



**Pacific Gas and
Electric Company®**

R02604

Environmental Support & Services

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Alameda County
SEP 27 2005
Environmental Health

September 20, 2005

Jerry Wickham, P.G.
Alameda County Environmental Health Services
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: Groundwater Well Information, PG&E Livermore Training Center, 7205 National Drive, Livermore, CA

Dear Mr. Wickham,

Per your letter of request dated August 3, 2005, I am providing information on the groundwater monitoring wells located at PG&E's Livermore Training Center.

- Status of the wells:

There are six monitoring wells at the site, designated as 3S/2E 1K2, 1K3, 1L1, 1L2, 1L3, and 1L4. The wells were installed in August, 1990. One of them is actually located on adjacent property owned by TC Properties. The wells have not been destroyed or otherwise closed.

- Purpose of the wells:

The wells appear to have been installed to either monitor water levels or groundwater quality, although no records could be located that identified the specific purpose.

- Map showing the location of the wells in relation to the former underground storage tanks:

I have attached the following to identify well locations:

- Well Location Data sheets from Zone 7 Water Agency, which include rough location drawings
- Copy of Assessor's Map 99B, showing well locations
- Aerial photograph showing well locations, also from Zone 7, with the former UST site circled

Jerry Wickham, P.G.

September 20, 2005

- Analytical data for samples collected from the wells:

No records could be located for any historical sampling and analysis from the six perimeter wells. Groundwater sampling and analysis from the recent monitoring effort associated with the USTs (Secor, July 2005) was submitted to your office on July 18, 2005.

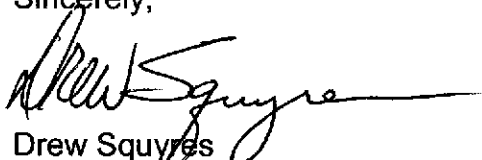
- Summary of water level information; boring logs:

The attached boring logs show groundwater level at approximately 30 feet during installation in 1990. During the recent monitoring event, groundwater was located at 28 feet (Secor, July 2005).

Per your recommendation in our phone conversation today, and as Zone 7 staff have previously recommended, we are currently considering submitting an application to permanently close the wells.

Should you have any questions regarding this, please contact me at (805) 546-3854.

Sincerely,



Drew Squyres
Sr. Project Manager
PG&E Environmental Affairs
4325 South Higuera Street
San Luis Obispo, CA 93401

Attachments

Cc: Colleen Winey, QIC 80201
Zone 7 Water Agency
100 North Canyons Parkway
Livermore, CA 94551

Juan Jayo, PG&E
Karen Guedmin, PG&E



LEGEND

- ◆ Monitoring Well
- ◇ Destroyed Monitoring Well
- ▲ Supply Well
- △ Destroyed Supply Well
- Abandoned Well



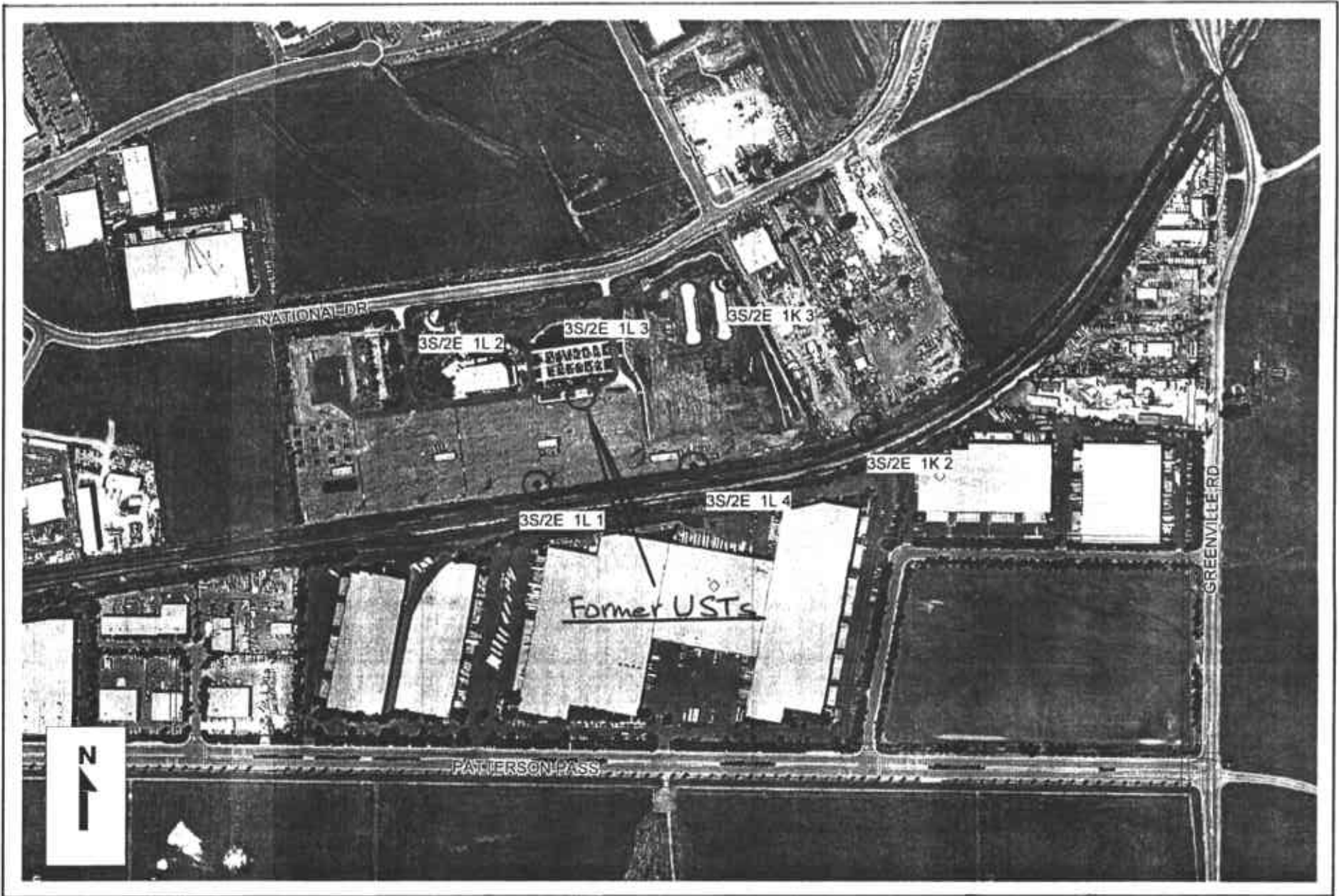
ZONE 7 WATER AGENCY
100 N. CANYONS PARKWAY
LIVERMORE, CA 94551

