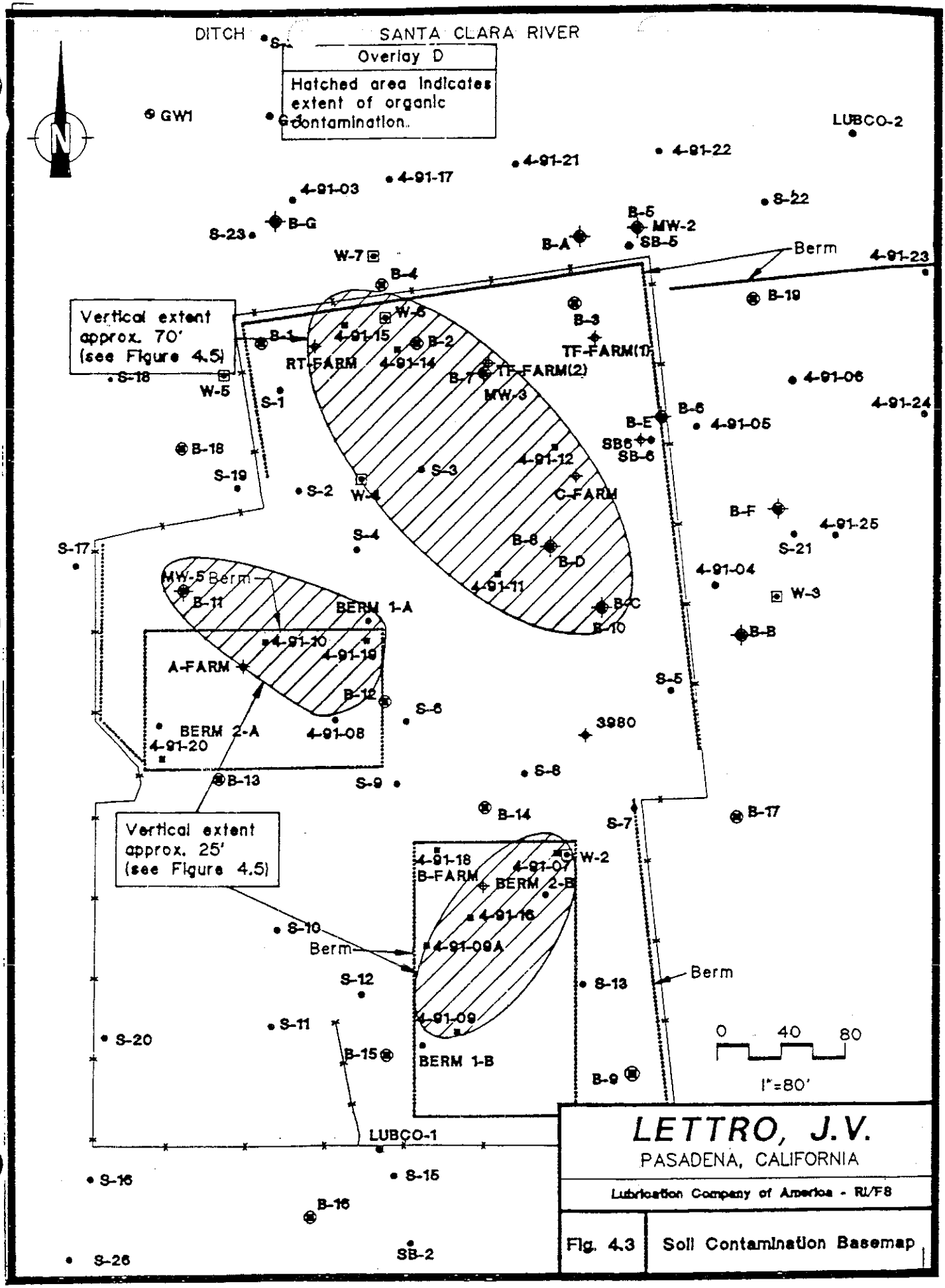
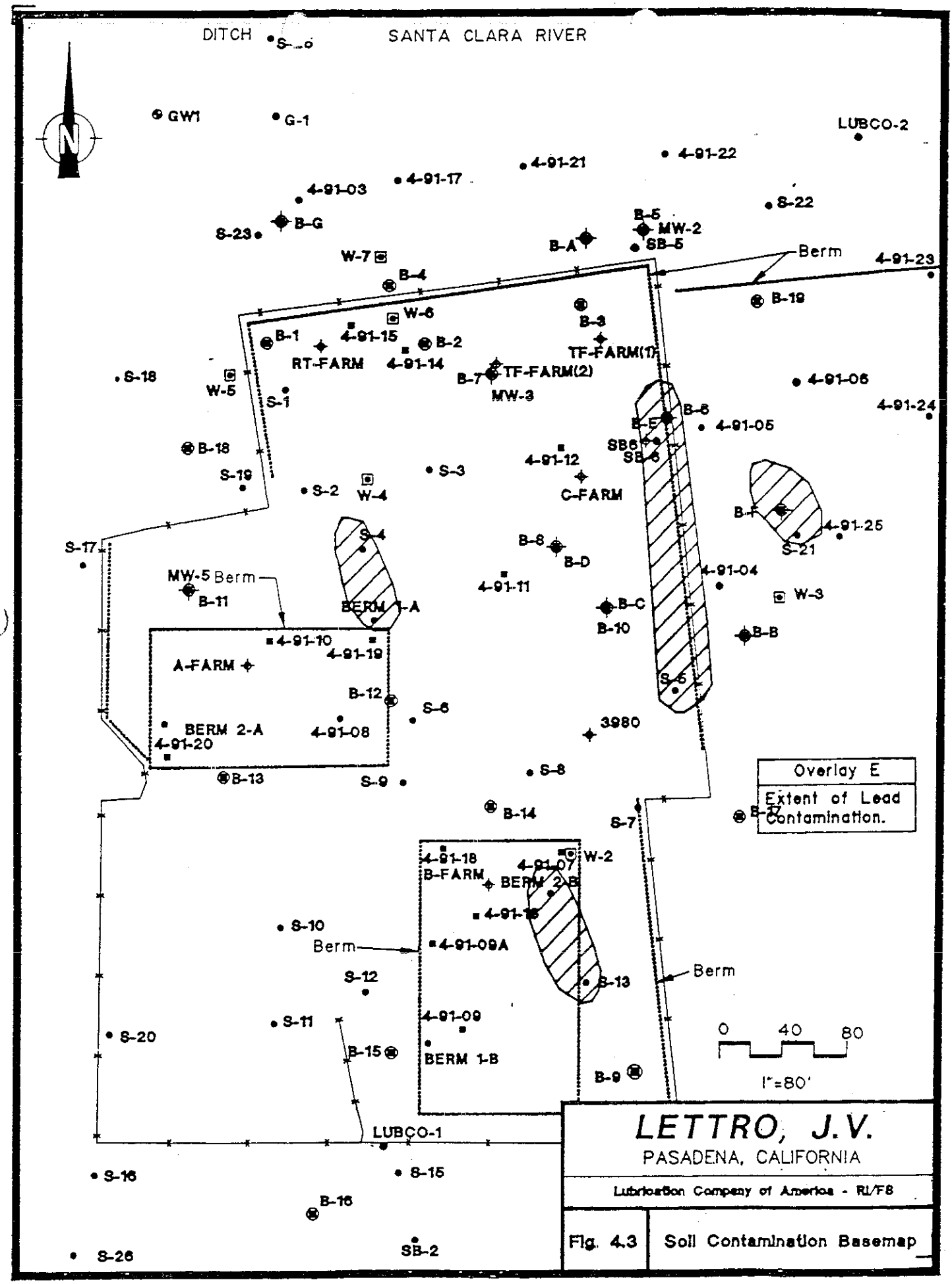

