P & D ENVIRONMENTAL

A Division of Paul H. King, Inc.
55 Santa Clara Ave, Suite 240
Oakland, CA 94610
(510) 658-6916

May 31, 2005
Report 0014.R57

Mr. Ted Simas
Mr. Keith Simas
Xtra Oil Company
2307 Pacific Ave.
Alameda, CA 94501

SUBJECT: WELL SURVEY REPORT
Xtra Oil Company
3495 Castro Valley Blvd.
Castro Valley, California

Gentlemen:

In accordance with a request from the Alameda County Department of Environmental Health (ACDEH), P&D Environmental (P&D) performed a well survey within a 1/4-mile radius of the subject site. The well survey was performed by submitting a request to the California Department of Water Resources (DWR) for identification of wells located within a 1/4-mile radius of the subject site. A total of 47 reports were provided to P&D on October 1, 2003 by the DWR. A summary of information for each well report is provided in Table 1 attached with this report. A Site Location Map is attached as Figure 1 showing the location of wells identified within a ¼ mile radius of the subject site.

WELL SURVEY RESULTS

Table 1 provides the following information for each well:

- A file number assigned to each Well Completion Report (WCR) for this report.
- Township, Range, Section (and Tract, when available),
- Street address,
- City,
- Owner name,
- Total borehole depth,
- Use and designation,
- Notes regarding the distance and direction of the wells located within ¼ mile of the subject site relative to the subject site.
- The WCR number,
- The date work was completed based on review of the WCR or attached boring logs.

Review of Figure 1 shows that wells were identified within ¼ mile of the site for as many as 16 reports at a total of seven different locations. An additional three reports are for

three groundwater monitoring wells located at the subject site (File numbers 16, 17 and 18). Two of the DWR reports identified as being possibly located within ¼ mile of the site did not contain adequate information to accurately locate the wells. Based on the tract number provided for these two wells, it is possible that these two wells could be located within ¼ mile of the site. Their locations (File numbers 28 and 29) are arbitrarily located on Figure 1 within a portion of the tract identified by the DWR that is located within ¼ mile of the site.

All but four of the wells located within ¼ mile of the site consist of groundwater monitoring wells with a maximum depth of 36.5 feet. The four wells that are not identified as groundwater monitoring wells consist of one cathodic protection well (File number 4), two wells of unknown use that are suspected to be irrigation wells based on their age (File numbers 28 and 29), and one irrigation well (File number 30). The two wells of unknown use have differing dates of completion identified in Table 1. Based on the date of completion for WCR numbers similar to the WCR numbers for these two files, the completion date is suspected to be in the year 1950 and the non-1950 dates provided for these two files are suspected of being typographical errors.

Although no WCRs were provided by the DWR for destruction of the wells identified in Files 39, 40 and 41, it is P&D's understanding that these wells were destroyed in preparation for construction of the existing Bay Area Rapid Transit parking lot that it is now located where the wells were previously located.

Copies of the 47 reports provided by the DWR are attached with this report.

DISCUSSION

Based on the easterly groundwater flow direction for the subject site, groundwater monitoring wells for files 23, 24, 25, 26 and 27 are located downgradient and within approximately 100 feet of the site. In addition, wells for Files 28 and 29 may be located approximately 500 to 1820 feet downgradient of the subject site. However, the precise locations of these two wells is unknown, and a stream channel is located approximately 500 feet to the east of the subject site. Although the stream channel is lined with concrete in the vicinity of the site, groundwater flow direction in the vicinity of the stream channel may be controlled by the stream channel, preventing the eastward migration of petroleum hydrocarbons from the subject site to these two wells.

The distribution of petroleum hydrocarbons in the vicinity of the subject site suggests historical groundwater flow directions that were southeasterly or southwesterly. No wells are identified to the southeast of the subject site in the stud area. Wells identified in Files 39, 40 and 41 are suspected of having been destroyed as discussed above. Review of Table 1 shows that the maximum depth of these three wells is 15 feet. These three wells are not considered to be potential conduits for the transmission of petroleum hydrocarbons.

The remaining wells identified by the DWR within ¼ mile of the subject site are located upgradient of the subject site and are not considered to be at risk from petroleum hydrocarbons originating at the subject site.

DISTRIBUTION

Copies of this report should be sent to Mr. Amir Gholami at the Alameda County Department of Environmental Health. Copies of the report should be accompanied by a transmittal letter signed by an authorized representative of Xtra Oil Company.

LIMITATIONS

This report was prepared solely for the use of Xtra Oil Company. The content and conclusions provided by P&D in this assessment are based on information collected during our investigation, which may include, but not be limited to, visual site inspections; interviews with the site owner, regulatory agencies and other pertinent individuals; review of available public documents; subsurface exploration and our professional judgment based on said information at the time of preparation of this document. Any subsurface sample results and observations presented herein are considered to be representative of the area of investigation; however, geological conditions may vary between borings and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly-revealed conditions must be evaluated and may invalidate the findings of this report.

This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law. Additionally, it is the sole responsibility of the owner to properly dispose of any hazardous materials or hazardous wastes left onsite, in accordance with existing laws and regulations.

This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. P&D is not responsible for the accuracy or completeness of information provided by other individuals or entities which is used in this report. This report presents our professional judgment based upon data and findings identified in this report and interpretation of such data based upon our experience and background, and no warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.

Should you have any questions, please do not hesitate to contact us at (510) 658-6916.

Sincerely,

P&D Environmental

Paul H. King

Paul H. King
President
Professional Geologist
Registration No. 5901
Expires: 12/31/05

Attachments: Table 1: Summary of Department of Water Resources Well Locations
Site Location Map - Figure 1
Well Completion Reports (47)

PHK/wrw
0014.R57

Tables

Summary of Department of Water Resources Well Locations

Table 1:
Summary of Department of Water Resources
Well Locations

File # and Mapped Location #	Township/ Range	Section/ Tract	Street Address	City	Owner	Total Borehole Depth (Feet)	Use/ Designation	Notes	DWR WCR #	Date Completed
1	3S/2W	3/A2	4589 James Street	Castro Valley	Mrs. H. Perko	48	Irrigation	Location not in study area	106190	09/16/77
2	3S/2W	3/B1	19861 Forest Ave.	Castro Valley	Ronald L. Silva	50	Irrigation	Location not in study area	106617	08/29/77
3	3S/2W	3/B1	20287 Marshall Street	Castro Valley	Mr. Ornelas	61	Irrigation	Location not in study area	33295	12/01/77
4	**3S/2W**	**3/C1**	**20450 Redwood Rd.**	**Castro Valley**	**Exxon Oil**	**50**	**Cathodic***	**Located within 1/4 mile of site (Approx 500 feet N14°E of site)**	**120974**	**08/19/77**
5	3S/2W	3/F1	Forest Ave.	Castro Valley	Wolfe	51	Not Stated	Location not in study area	01-1387	June 1949
6	3S/2W	3/K	Forest Ave.	Castro Valley	Martins Nursery	63	Not Stated	Location not in study area	01-1388	July 1949
7	3S/2W	3/K	20115 Forest Ave.	Castro Valley	Martins Nursery	116	Irrigation	Location not in study area	01-1389	08/18/53
8	3S/2W	3/K	Forest Ave.	Castro Valley	Martins Nursery	70	Not Stated	Location not in study area	01-1390	No Date
9	3S/2W	3/K3	19910 Forest Ave.	Castro Valley	Jack Luse	56	Irrigation	Location not in study area	33508	08/18/77
10	3S/2W	3/N1	3098 Castro Valley Blvd.	Castro Valley	Adobe Plaza	30	MW1, MW2, MW3	Location not in study area	No WCR	08/11/89
11	3S/2W	3/N4,5,6,7 ,8	Not Stated	Castro Valley	Mitzi Stockel?	Wells = 18 to 23, Borings = 8 to 20	MW1, MW2, MW3, MW4, MW5, B1 through B11	Location not in study area based on Stockel address search	No WCR	4/24/90, 4/25/90, 5/11/90, 5/16/90
12	3S/2W	3/P	20405 Redwood Road	Castro Valley	Unocal 76	35	SB1 through SB13	Location not in study area	No WCR	03/13/91
13	3S/2W	3/P	3495 Castro Valley Blvd.	Castro Valley	Ted Simas	12	SB1	On site	304335D	02/15/90
14	3S/2W	3/P	3495 Castro Valley Blvd.	Castro Valley	Ted Simas	12	SB2	On site	304335F	02/15/90
15	3S/2W	3/P	3495 Castro Valley Blvd.	Castro Valley	Ted Simas	12	SB3	On site	304335E	02/15/90
16	3S/2W	3/P1	3495 Castro Valley Blvd.	Castro Valley	Ted Simas	20	MW1	On site	304335A	02/14/90
17	3S/2W	3/P2	3495 Castro Valley Blvd.	Castro Valley	Ted Simas	18	MW2	On site	304335B	02/14/90
18	3S/2W	3/P3	3495 Castro Valley Blvd.	Castro Valley	Ted Simas	18	MW3	On site	304335C	02/15/90
19	**3S/2W**	**3/P4**	**20405 Redwood Road**	**Castro Valley**	**R.T. Nahas Company**	**31**	**MW1, MW1A, MW2, MW3**	**Located within 1/4 mile of site (Approx 500 feet due north of site)**	**No WCR**	**12/4/89, 12/5/89, 12/7/89**
20	**3S/2W**	**3/P7**	**20629 Redwood Rd.**	**Castro Valley**	**R.T. Nahas Company**	**36.5**	**MW-5**	**Located within 1/4 mile of site (Approx 400 feet due north of site)**	**107237**	**03/31/92**
21	**3S/2W**	**3/P8**	**20629 Redwood Rd.**	**Castro Valley**	**R.T. Nahas Company**	**29**	**MW-6**	**Located within 1/4 mile of site (Approx 400 feet due north of site)**	**107238**	**04/01/92**
22	**3S/2W**	**3/P9**	**20629 Redwood Rd.**	**Castro Valley**	**R.T. Nahas Company**	**31**	**MW-7**	**Located within 1/4 mile of site (Approx 400 feet due north of site)**	**107239**	**04/02/92**
23	**3S/2W**	**3/P10**	**3519 Castro Valley Blvd.**	**Castro Valley**	**BP Oil Company**	**30**	**ESE-1/ MW-1**	**Located within 1/4 mile of site (Approx 100 feet due east of site)**	**427880**	**09/29/92**
24	**3S/2W**	**3/P11**	**3519 Castro Valley Blvd.**	**Castro Valley**	**BP Oil Company**	**31**	**ESE-2/MW-2**	**Located within 1/4 mile of site (Approx 100 feet due east of site)**	**427881**	**09/29/92**
25	**3S/2W**	**3/P12**	**3519 Castro Valley Blvd.**	**Castro Valley**	**BP Oil Company**	**30.5**	**ESE-3/MW-3**	**Located within 1/4 mile of site (Approx 100 feet due east of site)**	**427882**	**09/29/92**
26	**3S/2W**	**3/P13**	**3519 Castro Valley Blvd.**	**Castro Valley**	**BP Oil Company**	**25**	**ESE-4/MW-4**	**Located within 1/4 mile of site (Approx 100 feet due east of site)**	**427883**	**09/29/92**
27	**3S/2W**	**3/P14**	**3519 Castro Valley Blvd.**	**Castro Valley**	**BP Oil Company**	**27**	**ESE-5/MW-5**	**Located within 1/4 mile of site (Approx 100 feet due east of site)**	**427884**	**09/29/92**
28	**3S/2W**	**3/Q1**	**"Near Breed Property below Mulford Gardens"**	**Not Stated**	**"Curtles or Breed?"**	**87**	**Not Stated**	**Possibly located within 1/4 mile of site (In tract located 500 to 1820 feet east of site)**	**01-1391**	**12/21/28, 2/20/50**
29	**3S/2W**	**3/Q2**	**"(Possibly Breed property below Mulford Gardens)"**	**Not Stated**	**"Curtles property" Seamoor Lodge""**	**85**	**Not Stated**	**Possibly located within 1/4 mile of site (In tract located 500 to 1820 feet east of site)**	**01-1392**	**2/29/57, 2/20/50**
30	**3S/2W**	**3/Q3**	**20283 Yeandle Ave.**	**Castro Valley**	**Robert D Rousey**	**28**	**Irrigation**	**Located within 1/4 mile of site (Approx 1000 feet N48°E of site)**	**33742**	**05/07/77**
31	3S/2W	3/Q5	20551 Forest Ave.	Castro Valley	Howard W. Burkhart	57	Not Stated	Location not in study area	01-1393	02/20/50
32	3S/2W	10/A1	3940 Castro Valley Blvd.	Castro Valley	Texaco	30	MW	Location not in study area	No WCR	12/10/85
33	3S/2W	10/A2	3940 Castro Valley Blvd.	Castro Valley	Texaco	45	MW-1	Location not in study area	180493	12/16/87

Notes:
MW = Monitoring Well
SB = Soil Boring
EB = Exploratory Borehole
B = Boring
DWR = Department of Water Resources
WCR = Well Completion Report

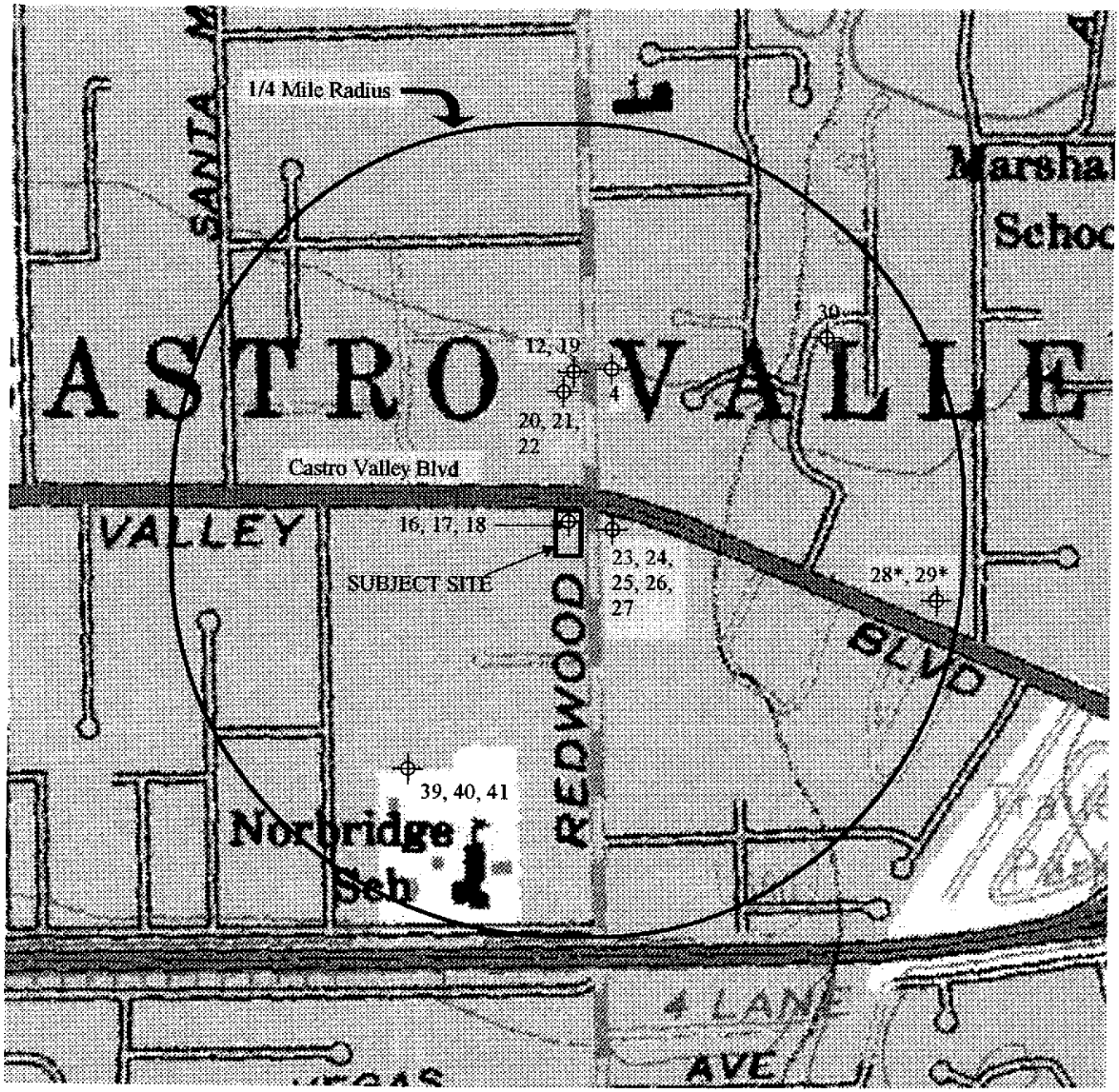
*Installed by Corrosion Technology, Inc.

Table 1:
Summary of Department of Water Resources
Well Locations

File # and Mapped Location #	Township/ Range	Section/ Tract	Street Address	City	Owner	Total Borehole Depth (Feet)	Use/ Designation	Notes	DWR WCR #	Date Completed
34	3S/2W	10/A3	3940 Castro Valley Blvd.	Castro Valley	Texaco	38	MW-2	Location not in study area	180499	12/17/87
35	3S/2W	10/A4	3940 Castro Valley Blvd.	Castro Valley	Texaco	40	MW-3	Location not in study area	180498	12/17/87
36	3S/2W	10/A7	3940 Castro Valley Blvd.	Castro Valley	Texaco	40	MW6	Location not in study area	342610A	01/20/91
37	3S/2W	10/A8	3940 Castro Valley Blvd.	Castro Valley	Texaco	40	MW7	Location not in study area	342610B	01/21/92
38	3S/2W	10/A9	3940 Castro Valley Blvd.	Castro Valley	Texaco	40	MW8	Location not in study area	342610C	01/22/92
39	**3S/2W**	**10/C1**	**2100 Wilbeam Ave.**	**Castro Valley**	**Bay Area Rapid Transit District**	**15.5**	**MW-1**	**Located within 1/4 mile of site (Approx 850 feet S34°W of site)**	**407680A**	**02/18/93**
40	**3S/2W**	**10/C2**	**2100 Wilbeam Ave.**	**Castro Valley**	**Bay Area Rapid Transit District**	**15.5**	**MW-2**	**Located within 1/4 mile of site (Approx 850 feet S34°W of site)**	**407680B**	**02/18/93**
41	**3S/2W**	**10/C3**	**2100 Wilbeam Ave.**	**Castro Valley**	**Bay Area Rapid Transit District**	**15.5**	**MW-3**	**Located within 1/4 mile of site (Approx 850 feet S34°W of site)**	**407680C**	**02/18/93**
42	3S/2W	Unknown	8047 Parsons Rd. (street number not found on currect maps)	Castro Valley	C.E. Alvarez	70	Irrigation/ Test Well	Location not in study area based on existing locations of Parsons Ave and Parsons Ct.	01-1386	02/20/53
43	3S/2W	Unknown	8045 Lorena (street number not found on current maps)	Castro Valley	Smith	60	Irrigation	Location not in study area based on on existing locations of Lorena Ave and Lorena Pl.	613	06/12/56
44	3S/2W	Unknown	10000 Madison Ave. (street number not found on current maps)	Castro Valley	C.H. Gosset	70	Domestic	Location not in study area based on existing location of Madison Ave.	6402	06/29/54
45	3S/2W	Unknown	9100 Edwards Lane (street number not found on current maps)	Castro Valley	G. Anderson	53	Domestic	Location not in study area based on existing location of Edwards Lane	6418	09/08/54
46	3S/2W	Unknown	Not Stated	Castro Valley	Wilson	73	Test Well	Location not in study area based on 4-foot depth to bedrock	6425	10/28/54
47	3S/2W	Unknown	Center Street	Hayward	John Macedo	94	Domestic	Location not in study area	01-1480	04/18/52

Notes:
MW = Monitoring Well
SB = Soil Boring
EB = Exploratory Borehole
B = Boring
DWR = Department of Water Resources
WCR = Well Completion Report

*Installed by Corrosion Technology, Inc.



LEGENDS

⊕ Wells Located within 1/4 mile of the Subject Site

* Well Located by Tract Number Only

0 1/4 MILE

0 500 1000 FEET

N

Base Map From:
www.TopoZone.com
Hayward Quadrangle

P & D ENVIRONMENTAL
A Division of Paul H. King, Inc.
55 Santa Clara Avenue, Suite 240
Oakland, CA 94610
(510) 658-6916

Figure 1
Site Location Map Showing Well Locations
Xtra Oil Company
3459 Castro Valley Blvd
Castro Valley, California

Department of Water Resources Information

STATE OF CALIFORNIA - THE RESOURCES AGENCY GRAY DAVIS, *Governor*

DEPARTMENT OF WATER RESOURCES
CENTRAL DISTRICT
3251 S STREET
SACRAMENTO, CA 95816-7017

OCT 1 2003

Mr. Willy Webenback
P & D Environmental
4020 Panama Court
Oakland, California 95611

Dear Mr. Webenback:

In response to your request, enclosed is the well location information for the sites in the following area:

A one-quarter mile radius of 3195 Castro Valley Road, Alameda
Township 03 South, Range 02 West, Section 3
Township 03 South, Range 02 West, Section 10-A, B, C, and D

Your data request required one hour of staff time. We located 47 well drillers reports as a result of this search. The total charge to reproduce the copies is $115 ($50 per hour of staff time plus 25 cents per page for 260 pages). Your remittance should be made payable to the Department of Water Resources, General Accounting Office, Post Office Box 942836, Sacramento, California 94236-0001. Please show **"Invoice SEP 26-1"** on your remittance and return it with the enclosed copy of this letter to our Accounting Office.

If you need additional information or have any questions, please contact Anne Roth at (916) 227-7632 or fax (916) 227-7600.

Sincerely,

Robert L. Niblack, Chief
Geology and Groundwater Section

Enclosures

Department of Water Resources

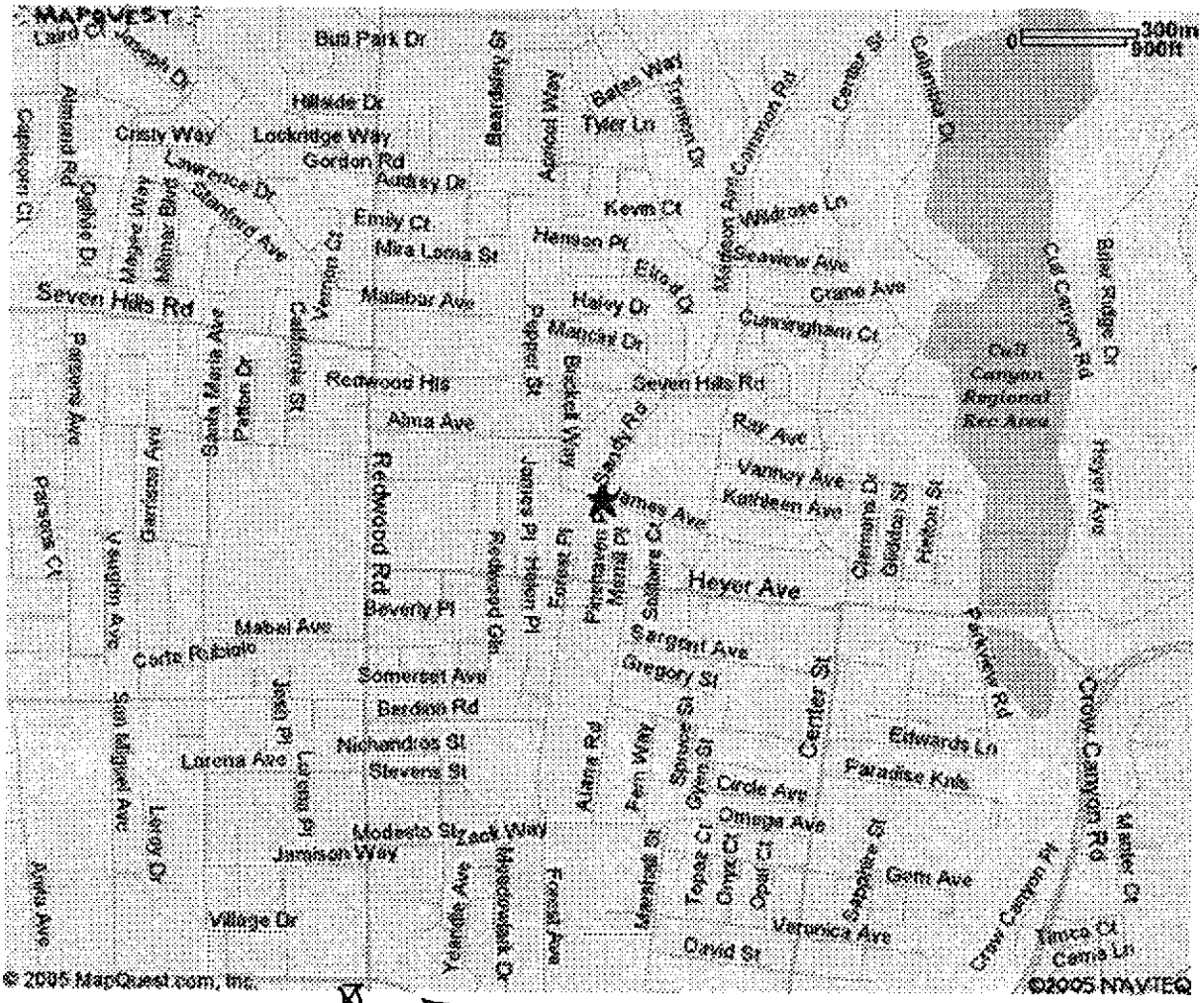
File # 1

P&D Notes

MAPQUEST.

4589 James Ave
Castro Valley CA
94546-2443 US

Notes:



Xtra oil site

NAVTEQ ON BOARD

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

Department of Water Resources

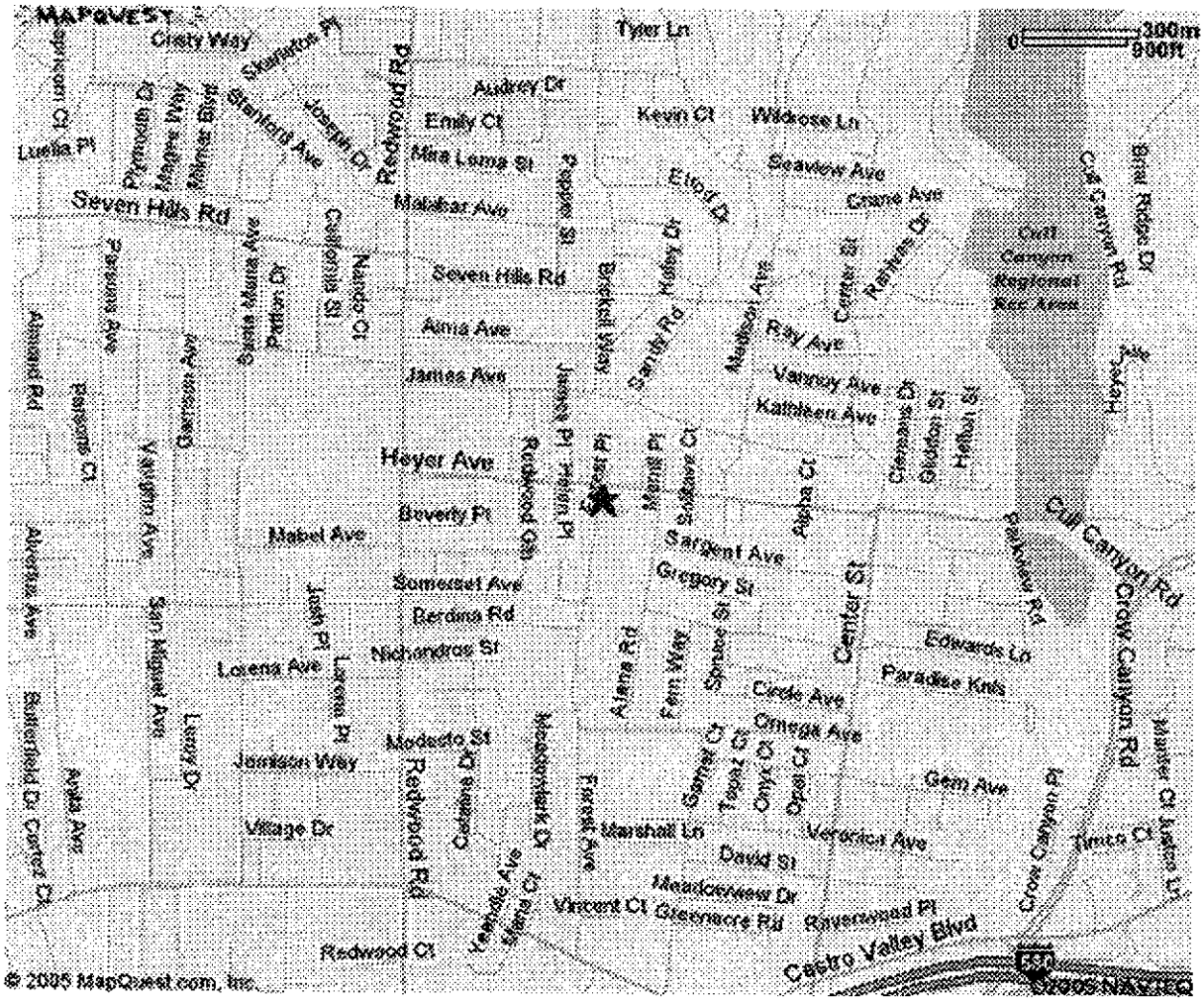
File # 2

P&D Notes

MAPQUEST

[19500-19599] Forest Ave
Castro Valley CA
94546 US

Notes:



CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

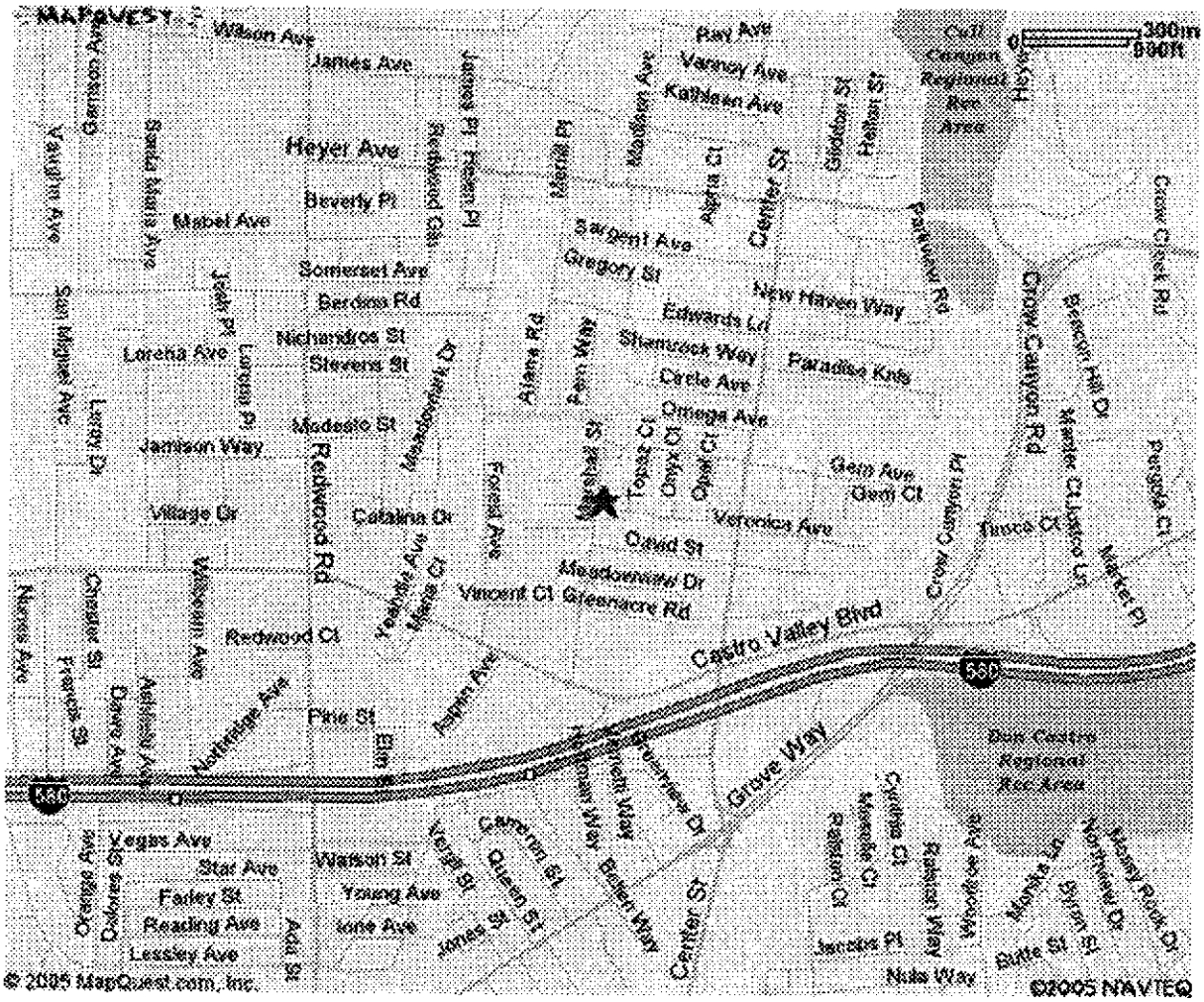
Department of Water Resources

File # 3

MAPQUEST

20287 Marshall St
Castro Valley CA
94546-4657 US

Notes:



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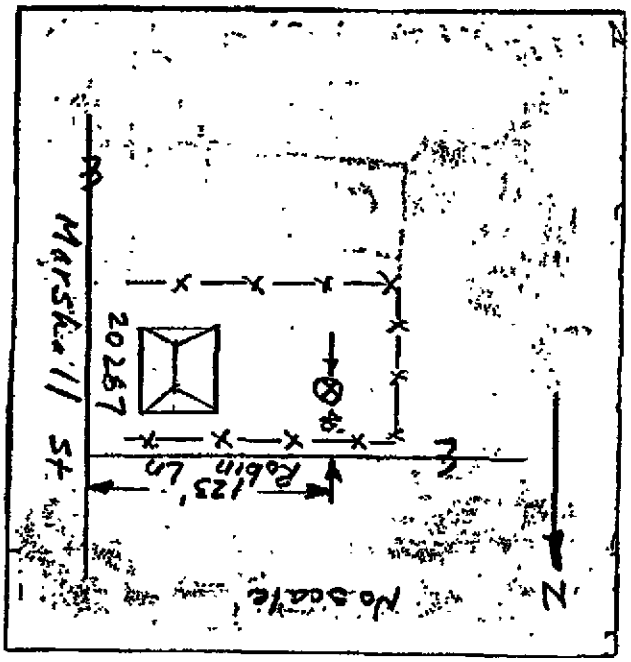
STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

DEPT. OF WATER
RESOURCES

1978 FEB 6 PM 1 42



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Department of Water Resources

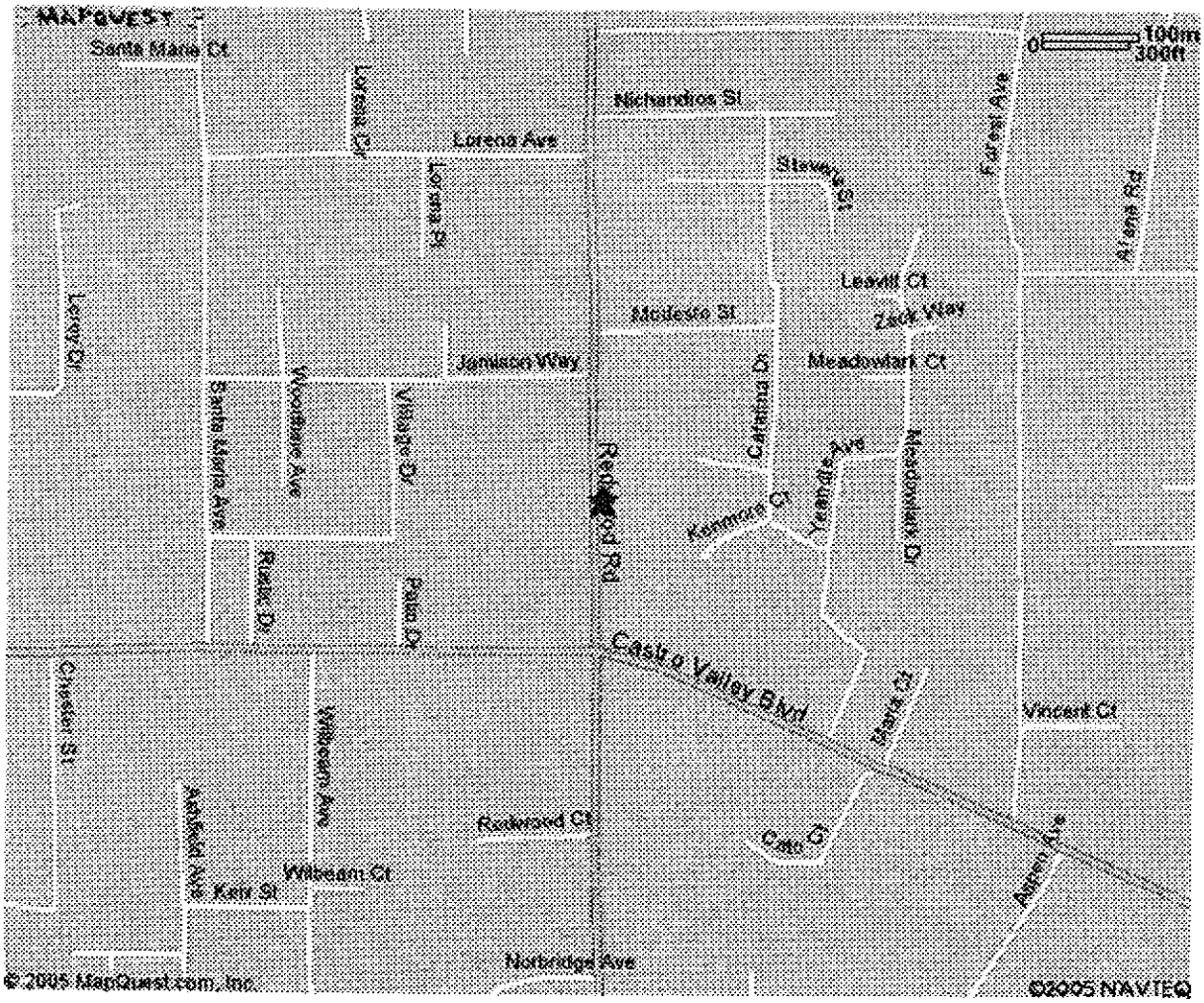
File # 4

P&D Notes

MAPQUEST.

20450 Redwood Rd
Castro Valley CA
94546-4316 US

Notes:



CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

Department of Water Resources

File # 5

REGION _____ DEPARTMENT OF WATER RESOURCES BASIN _____

COUNTY _____ DEPARTMENT OF PUBLIC WORKS DWR No. 3S/2W-3F1 B & M

NEAR _____ STATE OF CALIFORNIA OTHER Nos. 01-1387 [redacted]

WELL LOG

LOCATION Forest ave- Castro Valley

OWNER Wolfe ADDRESS _____

DRILLED BY De Lucchi ADDRESS _____

DRILLING METHOD _____ GRAVEL PACKED _____ DATE COMPLETED June, 1949

SIZE OF CASING DEPTH _____ STRUCK WATER AT _____

PERFORATIONS _____ SIZE _____ No. _____

WATER LEVEL BEFORE PERFORATING _____ AFTER _____

TEST DATA: DISCHARGE G. P. M. _____ DRAWDOWN FT. _____ HOURS RUN _____

OTHER DATA AVAILABLE: WATER LEVEL RECORD _____ ANALYSIS _____

SURFACE ELEV. _____ DATUM _____ SOURCE OF INFORMATION _____

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICK-NESS	SP. YIELD %
1 - 3		top soil		
3 - 6		hard clay		
6 - 10		river clay		
10 - 19		sandy clay		
19 - 31		clay-gray		
31 - 34		clay- black		
34 - 37		brown clay		
37 - 42		sand and gravel		
42 - 45		clay and		
45 - 51		sand and gravel		

Plotted and Coded As Well

FOR FIELD COPIES USE ALTERNATE LINES

LOG OBTAINED BY _____ DATE _____ SHEET 1 OF _____

FORM 263, 45981 11-67 10M △ SPO

Department of Water Resources

File # 6

REGION

COUNTY

NEAR

DEPARTMENT OF WATER RESOURCES
DEPARTMENT OF PUBLIC WORKS
STATE OF CALIFORNIA

WELL LOG

BASIN 3 F

DWR No. 3S/2W-

OTHER Nos.

01-1389

LOCATION Forest Ave., Castro valley

OWNER Martina Nursery ADDRESS

DRILLED BY DE Lucchi ADDRESS

DRILLING METHOD GRAVEL PACKED DATE COMPLETED July, 1949

SIZE OF CASING DEPTH STRUCK WATER AT

PERFORATIONS SIZE No.

WATER LEVEL BEFORE PERFORATING AFTER

TEST DATA: DISCHARGE G. P. M. DRAWDOWN FT. HOURS RUN

OTHER DATA AVAILABLE: WATER LEVEL RECORD ANALYSIS

SURFACE ELEV. DATUM SOURCE OF INFORMATION

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICKNESS	SP. YIELD %
1 - 3		top soil		
3 - 11		sand and brown clay		
11 - 25		sandy clay		
25 - 27		clay and gravel		
27 - 39		gray gravel		
39 - 48		brown clay		
48 - 54		black clay		
54 - 60		packed sand		
60 - 63		sand and gravel		
63 - ro		rock		

FOR FIELD COPIES USE ALTERNATE LINES

LOG OBTAINED BY DATE SHEET 1 OF

FORM 263. 43981 11-47 30M △ SPG

Department of Water Resources

File # 7

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

01-1388

Report No. 152

Owner Martin Nursery

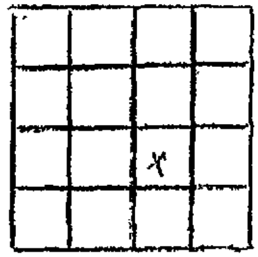
Pump No. Bx 1084

Meter No.

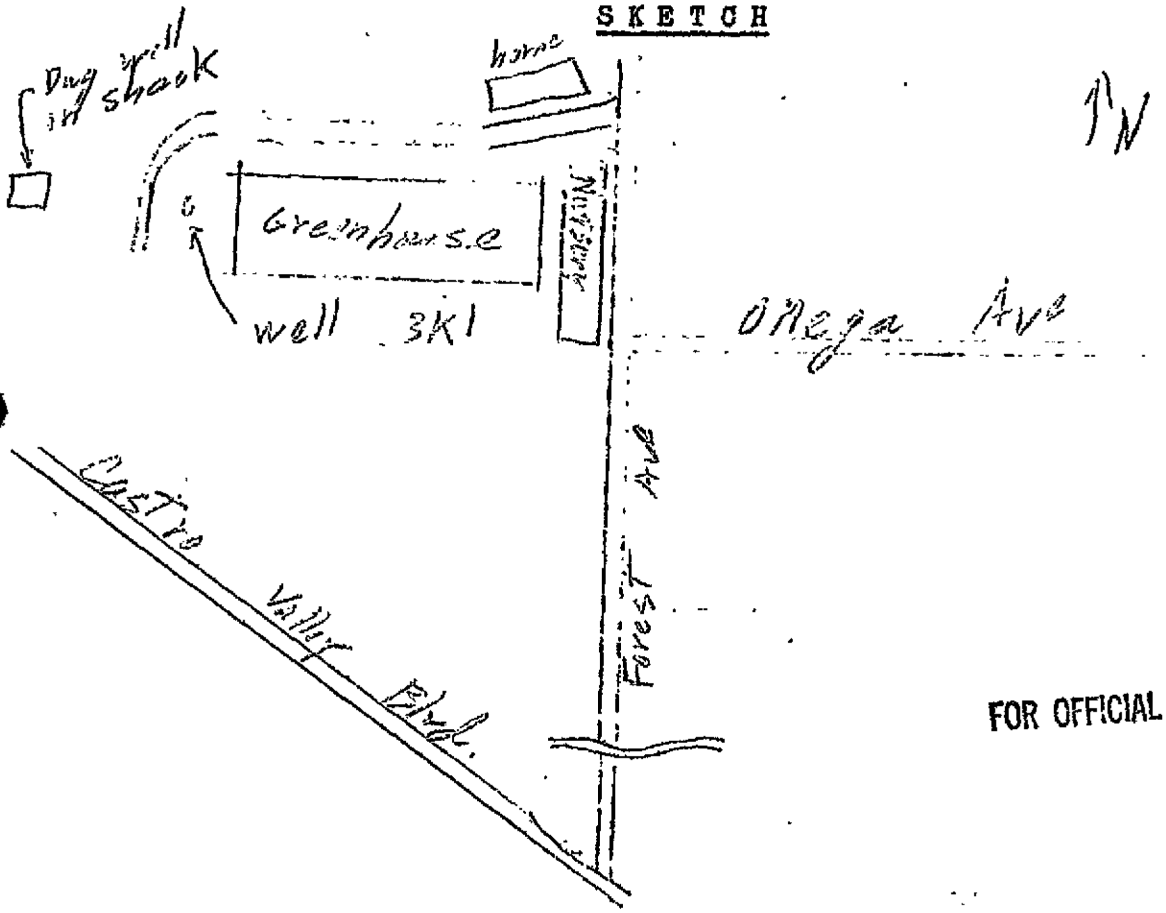
Region 2 ; County Alameda

Township 3S , Range 2W , Section 3K , MD B&M.

1300 ft. north, 2400 ft. west from southeast corner of Section.



SKETCH



FOR OFFICIAL USE ONLY

DESCRIPTION OR REMARKS

In Castro Valley 0.4 Mi N/o Castro Valley Rd. on Forest Ave to Martin Nursery on W side of Rd; well W/s Greenhouses.

Checked by R F Zipf Date Sept 11, 195?

Department of Water Resources

File # 8

REGION _____ DEPARTMENT OF WATER RESOURCES BASIN 3 1C

COUNTY _____ DEPARTMENT OF PUBLIC WORKS DWR No. 3S/2W-36J 1 _____ B & M

NEAR _____ STATE OF CALIFORNIA OTHER Nos. _____

WELL LOG

01-1390 [redacted]

LOCATION _____

OWNER Martin Nursery ADDRESS Forest Ave. Castro Valley

DRILLED BY R.De Lucchi ADDRESS _____

DRILLING METHOD _____ GRAVEL PACKED _____ DATE COMPLETED _____

SIZE OF CASING DEPTH _____ STRUCK WATER AT _____

PERFORATIONS 62-78 SIZE _____ No. _____

WATER LEVEL BEFORE PERFORATING _____ AFTER _____

TEST DATA: DISCHARGE G. P. M. _____ DRAWDOWN FT. _____ HOURS RUN _____

OTHER DATA AVAILABLE: WATER LEVEL RECORD _____ ANALYSIS _____

SURFACE ELEV. _____ DATUM _____ SOURCE OF INFORMATION _____

DEPTH.	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICK-NESS	SP. YIELD %
0 - 5		soil		
5 - 15		yellow clay		
15 - 24		gravel		
24 - 29		yellow clay		
29 - 55		brown clay		
55 - 66		sand and gravel		
66 - 70		shale		

FOR FIELD COPIES USE ALTERNATE LINES

LOG OBTAINED BY _____ DATE _____ SHEET 1 OF _____

FORM 263, 65981 11-57 10M △ SPO

Department of Water Resources

File # 9

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

Department of Water Resources

File # 10

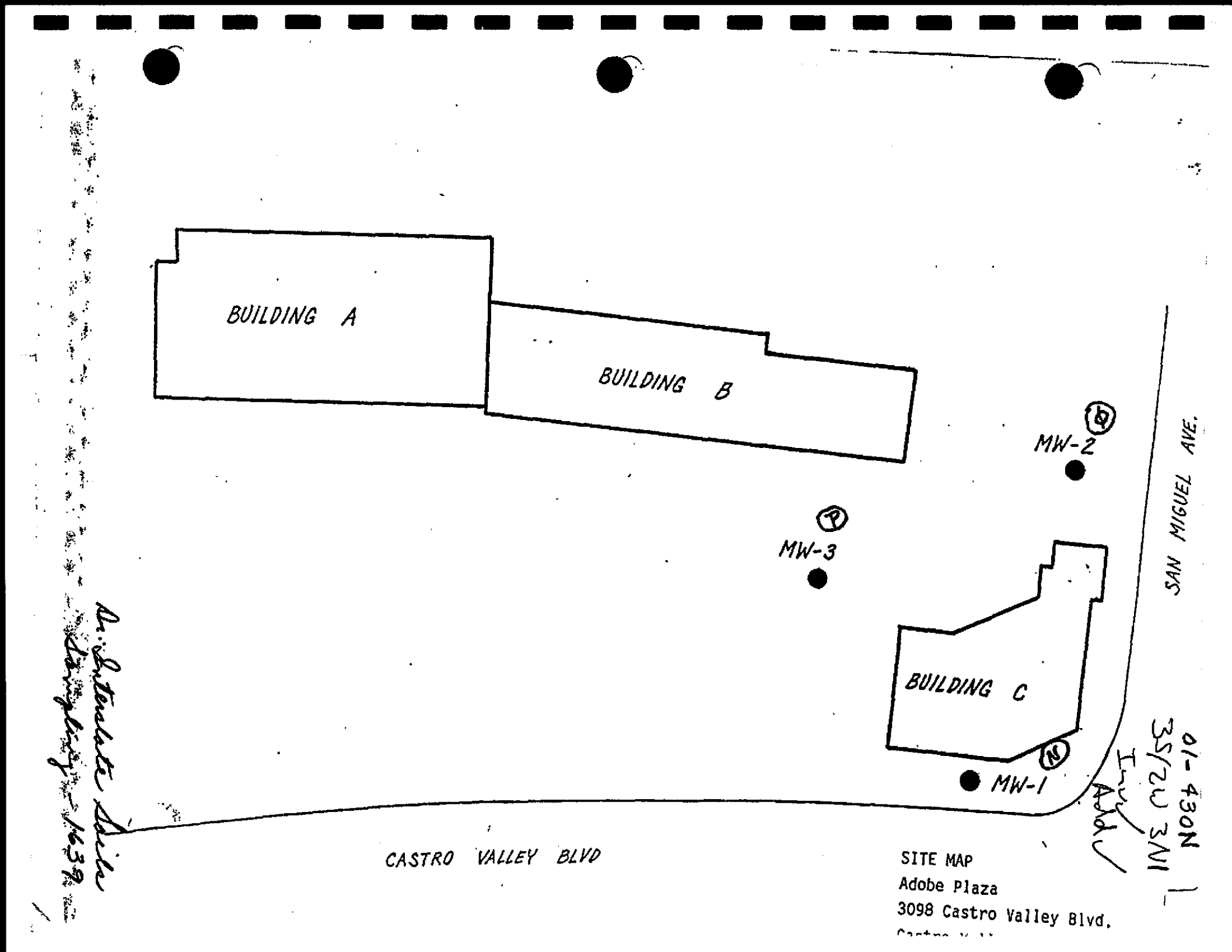
File #10

P&D Notes

3098 Castro Valley Blvd

DWR designation					Boring Log Designation
3S	/2W	3N1	01-430	N	MW1
"	"	"	"	ϕ	MW2
"	"	"	"	P	MW3

Includes Lab Data



SITE MAP
Adobe Plaza
3098 Castro Valley Blvd.

01-430N

NATIONAL ENVIRONMENTAL TESTING, INC.

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

Formerly: ANATEC Labs, Inc.

Bruce Hageman
Hageman-Schank, Inc.
2723 Crow Canyon Rd., #210
San Ramon, CA 94583

08-24-89
NET Pacific Log No: 7400
Series No: 341
Client Ref: Bruce Hageman

Subject: Analytical Results for "Adobe Plaza, 3098 Castro Valley Blvd., Castro Valley, CA" Received 08-11-89.

Dear Mr. Hageman:

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Submitted by:

Susan Joy Griffin
Group Leader
Gas Chromatography

Approved by:

Brian Fies
Group Leader
Atomic Spectroscopy

/sm
Enc: Sample Custody Document

1639

KEY TO ABBREVIATIONS and METHOD REFERENCES

Abbreviations

mean : Average; sum of measurements divided by number of measurements.

mg/Kg (ppm) : Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).

mg/L : Concentration in units of milligrams of analyte per liter of sample.

mL/L/hr : Milliliters per liter per hour.

MPN/100 mL : Most probable number of bacteria per one hundred milliliters of sample.

N/A : Not applicable.

NA : Not analyzed.

ND : Not detected; the analyte concentration is less than applicable listed reporting limit.

NR : Not requested.

NTU : Nephelometric turbidity units.

RPD : Relative percent difference, 100 [Value 1 - Value 2]/mean value.

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ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).

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

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

THE COVER LETTER AND KEY TO ABBREVIATIONS ARE AN INTEGRAL PART OF THIS REPORT

Parameter	Reporting Limit (mg/Kg)	Descriptor, Lab No. and Results				
		MW-1-5' 08-11-89 0845 (-32811)	MW-1-8' 08-11-89 0850 (-32812)[a]	MW-1-10' 08-11-89 0858 (-32813)	MW-1-12' 08-11-89 0900 (-32814)	MW-1-15' 08-11-89 0910 (-32815)
PETROLEUM HYDROCARBONS VOLATILE (SOIL)						
DILUTION FACTOR		1	25	1	1	1
DATE ANALYZED	08-18-89	08-18-89	08-18-89	08-18-89	08-18-89	08-18-89
METHOD GC FID/5030 as Gasoline	10	ND	1,300	70	ND	ND

Parameter	Reporting Limit (ug/Kg)	Descriptor, Lab No. and Results				
		MW-1-5' 08-11-89 0845 (-32811)	MW-1-8' 08-11-89 0850 (-32812)	MW-1-10' 08-11-89 0858 (-32813)	MW-1-12' 08-11-89 0900 (-32814)	MW-1-15' 08-11-89 0910 (-32815)
METHOD 8020						
Benzene	25	ND	ND	51	ND	ND
Ethylbenzene	75	ND	21,000	970	ND	ND
Toluene	25	ND	30,000	1,400	170	110
Xylenes, total	75	ND	110,000	5,000	370	ND

[a]The reporting limits for this sample are 25 times the listed reporting limits.

Parameter	Reporting Limit (mg/Kg)	Descriptor, Lab No. and Results: MW-1-20' 08-11-89 0925 (-32816)	MW-2-5' 08-11-89 1155 (-32817)	MW-2-10' 08-11-89 1210 (-32818)	MW-3-5' 08-11-89 1415 (-32819)	MW-3-10' 08-11-89 1425 (-32820)
PETROLEUM HYDROCARBONS VOLATILE (SOIL)						
DILUTION FACTOR		1	1	1	1	1
DATE ANALYZED	08-18-89	08-18-89	08-18-89	08-18-89	08-18-89	08-18-89
METHOD GC FID/5030 as Gasoline	10	ND	11	ND	ND	ND

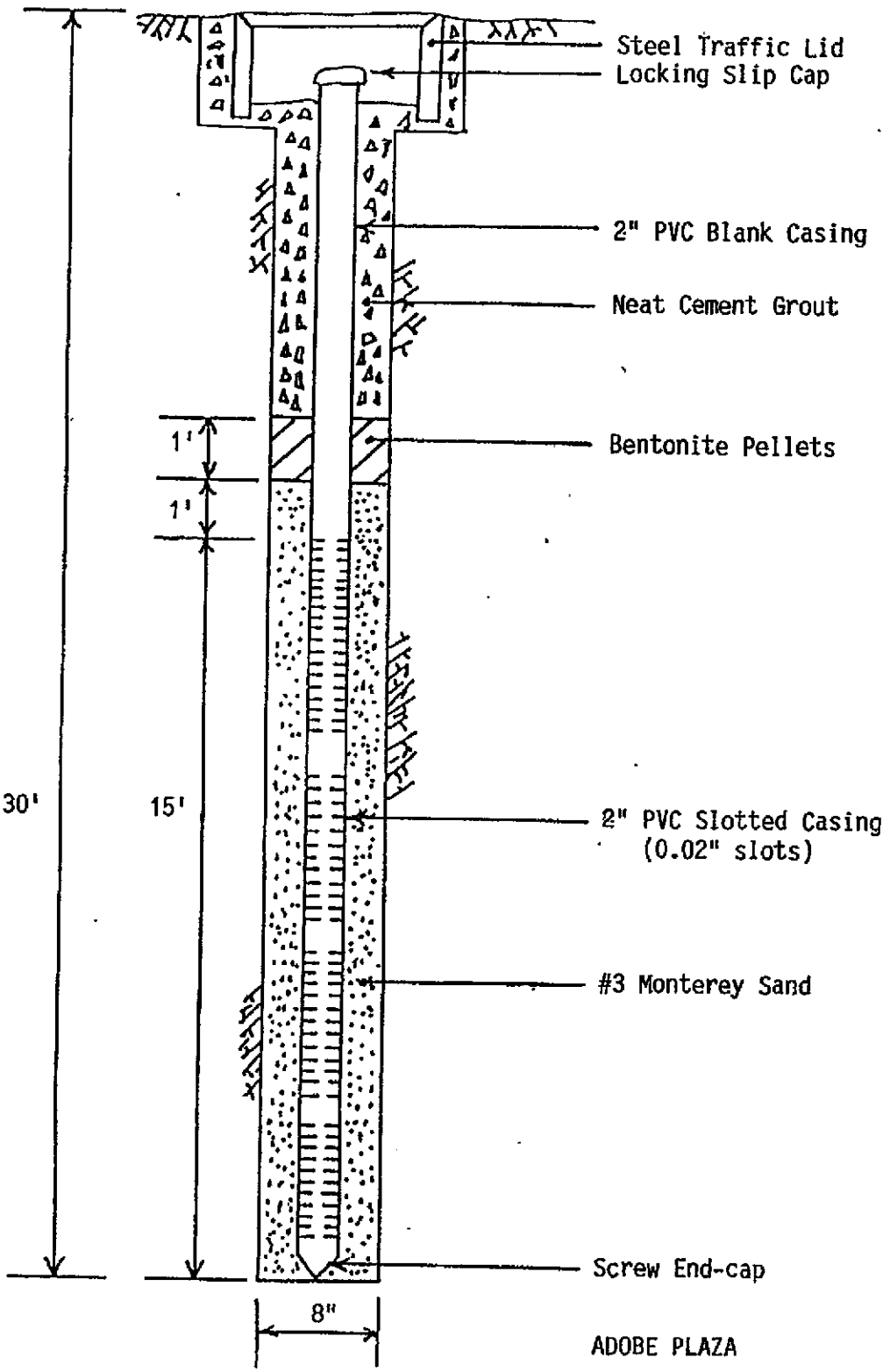
Parameter	Reporting Limit (ug/Kg)	Descriptor, Lab No. and Results: MW-1-20' 08-11-89 0925 (-32816)	MW-2-5' 08-11-89 1155 (-32817)	MW-2-10' 08-11-89 1210 (-32818)	MW-3-5' 08-11-89 1415 (-32819)	MW-3-10' 08-11-89 1425 (-32820)
METHOD 8020						
Benzene	25	ND	ND	ND	ND	ND
Ethylbenzene	75	ND	ND	ND	ND	ND
Toluene	25	76	2,200	120	210	140
Xylenes, total	75	ND	ND	ND	ND	ND

Parameter	Reporting Limit (mg/Kg)	Descriptor, Lab No. and Results MW-3-15' 08-11-89 1437 (-32821)
PETROLEUM HYDROCARBONS VOLATILE (SOIL)		
DILUTION FACTOR		1
DATE ANALYZED		08-18-89
METHOD GC FID/5030 as Gasoline	10	ND

Parameter	Reporting Limit (mg/Kg)	Descriptor, Lab No. and Results MW-3-15' 08-11-89 1437 (-32821)
METHOD 8020		
Benzene	25	ND
Ethylbenzene	75	ND
Toluene	25	78
Xylenes, total	75	ND

01-430N
3S/2W 3N 1
Inv/Addv

MONITORING WELL MW-1



ADOBE PLAZA
3098 Castro Valley Blvd.
Castro Valley

1639

Lic #97-501384
01-430N

LOCATION OF BORING

SEE SITE MAP

JOB NO.	CLIENT	LOCATION
	ADOBE PLAZA	CASTRO VALLEY

DRILLING METHOD: 8" HOLLOW STEM AUGER

SAMPLING METHOD: 2" SPLIT BARREL SAMPLER WITH BRASS LINERS

BORING NO: MW-1

SHEET: 1 of 2

					DRILLING START	DRILLING FINISH
WATER LEVEL						
TIME					0810	1000
DATE					8/11/89	8/11/89
CASING DEPTH						

DATUM

ELEVATION

DRILLING CONTR

BY

DATE

CHK'D BY

SAMPLER TYPE	INCHES DRIVEN / INCHES RECOVERED	DEPTH OF CASING	SAMPLE NO. / SAMPLE DEPTH	BLOWS/FT. SAMPLER	TIME	DEPTH IN FEET	SOIL GRAPH
						0	
						1	
						2	
						3	
						4	
2" SPLIT	18/18			6/8/11	0845	5	
						6	
						7	
2" SPLIT	18/18			6/9/13	0850	8	
						9	
2" SPLIT	18/18			3/6/9	0858	10	
						1	
						2	
2" SPLIT	18/18			4/7/7	0900	3	
						4	
						5	
2" SPLIT	18/12			6/11/13	0910	6	
						7	
						8	
						9	
						20	

SURFACE CONDITIONS: PLANTER AREA

TOP SOIL

DK GREY CLAY (CL), SLIGHTLY MOIST, SILTY, SLIGHT PLASTICITY

GREY/BRN CLAY (CL), SLIGHTLY MOIST, VARIEGATED COLOR, SILTY, CRUMBLY

(NO ODOR)

BRN CLAYEY SAND (SC), VERY MOIST, OCCASIONAL GRAVEL TO ½" (ANGULAR & SUB-ANGULAR), SAND FINE TO MEDIUM GRAIN, DENSE, VARYING CLAY CONTENT

(SLIGHT GASOLINE ODOR)

GREY/BRN CLAY (CL), SLIGHTLY MOIST, MOTTLED WITH BLACK STREAKS (ORGANIC MATTER), STIFF

(SLIGHT GASOLINE ODOR)

BRN CLAYEY SAND (SC), SLIGHTLY MOIST, VERY CLAYEY

(NO ODOR)

GREY CLAY (CL), NEARLY DRY, VERY DENSE, MODERATE PLASTICITY, SILTY, STIFF

GREY SILT (SM), SATURATED, SLIGHTLY CLAYEY, DENSE

01-430N

LOCATION OF BORING

JOB NO.	CLIENT	LOCATION
	ADOBE PLAZA	CASTRO VALLEY

DRILLING METHOD:

SAMPLING METHOD:

BORING NO: MW-1

SHEET: 2 of 2

					DRILLING START TIME	DRILLING FINISH TIME
WATER LEVEL						
TIME						
DATE					DATE	DATE
CASING DEPTH						

DATUM ELEVATION

DRILLING CONTR.

DATE CHK'D BY

SAMPLER TYPE	INCHES DRIVEN / INCHES RECOVERED	DEPTH OF CASING	SAMPLE NO. / SAMPLE DEPTH	BLOWS/FT. SAMPLER	TIME	DEPTH IN FEET	SOIL GRAPH
						20	
2" SPLIT	18/18			10/12/13	0925	1	
						2	
						3	
						4	
						5	
						6	
						7	
						8	
						9	
						30	
						1	
						2	
						3	
						4	
						5	
						6	
						7	
						8	
						9	
						0	

SURFACE CONDITIONS:

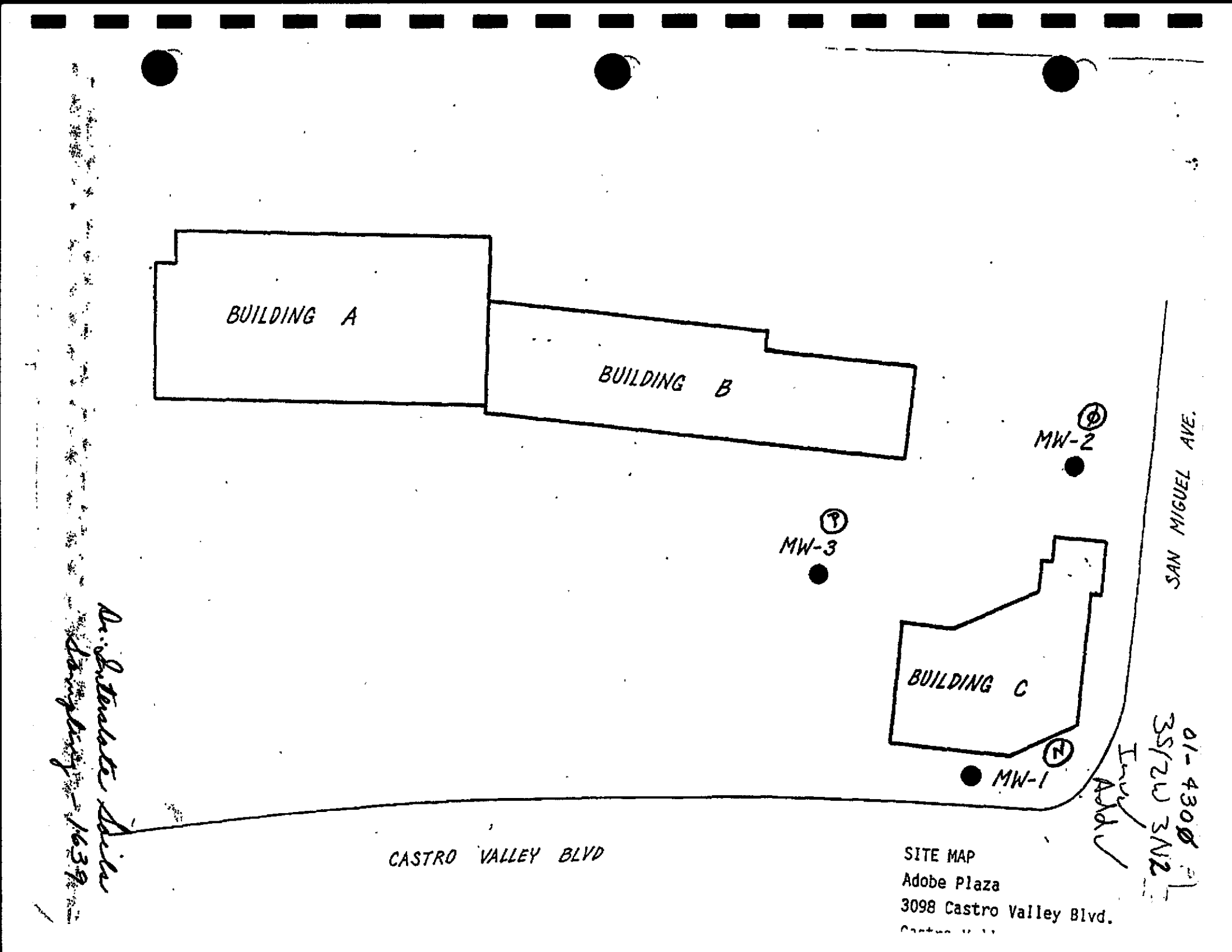
GREY SILT (SM), SATURATED, SLIGHTLY CLAYEY, DENSE

SAME, VARYING CLAY CONTENT

TOTAL DEPTH = 30' BLS

15' SCREEN
15' BLANK

REGISTERED PROFESSIONAL ENGINEER
GARY H. AGUIAR
No. C-34262
CIVIL
STATE OF CALIFORNIA



SITE MAP
Adobe Plaza
3098 Castro Valley Blvd.