TS#280 PG&E TRAINING CENTER
WELL LOCATIONS

Drawn By: CWiney

Date Updated: 08/01/05

File: E:\toxic\TS#280\well locations.pdf



ZONE 7 WATER AGENCY
100 NORTH CANYONS PARKWAY
LIVERMORE, CA 94551

WELL LOCATION MAP

SCALE: 1" = 500 ft

DATE: 8/23/05

PG&E - LIVERMORE
 H:\FLOOD\REFERALLS\REFERALL & WOR



Zone 7
Alameda County Flood Control
&
Water Conservation District

5997 Parkside Drive ■ Pleasanton, California 94588-5127 ■ Phone (925) 484-2600 ■ Fax (925) 462-3914

Telefax Transmittal

Date: 6/26/01
Deliver To: Mr. Al Spatcher
Name of Firm: PG&E
Fax Number: (925) 674-6323
From: Wyman Hong
Number of Pages: 4

(Including Cover Page)

For Voice Contact Call: (925) 484-2600, Extension: 235
For Return Fax: (925) 462-3914

Remarks: Well location data sheets for wells 3S/2E 1K2, 1K3, 1L1, 1L2, 1L3 and 1L4 at National Drive west of Greenville Road in Livermore. Also enclose is a map showing the location of TC Properties. Looks like one of your wells is on the TC Properties site. Please let me know if these wells are still being used. The wells should be destroyed if they are no longer in use. Thanks!

Permit # 90497

Livermore Ave

DuPont Environmental Remediation

FORM 7-1-90 Wyman Fax Transmittal Form.wpd

*Pressure Grout
or dig up.*

*90-71-131
2" Pipe.*

8/14/90

ZONE 7
WATER RESOURCES ENGINEERING

WELL LOCATION DATA

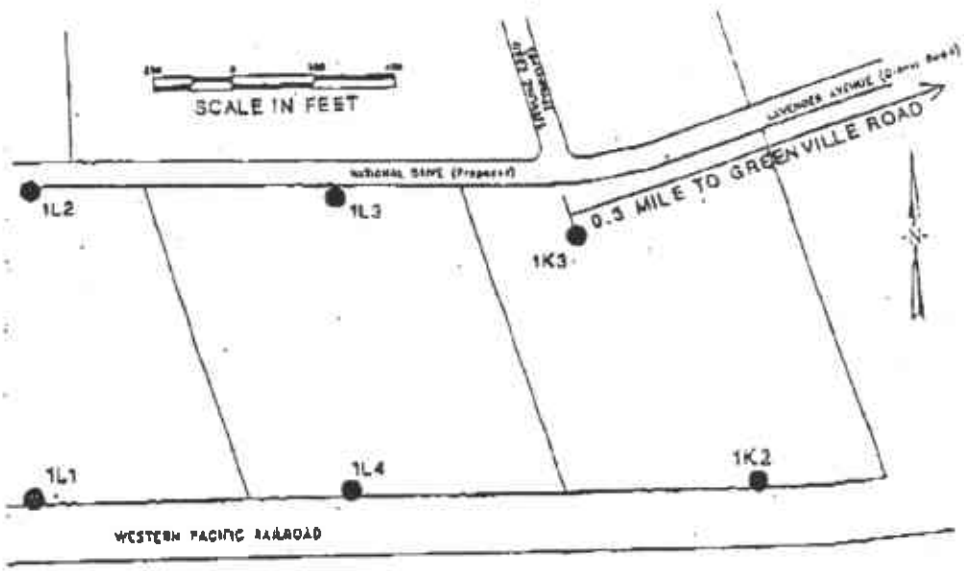
WELL NUMBER 3S / 2E - 1K2 and 1K3

ADDRESS <u>Lavender Avenue north of Western Pacific Railroad Tracks, Livermore</u> OWNER <u>Pacific Gas and Electric</u>	OTHER DESIGNATION <u>see remarks</u> PUMP: TYPE _____ MAKE _____ HP _____ METER NUMBER _____ SOUNDED DEPTH _____ FT DATE SOUNDED _____ DATE DESTROYED _____ DATE UNLOCATABLE _____
PRIMARY USE: <u>WATER SUPPLY</u> CATHODIC MONITORING <u>X</u> DRILLER <u>DuPont Environmental (consultant)</u> DATE COMPLETED <u>17 Aug 90</u> DEPTH: COMPLETED <u>see remarks</u> FT DRILLED <u>see remarks</u> FT DIAMETER <u>2</u> IN	

REMARKS (Initial and date entry)

Zone 7 Well Number:	<u>1K2</u>	<u>1K3</u>
Project Well Number:	<u>MW-1</u>	<u>MW-6</u>
Completed Depth (ft.):	<u>40</u>	<u>40</u>
Drilled Depth (ft.):	<u>46</u>	<u>40</u>

LOCATION SKETCH
(Initial and Date)



WH 18 Oct 90 101985

WELL LOCATION DATA

WELL NUMBER 35 / 25 - 11.1 to 11.4

ADDRESS lavender Avenue north of
Western Pacific Railroad, Livermore
 OWNER Pacific Gas and Electric