DITCH
SANTA CLARA RIVER
Overlay D
Hatched area indicates extent of organic contamination.
N
GW1
LUBCO-2
4-91-21
4-91-22
4-91-17
4-91-03
S-22
B-G
S-23
B-5
MW-2
B-A
SB-5
Berm
4-91-23
W-7
B-4
B-19
B-3
Vertical extent approx. 70' (see Figure 4.5)
W-6
B-1
4-91-15
B-2
TF-FARM(1)
RT-FARM
4-91-14
B-7
TF-FARM(2)
4-91-06
S-18
W-5
S-1
MW-3
B-6
4-91-24
B-E
4-91-05
B-18
SB6
SB-6
S-19
S-3
4-91-12
S-2
W-4
C-FARM
B-F
4-91-25
S-4
S-21
S-17
B-8
B-D
4-91-04
MW-5
Berm
B-11
BERM 1-A
4-91-11
W-3
B-C
B-10
B-B
4-91-10
4-91-19
A-FARM
S-5
B-12
S-6
3980
BERM 2-A
4-91-08
4-91-20
S-8
B-13
S-9
B-14
S-7
B-17
Vertical extent approx. 25' (see Figure 4.5)
4-91-18
W-2
4-91-07
B-FARM
BERM 2-B
4-91-16
S-10
Berm
4-91-09A
S-12
S-13
Berm
S-11
4-91-09
S-20
B-15
BERM 1-B
0
40
80
1"=80'
B-9
LUBCO-1
S-16
S-15
B-16
SB-2
S-26
LETTRO, J.V.
PASADENA, CALIFORNIA
Lubrication Company of America - RI/FS
Fig. 4.3
Soil Contamination Basemap

Figure 5


DITCH
SANTA CLARA RIVER
N
GW1
G-1
LUBCO-2
4-91-21
4-91-22
4-91-17
4-91-03
S-22
B-5
MW-2
S-23
B-G
B-A
SB-5
W-7
Berm
4-91-23
B-4
B-19
W-6
B-3
B-1
4-91-15
B-2
TF-FARM(1)
RT-FARM
4-91-14
S-18
B-7
TF-FARM(2)
4-91-06
W-5
MW-3
S-1
B-6
4-91-24
B-E
4-91-05
B-18
SB6
SB-6
4-91-12
S-19
S-3
S-2
W-4
C-FARM
B-F
4-91-25
S-21
S-4
B-8
S-17
B-D
4-91-04
MW-5
Berm
4-91-11
W-3
B-11
BERM 1-A
B-C
B-10
B-B
4-91-10
4-91-19
A-FARM
S-5
B-12
S-6
3980
BERM 2-A
4-91-08
4-91-20
S-8
B-13
S-9
Overlay E
Extent of Lead Contamination.
B-14
S-7
B-17
4-91-18
4-91-07
W-2
B-FARM
BERM 2-B
4-91-17
S-10
Berm
4-91-09A
S-12
S-13
Berm
S-11
4-91-09
S-20
B-15
BERM 1-B
0
40
80
1"=80'
B-9
LUBCO-1
LETTRO, J.V.
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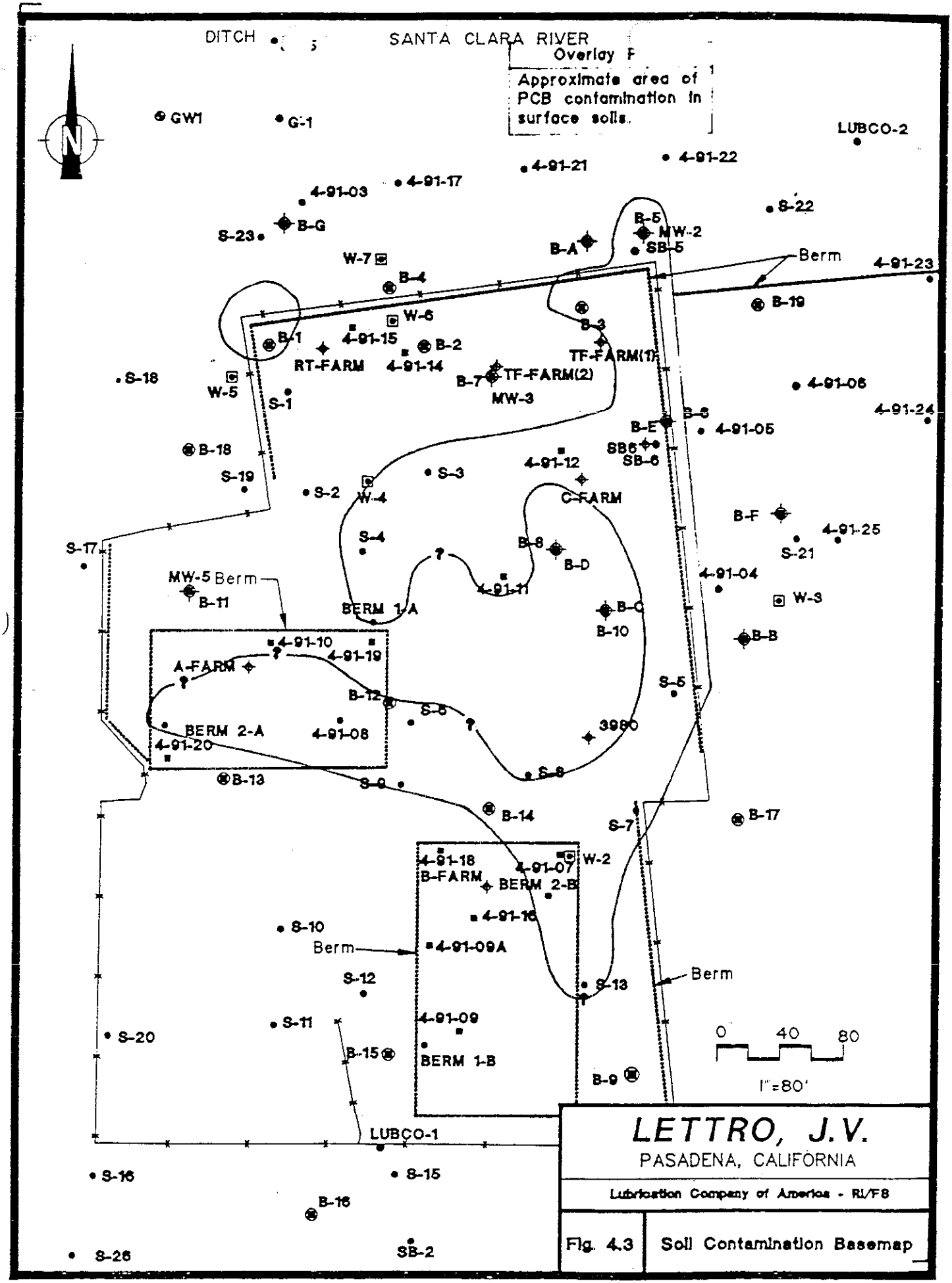
Lubrication Company of America - RI/FS
S-16
S-15
B-16
SB-2
S-26
Fig. 4.3
Soil Contamination Basemap