01-4306

NATIONAL ENVIRONMENTAL TESTING, INC.

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

Formerly: ANATEC Labs, Inc.

Bruce Hageman
Hageman-Schank, Inc.
2723 Crow Canyon Rd., #210
San Ramon, CA 94583

08-24-89
NET Pacific Log No: 7400
Series No: 341
Client Ref: Bruce Hageman

Subject: Analytical Results for "Adobe Plaza, 3098 Castro Valley Blvd., Castro Valley, CA" Received 08-11-89.

Dear Mr. Hageman:

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Submitted by:

Susan Joy Griffin
Group Leader
Gas Chromatography

Approved by:

Brian Fies
Group Leader
Atomic Spectroscopy

/sm
Enc: Sample Custody Document

1639

KEY TO ABBREVIATIONS and METHOD REFERENCES

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PETROLEUM HYDROCARBONS VOLATILE (SOIL)						
DILUTION FACTOR		1	25	1	1	1
DATE ANALYZED	08-18-89	08-18-89	08-18-89	08-18-89	08-18-89	08-18-89
METHOD GC FID/5030 as Gasoline	10	ND	1,300	70	ND	ND

Parameter	Reporting Limit (ug/Kg)	Descriptor, Lab No. and Results				
		MW-1-5' 08-11-89 0845 (-32811)	MW-1-8' 08-11-89 0850 (-32812)	MW-1-10' 08-11-89 0858 (-32813)	MW-1-12' 08-11-89 0900 (-32814)	MW-1-15' 08-11-89 0910 (-32815)
METHOD 8020						
Benzene	25	ND	ND	51	ND	ND
Ethylbenzene	75	ND	21,000	970	ND	ND
Toluene	25	ND	30,000	1,400	170	110
Xylenes, total	75	ND	110,000	5,000	370	ND

[a]The reporting limits for this sample are 25 times the listed reporting limits.

Parameter	Reporting Limit (mg/Kg)	Descriptor, Lab No. and Results MW-1-20' 08-11-89 0925 (-32816)	MW-2-5' 08-11-89 1155 (-32817)	MW-2-10' 08-11-89 1210 (-32818)	MW-3-5' 08-11-89 1415 (-32819)	MW-3-10' 08-11-89 1425 (-32820)
PETROLEUM HYDROCARBONS VOLATILE (SOIL)						
DILUTION FACTOR		1	1	1	1	1
DATE ANALYZED	08-18-89	08-18-89	08-18-89	08-18-89	08-18-89	08-18-89
METHOD GC FID/5030						
as Gasoline	10	ND	11	ND	ND	ND

Parameter	Reporting Limit (ug/Kg)	Descriptor, Lab No. and Results MW-1-20' 08-11-89 0925 (-32816)	MW-2-5' 08-11-89 1155 (-32817)	MW-2-10' 08-11-89 1210 (-32818)	MW-3-5' 08-11-89 1415 (-32819)	MW-3-10' 08-11-89 1425 (-32820)
METHOD 8020						
Benzene	25	ND	ND	ND	ND	ND
Ethylbenzene	75	ND	ND	ND	ND	ND
Toluene	25	76	2,200	120	210	140
Xylenes, total	75	ND	ND	ND	ND	ND

Parameter	Reporting Limit (mg/Kg)	Descriptor, Lab No. and Results MW-3-15' 08-11-89 1437 (-32821)
PETROLEUM HYDROCARBONS VOLATILE (SOIL)		
DILUTION FACTOR		1
DATE ANALYZED		08-18-89
METHOD GC FID/5030 as Gasoline	10	ND

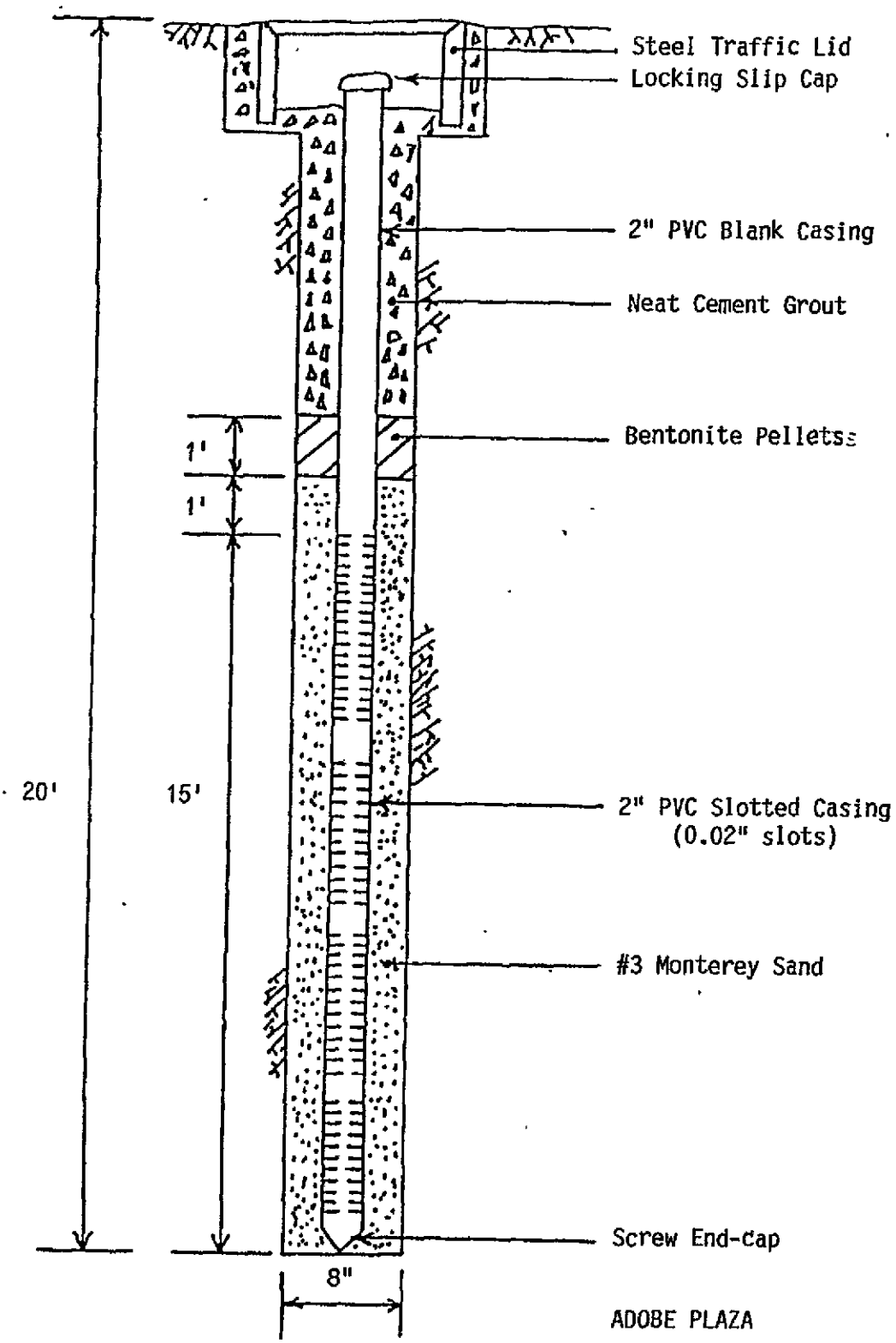
Parameter	Reporting Limit (mg/Kg)	Descriptor, Lab No. and Results MW-3-15' 08-11-89 1437 (-32821)
METHOD 8020		
Benzene	25	ND
Ethylbenzene	75	ND
Toluene	25	78
Xylenes, total	75	ND

01-4300

35/2W 3N2

Inv/Add/

MONITORING WELL MW-2



ADOBE PLAZA
3098 Castro Valley Blvd.
Castro Valley

1639

01-430-0

LOCATION OF BORING

SEE SITE MAP

JOB NO.	CLIENT	LOCATION
	ADOBE PLAZA	CASTRO VALLEY

DRILLING METHOD: 8" HOLLOW STEM AUGERS

SAMPLING METHOD: 2" SPLIT BARREL SAMPLER WITH BRASS LINERS

BORING NO: MW-2

SHEET: 1 OF 1

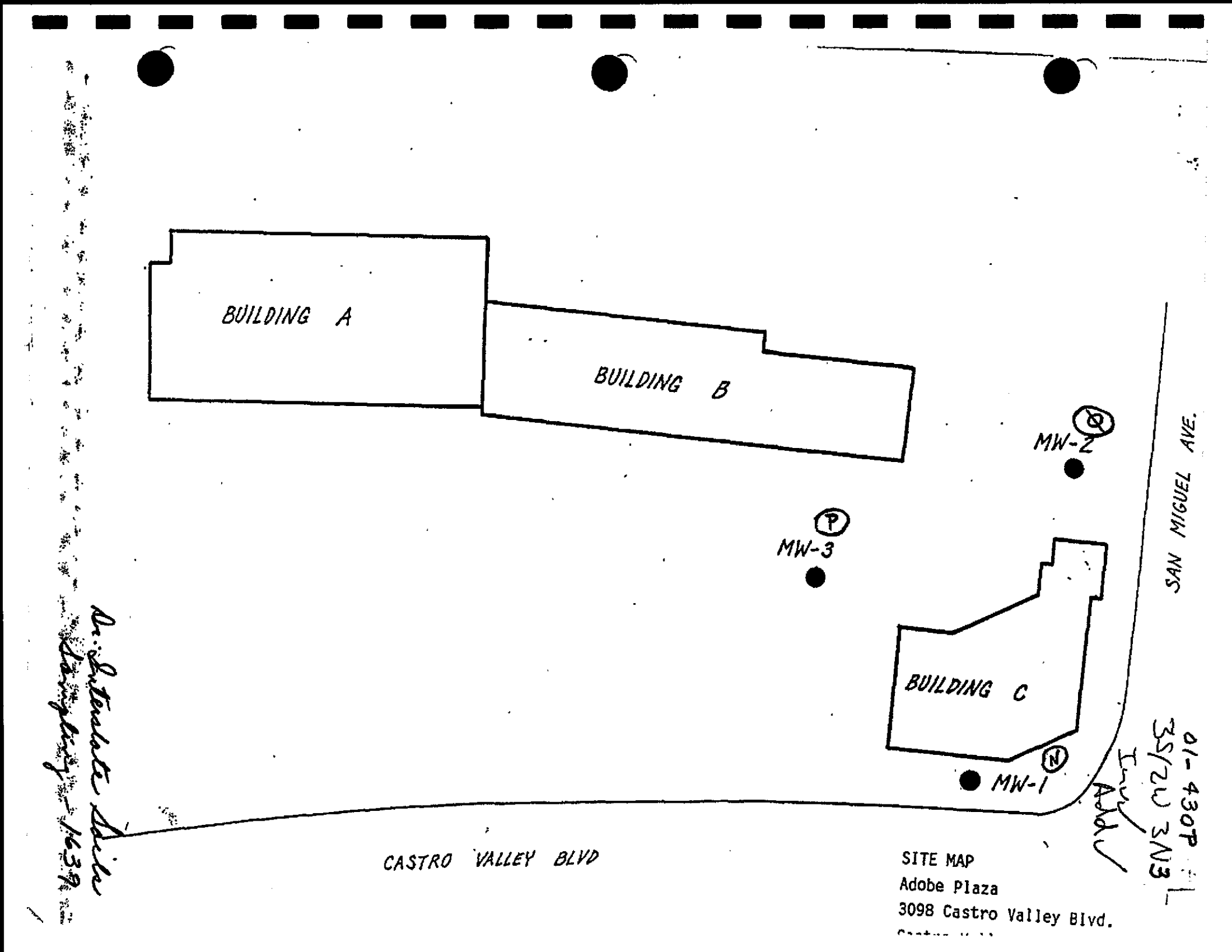
					DRILLING START	DRILLING FINISH
WATER LEVEL						
TIME					1145	1230
DATE					8/11/89	8/11/89
CASING DEPTH						

DRILLING CONTR. _____ DATUM _____ ELEVATION _____

BY _____ DATE _____ CHK'D BY _____

SAMPLER TYPE	INCHES DRIVEN / INCHES RECOVERED	DEPTH OF CASING	SAMPLE NO. / SAMPLE DEPTH	BLOWS/FT. SAMPLER	TIME	DEPTH IN FEET	SOIL GRAPH	SURFACE CONDITIONS: PLANTER AREA
						0		TOPSOIL
						1		DK GREY GRAVELLY CLAY (CL), DRY, CRUMBLY, GRAVEL TO 1/2"
						2		
						3		
						4		
2" SPLIT	18/18			2/3/4	1155	5		SAME, DRY
						6		
						7		BRN CLAYEY SILT (ML), MOIST, HIGH SILT CONTENT, LOW PLASTICITY
						8		
						9		
						10		
2" SPLIT	18/18			6/8/10	1210	1		BRN CLAYEY SAND (SC), SATURATED, LOOSE, SAND FINE TO MEDIUM GRAIN
						2		
						3		
						4		
						5		GREY/BRN CLAYEY SILT (ML), MOIST, VARIEGATED COLOR, DENSE, SLIGHTLY STIFF
2" SPLIT	18/18			3/3/5	1220	6		
						7		
						8		
						9		SAME, GREY & BRN COLOR IN WELL-DEFINED THIN LAYERS
PIN					1230	20		TOTAL DEPTH = 20' BLS

REGISTERED PROFESSIONAL ENGINEER
GARY H. AGUIAR
No. C-34262
CIVIL
STATE OF CALIFORNIA



SITE MAP
Adobe Plaza
3098 Castro Valley Blvd.

01-430P

NATIONAL ENVIRONMENTAL TESTING, INC.

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

Formerly: ANATEC Labs, Inc.

Bruce Hageman
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08-24-89
NET Pacific Log No: 7400
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Client Ref: Bruce Hageman

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Group Leader
Gas Chromatography

Approved by:

Brian Fies
Group Leader
Atomic Spectroscopy

/sm
Enc: Sample Custody Document

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Parameter	Reporting Limit (mg/Kg)	Descriptor, Lab No. and Results: MW-1-5' 08-11-89 0845 (-32811)	MW-1-8' 08-11-89 0850 (-32812)[a]	MW-1-10' 08-11-89 0858 (-32813)	MW-1-12' 08-11-89 0900 (-32814)	MW-1-15' 08-11-89 0910 (-32815)
PETROLEUM HYDROCARBONS VOLATILE (SOIL)						
DILUTION FACTOR		1	25	1	1	1
DATE ANALYZED	08-18-89	08-18-89	08-18-89	08-18-89	08-18-89	08-18-89
METHOD GC FID/5030 as Gasoline	10	ND	1,300	70 .	ND	ND

Parameter	Reporting Limit (ug/Kg)	Descriptor, Lab No. and Results: MW-1-5' 08-11-89 0845 (-32811)	MW-1-8' 08-11-89 0850 (-32812)	MW-1-10' 08-11-89 0858 (-32813)	MW-1-12' 08-11-89 0900 (-32814)	MW-1-15' 08-11-89 0910 (-32815)
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Benzene	25	ND	ND	51	ND	ND
Ethylbenzene	75	ND	21,000	970	ND	ND
Toluene	25	ND	30,000	1,400	170	110
Xylenes, total	75	ND	110,000	5,000	370	ND

[a]The reporting limits for this sample are 25 times the listed reporting limits.

Parameter	Reporting Limit (mg/Kg)	Descriptor, Lab No. and Results MW-1-20' 08-11-89 0925 (-32816)	MW-2-5' 08-11-89 1155 (-32817)	MW-2-10' 08-11-89 1210 (-32818)	MW-3-5' 08-11-89 1415 (-32819)	MW-3-10' 08-11-89 1425 (-32820)
PETROLEUM HYDROCARBONS VOLATILE (SOIL)						
DILUTION FACTOR		1	1	1	1	1
DATE ANALYZED	08-18-89	08-18-89	08-18-89	08-18-89	08-18-89	08-18-89
METHOD GC FID/5030 as Gasoline	10	ND	11	ND	ND	ND

Parameter	Reporting Limit (ug/Kg)	Descriptor, Lab No. and Results MW-1-20' 08-11-89 0925 (-32816)	MW-2-5' 08-11-89 1155 (-32817)	MW-2-10' 08-11-89 1210 (-32818)	MW-3-5' 08-11-89 1415 (-32819)	MW-3-10' 08-11-89 1425 (-32820)
METHOD 8020						
Benzene	25	ND	ND	ND	ND	ND
Ethylbenzene	75	ND	ND	ND	ND	ND
Toluene	25	76	2,200	120	210	140
Xylenes, total	75	ND	ND	ND	ND	ND

01-430T

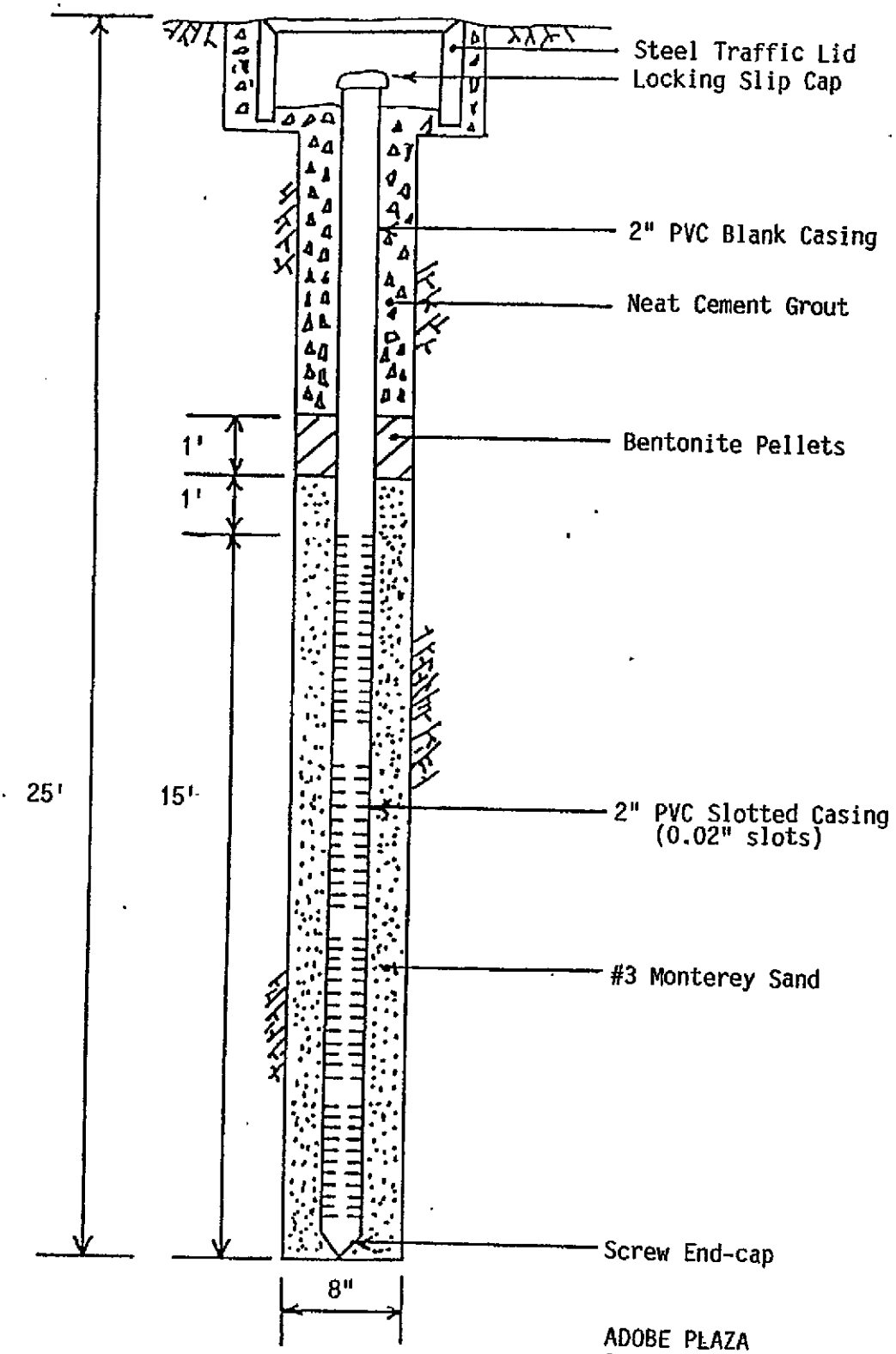
NET

Parameter	Reporting Limit (mg/Kg)	Descriptor, Lab No. and Results MW-3-15' 08-11-89 1437 (-32821)
PETROLEUM HYDROCARBONS VOLATILE (SOIL)		
DILUTION FACTOR		1
DATE ANALYZED		08-18-89
METHOD GC FID/5030		
as Gasoline	10	ND

Parameter	Reporting Limit (mg/Kg)	Descriptor, Lab No. and Results MW-3-15' 08-11-89 1437 (-32821)
METHOD 8020		
Benzene	25	ND
Ethylbenzene	75	ND
Toluene	25	78
Xylenes, total	75	ND

01-430P
3S/2W 3N3
Inv/Add

MONITORING WELL MW-3



ADOBE PLAZA
3098 Castro Valley Blvd.
Castro Valley

1639

LOCATION OF BORING

SEE SITE MAP

JOB NO.	CLIENT	LOCATION
	ADOBE PLAZA	CASTRO VALLEY

DRILLING METHOD: 8" HOLLOW STEM AUGER

BORING NO: MW-3

SHEET: 1 OF 2

SAMPLING METHOD: 2" SPLIT BARREL SAMPLER WITH BRASS LINERS

					DRILLING START	DRILLING FINISH
WATER LEVEL						
TIME					1410	1500
DATE					8/11/89	8/11/89
CASING DEPTH						

DRILLING CONTR. _____ DATUM _____ ELEVATION _____

BY _____ CHK'D BY _____ DATE _____

SAMPLER TYPE	INCHES DRIVEN / INCHES RECOVERED	DEPTH OF CASING	SAMPLE NO. / SAMPLE DEPTH	BLOWS/FT. SAMPLER	TIME	DEPTH IN FEET	SOIL GRAPH
						0	
						1	
						2	
						3	
						4	
2" SPLIT	18/18			5/7/8	1415	5	
						6	
						7	
						8	
						9	
2" SPLIT	18/18			3/4/5	1425	10	
						1	
						2	
						3	
						4	
2" SPLIT	18/15			4/9/13	1437	5	
						6	
						7	
						8	
						9	
						20	

SURFACE CONDITIONS: PLANTER AREA

TOPSOIL

BRN/GREY CLAY (CL), SLIGHTLY MOIST, BRN COLOR WITH GREY STREAKS, BLACK SPOTS (ORGANIC MATTER), STIFF

SAME, SLIGHTLY MOIST

BRN/GREY CLAYEY SILT (ML), SLIGHTLY MOIST, BRN COLOR WITH GREY STREAKS, STIFF

SAME, NEARLY SATURATED, BLACK SPOTS (ORGANIC MATTER)

BRN CLAYEY SAND (SC), SATURATED, LOOSE, FINE TO MEDIUM GRAIN, (ROUNDED)

GREY SAND (SW), SATURATED

91-430 P

LOCATION OF BORING

JOB NO.	CLIENT	LOCATION
	ADOBE PLAZA	CASTRO VALLEY

DRILLING METHOD:

SAMPLING METHOD:

BORING NO: MW-3

SHEET: 2 of 2

					DRILLING START TIME	DRILLING FINISH TIME
WATER LEVEL						
TIME						
DATE					DATE 8/11/89	DATE
CASING DEPTH						

DATUM ELEVATION

DRILLING CONTR.

BY DATE CHK'D BY

SAMPLER TYPE	INCHES DRIVEN / INCHES RECOVERED	DEPTH OF CASING	SAMPLE NO. / SAMPLE DEPTH	BLOWS/FT. SAMPLER		DEPTH IN FEET	SOIL GRAPH
						20	
						1	
						2	
						3	
						4	
						5	
						6	
						7	
						8	
						9	
						30	
						1	
						2	
						3	
						4	
						5	
						6	
						7	
						8	
						9	
						0	

SURFACE CONDITIONS:

GREY SAND (SW), SATURATED, WELL GRADED FINE TO COARSE, OCCASIONAL GRAVEL TO 1", RIVER-RUN SAND, VARIABLE MIXTURE OF QUARTZ, CHERT, BASALT, APPROX 5% CLAY CONTENT, LOOSE

GREY CLAYEY SILT, NEARLY DRY, STIFF

TOTAL DEPTH = 25' BLS

15' SCREEN
10' BLANK

REGISTERED PROFESSIONAL ENGINEER
GARY H. AGUIAR
No. C-34262
CIVIL
STATE OF CALIFORNIA

Department of Water Resources

File # 11

P&D Environmental
Summary Notes

Mitzi Stockel

DWR Designation			Boring Log Designation	Date on boring log	Coarse grained material?
3S/2W	3N4/01-458	D	MW1	4/25-/90	sand 10.5-16
" "	3N 5/ 01-458	E	MW2	"	sand 15-16
" "	3N 6/01-458	F	MW 3	"	silty sand 15-16
" "	3N 7/ 01 -458	G	4	5-/11/90	silty sand 7-23
" "	3N 8/ 01 -458	H	B13/MW 5	5-/16/90	sand 14.5 to2
" "	3N / " "	I	B1	4/24/90	
" "	3N / " "	J	B2	"	
" "	3N / " "	K	B3	"	
" "	3N / " "	L	B4	"	
" "	3N / " "	M	B5	"	
" "	3N / " "	N	B6	"	
" "	3N / " "	P	B7	"	
" "	3N / " "	Q	B8	"	
" "	3N / " "	R	B9	4/25-25/90	sand 18 to 20
" "	3N / " "	S	B10	4/25/90	
" "	3N / " "	T	B11	5-/11/90	sand 7 to 16

All SB's are 8' deep

except B9 = 20'
B11 = 16'

P&D ENV Notes

Possible site for File # 11 SW

DOGPILE All the best search engines piled into one.

Web | Images | Audio | Video | News | Yellow Pages | **White Pages**

First Name | Stockel | Castro Valley | CA | Go Fetch!

Searched Mitzi Stockel
Found 1 Stockel in Castro Valley

Detail

Listing details for: Stockel Castro Valley CA US

Quick Search Email Search Find a Business Reverse Lookup

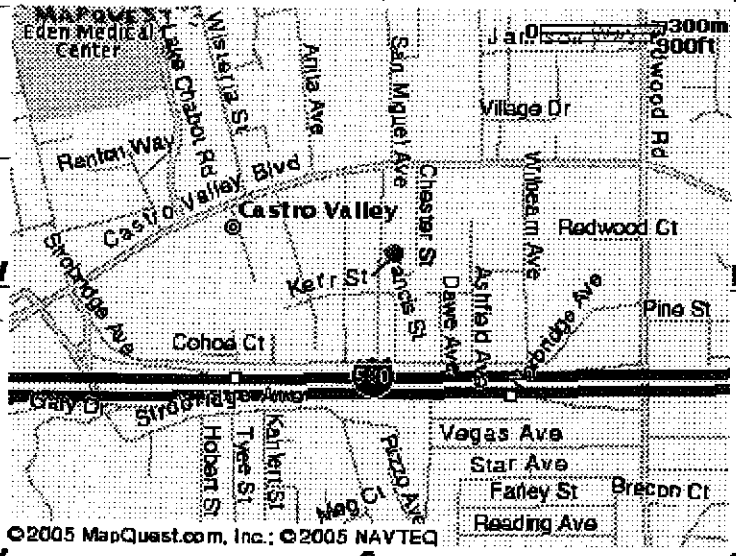
Douglas Stockel
20935 San Miguel Ave
Castro Valley, CA 945465722

510-881-1795
update/remove

Current Phone Number, Address and Address History Available for Douglas Stockel
Reunite with Classmate Douglas Stockel at Reunion.com

Map of Castro Valley, CA

Navigate the map
Click anywhere on the map to center on a point and use the arrows to move in any direction.



NW N NE W E SW S SE

Zoom Level

Map Size

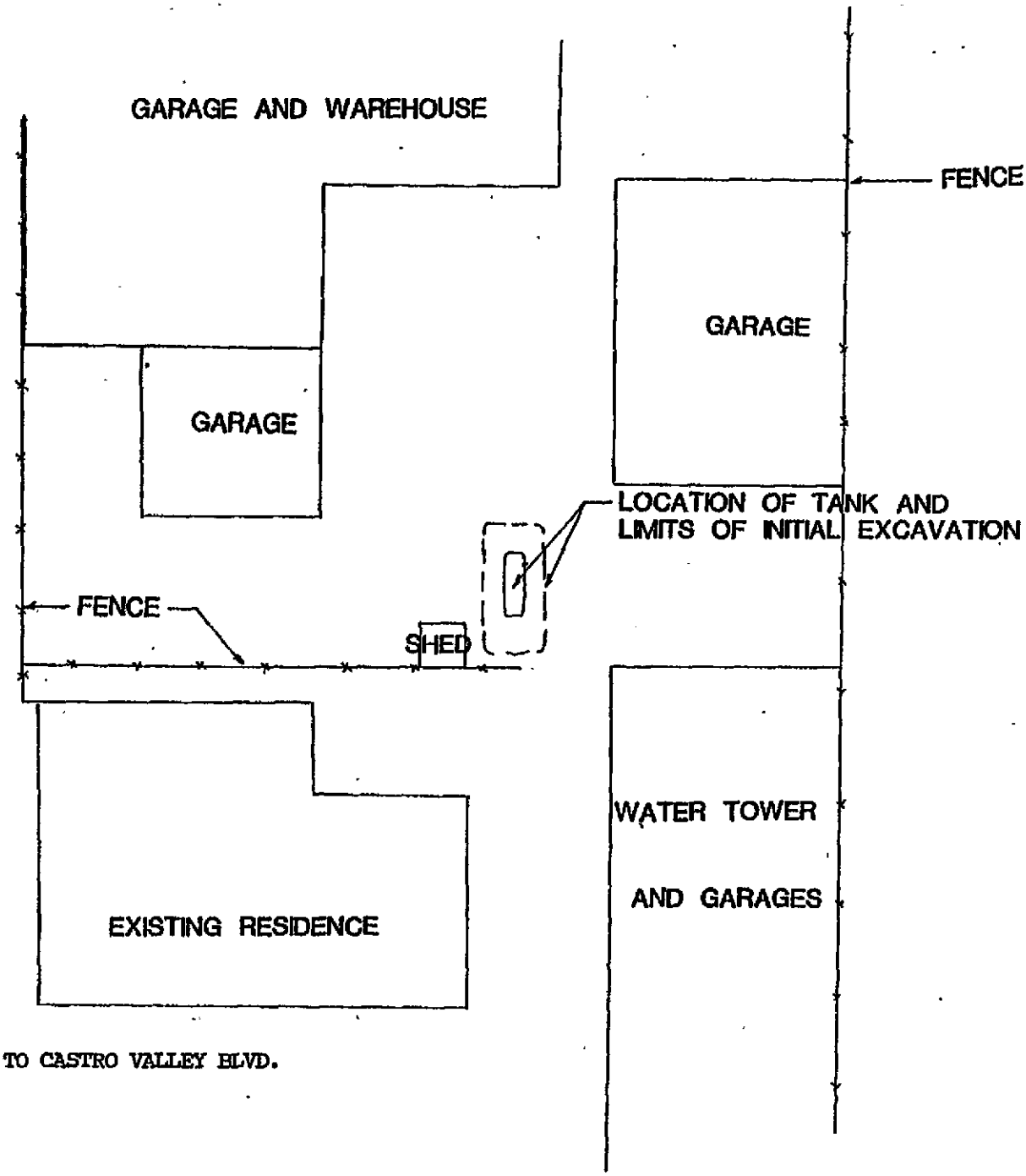
SHRINK RESET EXPAND

Click anywhere on map to center on that point

Click here for driving directions

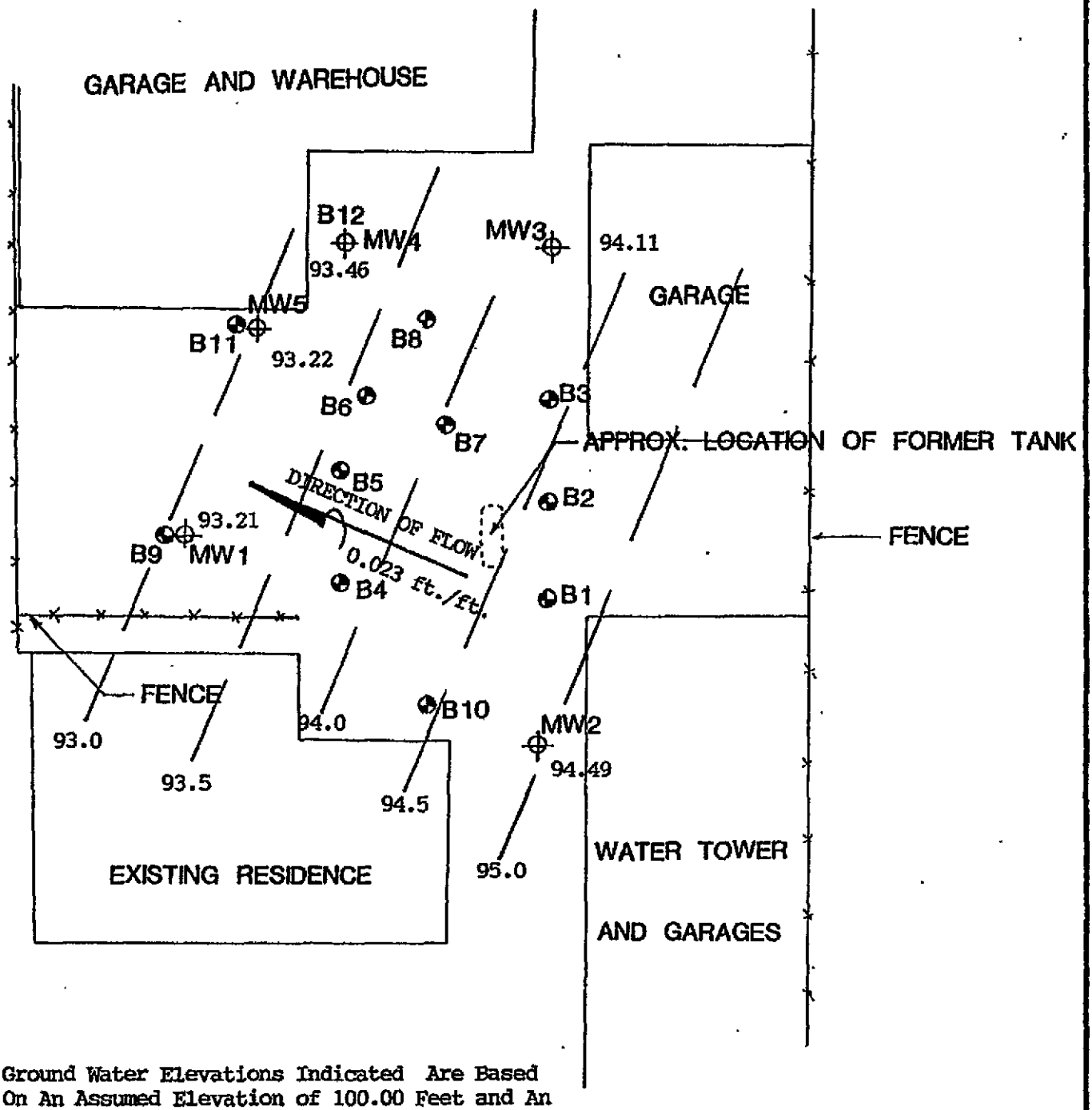
Search Resources

3S/2W 3N4/01-458D



DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
SITE PLAN		
	Figure 1	

01-458D 35/2W 3N4-



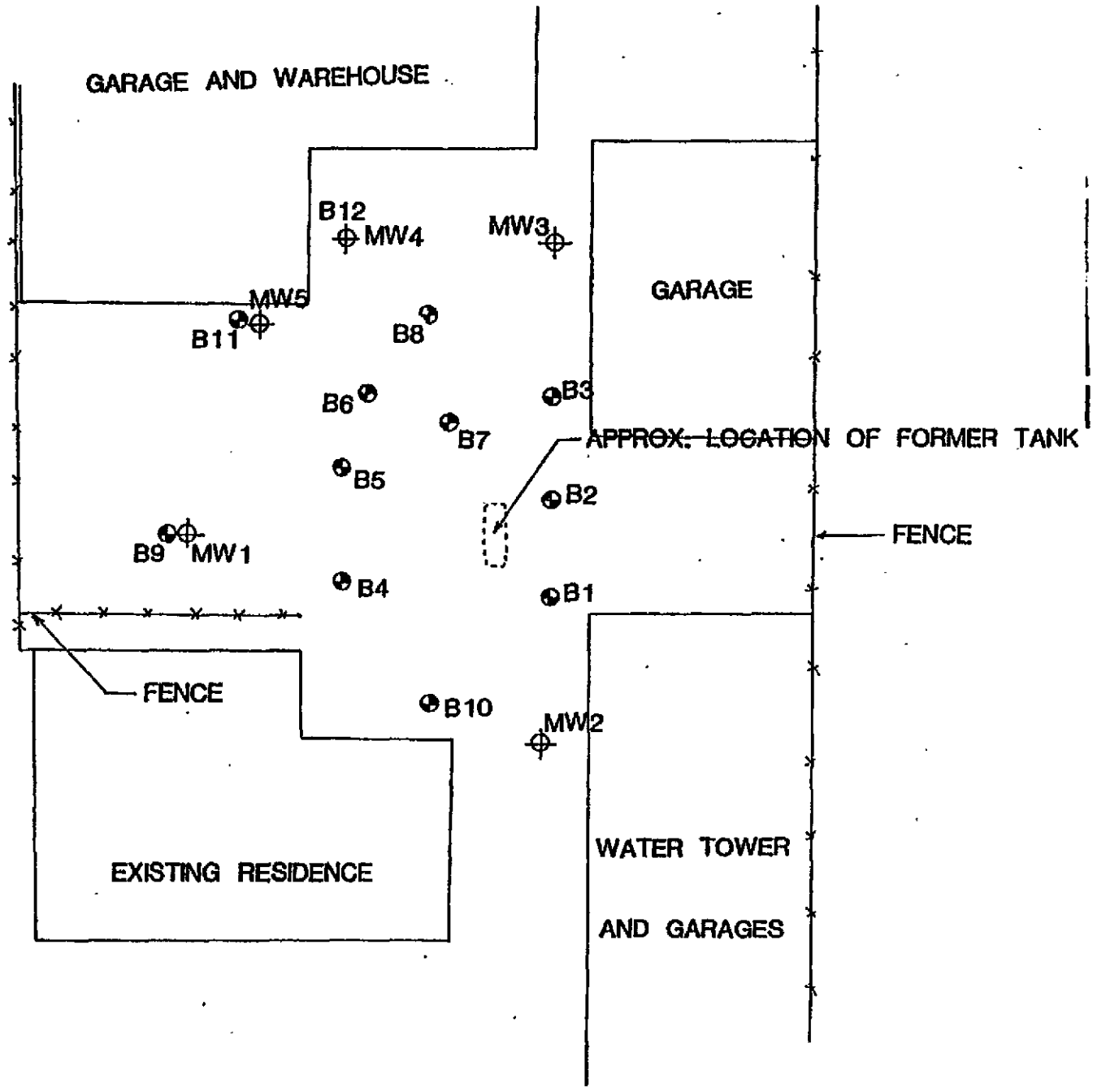
Ground Water Elevations Indicated Are Based On An Assumed Elevation of 100.00 Feet and An Temporary Bench Marck placed on the concrete floor slab in the garage adn warehouse.

● SOIL BORING

⊕ MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
GROUND WATER GRADIENT PLAN		
	Figure 24	

3S/2W 3N4/01-458D



SOIL BORING

MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
BORING LOCATION PLAN		
	Figure 2	

SUBSURFACE DATA LOG

01-458D

35/2W3N4

LOG No. MW-1 DATE: 4-25-90

LOCATION: Mitzi Stockel

EQUIPMENT:

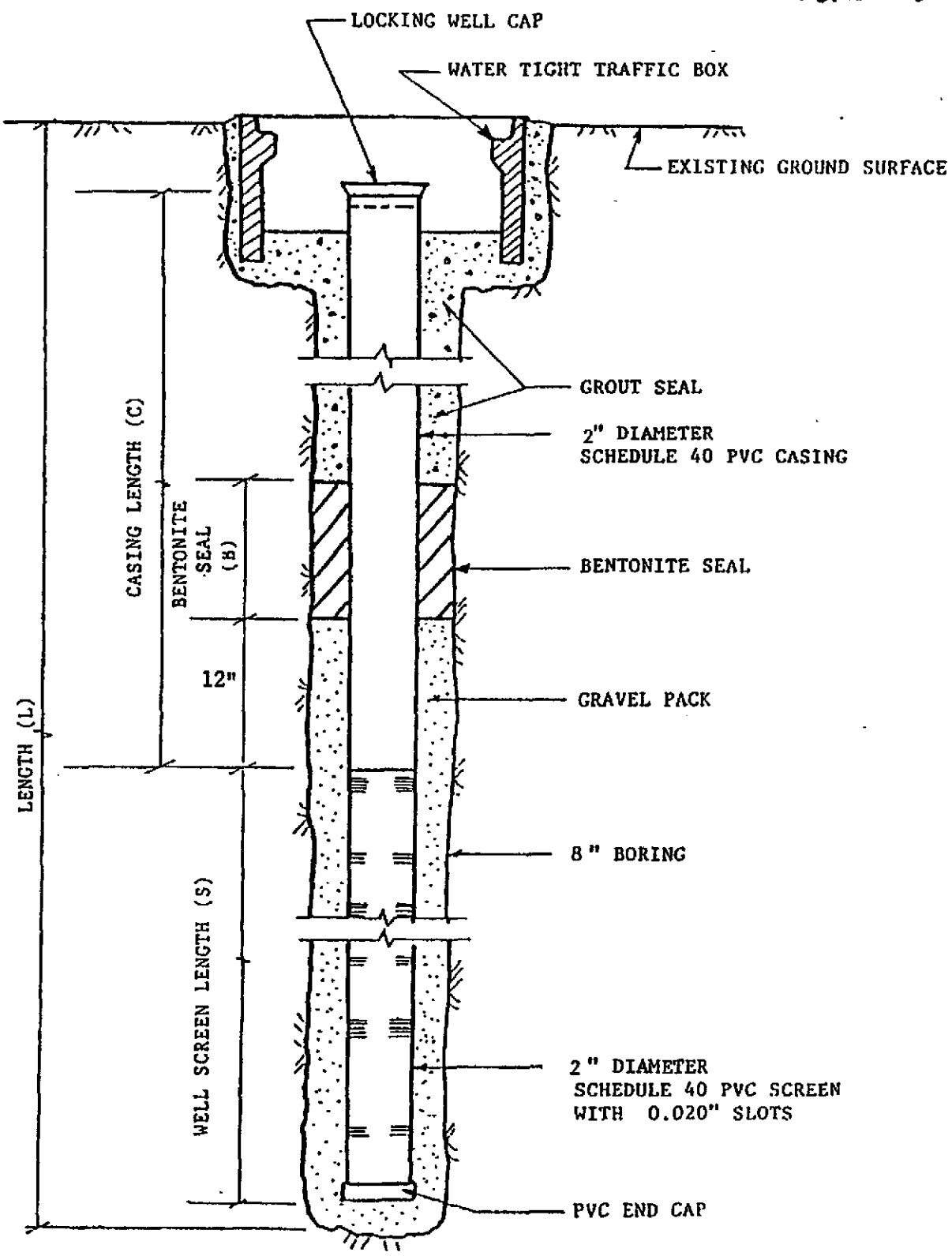
PROJECT No.

DRY DENSITY (lbs cu. ft.)	MOISTURE (% of dry wt.)	"N" VALUE (blows/ft.)		SAMPLE TYPE	DEPTH (ft)	LOG	U.S.C.	
								SILTY SAND, dark gray, dry, firm
					5			SILTY SAND, gray, dry, firm
								SILT, orange, moist, medium dense
		8	N.D.	S1	10			SILTY CLAY, orange, moist, soft
								SAND, silty fine grained, orange-olive, wet, loose
		14	N.D.	S2	15			
								Bottom of Boring 16 Feet 2" Dia. Monitoring Well Installed

Figure 15

01-458D

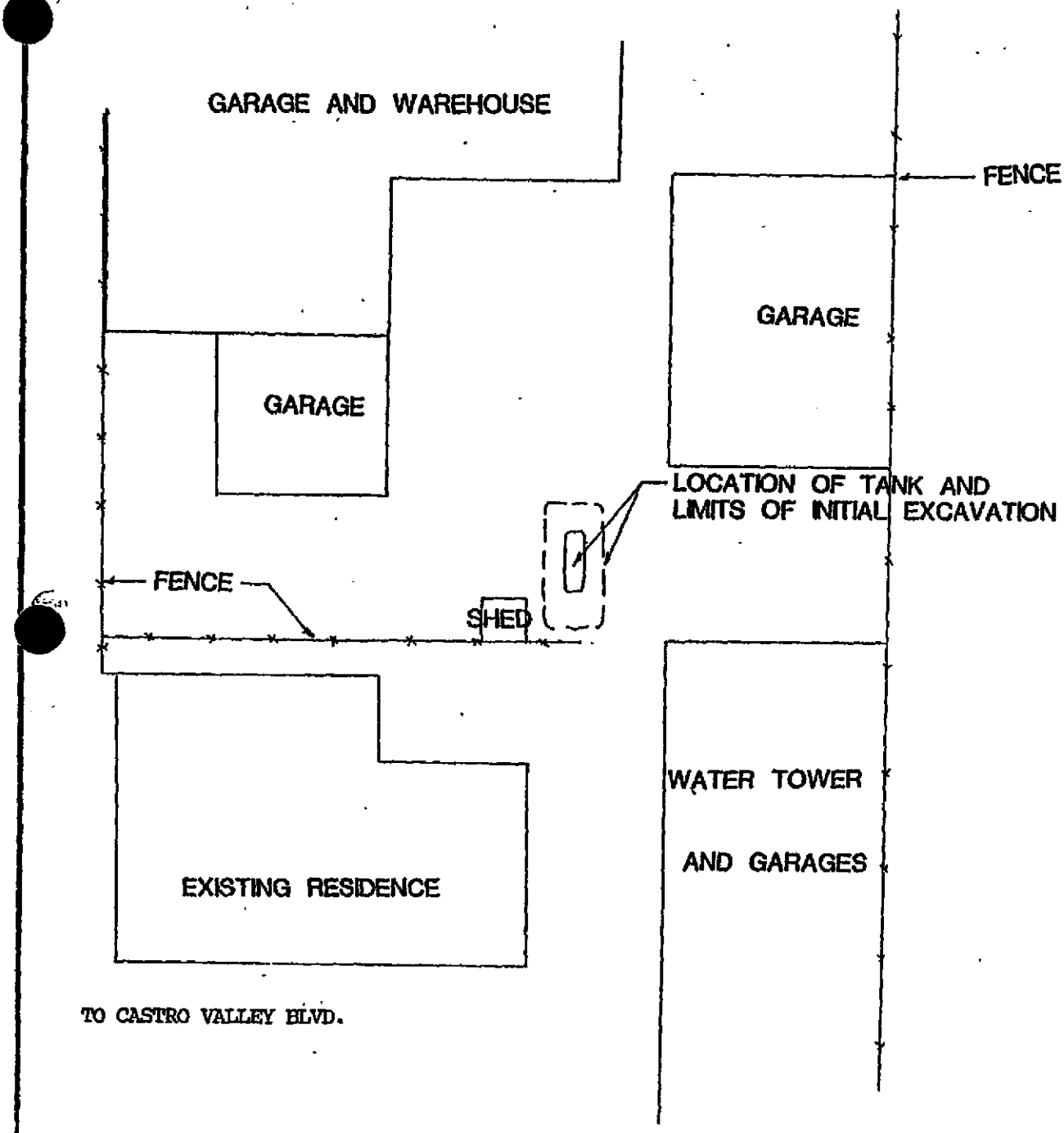
3S/2W 3N4



L= 16 Feet
S= 10 Feet
C= 6 Feet
B= 1 Foot

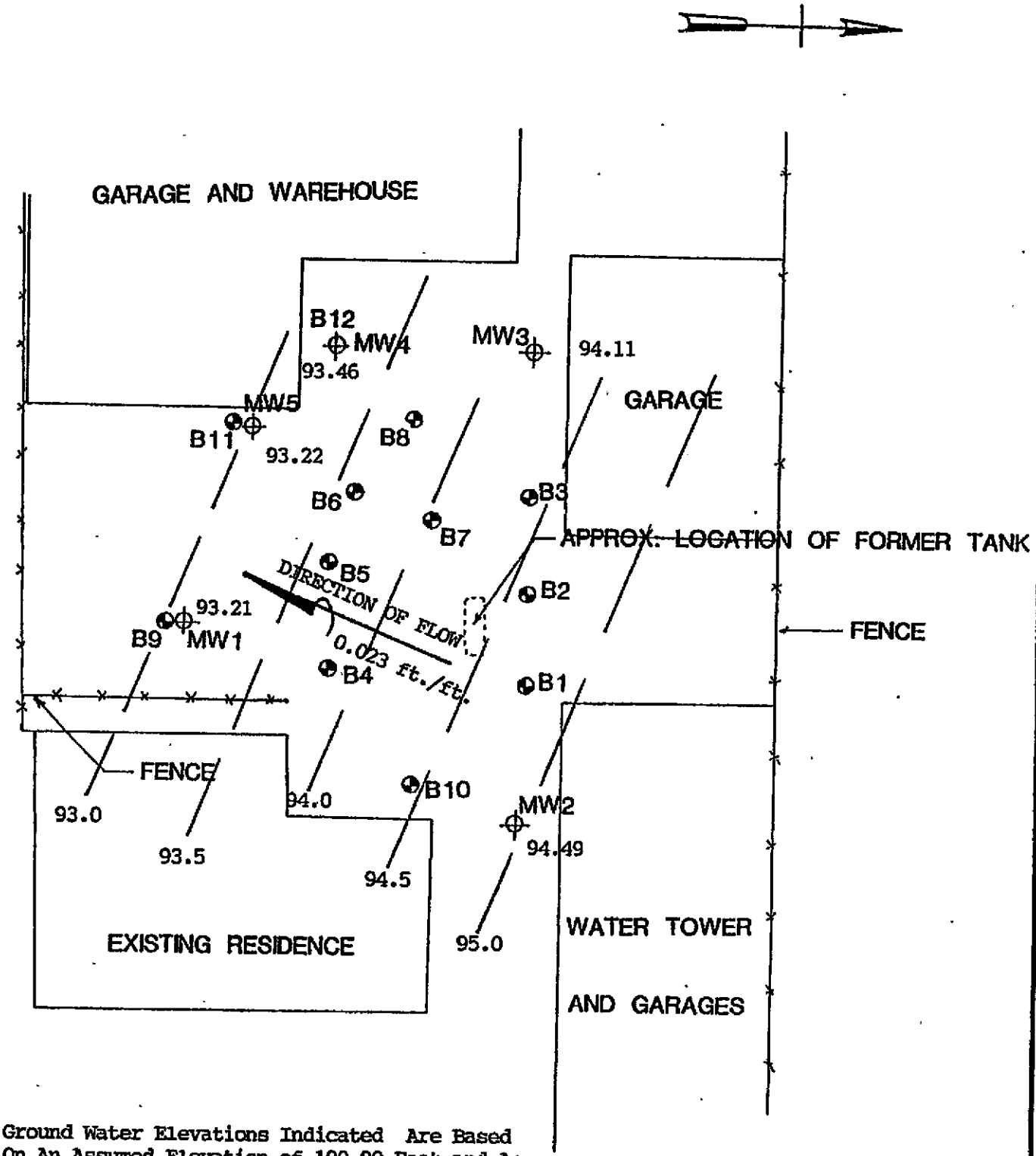
MONITORING WELL 1		
DATE	SCALE N A	DRAWN BY DCG
WELL DETAIL		
MITZI SCOCKEL	Figure 19	

3S/2W 3N5/01-458E



DAVID C. GLICK ASSOCIATES		
DATE 4-27-90	SCALE 1" = 20'	DRAWN BY DCG
SITE PLAN		
	Figure 1	

01-458 E 35/2W 3N 5



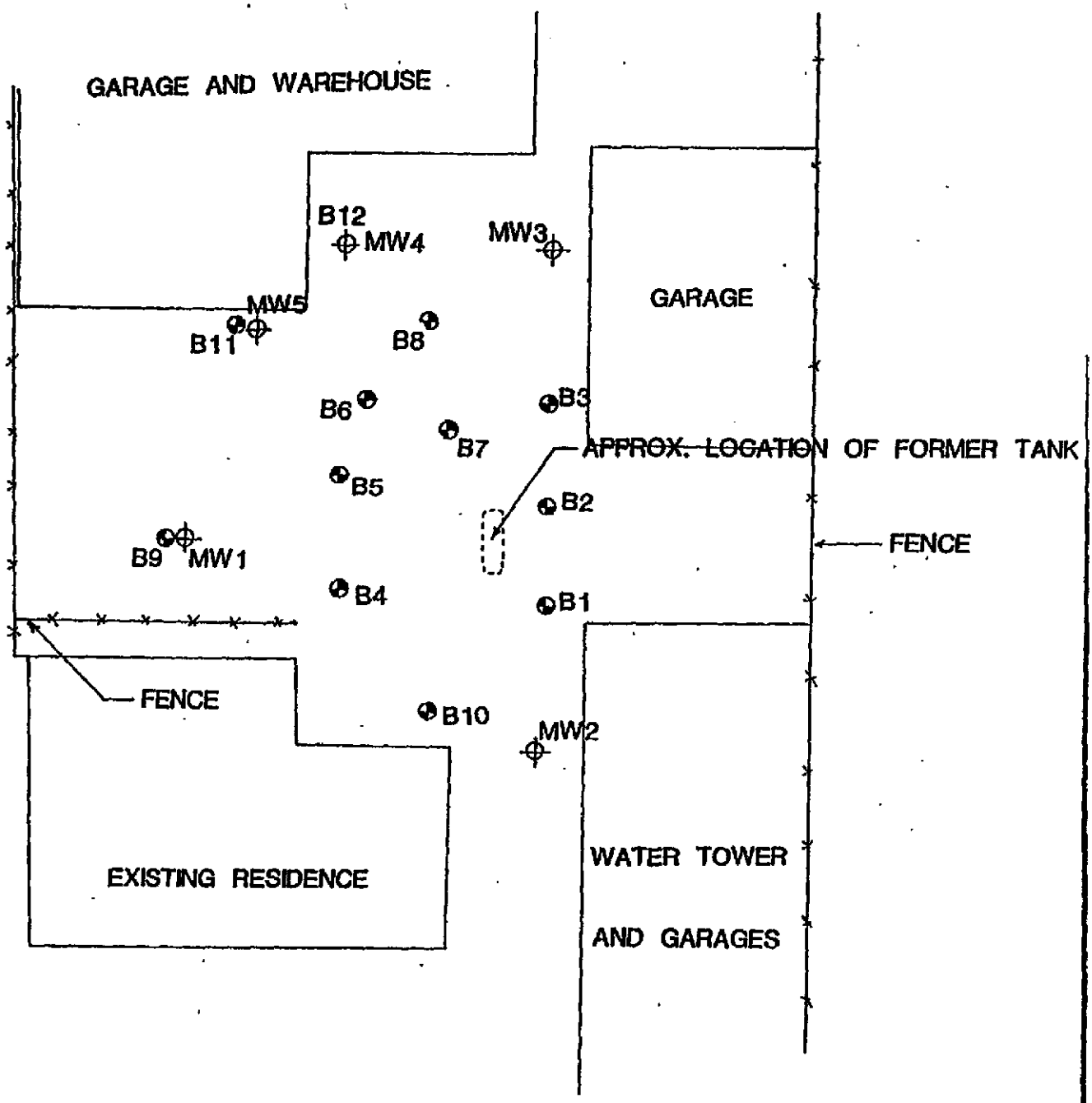
Ground Water Elevations Indicated Are Based On An Assumed Elevation of 100.00 Feet and An Temporary Bench Marck placed on the concrete floor slab in the garage adn warehouse.

● SOIL BORING

⊕ MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
GROUND WATER GRADIENT PLAN		
	Figure 24	

3S/2W 3N5/01-458E



SOIL BORING

MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
BORING LOCATION PLAN		
	Figure 2	

01-458E

SUBSURFACE DATA LOG

35/24 3NS

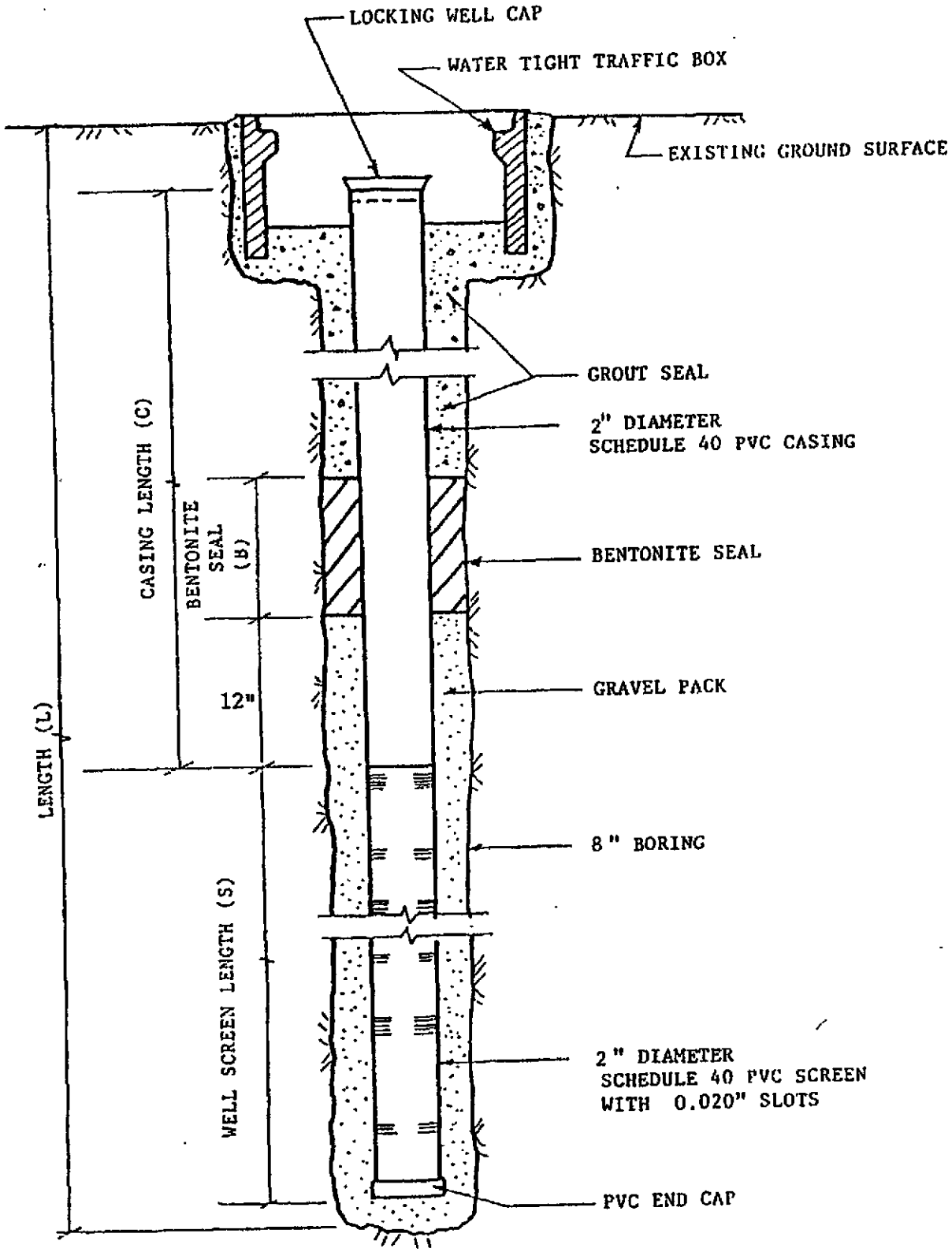
LOG No. MW-2 DATE: 4-25-90
LOCATION: Mitzi Stockel
EQUIPMENT:
PROJECT No.