PRIMARY USE: WATER SUPPLY
 CATHODIC MONITORING X

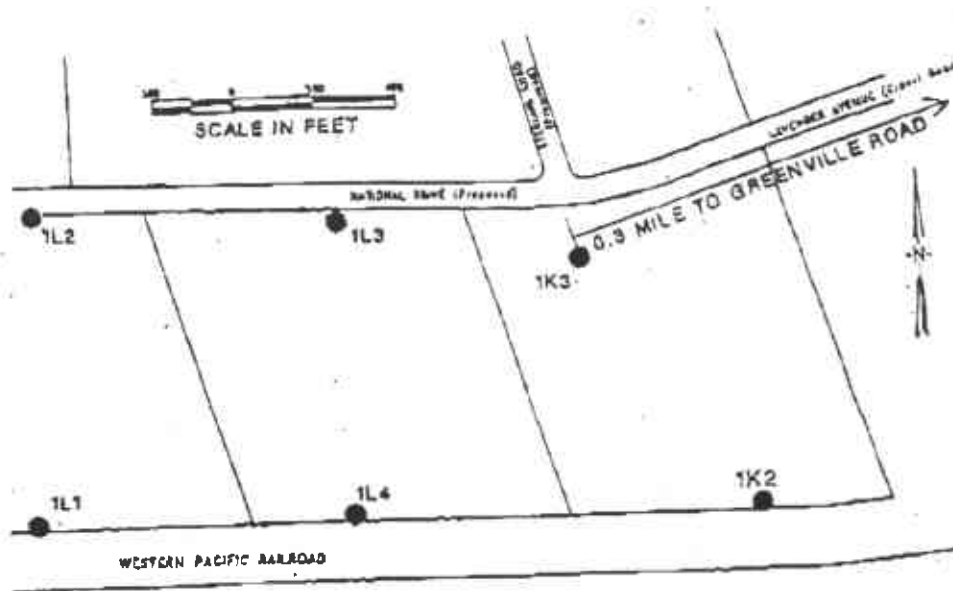
DRILLER Dupont Environmental (consultant)
 DATE COMPLETED 17 Aug 90
 DEPTH: COMPLETED see remarks FT
 DRILLED see remarks FT
 DIAMETER 2 IN

OTHER
 DESIGNATION see remarks
 PUMP: TYPE _____
 MAKE _____
 HP _____
 METER NUMBER _____
 SOUNDED DEPTH _____ FT
 DATE SOUNDED _____
 DATE DESTROYED _____
 DATE UNLOCATABLE _____

REMARKS (Initial and date entry)

Zone 7 Well Number:	M1	112	113	114	
Project Well Number:	MW-2	MW-3	MW-4	MW-5	
Completed Depth (ft.):	40	40	40	40	
Drilled Depth (ft.):	40	40	40	40	WH 11 Mar 92

LOCATION SKETCH
 (Initial and Date)



WH 18 Oct 90 201985

ASSESSOR'S MAP 99B

Code Area Nos. 16-025.64-00:

(A) RANCHO LAS POSITAS (POR. PLOT J)

(B) TR. 6783 23/200

OR. 998.99/200 (CASE 3-15-01)

(C) PM. 7425 252/72

5753

SCALE: 1" = 200'



REVISIONS:
03-16-01 W
12-27-00 W
02-01-98 W

DRAWING 12-31-87 JS

TRANSFERRED FOR BLK. 5750

ADJ: 49 586: 57 REF: 1



TC Prop

99A/1475 PG. 1

WELL 1K2

ASSESSOR'S MAP 99B

Code Area Nos. 16-025

5752

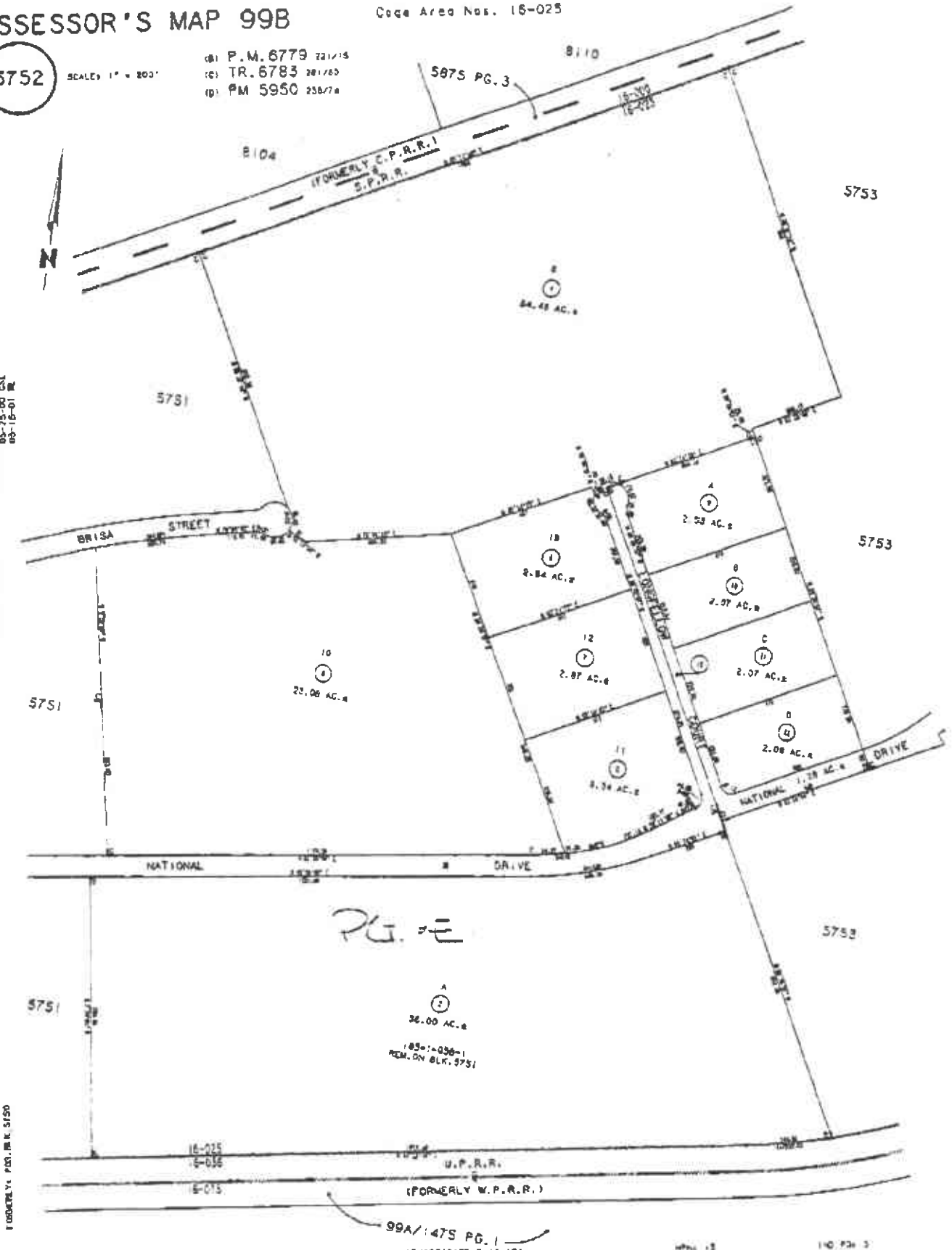
SCALE: 1" = 200'

(B) P.M. 6779 221/75
(C) TR. 6783 281/65
(D) PM 5950 256/7A



REVISIONS: 09-25-88 W.
05-25-00 CAL
03-15-01 R.