Figure 6


DITCH
SANTA CLARA RIVER
Overlay F
Approximate area of PCB contamination in surface soils.
N
GW1
G-1
LUBCO-2
4-91-21
4-91-22
4-91-03
4-91-17
S-22
B-5
MW-2
SB-5
B-G
S-23
B-A
W-7
Berm
4-91-23
B-4
B-19
W-6
B-3
B-1
4-91-15
B-2
TF-FARM(1)
RT-FARM
4-91-14
TF-FARM(2)
B-7
S-18
W-5
S-1
MW-3
4-91-06
4-91-24
B-E
B-6
4-91-05
B-18
SB6
SB-6
4-91-12
S-19
S-3
S-2
W-4
C-FARM
B-F
4-91-25
S-21
S-17
S-4
B-8
B-D
4-91-04
MW-5
Berm
B-11
4-91-11
W-3
BERM 1-A
B-C
B-10
B-B
4-91-10
4-91-19
A-FARM
S-5
B-12
S-6
BERM 2-A
4-91-08
3980
4-91-20
B-13
S-9
S-8
B-14
B-17
S-7
4-91-18
B-FARM
4-91-07
W-2
BERM 2-B
4-91-16
S-10
Berm
4-91-09A
S-12
S-13
Berm
S-11
4-91-09
S-20
B-15
BERM 1-B
0
40
80
1"=80'
B-9
LUBCO-1
S-16
S-15
B-16
S-26
SB-2
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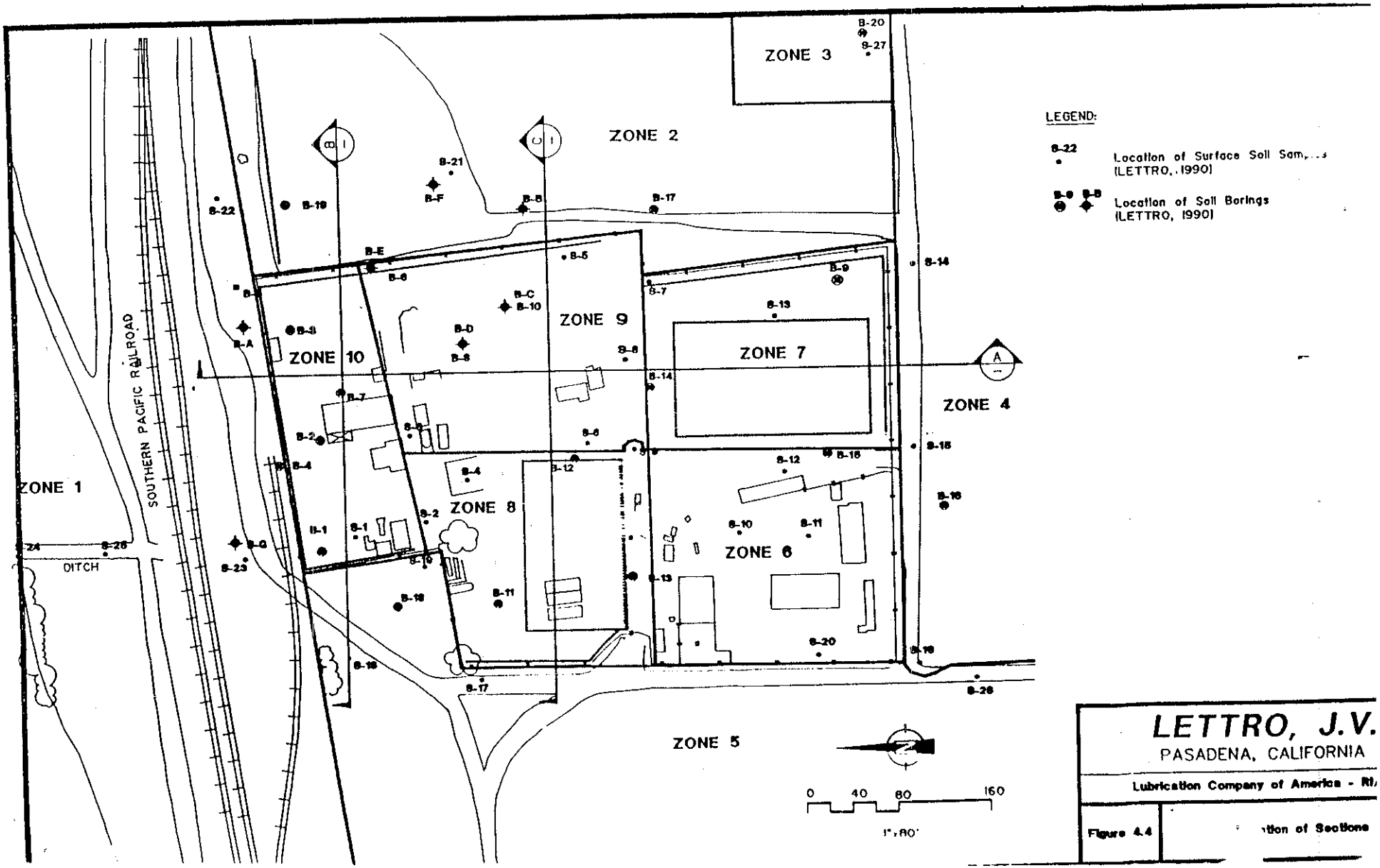
Lubrication Company of America - RI/FS
Fig. 4.3
Soil Contamination Basemap

Figure 7

Figure 8


ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5
ZONE 6
ZONE 7
ZONE 8
ZONE 9
ZONE 10
SOUTHERN PACIFIC RAILROAD
DITCH
LEGEND:
Location of Surface Soil Sam...
(LETTRO, 1990)
Location of Soil Borings
(LETTRO, 1990)
0 40 80 160
1" = 80'
LETTRO, J.V.
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Lubrication Company of America - Ri
Figure 4.4
...tion of Sections