DRY DENSITY (lbs cu. ft.)	MOISTURE (% of dry wt.)	"N" VALUE (blows/ft.)	SAMPLE TYPE	DEPTH (ft)	LOG	U.S.C.	
							SILTY SAND, medium brown, dry, medium dense
							SILTY CLAY, dark gray, damp, stiff
	27	1.0	S1	5			SILT, mottled orange-olive, damp, stiff
							CLAYEY SILT, mottled orange-brown, damp, soft
	10	N.D.	S2	10			CLAYEY SILT, orange-brown, damp, firm
	12	N.D.	S3	15			SAND, silty to coarse-grained, olive-brown and orange, wet, medium dense
							Bottom of Boring 16 Feet
							2" Dia. Monitoring Well Installed

Figure 16

01-458E

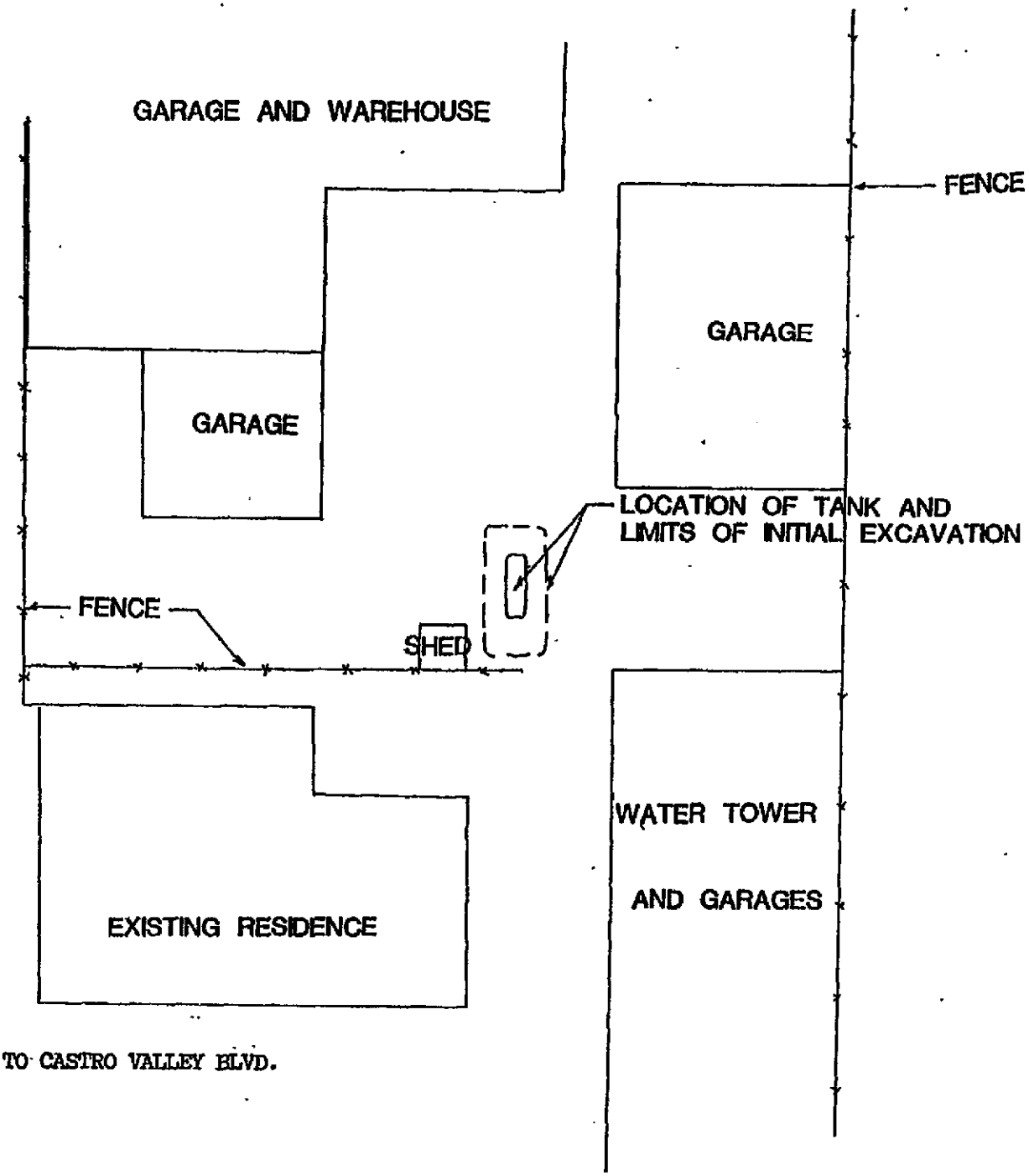
3S/2W 3N5



L= 16 Feet
S= 10 Feet
C= 6 Feet
B= 1 Foot

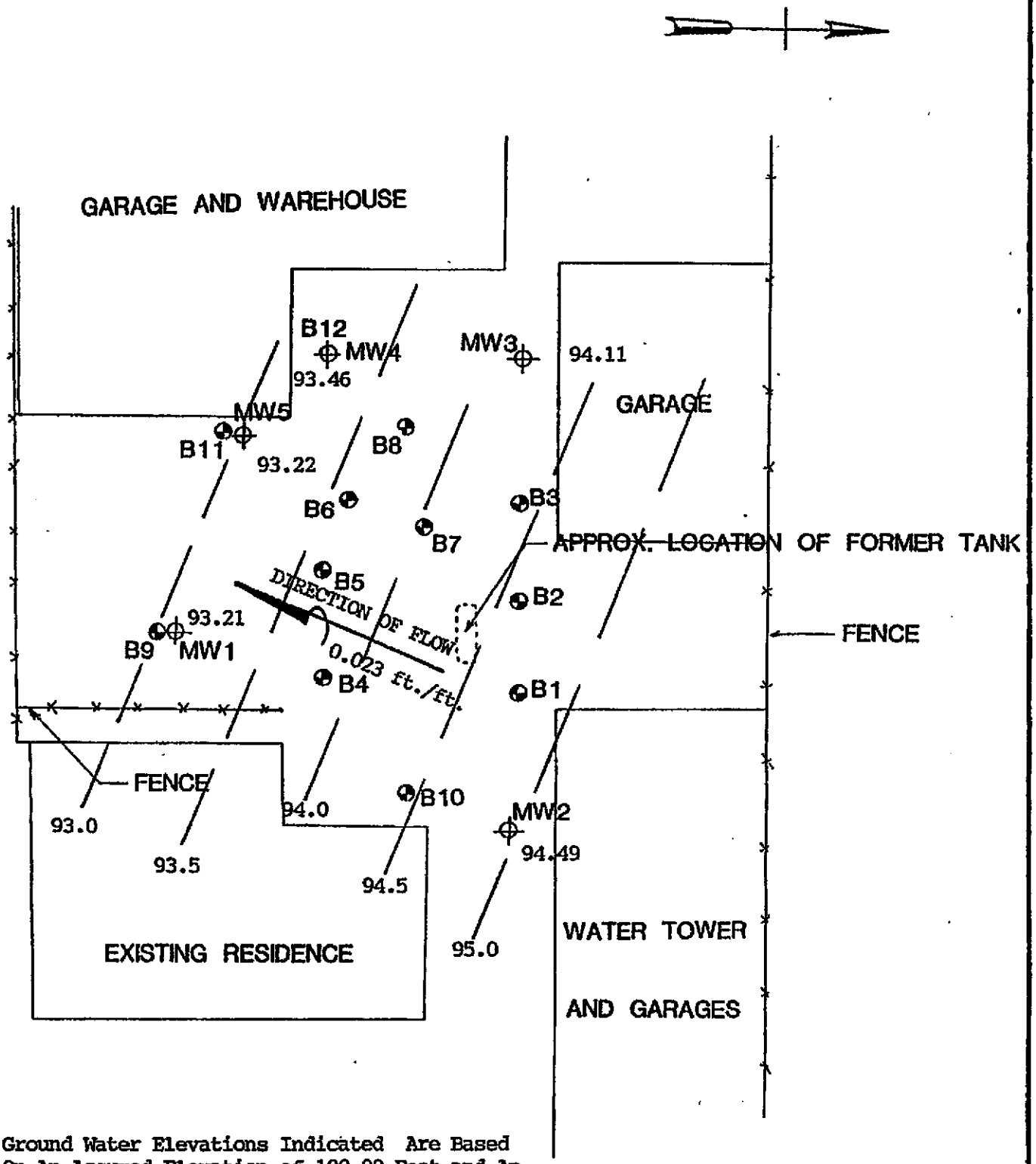
MONITORING WELL 2		
DATE	SCALE N A	DRAWN BY DCG
WELL DETAIL		
MITZI SCOCKEL	Figure 20	

35/2W 3N6/01-458F



DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
SITE PLAN		
	Figure 1	

01-458F 3S/2W 3N6



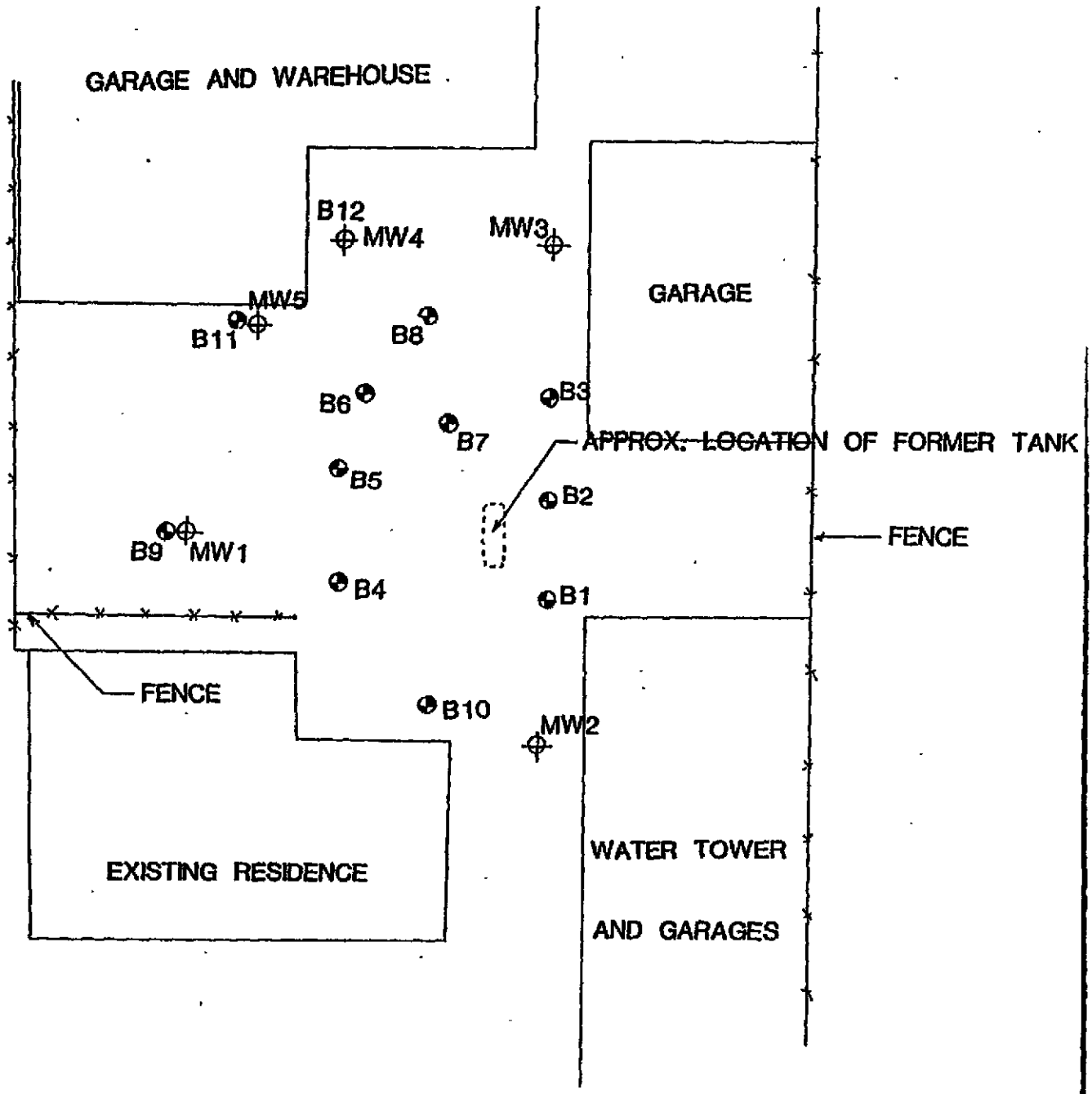
Ground Water Elevations Indicated Are Based On An Assumed Elevation of 100.00 Feet and An Temporary Bench Marck placed on the concrete floor slab in the garage adn warehouse.

● SOIL BORING

⊕ MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
GROUND WATER GRADIENT PLAN		
	Figure 24	

3S/2W 3N6/01-458F



SOIL BORING

MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
BORING LOCATION PLAN		
-	Figure 2	

SUBSURFACE DATA LOG

01-458F
3S/2W 3N6

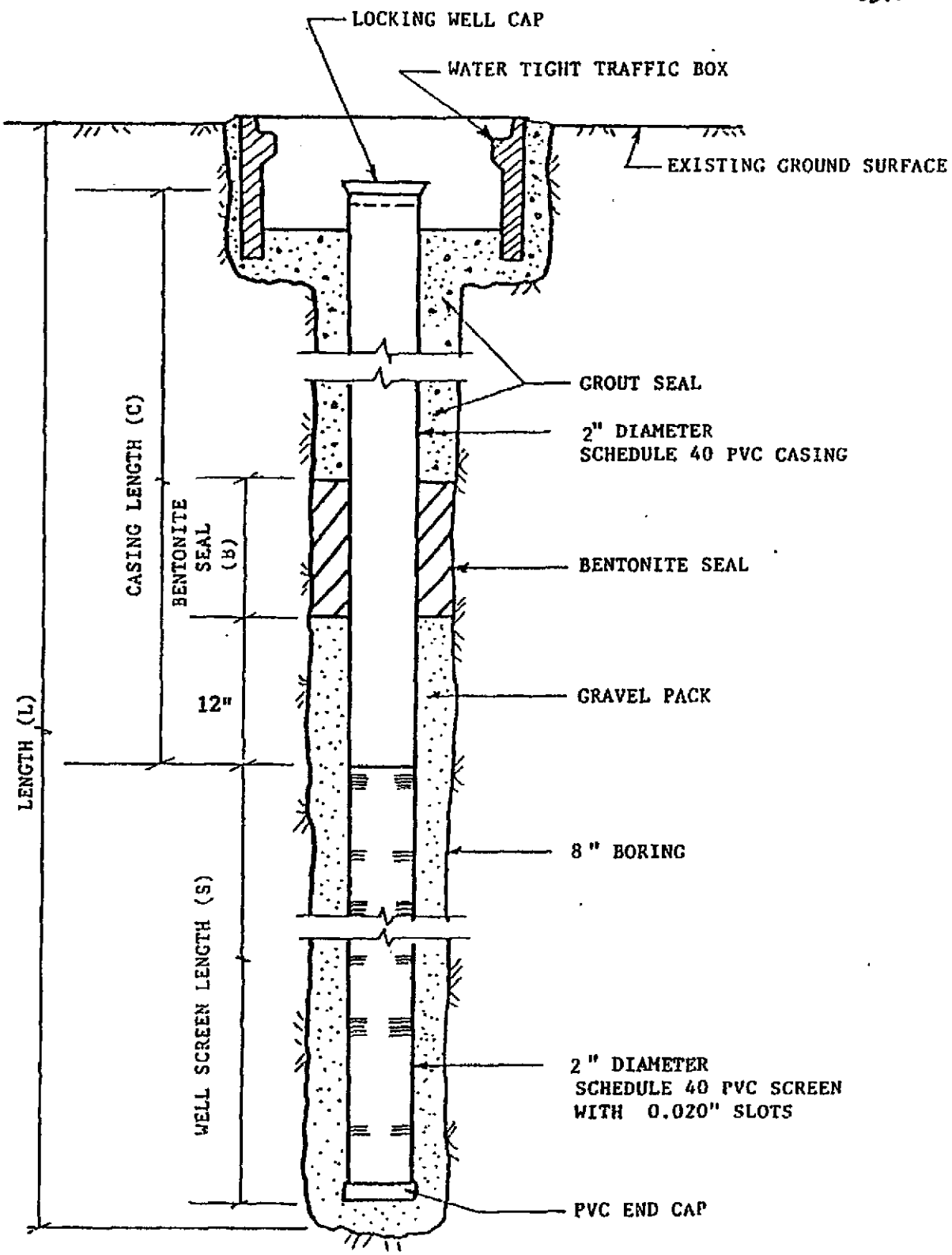
LOG No. MW-3 DATE: 4-25-90
LOCATION: Mitzi Stockel
EQUIPMENT:
PROJECT No.

DRY DENSITY (lbs cu. ft.)	MOISTURE (% of dry wt.)	"N" VALUE (blows/ft.)	SAMPLE TYPE	DEPTH (ft)	LOG	U.S.C.	
							SILTY CLAY, redish-brown, damp, firm
							SILTY CLAY, dark gray, damp, firm
	21	1.6	S1	5			CLAYEY SILT, mottled olive-orange, moist, medium dense
	20	2.0	S2	10			SILTY CLAY
							CLAYEY SILT
	31	ND	S3	15			SILTY SAND, mottled olive-brown-orange, wet, dense
							Bottom of Boring 16 Feet.
							2" Dia. Monitoring Well Installed

Figrue 17

01-458F

3S/2W 3N6

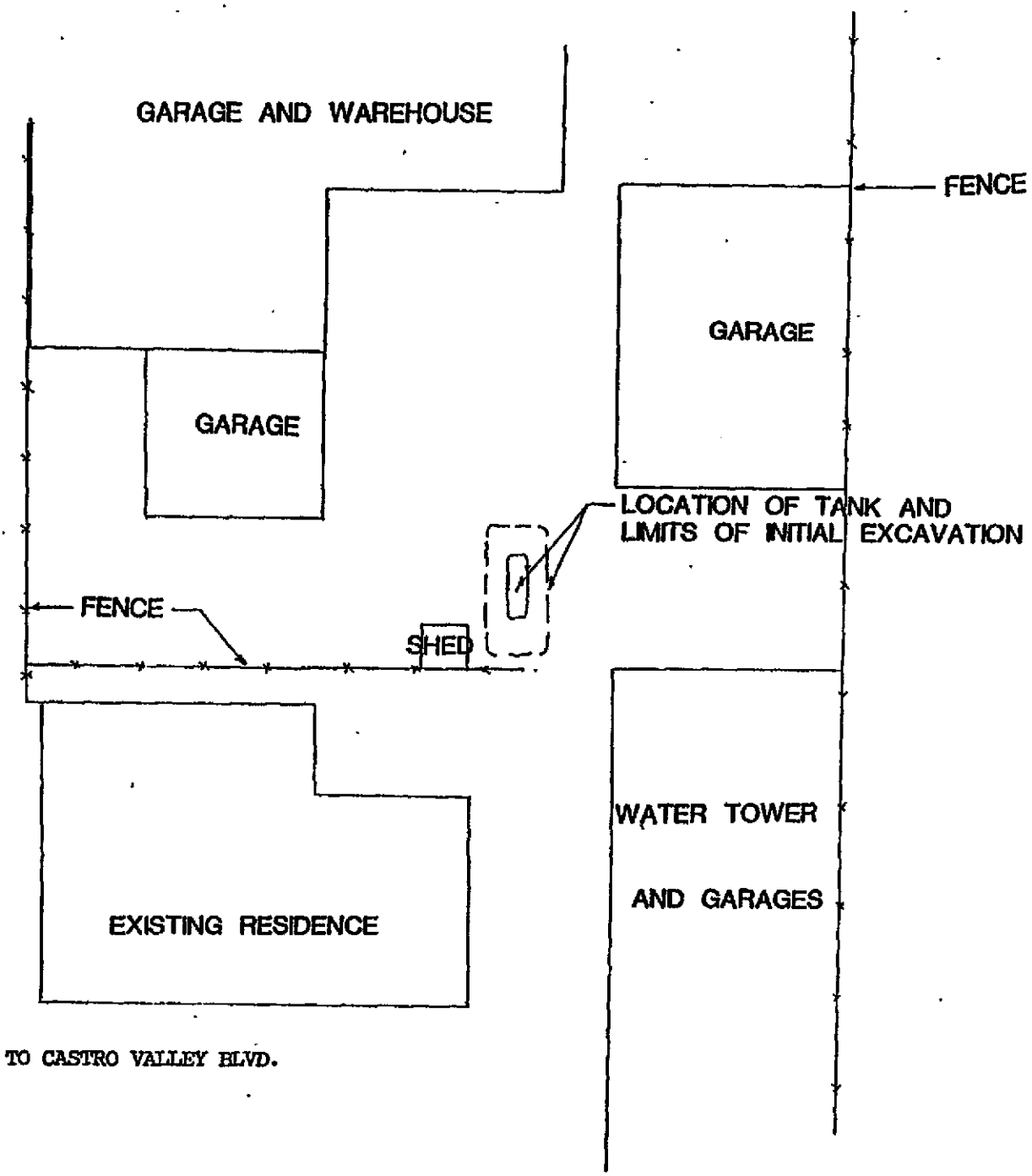


L= 16 Feet
S= 10 Feet
C= 6 Feet
B= 1 Foot

MONITORING WELL 3		
DATE	SCALE N A	DRAWN BY DCG
WELL DETAIL		
MITZI SCOCKEL	Figure 21	

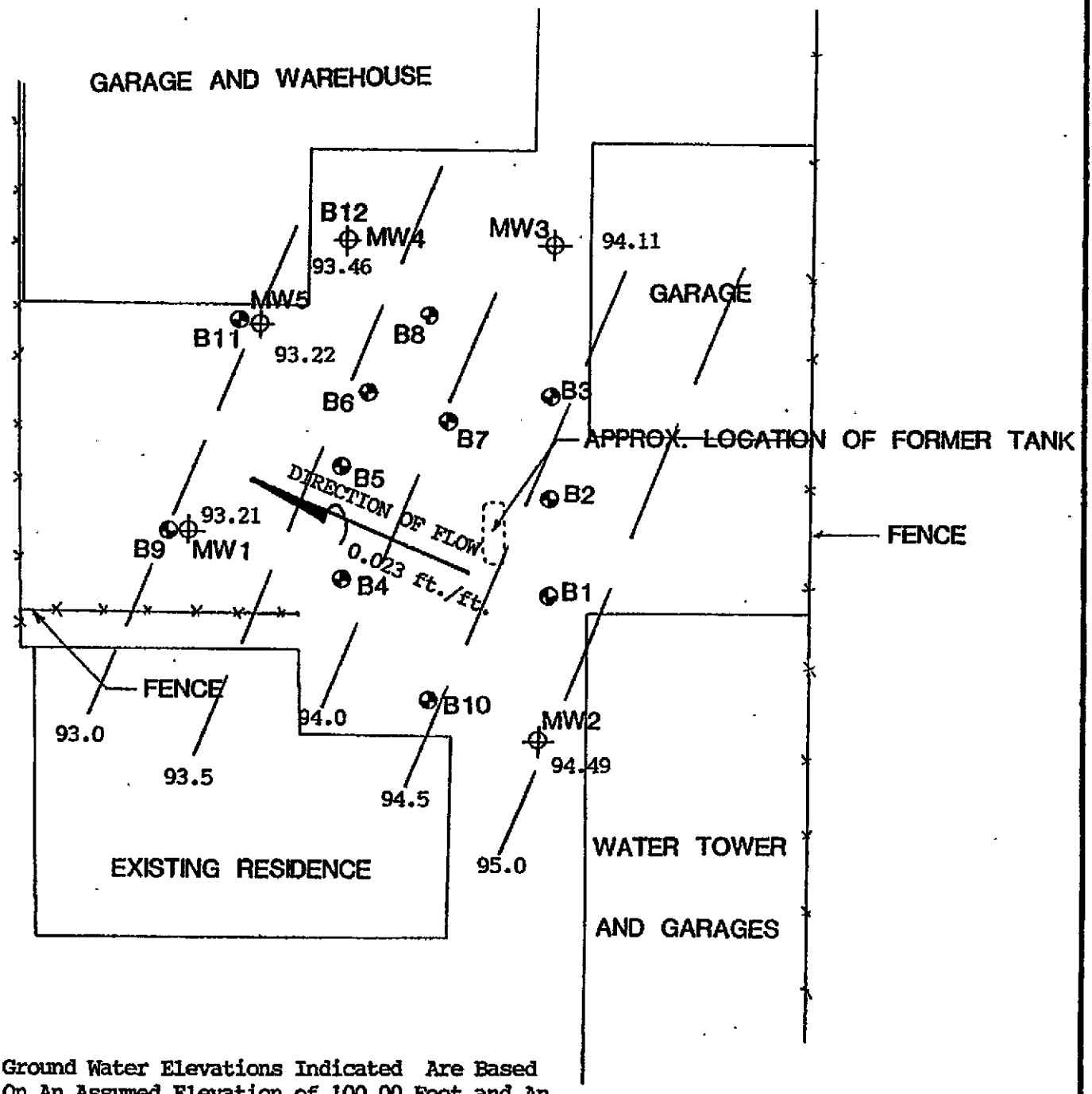
3S/2W 3N7/01-458G

~~3S/2W 3N1-8~~



DAVID C. GLICK ASSOCIATES		
DATE 4-27-90	SCALE 1" = 20'	DRAWN BY DCG
SITE PLAN		
	Figure 1	

01-458G 35/2W 3N



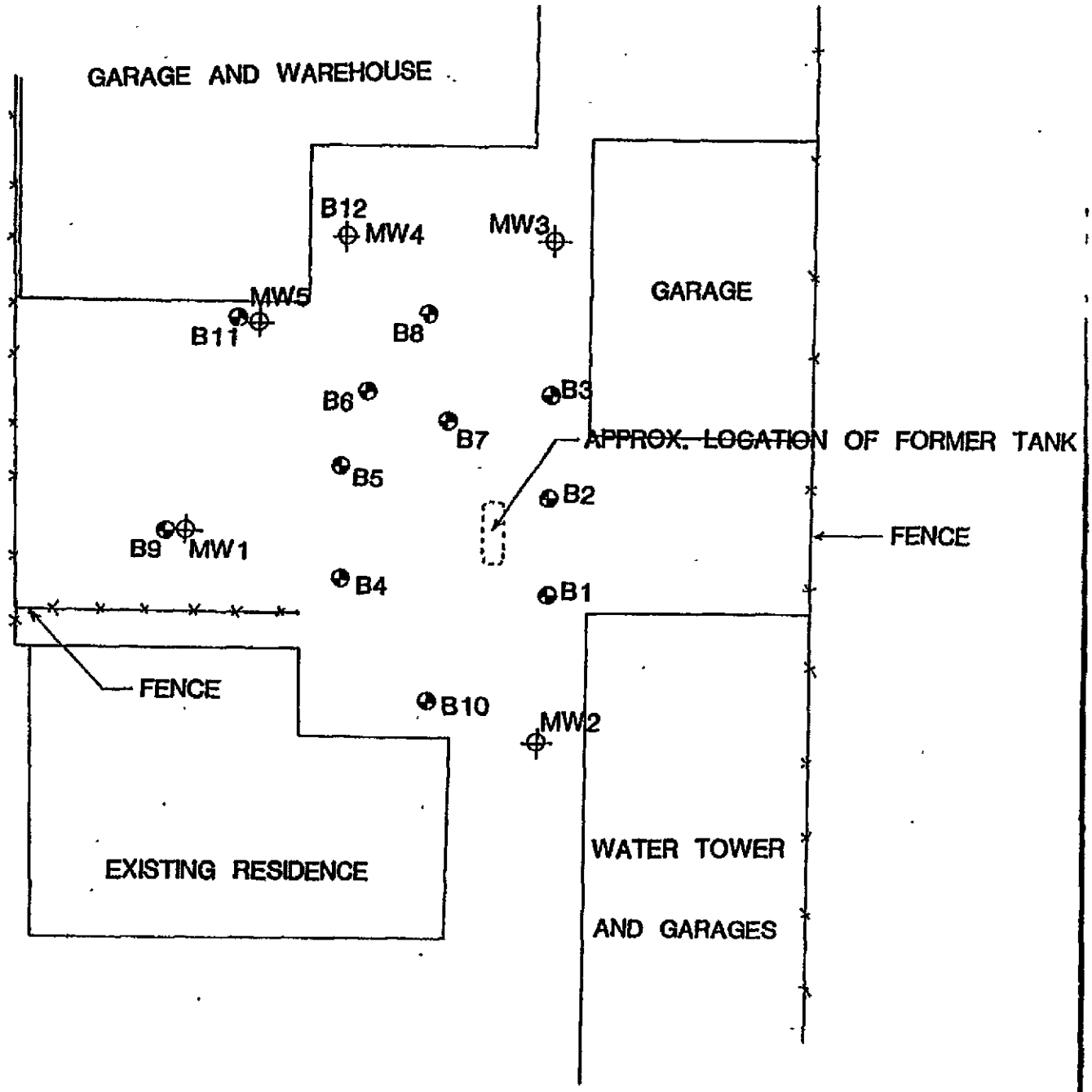
Ground Water Elevations Indicated Are Based On An Assumed Elevation of 100.00 Feet and An Temporary Bench Marck placed on the concrete floor slab in the garage adn warehouse.

● SOIL BORING

⊕ MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1"=20'	DRAWN BY DCG
GROUND WATER GRADIENT PLAN		
	Figure 24	

3S/2W 3N7/01-458G



SOIL BORING

MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
BORING LOCATION PLAN		
		Figure 2

SUBSURFACE DATA LOG

01-4589

35/2W 3N7

LOG No. MW-4 DATE: 5-11-90

LOCATION: Mitzi Stockel

EQUIPMENT:

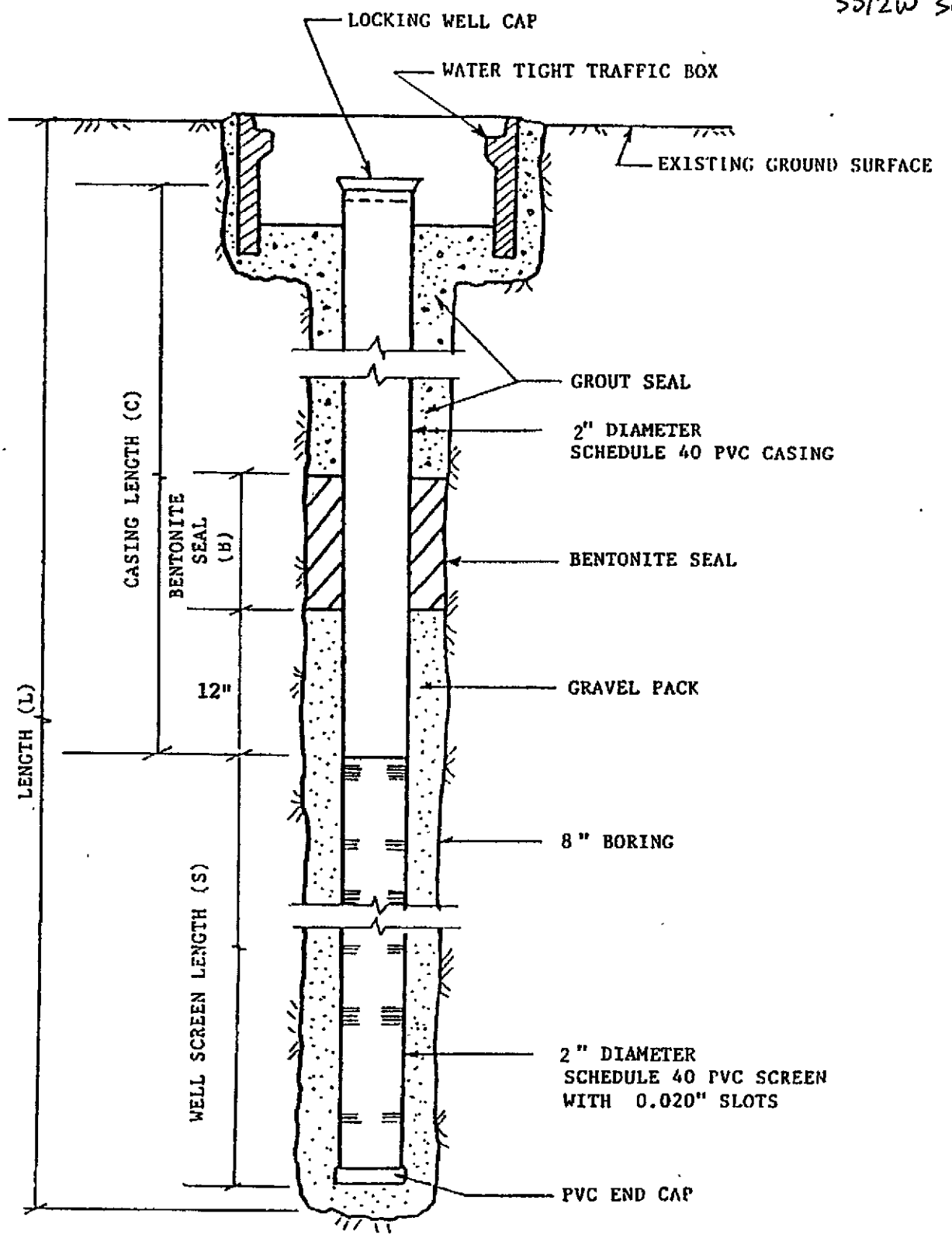
PROJECT No.

DRY DENSITY (lbs. cu. ft.)	MOISTURE (% of dry wt.)	"N" VALUE (blows/ft.)	SAMPLE TYPE	DEPTH (ft)	LOG	U.S.C.	
							SILTY CLAY, dark gray, moist, firm
	36	1.1	S1	5			CLAYEY SILT, mottled orange-brown, moist, stiff
							SILTY SAND, orange-brown, moist, medium dense
	33	2.3	S2	10			
							transitions to FINE SAND
	42	1.8	S3	15			
							SILTY SAND, mottled orange-brown, wet, dense
	50/5"	N.D.	S4	20			
							Bottom of Boring 23 Feet 2" Dia. Monitoring Well Installed

Figure 18

01-458G

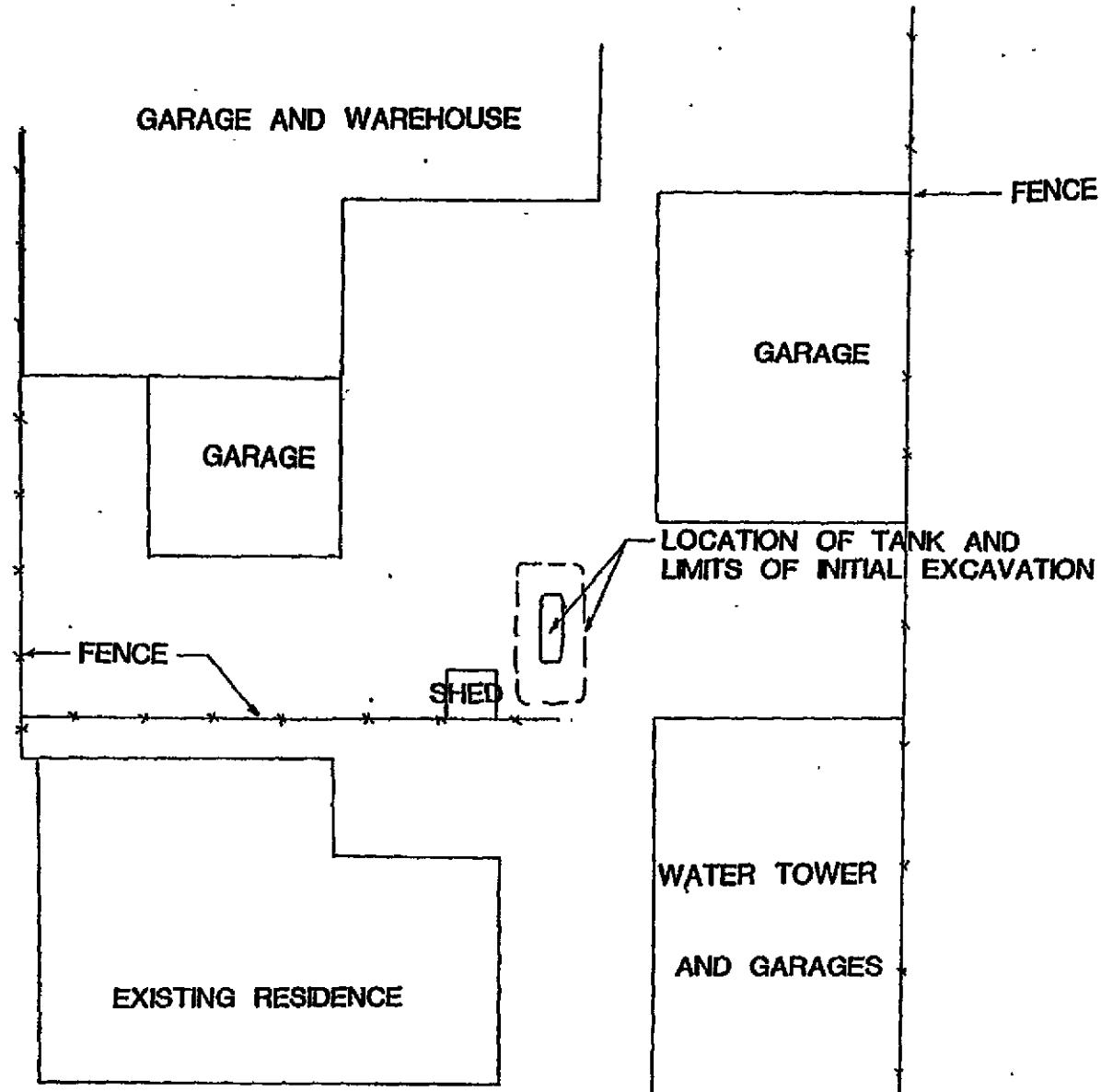
35/2W 3N7



L= 23 Feet
S= 15 Feet
C= 7 Feet
B= 2 Feet

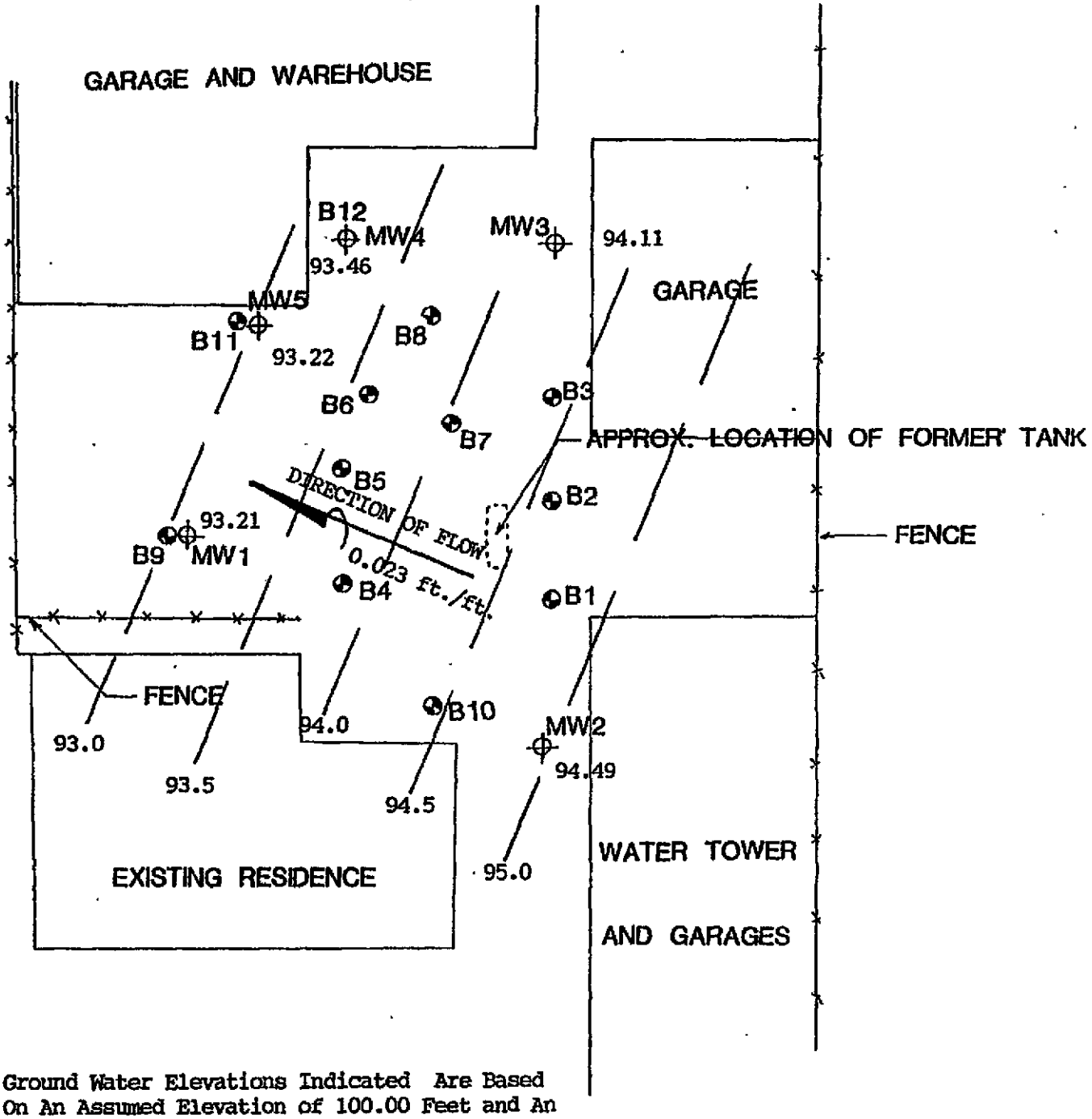
MONITORING WELL 4		
DATE	SCALE N A	DRAWN BY DCG
WELL DETAIL		
MITZI SCOCKEL	Figure 22	

3S/2W 3N8/01-458H



DAVID C. GLICK ASSOCIATES		
DATE 4-27-90	SCALE 1" = 20'	DRAWN BY DCG
SITE PLAN		
	Figure 1	

01-458H | 3S/2W 3N8



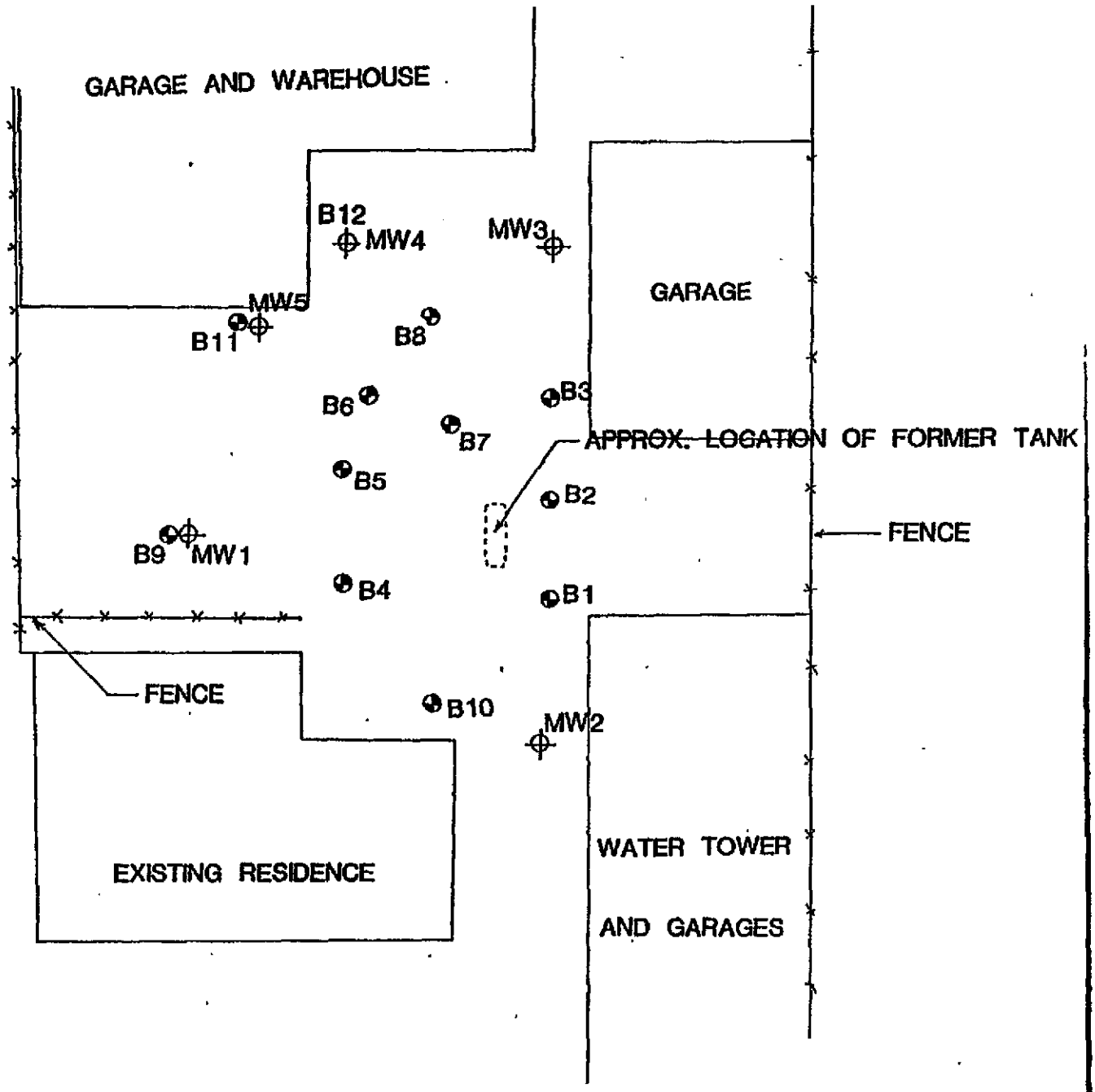
Ground Water Elevations Indicated Are Based On An Assumed Elevation of 100.00 Feet and An Temporary Bench Marck placed on the concrete floor slab in the garage adn warehouse.

● SOIL BORING

⊕ MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
GROUND WATER GRADIENT PLAN		
	Figure 24	

3S/2W 3N8 /01-458H



SOIL BORING

MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
BORING LOCATION PLAN		
	Figure 2	

01-458H. 35/24 3N 8.

SUBSURFACE DATA LOG

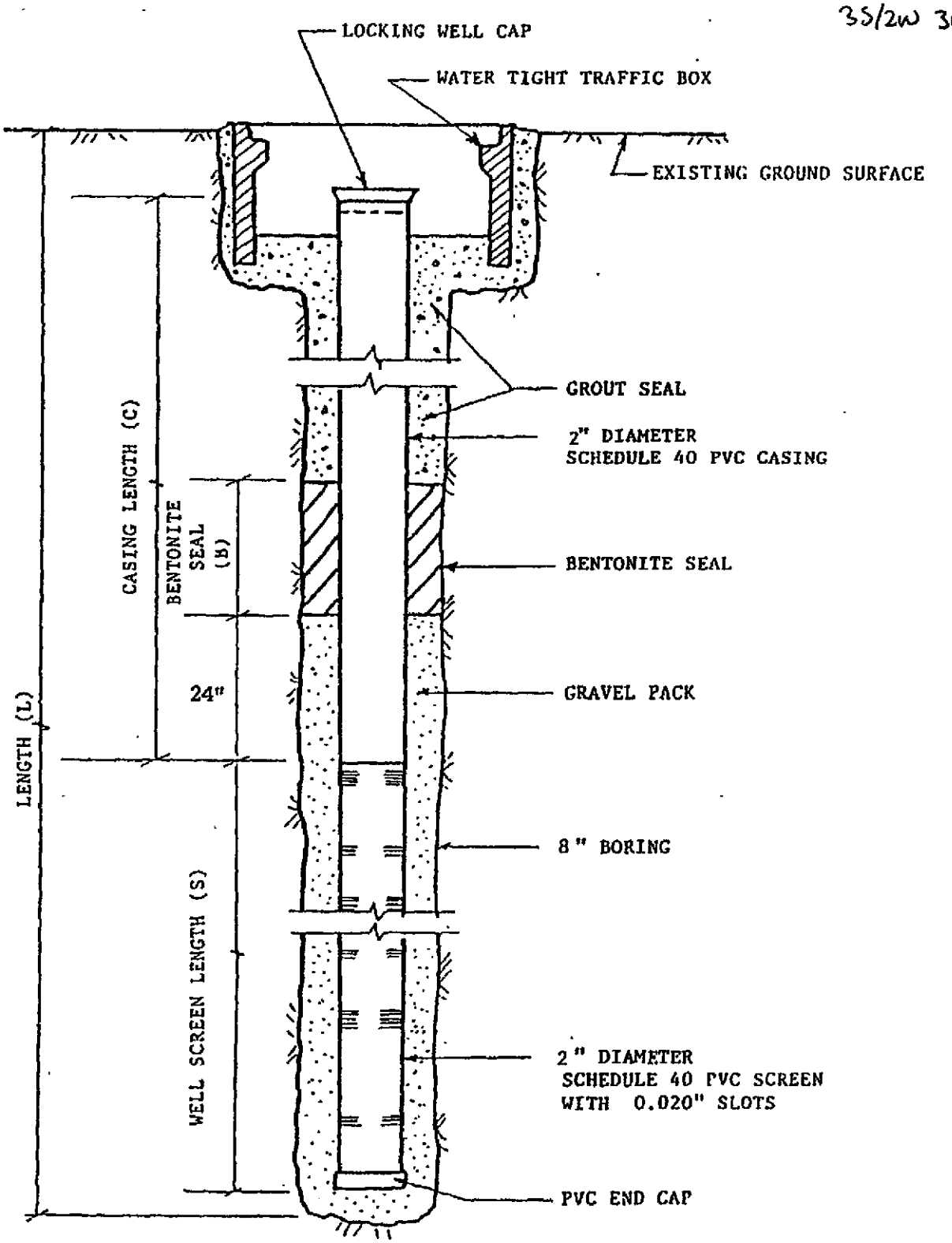
LOG No. B-12/MW-5 DATE: 5-16-90
LOCATION: Mitzi Stockel
EQUIPMENT:
PROJECT No.

DRY DENSITY (lbs cu ft)	MOISTURE (% of dry wt)	"N" VALUE (blows/ft)	SAMPLE TYPE	DEPTH (ft)	LOG	U.S.C.	
							SILTY SAND, tan, dry, loose
							SILTY CLAY, dark gray, damp, firm
				5			SILTY CLAY, mottled orange-brown, moist, stiff
	29	N.D.	S1	8			
				10			CLAYEY SAND, mottled brown-gray, wet to saturated, dense
	56	N.D.	S2	15			SAND, silt to fine to medium grained, mottled brown and gray
				20			Bottom of Boring 20 feet.
							2" Dia. Monitoring Well Installed

Figure 14

01-458H

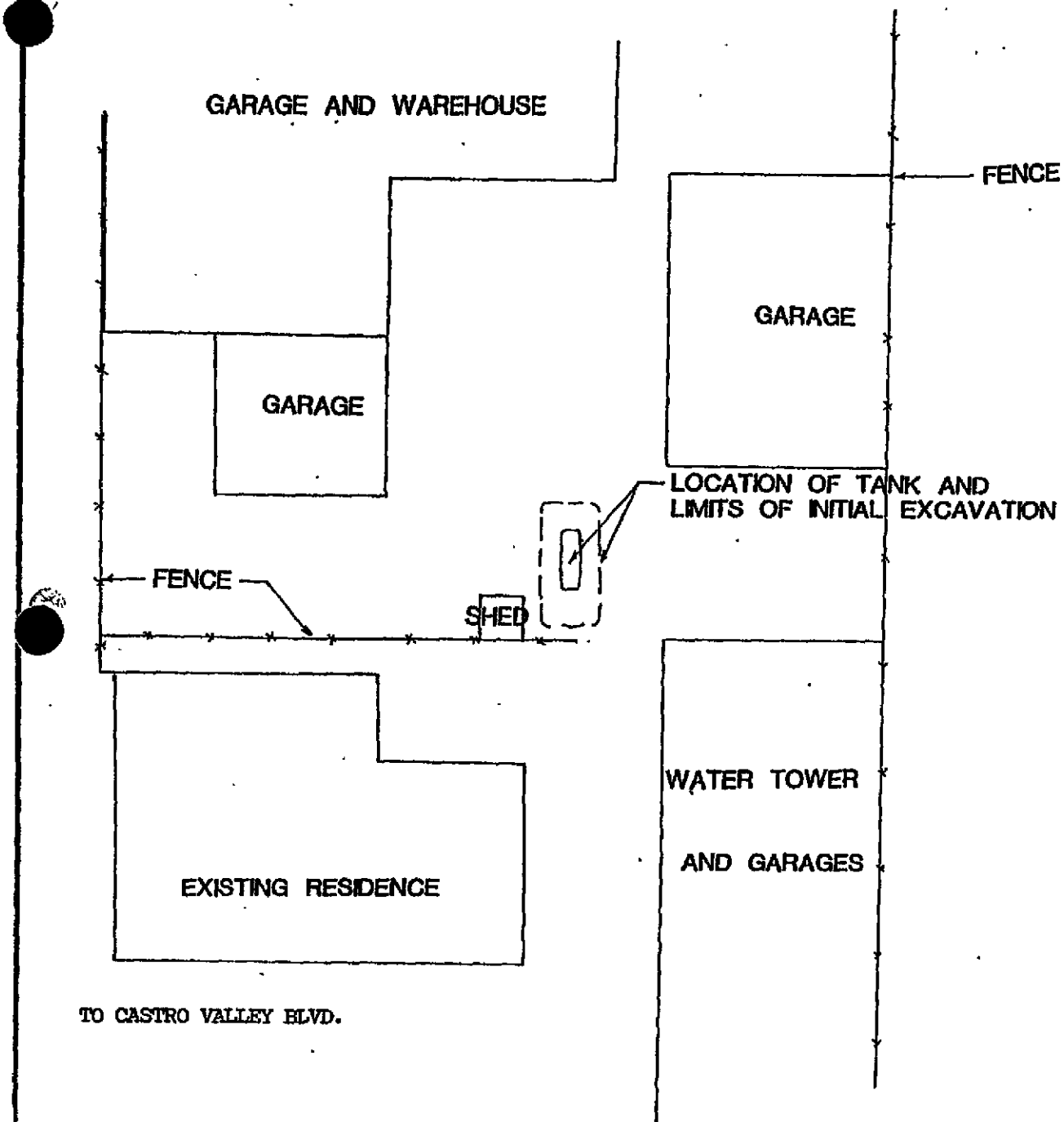
35/2W 3N8



L= 20 Feet
S= 13 Feet
C= 7 Feet
B= 1 Foot

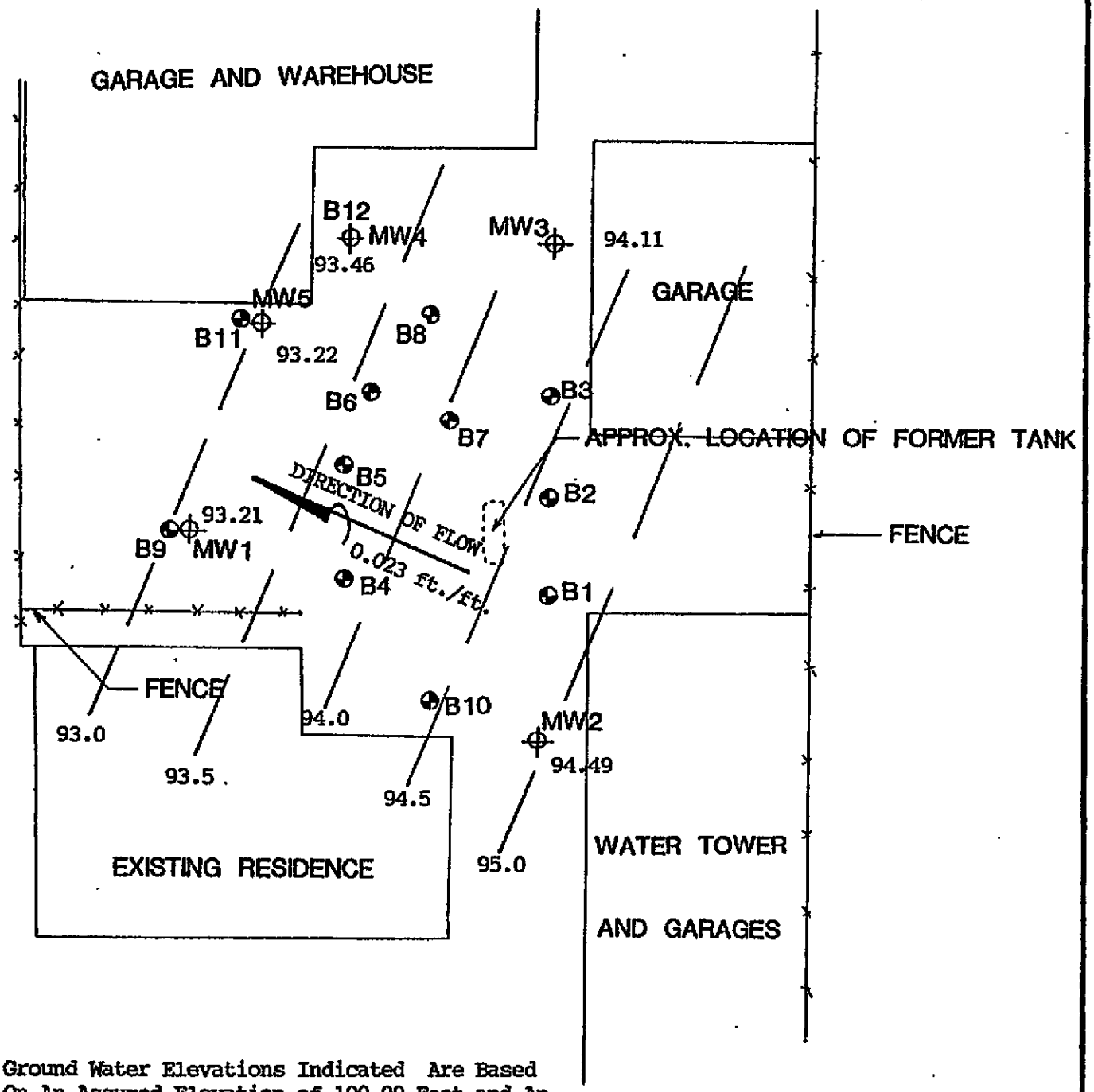
MONITORING WELL 5		
DATE	SCALE N A	DRAWN BY DCG
WELL DETAIL		
MIT21 SCOCKEL	Figure 23	

3S/2W 3N/01-458E



DAVID C. GLICK ASSOCIATES		
DATE 4-27-90	SCALE 1" = 20'	DRAWN BY DCG
SITE PLAN		
	Figure 1	

01-458I 35/2W 3N



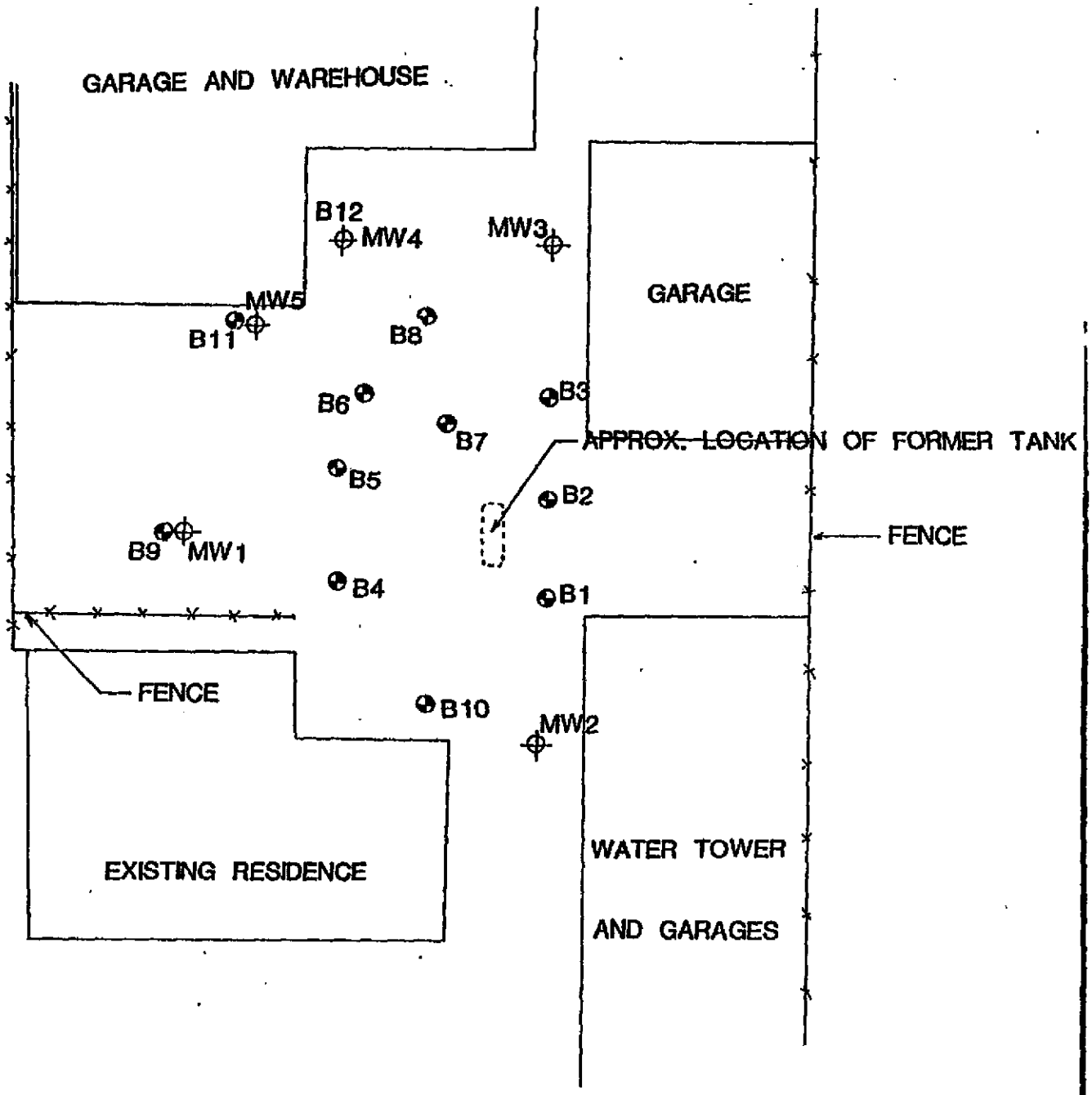
Ground Water Elevations Indicated Are Based On An Assumed Elevation of 100.00 Feet and An Temporary Bench Marck placed on the concrete floor slab in the garage adn warehouse.

● SOIL BORING

⊕ MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
GROUND WATER GRADIENT PLAN		
	Figure 24	

3S/2W 3N / 01-458 I



SOIL BORING

MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
BORING LOCATION PLAN		
	Figure 2	

SUBSURFACE DATA LOG

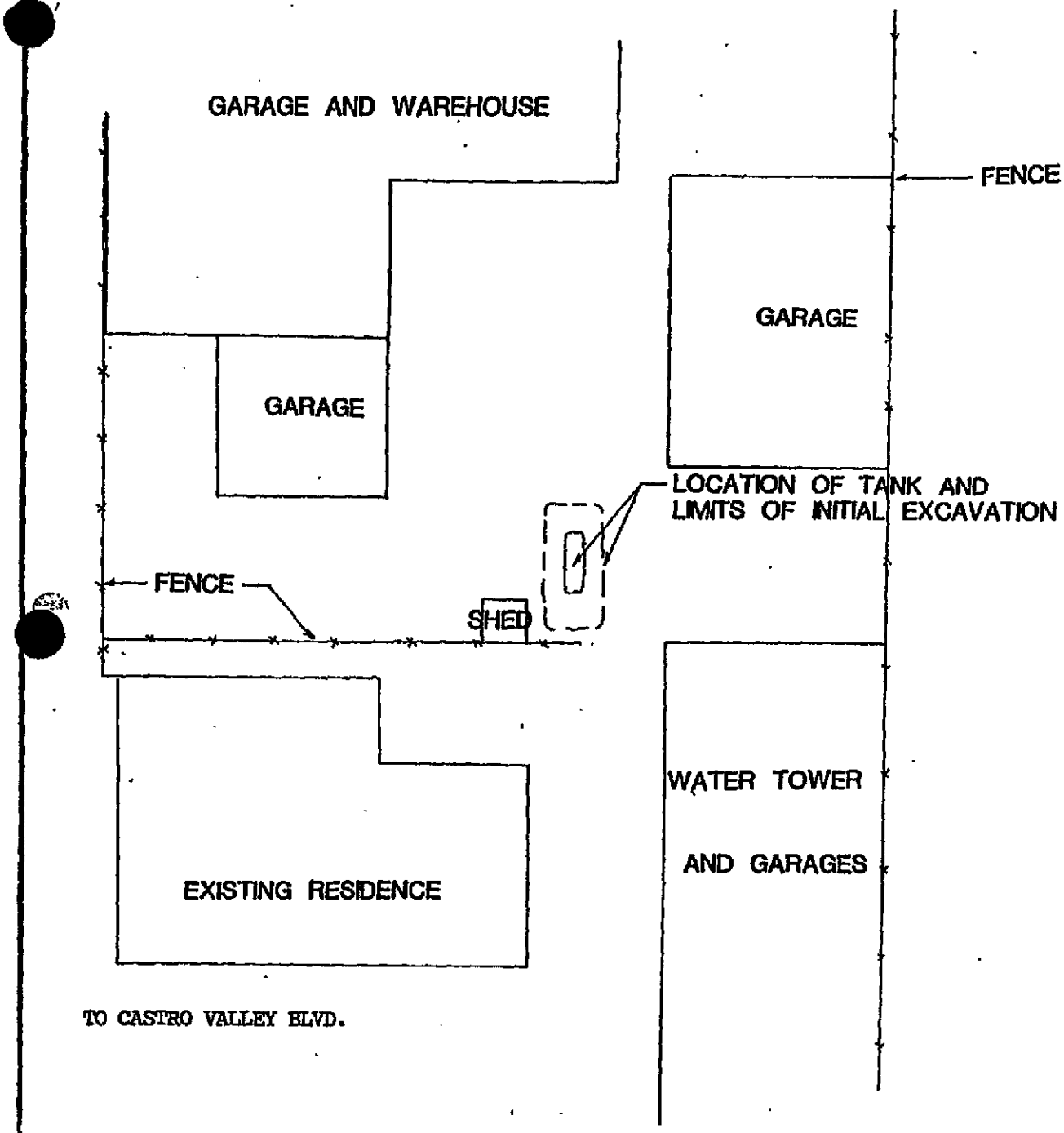
3S/2W 3N
01-458 L

LOG No. B-1 DATE: 4-24-90
LOCATION: Mitzi Stockel
EQUIPMENT:
PROJECT No.

DRY DENSITY (lbs cu. ft.)	MOISTURE (% of dry wt.)	"N" VALUE (blows/ft.)	SAMPLE TYPE	DEPTH (ft.)	LOG	U.S.C.	
							SILTY CLAY, mottled yellow-brown, dry
							SILTY CLAY, dark gray, damp, soft
	18	5.5	S1	5			CLAYEY SILT, mottled orange-brown and olive-gray, moist, firm
	18	65	S2	8			SILTY SAND, mottled orange-brown and olive-gray, moist, medium dense
							Bottom of Boring 8 feet Ground Water Seepage in Bottom of Boring

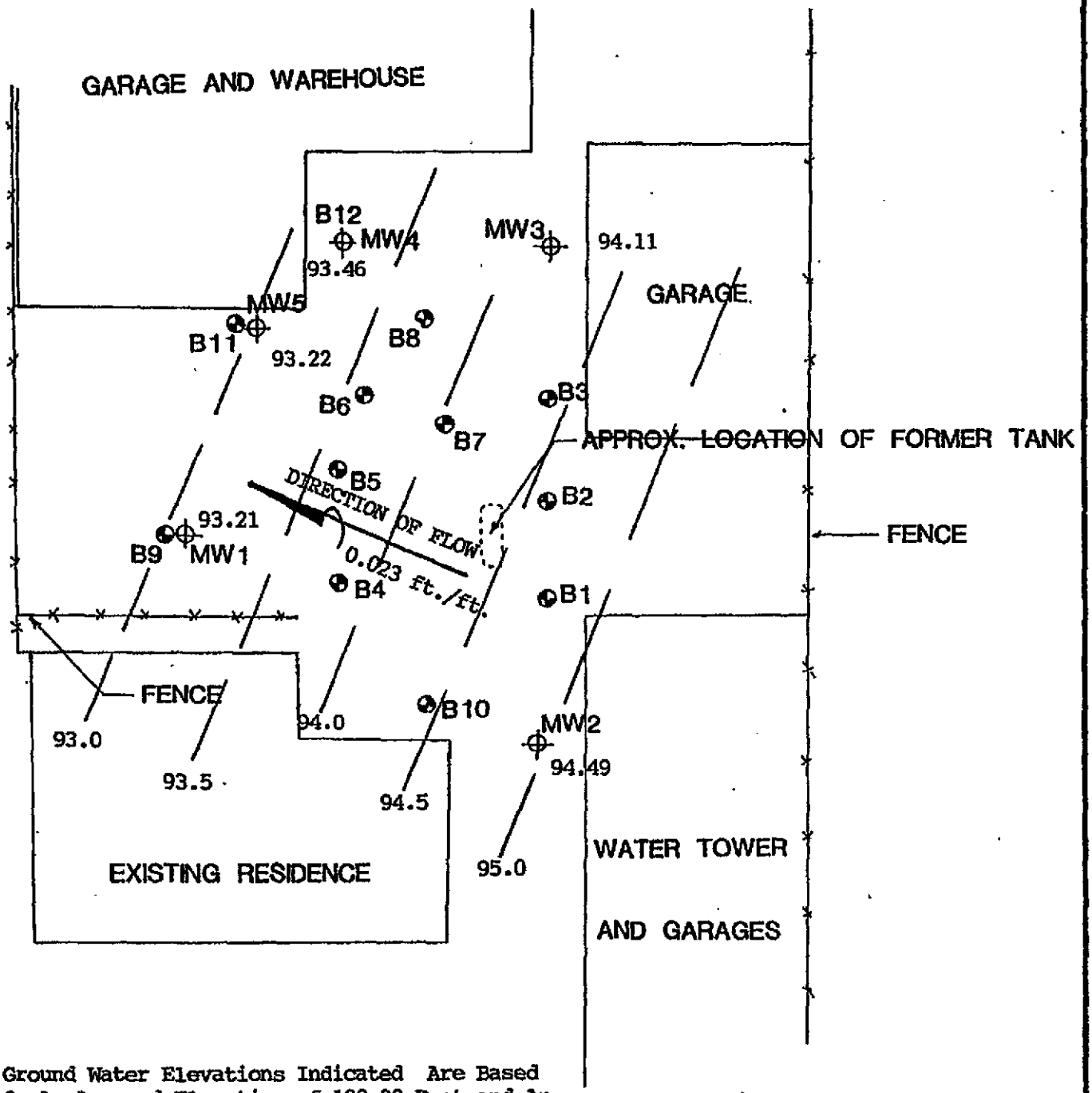
Figure 3

35/2W 3N/01-458J



DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
SITE PLAN		
	Figure 1	

01-458J 35/2W 3N



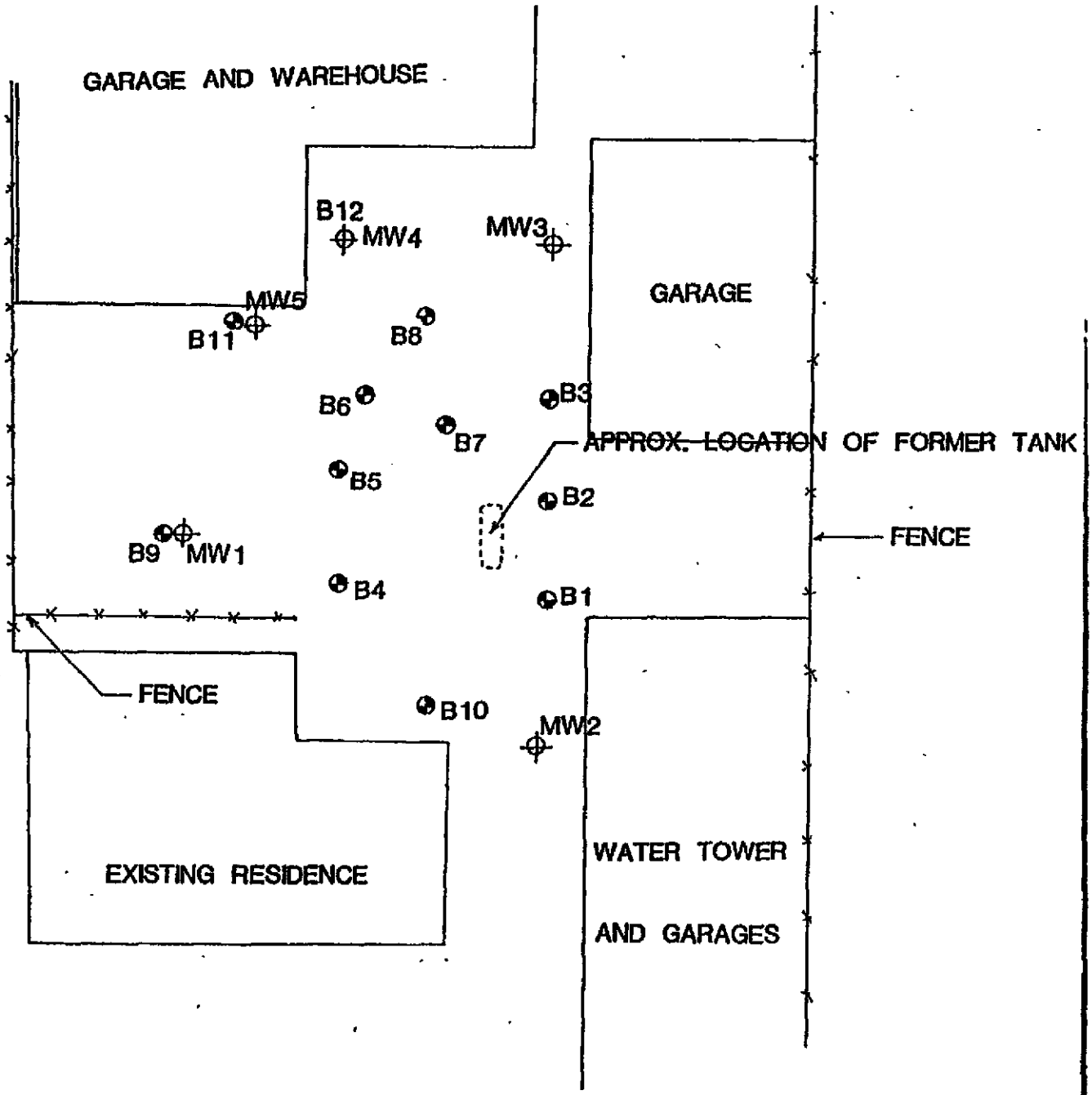
Ground Water Elevations Indicated Are Based On An Assumed Elevation of 100.00 Feet and An Temporary Bench Marck placed on the concrete floor slab in the garage adn warehouse.