BLK. 17-51-87 J4



PG. 3

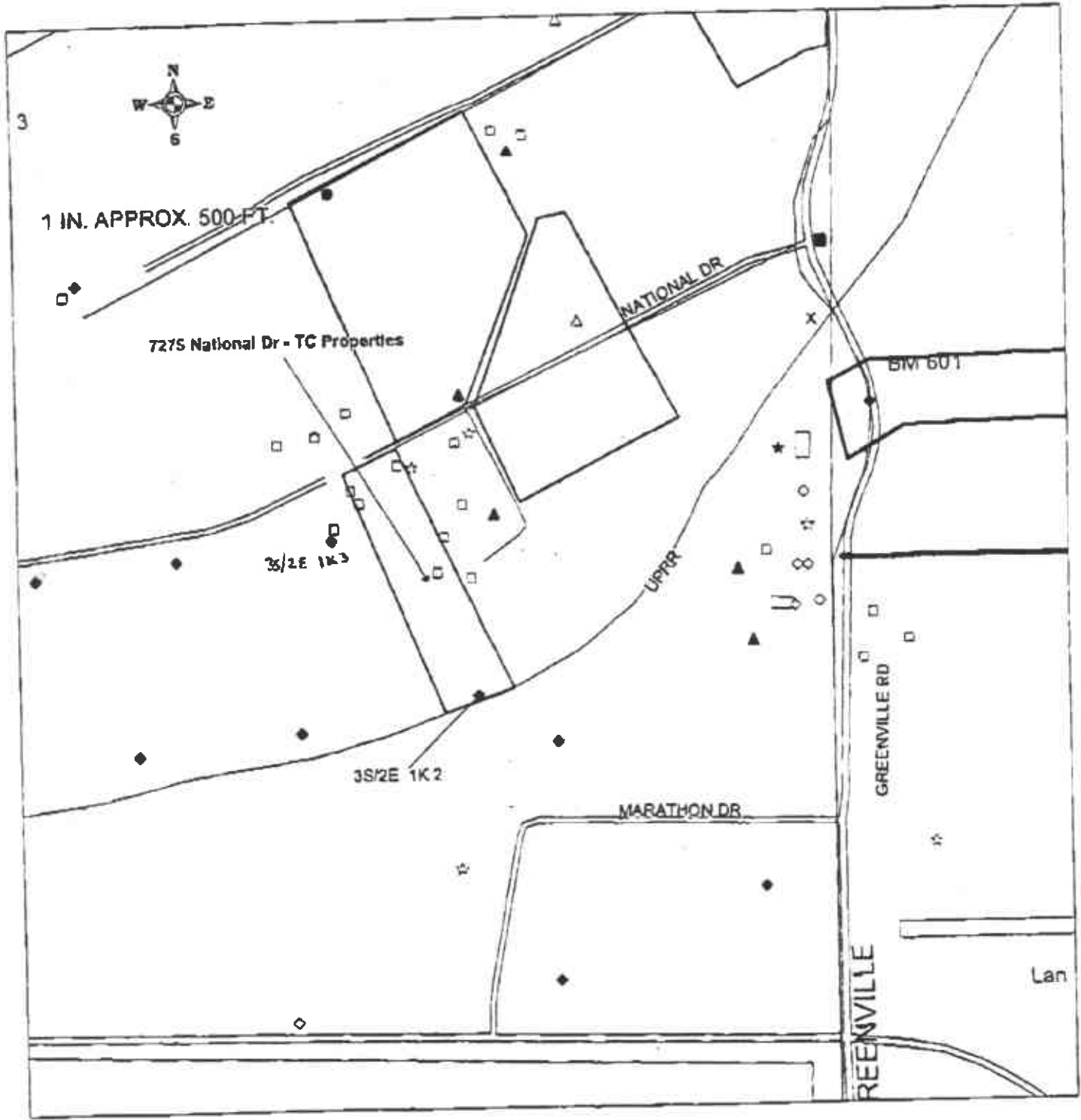
FORMERLY: P.O. B.K. 5150

ACR: 49 35E: 57

REF: RANCHO LAS POSITAS (POR. PLOT J) BK. 005-95/205 (CASE 3-13-101)

W.P.M. 12

140 P. 3



35/2E 1K2

**BORING LOG B-3
(MONITORING WELL NO. 1)**

JOB NUMBER: 90-71-131
 JOB NAME: PG&E, LIVERMORE
 DRILL RIG: MOBILE B-57

DATE DRILLED: 8/14/90
 SURFACE ELEVATION: 585.93
 DATUM: MEAN SEA LEVEL

SAMPLER TYPE: 2 1/2" SPLIT SPOON DRIVE WEIGHT-LB: 140 HEIGHT OF FALL-IN: 30

* Laboratory Analysis: S-Soil Properties C-Chemical Properties

Depth feet	Well Construction	Lab # Analysis	Blows Per Foot	Sample Depth	Sample Type	USCS Symbol	Description
2	Watertight utility box locking steel cover PVC cap		35 50/4"	2	-	ML	CLAYEY SILT with sand - Reddish-brown, moist, hard, sand is fine-grained. OVM = 0 ppm.
4				4			
6	Heat Cement Grout		49 50/3"	6	-		
8				8			
10	2" Diameter SCH 40 Blank		30 50/4.5"	10	-		
12				12			
14			24 50/5.5"	14	-	SP	POORLY GRADED SAND with minor clay and silt - light brown, moist, dense, sand is fine to coarse-grained, caliche, iron spots. OVM = 0 ppm.
16				16			
18		C	40 50/5"	18	-	ML	CLAYEY SILT with minor sand - Tan, moist, hard, sand is fine-grained, caliche. OVM = 0 ppm.
20				20			
22	Bentonite	C	25 47 50/4.5"	22	-		
24	No. 2/16 sand			24			
26	2" Diameter PVC SCH 40 0.01 Slot	C		26	-		
28				28			
30				30	-	SP	POORLY GRADED SAND with minor silt and clay - Tan, wet, very dense, sand is fine to coarse-grained. OVM = 0 ppm.