Figure 9

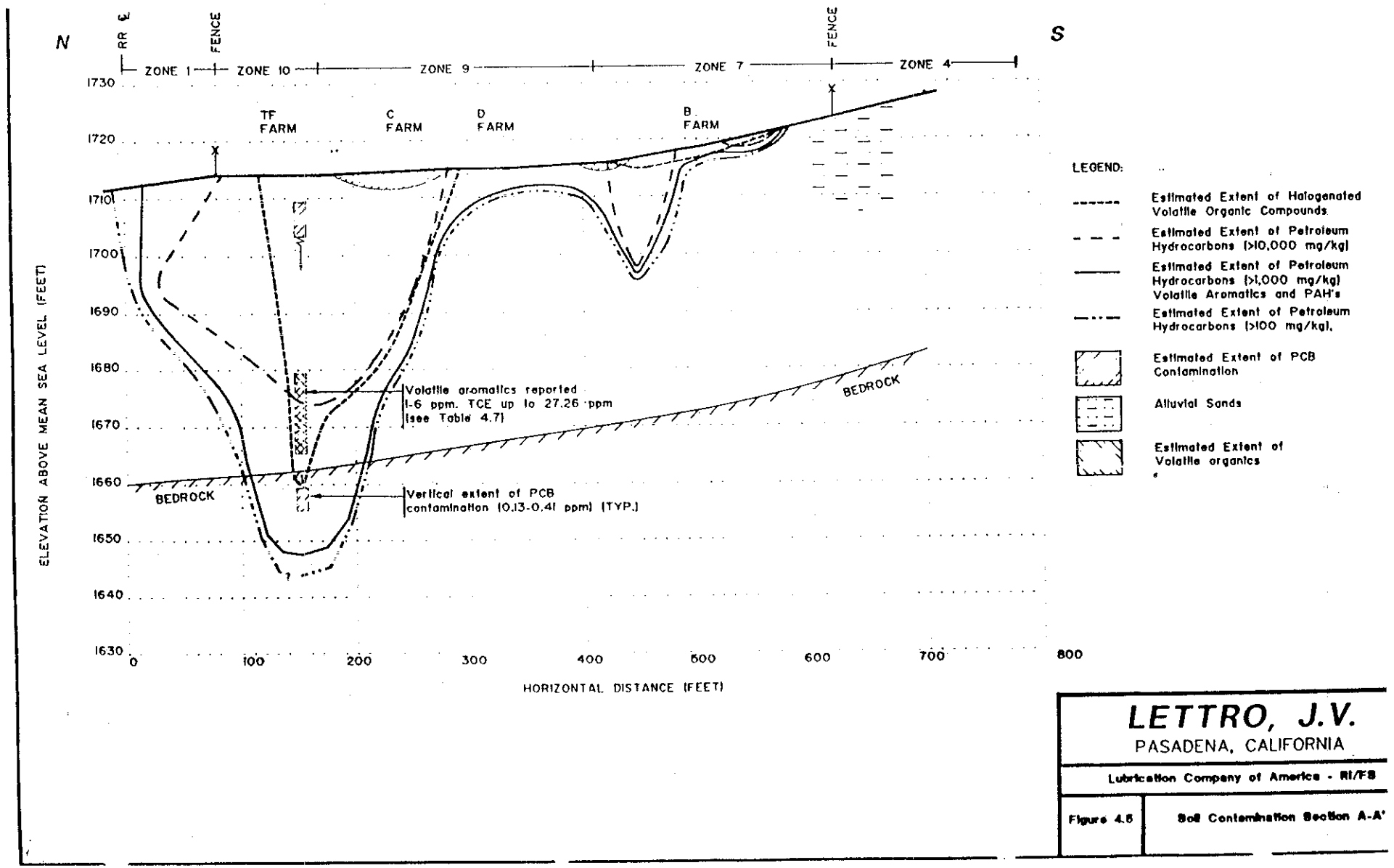

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Figure 4.6 — Soil Contamination Section A-A'

Figure 10

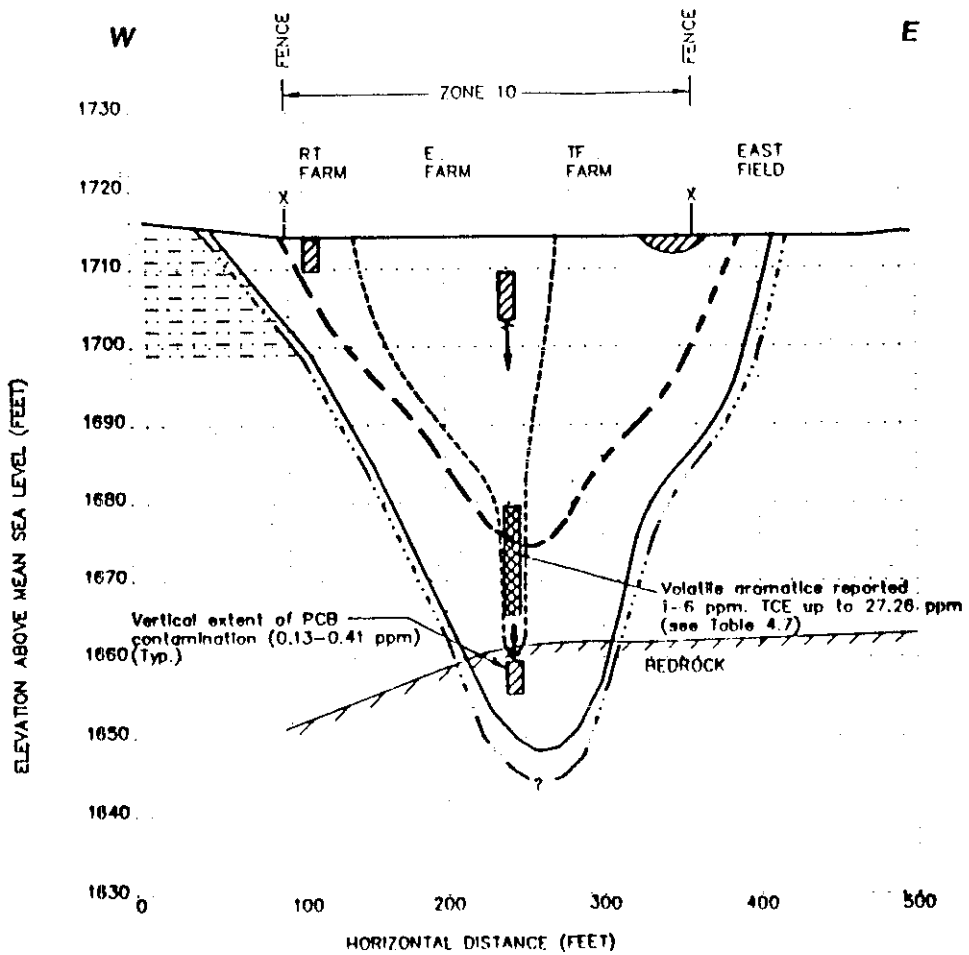

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Figure 4.6 | Soil Contamination Section B-B'