● SOIL BORING

⊕ MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
GROUND WATER GRADIENT PLAN		
	Figure 24	

3S/2W 3N / 01-458J



SOIL BORING

MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
BORING LOCATION PLAN		
		Figure 2

SUBSURFACE DATA LOG

3S/2W 3N

01-458J

LOG No. B-2 DATE: 4-24-90

LOCATION: Mitzi Stockel

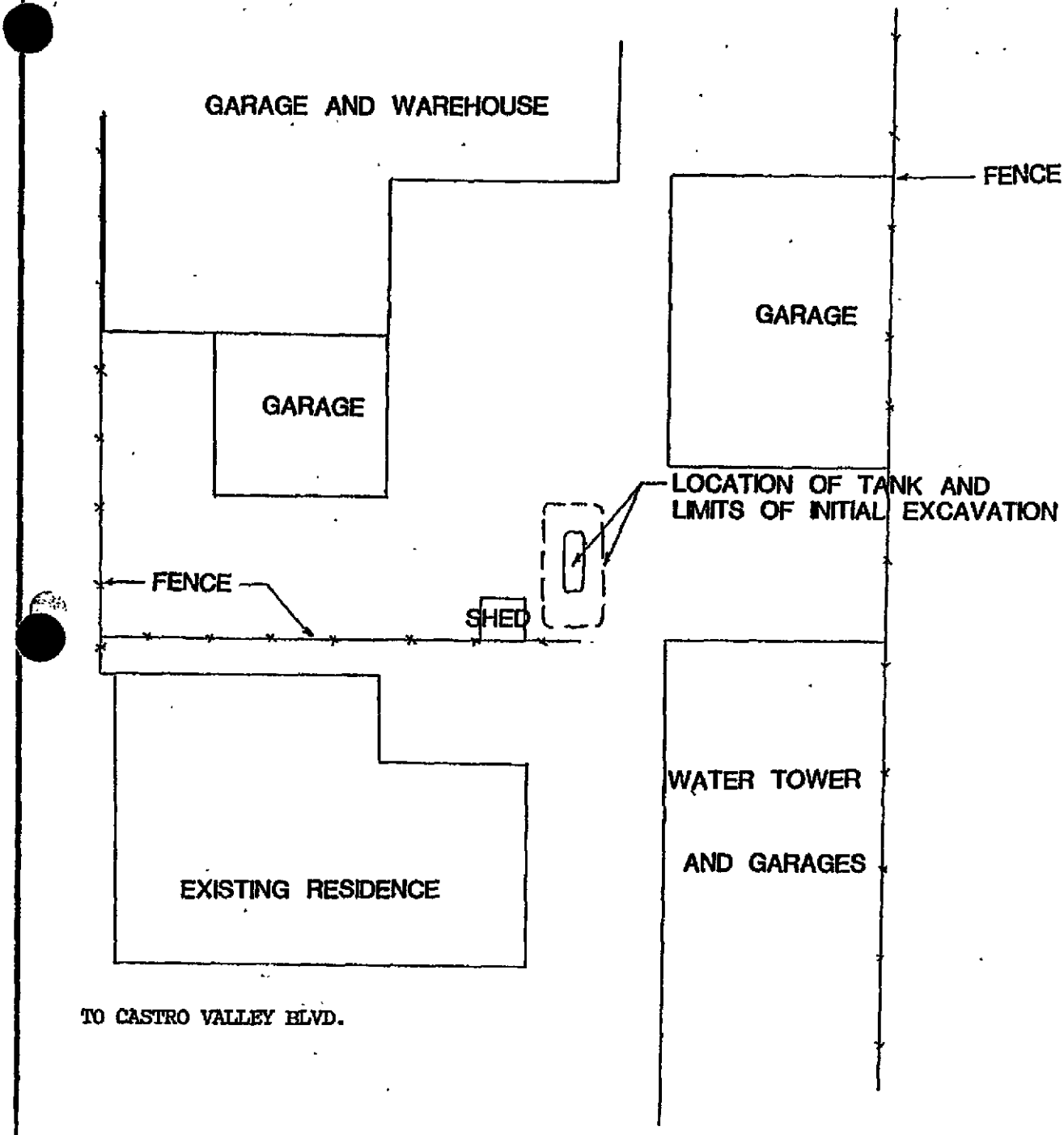
EQUIPMENT:

PROJECT No.

DRY DENSITY (lbs cu. ft.)	MOISTURE (% of dry wt.)	"N" VALUE (blows/ft.)	SAMPLE TYPE	DEPTH (ft)	LOG	U.S.C.	
							2 1/2" A.C. over 2" redish-brown sand SILTY CLAY, dark gray, damp, soft
	31	19	S1	5			SILTY CLAY, mottled orange-brown and olive-gray, damp, soft
	18	63	S2	8			Bottom of Boring 8 Feet Ground Water Seepage in Bottom of Boring

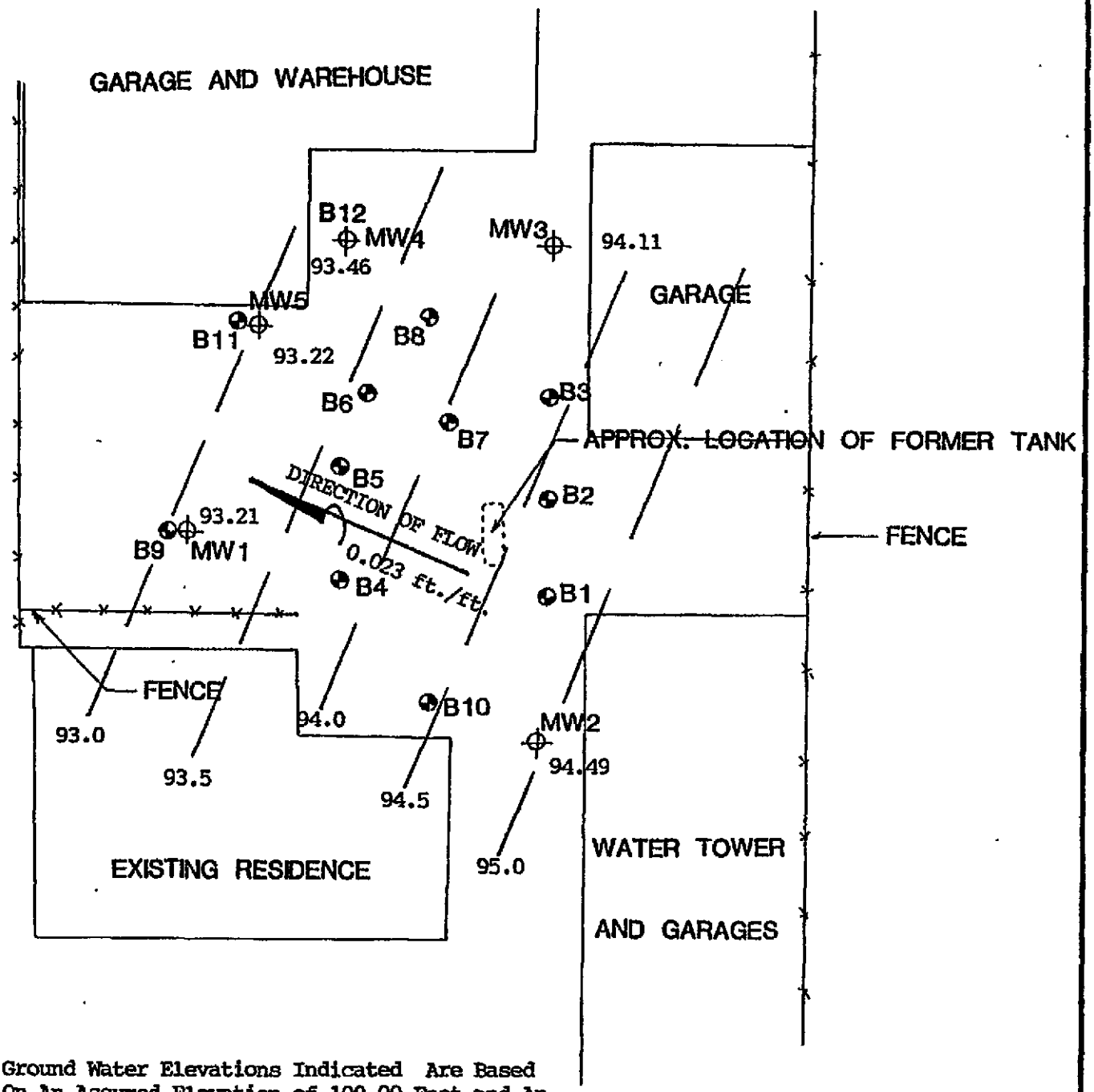
Figure 4

3S/2W 3N/01-458K



DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
SITE PLAN		
	Figure 1	

01-458K 35/2W 3N



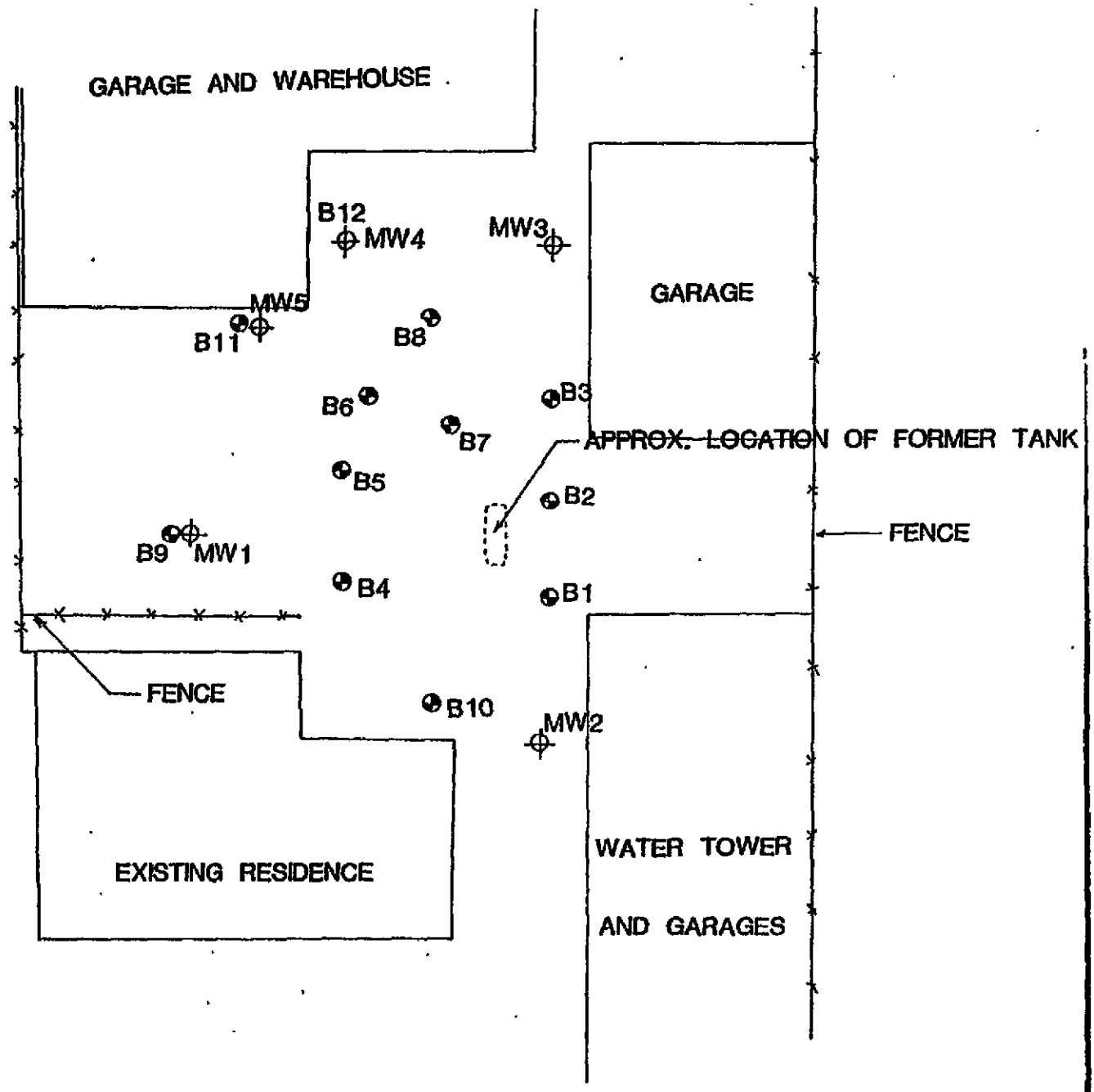
Ground Water Elevations Indicated Are Based On An Assumed Elevation of 100.00 Feet and An Temporary Bench Marck placed on the concrete floor slab in the garage adn warehouse.

● SOIL BORING

⊕ MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
GROUND WATER GRADIENT PLAN		
	Figure 24	

3S/2W 3N / 01-458K



SOIL BORING

MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
BORING LOCATION PLAN		
	Figure 2	

SUBSURFACE DATA LOG

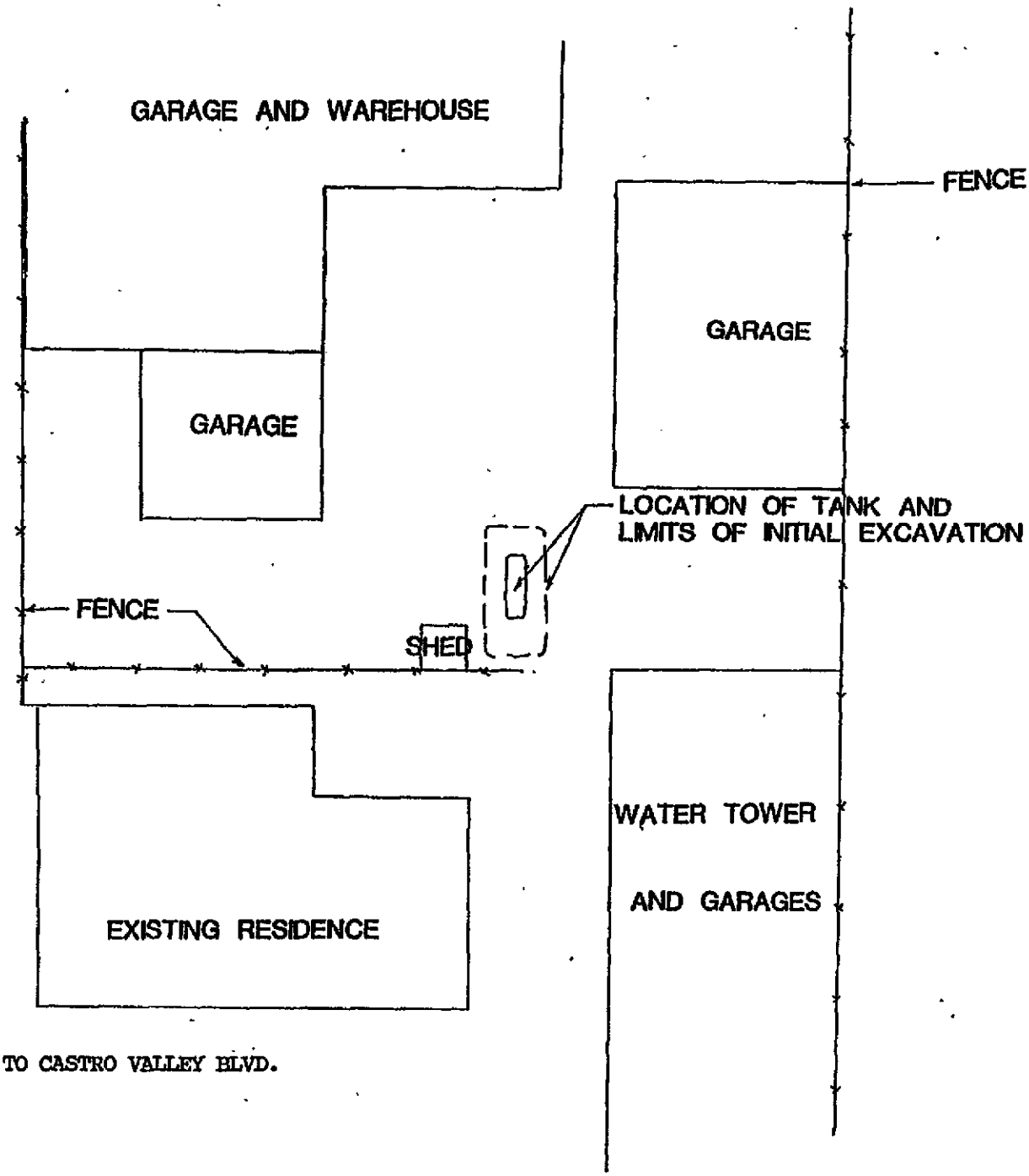
3S/2W 3N
01-458K

LOG No. B-3 DATE: 4-24-90
LOCATION: Mitzi Stockel
EQUIPMENT:
PROJECT No.

DRY DENSITY (lbs cu. ft.)	MOISTURE (% of dry wt.)	"N" VALUE (blows/ft.)	SAMPLE TYPE	DEPTH (ft)	LOG	U.S.C.	
							SILTY CLAY, dark gray, moist, soft
							SILTY CLAY/CLAYEY SILT, mottled orange-brown and olive-gray, moist, firm
	23	24	S1	5			SILT, mottled orange-brown and olive-gray
		9	S2	8			Bottom of Boring 8 feet

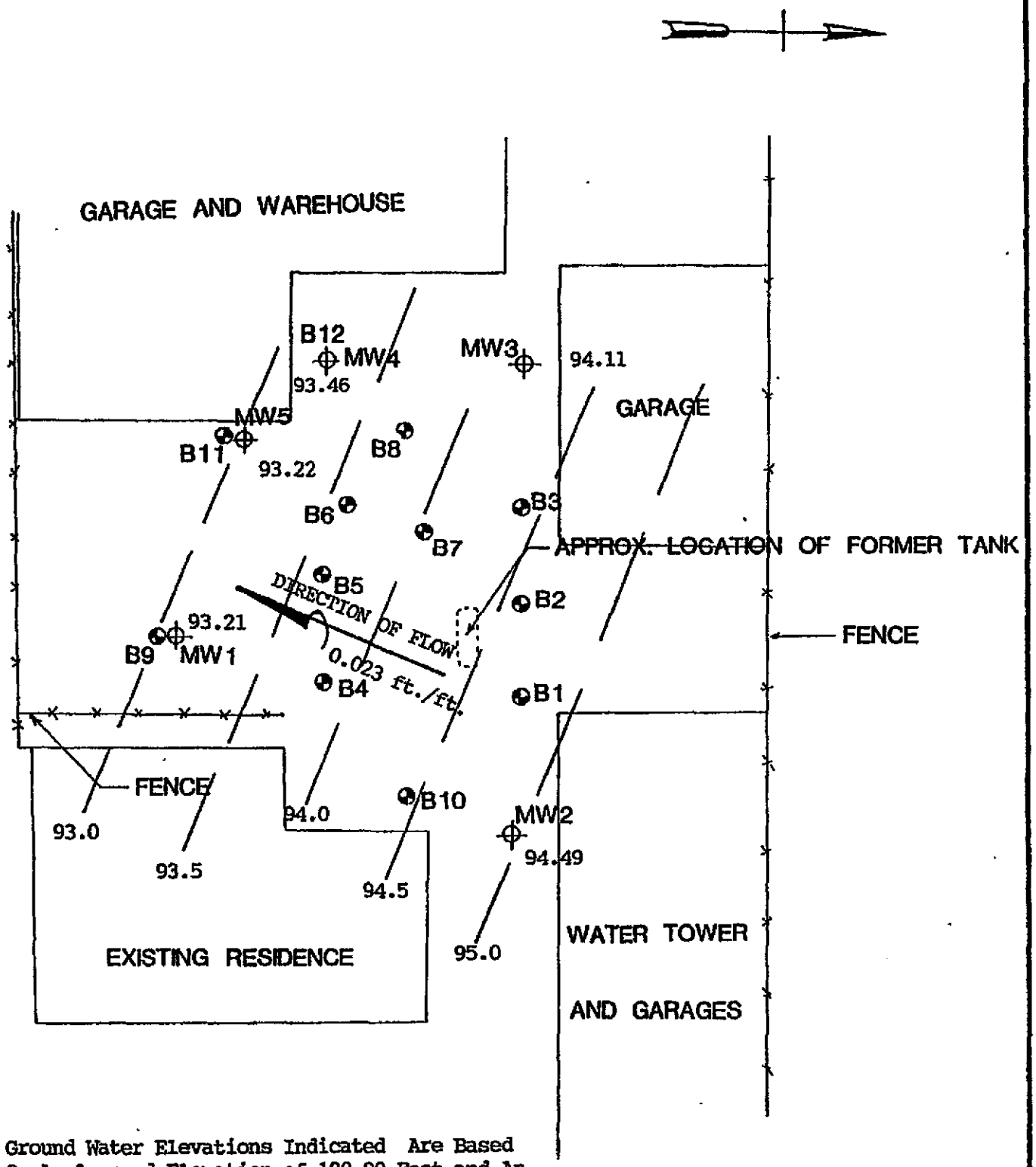
Figure 5.

3S/2W 3N/01-458L



DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
SITE PLAN		
	Figure 1	

01-458L 3S/2W 3N



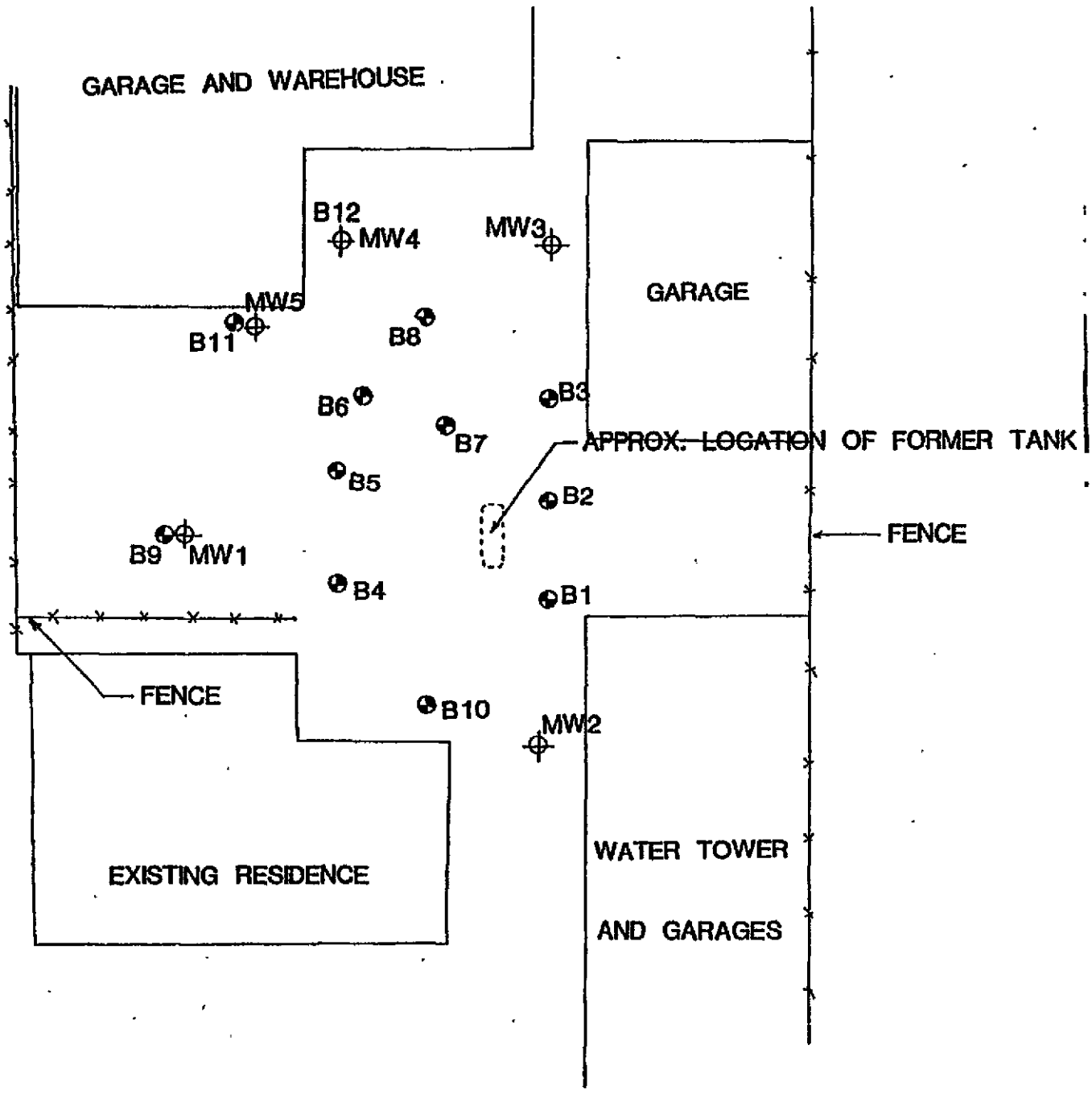
Ground Water Elevations Indicated Are Based On An Assumed Elevation of 100.00 Feet and An Temporary Bench Marck placed on the concrete floor slab in the garage adn warehouse.

● SOIL BORING

⊕ MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
GROUND WATER GRADIENT PLAN		
	Figure 24	

3S/2W 3N / 01-458L



SOIL BORING

MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
BORING LOCATION PLAN		
	Figure 2	

SUBSURFACE DATA LOG

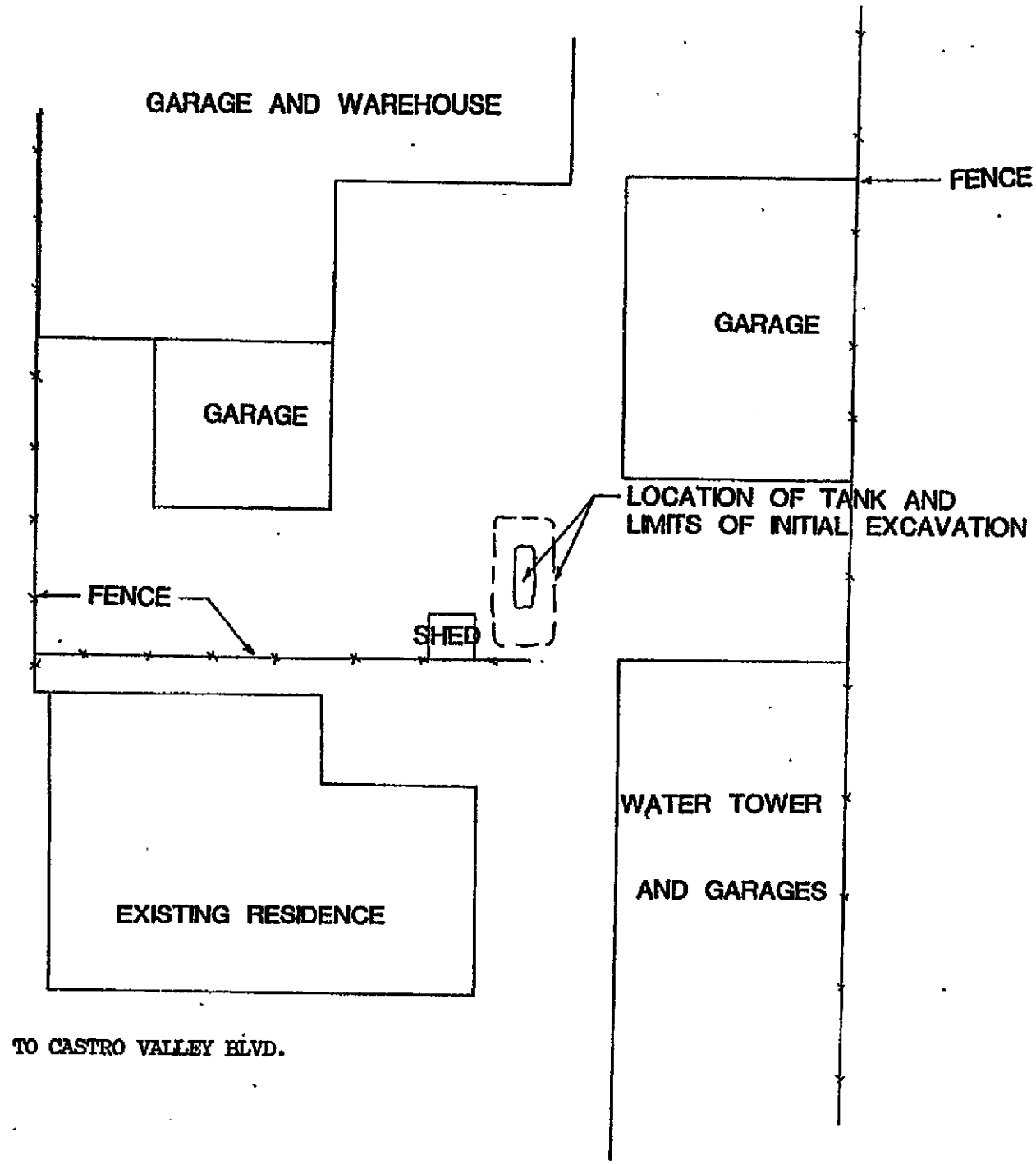
3S/2W 3N
01-458L

LOG No. B-4 DATE: 4-24-90
LOCATION: Mitzi Stockel
EQUIPMENT:
PROJECT No.

DRY DENSITY (lbs cu. ft.)	MOISTURE (% of dry wt.)	"N" VALUE (blows/ft.)	SAMPLE TYPE	DEPTH (ft)	LOG	U.S.C.	
							SILTY CLAY, dark gray, damp, firm
	33	34	S1	5			SILT, olive-gray, damp, firm, noticable gasoline vapors
	18	105	S2	8			SILTY SAND, olive-green, damp, medium dense, noticable gasoline/oil vapors
							Bottom of Boring 8 Feet

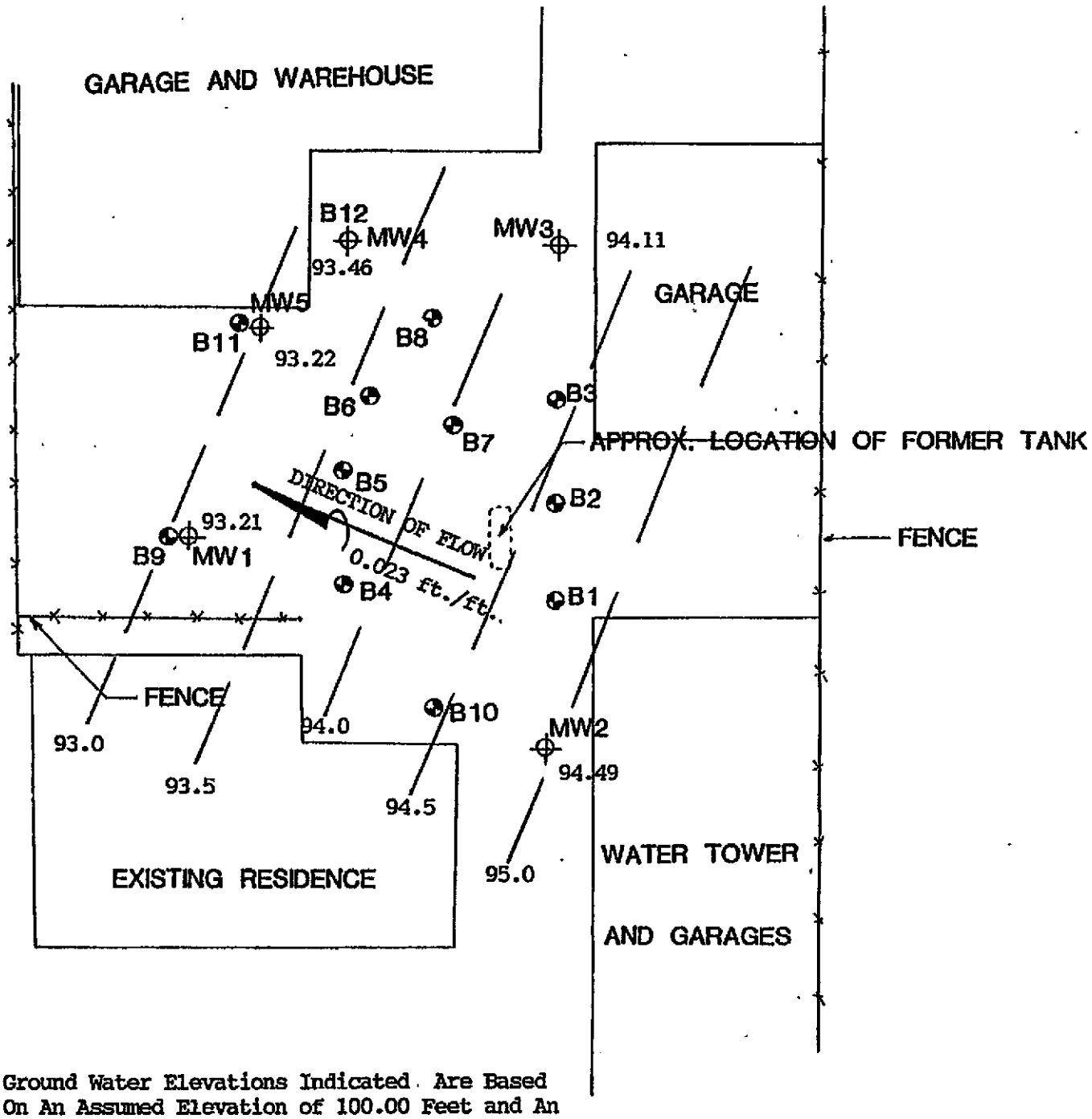
Figure 6

35/2W 3N 01-458M



DAVID C. GLICK ASSOCIATES		
DATE 4-27-90	SCALE 1" = 20'	DRAWN BY DCG
SITE PLAN		
	Figure 1	

01-458M 35/2W 3N



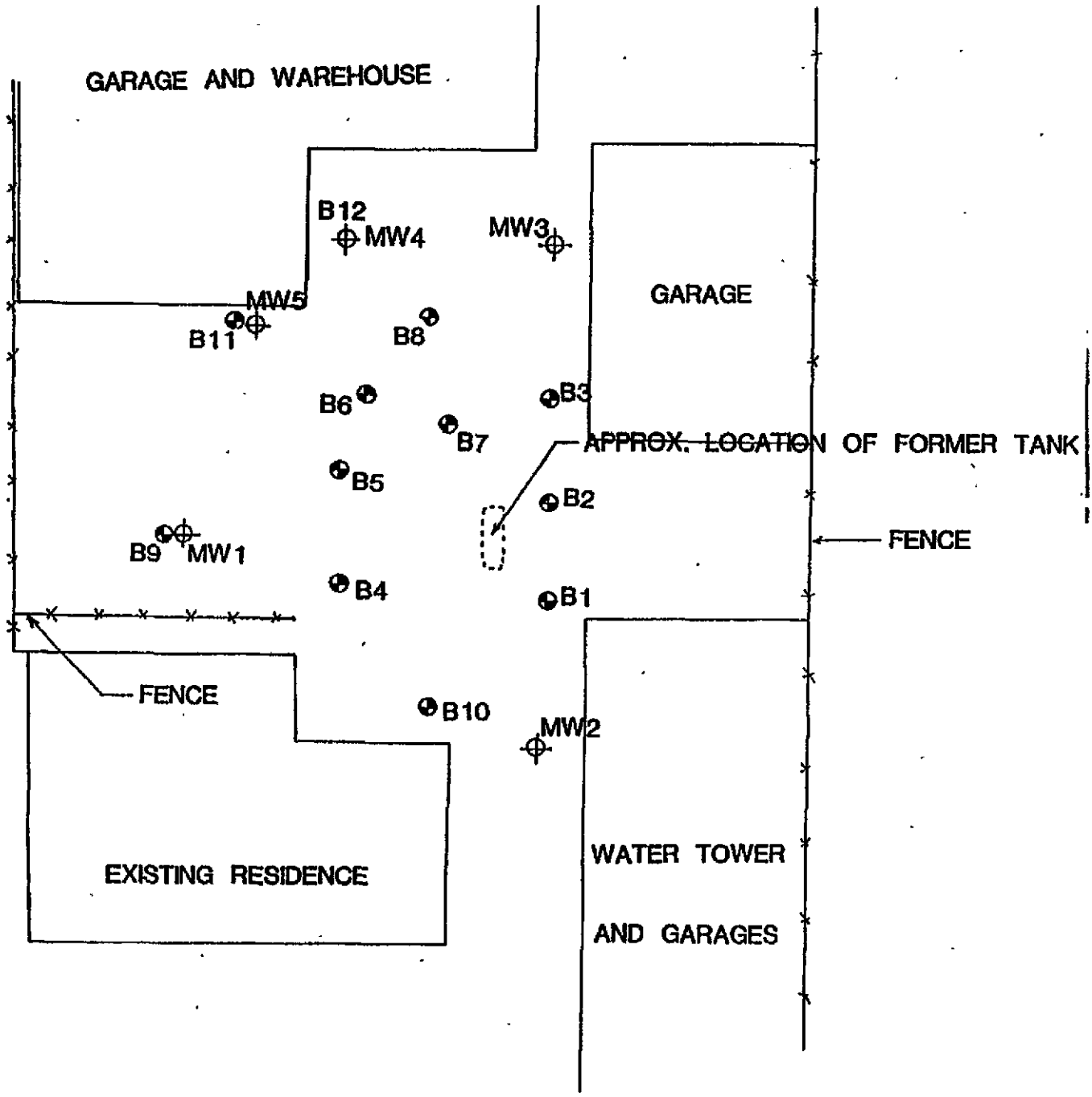
Ground Water Elevations Indicated Are Based On An Assumed Elevation of 100.00 Feet and An Temporary Bench Marck placed on the concrete floor slab in the garage adn warehouse.

● SOIL BORING

⊕ MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
GROUND WATER GRADIENT PLAN		
	Figure 24	

3S/2W 3N / 01-458M



SOIL BORING

MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1"=20'	DRAWN BY DCG
BORING LOCATION PLAN		
	Figure 2	

SUBSURFACE DATA LOG

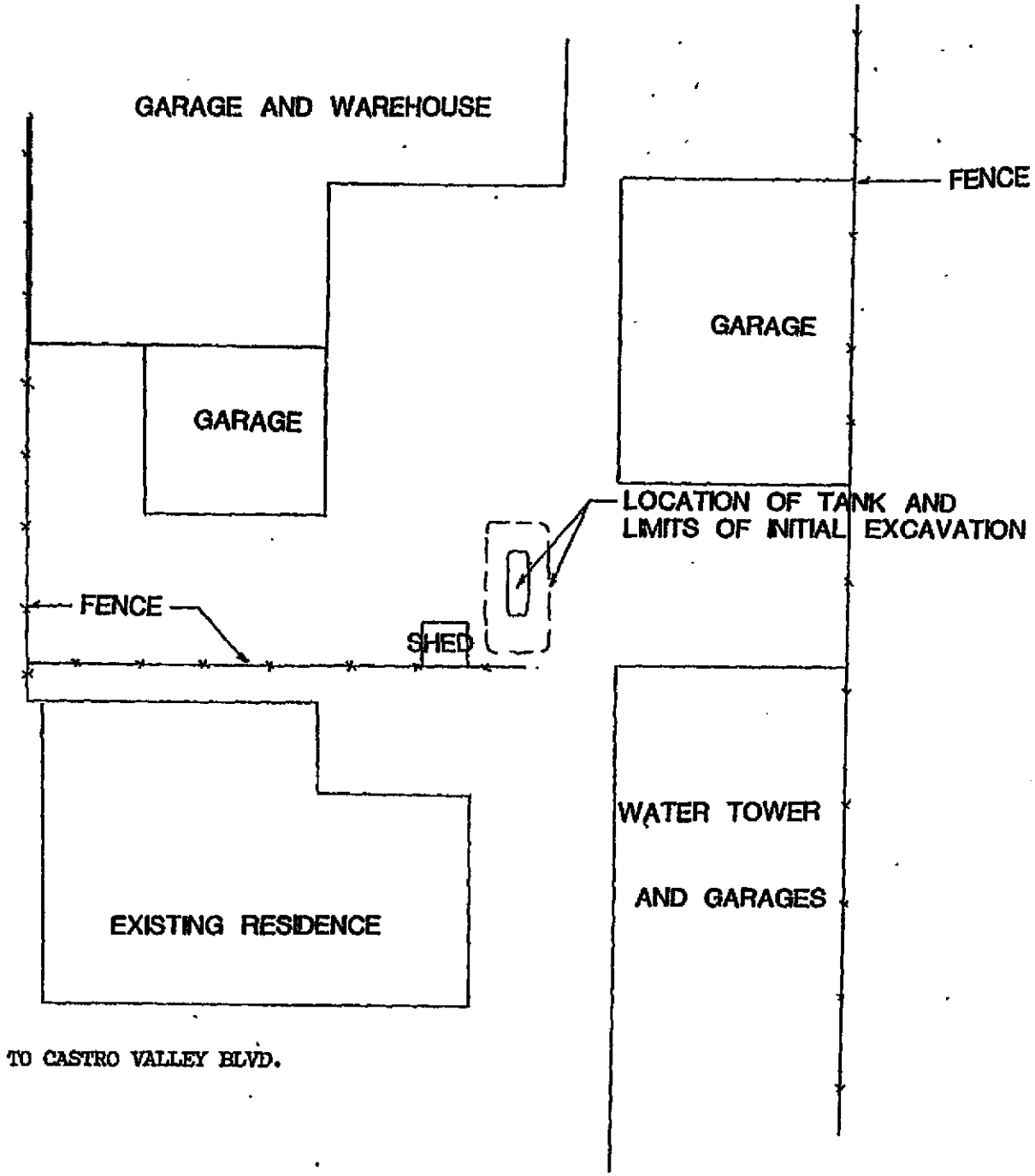
3S/2W 3N
01-458M

LOG No. B-5 DATE: 4-24-90
LOCATION: Mitzi Stockel
EQUIPMENT:
PROJECT No.

DRY DENSITY (lbs. cu. ft.)	MOISTURE (% of dry wt.)	"N" VALUE (blows/ft.)	SAMPLE TYPE	DEPTH (ft)	LOG	U.S.C.	
							SILTY CLAY, dark gray, damp, firm
	20	380	S1	5			SILTY CLAY, olive-gray, damp, firm
	17	1138	S2	8			SILTY SAND, mottled orange-brown and olive-gray, moist, medium dense , strong gasoline odors
							Bottom of Boring 8 Feet.

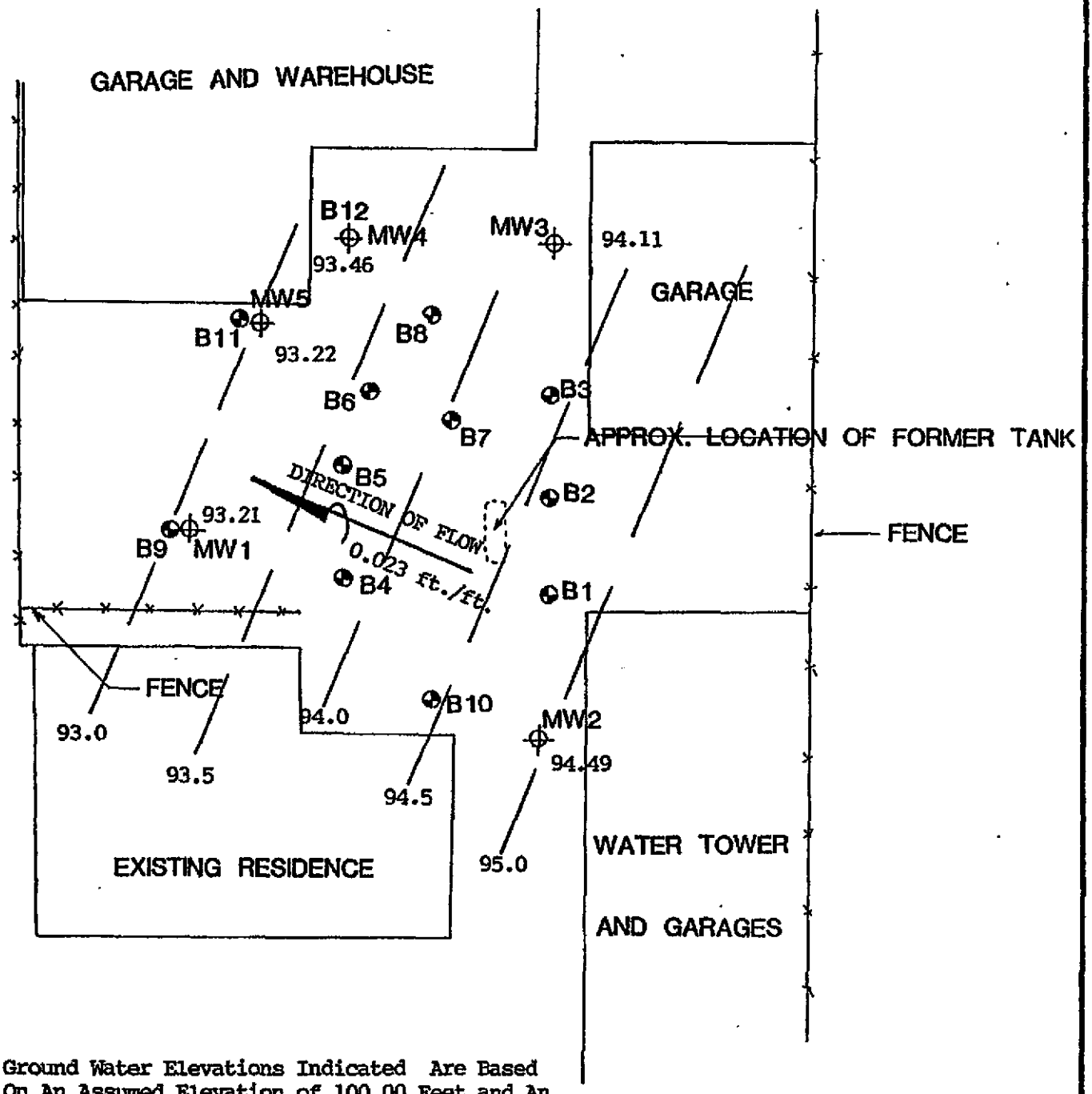
Figure 7

3S/2W 3N / 01-458N



DAVID C. GLICK ASSOCIATES		
DATE 4-27-90	SCALE 1" = 20'	DRAWN BY DCG
SITE PLAN		
	Figure 1	

01-458N 3S/2W 3N



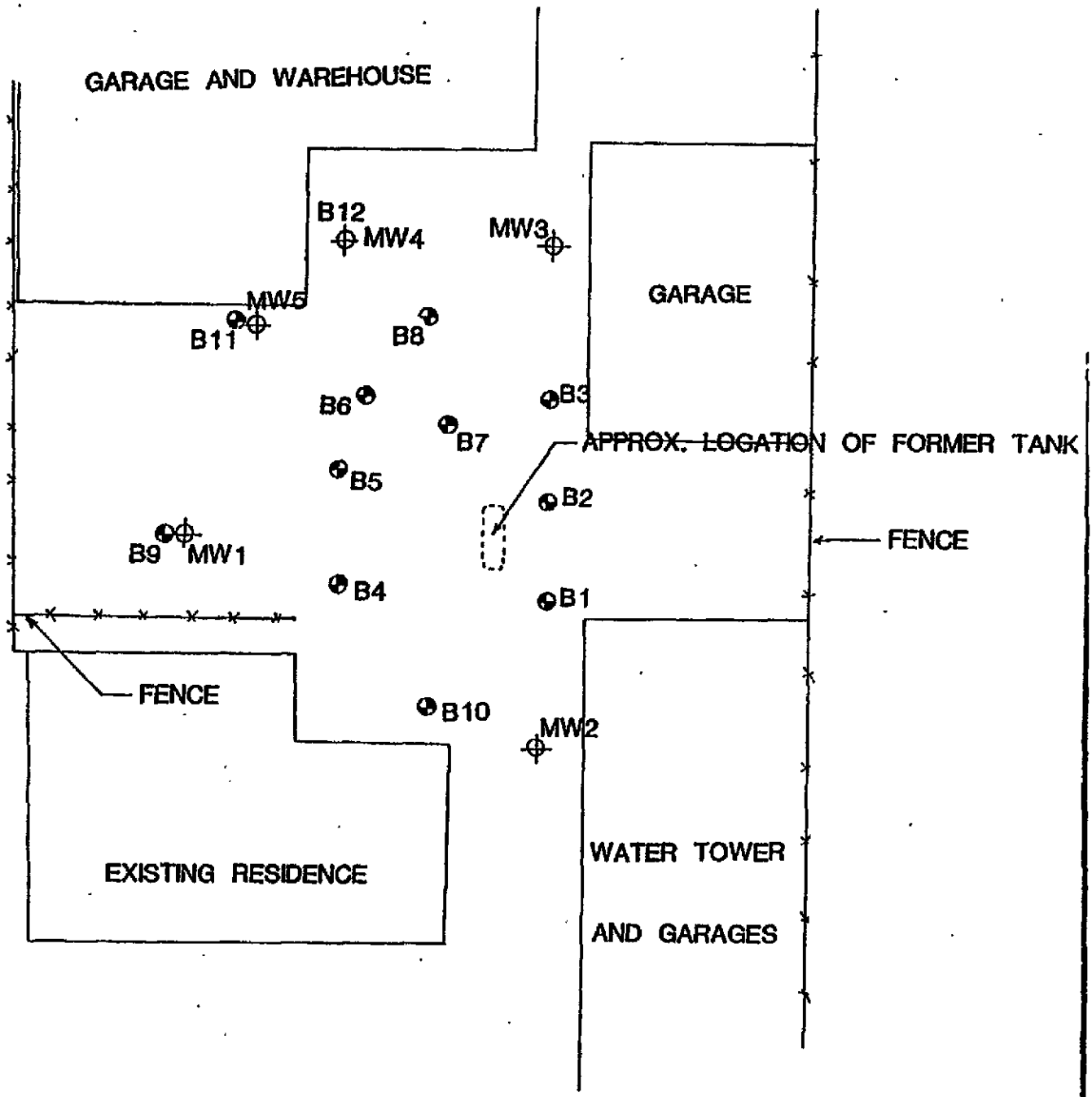
Ground Water Elevations Indicated Are Based On An Assumed Elevation of 100.00 Feet and An Temporary Bench Marck placed on the concrete floor slab in the garage adn warehouse.

● SOIL BORING

⊕ MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
GROUND WATER GRADIENT PLAN		
	Figure 24	

3S/2W 3N / 01-458N



SOIL BORING

MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
BORING LOCATION PLAN		
	Figure 2	

SUBSURFACE DATA LOG

35/2W 3N

01-458N

LOG No. B-6 DATE: 4-24-90

LOCATION: Mitzi Stockel

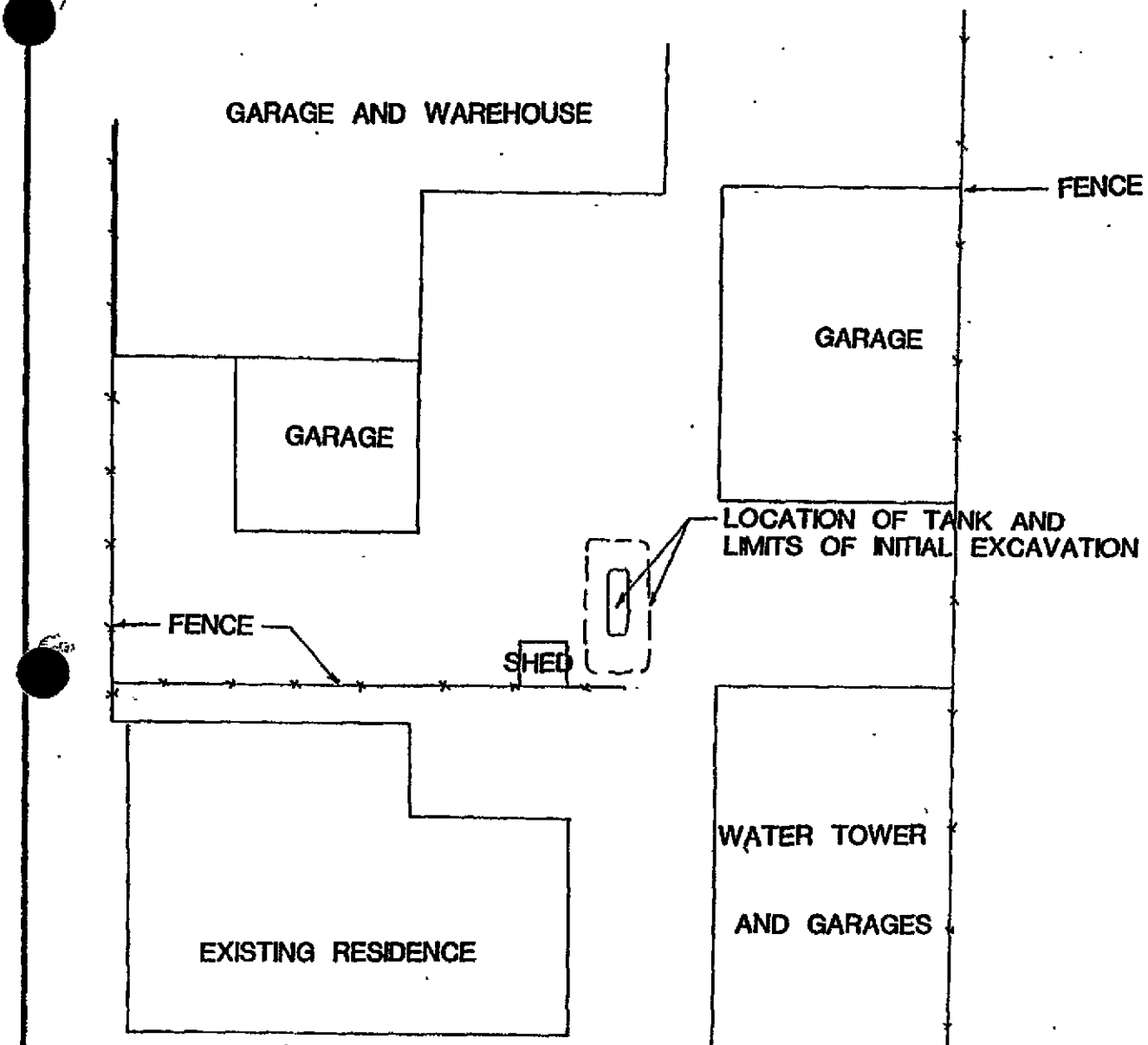
EQUIPMENT:

PROJECT No.

DRY DENSITY (lbs cu. ft.)	MOISTURE (% of dry wt.)	"N" VALUE (blows/ft.)	SAMPLE TYPE	DEPTH (ft)	LOG	U.S.C.	
							SILTY CLAY, dark gray, damp, firm
		18	543	S1	5		SILT, olive-orange, damp, firm to medium dense
							SILTY SAND, orange-gray, moist, medium dense
		12	24	S2	8		SILT, mottled orange-olive-gray, moist, medium dense
							Bottom of Boring 8 feet.

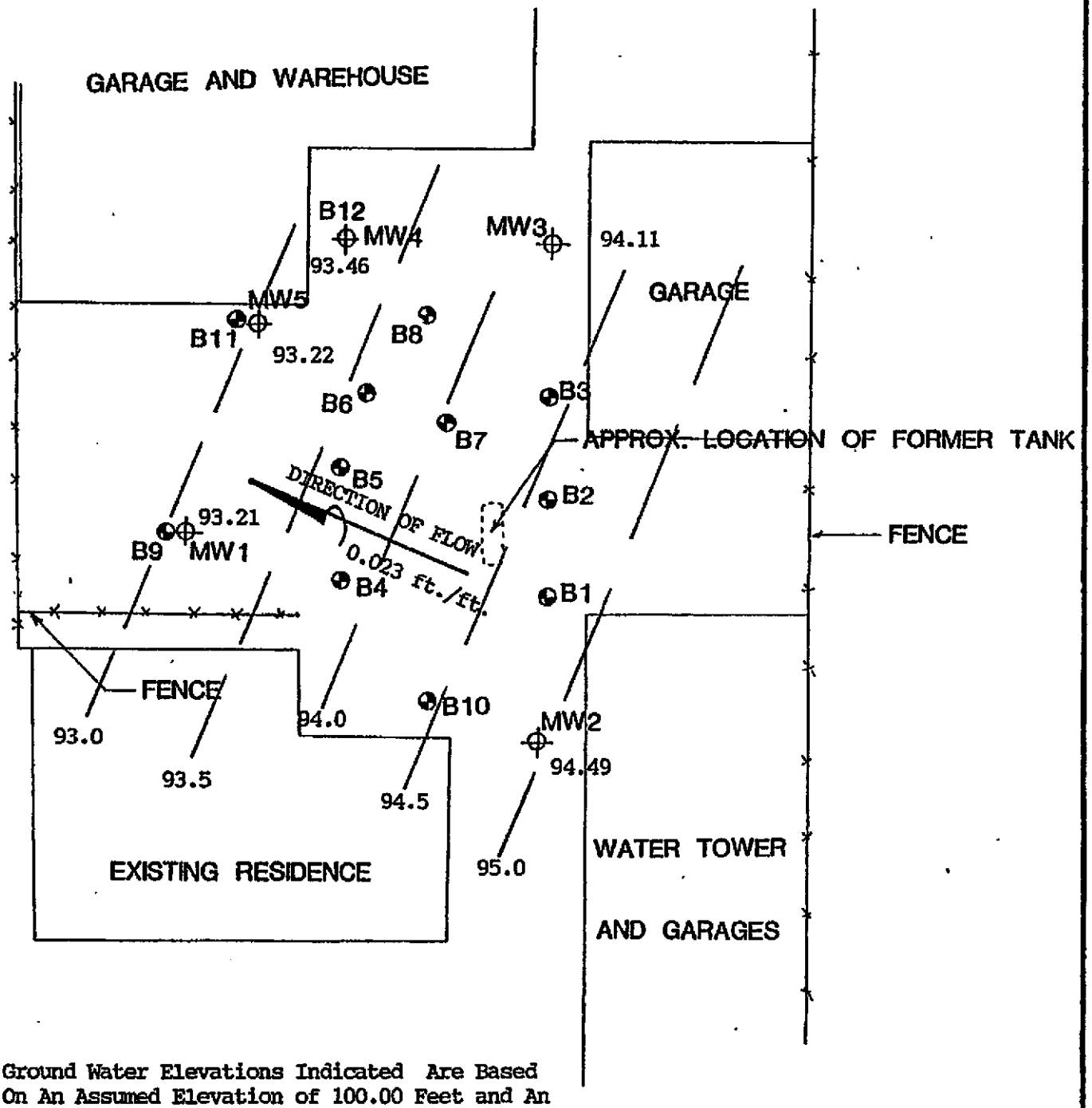
Figure 8

3S/2W 3N/01-458P



DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
SITE PLAN		
	Figure 1	

01-458P 35/2W 3N



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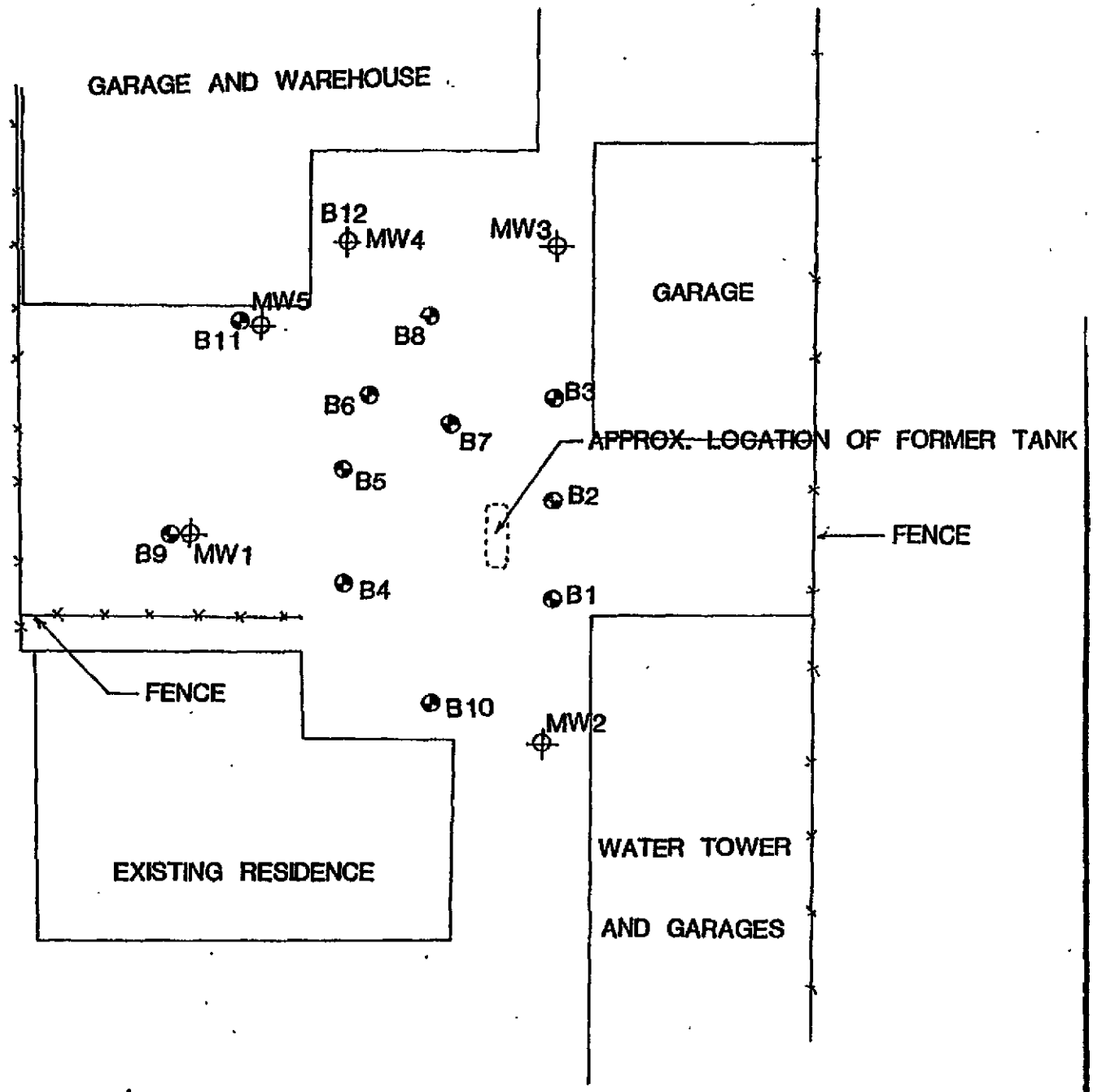
● SOIL BORING

⊕ MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
GROUND WATER GRADIENT PLAN		
	Figure 24	

3S/2W 3N / 01-458P



SOIL BORING

MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
BORING LOCATION PLAN		
	Figure 2	

SUBSURFACE DATA LOG

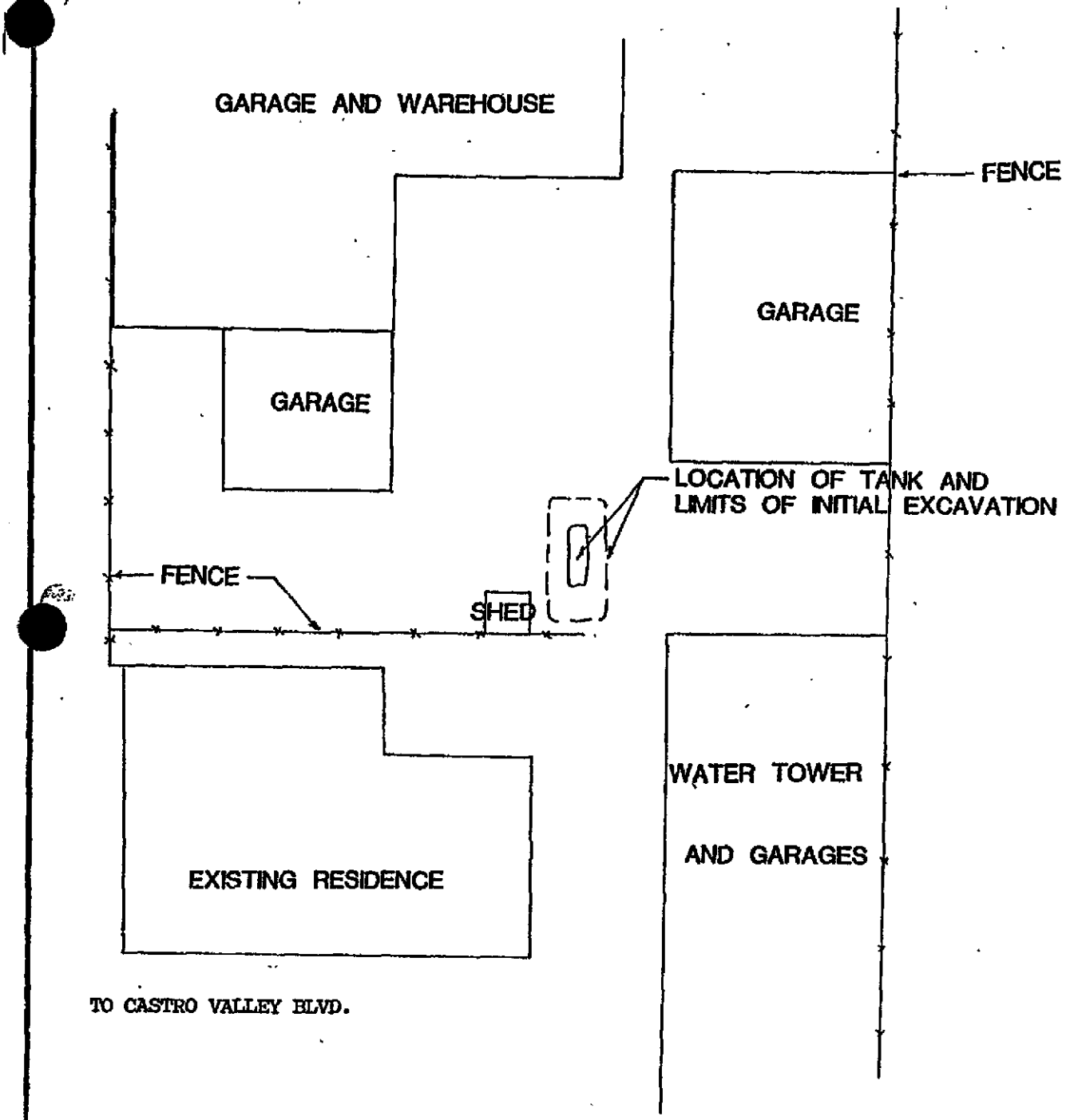
3S/2W 3N
01-458 P

LOG No. B-7 DATE: 4-24-90
LOCATION: Mitzi Stockel
EQUIPMENT:
PROJECT No.