Du Pont Environmental Remediation Services

logged by: ML

Approved by: JA RG 4516

DU PONT ENVIRONMENTAL REMEDIATION SERVICES

35/2E 1K3

**BORING LOG B-12
(MONITORING WELL NO. 6)**

JOB NUMBER: 90-71-131
 JOB NAME: PG&E, LIVERMORE
 DRILL RIG: MOBILE B-57

DATE DRILLED: 8/17/90
 SURFACE ELEVATION: 578.19
 DATUM: MEAN SEA LEVEL

SAMPLER TYPE: 2 1/2" SPLIT SPOON DRIVE WEIGHT-LB: 140 HEIGHT OF FALL-IN: 30

* Laboratory Analysis: S-Soil Properties C-Chemical Properties

Depth feet	Well Construction	Lab # Analysis	Blows Per Foot	Sample Depth	Sample Type	USCS Symbol	Description
2	Watertight utility box locking steel cover PVC cap			2			
4	Heat Cement Grout	C	6 9	4	■	SE	POORLY GRADED SAND with silt and clay - 7/5 YR 4/2 dark brown, dry, medium dense, sand is fine-grained, (artificial fill).
6		C	5 6	6	■		As above.
8	2" Diameter SCH 40 Blank	C	14 50/5"	8	■		
10				10			
12		C	30 50/4"	12	■		POORLY GRADED SAND with gravel - 10 YR 5/6 yellowish brown, moist, very dense, sand is fine-grained, caliche.
14				14			
16				16			
18			30 50/4.5"	18	■		POORLY GRADED SAND with silt - 10 YR 5/4 yellowish brown, moist, very dense, sand is fine-grained, caliche, root pores.
20				20			
22	Bentonite			22			
24	No. 2/16 Sand	C-A	40 50/4.5"	24	■	SU	WELL GRADED SAND - 10 YR 5/6 yellowish brown, moist, sand is fine to coarse grained.
26				26			Gravels.
28	2" Diameter PVC SCH 40 0.51 Slot	C	26 40 50/5"	28	■	SP	POORLY GRADED SAND - 10 YR 6/4 light yellowish brown, very moist, sand is fine to very fine-grained, caliche.
30				30			

Du Pont Environmental Remediation Services

Logged by: ML Approved by: DB RG 4516

DU PONT ENVIRONMENTAL REMEDIATION SERVICES

35/2E 1L1

**BORING LOG B-7
(MONITORING WELL NO.2)**

JOB NUMBER: 90-71-131
 JOB NAME: PG&E, LIVERMORE
 DRILL RIG: MOBILE E-57

DATE DRILLED: 8/15/90
 SURFACE ELEVATION: 572.72
 DATUM: MEAN SEA LEVEL

SAMPLER TYPE:
2 1/2" SPLIT SPOON

DRIVE WEIGHT-LB:
140

HEIGHT OF FALL-IN:
30

* Laboratory Analysis: S-Soil Properties C-Chemical Properties

Depth feet	Well Construction	Lab # Analysis	Blows Per Foot	Sample Depth	Sample Type	USCS Symbol	Description
2	Watertight utility box locking steel cover PVC cap			2			
4	Heat Cement Grout		55	4		SM	SILTY SAND - 10 YR 4/4 dark yellowish brown, moist, very dense, sand is very fine to fine-grained. OVM = 0 ppm.
6				6			
8	2" Diameter SCH 40 Blank		55	8			As above, 10 YR 5/6 yellowish brown, poorly graded, calcic. OVM = 0 ppm.
10				10			
12				12			
14			45	14			As above, 10 YR 5/4 yellowish brown, minor clay. OVM = 0 ppm.
16				16			
18		C	55	18		SM	WELL GRADED SAND - 2.5 YR 5/6 light olive brown, moist, very dense, medium to coarse-grained, poorly rounded to angular. OVM = 0 ppm.
20				20			
22	Bentonite			22			
24	No. 2/16 Sand	C	48	24			As above, 10 YR 5/4 light yellow brown. OVM = 0 ppm.
26	2" Diameter PVC SCH 40 0.01 slot			26			
28				28			WELL GRADED SAND with gravel - 7.5 YR 6/6 reddish yellow, very moist, very dense, sand is fine to coarse-grained. OVM = 0 ppm.
30			28	30			

Du Pont Environmental Remediation Services

Logged by: ML

Approved by: DR RB 4516

DU PONT ENVIRONMENTAL REMEDIATION SERVICES

35/2E 1L2

**BORING LOG B-8
(MONITORING WELL NO. 3)**

JOB NUMBER: 90-71-131
 JOB NAME: PG&E, LIVERMORE
 DRILL RIG: MOBILE B-57

DATE DRILLED: 8/15/90
 SURFACE ELEVATION: 556.08
 DATUM: MEAN SEA LEVEL

SAMPLER TYPE:
2 1/2" SPLIT SPOON

DRIVE WEIGHT-LB:
140

HEIGHT OF FALL-IN:
30

* Laboratory Analysis: S-Soil Properties C-Chemical Properties

Depth feet	Well Construction	Lab * Analysis	Blows Per Foot	Sample Depth	Sample Type	USCS Symbol	Description
2	Water-tight utility box locking steel cover PVC cap			2			
4	Rest Cement Grout		44	4		ML	CLAYEY SILT with minor sand - 5 YR very dark gray, moist, hard, sand is fine to coarse-grained. OVM = 5 ppm.
6				6			
8	2" Diameter SCH 40 Blank		37	8		SP	POORLY GRADED SAND with minor silt - 2.5 YR 7/6 yellow, damp, very dense, sand is fine to very fine-grained, root casts, fractures. OVM = 0 ppm.
10			SC/4.5"	10			
12				12			
14			14	14			As above. OVM = 0 ppm.
16			50	16			
18				18			As above, with minor clay - 2.5 YR 6/6 olive yellow, moist, caliche mottling, few coarse grains. OVM = 0 ppm.
20		C	50	20			
22	Bentonite			22			As above. OVM = 0 ppm.
24	No. 2/16 Sand	C	26	24			
26			50/5"	26			
28	2" Diameter PVC SCH 40 0.01 Slot			28			
30		C	38	30		SW	WELL GRADED SAND with gravel - 10 YR 6/6 light yellow brown, wet, very dense, sand is fine to coarse-grained, gravel is fine-grained, caliche filling vertical cracks. OVM = 0 ppm.
			SC/5"				