Figure 11

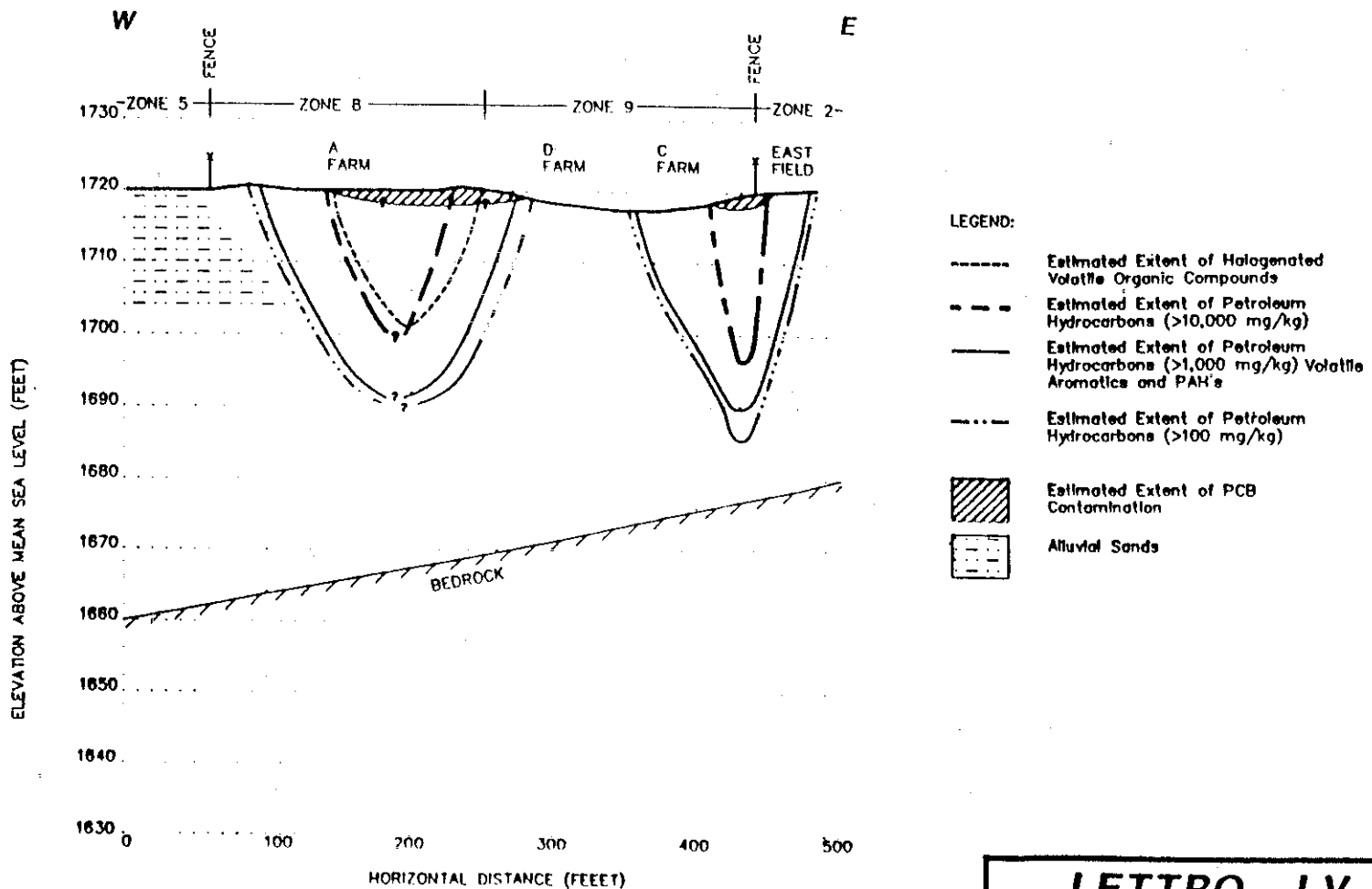

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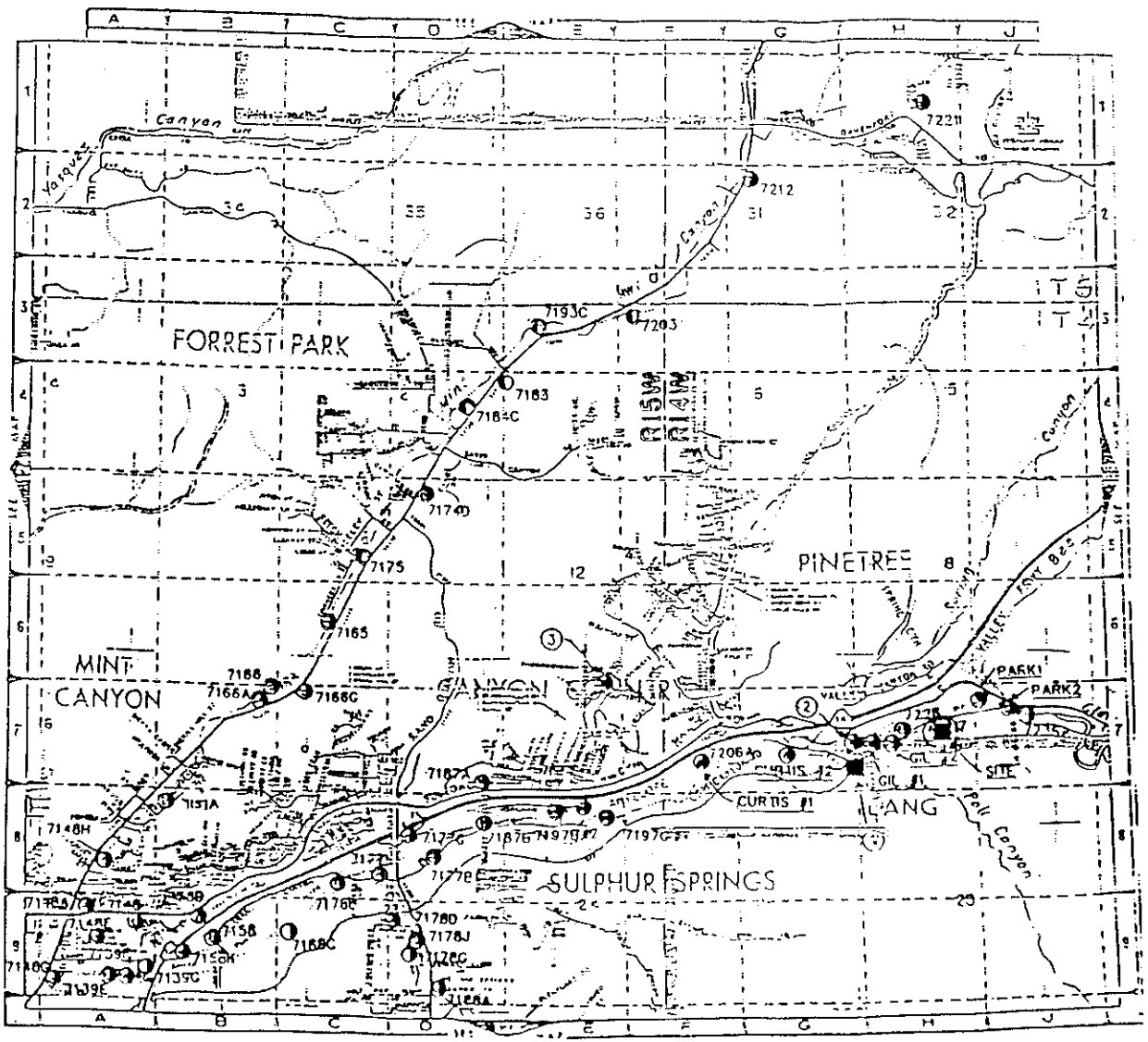
Figure 4.7 — Soil Contamination Section C-C'

Figure 12



NOTE:

1. MAP IS MODIFIED FROM L.A. COUNTY DEPARTMENT OF PUBLIC WORKS' MAP.
2. ALL WELLS THAT LETTRO SAMPLED ARE SHOWN AT APPROXIMATE LOCATIONS.
3. CURTIS #2 IS ONE OF THREE WELLS IN A CLUSTER.
4. IT IS NOT CLEAR WHETHER GIL #2 IS STATE WELL 7225 AND PARK 2 IS WELL 7236A. LETTRO IS INVESTIGATING.
5. LETTRO SAMPLED WELLS PARK 1 AND 2, GIL #1 AND #2 AND CURTIS #1 AND #2.