DRY DENSITY (lbs. cu. ft.)	MOISTURE (% of dry wt.)	"N" VALUE (blows/ft.)	SAMPLE TYPE	DEPTH (ft)	LOG	U.S.C.	
							SILTY CLAY, dark gray, damp, firm
	27	110	S1	5			SILT, mottled orange-olive-gray, damp, medium dense, strong gasoline odors
	12	114	S2	8			SILTY SAND, mottled blue-orange-brown, moist medium dense, strong gasoline odors
							Bottom of Boring 8 feet.

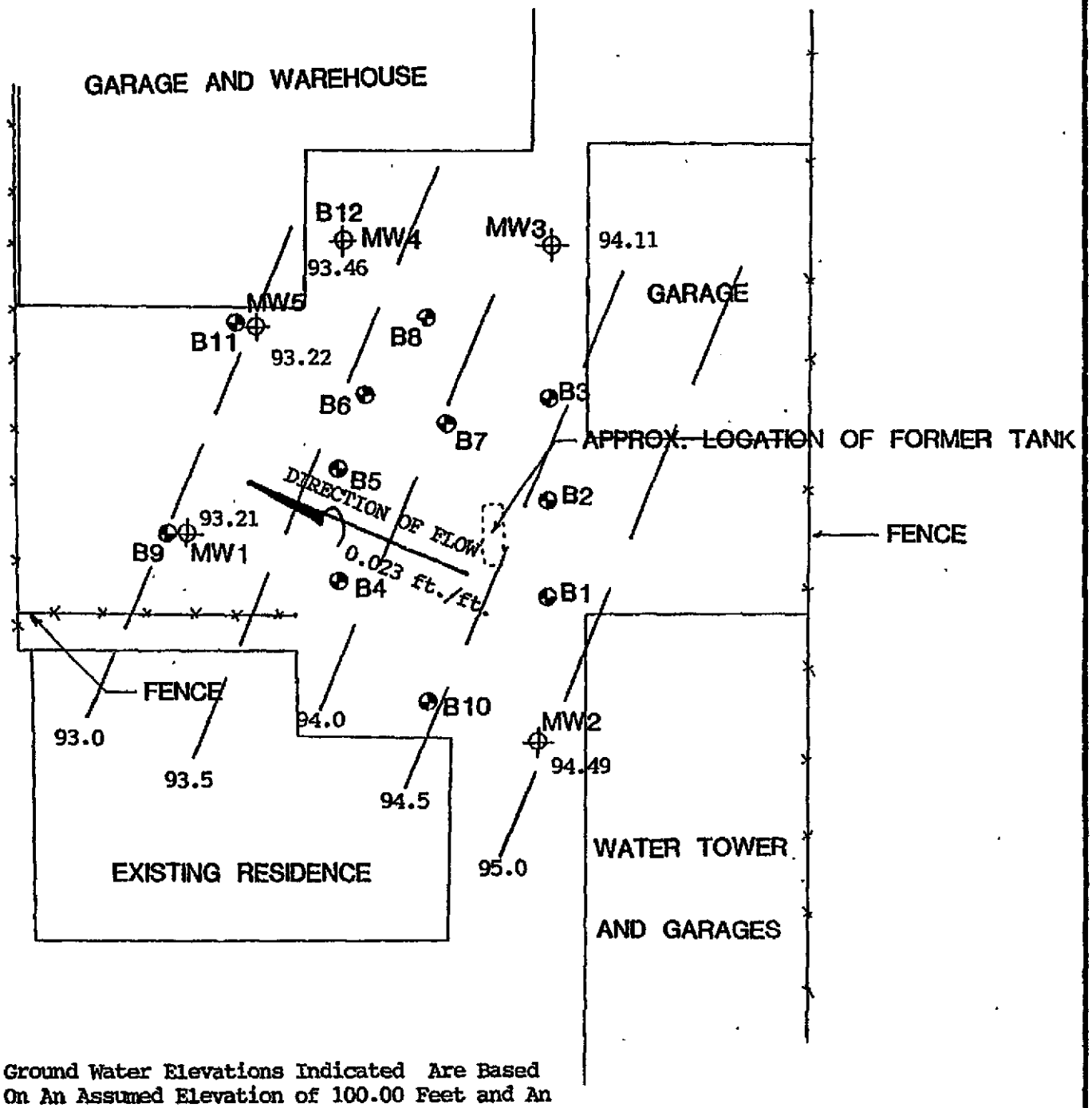
Figure 9

3S/2W 3N/01-458Q



DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
SITE PLAN		
	Figure 1	

01-458Q 35/2W 3N



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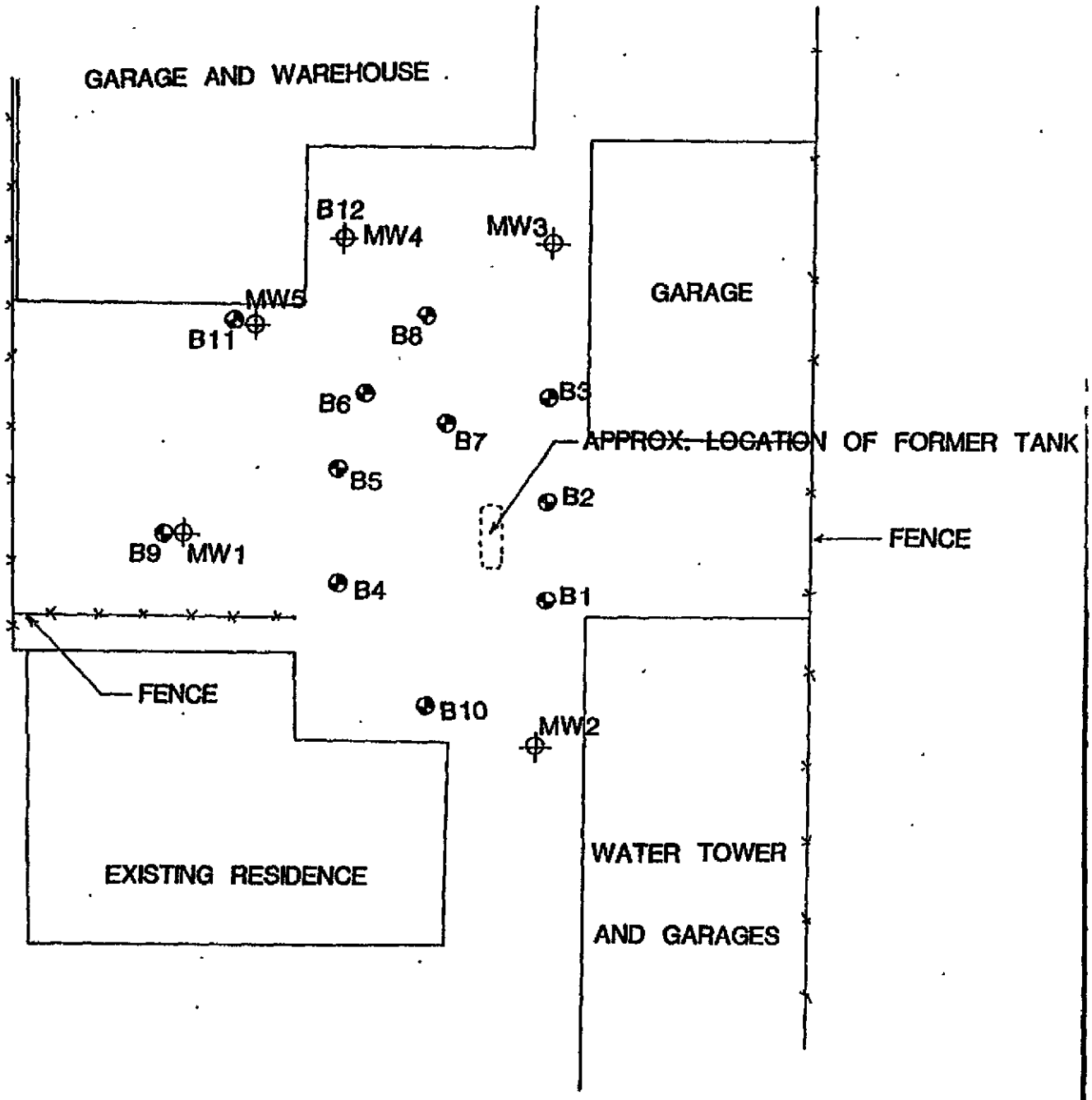
● SOIL BORING

⊕ MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
GROUND WATER GRADIENT PLAN		
	Figure 24	

3S/2W 3N / 01-458Q



SOIL BORING

MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
BORING LOCATION PLAN		
	Figure 2	

SUBSURFACE DATA LOG

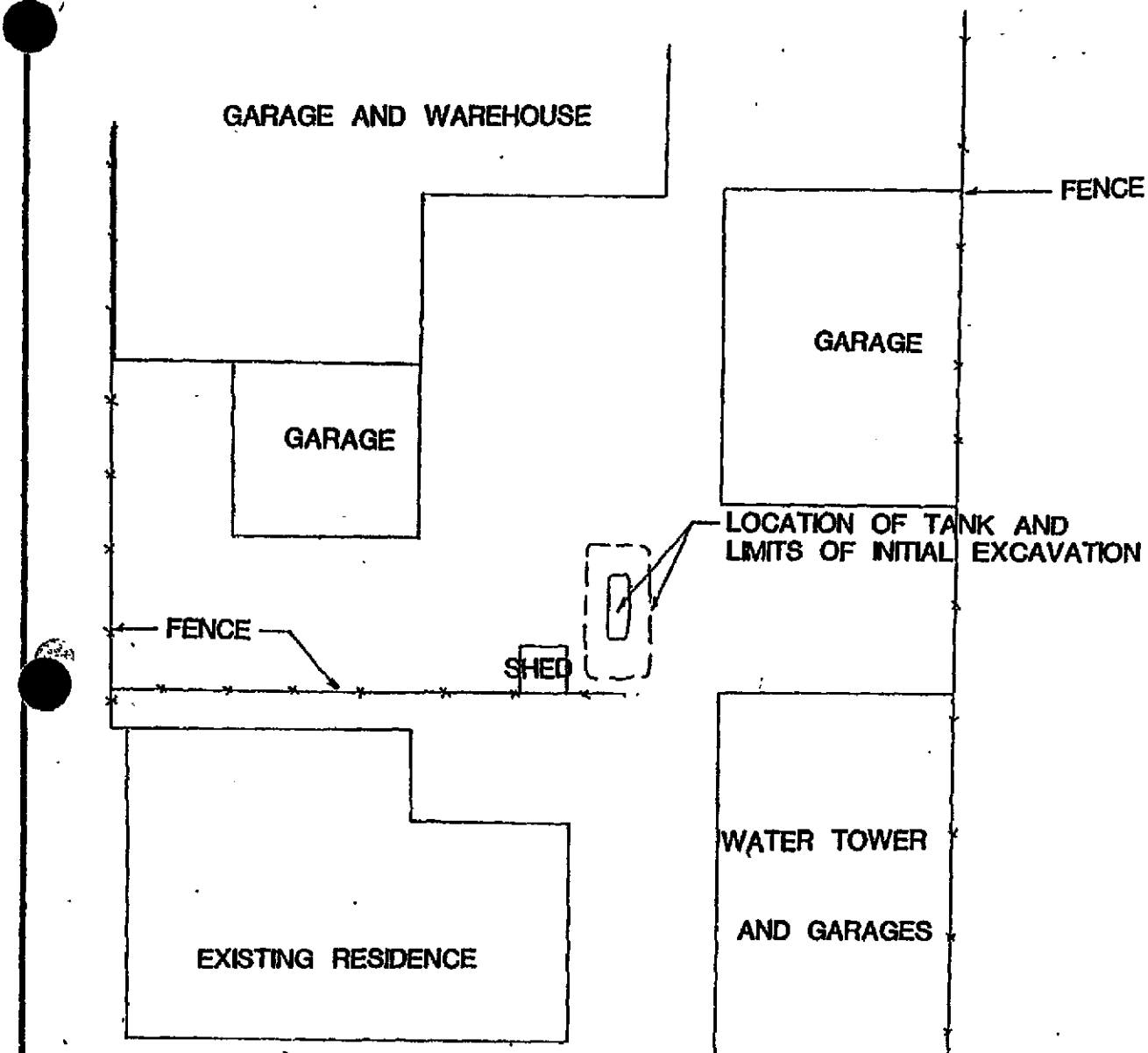
3S/2W 3N
01-458Q

LOG No. B-8 DATE: 4-24-90
LOCATION: Mitzi Stockel
EQUIPMENT:
PROJECT No.

DRY DENSITY (lbs cu. ft.)	MOISTURE (% of dry wt.)	"N" VALUE (blows/ft.)	SAMPLE TYPE	DEPTH (ft)	LOG	U.S.C.	
							SILTY CLAY, dark gray, damp, firm
							SILT, olive-gray, moist, medium dense, strong gasoline odors
	28	435	S1	5			SILT, olive-gray, moist, medium dense, strong gasoline odors
							CLAYEY SILT, mottled orange-gray, moist, stiff
	12	548	S2	8			Bottom of Boring 8 Feet.

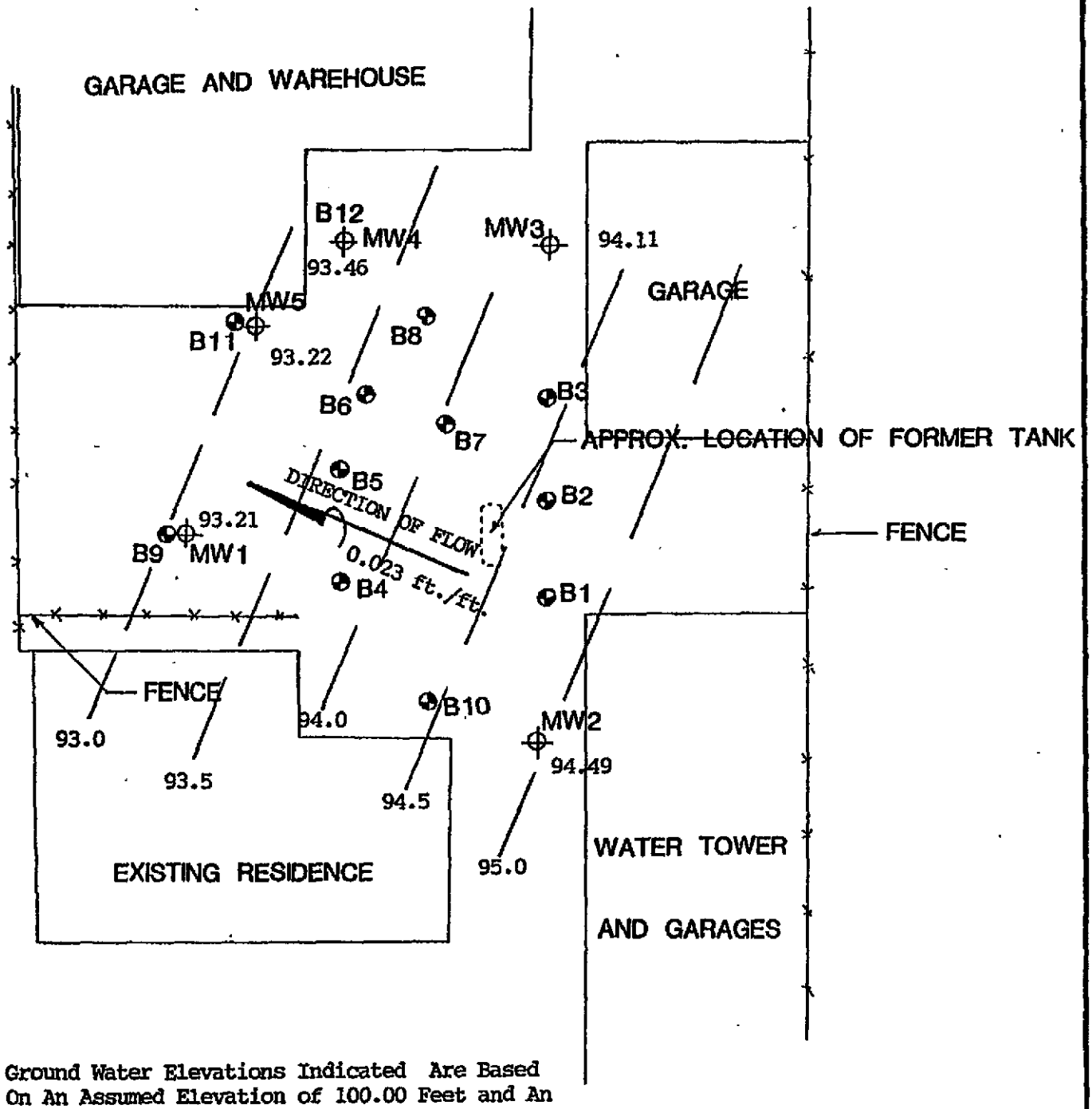
Figure 10

35/2W 3N / 01-458R



DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
SITE PLAN		
	Figure 1	

01-458 R 1 3S/2W 3N



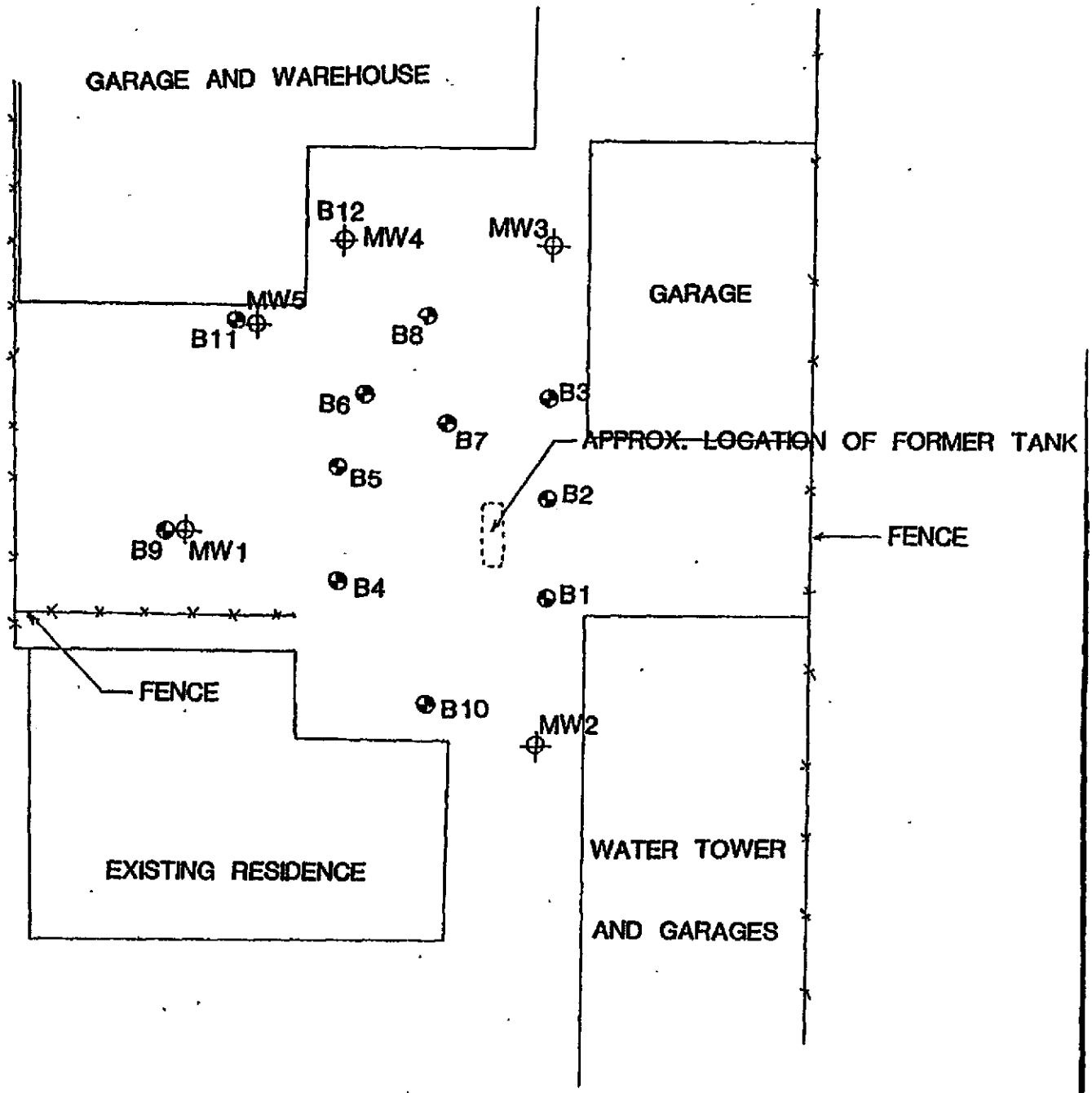
Ground Water Elevations Indicated Are Based On An Assumed Elevation of 100.00 Feet and An Temporary Bench Marck placed on the concrete floor slab in the garage adn warehouse.

◕ SOIL BORING

⊕ MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
GROUND WATER GRADIENT PLAN		
		Figure 24

3S/2W 3N / 01-458R



SOIL BORING

MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
BORING LOCATION PLAN		
	Figure 2	

SUBSURFACE DATA LOG

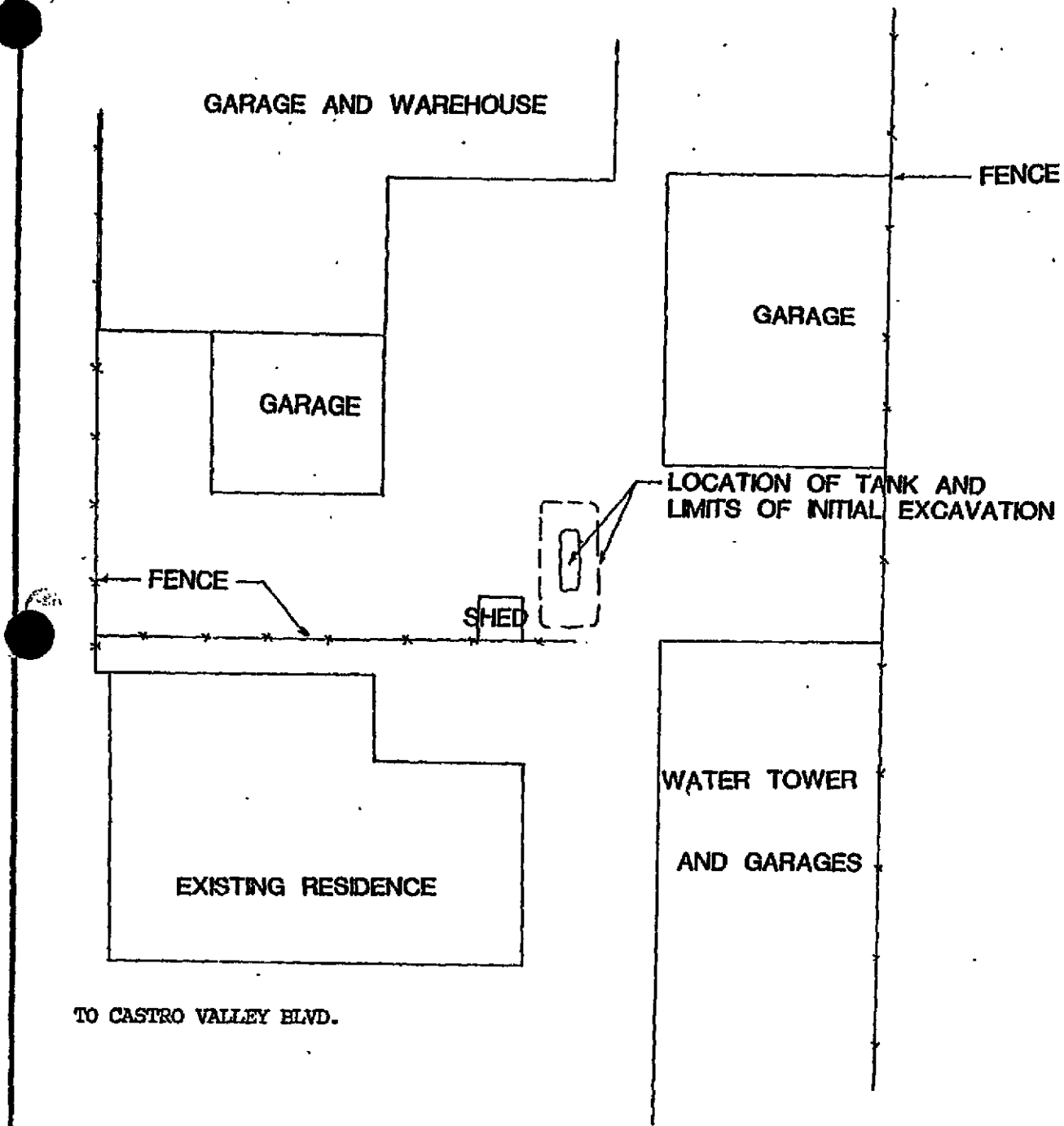
3S/2W 3N
01-458R

LOG No. B-9 DATE: 4-24/25-90
LOCATION: Mitzi Stockel
EQUIPMENT:
PROJECT No.

DRY DENSITY (lbs cu. ft.)	MOISTURE (% of dry wt.)	"N" VALUE (blows/ft.)	SAMPLE TYPE	DEPTH (ft)	LOG	U.S.C.	
							SAND, fine-grained, gray, dry, dense
	62	273	S1	5			SILT, with some gravel, orange-brown, damp, dense
							CLAYEY SILT, olive-brown, dry, firm to stiff
	16	54	S2	8			CLAYEY SILT, mottled olive-brown and orange, damp, firm
	sample not retained			10			
							SILTY CLAY, brown-orange, moist
	sample not retained			15			
							SAND, fine-grained, medium brown, saturated, loos
	41	N.D.	S3	20			Bottom of Boring 20 Feet.

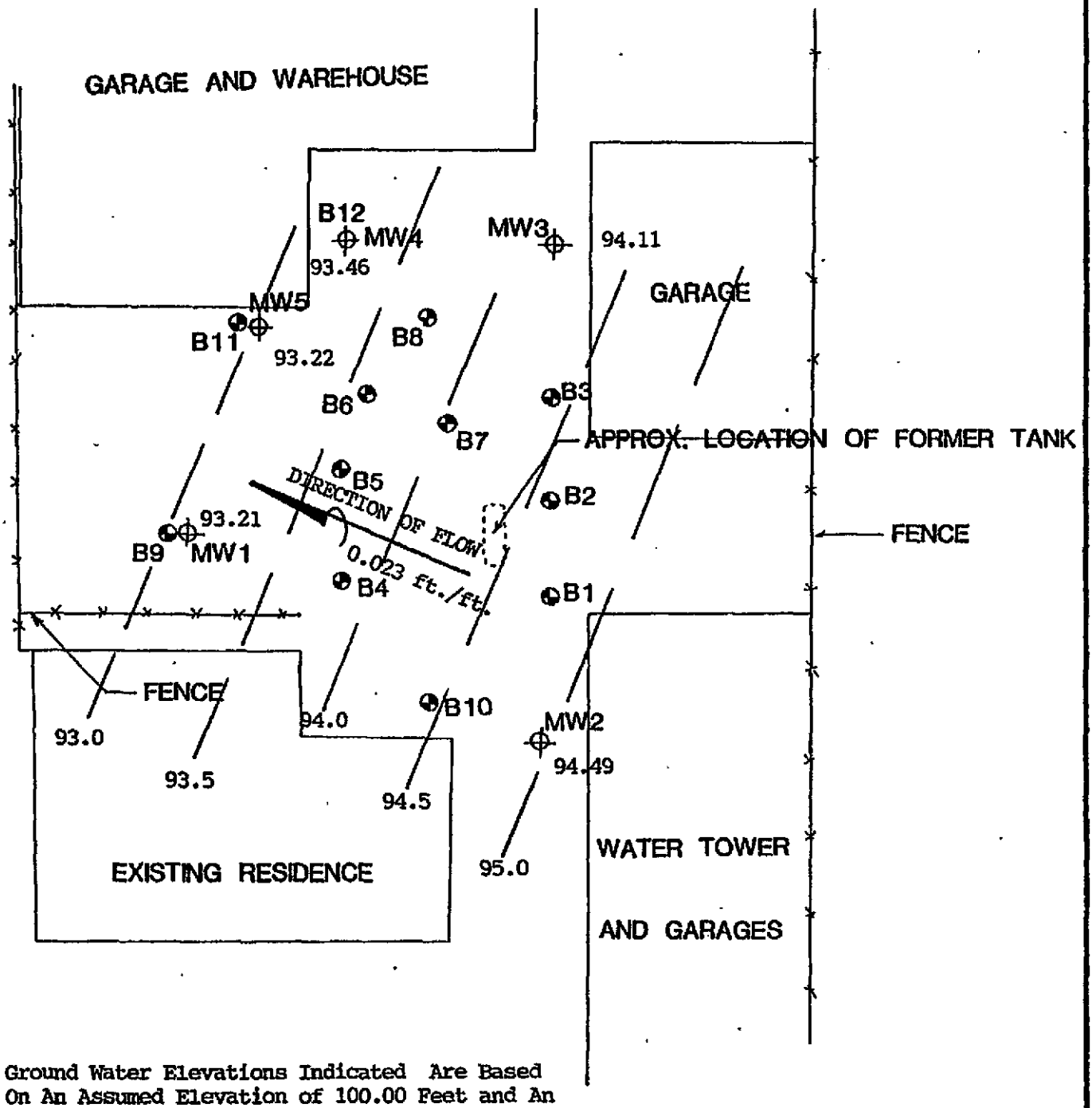
Figure 11

3S/2W 3N/01-458S



DAVID C. GLICK ASSOCIATES		
DATE 4-27-90	SCALE 1" = 20'	DRAWN BY DCG
SITE PLAN		
	Figure 1	

01-4585 | 3S/2W 3N



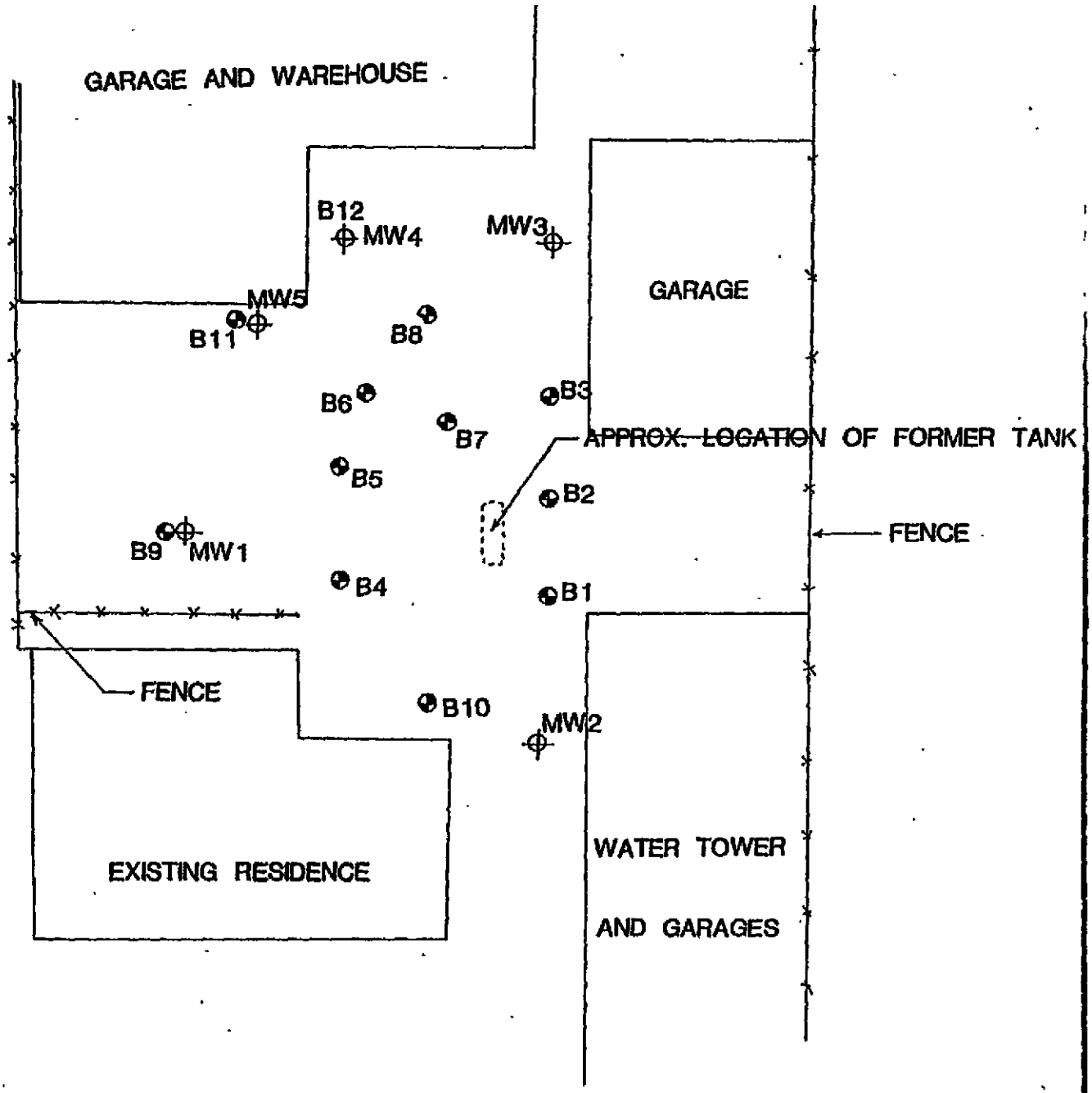
Ground Water Elevations Indicated Are Based On An Assumed Elevation of 100.00 Feet and An Temporary Bench Marck placed on the concrete floor slab in the garage adn warehouse.

● SOIL BORING

⊕ MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
GROUND WATER GRADIENT PLAN		
	Figure 24	

3S/2W 3N / 01-458S



SOIL BORING

MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
BORING LOCATION PLAN		
	Figure 2	

SUBSURFACE DATA LOG

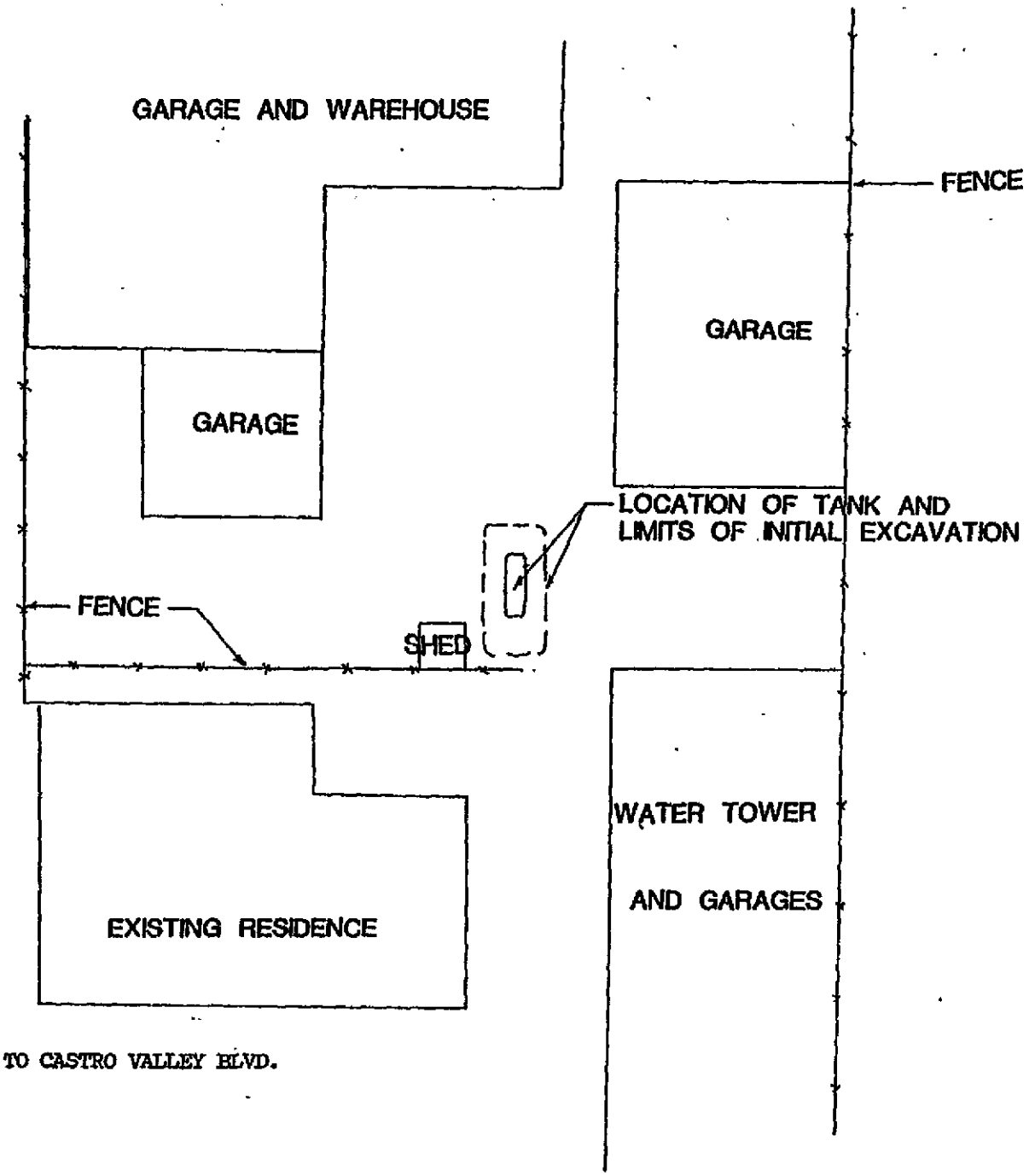
35/2W 3N
01-458S

LOG No. B-10 DATE: 4-25-90
LOCATION: Mitzi Stockel
EQUIPMENT:
PROJECT No.

DRY DENSITY (lbs cu. ft.)	MOISTURE (% of dry wt.)	"N" VALUE (blows/ft.)	SAMPLE TYPE	DEPTH (ft)	LOG	U.S.C.	
							SILTY SAND, with gravel, medium brown, dry, loose
							SILTY CLAY, dark gray, damp, firm
	51	N.D.	S1	5			CLAYEY SILT, orange-brown, damp, firm to stiff
	19	N.D.	S2	8			
							Bottom of Boring 8 Feet

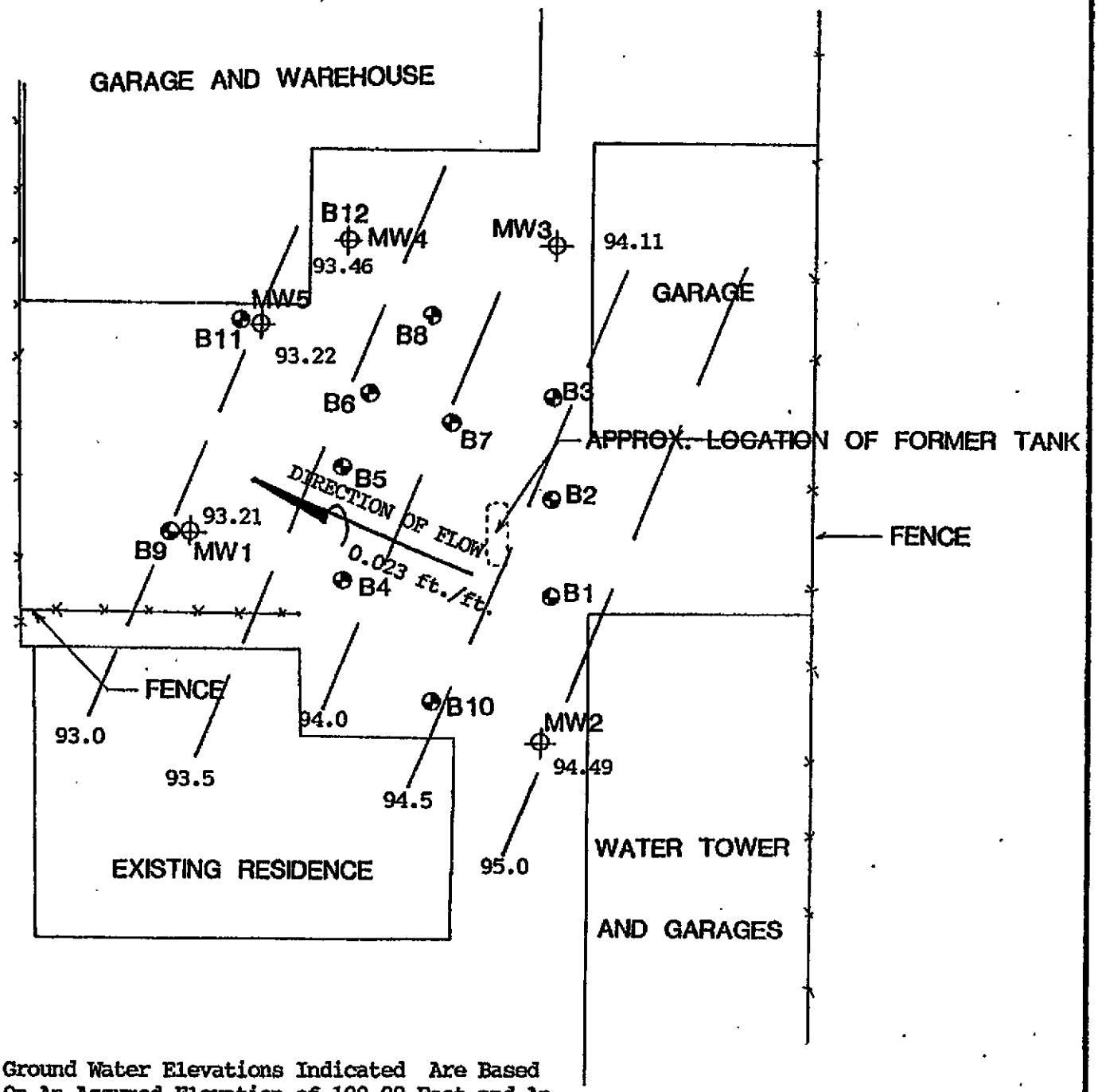
Figure 12

3S/2W 3N / 01-458T



DAVID C. GLICK ASSOCIATES		
DATE 4-27-90	SCALE 1" = 20'	DRAWN BY DCG
SITE PLAN		
	Figure 1	

01-458T | 3S/2W 3N



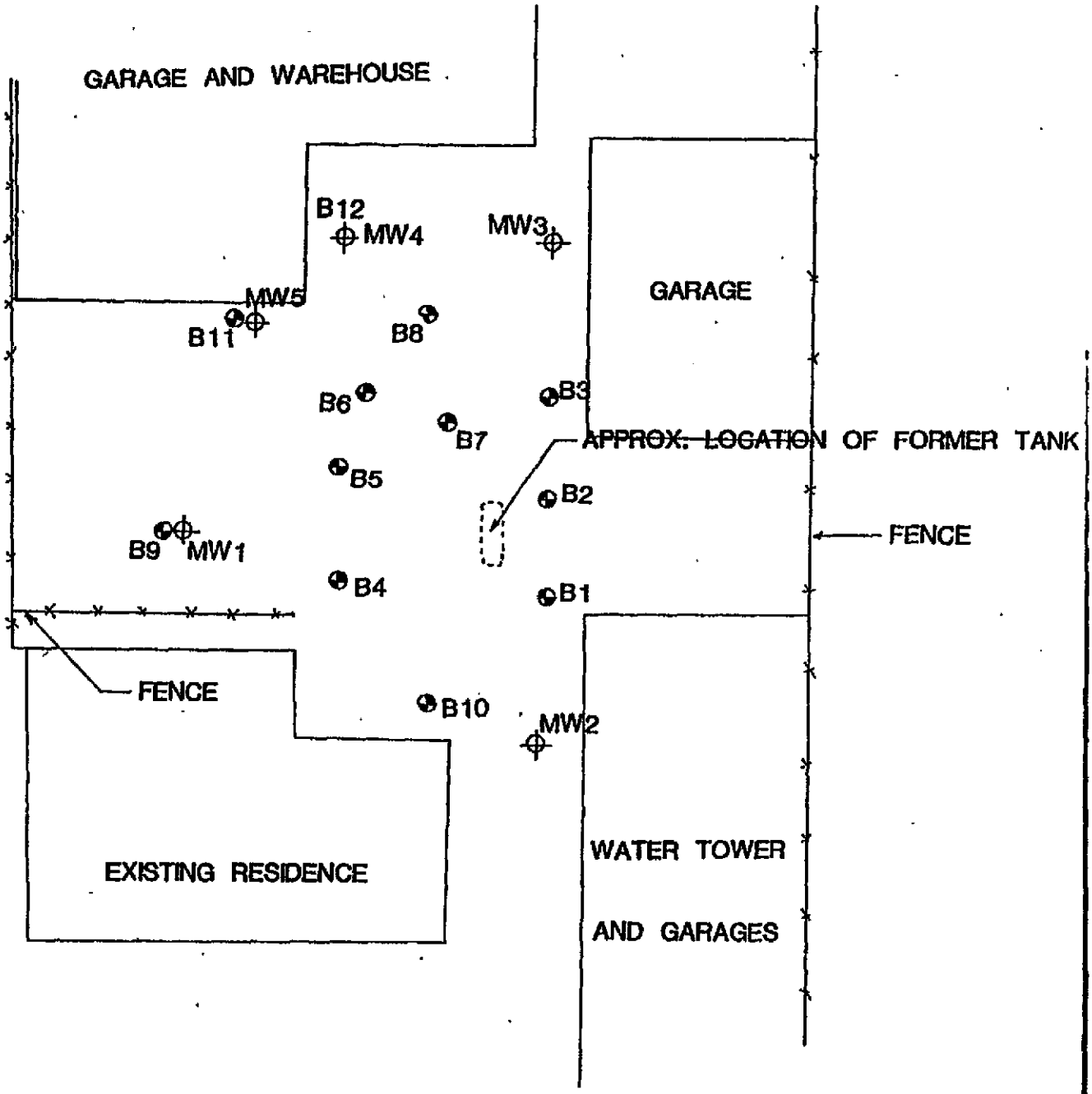
Ground Water Elevations Indicated Are Based On An Assumed Elevation of 100.00 Feet and An Temporary Bench Marck placed on the concrete floor slab in the garage adn warehouse.

⊕ SOIL BORING

⊕ MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
GROUND WATER GRADIENT PLAN		
	Figure 24	

3S/2W 3N / 01-458T



SOIL BORING

MONITORING WELL

DAVID C. GLICK ASSOCIATES		
DATE 6-27-90	SCALE 1" = 20'	DRAWN BY DCG
BORING LOCATION PLAN		
	Figure 2	

SUBSURFACE DATA LOG

35/2W 3N
01-458T

LOG No. B-11 DATE: 5-11-90
LOCATION: Mitzi Stockel
EQUIPMENT:
PROJECT No.

DRY DENSITY (lbs. cu. ft.)	MOISTURE (% of dry wt.)	"N" VALUE (blows/ft.)	SAMPLE TYPE	DEPTH (ft)	LOG	U.S.C.	
							SILTY CLAY, dark gray, damp, firm
	35	1.1	S1	5			SILT, mottled orange-brown, damp, stiff
	8	N.D.	S2	8			SAND, fine-grained, orange-brown, saturated, loose
				10			
							SAND, fine to medium grained, medium brown, saturated, loose
	14	N.D.	S3	15			
							Bottom of Boring 16 feet

Figure 13

Department of Water Resources

File # 12

P&D Notes

Unocal 76
Robert T. Nahas
2040 Redwood Rd
Castro Valley

DWR Designation						Boring Log Designation	Boring Log Date	
35/2W	3P	01-497				SB1	3/13/91	
"	"	"	"	"	ϕ	SB2	3/13/91	SM 12.5-14.5 sheet sheen
"	"	"	"	"	I	SB3	3/13/91	
"	"	"	"	"	Q	SB4	3/13/91	
"	"	"	"	"	R	SB5	3/13/91	
"	"	"	"	"	S	SB6	"	SM 13.5-15
"	"	"	"	"	T	SB7	3/14/91	
"	"	"	"	"	U	SB8	"	
"	"	"	"	"	V	SB9	"	GC 6-9.5, 13-16
"	"	"	"	"	W	SB10	"	SP 5.5-8
"	"	"	"	"	X	SB11	3/28/91	sheen
"	"	"	"	"	Y	SB12	"	
"	"	"	"	"	Z	SB13	"	

Coarse-Grained material

- No Site Plan Showing Boring Locations
- ~~See~~ Site Plan ~~For~~ Files 19, 20, 21, 22
- Includes Zone 7 Permits

01-497

DATE: March 13, 1991
LOGGED BY: TWB
ELEVATION: Approximately +180' MSL
WATER LEVEL: NA
EQUIPMENT: B-53 Mobile Drill Using 8" Hollow Stem Auger

LOG DESIGNATION SB-1 3S/2W 3P

JOB: P90165
FIGURE: 4

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS/FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
0							Asphalt Pavement	
						FILL	SAND & GRAVEL: Orange, aggregate base, moist	
							SILT CLAY: Dark gray, moist, slight hydrocarbon odor	PID to 0.8
						CL	SANDY CLAY: Mottled blue-gray and orange, fine-grained, damp	
5	2.0	45	-	-	1			PID to 0.8
							Grades brown	
							Grades gray-yellow	
10	2.0	45	-	-	2		Grades stiff, trace small pebbles	PID to 111
						CL	SILTY CLAY: Yellow-brown, damp, stiff to hard	PID to 72
								First Encounter
15	2.0	38	-	-	3	SC	CLAYEY SAND: Mottled blue-gray and orange, wet to saturated, trace to little gravel	PID to 168 ▽
								PID to 48
								Boring Terminated at 16'
20								PID = Photo-ionization Detector
								Boring Backfilled with Grout
25								

Robert T. Nahas
2040 Redwood Rd.
Castro Valley

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

(1) SAMPLER INSIDE DIAM.
(2) 140lbs HAMMER - 30 INCH DROP.
(P) HYDRAULICALLY PUSHED

phone: (415)-462-4000

BSK & Associates
1506

01-497 | 3S/2W 3P

[3/14/91]

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
5997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94588 ♦ (415) 484-2600

13 March 1991

BSK & Associates
5729-F Sonoma Drive
Pleasanton, CA 94566

Gentlemen:

Enclosed is Groundwater Protection Ordinance permit 91136 for a monitoring well construction project at 20405 Redwood Road in Castro Valley for Robert Nahas.

Please note that permit condition A-2 requires that a well construction report be submitted after completion of the work. The report should include drilling and completion logs, location sketch, and permit number.

If you have any questions, please contact Wyman Hong or Craig Mayfield at 484-2600.

Very truly yours,

J. Killingstad, Chief
Water Resources Engineering

WH:mm
Enc.

01-497 3S/2W 3P

RECEIVED
MAR - 1 1991

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94588 ♦ (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Unocal 76
20405 Redwood Rd.
Castro Valley, CA.

CLIENT
Name Robert T. Nahas
Address 20630 Patio Drive Phone
City Castro Valley, CA Zip 94546

APPLICANT
Name BSK & Associates
Tim Berger
Address 5729 F Sonoma Dr. Phone 415 462 4000
City Pleasanton Zip 94566

TYPE OF PROJECT
Well Construction
Cathodic Protection ___
Water Supply ___
Monitoring X
Geotechnical Investigation
General ___
Contamination X
Well Destruction ___

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger X
Cable ___ Other ___

DRILLER'S LICENSE NO. C-57 490942

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 35 ft.
Surface Seal Depth 15 ft. Number 4 1

GEOTECHNICAL PROJECTS
Number of Borings 5 Maximum
Hole Diameter 8 in. Depth 18 ft.

ESTIMATED STARTING DATE 3/12/91
ESTIMATED COMPLETION DATE 3/15/91

I hereby agree to comply with all requirements of this ordinance and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Tim Berger Date 3/8/91

FOR OFFICE USE

PERMIT NUMBER 91136
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(B.) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

(C.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 8 Mar 91
Wyman Hong

121989

01-4920
35/2W 3P

DATE: March 13, 1991
LOGGED BY: TWB
ELEVATION: Approximately +180' MSL
WATER LEVEL: First Encountered at 14'
EQUIPMENT: B-53 Mobile Drill Using 8" Hollow Stem Auger

LOG DESIGNATION SB-2

JOB: P90165
FIGURE: 5

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS/FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
0							Asphalt Pavement	
						FILL	SILTY CLAY: Dark gray, damp to moist, firm strong odor	PID to 0
							Grades medium gray	PID to 2
5	2.0	42	-	-	1	ML	CLAYEY SILT: Greenish-gray, damp, very stiff to hard, brittle, sand blebs hydrocarbon odor	PID to 18
10	2.0	46	-	-	2	CL	SANDY CLAY: Yellow-orange, moist to wet, very stiff to hard, black mottles, no pores, medium sand, strong odor	PID to 400
								First Encounter ▽
	2.0	29	-	-	3	SM	SILTY SAND: Orange to red-orange, wet to saturated, vertical blue-gray streaks, trace to little fine gravel, strong odor, fine sand	PID to 450
15								Boring Terminated at 14.5'
								Boring Backfilled with Grout
20							Note: Substantial sheen on wet auger bit	PID = Photo-ionization Detector
25								

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

(1) SAMPLER INSIDE DIAM.
(2) 140lb HAMMER-30 INCH DROP.
(P) HYDRAULICALLY PUSHED

BSK & Associates

01-4970 | 3S/2W 3P

[3/14/91]

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
5997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94588 ♦ (415) 484-2600

13 March 1991

BSK & Associates
5729-F Sonoma Drive
Pleasanton, CA 94566

Gentlemen:

Enclosed is Groundwater Protection Ordinance permit 91136 for a monitoring well construction project at 20405 Redwood Road in Castro Valley for Robert Nahas.

Please note that permit condition A-2 requires that a well construction report be submitted after completion of the work. The report should include drilling and completion logs, location sketch, and permit number.

If you have any questions, please contact Wyman Hong or Craig Mayfield at 484-2600.

Very truly yours,

J. Killingstad, Chief
Water Resources Engineering

WH:mm
Enc.

01-4970 3S/2W 3P

RECEIVED
MAR - 1 1991

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
ZONE 7 WATER RESOURCES MANAGEMENT
5997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94588 ♦ (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

OCATION OF PROJECT Unocal 76
20405 Redwood Rd.
Castro Valley, CA.

LIENT
ame Robert T. Nahas
ddress 26630 Patio Drive Phone
ity Castro Valley, CA Zip 94546

PPLICANT
ame BSK & Associates
Tim Berger
ddress 5729 F Sonoma Dr. Phone 415 462 4000
ity Pleasanton Zip 94566

YPE OF PROJECT
ell Construction
athodic Protection ___
r Supply ___
toring X

Geotechnical Investigation
General ___
Contamination X
Well Destruction ___

ROPOSED WATER SUPPLY WELL USE
omestic ___ Industrial ___ Other ___
unicipal ___ Irrigation ___

RILLING METHOD:
lud Rotary ___ Air Rotary ___ Auger X
able ___ Other ___

RILLER'S LICENSE NO. C-57 490942

ELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 35 ft.
Surface Seal Depth 15 ft. Number 4

EOTECHNICAL PROJECTS
Number of Borings 3 Maximum
Hole Diameter 8 in. Depth 18 ft.

STIMATED STARTING DATE 3/12/91
STIMATED COMPLETION DATE 3/15/91

hereby agree to comply with all requirements of this and Alameda County Ordinance No. 73-68.

PPLICANT'S SIGNATURE Tom Berger Date 3/8/91

FOR OFFICE USE

PERMIT NUMBER 91136
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(B.) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

(C.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 8 Mar 91
Wyman Hong

121989

01-4971
3S/2W 3P

DATE: March 13, 1991
LOGGED BY: TWB
ELEVATION: Approximately +180' MSL
WATER LEVEL: First Encountered at 15'
EQUIPMENT: B-53 Mobile Drill Using 8" Hollow Stem Auger

LOG DESIGNATION SB-3

JOB: P90165
FIGURE: 6

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS/FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
							Asphalt Surface (2-1/2 inches)	
0						FILL	AGGREGATE BASE: Orange and gray, moist to wet	PID to 0
							CLAYEY SILT: Black, damp	PID to 0
						ML	CLAYEY SILT: Mottled dark-gray and yellow-brown, very stiff to hard, damp, rootlets	
5	2.0	41	-	-				PID to 0
						SC	CLAYEY SAND: Mottled blue-gray and yellow-brown, moist, dense, many very fine pores, hydrocarbon odor	
10	2.0	42	-	-	1			PID to 37
						ML	SANDY SILT: Orange-brown, fine-grained sand, minor clay, moist to wet, very stiff, porous, saturated pores have strong odor	PID to 1500
	2.0	30	-	-	2			First Encounter
15								PID to 20
	2.0	27	-	-				PID to 70
						SC	CLAYEY SAND: Orange-brown, saturated, medium-dense	
20							Note: Sheen observed on water in boring	Boring Terminated at 18'
								Boring Backfilled with Grout
25								PID = Photo-ionization Detector

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

(1) SAMPLER INSIDE DIAM.
(2) 140lb HAMMER - 30 INCH DROP.
(P) HYDRAULICALLY PUSHED

BSK & Associates

01-497P 3S/2W 3P

[3/14/91]

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94588 • (415) 484-2600

13 March 1991

BSK & Associates
5729-F Sonoma Drive
Pleasanton, CA 94566

Gentlemen:

Enclosed is Groundwater Protection Ordinance permit 91136 for a monitoring well construction project at 20405 Redwood Road in Castro Valley for Robert Nahas.

Please note that permit condition A-2 requires that a well construction report be submitted after completion of the work. The report should include drilling and completion logs, location sketch, and permit number.

If you have any questions, please contact Wyman Hong or Craig Mayfield at 484-2600.

Very truly yours,

J. Killingstad, Chief
Water Resources Engineering

WH:mm
Enc.

01-497P / 3S/2W 3P

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MAR - 1 1991

ZONE 7 WATER RESOURCES MANAGEMENT

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94588 • (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

OCATION OF PROJECT Unocal 76
20405 Redwood Rd.
Castro Valley, CA.

:LIENT
lame Robert T. Nahas
ddress 26630 Patio Drive Phone
:ity Castro Valley, CA Zip 94546

:PPLICANT
lame BSK & Associates
Tim Berger
ddress 5729 F Sonoma Dr. Phone 415 462 4000
:ity Pleasanton Zip 94566

'YPE OF PROJECT
/ell Construction
Cathodic Protection ___
r Supply ___
toring X

Geotechnical Investigation
General ___
Contamination X
Well Destruction ___

'ROPOSED WATER SUPPLY WELL USE
omestic ___ Industrial ___ Other ___
lunicipal ___ Irrigation ___

'RILLING METHOD:
lud Rotary ___ Air Rotary ___ Auger X
:able ___ Other ___

'RILLER'S LICENSE NO. C-57 490947

/ELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 35 ft.
Surface Seal Depth 15 ft. Number 4

:EOTECHNICAL PROJECTS
Number of Borings 5 Maximum
Hole Diameter 8 in. Depth 18 ft.

:STIMATED STARTING DATE 3/12/91
:STIMATED COMPLETION DATE 3/15/91

eby agree to comply with all requirements of this and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Tom Berger Date 3/8/91

FOR OFFICE USE

PERMIT NUMBER 91136
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(B.) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

(C.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 8 Mar 91
Wyman Hong

121989

01-497Q
35/2W 3P

DATE: March 13, 1991
LOGGED BY: TWB
ELEVATION: Approximately +180' MSL
WATER LEVEL: Not Encountered
EQUIPMENT: B-53 Mobile Drill Using 8" Hollow Stem Auger

LOG DESIGNATION SB-4

JOB: P90165
FIGURE: 7

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS/FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
							Asphalt Pavement (2-1/2 inches)	
0							AGGREGATE BASE: Orange	
						FILL	SILTY CLAY: Dark gray-brown, sandy, moist	
5	1.4	33	-	-		CL	SILTY CLAY: Mottled dark gray and brown, damp, very stiff, sandy, roots to 1/8" diameter Grades gray-yellow	
						SC	CLAYEY SAND: Orange-brown, damp to moist, dense, friable, no pores	
10	2.0	49	-	-			Grades gray, odorous	PID to 2
							Grades moister, more clay	
	2.0	42	-	-	1	SM	SILTY SAND: Orange and blue-gray, moist to wet, dense, fine grained sand, trace clay, trace small pebbles, vertical wet blue-gray odorous seams	PID to 98
15								Boring Terminated at 15' Boring Backfilled with Grout PID = Photo-ionization Detector
20								
25								

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

(1) SAMPLER INSIDE DIAM.
(2) 140lbs HAMMER - 30 INCH DROP.
(P) HYDRAULICALLY PUSHED

BSK & Associates

01-497Q 3S/2W-3P

[3/14/91]

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94588 • (415) 484-2600

13 March 1991

BSK & Associates
5729-F Sonoma Drive
Pleasanton, CA 94566

Gentlemen:

Enclosed is Groundwater Protection Ordinance permit 91136 for a monitoring well construction project at 20405 Redwood Road in Castro Valley for Robert Nahas.

Please note that permit condition A-2 requires that a well construction report be submitted after completion of the work. The report should include drilling and completion logs, location sketch, and permit number.

If you have any questions, please contact Wyman Hong or Craig Mayfield at 484-2600.

Very truly yours,

J. Killingstad, Chief
Water Resources Engineering

WH:mm
Enc.

01-4976 3S/2W 3P

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MAR - 1 1991

ZONE 7 WATER RESOURCES MANAGEMENT

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94588 • (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

OCATION OF PROJECT Unocal 76
20405 Redwood Rd.
Castro Valley, CA.

LIENT
lame Robert T. Nahas
ddress 20630 Patio Drive Phone
:ity Castro Valley, CA Zip 94546

PPLICANT
lame BSK & Associates
Tim Berger
ddress 5729 F Sonoma Dr. Phone 415 462 4000
:ity Pleasanton Zip 94566

YPE OF PROJECT
'ell Construction
Cathodic Protection ___
r Supply ___
roring X
Geotechnical Investigation
General ___
Contamination X
Well Destruction ___

ROPOSED WATER SUPPLY WELL USE
omestic ___ Industrial ___ Other ___
lunicipal ___ Irrigation ___

RILLING METHOD:
lud Rotary ___ Air Rotary ___ Auger X
:able ___ Other ___

RILLER'S LICENSE NO. C-57 490942

/ELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 35 ft.
Surface Seal Depth 15 ft. Number 1

EOTECHNICAL PROJECTS
Number of Borings 5 Maximum
Hole Diameter 8 in. Depth 18 ft.

ESTIMATED STARTING DATE 3/12/91
ESTIMATED COMPLETION DATE 3/15/91

eby agree to comply with all requirements of this and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Tim Berger Date 3/8/91

FOR OFFICE USE

PERMIT NUMBER 91136
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(B.) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

(C.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 8 Mar 91
Wyman Hong

121989

01-497R
3S/2W 3P

DATE: March 13, 1991
LOGGED BY: TWB
ELEVATION: Approximately +180' MSL
WATER LEVEL: Not Encountered
EQUIPMENT: B-53 Mobile Drill Using 8" Hollow Stem Auger

LOG DESIGNATION SB-5

JOB: P90165
FIGURE: 8

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS/FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
							Asphalt Pavement	
0						FILL	AGGREGATE BASE: Orange, moist	
							SILTY CLAY: Dark to medium gray, some sand moist, firm	
5	1.4	20	-	-			Grades mottled gray, black, and yellow-brown, moist, stiff, organics present	PID to 0
							Red vitreous clay pipe shards encountered	PID to 0
						ML	CLAYEY SILT: Orange-brown with light yellow-gray mottles, damp, very stiff, little sand	
10	1.4	39	-	-				PID to 0
						CL	SILTY CLAY: Orange with few blue-gray blebs, little to some sand, damp to moist, stiff	
15	2.0	25	-	-	1			PID to 0
								Boring Terminated at 15.5'
20								Boring Backfilled with Grout
								PID = Photo-ionization Detector
20								

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

(1) SAMPLER INSIDE DIAM.
(2) 140lbs HAMMER - 30 INCH DROP.
(P) HYDRAULICALLY PUSHED

BSK & Associates

01-497R 3S/2W 3P

RC 3/14/91

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
5997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94588 ♦ (415) 484-2600

13 March 1991

BSK & Associates
5729-F Sonoma Drive
Pleasanton, CA 94566

Gentlemen:

Enclosed is Groundwater Protection Ordinance permit 91136 for a monitoring well construction project at 20405 Redwood Road in Castro Valley for Robert Nahas.