Du Pont Environmental Remediation Services

Logged by: ML

Approved by: DB RG+SL

DU PONT ENVIRONMENTAL REMEDIATION SERVICES

35/2E 113

**BORING LOG B-9
(MONITORING WELL NO. 4)**

JOB NUMBER: 90-71-131
 JOB NAME: PG&E, LIVERMORE
 DRILL RIG: MOBILE B-57

DATE DRILLED: 8/16/90
 SURFACE ELEVATION: 571.54
 DATUM: MEAN SEA LEVEL

SAMPLER TYPE:
2 1/2" SPLIT SPOON

DRIVE WEIGHT-LB:
140

HEIGHT OF FALL-IN:
30

* Laboratory Analysis: S-Soil Properties C-Chemical Properties

Depth feet	Well Construction	Lab * Analysis	Blows Per Foot	Sample Depth	Sample Type	USCT Symbol	Description
2	Watertight utility box locking steel cover PVC cap			2			
4	Neat Cement Grout	C	30 50/3"	4		SP	POORLY GRADED SAND with minor silt and clay - 5 YR 3/1 very dark gray, dry, very dense, sand is fine to very fine-grained, caliche. OVM = 0 ppm.
6				6			
8	2" Diameter SCH 40 Blank		24 34 50/5"	8		SW	WELL GRADED SAND - 10 YR 5/4 yellowish brown, moist, very dense, sand is fine to coarse-grained. OVM = 0 ppm.
10				10			
12				12		SP	POORLY GRADED SAND with minor silt and clay - 5 YR 5/6 yellowish brown, moist, very dense, sand is fine to very fine-grained, vertical cracks with caliche and manganese, sub horizontal cracks with caliche. OVM = 0 ppm.
14			31 50/5"	14			
16				16			Gravels.
18		C	9 15 34	18			POORLY GRADED SAND - 10 YR 5/4 light yellowish brown, moist, dense, sand is mainly fine-grained with minor coarse-grains, caliche. OVM = 0 ppm.
20				20			
22	Bentonite			22			
24	No. 2/16 Sand	C	8 13 30	24			POORLY GRADED SAND - 10 YR 5/4 yellowish brown, moist, dense, sand is fine to very fine-grained, caliche. OVM = 0 ppm.
26	2" Diameter PVC SCH 40 0.01 Slot			26			
28			50/5"	28			No sample retained for lab. POORLY GRADED SAND - 10 YR 5/3 brown, very moist, dense, sand is medium-grained.
30			50/5"	30		SW	WELL GRADED SAND with gravel - 10 YR 5/4 yellowish brown, wet, dense, gravel is fine-grained, sand is fine to coarse-grained.

Du Pont Environmental Remediation Services

Logged by: ML

Approved by: BRB 4516

DU PONT ENVIRONMENTAL REMEDIATION SERVICES

A-13

3S/2E 1L4

BORING LOG B-10
(MONITORING WELL NO. 5)

JOB NUMBER: 90-71-131
 JOB NAME: PG&E, LIVERMORE
 DRILL RIG: MOBILE B-57

DATE DRILLED: 8/17/90
 SURFACE ELEVATION: 575.10
 DATUM: MEAN SEA LEVEL

SAMPLER TYPE: 2 1/2" SPLIT SPOON DRIVE WEIGHT-LB: 140 HEIGHT OF FALL-IN: 30

* Laboratory Analysis: S-Soil Properties C-Chemical Properties

Depth feet	Well Construction	Lab # Analysis	Blows Per Foot	Sample Depth	Sample Type	USCS Symbol	Description
2	Water-tight utility box locking steel cover PVC cap		40 50/5"	2	■	ML	SILT with minor sand - 5 YR 3/2 dark gray grained.
4	Best Cement Grout			4			
6	2" diameter SCH 40 Blank			6			
8			24 50/5.5"	8	■	SP	POORLY GRADED SAND brown, 80% silty, very dense, sand to to medium-grained, roots, caliche.
10				10			
12			12 25 50	12	■		As above, sand is very fine to fine- grained, caliche, root casts.
14				14			
16				16			
18			36 50/5"	18	■		As above.
20				20			
22	Bentonite		36 50/5.5"	22	■		POORLY GRADED SAND with minor gravel - 10 YR 5/4 yellowish brown, moist, very dense, sand to fine to very fine-grained caliche.
24	No. 2/16 Sand			24			
26	2" diameter PVC SCH 40 0.0" slot		48 80/7.5"	26	■	SP	moist, very dense, sand to coarse-grained.
28				28			
30				30			

Du Pont Environmental Remediation Services

Logged by: ML

Approved by: DS RB-516

DU PONT ENVIRONMENTAL REMEDIATION SERVICES

35/2E 14

BORING LOG B-10
(MONITORING WELL NO. 5)

JOB NUMBER: 90-71-191

DATE DRILLED: 8/17/90
SURFACE ELEVATION: _____
BOTTOM: MEAN SEA LEVEL

SAMPLER TYPE: 2" I.D. SPLIT SPOON

DRIVE WEIGHT-TON: _____

HEIGHT OF FALL-IN: _____

* Laboratory Analysis: Soil Properties, Chemical Properties

Depth	Type	Symbol
36	2" diameter PVC SCH 40 0.01 slot	fine sand to fine-grained, calcic, dense, sand is fine-grained, calcic, massive
38	2" SCH 40 PVC End Cap	POORLY GRADED SAND with minor silt and clay
40		very fine-grained with minor coarse grains, root casts, calcic.
42		
44		
46		
48		
50		
52		
54		
56		
58		
60		
62		

Du Pont Environmental Remediation Services

Logged by: ML

Approved by: DR RG +5/6

DU PONT ENVIRONMENTAL REMEDIATION SERVICES

35/2E 1L3

BORING LOG B-9
(MONITORING WELL NO. 4)