KEY:

① – CURTIS SAND AND GRAVEL
② – P.W. GILLBRAND COMPANY
③ – HOMECRAFT CABINETS AND COUNTERTOPS

NOT TO SCALE

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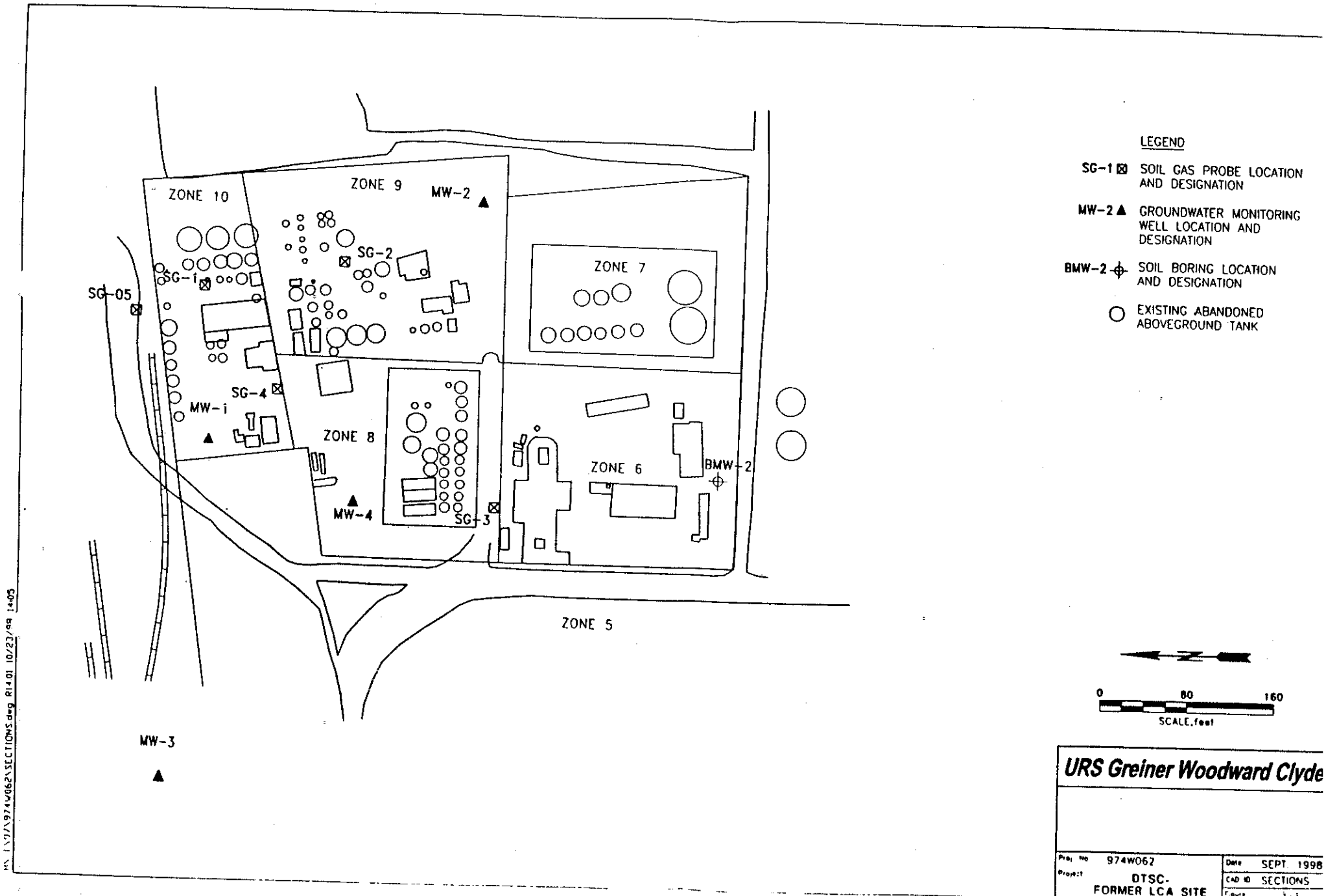
Figure 3.5 WEI ICATION MAP

Figure 13 - Location of Groundwater and Vapor Wells



ATTACHMENT

Attachment A
Administrative Record List

DATE	AUTHOR	RECEIVER	DOCUMENT
03/30/1981	DTSC	LCA	Interim Status Document to operate the LCA facility
04/12/1983	LCA	DTSC	Part B Permit Application submitted by LCA
09/16/1985	LCA	US Bankruptcy Court-Central District of California (Court)	Voluntary petition under Chapter 11 of the Bankruptcy Act
11/18/1986	DTSC	LCA	Notice of Violation and Schedule for Compliance
01/23/1987	DTSC		LCA listed on the Bond Expenditure Plan
03/16/1987	DTSC	LCA	Remedial Action Order issued by DTSC to LCA
06/01/1987	DTSC	LCA	Notice of Proposed Determination of Noncompliance with Remedial Action Order No. HSA 86/87-026 RA
10/22/1987	DTSC	LCA	Notice of Final Determination of Non-compliance to LCA
03/09/1989	Court document		Trial Briefs on Statement of Facts for April 14, 1989 court hearing regarding proceedings toward LCA
04/24/1989	U.S EPA	LCA	Determination of Violation, Compliance Order and Notice of Right to Request Hearing
07/28/1989	Court	LCA	Bankruptcy Stipulation
11/02/1989	DTSC	State Contractor	DTSC approved State Contractor Health and Safety Plan
11/07/1989	DTSC	State Contractor	DTSC requested State Contractor to prepare site characterization workplan

Administrative Record List(Cont.)

DATE	AUTHOR	RECEIVER	DOCUMENT
03/02/1990	DTSC	LCA	DTSC requested submittal of a revised Part B Permit Application.
03/27/1990	DTSC	LCA	DTSC issued Report of Violation letter to LCA.
04/1990	State Contractor	DTSC	Removal Workplan.
04/13/1990	DTSC	LCA	DTSC requested a revised Part B Permit Application.
05/02/1990	L.A. County Fire Department	LCA	Notice to LCA to remove above ground tanks and submit a closure plan
06/01/1990	DTSC	State Contractor	DTSC approved Removal Action Workplan
08/28/1990	L.A. County Fire Department	LCA	Final Notice to remove above ground tanks and submit a closure plan
08/30/1990	LCA	L.A. County Fire Department	LCA responded to Final Notice
09/27/1990	DTSC	LCA	Imminent and Substantial Endangerment Determination.
10/30/1990	DTSC	LCA	Letter of Intent to Deny LCA Permit Application.
05/01/1991	Court	LCA	Notice of Order Dismissing Chapter 11 Proceedings.
05/09/1991	DTSC	Community	Letter to inform community of an upcoming public hearing on LCA Permit.
06/28/1991	DTSC	DTSC	PRP Search Report.
11/22/91	DTSC	LCA	DTSC denies LCA's appeal on the LCA permit denial on September 27,1991

Administrative Record List (Cont.)

DATE	AUTHOR	RECEIVER	DOCUMENT
07/02/1992	DTSC	State Contractor	Approval of RI/FS.
11/24/1992	DTSC	State Contractor	Approval of Final report for the removal activities at LCA.
10/15/1993	PRPs	DTSC	Site Safety Plan-Confirmatory Soil Sampling Project.
11/12/1993	PRPs	DTSC	Results of Confirmatory soil Investigation.
05/10/1994	PRPs	DTSC	PRP presentation regarding extent of contamination.
06/13/1994	PRPs	DTSC	Draft Groundwater Action Plan
11/30/1994	DTSC	PRPs	Approval of Health and Safety Plan Addendum dated November 16, 1994.
06/12/1995	PRPs	DTSC	Groundwater Monitoring well Installation and Health and Safety Plan.
06/30/1995	DTSC	PRPs	Comments on the Groundwater Monitoring well Installation and Health and safety Plan.
07/12/1995	PRPs	DTSC	Response to DTSC comments on the groundwater monitoring well installation.
07/13/1995	DTSC	PRPs	Approval of Groundwater monitoring well Installation and Health and Safety Plan.
08/041995	PRPs	DTSC	Requested 30 day extension for submittal of a draft RAP.
08/08/1995	DTSC	PRPs	Grants 30 day extension for submittal of a draft RAP.
09/12/1995	PRPs	DTSC	Groundwater Monitoring Well Installation and sampling Report.
11/14/1995	DTSC	PRPs	Approval- Groundwater Plan of Action.