Please note that permit condition A-2 requires that a well construction report be submitted after completion of the work. The report should include drilling and completion logs, location sketch, and permit number.

If you have any questions, please contact Wyman Hong or Craig Mayfield at 484-2600.

Very truly yours,

J. Killingstad, Chief
Water Resources Engineering

WH:mm
Enc.

01-497R | 3S/2W 3P

RECEIVED
MAR - 1 1991

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94588 • (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

OCATION OF PROJECT Unocal 76
20405 Redwood Rd.
Castro Valley, CA.

LIENT
lame Robert T. Nahas
ddress 20630 Patio Drive Phone
:ity Castro Valley, CA Zip 94546

PPLICANT
'ame BSK & Associates
Tim Berger
ddress 5729 F Sonoma Dr. Phone 415 462 4000
·ity Pleasanton Zip 94566

'YPE OF PROJECT
'ell Construction
C-·hodic Protection ___
r Supply ___
toring X

Geotechnical Investigation
General ___
Contamination X
Well Destruction ___

ROPOSED WATER SUPPLY WELL USE
·omestic ___ Industrial ___ Other ___
lunicipal ___ Irrigation ___

:RILLING METHOD:
lud Rotary ___ Air Rotary ___ Auger X
:able ___ Other ___

:RILLER'S LICENSE NO. C-57 490942

'ELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 35 ft.
Surface Seal Depth 15 ft. Number 4 1

:EOTECHNICAL PROJECTS
Number of Borings 5 Maximum
Hole Diameter 8 in. Depth 18 ft.

:STIMATED STARTING DATE 3/12/91
:STIMATED COMPLETION DATE 3/15/91

·eby agree to comply with all requirements of this
r and Alameda County Ordinance No. 73-68.

\PPLICANT'S
SIGNATURE Tim Berger Date 3/8/91

FOR OFFICE USE

PERMIT NUMBER 91136
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(B.) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

(C.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 8 Mar 91
Wyman Hong

121989

01-4975
3S/2W 3P

DATE: March 13, 1991
LOGGED BY: TWB
ELEVATION: Approximately +180' MSL
WATER LEVEL: First Encountered at 15-1/2'
EQUIPMENT: B-53 Mobile Drill Using 8" Hollow Stem Auger

LOG DESIGNATION SB-6

JOB: P90165
FIGURE: 9

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS/FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
							Asphalt Pavement (1.75 inches)	
0						FILL	AGGREGATE BASE: Orange, sandy, moist	
							CLAYEY SILT: Dark gray-brown, damp, firm, some sand and pebbles	
							Glass encountered	
5	1.4	46	-	-		CL	SILTY CLAY: Mottled yellow-gray and medium gray, damp, hard, little to some sand, no pores	
10	1.4	36	-	-		ML	SILT: Mottled, yellow-brown and light gray, damp to moist, stiff to very stiff, some very fine pores, trace to little clay	PID to 21
						SM	SILTY SAND: Orange-brown with vertical blue-gray streaks, moist to saturated, medium dense, fine to medium grained, no pores, trace clay	PID to 164
15	2.0	34	-	-	1			PID to 2149 ▽
								Boring Terminated at 15.5'
								Boring Backfilled with Grout
20								PID = Photo-ionization Detector
25								

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

(1) SAMPLER INSIDE DIAM.
(2) 140lb HAMMER - 30 INCH DROP.
(P) HYDRAULICALLY PUSHED

BSK & Associates

01-4975 3S/2W 3P

3/14/91

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94588 • (415) 484-2600

13 March 1991

BSK & Associates
5729-F Sonoma Drive
Pleasanton, CA 94566

Gentlemen:

Enclosed is Groundwater Protection Ordinance permit 91136 for a monitoring well construction project at 20405 Redwood Road in Castro Valley for Robert Nahas.

Please note that permit condition A-2 requires that a well construction report be submitted after completion of the work. The report should include drilling and completion logs, location sketch, and permit number.

If you have any questions, please contact Wyman Hong or Craig Mayfield at 484-2600.

Very truly yours,

J. Kilyingstad, Chief
Water Resources Engineering

WH:mm
Enc.

01-4975 | 3S/2W 3P

RECEIVED
MAR - 1 1991
ZONE 7 WATER RESOURCES

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94588 ♦ (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Unocal 76
20405 Redwood Rd.
Castro Valley, CA.

CLIENT
Name Robert T. Nahas
Address 26630 Patio Drive Phone
City Castro Valley, CA Zip 94546

APPLICANT
Name BSK & Associates
Tim Berger
Address 5729 F Sonoma Dr. Phone 415 462 4000
City Pleasanton Zip 94566

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	___	General	___
Water Supply	___	Contamination	X
Monitoring	X	Well Destruction	___

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger X
Cable ___ Other ___

DRILLER'S LICENSE NO. C-57 490942

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 35 ft.
Surface Seal Depth 15 ft. Number 4

GEOTECHNICAL PROJECTS
Number of Borings 3 Maximum
Hole Diameter 8 in. Depth 18 ft.

ESTIMATED STARTING DATE 3/12/91
ESTIMATED COMPLETION DATE 3/15/91

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Tim Berger Date 3/8/91

FOR OFFICE USE

PERMIT NUMBER 91136
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(B.) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

(C.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 8 Mar 91
Wyman Hong

121989

01-497T
3S/2W 3P

DATE: March 14, 1991
LOGGED BY: TWB
ELEVATION: Approximately +180' MSL
WATER LEVEL: Not Encountered
EQUIPMENT: B-53 Mobile Drill Using 8" Hollow Stem Auger

LOG DESIGNATION SB-7

JOB: P90165
FIGURE: 10

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS/FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
							Asphalt Pavement	
0						FILL	AGGREGATE BASE: Orange, sandy, damp to moist	
							SILTY CLAY: Black, damp to moist, firm, with wood	
							Roots, glass encountered	
5	1.4	31	-	-		ML	CLAYEY SILT: Mottled orange and gray, damp to moist, very stiff, some fine sand, few very fine pores	
							Grades gray-yellow	PID to 7
10	1.4	38	-	-			Grades orange, vertical blue-gray streaks	PID to 1194
								Boring Terminated at 11'
15								Boring Backfilled with Grout
								PID = Photo-ionization Detector
20								
25								

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

(1) SAMPLER INSIDE DIAM.
(2) 140 lb HAMMER - 30 INCH DROP.
(P) HYDRAULICALLY PUSHED

BSK & Associates

01-497T 3S/2W 3P

[3/14/91]

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94588 • (415) 484-2600

13 March 1991

BSK & Associates
5729-F Sonoma Drive
Pleasanton, CA 94566

Gentlemen:

Enclosed is Groundwater Protection Ordinance permit 91136 for a monitoring well construction project at 20405 Redwood Road in Castro Valley for Robert Nahas.

Please note that permit condition A-2 requires that a well construction report be submitted after completion of the work. The report should include drilling and completion logs, location sketch, and permit number.

If you have any questions, please contact Wyman Hong or Craig Mayfield at 484-2600.

Very truly yours,

J. Kilkingstad, Chief
Water Resources Engineering

WH:mm
Enc.

01-497T / 3S/2W 3P

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MAR - 1 1991

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
ZONE 7 WATER RESOURCES MANAGEMENT

5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94588 • (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

OCATION OF PROJECT Unocal 76
20405 Redwood Rd.
Castro Valley, CA.

LIENT
ame Robert T. Nahas
ddress 26630 Patio Drive Phone
ity Castro Valley, CA Zip 94546

PPLICANT
ame BSK & Associates
Tim Berger
ddress 5729 F Sonoma Dr. Phone 415 462 4000
ity Pleasanton Zip 94566

YPE OF PROJECT
'ell Construction
athodic Protection ___
r Supply ___
itoring X
Geotechnical Investigation
General ___
Contamination X
Well Destruction ___

ROPOSED WATER SUPPLY WELL USE
omestic ___ Industrial ___ Other ___
unicipal ___ Irrigation ___

RILLING METHOD:
ud Rotary ___ Air Rotary ___ Auger X
able ___ Other ___

RILLER'S LICENSE NO. C-57 490947

ELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 35 ft.
Surface Seal Depth 15 ft. Number 1

EOTECHNICAL PROJECTS
Number of Borings 5 Maximum
Hole Diameter 8 in. Depth 18 ft.

STIMATED STARTING DATE 3/12/91
STIMATED COMPLETION DATE 3/15/91

hereby agree to comply with all requirements of this and Alameda County Ordinance No. 73-68.

PPLICANT'S IGNATURE Tim Berger Date 3/8/91

FOR OFFICE USE

PERMIT NUMBER 91136
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(B.) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

(C.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 8 Mar 91
Wyman Hong

121989

01-497U
3S/2W 3P

DATE: March 14, 1991
LOGGED BY: TWB
ELEVATION: Approximately +180' MSL
WATER LEVEL: Not Encountered
EQUIPMENT: B-53 Mobile Drill Using 8" Hollow Stem Auger

LOG DESIGNATION SB-8

JOB: P90165
FIGURE: 11

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS/FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
							Asphalt Pavement	
0						FILL	AGGREGATE BASE: Orange, sandy	
							SILTY CLAY: Black, moist, firm	
							Grades dark gray	
5	1.4	31	-	-		ML/CL	CLAYEY SILT/SILTY CLAY: Mottled dark gray and orange, damp to moist, stiff to very stiff, thin layers of manganese coated small pebbles, some sand	
						CL	SANDY CLAY: Yellow-brown, damp to moist, hard, some medium sand, trace pebbles	PID to 0
10	1.4	60	-	-			Grades gravelly	
						ML	CLAYEY SILT: Yellow-brown, damp, hard, no pores	
	2.0	57	-	-				PID to 0
15	2.0	60	-	-			Grades clayey, mottled gray with orange	PID to 0
	2.0	52	-	-				PID to 0
	2.0	43	-	-			Grades brownish-gray, gray pore walls, trace sand	PID to 0
20	2.0	39	-	-		SC	CLAYEY SAND: Orange, moist to wet, medium dense, medium grained	PID to 0
								Boring Terminated at 21.5'
25							PID = Photo-Ionization Detector	Boring Backfilled with Grout

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

(1) SAMPLER INSIDE DIAM.
(2) 140lb HAMMER - 30 INCH DROP.
(P) HYDRAULICALLY PUSHED

BSK & Associates

01-497U 3S/2W 3P

RE 3/14/91

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94588 • (415) 484-2600

13 March 1991

BSK & Associates
5729-F Sonoma Drive
Pleasanton, CA 94566

Gentlemen:

Enclosed is Groundwater Protection Ordinance permit 91136 for a monitoring well construction project at 20405 Redwood Road in Castro Valley for Robert Nahas.

Please note that permit condition A-2 requires that a well construction report be submitted after completion of the work. The report should include drilling and completion logs, location sketch, and permit number.

If you have any questions, please contact Wyman Hong or Craig Mayfield at 484-2600.

Very truly yours,

J. Killingstad, Chief
Water Resources Engineering

WH:mm
Enc.

01-4974 | 3S/2W 3P

RECEIVED
MAR - 1 1991

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94588 • (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Unocal 76
20405 Redwood Rd.
Castro Valley, CA.

CLIENT
Name Robert T. Nahas
Address 20630 Patio Drive Phone
City Castro Valley, CA Zip 94546

APPLICANT
Name BSK & Associates
Tim Berger
Address 5729 F Sonoma Dr. Phone 415 462 4000
City Pleasanton Zip 94566

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection		General	
Water Supply		Contamination	X
Monitoring	X	Well Destruction	

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger X
Cable ___ Other ___

DRILLER'S LICENSE NO. C-57 490942

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 35 ft.
Surface Seal Depth 15 ft. Number 6

GEOTECHNICAL PROJECTS
Number of Borings 3 Maximum
Hole Diameter 8 in. Depth 18 ft.

ESTIMATED STARTING DATE 3/12/91
ESTIMATED COMPLETION DATE 3/15/91

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Tim Berger Date 3/8/91

FOR OFFICE USE

PERMIT NUMBER 91136
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(B.) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

(C.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 8 Mar 91
Wyman Hong

121989

01-497V
3S/2W 3P

DATE: March 14, 1991
LOGGED BY: TWB
ELEVATION: Approximately +180' MSL
WATER LEVEL: First Encountered at 17'
EQUIPMENT: B-53 Mobile Drill Using 8" Hollow Stem Auger

LOG DESIGNATION SB-9

JOB: P90165
FIGURE: 12

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS/FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
							Asphalt Pavement	
0						FILL	SILTY CLAY: Black, moist, soft	
5	1.4	35	-	-		CL	SILTY CLAY: Mottled gray and orange, moist to damp, little sand Grades brown-gray, moist, firm	
						GC	CLAYEY SANDY GRAVEL: Orange, moist, medium dense, well bound, coarse sand	
10	1.4	27	-	-		CL	SANDY CLAY: Yellow-brown, moist, stiff, fine to medium sand, few small pores, gray pore walls	PID to 0
	2.0	38	-	-		GC	CLAYEY SANDY GRAVEL: Orange, moist, medium dense, angular gravel to 1/2" diameter	PID to 0
15	2.0	60	-	-		CL	SILTY CLAY: Orange-gray, damp, hard, trace to little sand	PID to 0
	1.4	60	-	-		ML/CL	CLAYEY SILT/SILTY CLAY: Gray-brown with gray mottles, damp, hard, very few fine pores	PID to 0 ▽
20								Boring Terminated at 18' Boring Backfilled with Grout PID = Photo-ionization Detector
25								

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

(1) SAMPLER INSIDE DIAM.
(2) 140lbs HAMMER - 30 INCH DROP.
(P) HYDRAULICALLY PUSHED

BSK & Associates

01-497V 3S/2W 3P

3/14/91

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
5997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94588 ♦ (415) 484-2600

13 March 1991

BSK & Associates
5729-F Sonoma Drive
Pleasanton, CA 94566

Gentlemen:

Enclosed is Groundwater Protection Ordinance permit 91136 for a monitoring well construction project at 20405 Redwood Road in Castro Valley for Robert Nahas.

Please note that permit condition A-2 requires that a well construction report be submitted after completion of the work. The report should include drilling and completion logs, location sketch, and permit number.

If you have any questions, please contact Wyman Hong or Craig Mayfield at 484-2600.

Very truly yours,

J. Killingstad, Chief
Water Resources Engineering

WH:mm
Enc.

01-497V | 3S/2W 3P

RECEIVED
MAR - 1 1991

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
ZONE 7 WATER RESOURCES MANAGEMENT
5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94588 • (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Unocal 76
20405 Redwood Rd.
Castro Valley, CA.

CLIENT
Name Robert T. Nahas
Address 20630 Patio Drive Phone
City Castro Valley, CA Zip 94546

APPLICANT
Name BSK & Associates
Tim Berger
Address 5729 F Sonoma Dr. Phone 415 462 4000
City Pleasanton Zip 94566

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	___	General	___
Water Supply	___	Contamination	X
Monitoring	X	Well Destruction	___

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger X
Cable ___ Other ___

DRILLER'S LICENSE NO. C-57 490942

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 35 ft.
Surface Seal Depth 15 ft. Number 4

GEOTECHNICAL PROJECTS
Number of Borings 5 Maximum
Hole Diameter 8 in. Depth 18 ft.

ESTIMATED STARTING DATE 3/12/91
ESTIMATED COMPLETION DATE 3/15/91

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Tim Berger Date 3/8/91

FOR OFFICE USE

PERMIT NUMBER 91136
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(B.) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

(C.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 8 Mar 91
Wyman Hong

121989

01-497W
35/2W 3P

DATE: March 14, 1991
LOGGED BY: TWB
ELEVATION: Approximately +180' MSL
WATER LEVEL: Not Encountered
EQUIPMENT: B-53 Mobile Drill Using 8" Hollow Stem Auger

LOG DESIGNATION SB-10

JOB: P90165
FIGURE: 13

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS/FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
							Asphalt Pavement (1-1/2 inches)	
0						FILL	AGGREGATE BASE: Orange, wet	
							CLAYEY SILT: Dark gray, moist, firm, roots and brick shards	
						CL	SILTY CLAY: Mottled gray and orange, damp to moist, very stiff, with sand	PID to 0
5	1.4	37	-	-		SP	CLAYEY GRAVELLY SAND: Orange damp, medium dense, angular, well bound	PID to 0
						SC	CLAYEY SAND: Yellow-gray, moist, dense, fine-grained, mottled wiht black blebs	PID to 0
10	1.4	43	-	-				PID to 0
							Grades gravelly	
						CL	SILTY CLAY: Gray-brown, damp, hard, few pores with gray walls	
15	2.0	53	-	-				PID to 0
	2.0	56	-	-	1		Grades brown, no pores	
								Boring Terminated at 17'
20								Boring Backfilled with Grout
								Photo-ionization Detector
25								

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

(1) SAMPLER INSIDE DIAM.
(2) 140lb HAMMER - 30 INCH DROP.
(P) HYDRAULICALLY PUSHED

BSK & Associates

01-497W/3S/2W 3P

RECEIVED
MAR 1 1991

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94588 ♦ (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

OCATION OF PROJECT Unocal 76
20405 Redwood Rd.
Castro Valley, CA.

LIENT
lame Robert T. Nahas
ddress 26630 Patio Drive Phone
:ity Castro Valley, CA Zip 94546

PPLICANT
ame BSK & Associates
Tim Berger
ddress 5729 F Sonoma Dr. Phone 415 462 4000
.ity Pleasanton Zip 94566

YPE OF PROJECT
'ell Construction
Cathodic Protection ___
r Supply ___
toring X

Geotechnical Investigation
General ___
Contamination X
Well Destruction ___

ROPOSED WATER SUPPLY WELL USE
omestic ___ Industrial ___ Other ___
lunicipal ___ Irrigation ___

RILLING METHOD:
lud Rotary ___ Air Rotary ___ Auger X
:able ___ Other ___

RILLER'S LICENSE NO. C-57 490947

'ELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 35 ft.
Surface Seal Depth 15 ft. Number 4

:EOTECHNICAL PROJECTS
Number of Borings 5 Maximum
Hole Diameter 8 in. Depth 18 ft.

:STIMATED STARTING DATE 3/12/91
:STIMATED COMPLETION DATE 3/15/91

...reby agree to comply with all requirements of this ... and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Tim Berger Date 3/8/91

FOR OFFICE USE

PERMIT NUMBER 91136
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(B.) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

(C.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 8 Mar 91
Wyman Hong

121989

01-497W 3S/2W 3P

RC 3/14/91

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94588 • (415) 484-2600

13 March 1991

BSK & Associates
5729-F Sonoma Drive
Pleasanton, CA 94566

Gentlemen:

Enclosed is Groundwater Protection Ordinance permit 91136 for a monitoring well construction project at 20405 Redwood Road in Castro Valley for Robert Nahas.

Please note that permit condition A-2 requires that a well construction report be submitted after completion of the work. The report should include drilling and completion logs, location sketch, and permit number.

If you have any questions, please contact Wyman Hong or Craig Mayfield at 484-2600.

Very truly yours,

J. Kilingstad, Chief
Water Resources Engineering

WH:mm
Enc.

01-497X
3S/2W 3P

DATE: 3/28/91
LOGGED BY: MC
ELEVATION: Approx. +180' MSL
WATER LEVEL: First Encountered at -15'
EQUIPMENT: B-53 Mobile Drill using 8" Hollow Stem Auger

LOG DESIGNATION SB-11

JOB:P90165
FIGURE: 14

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS/FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
							Asphalt Pavement = 3-1/2"	
0						FILL	SAND & GRAVEL: Orange, aggregate base	
							SILTY CLAY: Dark gray, very moist	
							Grades to dark brown	
						CL	SILTY CLAY: Brown with gray mottles, damp to moist, very stiff, slightly sandy	
5	1.4	24	–	–				PID to 0
							Grades greenish-gray, sandier, with greenish staining around pores	PID to 13
10	2.0	49	--	--	1			PID to 226 Stabilized ▼
						SC?	CLAYEY SAND: Wet, gravelly	1st Encounter ▽
15	2.0	49	–	–	2	CL	SILTY CLAY: Greenish-gray mottled with brownish-yellow, Manganese stained sand grains, moist, hard	PID to 0
								Boring terminated at 16.5'
20							NOTE: Product sheen observed in boring upon auger removal	PID = Photo-ionization Detector
								Boring backfilled with grout
25								

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

(1) SAMPLER INSIDE DIAM.
(2) 140lb HAMMER - 30 INCH DROP.
(P) HYDRAULICALLY PUSHED

BSK & Associates

01-497X 3S/2W 3P

[3/14/91]

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
5997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94588 ♦ (415) 484-2600

13 March 1991

BSK & Associates
5729-F Sonoma Drive
Pleasanton, CA 94566

Gentlemen:

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If you have any questions, please contact Wyman Hong or Craig Mayfield at 484-2600.

Very truly yours,

J. Killingstad, Chief
Water Resources Engineering

WH:mm
Enc.

01-497X | 3S/2W 3P

RECEIVED

MAR - 1 1991

ZONE 7 WATER RESOURCES MANAGEMENT

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94588 ♦ (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

OCATION OF PROJECT Unocal 76
20405 Redwood Rd.
Castro Valley, CA.

LIENT
ame Robert T. Nahas
ddress 26630 Patio Drive Phone
ity Castro Valley, CA Zip 94546

PPLICANT
ame BSK & Associates
Tim Berger
ddress 5729 F Sonoma Dr. Phone 415 462 4000
ity Pleasanton Zip 94566

YPE OF PROJECT
'ell Construction
Cathodic Protection ___
r Supply ___
itoring X
Geotechnical Investigation
General ___
Contamination X
Well Destruction ___

ROPOSED WATER SUPPLY WELL USE
omestic ___ Industrial ___ Other ___
lunicipal ___ Irrigation ___

RILLING METHOD:
lud Rotary ___ Air Rotary ___ Auger X
able ___ Other ___

RILLER'S LICENSE NO. C-57 490947

ELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 35 ft.
Surface Seal Depth 15 ft. Number 4

EOTECHNICAL PROJECTS
Number of Borings 5 Maximum
Hole Diameter 8 in. Depth 18 ft.

STIMATED STARTING DATE 3/12/91
STIMATED COMPLETION DATE 3/15/91

hereby agree to comply with all requirements of this and Alameda County Ordinance No. 73-68.

PPLICANT'S IGNATURE Tom Berger Date 3/8/91

FOR OFFICE USE

PERMIT NUMBER 91136
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(B.) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

(C.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 8 Mar 91
Wyman Hong

121989

01-497Y
35/2W 3P

DATE: 3/28/91
LOGGED BY: MC
ELEVATION: Approx. +180' MSL
WATER LEVEL: First encountered at 14'
EQUIPMENT: B-53 Mobile Drill using 8" Hollow Stem Auger

LOG DESIGNATION SB-12

JOB: P90165
FIGURE: 15

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS/FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
							Asphalt Pavement - 2"	
0						FILL	SAND & GRAVEL: Orange, aggregate base	
							SILTY CLAY: Brownish-yellow, moist, sandy	
							Grades dark gray, moist, clayey	
						CL	SILTY CLAY: Brown and gray mottled, moist, very stiff, slightly sandy	
5	1.4	37	-	-				PID to 0
								stabilized ▼
10	1.4	33	-	-			Grades yellow-brown, contains roots having grenish-gray aureole, slightly moist	PID to 0
							Grades very moist	▽
						SC	CLAYEY SAND: Yellow-brown with gray mottles, saturated from 14' to 15.5', moist with saturated vertical lenses below 15.5', dense, gravel lenses inclined to 30°	1st Encounter
15	2.0	30	-	-	1			PID to 0
								Boring terminated at 16.5'
								PID = Photo-ionization Detector
20								Boring back-filled with grout
25								

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

(1) SAMPLER INSIDE DIAM.
(2) 140lbs HAMMER - 30 INCH DROP.
(P) HYDRAULICALLY PUSHED

BSK & Associates

01-497Y 3S/2W 3P

RC 3/14/91

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
5997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94588 ♦ (415) 484-2600

13 March 1991

BSK & Associates
5729-F Sonoma Drive
Pleasanton, CA 94566

Gentlemen:

Enclosed is Groundwater Protection Ordinance permit 91136 for a monitoring well construction project at 20405 Redwood Road in Castro Valley for Robert Nahas.

Please note that permit condition A-2 requires that a well construction report be submitted after completion of the work. The report should include drilling and completion logs, location sketch, and permit number.

If you have any questions, please contact Wyman Hong or Craig Mayfield at 484-2600.

Very truly yours,

J. Killingstad, Chief
Water Resources Engineering

WH:mm
Enc.

01-4977 / 3S/2W 3P

RECEIVED
MAR - 1 1991

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
ZONE 7 WATER RESOURCES MANAGEMENT

5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94588 • (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

OCATION OF PROJECT Unocal 76
20405 Redwood Rd.
Castro Valley, CA.

LIENT
ame Robert T. Nahas
ddress 20630 Patio Drive Phone
ity Castro Valley, CA Zip 94546

PPLICANT
ame BSK & Associates
Tim Berger
ddress 5729 F Sonoma Dr. Phone 415 462 4000
ity Pleasanton Zip 94566

YPE OF PROJECT
ell Construction
athodic Protection
r Supply
nitoring X
Geotechnical Investigation
General
Contamination X
Well Destruction

ROPOSED WATER SUPPLY WELL USE
omestic Industrial Other
unicipal Irrigation

RILLING METHOD:
ud Rotary Air Rotary Auger X
able Other

RILLER'S LICENSE NO. C-57 490942

ELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 35 ft.
Surface Seal Depth 15 ft. Number 4

EOTECHNICAL PROJECTS
Number of Borings 5 Maximum
Hole Diameter 8 in. Depth 18 ft.

ESTIMATED STARTING DATE 3/12/91
ESTIMATED COMPLETION DATE 3/15/91

reby agree to comply with all requirements of this r and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Tim Berger Date 3/8/91

FOR OFFICE USE

PERMIT NUMBER 91136
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(B.) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
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(C.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 8 Mar 91
Wyman Hong

121989

01-497Z
3S/2W 3P

DATE: 3/28/91
LOGGED BY: MC
ELEVATION: Approx. +180' MSL
WATER LEVEL: First Encountered at 13.5'
EQUIPMENT: B-53 Mobile Drill, Using 8" Hollow Stem Auger

LOG DESIGNATION SB-13

JOB: P90165
FIGURE: 16

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS/FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
							Asphalt Pavement = 3"	
0						FILL	SAND & GRAVEL: Orange, aggregate base	
							SILTY CLAY: Dark gray, very moist, wood fragments	
5	2.0	31	-	-	1	CL	SILTY CLAY: Gray mottled with brown, moist, very stiff, sandy	PID to 4
10	2.0	54	-	-	2		Grades brown mottled with olive, slightly moist, hard, sandy	stabilized ▼ PID to 2479
						SC	CLAYEY SAND: Wet to saturated	1st Encounter ▽
15	2.0	29	-	-	3	CL	SILTY CLAY: Yellow-brown, moist, very stiff, pores, pockets of product saturation - stained olive	PID to 3625
20								Boring terminated at 15'
25								PID = Photo-Ionization Detector
								Boring back-filled with grout

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

(1) SAMPLER INSIDE DIAM.
(2) 140lb HAMMER-30 INCH DROP.
(P) HYDRAULICALLY PUSHED

BSK & Associates

01-497Z 3S/2W 3P

3/14/91

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
5997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94588 ♦ (415) 484-2600

13 March 1991

BSK & Associates
5729-F Sonoma Drive
Pleasanton, CA 94566

Gentlemen:

Enclosed is Groundwater Protection Ordinance permit 91136 for a monitoring well construction project at 20405 Redwood Road in Castro Valley for Robert Nahas.

Please note that permit condition A-2 requires that a well construction report be submitted after completion of the work. The report should include drilling and completion logs, location sketch, and permit number.

If you have any questions, please contact Wyman Hong or Craig Mayfield at 484-2600.

Very truly yours,

J. Killingstad, Chief
Water Resources Engineering

WH:mm
Enc.

01-4972/3S/2W 3P

RECEIVED

MAR - 1 1991

ZONE 7 WATER RESOURCES MANAGEMENT

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94588 • (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

OCATION OF PROJECT Unocal 76
20405 Redwood Rd.
Castro Valley, CA.

LIENT
lame Robert T. Nahas
ddress 20630 Patio Drive Phone
:ity Castro Valley, CA Zip 94546

PPLICANT
:ame BSK & Associates
Tim Berger
ddress 5729 F Sonoma Dr. Phone 415 462 4000
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'YPE OF PROJECT
'ell Construction
Cathodic Protection ___
Supply ___
oring X
Geotechnical Investigation
General ___
Contamination X
Well Destruction ___

ROPOSED WATER SUPPLY WELL USE
omestic ___ Industrial ___ Other ___
lunicipal ___ Irrigation ___

RILLING METHOD:
lud Rotary ___ Air Rotary ___ Auger X
:able ___ Other ___

RILLER'S LICENSE NO. C-57 490942

/ELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 35 ft.
Surface Seal Depth 15 ft. Number 1

EOTECHNICAL PROJECTS
Number of Borings 5 Maximum
Hole Diameter 8 in. Depth 18 ft.

ESTIMATED STARTING DATE 3/12/91
ESTIMATED COMPLETION DATE 3/15/91

I hereby agree to comply with all requirements of this ordinance and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Tim Berger Date 3/8/91

FOR OFFICE USE

PERMIT NUMBER 91136
LOCATION NUMBER ___

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
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D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 8 Mar 91
Wyman Hong

121989

Department of Water Resources

File # 13

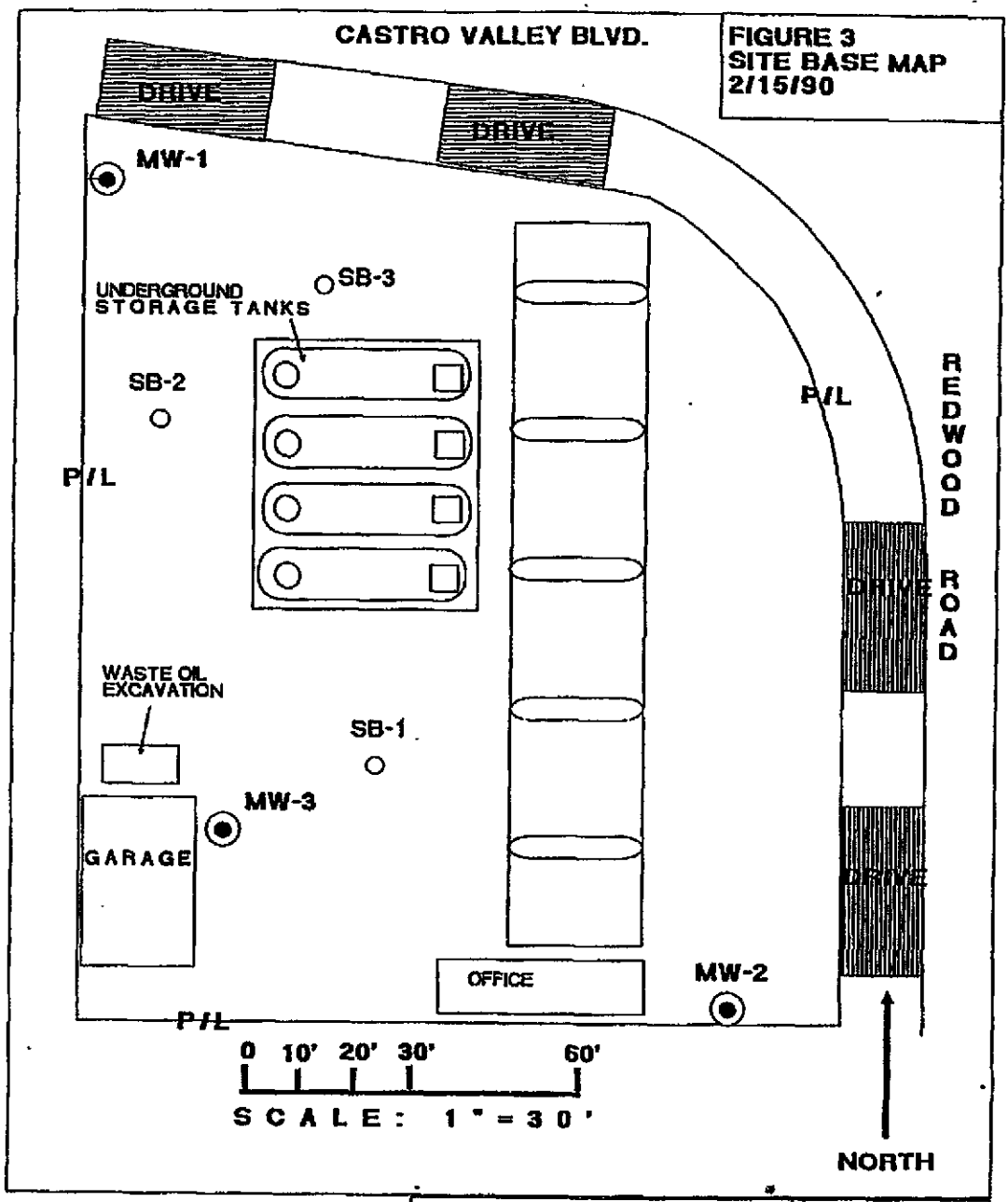
CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

3S/2W3P

30433SD



◉ MONITOR WELL LOCATIONS

○ SOIL BORING LOCATIONS

P/L PROPERTY LINE

XTRA OIL COMPANY
SHELL SERVICE STATION
3495 CASTRO VALLEY BLVD.
CASTRO VALLEY, CALIFORNIA
PROJ. SEC. 5; T3S; R2W; MDB&M

BASE MAP TAKEN FROM "MONTGOMERY & DAVIS: PLOT PLAN 8-14-1959"

BY WESTERN GEO-ENGINEERS:
GEORGE L. CONVERSE 1-22-1990.

Lic #'s 657 [513857 → 401530 – Hogate

3043S5D 3S/2W 3P

-WEGE-
WESTERN GEO-ENGINEERS

BORING: SB1
DATE DRILLED: 2/15/90
▌ SAMPLE INTERVAL
▼ WATER

BORE HOLE LOG

PAGE 1 OF 1

PROJECT: XTRA GAS-CASTRO VALLEY	GEOLOGIST: M. Thomas	SURFACE ELEVATION:
LOCATION: 3495 Castro Valley Boulevard/ Redwood Road, Castro Valley, California	DRILLER: B. Hogate Jr.	TOTAL DEPTH: 12'
DRILLING CONTRACTOR: HOGATE EXPLORATION DRILLING	DEPTH TO WATER: Not encountered	CASING: NONE

REMARKS: 6" hole drilled with 6" continuous flight of solid augers powered by B40 Mobile drill rig. Soil samples collected w/ 2" CA standard sampler connected to 140lb. surface drop hammer.

DEPTH (FT)	SAMPLE No.	BLOWS/FT.	PPM TVO VAPOR	SOIL DESCRIPTION UNIFIED SOILS CLASSIFICATION SYSTEM	GRAPHIC LOG	REMARKS
				4" asphalt surface Silt: brown, soft, sandy, dry, no odor		
2'						
				Clay: dark brown, with silt, soft, dry, moderate odor		
4'						
6'						
8'						
10'	SB1 10'	22	1700 PPM	Silt: brown, sandy, with clay,, soft, dry, strong gasoline odor (ML)		
12'	SB1 12'	25	450 PPM	Silt: brown, less sand, with clay,, soft, dry, moderate gasoline odor (ML)		
				PID calibrated with 50 ppm gasoline standard		
				hole back filled with neat cement from base of boring up to surface upon completion of last sample collected at 12'		

Department of Water Resources

File # 14

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

3S/2W3P

304335E

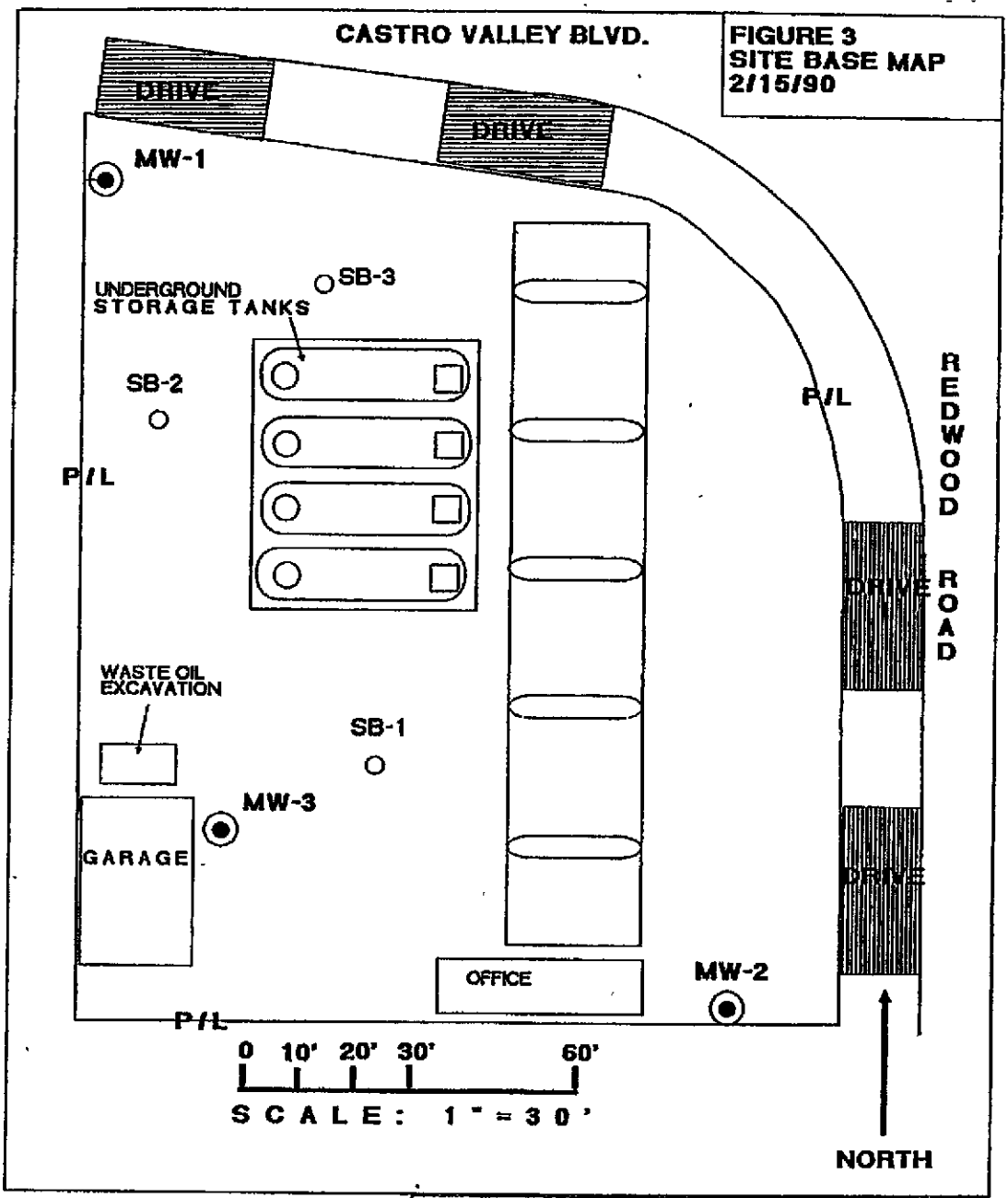


FIGURE 3
SITE BASE MAP
2/15/90

◉ MONITOR WELL LOCATIONS

○ SOIL BORING LOCATIONS

P/L PROPERTY LINE

XTRA OIL COMPANY
SHELL SERVICE STATION
3495 CASTRO VALLEY BLVD.
CASTRO VALLEY, CALIFORNIA
PROJ. SEC. 5; T3S; R2W; MDB&M

BASE MAP TAKEN FROM "MONTGOMERY & DAVIS: PLOT PLAN 8-14-1959"

BY WESTERN GEO-ENGINEERS:
GEORGE L. CONVERSE 1-22-1990.

Lic #'s 557 [513857
401530 – Hogate

3043335E 3S/2W 3P

-WEGE-
WESTERN GEO-ENGINEERS

BORING: SB2
DATE DRILLED: 2/15/90
▌ SAMPLE INTERVAL
▼ WATER

BORE HOLE LOG

PROJECT: XTRA GAS-CASTRO VALLEY	GEOLOGIST: M. Thomas	SURFACE ELEVATION:
LOCATION: 3495 Castro Valley Boulevard/ Redwood Road, Castro Valley, California	DRILLER: B. Hogate Jr.	TOTAL DEPTH: 12'
DRILLING CONTRACTOR: HOGATE EXPLORATION DRILLING	DEPTH TO WATER: approx 12'**	CASING: NONE

REMARKS: 6" hole drilled with 6" continuous flight of solid augers powered by B40 Mobile drill rig. Soil samples collected w/ 2" CA standard sampler connected to 140lb. surface drop hammer.

DEPTH (FT)	SAMPLE No.	BLOWS/FT.	PPM TVO VAPOR	SOIL DESCRIPTION (UNIFIED SOILS CLASSIFICATION SYSTEM)	GRAPHIC LOG	REMARKS
				4" asphalt surface Silt: brown, soft, sandy, dry, no odor		
2'						
				Clay: dark brown, with silt, soft, dry, moderate odor		
4'						
6'						
8'						
10'	SB2 10'	20	800 PPM	Silt: brown, sandy, with clay,, soft, dry, moderate gasoline odor (ML)		
▼12'	SB2 12'	18	2000+ PPM	Silt: brown, less sand, with clay,, soft, dry, strong gasoline odor (ML)		
				** water encountered during the drilling process		
				PID calibrated with 50 ppm gasoline standard		
				hole back filled with neat cement from base of boring up to surface upon completion of last sample collected at 12'		

Department of Water Resources

File # 15

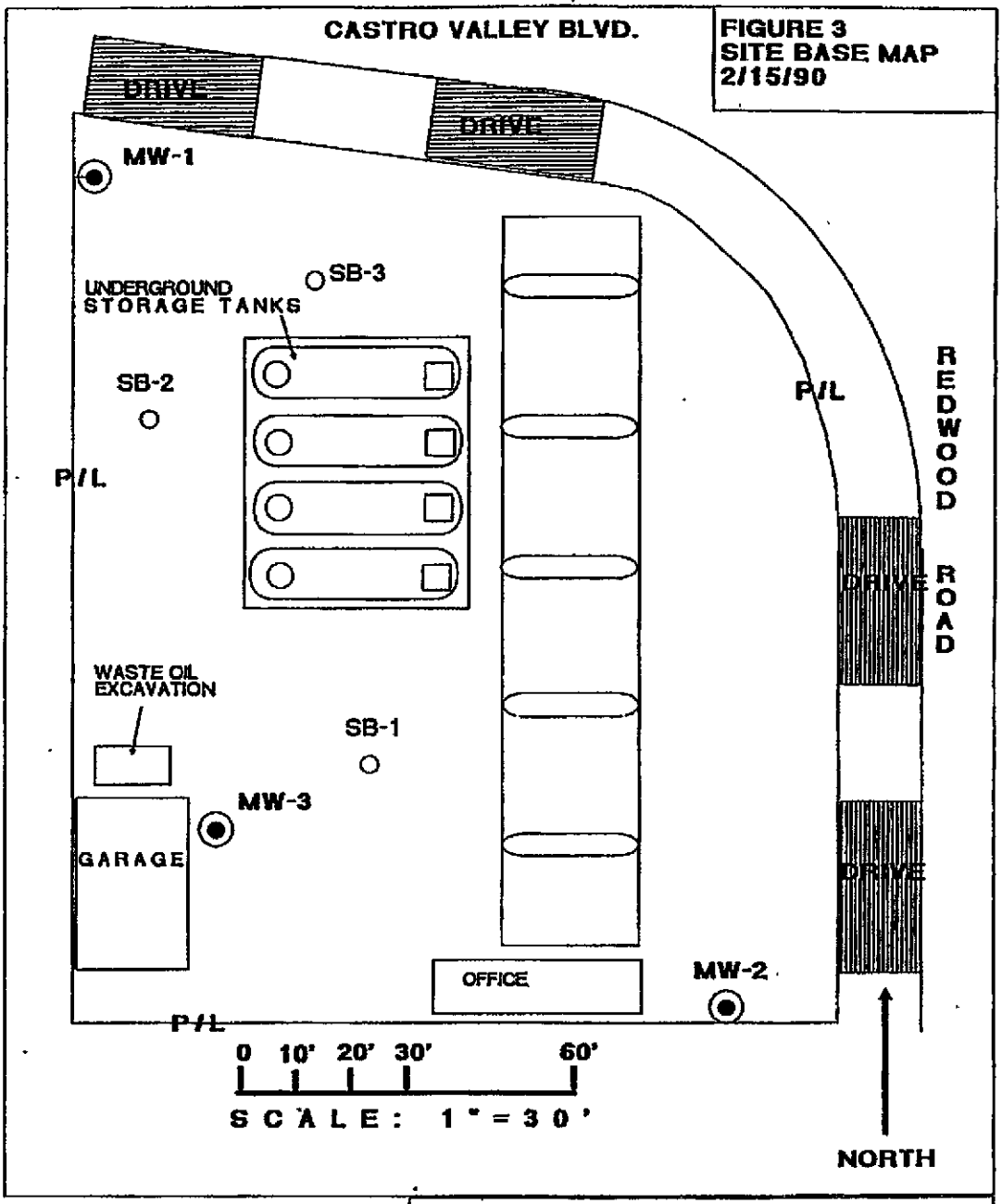
CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

35/2W3P

304335F



◉ MONITOR WELL LOCATIONS

○ SOIL BORING LOCATIONS

P/L PROPERTY LINE

XTRA OIL COMPANY
SHELL SERVICE STATION
3495 CASTRO VALLEY BLVD.
CASTRO VALLEY, CALIFORNIA
PROJ. SEC. 5; T3S; R2W; MDB&M

BASE MAP TAKEN FROM "MONTGOMERY & DAVIS: PLOT PLAN 8-14-1959"

BY WESTERN GEO-ENGINEERS:
GEORGE L. CONVERSE 1-22-1990.

Lic #'s 557 [513857 → 401530 – Hogate

304835F 3S/2W 3P

-WEGE-
WESTERN GEO-ENGINEERS

BORING: SB3
DATE DRILLED: 2/15/90
▌ SAMPLE INTERVAL
▼ WATER

BORE HOLE LOG

PROJECT: XTRA GAS-CASTRO VALLEY	GEOLOGIST: M. Thomas	SURFACE ELEVATION:
LOCATION: 3495 Castro Valley Boulevard/ Redwood Road, Castro Valley, California	DRILLER: B. Hogate Jr.	TOTAL DEPTH: 12'
DRILLING CONTRACTOR: HOGATE EXPLORATION DRILLING	DEPTH TO WATER: not encountered	CASING: NONE

REMARKS: 6" hole drilled with 6" continuous flight of solid augers powered by B40 Mobile drill rig. Soil samples collected w/ 2" CA standard sampler connected to 140lb. surface drop hammer.

DEPTH (FT)	SAMPLE No.	BLOWS/FT.	PPM TVO VAPOR	SOIL DESCRIPTION (UNIFIED SOILS CLASSIFICATION SYSTEM)	GRAPHIC LOG	REMARKS
				4" asphalt surface		
				Silt: brown, soft, sandy, dry, no odor		
2'						
				Clay: dark brown, with silt, soft, dry, moderate odor		
4'						
6'						
8'						
10'	SB2 10'	20	800 PPM	Silt: brown, sandy, with clay,, soft, dry, moderate gasoline odor (ML)		
12'	SB2 12'	18	2000+ PPM	Silt: brown, less sand, with clay,, soft, dry, strong gasoline odor (ML)		
				PID calibrated with 50 ppm gasoline standard		
				hole back filled with neat cement from base of boring up to surface upon completion of last sample collected at 12'		

Department of Water Resources

File # 16

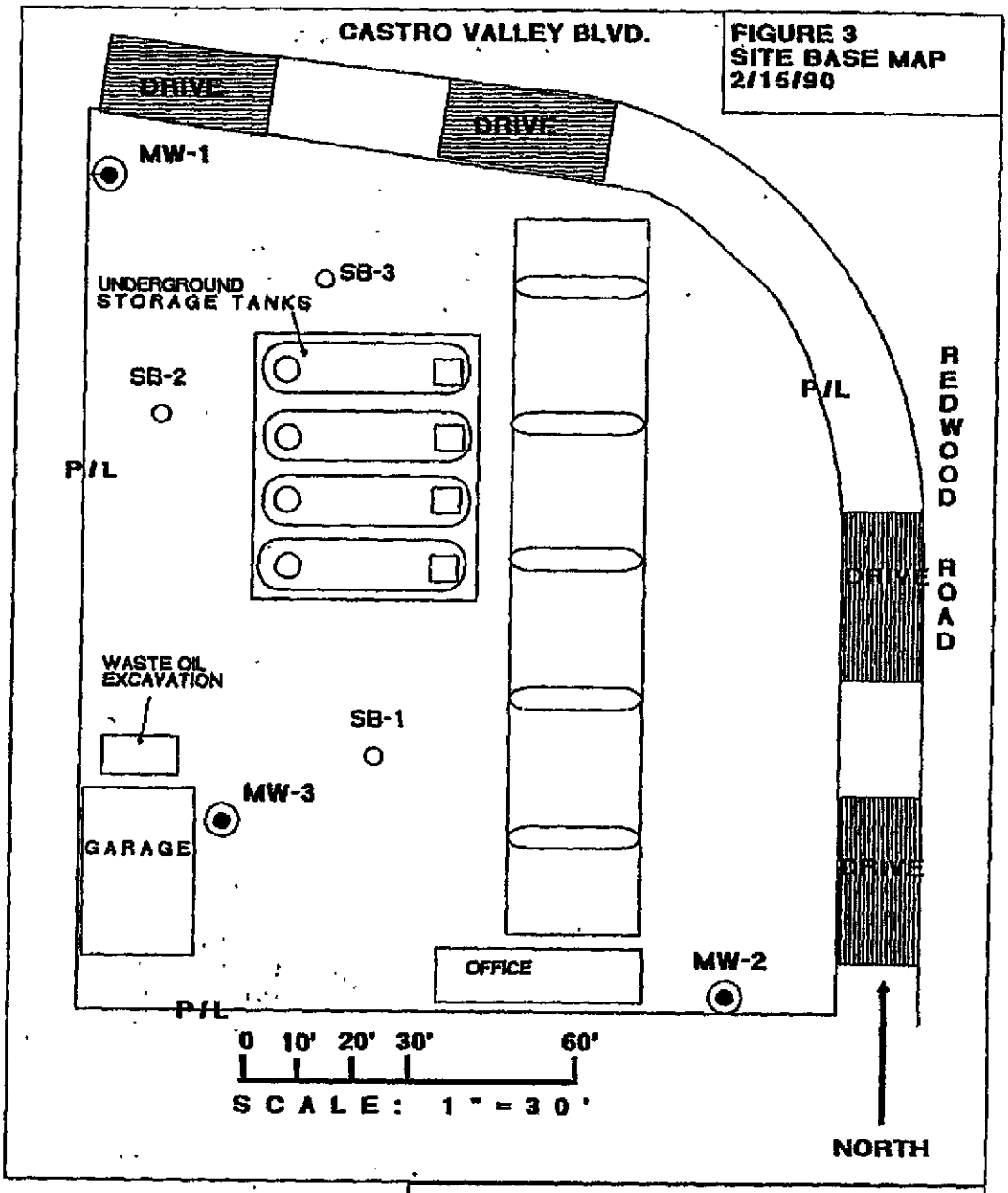
CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

304335A-

35/2W3P1-



◉ MONITOR WELL LOCATIONS

○ SOIL BORING LOCATIONS

P/L PROPERTY LINE

XTRA OIL COMPANY
SHELL SERVICE STATION
3495 CASTRO VALLEY BLVD.
CASTRO VALLEY, CALIFORNIA
PROJ. SEC. 5; T3S; R2W; MDB&M

BASE MAP TAKEN FROM "MONTGOMERY & DAVIS: PLOT PLAN 8-14-1959"

BY WESTERN GEO-ENGINEERS:
GEORGE L. CONVERSE 1-22-1990.

Lic #s 557 [513857 → 401530 – Hogate

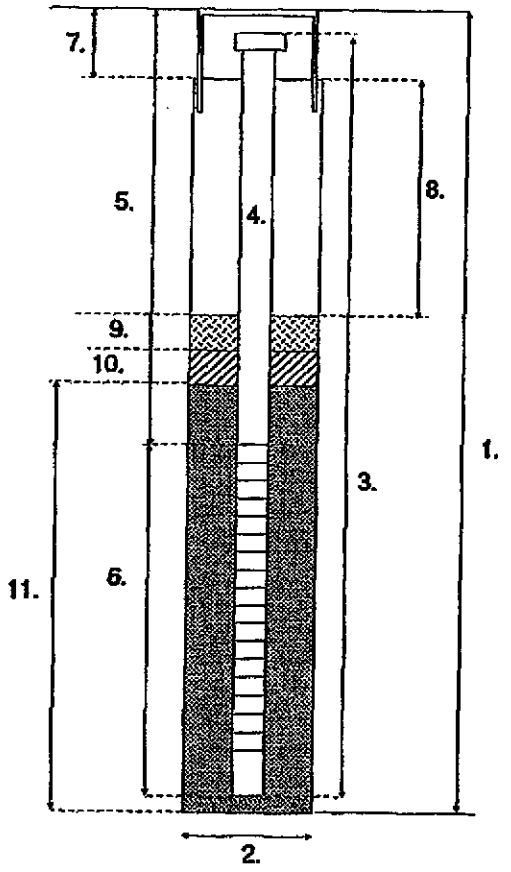
3043B5A
3S/2W 3P1

WEGE WELL CONSTRUCTION LOG

PROJECT NAME XTRA GAS-CASTRO VALLEY, CALIFORNIA
MONITOR WELL NUMBER MW1
TOP OF CASING ELEVATION 175.96'
PROJECT NUMBER
DATE COMPLETED 2-14-90
WELL TYPE MONITORING WELL (water)

REMARKS: 10' of 4" diameter sch. F480 slotted PVC casing; 9 feet of 4" diameter sch. F480 blank PVC casing; 5 bags #3 clean Monterey sand; 1 bag #2/12 clean Monterey sand; 2 bags neat cement; 1 water tight locking well cap

TYPICAL MONITORING WELL



WELL CONSTRUCTION

1. Total Depth of hole 20'
2. Diameter of boring 10"
3. Casing length 19'
4. Diameter of casing 4"
5. Depth to top of screen 9'
6. Length of screen 10'
   screen interval 9'-19'
   screen type machine cut
   screen size 0.02"
7. Surface seal
   seal material
8. Backfill material 1.5'-5'
   seal material neat cement
9. Upper seal
   seal material
10. Lower seal 5'-7.5'
    seal material #2/12 Monterey sand
11. Annulus 7.5'-19'
    material #3 clean Monterey sand

NOTE: Each well constructed with poly-vinyl chloride (PVC) casing with threaded bottom caps and threaded top caps. Also, PVC steam cleaned before constructing each well. Traffic boxes are water tight and locked for security.

304335A 3S/2W 3P1

-WEGE-
WESTERN GEO-ENGINEERS

BORING: MW1
DATE DRILLED: 2/14/90
▌ SAMPLE INTERVAL
▼ WATER

BORE HOLE LOG

PROJECT: XTRA GAS-CASTRO VALLEY	GEOLOGIST: M. Thomas	TOP OF CASING ELEVATION: 175.96'
LOCATION: 3495 Castro Valley Boulevard/ Redwood Road, Castro Valley, California	DRILLER: B. Hogate Jr.	TOTAL DEPTH: 20'
DRILLING CONTRACTOR: HOGATE EXPLORATION DRILLING	DEPTH TO WATER: Approx. 16'**	CASING: 4" to 19'

REMARKS: 10" hole drilled with continuous flight of 10" hollow stem augers powered by a B40 Mobile drill rig. Soil samples collected w/ 2" CA standard sampler connected to a 140lb. surface drop hammer.

DEPTH (FT)	SAMPLE No.	BLOWS/FT.	PPM TVO VAPOR	SOIL DESCRIPTION (UNIFIED SOILS CLASSIFICATION SYSTEM)	GRAPHIC LOG	REMARKS
				4" asphalt surface		
5'	MW1 5'	19	60-70 PPM	Clay: dark black, with minor silt, firm, dry, moderate odor (CL)		
10'	MW1 10'	16	600-500 PPM	Silt: brown, with moderate clay, firm, dry, strong gasoline odor (ML)		
15' ▼	MW1 15'	19	10-20 PPM	Clay: brown, with moderate silt, semi-firm, dry, no odor (CL)		
20'	MW1 20'	30	10-20 PPM	Clay: brown, decreasing clay, with silt, wet, no odor (CL-ML)		
				** indicates water encountered during drilling process		
				PID calibrated with 50 ppm gasoline standard		

Department of Water Resources

File # 17

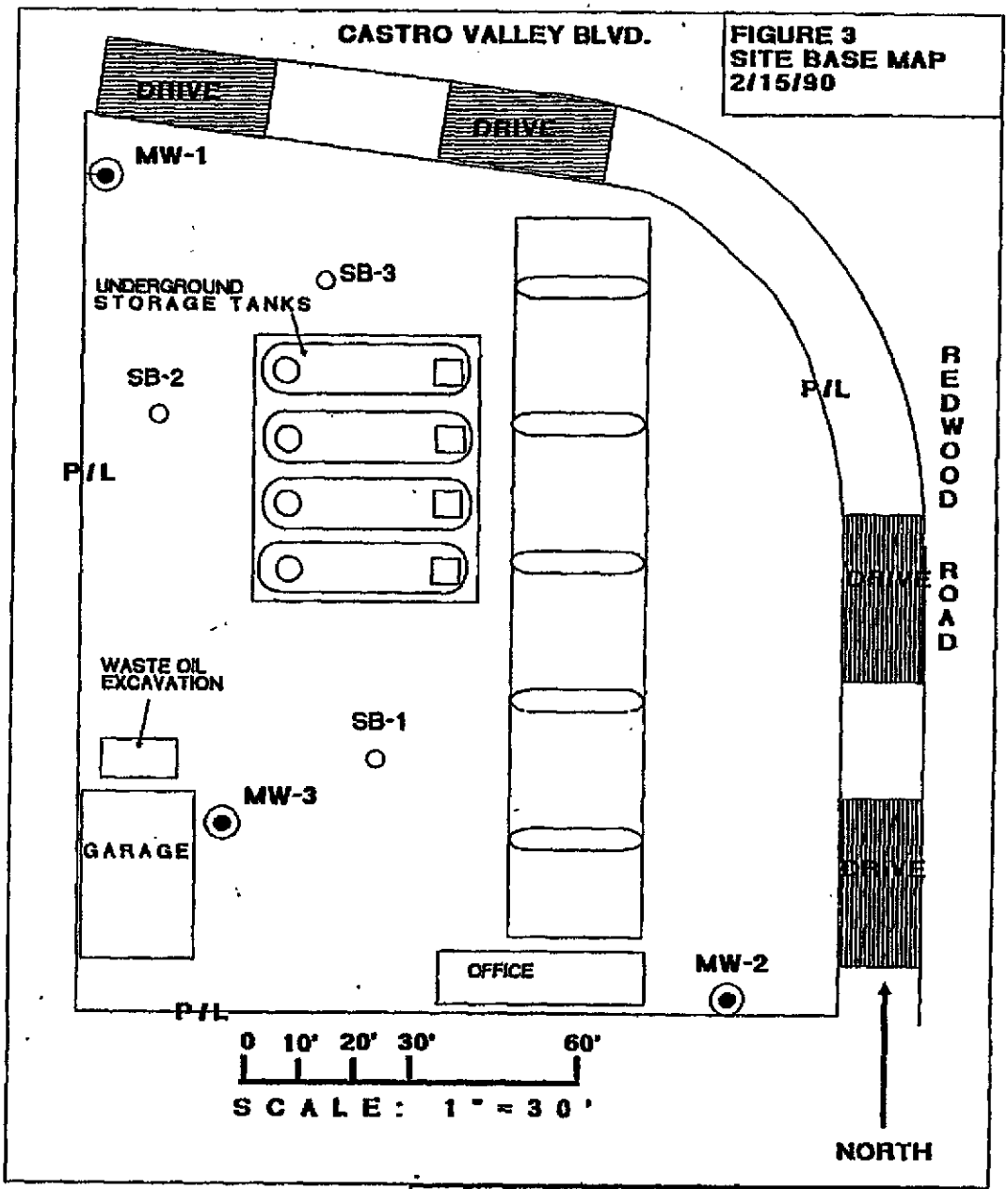
CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

304335A

3S/2W3P2



MONITOR WELL LOCATIONS

SOIL BORING LOCATIONS

P/L PROPERTY LINE

XTRA OIL COMPANY
SHELL SERVICE STATION
3495 CASTRO VALLEY BLVD.
CASTRO VALLEY, CALIFORNIA
PROJ. SEC. 5; T3S; R2W; MDB&M

BASE MAP TAKEN FROM "MONTGOMERY & DAVIS: PLOT PLAN 8-14-1959"

BY WESTERN GEO-ENGINEERS:
GEORGE L. CONVERSE 1-22-1990.

Lic #s 557 [513857
401530 - Hogate

3043358 3S/2W 3P2

-WEGE-
WESTERN GEO-ENGINEERS

BORING: MW2
DATE DRILLED: 2/14/90
▌ SAMPLE INTERVAL
▼ WATER

BORE HOLE LOG

PROJECT: XTRA GAS-CASTRO VALLEY	GEOLOGIST: M. Thomas	TOP OF CASING ELEVATION: 175.94'
LOCATION: 3495 Castro Valley Boulevard/ Redwood Road, Castro Valley, California	DRILLER: B. Hogate Jr.	TOTAL DEPTH: 18'
DRILLING CONTRACTOR: HOGATE EXPLORATION DRILLING	DEPTH TO WATER: Approx. 15'**	CASING: 4" to 18'

REMARKS: 10" hole drilled with continuous flight of 10" hollow stem augers powered by a B40 Mobile drill rig. Soil samples collected w/ 2" CA standard sampler connected to a 140lb. surface drop hammer.

DEPTH (FT)	SAMPLE No.	BLOWS/FT.	PPM TVO VAPOR	SOIL DESCRIPTION (UNIFIED SOILS CLASSIFICATION SYSTEM)	GRAPHIC LOG	REMARKS
				4" concrete surface		
5'	MW2 5'		2-3 PPM	Clay: dark brown, with silt, firm, dry, no odor (CL)		
10'	MW2 10'	26	900+ PPM	Silt: brown, sandy, with clay,, firm, dry, strong gasoline odor (ML)		
▼15'	MW2 15'	25	300+ PPM	Silt: brown, sandy with clay, semi-firm, dry, strong gasoline odor (ML)		
20'	MW2 20'	26		Silt: brown, with iincrease in clay, less sand, wet, moderate odor (ML)		
				** Indicates water encountered during drilling process		
				PID calibrated with 50 ppm gasoline standard		

3043358

3S/2W 3P2

WEGE WELL CONSTRUCTION LOG

PROJECT NAME XTRA GAS-CASTRO VALLEY, CALIFORNIA

MONITOR WELL NUMBER MW2

TOP OF CASING ELEVATION 175.94'

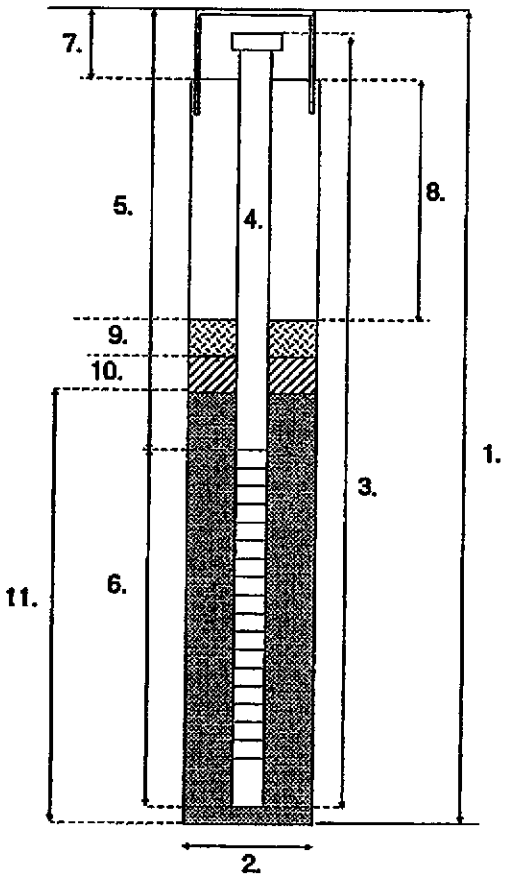
PROJECT NUMBER _____

DATE COMPLETED 2-14-90

WELL TYPE MONITORING WELL (water)

REMARKS: 10' of 4" diameter sch. F480 slotted PVC casing; 8 feet of 4" diameter sch. F480 blank PVC casing; 5 bags #3 clean Monterey sand; 1 bag #2/12 clean Monterey sand; 2 bags neat cement; 1 water tight locking well cap

TYPICAL MONITORING WELL



WELL CONSTRUCTION

1. Total Depth of hole 18'
2. Diameter of boring 10"
3. Casing length 18'
4. Diameter of casing 4"
5. Depth to top of screen 8'
6. Length of screen 10'
   screen interval 8'-19'
   screen type machine cut
   screen size 0.02"
7. Surface seal _____
   seal material _____
8. Backfill material 1.5'-4'
   seal material neat cement
9. Upper seal _____
   seal material _____
10. Lower seal 4'-5'
    seal material #2/12 Monterey sand
11. Annulus 5'-18'
    material #3 clean Monterey sand

NOTE: Each well constructed with poly-vinyl chloride (PVC) casing with threaded bottom caps and threaded top caps. Also, PVC steam cleaned before constructing each well. Traffic boxes are water tight and locked for security.