JOB NUMBER: 90-71-131
WATER LUTHERMORE

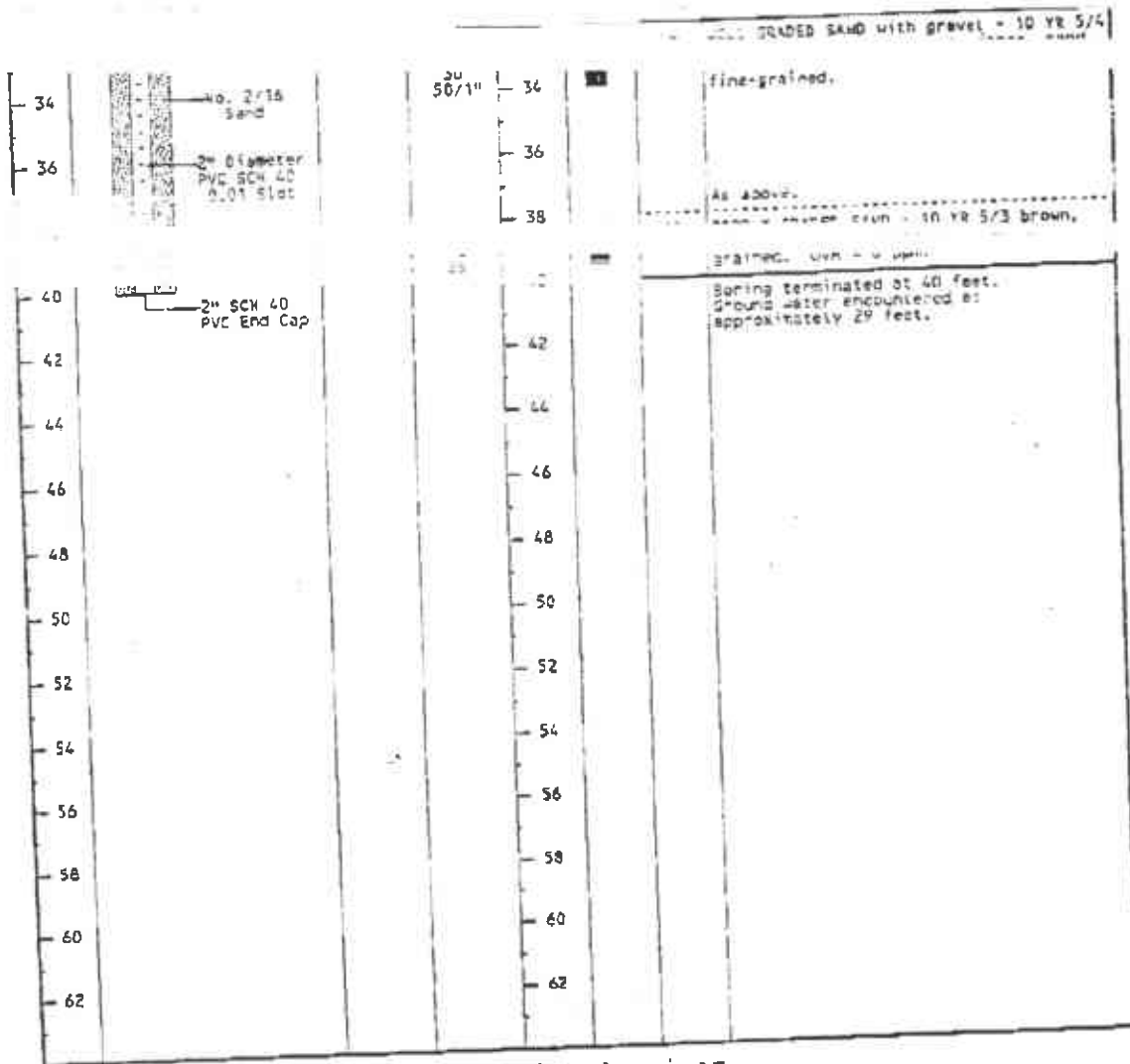
DATE DRILLED: 8/16/90

SURF: _____
TUM: MEAN SEA LEVEL

SAMPLER TYPE: _____
2 1/2" S.D. SPINNER

DRIVE WEIGHT-LB: _____ HEIGHT OF FALL: _____

C-Chemical Properties



Du Pont Environmental Remediation Services

Logged by: ML Approved by: DA RBASIG

DU PONT ENVIRONMENTAL REMEDIATION SERVICES

9/21/90

BORING LOG B-8 (MONITORING WELL NO. 3)