Administrative Record List (Cont.)

DATE	AUTHOR	RECEIVER	DOCUMENT
11/22/1995	DTSC	Metropolitan Transportation Authority(MTA)	Request access to MTA property adjacent to LCA
11/28/1995	PRPs	DTSC	Summary of conference call between PRPs and DTSC on November 17, 1995
01/23/1996	DTSC	PRPs	Letter regarding requirements to install additional groundwater monitoring wells
01/25/1996	PRPs	DTSC	Response to DTSC letter dated January 23, 1996
01/29/1996	DTSC	PRPs	DTSC requested meeting with PRPs to explain requirement for conducting an RI/FS amendment and other outstanding issues
02/07/1996	DTSC	U.S Navy	An offer from DTSC for settlement of the U S military liability at LCA
09/20/1996	Court	DTSC & PRPs	Consent Decree Between DTSC and a group of PRPs
11/18/1996	Court	DTSC & PRPs	Consent Decree between DTSC and the U.S military
03/19/1997	DTSC	MTA	DTSC requested access on MTA property
07/25/1997	DTSC	State Contractor	Task Order- DTSC directed State contractor to prepare workplans for RI/FS Amendment, conduct field activities and prepare an RI/FS Amendment Report
08/20/1997	State Contractor	DTSC	RI/FS Amendment Workplan
08/23/1997	State Contractor	DTSC	Health and Safety Plan
11/18/1997	State Contractor	DTSC	Revised RI/FS Amendment Workplan based on discussions between DTSC and State Contractor
01/12/1998	DTSC	State Contractor	Revision to Task Order dated 07/25/1998

Administrative Record List (Cont.)

DATE	AUTHOR	RECEIVER	DOCUMENT
01/07/1998	DTSC	State Contractor	DTSC approves the RI/FS Amendment Workplan dated December 17, 1997.
01/15/1998	State Contractor	DTSC	Final RI/FS Amendment Workplan.
01/15/1998	DTSC	State Contractor	DTSC approved the Subcontractors for conducting specific field activities.
10/1998	State Contractor	DTSC	Draft RI/FS Amendment Report.
12/11/1998	DTSC	State Contractor	DTSC provided comments on the RI/FS Amendment Report and discussed comments with the State contractor.

California Environmental Protection Agency

Department of Toxic Substances Control

FACT SHEET: PROPOSED REMEDIAL ACTION PLAN

Lubrication Company of America
12500 Lang Station Road, Canyon Country, CA

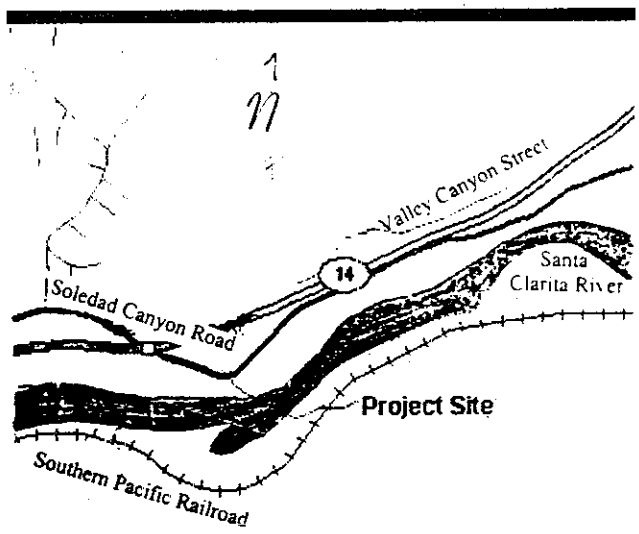
April, 1999

Introduction

The Department of Toxic Substances Control (DTSC) is requesting your comments on the proposed remediation (clean-up) program for a nearby parcel of land which has been found to have soil and groundwater contamination. Your participation will greatly assist DTSC with designing and implementing a sound remediation program which incorporates the concerns and priorities of area residents, employees and businesses.

Property Description

The property is a 4-acre parcel of land located at 12500 Lang Station Road in Canyon Country, California, approximately one mile southeast of the intersection of Highway 14 and Soledad Canyon Road. The Santa Clara River is at the northern border and the Angeles National Forest is at the southern boundary of the site. Privately-owned land exists to the east of the property. Rock quarry operations are found immediately west and southwest of the site. The nearest homes are approximately 1/4 mile east of the property. A large residential community is approximately one mile northwest of the property. State Highway 14 runs about one-half mile north of the site. The property has a number of abandoned structures and other items, including office buildings, aboveground storage tanks, pipes and motor vehicles. The property is entirely fenced and can be entered only through a locked gate.



Source and Nature of Contamination

The Lubrication Company of America operated a waste oil recycling facility at this site between 1956 and 1989. It created sulfur-cutting oil by processing various diesel, bunker and jet fuels, as well as hydraulic and engine oils. As byproducts of its operations, Lubrication Company of America also created lard and pale oils, active and inactive sulfur, sulfur monochloride and acidic liquids. During the recycling and storage process, a number of chemicals were released into the soil, some of which migrated into the groundwater.

Contaminants found at the site include petroleum hydrocarbons, oil and grease, volatile organic compounds, volatile halogenated organics, polycyclic aromatic hydrocarbons, polychlorinated

biphenyl, lead and acids. (A more thorough listing of contaminants is found in the attached glossary under these terms). Unprotected exposure to these chemicals has been linked to a number of adverse health conditions, including eye, noise and skin irritation, respiratory illness, organ damage and cancer.

DTSC investigations revealed soil contamination to a depth of 70 feet onsite and immediately to the north of the site where a railroad loading dock once existed. Field research found elevated soil gas concentrations in the northeastern portion of the site and in the groundwater underneath of the property. These contaminants were not found in water sources located off the property. DTSC is currently monitoring the site for contaminant migration in the soil and groundwater

Proposed Remediation Program

To protect human health and the environment, DTSC has evaluated a number of alternatives to treat soil and groundwater contamination found at the Lubrication Company of America site. Clean-up options considered ranged from not taking any further action to removing and replacing contaminated soil, extracting chemical vapors from the ground and pumping and treating groundwater.

TO PROTECT HUMAN HEALTH AND THE ENVIRONMENT, DTSC HAS EVALUATED A NUMBER OF ALTERNATIVES TO TREAT SOIL AND GROUNDWATER CONTAMINATION...

Based on comparative analysis, DTSC has identified the following as the preferred remediation alternative: Dismantle and remove onsite structures; Excavate and dispose of contaminated soil found offsite; Import (bring in) clean soil and backfill to grade (make match to surrounding ground levels) where soil had been excavated; Construct berms on the south and east sides of the property and an environmental barrier (asphalt cap with sealant) over the entire site to prevent contaminant migration; Install a soil vapor extraction system to remove soil gases; Inject air into groundwater to facilitate the removal of gases from the groundwater to the soil vapor extraction system (air sparging); and Monitor groundwater for contaminant migration.