Department of Water Resources

File # 18

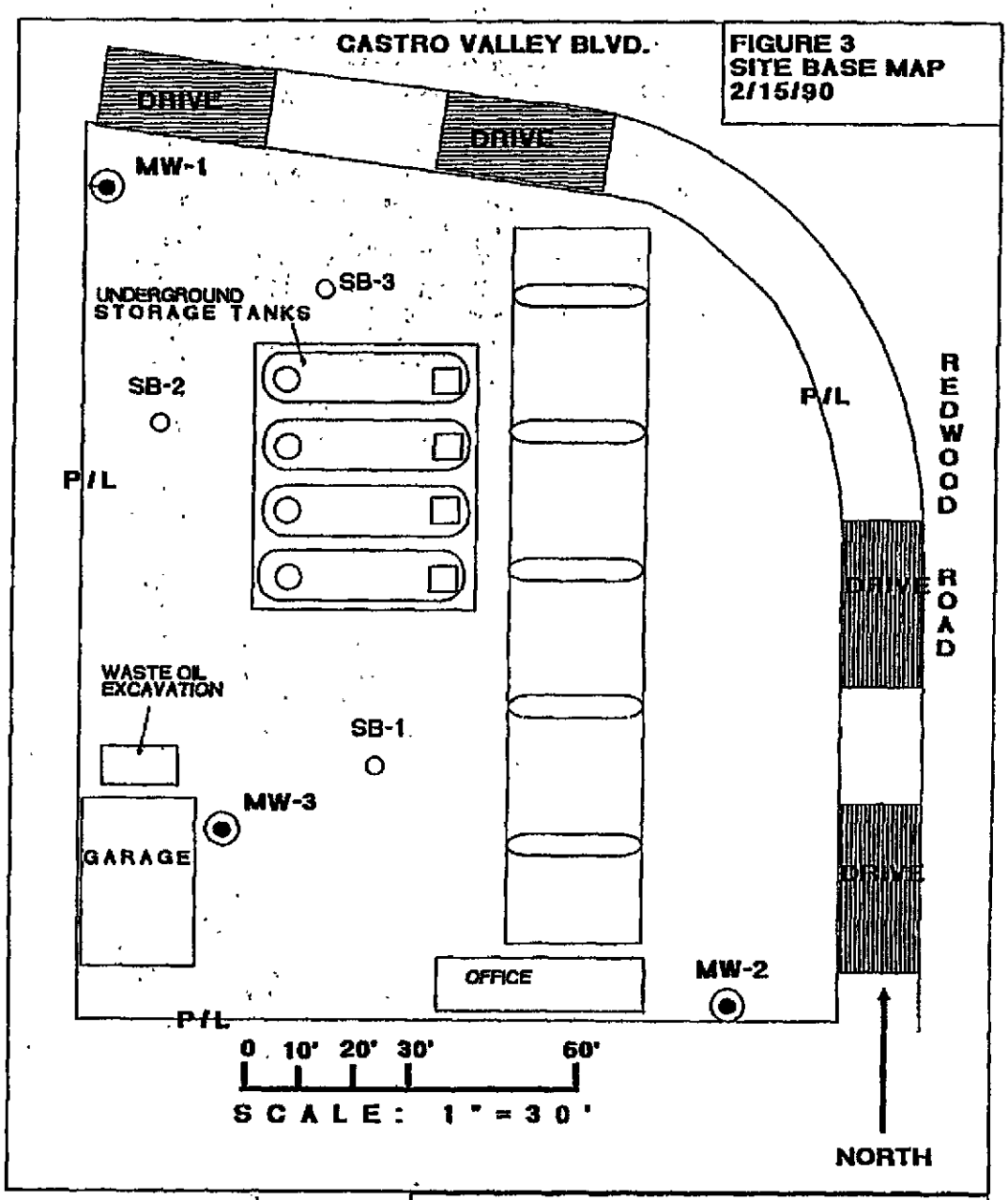
CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

3043385C

3S/2W3P #3



◉ MONITOR WELL LOCATIONS

○ SOIL BORING LOCATIONS

P/L PROPERTY LINE

XTRA OIL COMPANY
SHELL SERVICE STATION
3495 CASTRO VALLEY BLVD.
CASTRO VALLEY, CALIFORNIA
PROJ. SEC. 5; T3S; R2W; MDB&M

BASE MAP TAKEN FROM "MONTGOMERY & DAVIS: PLOT PLAN 8-14-1959"

BY WESTERN GEO-ENGINEERS:
GEORGE L. CONVERSE 1-22-1990.

Lic #'s 557 [513857
401530 - Hogate

3043335C 3S/2W 3P3

-WEGE-
WESTERN GEO-ENGINEERS

BORING: MW3
DATE DRILLED: 2/15/90
▌ SAMPLE INTERVAL
▼ WATER

BORE HOLE LOG

PROJECT: XTRA GAS-CASTRO VALLEY	GEOLOGIST: M. Thomas	TOP OF CASING ELEVATION: 175.00'
LOCATION: 3495 Castro Valley Boulevard/ Redwood Road, Castro Valley, California	DRILLER: B. Hogate Jr.	TOTAL DEPTH: 18'
DRILLING CONTRACTOR: HOGATE EXPLORATION DRILLING	DEPTH TO WATER: Approx. 16'**	CASING: 4" to 18'

REMARKS: 10" hole drilled with continuous flight of 10" hollow stem augers powered by a B40 Mobile drill rig. Soil samples collected w/ 2" CA standard sampler connected to a 140lb. surface drop hammer.

DEPTH (FT)	SAMPLE No.	BLOWS/FT.	PPM TVO VAPOR	SOIL DESCRIPTION UNIFIED SOILS CLASSIFICATION SYSTEM	GRAPHIC LOG	REMARKS
				4" asphalt surface		
5'	MW3 5'	15	700-850 PPM	Clay: dark brown, with minor silt, soft, dry, strong gasoline odor (CL)		
10'	MW3 10'	20	1800+ PPM	Silt: brown, sandy, with clay,, soft, dry, strong gasoline odor (ML)		
15' ▼	MW3 15'	20	200+ PPM	Silt: brown, decrease in sand with clay, soft, moderate gasoline odor, (ML)		
20'	MW3 18'	24	2-5 PPM	Clay: brown, with silt, less sand, firm, wet, faint gasoline odor, (CL)		
				** indicates water encountered during drilling process		
				PID calibrated with 50 ppm gasoline standard		

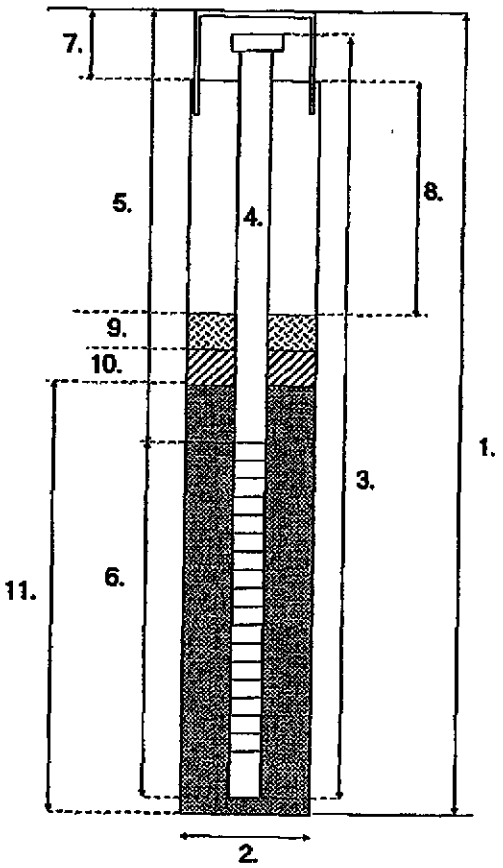
3043350
3S/2W 3P3

WEGE WELL CONSTRUCTION LOG

PROJECT NAME XTRA GAS-CASTRO VALLEY, CALIFORNIA
MONITOR WELL NUMBER MW3
TOP OF CASING ELEVATION 175.00'
PROJECT NUMBER
DATE COMPLETED 2-15-90
WELL TYPE MONITORING WELL (water)

REMARKS: 10' of 4" diameter sch. F480 slotted PVC casing; 8 feet of 4" diameter sch. F480 blank PVC casing; 4 bags #3 clean Monterey sand; 2 bags #2/12 clean Monterey sand; 2 bags neat cement; 1 water tight locking well cap

TYPICAL MONITORING WELL



WELL CONSTRUCTION

1. Total Depth of hole 18'
2. Diameter of boring 10"
3. Casing length 18'
4. Diameter of casing 4"
5. Depth to top of screen 8'
6. Length of screen 10'
   screen interval 8'-19'
   screen type machine cut
   screen size 0.02"
7. Surface seal
   seal material
8. Backfill material 1.5'-4.5'
   seal material neat cement
9. Upper seal
   seal material
10. Lower seal 4.5'-9.5'
    seal material #2/12 Monterey sand
11. Annulus 9.5'-18.5'
    material #3 clean Monterey sand

NOTE: Each well constructed with poly-vinyl chloride (PVC) casing with threaded bottom caps and threaded top caps. Also, PVC steam cleaned before constructing each well. Traffic boxes are water tight and locked for security.

Department of Water Resources

File # 19

RT Nahasc
Unocal
20405 redwood

DWR Designation					Boring Log Designation
35/2W		3P	01-457	J	MW1
"	"	"	"	K	MW1A
"	"	"	"	G	MW2
"	"	"	"	H	MW3

Owner: R.T. Nahas Company/UNOCAL

35/2W 3P

01-451J

DATE: 12/05/89
LOGGED BY: MC
ELEVATION: ---

LOG DESIGNATION MW-1

WATER LEVEL: Initially encountered at 20'-0", then rose to 12'-0"
EQUIPMENT: Mobil Drill B-53 8" Hollow Stem Auger

JOB: P89134
FIGURE:

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS/FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S	SOIL OR ROCK DESCRIPTION	NOTES
						PMT	2.5" Asphaltic Concrete over 8" Aggregate Base	Surface seal depth = 30'
						CL	SILTY CLAY: Brown, moist, firm	
						CH	SILTY CLAY: Black gray, saturated soft	
5		22			1	CH/CL	SILTY CLAY: Greenish gray, moist, stiff, slighty sandy, numerous air voids	PID = 0.0
10		27			2	CL/ML	SANDY CLAY: Light yellow brown, moist, very stiff	▽
15		28			3	CL/SC	SANDY CLAY/CLAYEY SAND: Light yellow-brown, moist, very stiff strong hydrocarbon odor Saturated at 17'	PID to 28.8 PID to 605.0
		36			4	SC	CLAYEY SAND: Greenish gray, saturated No odor	
20							SILTY CLAY: Light brown, moist, very stiff Saturated at 20'	
25							Note: PID demotes Photo Ionization Detector reading in PPM	

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

(1) SAMPLER INSIDE DIAM.
(2) 140lbs HAMMER - 30 INCH DROP.
(P) HYDRAULICALLY PUSHED

Driller:

BSK & Associates

3S/2W 3P

01-451J

DATE: 12/05/89
LOGGED BY: MC
ELEVATION: —

LOG DESIGNATION MW-1

WATER LEVEL: Initially encountered at 20'-0", then rose to 12'-0"
EQUIPMENT: Mobile Drill B-53 8" Hollow Stem Auger

JOB: P89134
FIGURE:

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS/FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
						CL	SILTY CLAY: Light brown, saturated	
30								Boring terminated at 30', then backfilled with neat grout to surface using Tremie method.

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

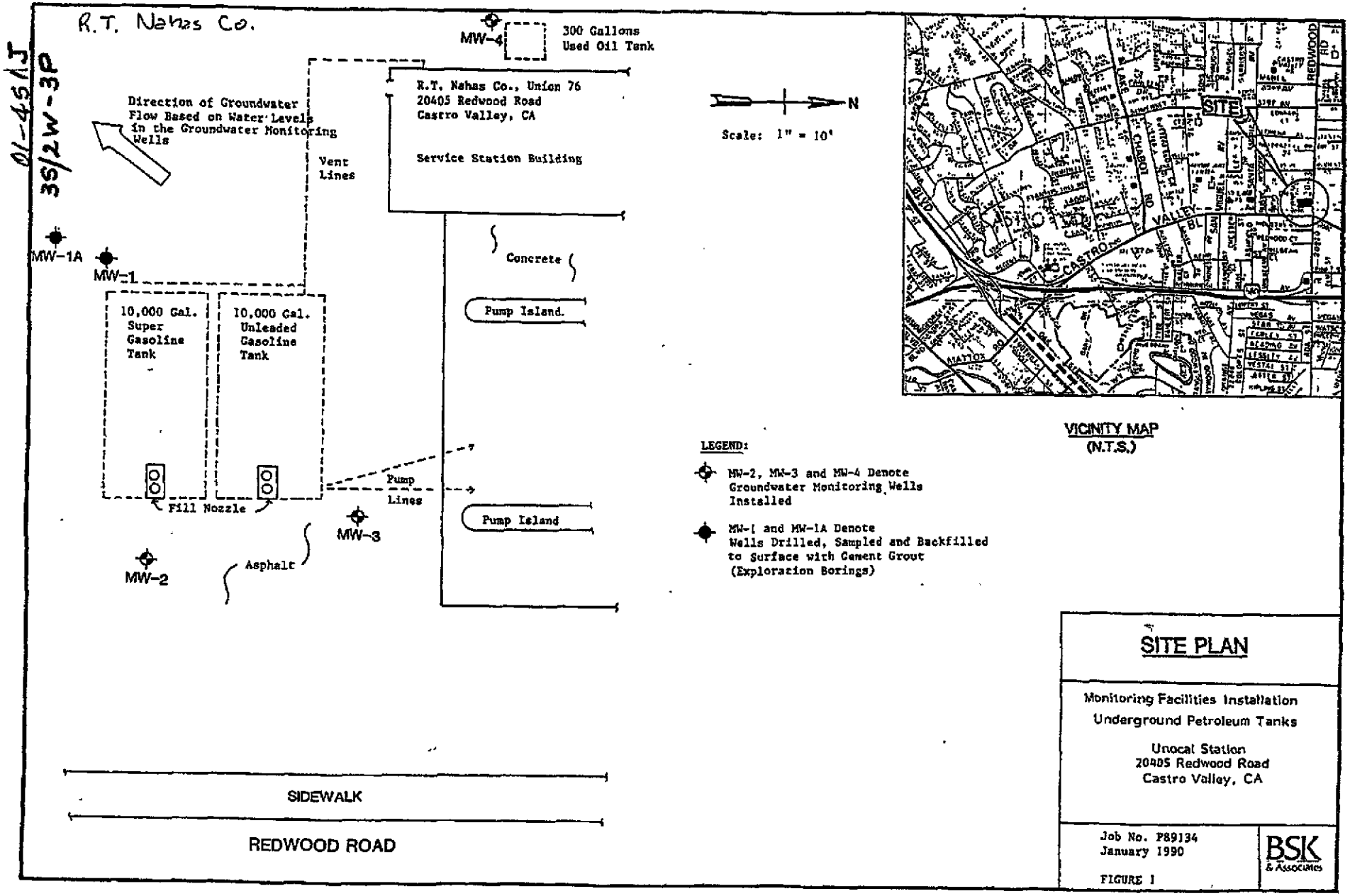
(1) SAMPLER INSIDE DIAM.
(2) 140 lbs HAMMER - 30 INCH DROP.
(P) HYDRAULICALLY PUSHED

Driller:

BSK & Associates

01-451J
3S/2W-3P

R.T. Nahas Co.



VICINITY MAP
(N.T.S.)

SITE PLAN

Monitoring Facilities Installation
Underground Petroleum Tanks

Unocal Station
20405 Redwood Road
Castro Valley, CA

Job No. P89134
January 1990

FIGURE 1

BSK & Associates

3S/2W 3P
01-451K

DATE: 12-07-89
LOGGED BY: MC
ELEVATION: --
WATER LEVEL: Seepage noted at 15' (not water table)
EQUIPMENT: Mobile Drill B-53 8" Hollow Stem Auger

LOG DESIGNATION MW-1A

JOB: P89134
FIGURE:

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS/FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
						PMT	2.5" Asphaltic Concrete over 8" Aggregate Base	
						CL/CH	SILTY CLAY: Black gray, very moist, medium stiff	PID = 0.0
							Grades to gray brown	
5	2.0	27	-	-	1	CL	SILTY CLAY: Greenish gray, moist stiff to very stiff	PID = 0.0
							Grades to yellow brown	
							Grades to mottled gray yellow-brown	PID = 0.0
10	2.0	28	-	-	2	CL	SANDY CLAY: Greenish gray, moist stiff, strong hydrocarbon odor	PID to 342.0
							Grades to very moist	PID to 58.0
	2.0	20	-	-	3		Grades to yellow brown, moist, lesser sand fraction and slight odor	PID to 37.0
15						CL/SC	SANDY CLAY: Yellow brown, saturated soft no odor	
	2.0	35	-	-	4	CL	SILTY CLAY: Reddish brown, damp, very stiff to hard	PID = 0.0
20								Boring terminated at 17½' backfilled to surface with neat grout
								Note: Surface seal, depth = 17.5
25								

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

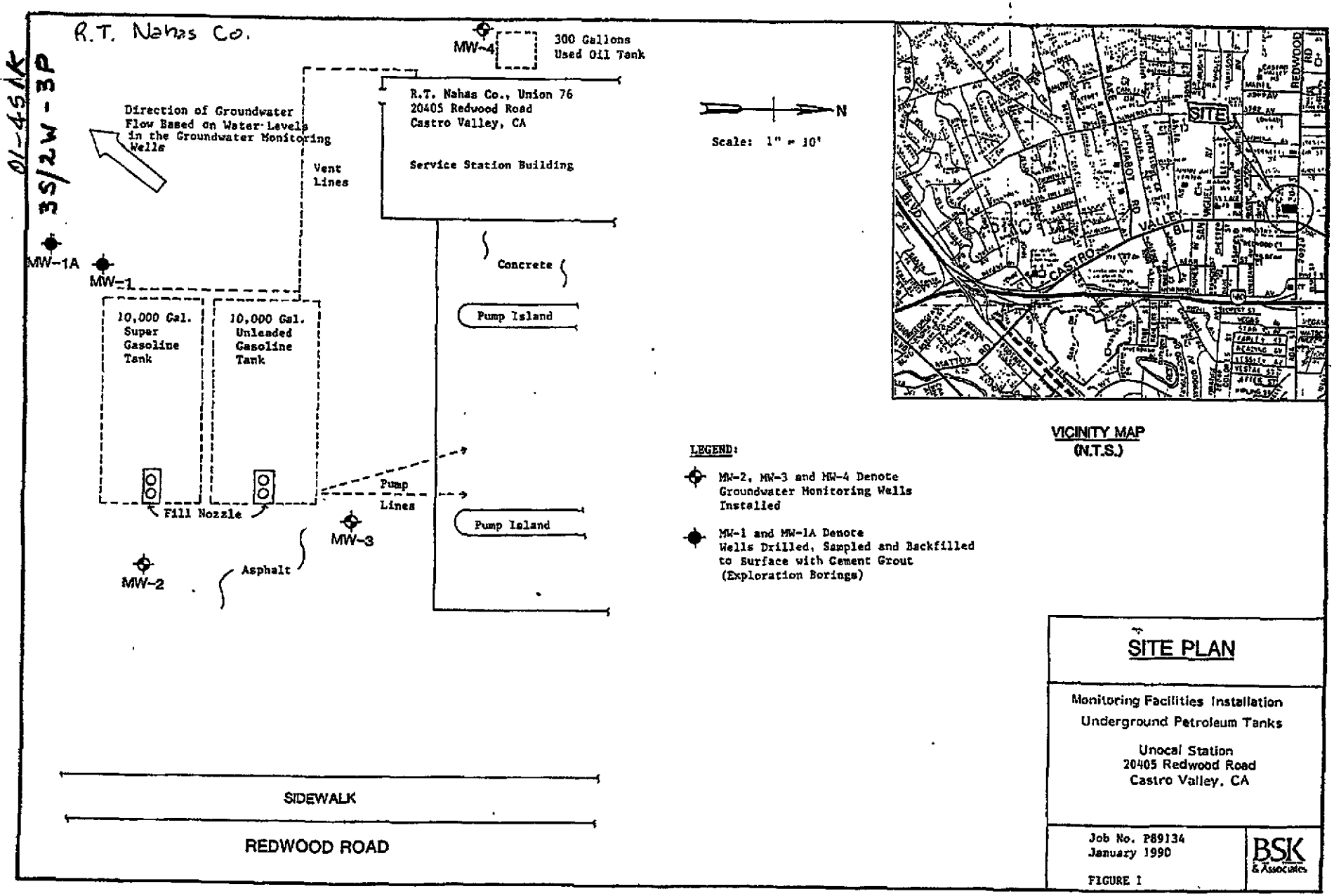
(1) SAMPLER INSIDE DIAM.
(2) 140lbs HAMMER - 30 INCH DROP.
(P) HYDRAULICALLY PUSHED

Driller:

BSK & Associates

01-45 MK
3S/2W - 3P

R.T. Nahas Co.



VICINITY MAP
(N.T.S.)

LEGEND:

- MW-2, MW-3 and MW-4 Denote Groundwater Monitoring Wells Installed
- MW-1 and MW-1A Denote Wells Drilled, Sampled and Backfilled to Surface with Cement Grout (Exploration Borings)

SITE PLAN

Monitoring Facilities Installation
Underground Petroleum Tanks

Unocal Station
20405 Redwood Road
Castro Valley, CA

Job No. P89134
January 1990

FIGURE 1

BSK & Associates

Owner: R.T. Nahas Company/UNOCAL 3S/2W 3P4
01-451G

DATE: 12/04/89
LOGGED BY: MC
ELEVATION: --
WATER LEVEL: Initially encountered at 20'-0", then rose to 12'-5"
EQUIPMENT: Mobile Drill B-53 8" Hollow Stem Auger

LOG DESIGNATION MW-2

JOB: P89134
FIGURE:

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS/FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S	SOIL OR ROCK DESCRIPTION	NOTES
						PMT	2" Asphaltic Concrete over 8" Aggregate Base	Surface seal depth = 12' PID = 0.0
						CL	SILTY CLAY: Brown, very wet, soft	
						CH/OH	SILTY CLAY: Black gray, saturated, soft, organic clay fraction	
5	2.0	13	-	-	1	CH/CL	SILTY CLAY: Greenish gray, moist stiff, slighty sandy, some air voids, blocky texture	PID to 11.0
10	2.0	21	-	-	2	CL/ML	SANDY CLAY: Light yellow brown, moist, very stiff, horizontal air voids	PID = 0.0
						CL	SILTY CLAY: Light yellow brown, moist, very stiff to hard	▽
15	2.0	38	-	-	3			PID = 0.0
						CL/SC	SANDY CLAY: Light yellow brown saturated, very stiff Grades to clayey fine sand	
20	2.0	23	-	-	4			
25	1 3/8"	-	-	-		CL	SILTY CLAY: Light brown, saturated	

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

(1) SAMPLER INSIDE DIAM.
(2) 140 lbs HAMMER - 30 INCH DROP.
(P) HYDRAULICALLY PUSHED

Driller:

BSK & Associates

3S/2W 3P4
01-451G

DATE: 12/04/89
LOGGED BY: MC
ELEVATION: --
WATER LEVEL: Initially encountered at 20'-0", then rose to 12'-5"
EQUIPMENT: Mobile Drill B-53 8" Hollwo Stem Auger

LOG DESIGNATION MW-2

JOB:P89134
FIGURE:

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS/FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
25						CL	SILTY CLAY: Light brown, saturated, very stiff, sand fraction	
30	1 3/8"	13	-	-				Boring terminated at 31' 30' monitoring well installed having 15' of casing over 15' of screen 2" diam
40								
45								
50								
55								

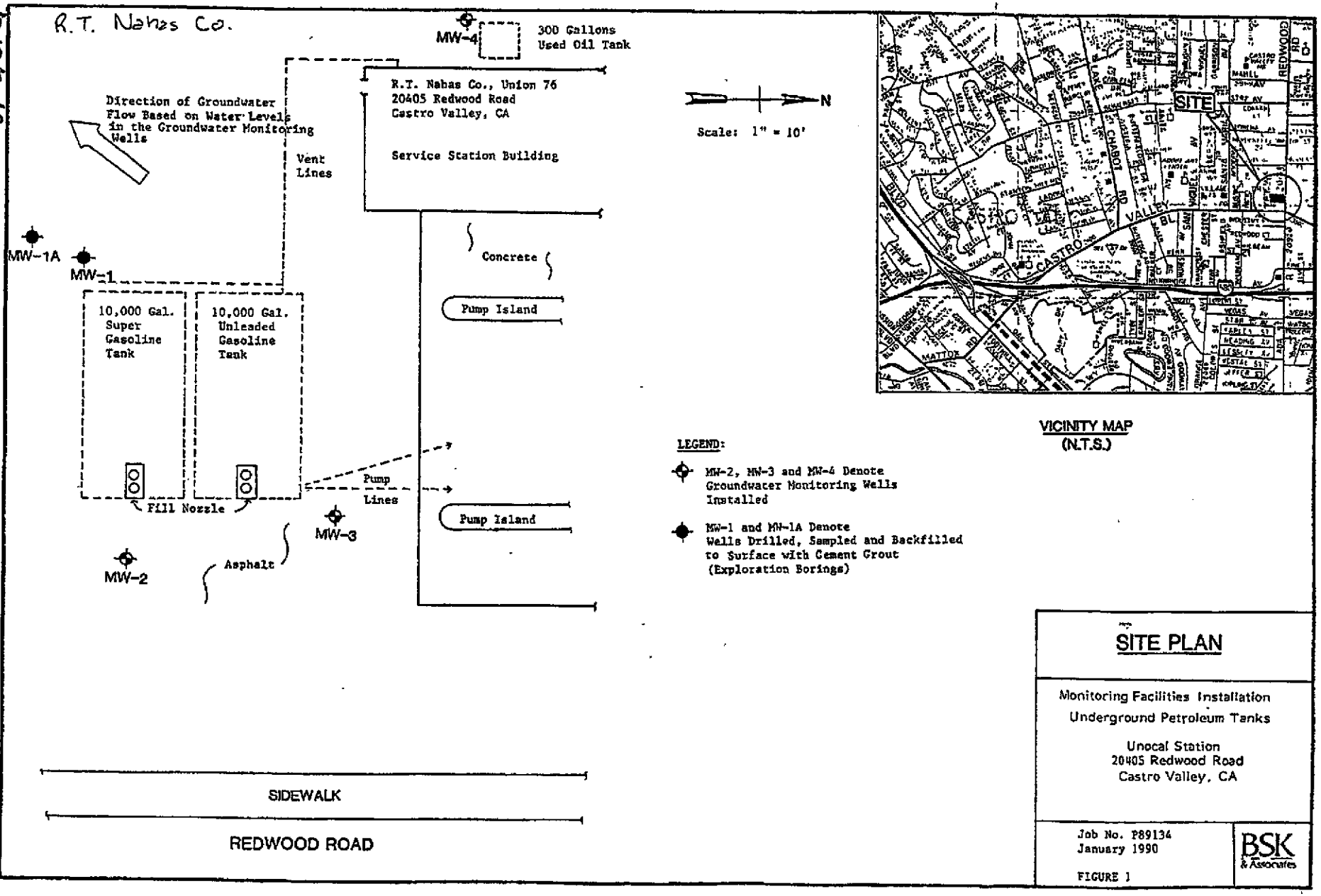
THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

(1) SAMPLER INSIDE DIAM.
(2) 140 lbs HAMMER - 30 INCH DROP,
(P) HYDRAULICALLY PUSHED

Driller:

BSK & Associates

R.T. Nahas Co.



VICINITY MAP
(N.T.S.)

LEGEND:

- MW-2, MW-3 and MW-4 Denote Groundwater Monitoring Wells Installed
- MW-1 and MW-1A Denote Wells Drilled, Sampled and Backfilled to Surface with Cement Grout (Exploration Borings)

SITE PLAN

Monitoring Facilities Installation
Underground Petroleum Tanks

Unocal Station
20405 Redwood Road
Castro Valley, CA

Job No. P89134
January 1990

FIGURE 1

BSK & Associates

01-1848

Owner: R.T. Nahas Company

Owner: R.T. Nahas Company/UNOCAL 3S/2W 3P5

01451H

DATE: 12/05/89
LOGGED BY: MC
ELEVATION: --

LOG DESIGNATION MW-3

WATER LEVEL: Initially encountered at 19'-0", then rose to 12'-4"
EQUIPMENT: Mobile Drill B-53 8" Hollow Stem Auger

JOB: P89134
FIGURE:

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS/FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S	SOIL OR ROCK DESCRIPTION	NOTES
						PMT	3" Asphaltic Concrete over 8" Aggregate Base	Surface seal depth = 11'
						CL	SILTY CLAY: Brown, moist	
						CH/OH	SILTY CLAY: Black-gray, saturated soft, organic clay fraction	PID = 0.8
5	2.0	27	-	-	1	CH/CL	SILTY CLAY: Greenish gray, moist stiff, mottled yellow brown	PID = 1.2
10	2.0	28	-	-	2	CL/ML	SANDY CLAY: Light yellow brown, moist, stiff, mottled olive brown, numerous horizontal air voids	PID = 0.0
						CL	SILTY CLAY: Light yellow brown, moist, very stiff to hard, slighty sandy, blocky texture	
15	2.0	36	-	-	3			PID = 0.0
	2.0	37	-	-	4			
20						CL/SC	SANDY CLAY: Light yellow brown, wet, very stiff to hard Saturated at 20'	PID = 2.5
25						CL	SILTY CLAY: Light brown saturated	

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

(1) SAMPLER INSIDE DIAM.
(2) 140 lbs HAMMER - 30 INCH DROP.
(P) HYDRAULICALLY PUSHED

Driller:

BSK & Associates

R.T. Nahas Company

LOG DESIGNATION MW-3

01-451H

DATE: 12/05/89
LOGGED BY: MC
ELEVATION: --
WATER LEVEL: Initially encountered at 19'-0", then rose to 12'-4"
EQUIPMENT: Mobile Drill B-53 8" Hollow Stem Auger

JOB:P89134
FIGURE:

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS/FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
25							SILTY CLAY: Light brown, saturated, very stiff, sand fraction	
30	1 3/8"	12	-	-				Boring terminated at 30½" 30' monitoring well installed having 15' of casing over 15' of screen 2" diam
10								
15								
20								
25								

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

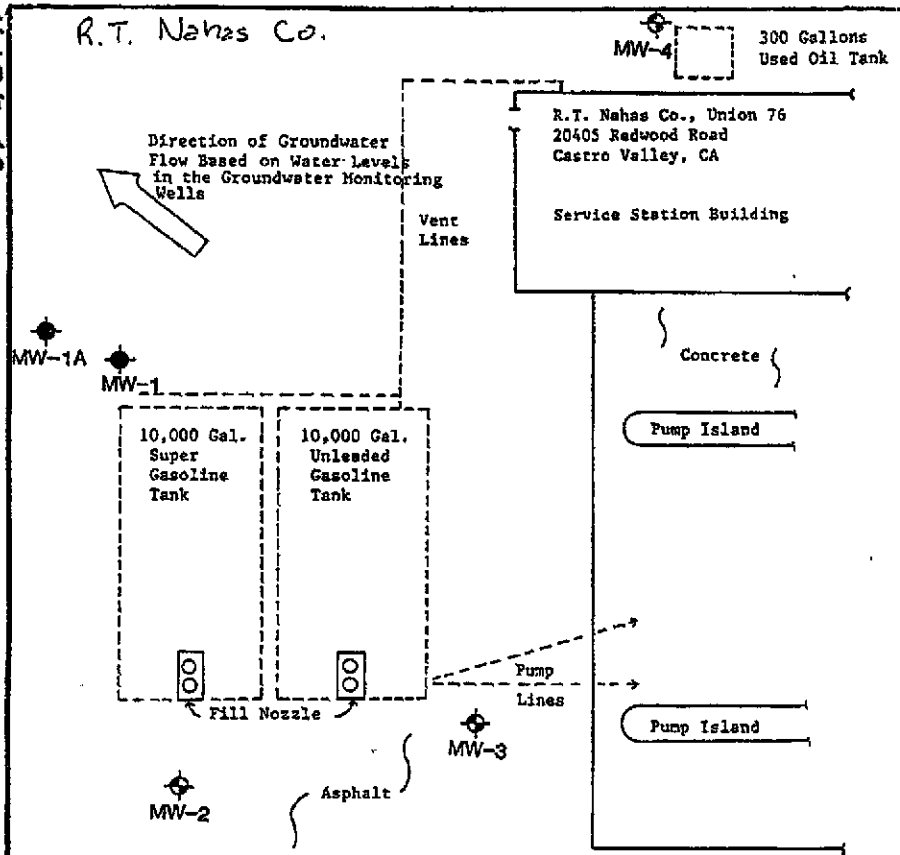
(1) SAMPLER INSIDE DIAM.
(2) 140lbs HAMMER - 30 INCH DROP.
(P) HYDRAULICALLY PUSHED

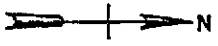
Driller:

BSK & Associates

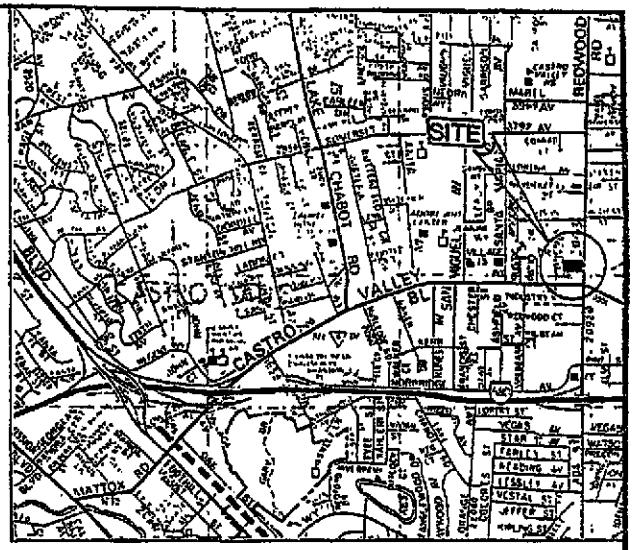
01-4314

R.T. Nahas Co.





Scale: 1" = 10'



VICINITY MAP
(N.T.S.)

LEGEND:

- MW-2, MW-3 and MW-4 Denote Groundwater Monitoring Wells Installed
- MW-1 and MW-1A Denote Wells Drilled, Sampled and Backfilled to Surface with Cement Grout (Exploration Borings)

SITE PLAN

Monitoring Facilities Installation
Underground Petroleum Tanks

Unocal Station
20405 Redwood Road
Castro Valley, CA

Job No. P89134
January 1990

FIGURE 1

BSK & Associates

Department of Water Resources

File # 20

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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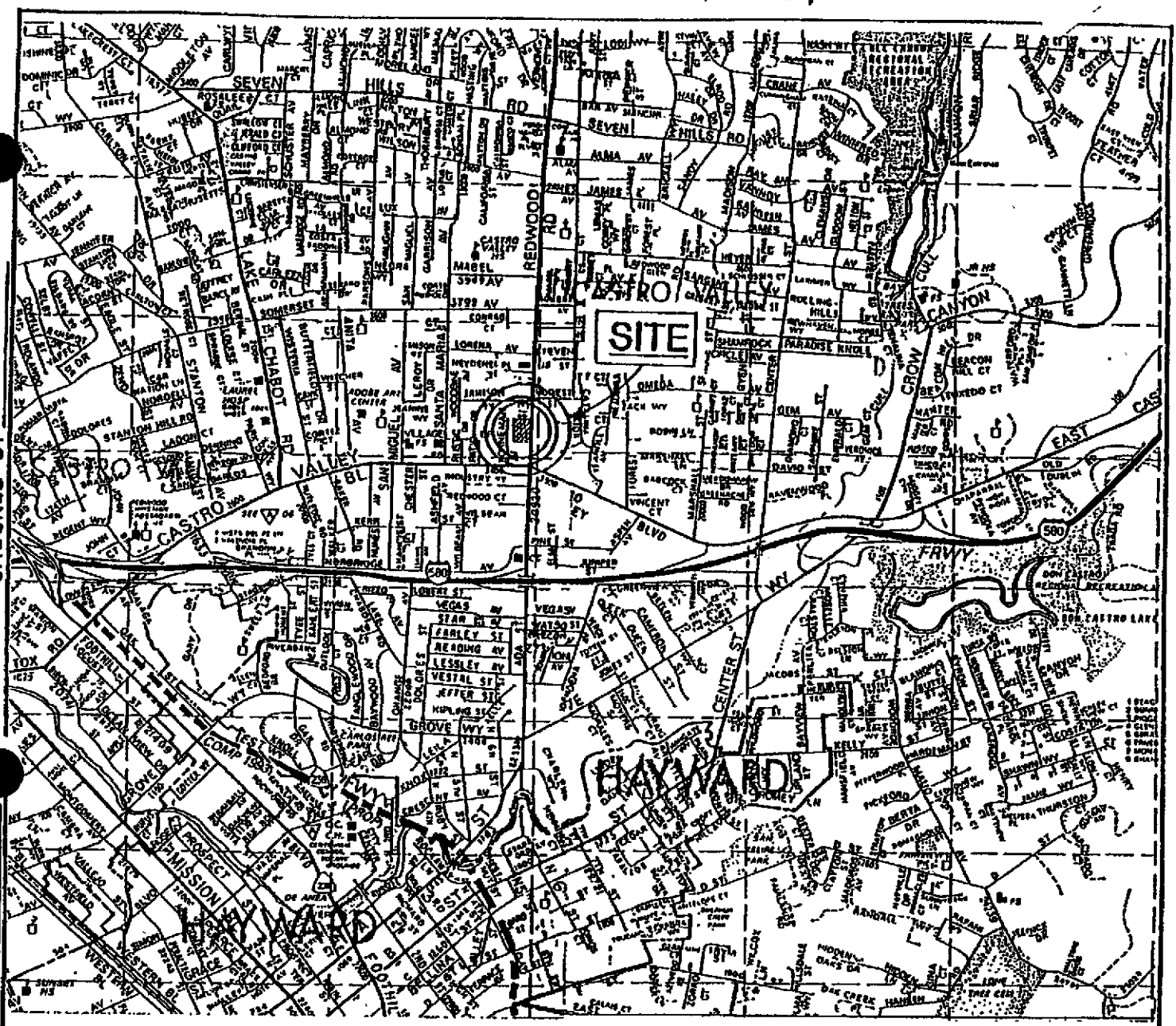
107237 035 02W03P07M



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DATE 5/27/92

BY TCUD

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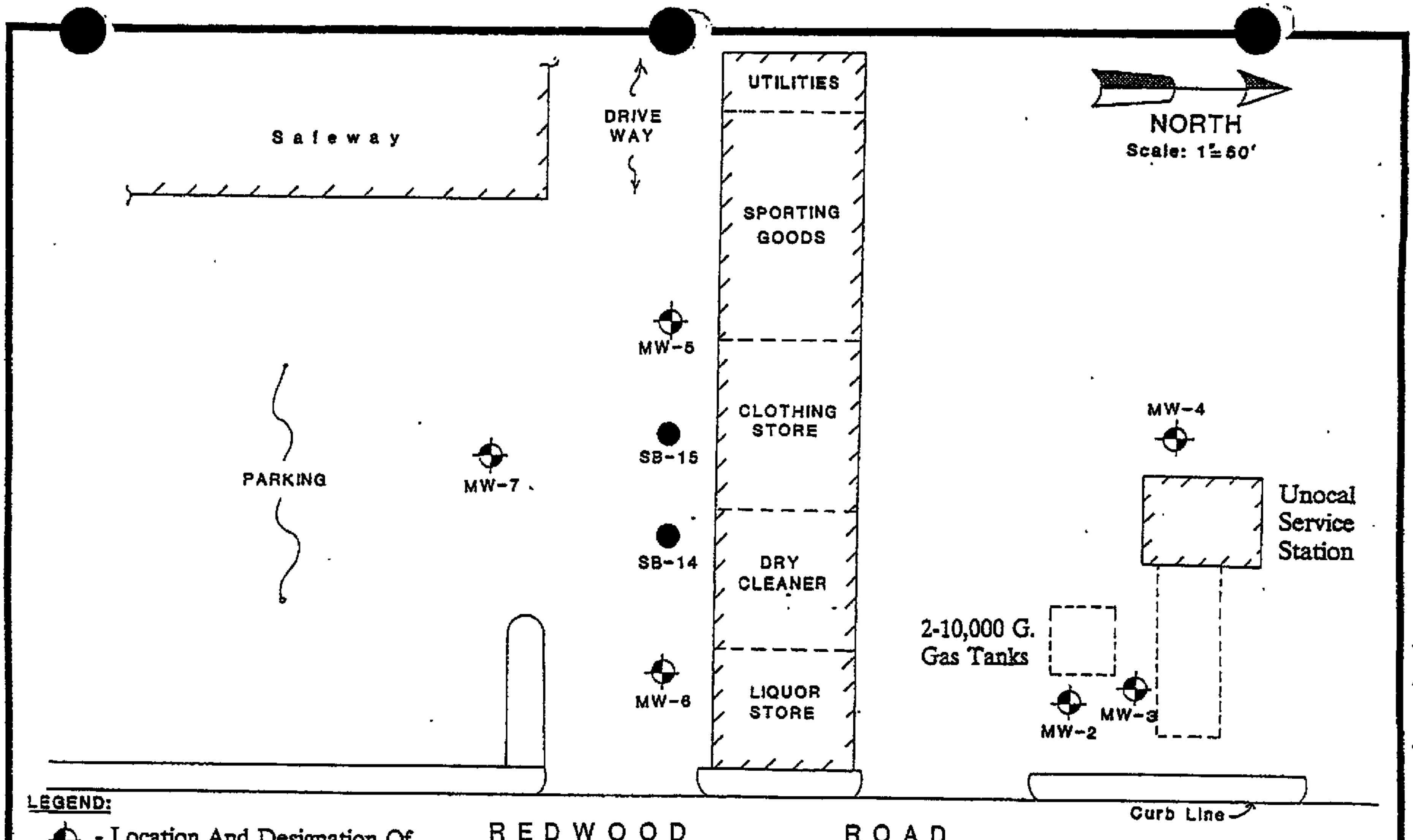
Job No. P92057.3
May 1992
FIGURE: 1-1

BSK & Associates



LEGEND:

- Location And Designation Of Groundwater Monitoring Well
- Location And Designation Of Shallow Soil Boring

SITE PLAN

Job No. P92057.3
May 1992
FIGURE: 1-2

BSK & ASSOCIATES

Department of Water Resources

File # 21

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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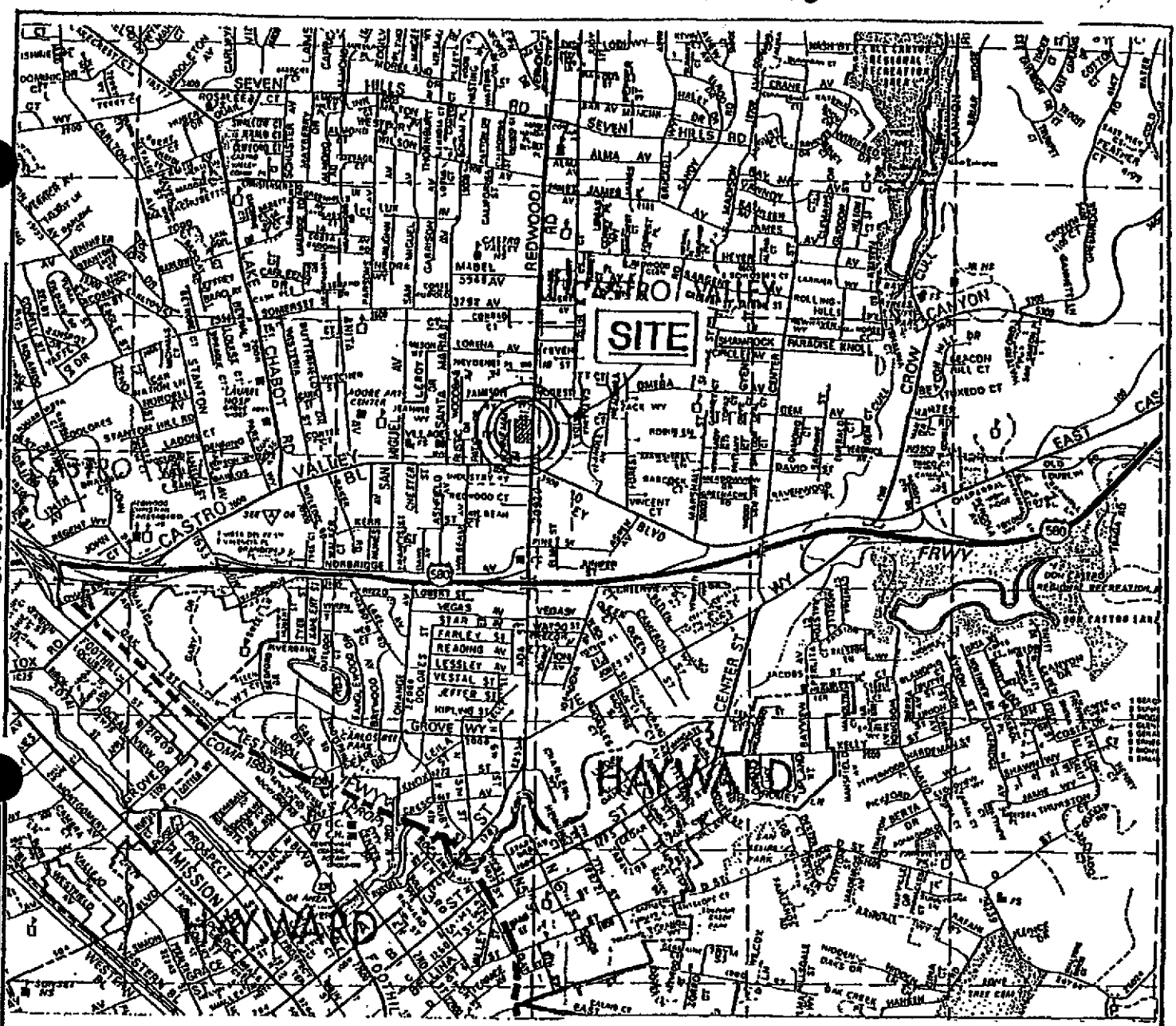
107238 035 02W 05P08M



CHECKED BY

DATE 5/27/92

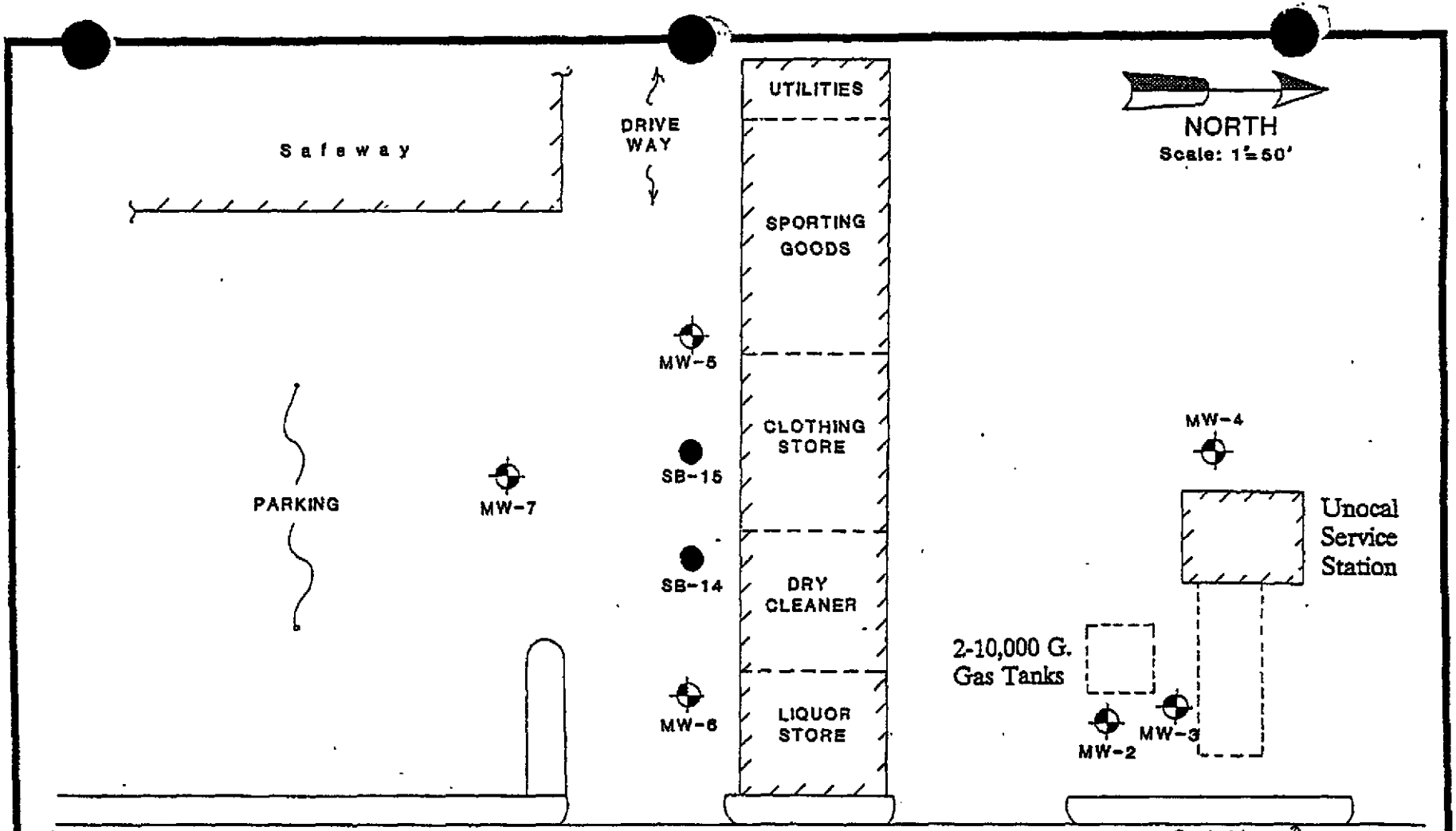
BY TWD

L ION

)

Job No. P92057.3
May 1992
FIGURE: 1-1

BSK & Associates



SITE PLAN

Job No. P92057.3
May 1992
FIGURE: 1-2

BSK & ASSOCIATES

107138

Department of Water Resources

File # 22

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

107239 035 02W03P09 M

CHECKED BY

DATE 5/27/92

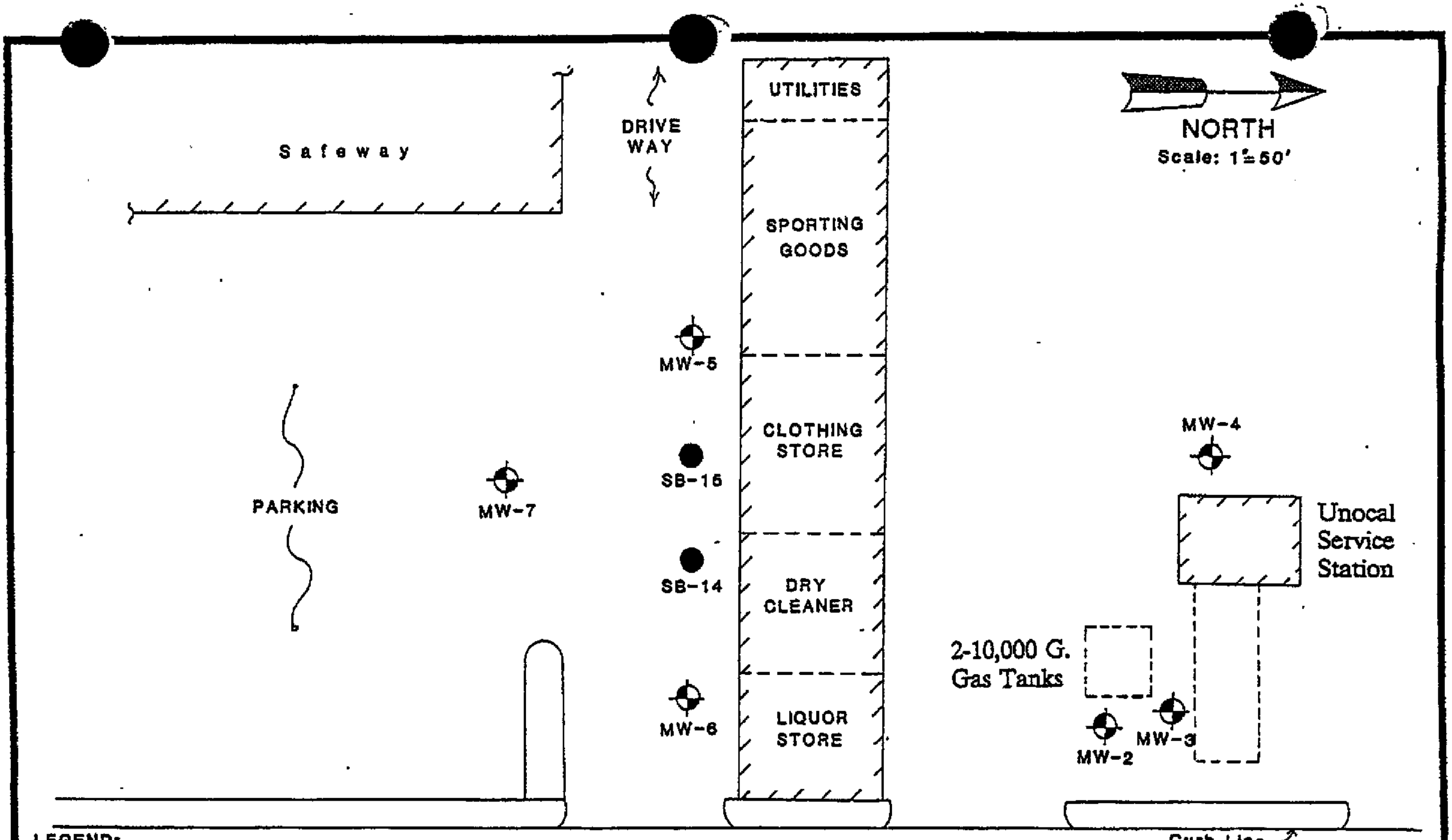
BY TWD

L ION

)

Job No. P92057.3
May 1992
FIGURE: 1-1

BSK & Associates



LEGEND:

- Location And Designation Of Groundwater Monitoring Well
- Location And Designation Of Shallow Soil Boring

SITE PLAN

Job No. P92057.3
May 1992
FIGURE: 1-2

BSK & ASSOCIATES

107239

Department of Water Resources

File # 23

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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3S/2W 13P 10

P. 2 of 4

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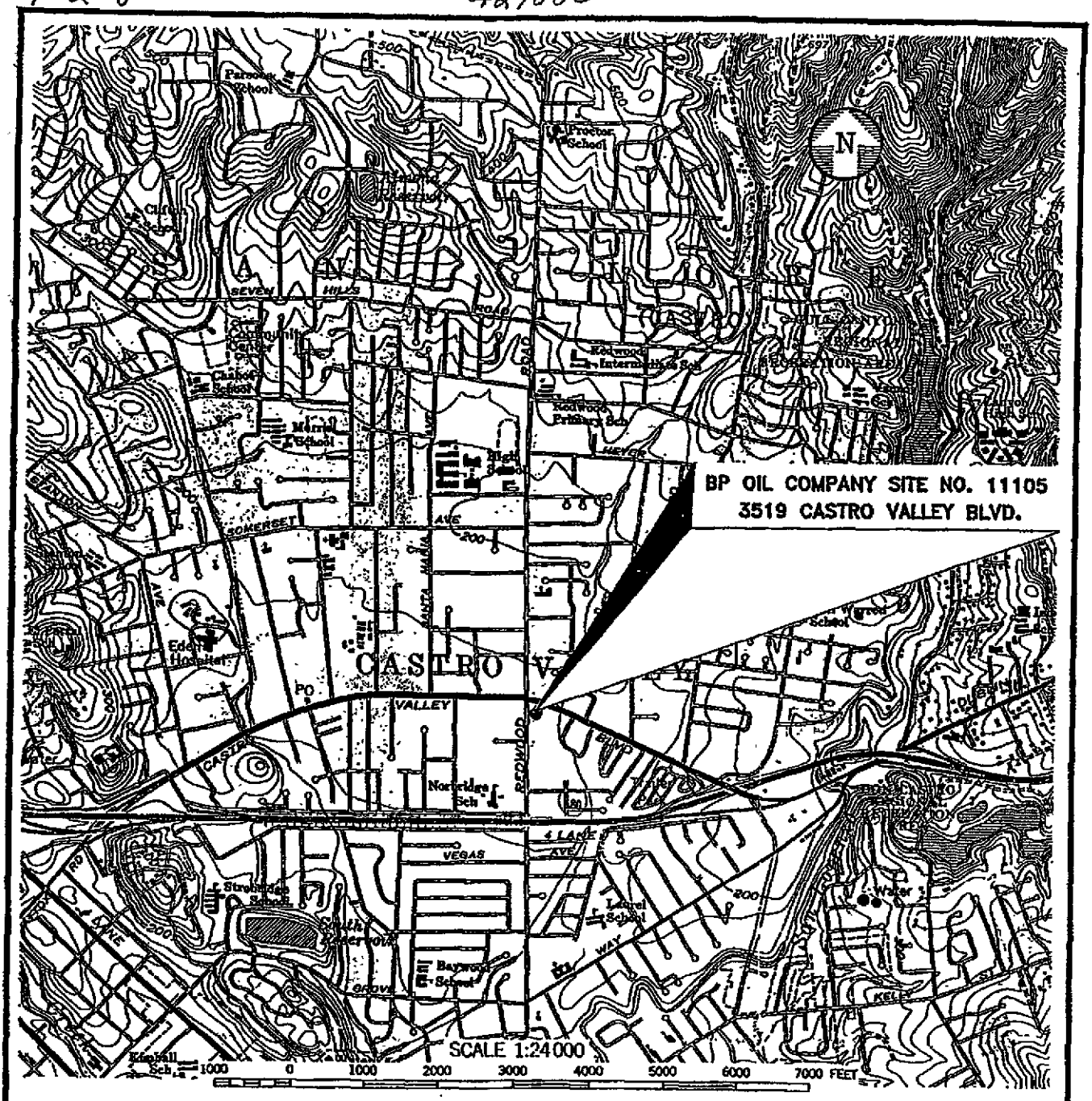


SOURCE: USGS 7.5 Minute Quadrangle Map
Hayward, California (1959; Photorevised 1980)

ESE A GLEEP COMPANY	Environmental Science & Engineering, Inc.
BP OIL COMPANY SITE NO. 11105 CASTRO VALLEY & REDWOOD ROAD CASTRO VALLEY, CALIFORNIA	
FIGURE 1 AREA MAP	
DRAWN BY: DWR	APPROVED BY:
REVISED:	
DATE: 10/92	FILE NAME: CASTRO10
PROJ. NO.: 6-92-5428	

P-394 427880 3S/2W 13P 10

Environmental Science & Engineering, Inc.