JOB NUMBER: 90-71-131

DATE OBTAINED: 8/15/90

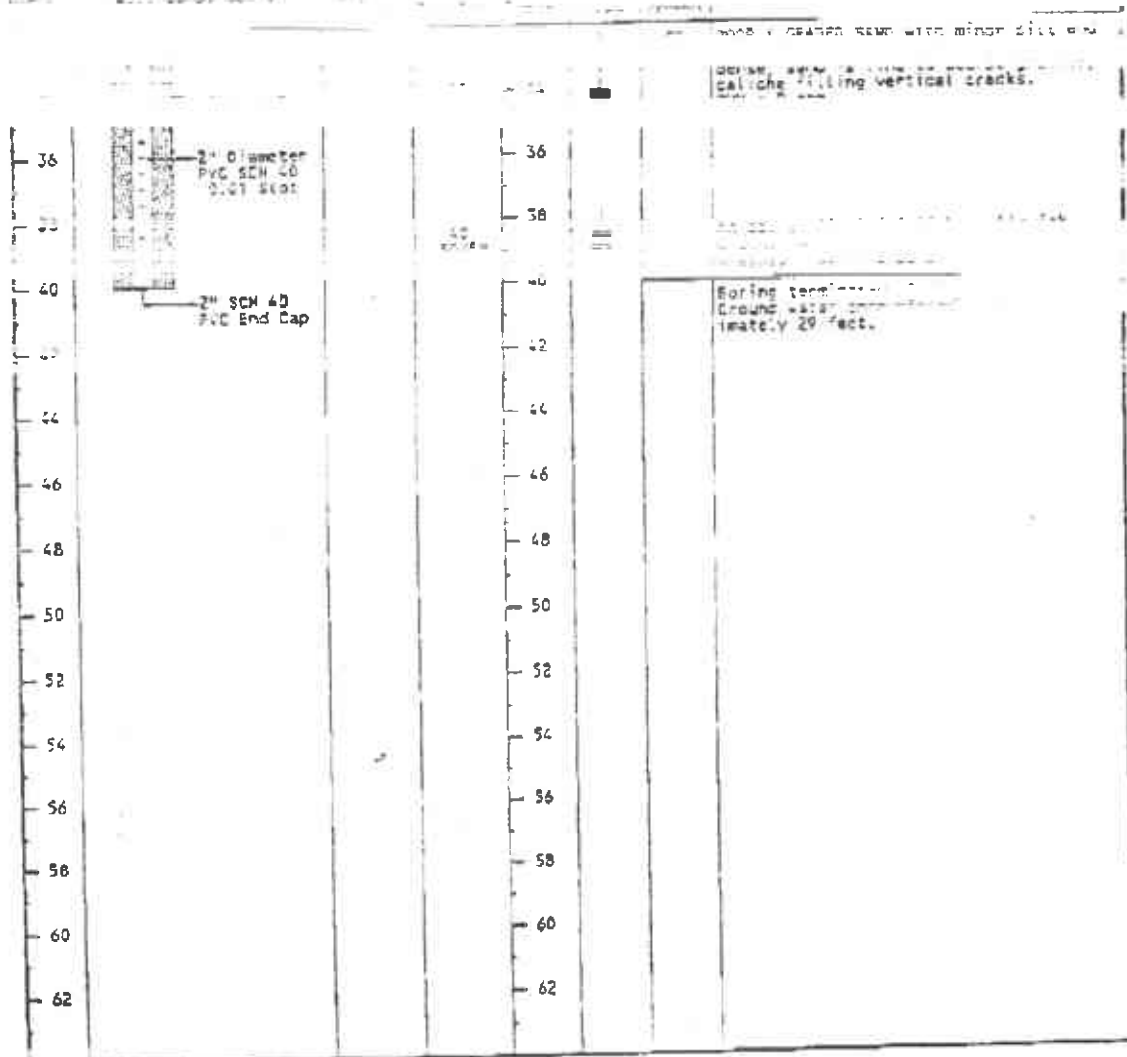
SITE: MEAN SEA LEVEL

DRILL TYPE: _____

DRIVE WEIGHT-LB: _____

HEIGHT OF FALL-IN: _____

Properties C-Chemical Properties



Logged by: ML

Approved by: DR RS 4/3/4

DU PONT ENVIRONMENTAL REMEDIATION SERVICES

35/2E 1L1

**BORING LOG B-7
(MONITORING WELL NO.2)**

JOB NUMBER: 90-71-131
 JOB NAME: PG&E, LIVERMORE
 DRILL RIG: MOBILE B-57

DATE DRILLED: 8/15/90
 SURFACE ELEVATION: 572.72
 DATUM: MEAN SEA LEVEL

SAMPLER TYPE: 2-1/2" I.D. SPLIT SPOON

DRIVE WEIGHT-LB: 140

HEIGHT OF FALL-IN: 30

* Laboratory Analysis: S-Soil Properties C-Chemical Properties

Depth feet	Well Construction	Lab # Analysis	Blows Per Foot	Sample Depth	Sample Type	USCS Symbol	Description	
34			50/54	34	■	SW	WELL GRADED SAND with gravel - 7.5 YR 5/6 reddish yellow, wet, very dense, sand is fine to coarse-grained. Sample lost.	
36				36				
38					38	■		As above, 10 YR 5/3 brown, saturated, medium dense.
40				7	40			Boring terminated at 40 feet. Ground water encountered at 32 feet.
42					42			
44					44			
46					46			
48				48				
50				50				
52				52				
54				54				
56				56				
58				58				
60				60				
62				62				

Du Pont Environmental Remediation Services

Logged by: ML

Approved by: DB RB 4-5/16

DU PONT ENVIRONMENTAL REMEDIATION SERVICES

35/2E 1K3

**BORING LOG B-12
(MONITORING WELL NO. 6)**

JOB NUMBER: 90-71-131
 JOB NAME: PG&E, LIVERMORE
 DRILL RIG: MOBILE B-57

DATE DRILLED: 8/17/90
 SURFACE ELEVATION: 578.19
 DATUM: MEAN SEA LEVEL

SAMPLER TYPE: 2-1/2" I.D. SPLIT SPOON DRIVE WEIGHT-LB: 140 HEIGHT OF FALL-IN: 30

* Laboratory Analysis: S-Soil Properties C-Chemical Properties

Depth feet	Well Construction	Lab # Analysis	Blows Per Foot	Sample Depth	Sample Type	USCS Symbol	Description
34	No. 2/16 Sand 2" Diameter PVC SCH 40 0.01 Slot 2" SCH 40 PVC End Cap		33 80/5.5"	34	■	SP	POORLY GRADED SAND - 10 YR 4/4 dark yellowish brown, very moist, sand is fine to very fine-grained, caliche in fracture planes.
36				36			
38			12 28 50/2"	38	■		POORLY GRADED SAND with silt and clay - 10 YR 6/4 light yellowish brown, very moist, sand is fine to very fine-grained, caliche nodules and veins.
40				40			Boring terminated at 40 feet. Ground water encountered at approximately 31.5 feet.
42				42			
44				44			
46				46			
48				48			
50				50			
52				52			
54				54			
56				56			
58				58			
60				60			
62				62			

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DUPONT ENVIRONMENTAL REMEDIATION SERVICES

35/2E 1K2

**BORING LOG B-3
(MONITORING WELL NO.1)**

JOB NUMBER: 90-71-131
 JOB NAME: PG&E, LIVERMORE
 DRILL RIG: MOBILE B-57

DATE DRILLED: 8/14/90
 SURFACE ELEVATION: 585.93
 DATUM: MEAN SEA LEVEL

SAMPLER TYPE: 2-1/2" I.D. SPLIT SPOON DRIVE WEIGHT-LB: 140 HEIGHT OF FALL-IN: 30

* Laboratory Analysis: S-Soil Properties C-Chemical Properties

Depth feet	Well Construction	Lab # Analysis	Blows Per Foot	Sample Depth	Sample Type	USCS Symbol	Description	
34			30 50/4"	34	■	ML	CLAYEY SILT with sand - Light brown, moist, hard, sand is fine to medium-grained. D ₅₀ = 0 ppm.	
36			2 9/8	36		SP	POORLY GRADED SAND with gravel - Tan, wet, medium dense, sand is fine to coarse-grained, gravel is fine.	
38					38	■		
40					40	■		As above.
42				42	■	ML	CLAYEY SILT with sand - Light brown, moist, hard, sand is fine-grained, caliche.	
44				44				
46			9 18 50/3"	46	■			
48				48			Boring terminated at 46.5 feet. Hole caved to 29 feet and redrilled to 40 feet. Well set 25-40 feet. Ground water encountered at 29 feet.	
50				50				
52				52				
54				54				
56				56				
58				58				
60				60				
62				62				

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