Complete and detailed information on each remedy considered is available for review at DTSC's two information repositories (identified below) or by calling one of DTSC's representatives listed at the end of this fact sheet.

California Environmental Quality Act

In accordance with the California Environmental Act, DTSC is required to ensure that any site clean up will not harm the public health or the environment. DTSC has reviewed the proposed remediation program and determined that it will not have a significant negative effect on the environment (CEQA Negative Declaration). Therefore, DTSC is proposing that an Environmental Impact Report not be prepared. The data supporting DTSC's recommendation and the CEQA Negative Declaration may be reviewed at the two information repositories.

PUBLIC COMMENT PERIOD:
May 5-June 7, 1999

PUBLIC MEETING:
WEDNESDAY, MAY 19, 1999
7:00 PM
SIERRA VISTA JUNIOR HIGH
19425 STILLMORE STREET
CANYON COUNTRY, CA

Individuals who wish to comment on DTSC's data or proposal may do so during the 30-day public comment period, described below.

Public Participation Opportunities

Prior to the final selection and implementation of a specific alternative, DTSC is inviting all interested individuals to review and comment on the various remedial options during a 30-day public comment period. Individuals may submit written comments between Wednesday, May 5, 1999 and Monday, June 7, 1999. Written comments must be sent to Mr. Shawn Haddad, Project Manager, Department of Toxic Substances Control, 1011 North Grandview Avenue, Glendale, CA 91201

Additionally, DTSC is inviting interested individuals to attend a public meeting to directly communicate any concerns or preferences they may have. The meeting time and location are described in the adjacent box. For information on accessibility and to request reasonable accommodations, please call (818) 551-2909 at least one week in advance of the meeting

INFORMATION REPOSITORIES:

Canyon Country Library
18536 Soledad Canyon
Canyon Country, CA
(805) 251-2720

DTSC
1011 North Grandview Avenue
Glendale, CA
(818) 551-2886

DTSC REPRESENTATIVES:

Shawn Haddad, Project Manager
(818) 551-2962
Steve Cain, Public Participation Specialist
(818) 551-2909

This fact sheet, the public comment period and public meeting are part of DTSC's on-going efforts to keep community members informed about and involved in all phases of the Lubrication Company of America remediation program.

Additional Information

For your convenience, two information repositories have been established. These repositories exist to provide easy access to site research, remediation options and other data on the Lubrication Company of America site. Interested individuals are invited and encouraged to visit either repository to learn more about the site, its contamination and its remediation.

For additional information on the Lubrication of America site, public comment period, public meeting or information repositories, please contact either of the DTSC representatives listed above.

Glossary of Important Terms

ACIDS: A class of chemical compounds which is corrosive in nature. Acids range from slightly corrosive and hazardous (e.g., vinegar and lemon juice) to extremely corrosive and dangerous (e.g., sulphuric acid and hydrofluoric acid).

AIR SPARGING: Injection of air into groundwater to facilitate the transport of chemical vapors from groundwater to a soil vapor extraction system.

ASPHALT CAP: A man-made weather-proof cover designed to prevent contaminant migration. Typically, a site with an asphalt cap has the overall appearance of a paved parking lot.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA): A legislative mandate which requires state and local agencies to disclose and consider the environmental implications of their decisions, and to avoid or reduce the significant environmental impacts of their decisions whenever it is feasible to do so (Public Resources Code, Section 21000 *et seq.*)

CONTAMINANT MIGRATION: The movement of a hazardous substance through ambient air, soil or groundwater.

DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DTSC): A governmental unit of the State of California responsible for protecting public health and the environment from threats posed by hazardous waste. A primary function of DTSC is to oversee the investigation and remediation of sites which have been contaminated with hazardous waste.

GROUNDWATER: Water beneath the earth's surface which flows through soil and rock openings. Typically, only groundwater at lower depths serves as a source of residential drinking water.

INFORMATION REPOSITORY: A library, governmental office or other location which contains information on a specific hazardous waste site and on DTSC's hazardous waste remediation and public participation programs. Information repositories are free and open to the public.

LEAD: A heavy, ductile, soft grey solid (heavy metal) found throughout the environment and which can be toxic at relatively low concentrations. Exposure pathways include inhalation and ingestion. Health impacts include anemia, hearing impairment, kidney disease, brain damage and reproductive difficulties and development retardation.

PETROLEUM HYDROCARBONS: Any of a number of organic compounds which are derived from petroleum products such as gasoline, diesel and waste oils with varying levels of toxicity. Exposure pathways include inhalation, ingestion and skin contact. Health impacts may include blood disorders, cancer and death.

POLYCHLORINATED BIPHENYL (PCB): A group of man-made chemicals widely distributed throughout the environment with varying levels of toxicity. Exposure pathways include, ingestion, inhalation and skin contact. Health impacts may include liver damage, skin irritations, reproductive and development effects and cancer. Since October 1977, the manufacture of PCB in the United States has been prohibited.

POLYCYCLIC AROMATIC HYDROCARBONS (PAH): A class of over 100 chemicals formed during the incomplete burning of coal, oil, gas, garbage or other organic substances. PAHs are found throughout the environment in the air, water and soil. Exposure pathways include inhalation, ingestion and skin contact. Health impacts may include cancer.

SOIL GAS: Air existing in spaces between soil particles found below the ground surface. Soil gas may contain chemical vapors and other contaminants with varying levels of toxicity.

SOIL VAPOR EXTRACTION SYSTEM: A mechanical apparatus which draws and removes chemical vapors from the soil through wells. Collected vapors are treated and then released into the atmosphere as non-harmful gas.

VOLATILE HALOGENATED ORGANICS (including: 1,1 Dichloroethane; 1,1,1 Trichloroethane, Tetrachloroethylene and Trichloroethylene): A class of man-made chemicals often found in the form of a liquid in soil or water or vapor in air. Most common exposure pathway is inhalation but may include ingestion and skin contact. For many compounds, health impacts may include blood changes, respiratory difficulties, nervous system changes and cancer.

VOLATILE ORGANIC COMPOUNDS (VOCs): A class of chemical compounds which include commercial solvents that readily evaporate into the atmosphere but do not easily dissolve in water. The primary exposure pathway is inhalation but may include ingestion and skin contact. For many compounds, health impacts may include cancer.

VOLATILE AROMATIC COMPOUNDS (including: Ethyl Benzene, Toluene and Xylene): A class of colorless compounds which occur in nature (e.g., crude oil and petroleum) and in man-made products (e.g., gasoline and solvents). These compounds readily migrate from soil to groundwater and/or air. Most common exposure pathway is inhalation but may include ingestion and skin contact. For many compounds, health impacts may include eye, nose, throat and skin irritation, respiratory difficulties, liver and kidney damage, nervous system changes, blood changes and brain damage.

WOULD YOU LIKE TO RECEIVE FUTURE ANNOUNCEMENTS?

If the label on this Fact Sheet is incorrect or if you did not received this document in the mail, please complete and return the attached form. DTSC would be happy to put you on its mailing list and send you written notice of future meetings and other public participation opportunities.

If you prefer, you may request to be put on DTSC's mailing list by sending your address to scain@dtsc.ca.gov