BORING LOG AND WELL COMPLETION SUMMARY

MW-1

Page 1 of 1

WELL COMPLETION

Completion Depth: 30 Feet

	Size/Type	From	To
Casing:	2" Diam. Sched. 40 PVC	10 Feet	0 Feet
Screen:	2" Diam. Sched. 40 Slotted (0.02") PVC	30 Feet	10 Feet
Filter:	#3 Sand	30 Feet	9 Feet
Seal:	Bentonite	9 Feet	7.5 Feet
	Grout	7.5 Feet	0 Feet

Well Cap or Box: Flush Mounted Well Box

Project Name: BP Oil Company Project No: 6-92-5428

Location: BP Station #11105
3519 Castro Valley Boulevard
Castro Valley, CA

Driller: Soils Exploration Services, Inc.
Method: HSA
Hole Diameter: 8" Total Depth: 30 Feet
Ref. Elevations:
Logged By: Chris Valcheff

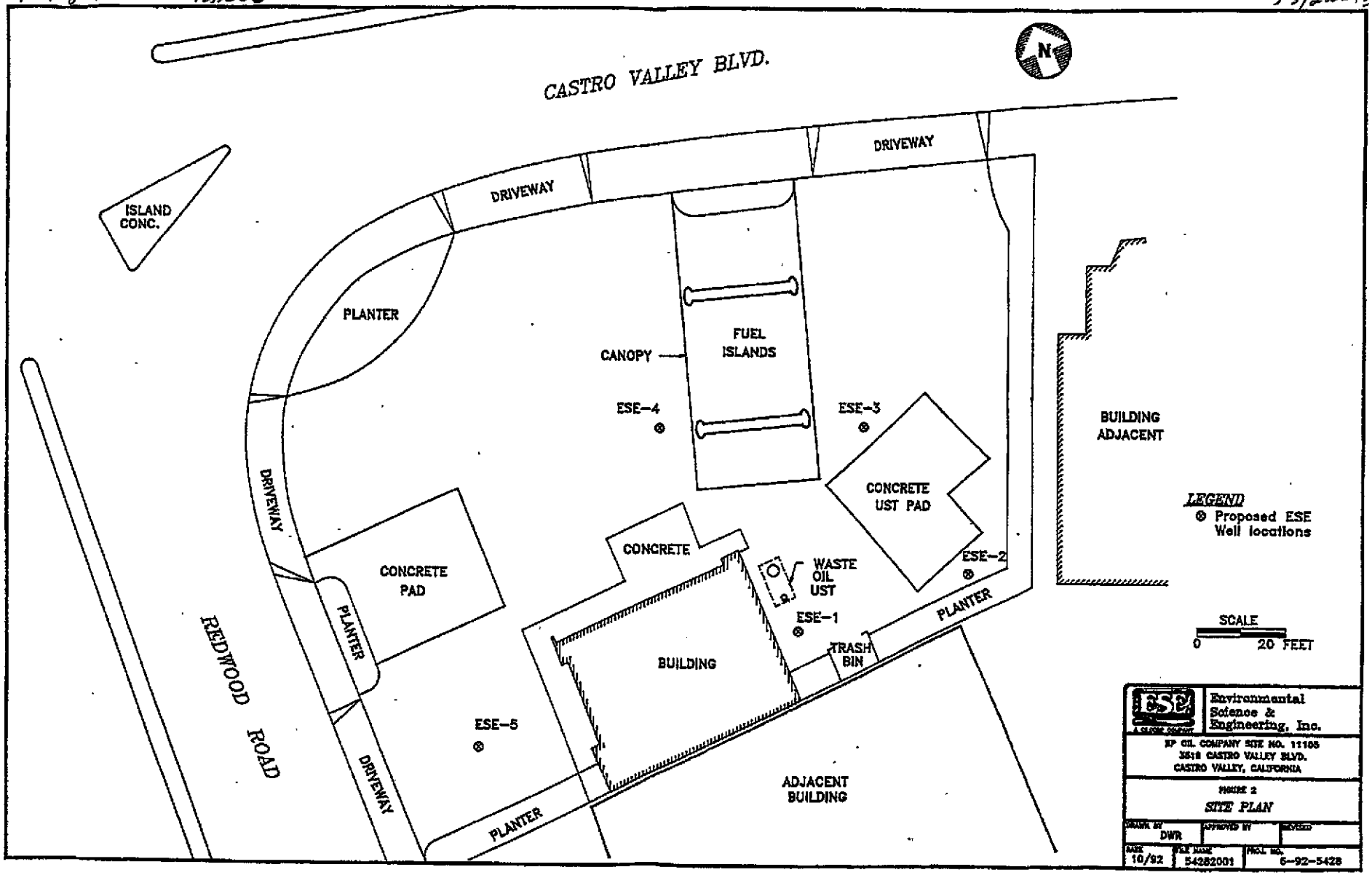
Dates:
Start: 9-29-92
Finish: 9-29-92

Depth (ft)	Lithologic Description	USC	Graphic Log: Sample/Blows	Graphic Log: Lithology	Graphic Log: Well Installation	Vapor	Remarks: Water, drilling/completion, summary, sample type
0	Asphalt FILL GRAVEL NATIVE CLAY SILT, black, stiff, damp, no odor.	GM CL					
5	CLAY, black, 10-20% coarse, very stiff, damp, no odor.		2, 7, 9			7	SAMPLE @ 5 FEET
	SANDY SILT, blue-grey, 10-20% coarse, very stiff, damp, heavy hydrocarbon odor.						
10	As above, with orange mottles.	ML	4, 8, 11			170	SAMPLE @ 10.5 FEET
	SANDY SILT, orange with blue-grey mottles, 5-10% medium grained sand, stiff, damp, heavy hydrocarbon odor.						
15	As above, no odor.		3, 7, 8			200	SAMPLE @ 15 FEET
20	SILTY SAND, red-brown, 10-20% coarse sand, 70-80% medium sand, dense, moist, no odor.	SM	2, 4, 5				
	As above, wet.		2, 3, 5			6	SAMPLE @ 20 FEET Ground Water @ 20 Feet
25	SANDY SILT, grey with orange mottles, 30-40% medium grained sand, stiff, moist, no odor.						
	CLAY, grey, damp, stiff, no odor.	CL	2, 3, 4				
30							TOTAL DEPTH = 30 FEET

REGISTERED GEOLOGIST
SUSAN G. WICHAM
4001
STATE OF CALIFORNIA

P. 4 of 4 427880

3S/2W-



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Department of Water Resources

File # 24

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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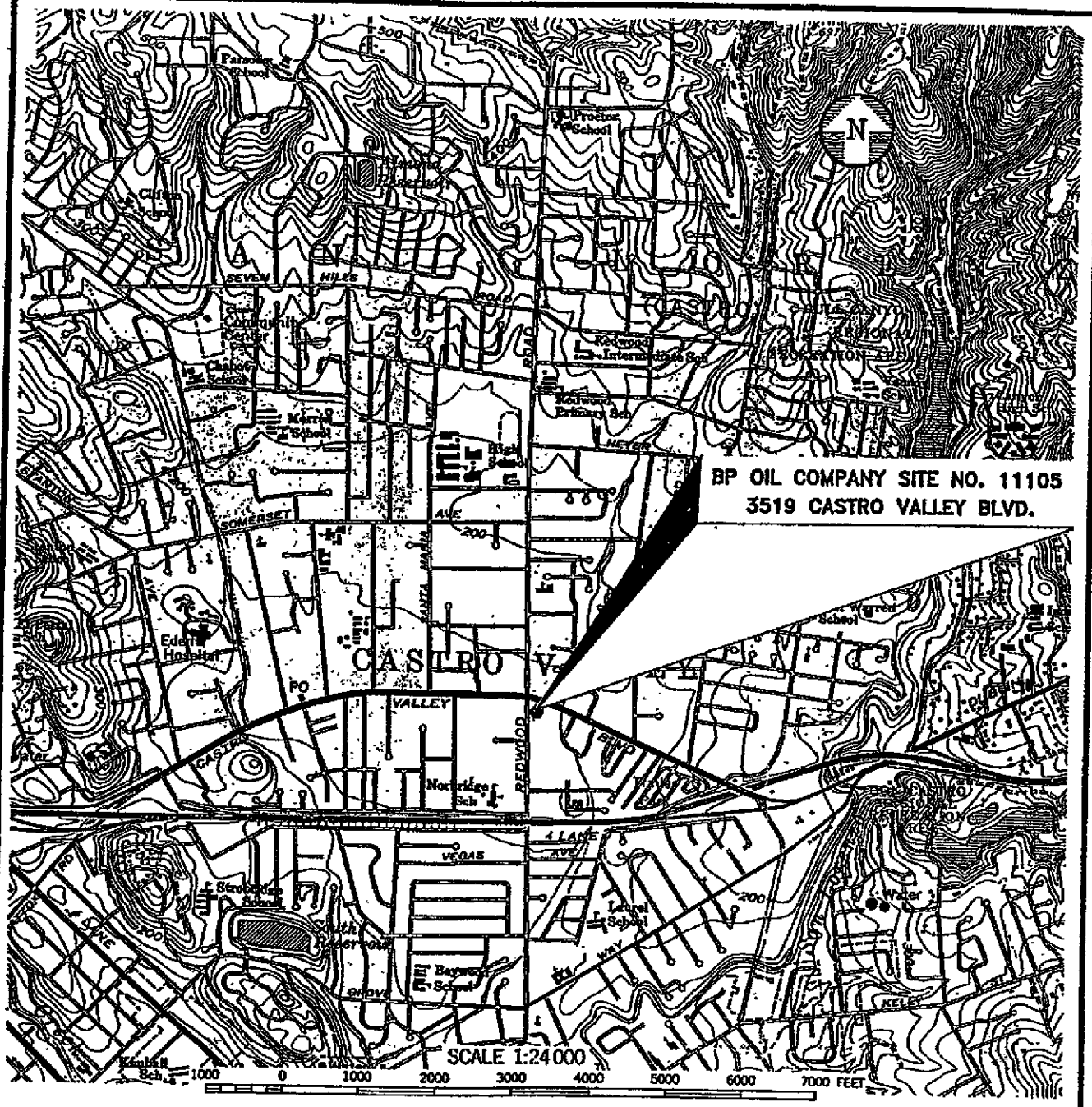
3S/2W 3P 11

P. 244 427881



SOURCE: USGS 7.5 Minute Quadrangle Map
Hayward, California (1959: Photorevised 1980)

ESE A CH2M HILL COMPANY	Environmental Science & Engineering, Inc.
BP OIL COMPANY SITE NO. 11105 CASTRO VALLEY & REDWOOD ROAD CASTRO VALLEY, CALIFORNIA	
FIGURE 1 AREA MAP	
DRAWN BY: DWR	APPROVED BY:
REVISED:	
DATE: 10/92	FILE NAME: CASTRO10
PROJ. NO.: 6-92-5428	

P.3 of 4 427581 3S/2W 3P 11

Environmental Science & Engineering, Inc.
A CRECORP Company

BORING LOG AND WELL COMPLETION SUMMARY

MW-2

Page 1 of 1

WELL COMPLETION

Completion Depth: 30 Feet

Size/Type	From	To
Casing: 2" Diam. Sched. 40 PVC	10 Feet	0 Feet
Screen: 2" Diam. Sched. 40 Slotted (0.02") PVC	30 Feet	10 Feet
Filter: #3 Sand	30 Feet	9 Feet
Seal: Bentonite	9 Feet	7.5 Feet
Grout	7.5 Feet	0 Feet

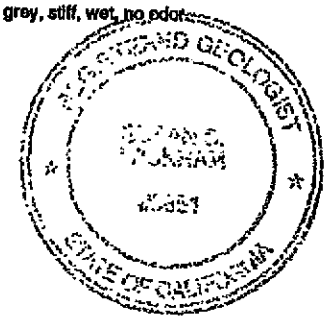
Well Cap or Box: Flush Mounted Well Box

Project Name: BP Oil Company Project No: 6-92-5428
Location: BP Station #11105
3519 Castro Valley Boulevard
Castro Valley, CA

Driller: Solis Exploration Services, Inc.
Method: HSA
Hole Diameter: 8" Total Depth: 31 Feet
Ref. Elevations:
Logged By: Chris Valcheff

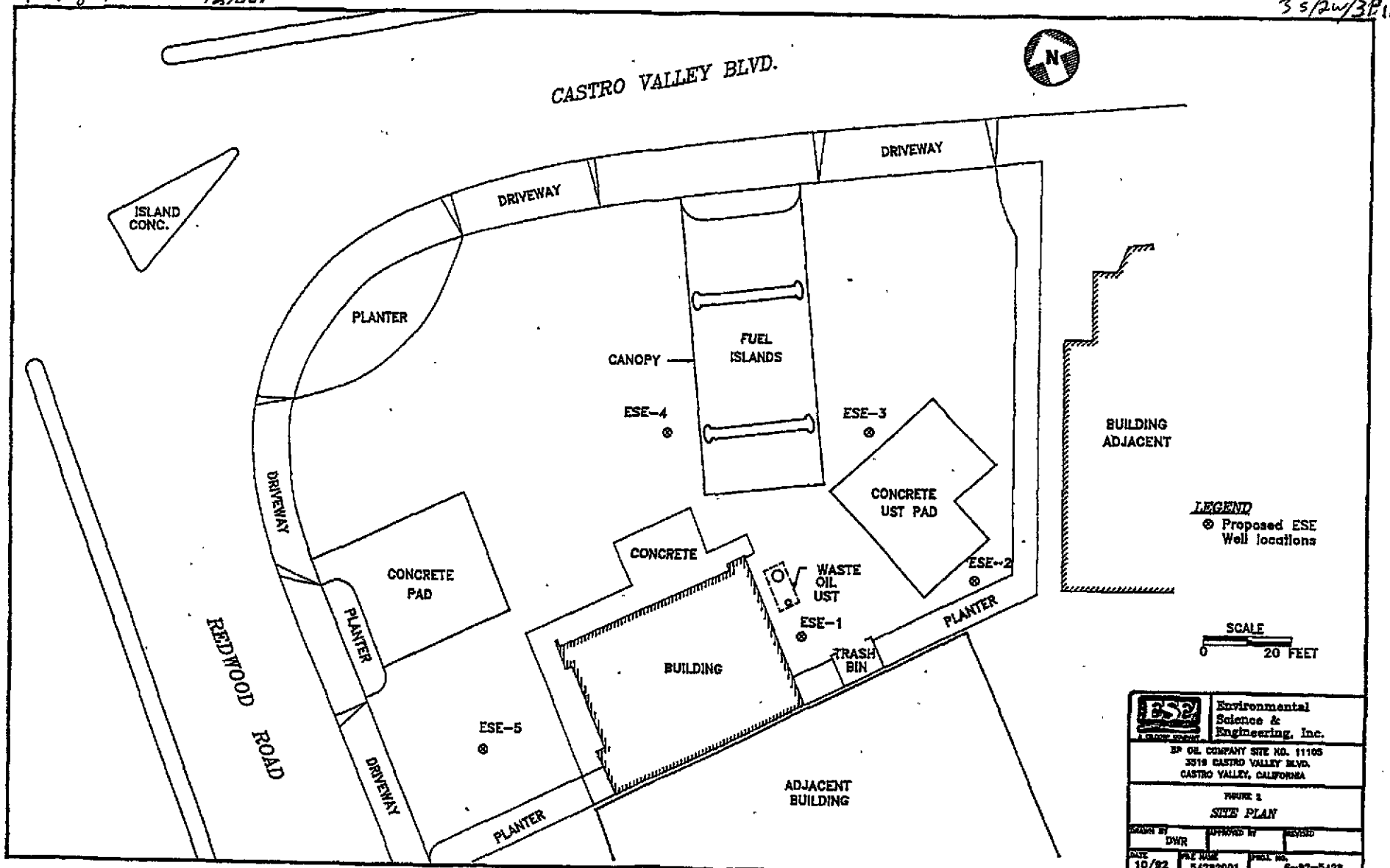
Dates:
Start: 9-28-92
Finish: 9-29-92

Depth (ft)	Lithologic Description	USC	Graphic Log: Sample/Blows	Graphic Log: Lithology	Graphic Log: Well Installation	Vapor	Remarks: Water, drilling/completion, summary, sample type
0	Asphalt FILL GRAVEL	GP					
5	NATIVE CLAY, black, stiff, damp, no odor.	CL	3 3 6			20	SAMPLE @ 4.5 FEET
10	CLAY SILT, grey with orange mottles, stiff, damp, slight odor.		5 7 9			25	SAMPLE @ 10.5 FEET
	As above, heavy hydrocarbon odor.	ML					
15	CLAY SILT, orange with grey mottles, stiff, damp, heavy hydrocarbon odor.		8 13 16			15	SAMPLE @ 14.5 FEET
20	SANDY SILT, orange, 50-60% medium to coarse grained sand, stiff, damp, no odor.		8 14 14				SAMPLE @ 20 FEET
						10	▼ Ground Water @ 21.5 Feet
25	SILTY SAND, orange-brown, 5-10% silt, medium to coarse grained sand, dense, wet, no odor.	SM	9 15 13				
	CLAY SILT, grey, stiff, wet, no odor.	ML					
30			3 5 6 3 5 6				STANDARD PEN. TOTAL DRILLED DEPTH = 30 FEET TOTAL DEPTH = 31 FEET



P. 4 of 4 427881

3S/2W/3P1



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Department of Water Resources

File # 25

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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3S/2W 3P12

P. 2 of 4

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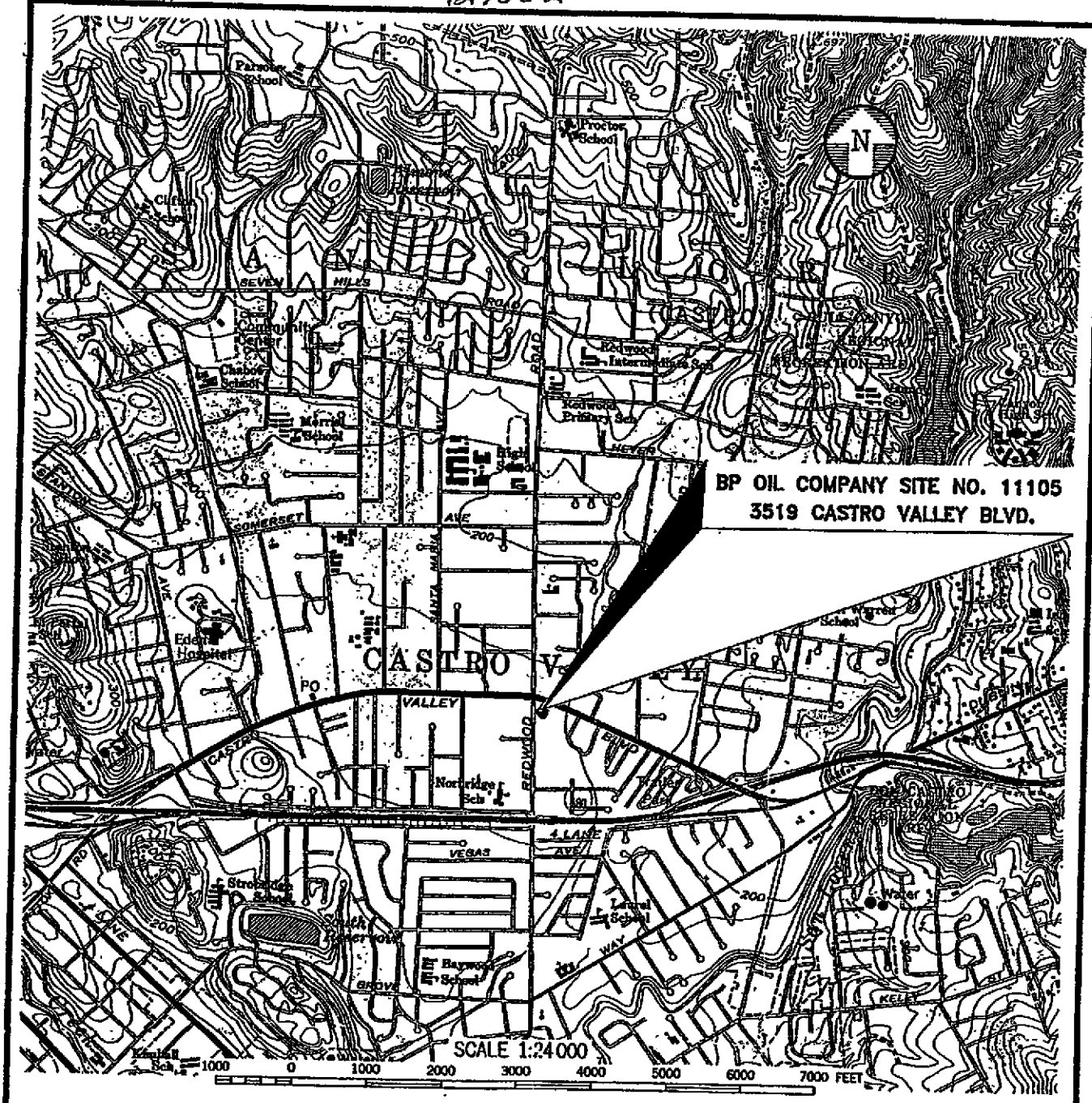


SOURCE: USGS 7.5 Minute Quadrangle Map
Hayward, California (1959: Photorevised 1980)

ESE A CH2M HILL COMPANY	Environmental Science & Engineering, Inc.
BP OIL COMPANY SITE NO. 11105 CASTRO VALLEY & REDWOOD ROAD CASTRO VALLEY, CALIFORNIA	
FIGURE 1 AREA MAP	
DRAWN BY: DWR	APPROVED BY:
REVISED:	
DATE: 10/92	FILE NAME: CASTRO10
PROJ. NO.: 6-92-5428	

P-384 427882 3S/2W 3P 12

Environmental Science & Engineering, Inc.

BORING LOG AND WELL COMPLETION SUMMARY

MW-3

Page 1 of 1

WELL COMPLETION

Completion Depth: 30 Feet

	Size/Type	From	To
Casing:	2" Diam. Sched. 40 PVC	10 Feet	0 Feet
Screen:	2" Diam. Sched. 40 Slotted (0.02") PVC	30 Feet	10 Feet
Filter:	#3 Sand	30 Feet	9 Feet
Seal:	Bentonite	9 Feet	7.5 Feet
	Grout	7.5 Feet	0 Feet

Well Cap or Box: Flush Mounted Well Box

Project Name: BP Oil Company Project No: 6-92-5428
Location: BP Station #11105
3519 Castro Valley Boulevard
Castro Valley, CA

Driller: Solis Exploration Services, Inc.
Method: HSA
Hole Diameter: 8" Total Depth: 30.5 Feet
Ref. Elevations:
Logged By: Chris Valcheff

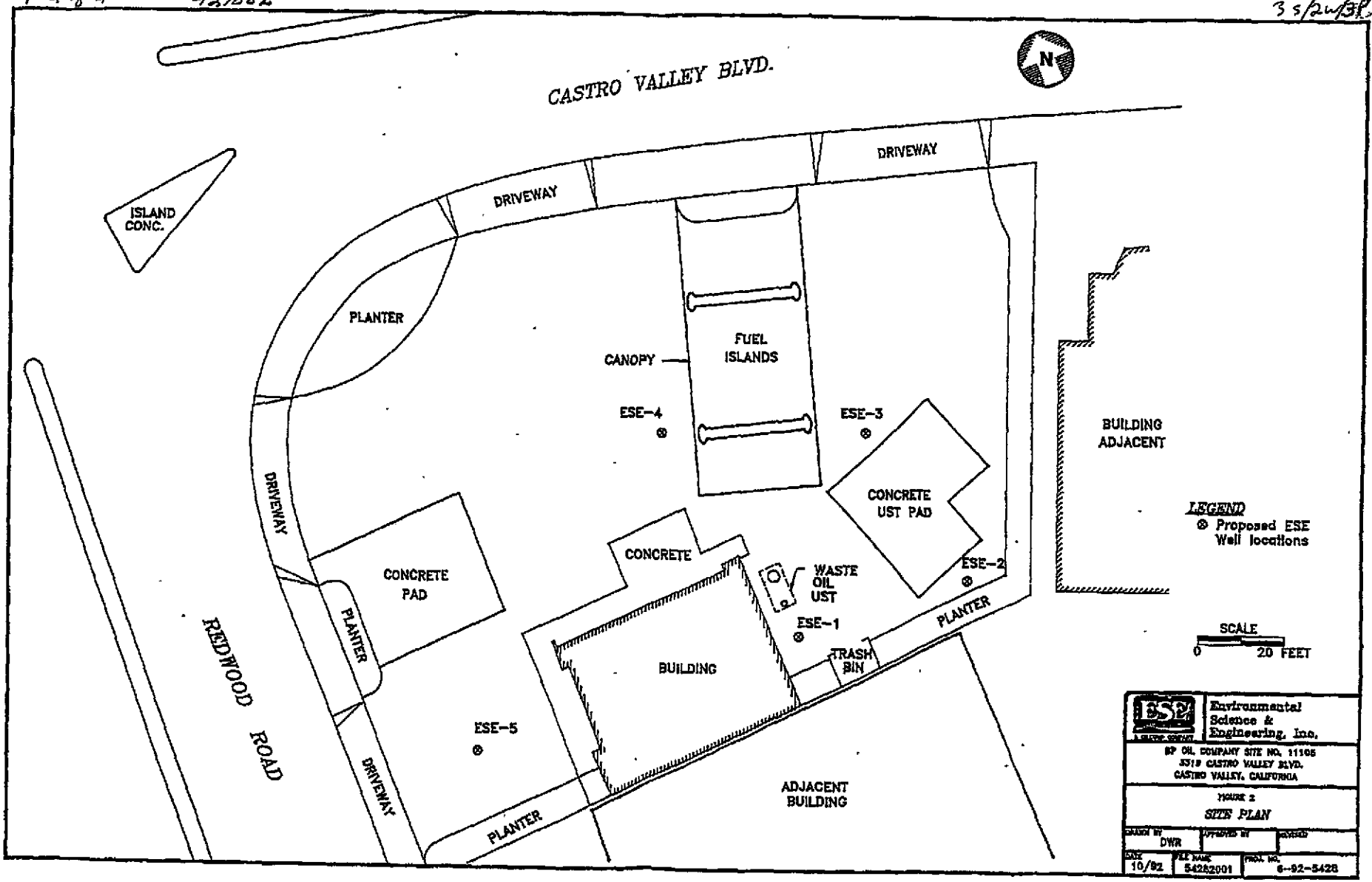
Dates:
Start: 9-29-92
Finish: 9-29-92

Depth (ft)	Lithologic Description	USC	Graphic Log: Sample/Blows	Graphic Log: Lithology	Graphic Log: Well Installation	Vapor	Remarks: Water, drilling/completion, summary, sample type
0	Asphalt						
	FILL SANDY SILT, reddish brown, 20-30% medium to coarse grained sand, dense, damp, no odor.						
	NATIVE SANDY SILT, black, 5-10% medium to coarse grained sand, stiff, damp, no odor.						
5	As above, with orange-red mottes.		2, 5, 5			4	SAMPLE @ 5 FEET
	SANDY SILT, olive, 5-10% fine grained sand, stiff, damp, no odor.						
	SANDY SILT, orange-yellow-brown, 20-30% medium grained sand, stiff, damp, slight hydrocarbon odor.	ML	10, 15, 22			200	SAMPLE @ 10.5 FEET
10	As above, grey mottling, heavy hydrocarbon odor.						
15	As above, 30-40% medium to coarse grained sand, no odor.		7, 14, 19, 10, 11, 16			5	SAMPLE @ 15.5 FEET
	CLAYEY SILT, light brown, some sand, 5-10% medium, stiff, damp, no odor.						
20	SILTY SAND, light brown, 10-20% silt, medium grained sand, dense, wet, no odor.		5, 10, 11			10	SAMPLE @ 20 FEET
25	As above.	SM	7, 13, 13				Ground Water @ 24 Feet NO SAMPLE COLLECTED
30	CLAY, light brown, stiff, damp, no odor.	CL	1, 4, 5				STANDARD PEN. TOTAL DRILLED DEPTH = 30 FEET TOTAL DEPTH = 30.5 FEET

REGISTERED GEOLOGIST
SUSAN S. WIGHAM
#3851
STATE OF CALIFORNIA

P.434 427882

3S/2W-3P.12



Department of Water Resources

File # 26

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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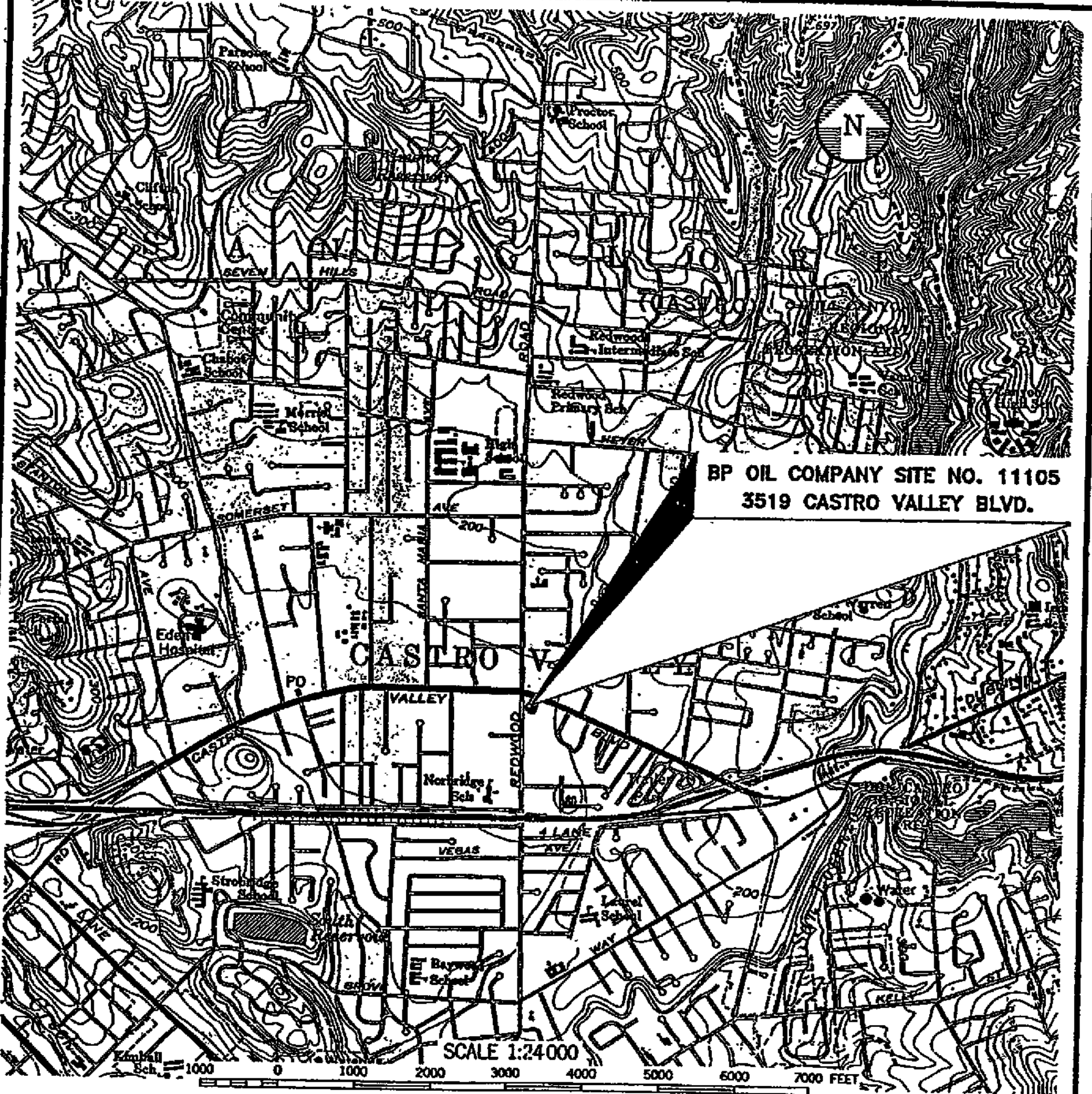
35/2w 3P 13

P.2of4 427883



SOURCE: USGS 7.5 Minute Quadrangle Map
Hayward, California (1959: Photorevised 1980)

ESE — A CILCORP COMPANY
Environmental Science & Engineering, Inc.

BP OIL COMPANY SITE NO. 11105
CASTRO VALLEY & REDWOOD ROAD
CASTRO VALLEY, CALIFORNIA

FIGURE 1
AREA MAP

DRAWN BY	APPROVED BY	REVISED
DWR		

DATE	FILE NAME	PROJ. NO.
10/92	CASTRO10	6-92-5428

P. 3 of 4 427883 3S/2W 3P13

Environmental Science & Engineering, Inc.
A GILCORP Company

BORING LOG AND WELL COMPLETION SUMMARY

MW-4

Page 1 of 1

WELL COMPLETION

Completion Depth: 25 Feet

Size/Type	From	To
Casing: 2" Diam. Sched. 40 PVC	7 Feet	0 Feet
Screen: 2" Diam. Sched. 40 Slotted (0.02") PVC	25 Feet	7 Feet
Filter: #3 Sand	25 Feet	6 Feet
Seal: Bentonite	6 Feet	4 Feet
Grout	4 Feet	0 Feet

Well Cap or Box: Flush Mounted Well Box

Project Name: BP Oil Company Project No: 6-92-5428
Location: BP Station #11105
3519 Castro Valley Boulevard
Castro Valley, CA

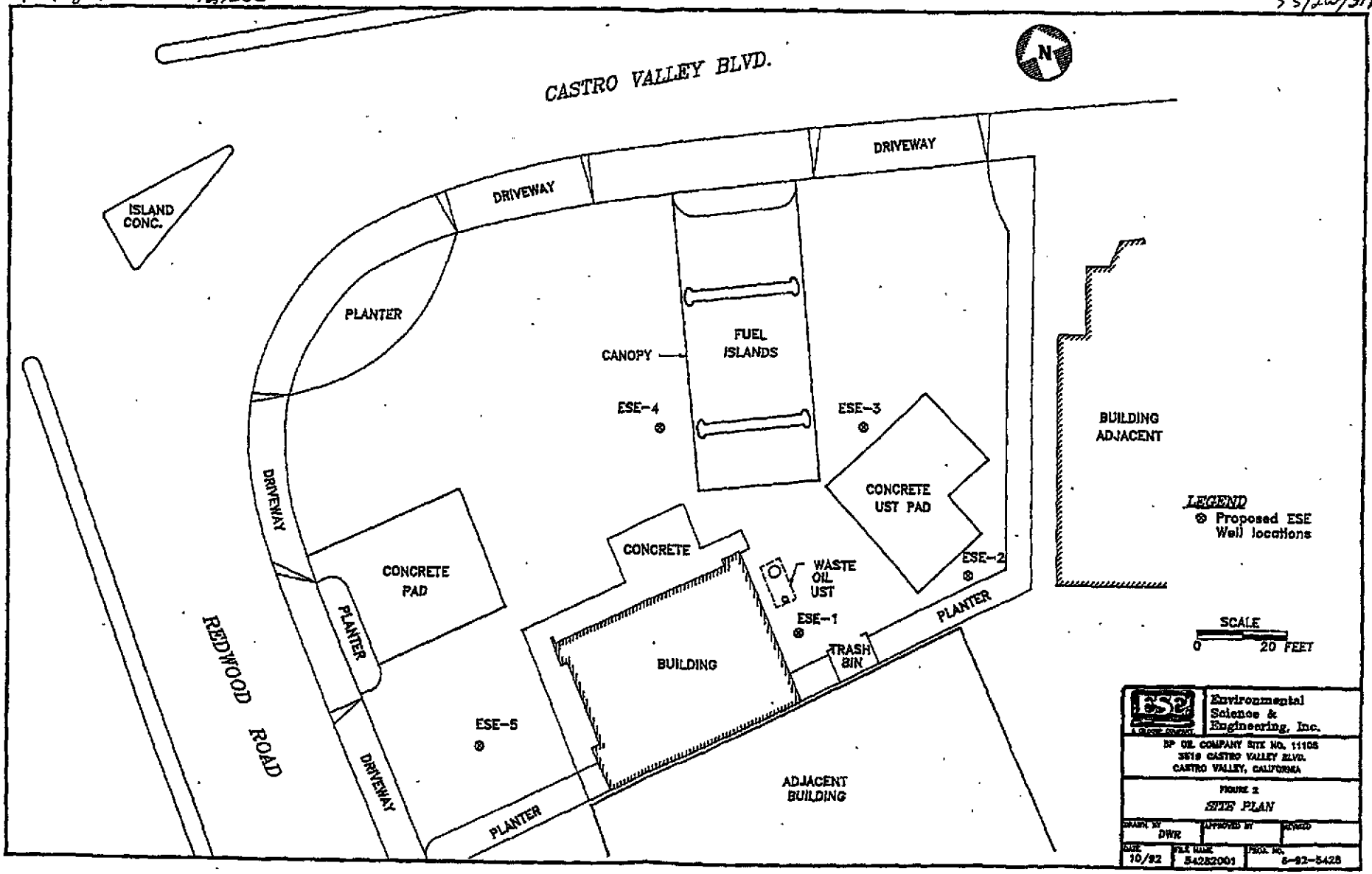
Driller: Solis Exploration Services, Inc.
Method: HSA
Hole Diameter: 8" Total Depth: 25 Feet
Ref. Elevations:
Logged By: Mike Edmonson

Dates:
Start: 9-28-92
Finish: 9-28-92

Depth (ft)	Lithologic Description	USC	Graphic Log: Sample/Blows	Graphic Log: Lithology	Graphic Log: Well Installation	Vapor	Remarks: Water, drilling/completion, summary, sample type
0	Asphalt FILL-GRAVEL NATIVE SILTY CLAY, brown, 10-20% fine to coarse sand, stiff, damp.	GP					
	SILTY CLAY, black, medium stiff, damp, organic odor.	CL					
5			4 6 8			0	SAMPLE @ 5-6.5 FEET
	CLAYEY SILT, olive, medium stiff, damp, hydrocarbon odor.						
	SANDY SILT, brown with olive mottling, 10-25% fine sand, 20-35% fine to coarse sand (10.5-11 feet), stiff, damp.						
10			7 12 16			0	SAMPLE @ 10-11.5 FEET
		ML					
15	As above, grey mottling, wet, increase in sand content at 16.2 feet.		6 8 8				SAMPLE @ 15-16.5 FEET
20	As above, brown.		6 9 11				SAMPLE @ 20-21.5 FEET
	CLAYEY SILT, brown, medium stiff, moist.		2 3 4				SAMPLE @ 21.5-23 FEET
	SILTY SAND, brown, 40% fines, fine grained sand, medium dense, wet.	SM	3 5 7				SAMPLE @ 23-24.5 FEET
25							TOTAL DEPTH = 25 FEET
30							

REGISTERED GEOLOGIST
SUSAN S. [illegible]
#3931
STATE OF CALIFORNIA

P. 4 of 4 427883 3S/2W/3P13



427883

Department of Water Resources

File # 27

CONFIDENTIAL

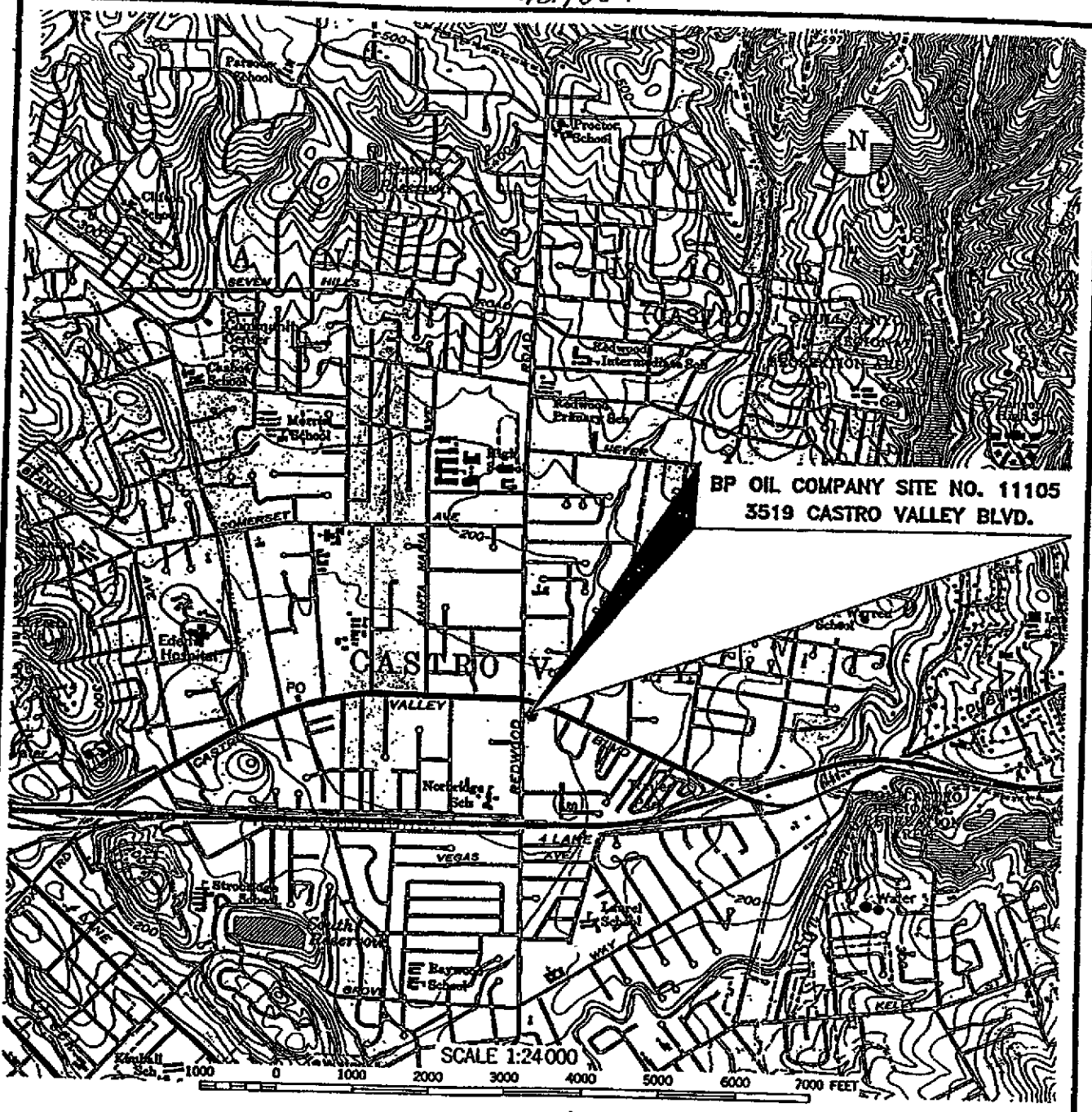
STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

3S/2W 3P 14

R. 2W 4

427884



SOURCE: USGS 7.5 Minute Quadrangle Map
Hayward, California (1959; Photorevised 1980)

ESE A CH2M HILL COMPANY
Environmental Science & Engineering, Inc.

BP OIL COMPANY SITE NO. 11105
CASTRO VALLEY & REDWOOD ROAD
CASTRO VALLEY, CALIFORNIA

FIGURE 1
AREA MAP

DRAWN BY	APPROVED BY	REVISED
DWR		

DATE	FILE NAME	PROJ. NO.
10/92	CASTRO10	6-92-5428

P. 344 427884 3S/2W 3P 14

Environmental Science & Engineering, Inc.

BORING LOG AND WELL COMPLETION SUMMARY

MW-5

Page 1 of 1

WELL COMPLETION

Completion Depth: 24 Feet

	Size/Type	From	To
Casing:	2" Diam. Sched. 40 PVC	9 Feet	0 Feet
Screen:	2" Diam. Sched. 40 Slotted (0.02") PVC	24 Feet	9 Feet
Filter:	#3 Sand	24 Feet	8 Feet
Seal:	Bentonite	8 Feet	5.5 Feet
	Grout	5.5 Feet	0 Feet

Well Cap or Box: Flush Mounted Well Box

Project Name: BP Oil Company Project No: 6-92-5428
Location: BP Station #11105
3519 Castro Valley Boulevard
Castro Valley, CA

Driller: Soils Exploration Services, Inc.
Method: HSA
Hole Diameter: 8" Total Depth: 27 Feet
Ref. Elevations:
Logged By: Chris Valcheff

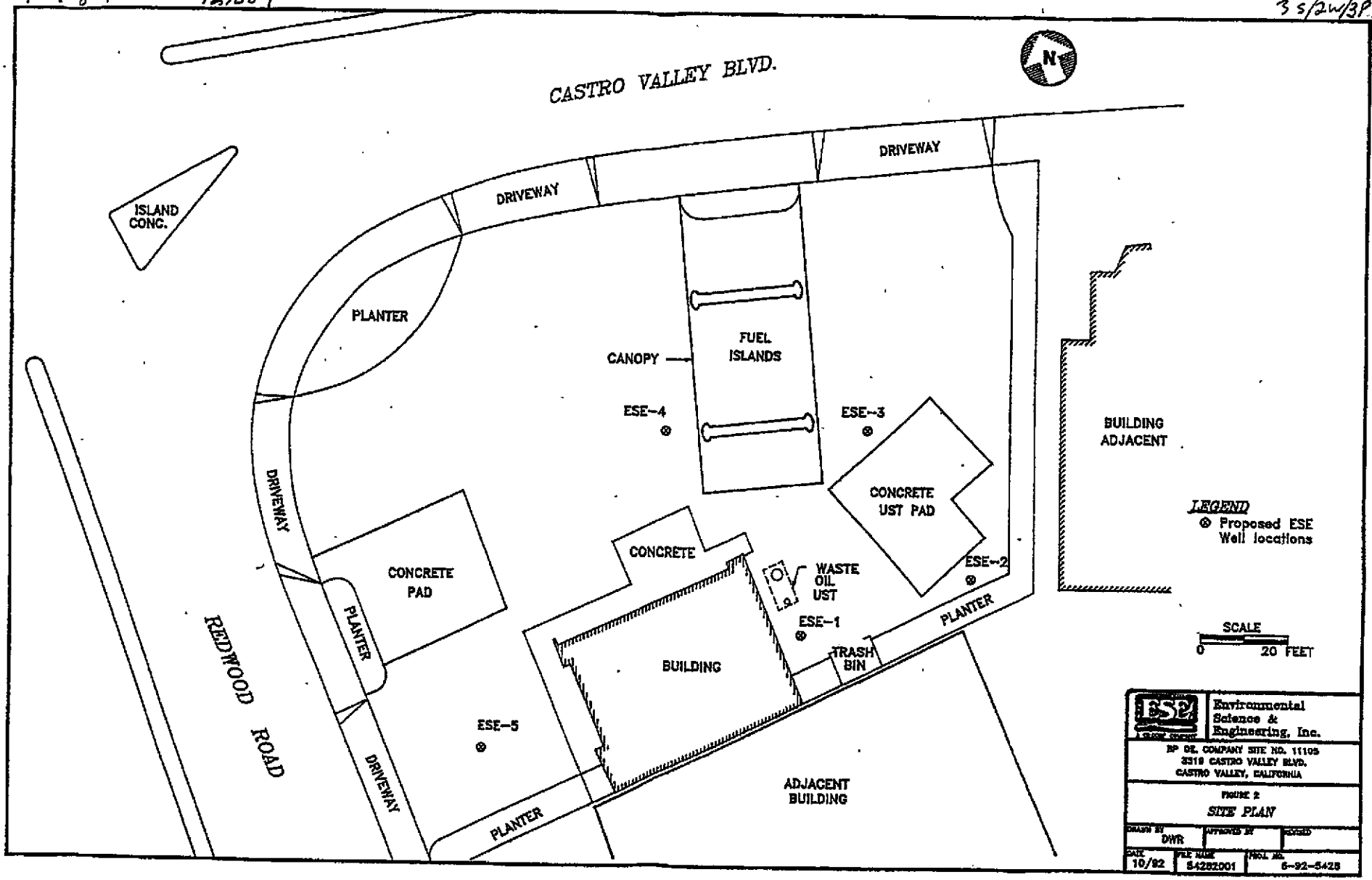
Dates:
Start: 9-28-92
Finish: 9-28-92

Depth (ft)	Lithologic Description	USC	Graphic Log: Sample/Blows	Graphic Log: Lithology	Graphic Log: Well Installation	Vapor	Remarks: Water, drilling/completion, summary, sample type
0	Asphalt FILL GRAVEL, cement fragment at 0.7 feet with hydrocarbon staining. NATIVE CLAY SILT, black-grey, 20-30% medium to coase grained sand, stiff, damp, slight hydrocarbon odor.	GP					
5	CLAY SILT, olive with blue-grey mottling, 25-30% fine to coarse grained sand, stiff, damp, slight hydrocarbon odor.		3 4 5			40	SAMPLE @ 5 FEET
	CLAY SILT, olive, decrease in sand content, stiff, damp, slight hydrocarbon odor.						
10	CLAY SILT, olive with blue-grey mottle, 80-90% silt and clay, stiff, damp.		5 8 11			175	SAMPLE @ 10 FEET
	SANDY SILT, orange-brown with minor mottling, 30-40% fine to coarse grained sand, stiff, damp.	ML					
	CLAY SILT, light brown, stiff, damp, no odor.		7 12 12			8.5	SAMPLE @ 14 FEET
15			6 9 12				STANDARD PEN.
	As above, wet, slight increase in sand content.						▼ Ground Water @ 18 Feet
20			8 10 10				
	As above, orange-brown, dry.						
25			10 21 22				
	As above, damp.		8 12 12				TOTAL DRILLED DEPTH = 24 FEET TOTAL DEPTH = 27 FEET
30							

REGISTERED GEOLOGIST
SUSAN S. WICKHAM
#3851
STATE OF CALIFORNIA

P. 4 of 4 427884

3S/2W/3P14



427884

Department of Water Resources

File # 28

REGION 2 | DEPARTMENT OF WATER RESOURCES | BASIN

COUNTY Southern Alameda | DEPARTMENT OF PUBLIC WORKS | DWR No. 3S/2W-3Q1 MD B & M

NEAR | STATE OF CALIFORNIA | OTHER Nos. 01-1391

WELL LOG

LOCATION Near Breed Property below Mulford Gardens

OWNER Curtis or Breed? ADDRESS

DRILLED BY J. M. Ough ADDRESS

DRILLING METHOD GRAVEL PACKED DATE COMPLETED 12-21-28

SIZE OF CASING DEPTH 8" STRUCK WATER AT

PERFORATIONS SIZE No.

WATER LEVEL BEFORE PERFORATING AFTER

TEST DATA: DISCHARGE G. P. M. DRAWDOWN FT. HOURS RUN

OTHER DATA AVAILABLE: WATER LEVEL RECORD ANALYSIS

SURFACE ELEV. DATUM SOURCE OF INFORMATION ARGO

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICK-NESS	SP. YIELD %
0 - 6		Top soil and sand		
14		Blue clay		
17		Yellow sandy clay		
26		Loose gravel		
28		Yellow clay		
47		Loose gravel		
52		Yellow clay		
75		Sand and gravel		
87		Yellow clay		
		Capacity: well test 125 gpm		
		WL before pumping 8'		
		WL during pumping 20'		

FOR FIELD COPIES USE ALTERNATE LINES

LOG OBTAINED BY WF DATE 2-20-50 SHEET 1 OF

FORM 263. 65081 11-57 10M △ SPO

Department of Water Resources

File # 29

REGION 2

COUNTY Southern Alameda

NEAR

DEPARTMENT OF WATER RESOURCES

DEPARTMENT OF PUBLIC WORKS

STATE OF CALIFORNIA

WELL LOG

BASIN

DWR No. 3S/2W-3Q2 MD B & M

OTHER Nos. 01-1392

LOCATION

OWNER Curtis property "Seamoor Lodge" ADDRESS (Possibly Breed property below Mulford Gardens).

DRILLED BY J. M. Ough ADDRESS

DRILLING METHOD GRAVEL PACKED DATE COMPLETED 2-29-57

SIZE OF CASING DEPTH 8" STRUCK WATER AT

PERFORATIONS SIZE No.

WATER LEVEL BEFORE PERFORATING AFTER

TEST DATA: DISCHARGE G. P. M. DRAWDOWN FT. HOURS RUN

OTHER DATA AVAILABLE: WATER LEVEL RECORD ANALYSIS

SURFACE ELEV. DATUM SOURCE OF INFORMATION ARGO

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICKNESS	SP. YIELD %	
0 - 6		Top soil and sand			
14		Blue clay			
17		Yellow sandy clay			
26		Loose gravel			
28		Yellow clay			
47		Loose gravel			
52		Yellow clay			
75		Sand and gravel			
85		Yellow clay			
		Start: Water at 8 feet surface 125 gpm			
		water held to 20 feet below			
		surface during test.			

FOR FIELD COPIES USE ALTERNATE LINES

LOG OBTAINED BY WF DATE 2-20-50 SHEET 1 OF

FORM 263, 63561 11-57 10M △ SPO

Department of Water Resources

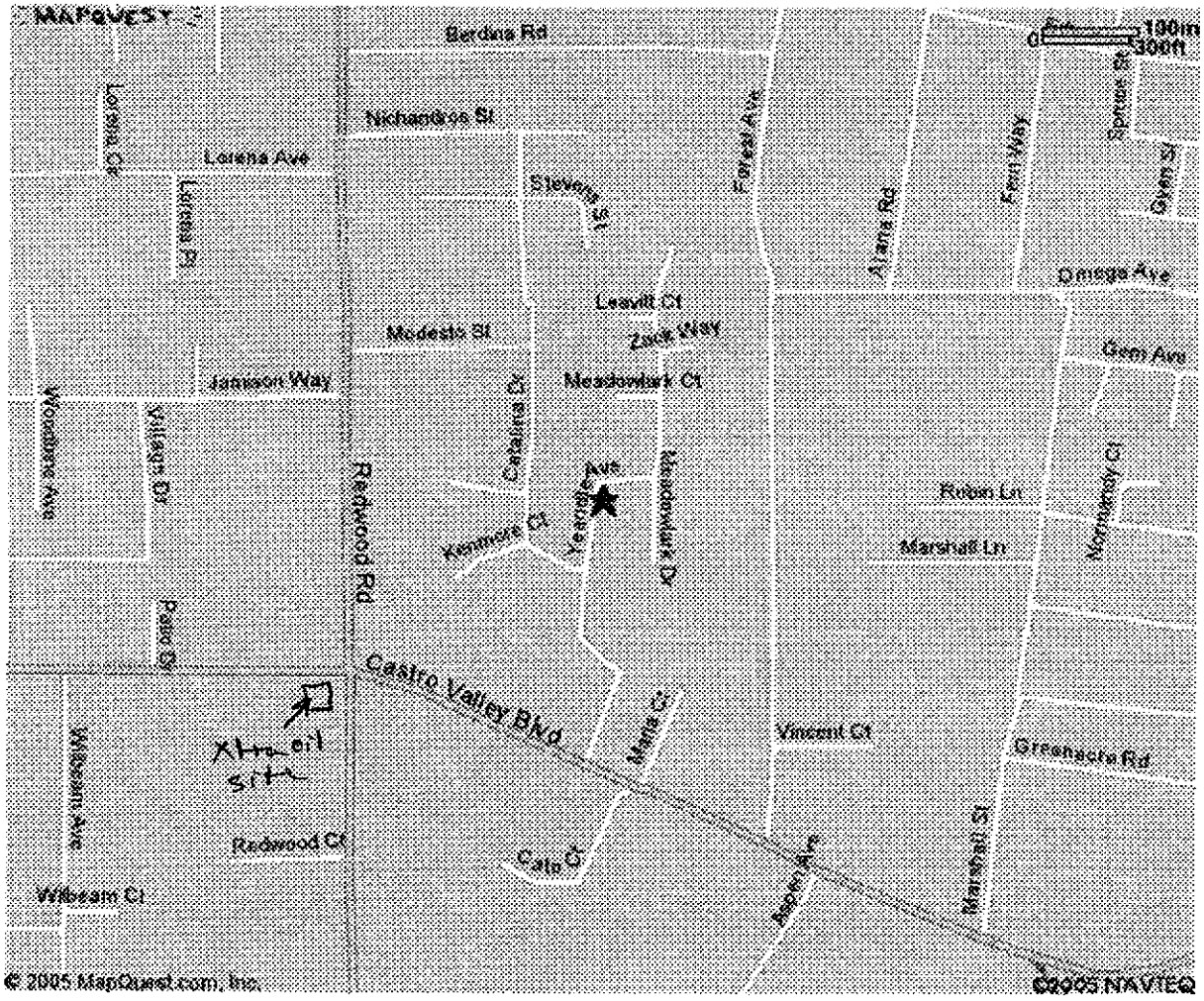
File # 30

P&D Notes

MAPQUEST.

20283 Yeandle Ave
Castro Valley CA
94546-4418 US

Notes:



CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

Department of Water Resources

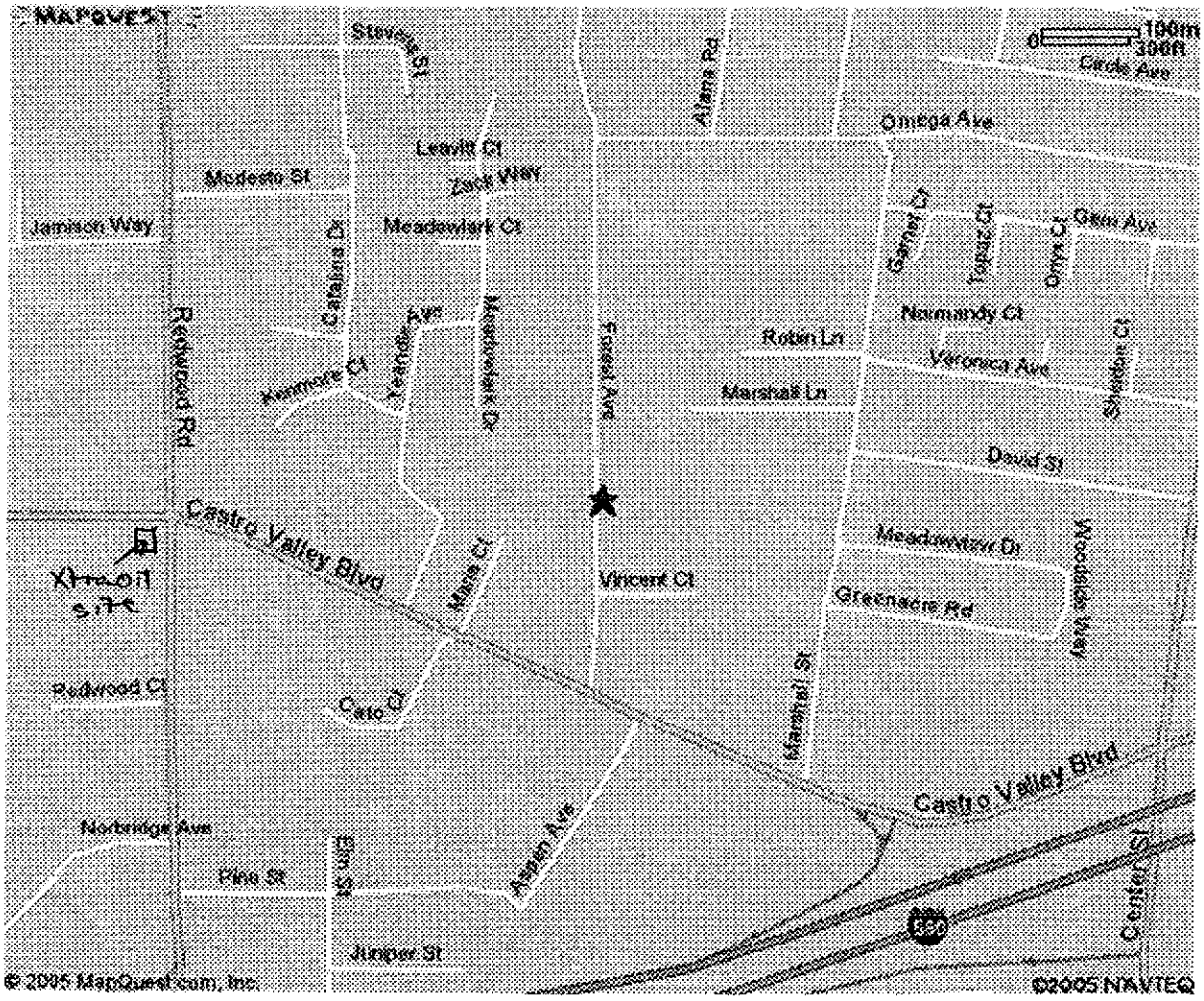
File # 31

P&D Notes

MAPQUEST

20551 Forest Ave
Castro Valley CA
94546-4574 US

Notes:



REGION

COUNTY S. Alameda

NEAR

DIVISION OF WATER RESOURCES

DEPARTMENT OF PUBLIC WORKS

STATE OF CALIFORNIA

WELL LOG

BASIN 3S/2W-3Q5

DWR NO.

OTHER NOS. 3S/2W-10C1

01-1393

LOCATION 20551 Forest Avenue, Castro Valley

OWNER Howard W. Burkhart ADDRESS

DRILLED BY Bassett ADDRESS

DRILLING METHOD GRAVEL PACKED DATE COMPLETED

SIZE OF CASING 8" DEPTH STRUCK WATER AT

PERFORATIONS SIZE No.

WATER LEVEL BEFORE PERFORATING AFTER

TEST DATA: DISCHARGE G. P. M. DRAWDOWN FT. HOURS RUN

OTHER DATA AVAILABLE: WATER LEVEL RECORD ANALYSIS

SURFACE ELEV. DATUM SOURCE OF INFORMATION ARGO PUMP

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICKNESS	SP. YIELD %
	0 - 3	top soil		
	3 - 32	yellow clay (sandy)		
	32 - 57	sandy blue clay		
		WL 14		
		Perf 6' blank at bottom		
		remainder perf		

FOR FIELD COPIES USE ALTERNATE LINES

LOG OBTAINED BY WF DATE 2/20/50 SHEET 1 OF

FORM 263. 8642 12-54 5M SPO

Department of Water Resources

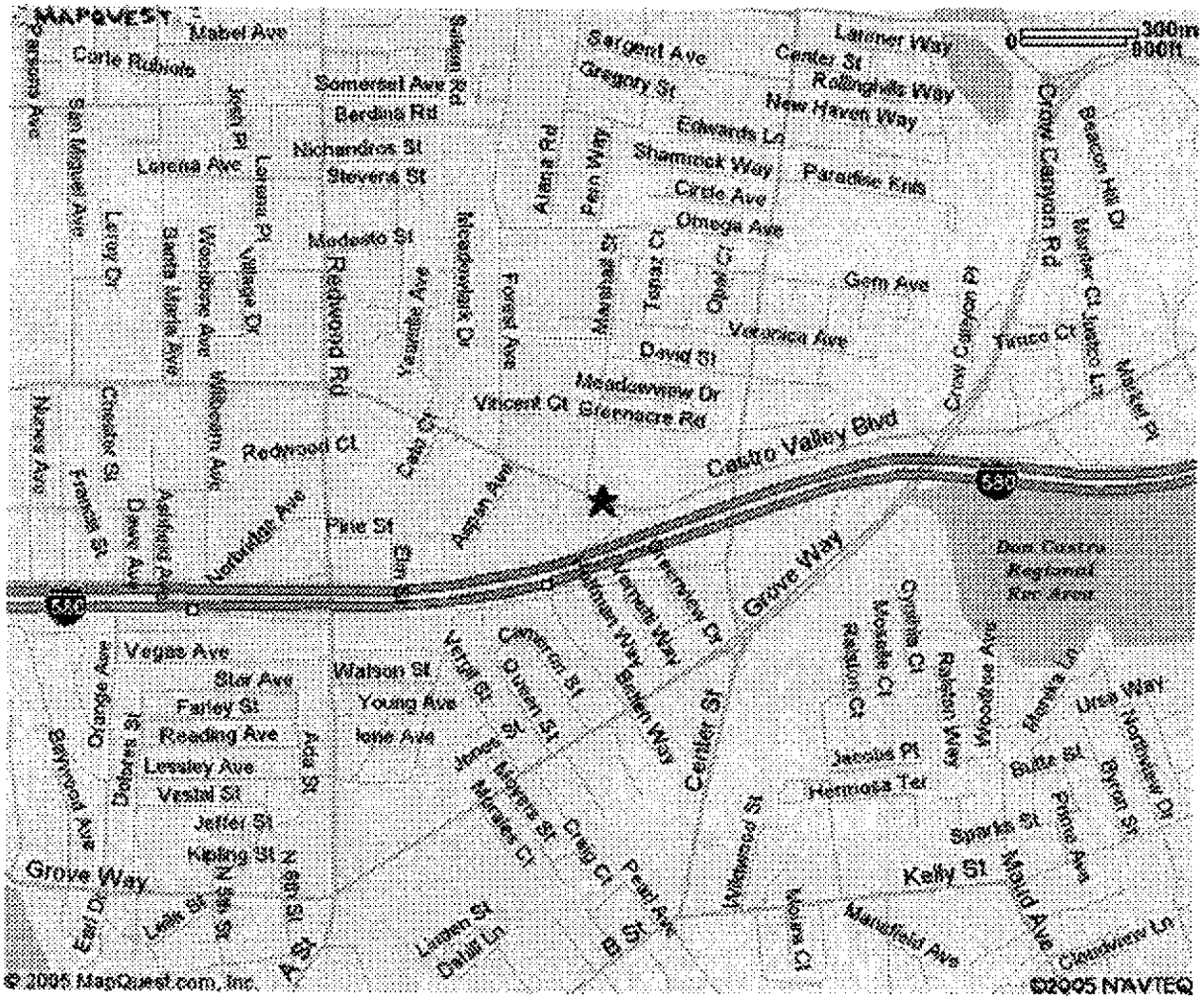
File # 32

P&D Notes

MAPQUEST.

3940 Castro Valley Blvd
Castro Valley CA
94546-6002 US

Notes:



35/2W 10A1

01-010

MONITORING WELL - DRILLER'S REPORT

Permit # 85221 35/2W 10A1

OWNER: TEXACO

LOCATION OF WELL: See attached map.

DATE DRILLED: December 10, 1985

DATE COMPLETED: December 10, 1985

TYPE OF WORK: New Well

PROPOSED USE: Monitoring (gasolene)

EQUIPMENT: Auger

GRAVEL PACK: Pea; 7" dia. drill hole; Packed from 13' to 25'

CASING INSTALLED: From 0' to 15'; 2" dia; schedule 40 PVC

PERFORATIONS: From 15' to 25'; Slot Size: 1/100"

WELL SEAL: Sanitary Seal from 0' to 10'; Concrete.
The drill hole from 25' to 30' was backfilled with concrete.

WATER LEVEL: Initial 22'; Final 20'.

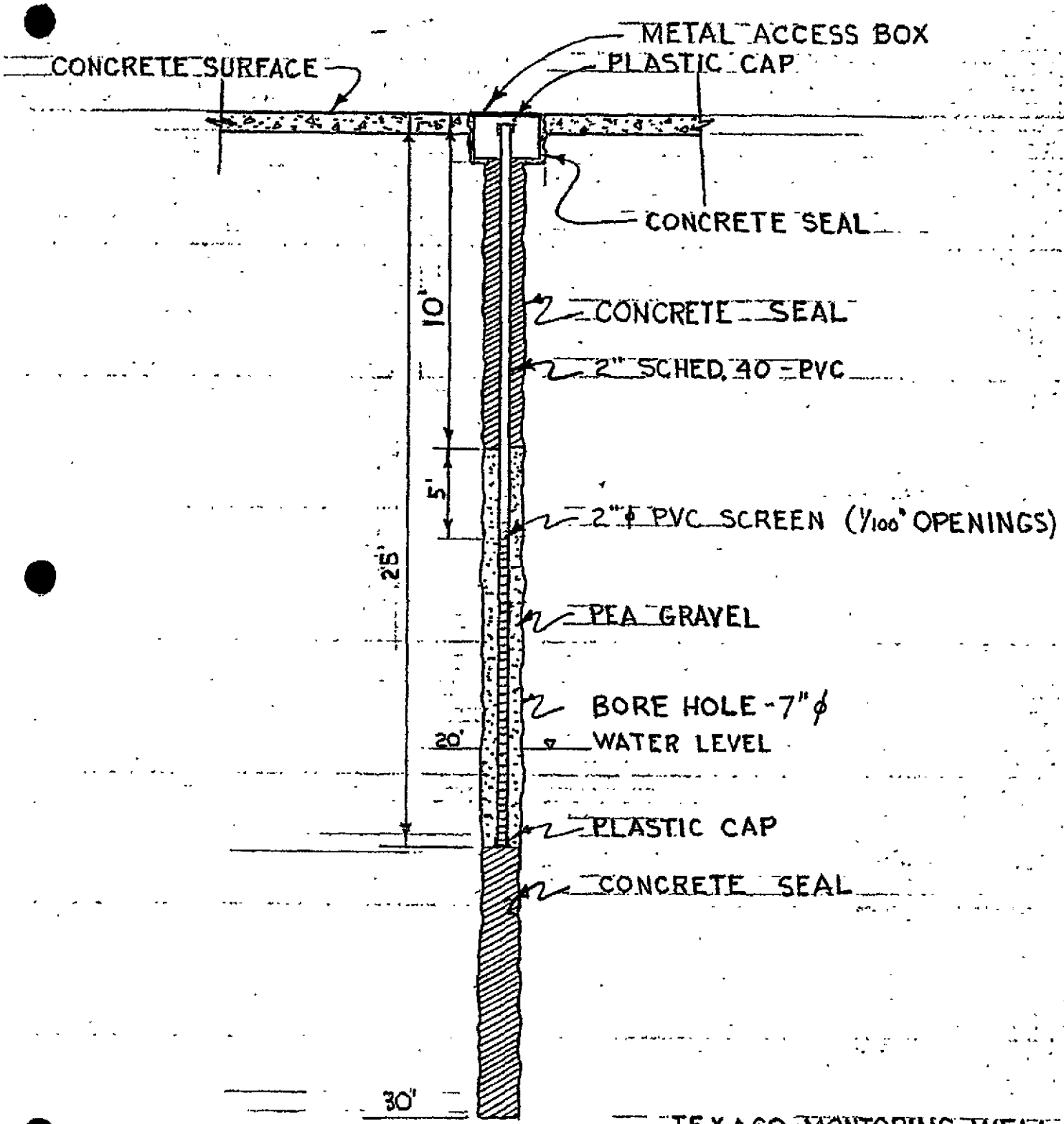
WELL LOG

0 -	3"	AC
3" -	9"	Blue base rock
9" -	4'	Gray-black clay; Fuel odor
4' -	7'	Brown clay, stiff; Fuel odor
7' -	10'	Gray-brown Clayey sand; Fuel odor
10' -	12'	Brown sand; Fuel odor
12' -	15'	Brown clay; No Fuel odor
15' -	16'	Brown clay; Fuel odor
16' -	20'	Fine sand; free; Fuel odor
20' -	22'	Fine sand; some clay @ 22'; Fuel odor
22' -	25'	Fine sand with clay; Water; Fuel odor
25' -	30'	Brown clay

Well Driller: Winter Petroleum Service, Inc.
661 Kings Row
San Jose, California 95112
(408) 279-2570

01-010

35/2W 10A1



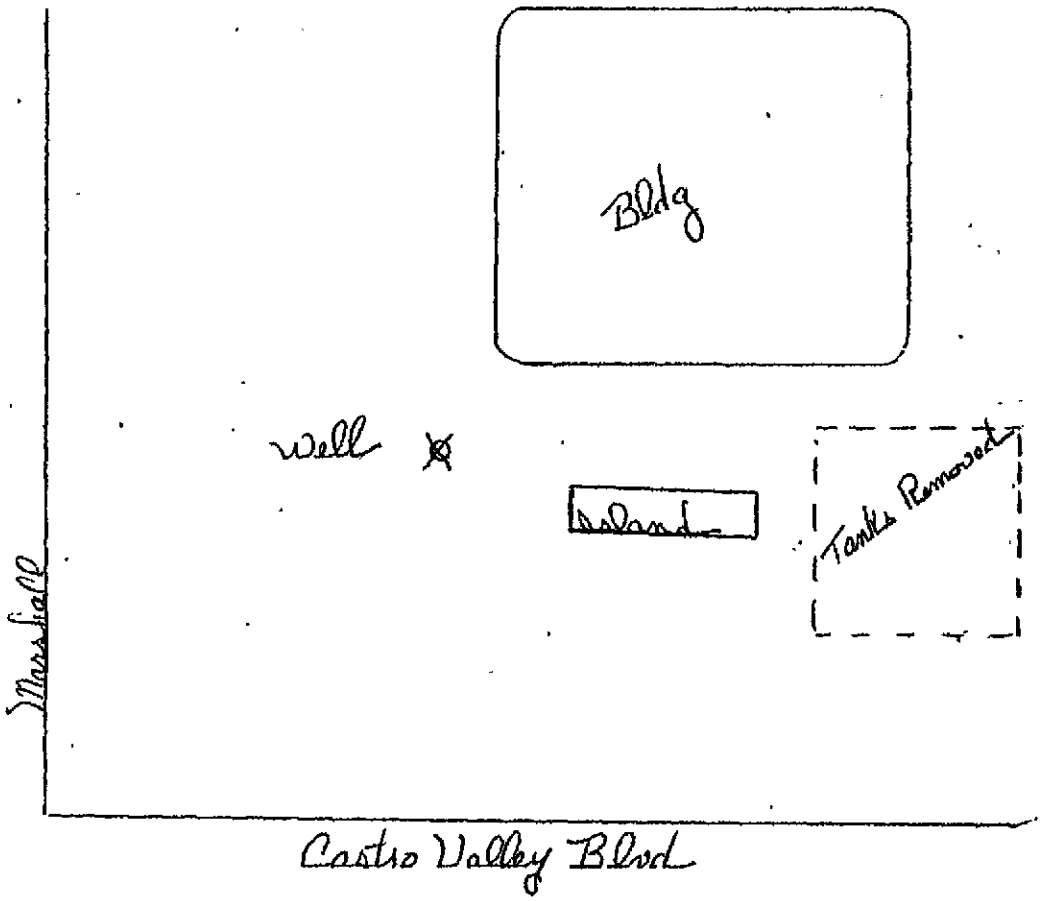
TEXACO MONTORING WELL
DRILLED 12/10/85
NO SCALE

3S/2W 10A1 01-010

Winter

PETROLEUM SERVICE, INC.
COMPLETE SERVICING
Licensed Contractors—All Work Guaranteed
Pumps, Hoists & Compressors
Meter Exchange, Hoses, Belts, etc.

10 January 1986



J Williams

SAN JOSE
661 Kings Row
(408) 279-2570

SAN FRANCISCO
50 Shotwell Street
(415) 621-8275

SACRAMENTO
2230 Calfax Street
(916) 922-1336

01-610

Hull Development Labs. Inc.

RECEIVED
JAN 3 1986
ZONE 7 ACFC&WCD

Winter Petroleum
661 Kings Row
San Jose, CA 95112
Attention Ms. Gail Williams

DATE: 12-20-85
DATE RECD: 12-17-85
LAB NO: 8106194
P.O. NO: Verbal G.W.

Total Petroleum Fuel Hydrocarbons Analysis: LOCATION 164; sampled 12-10-85

Sample I.D.	Gasoline
164 - 10', sandy soil	none detected
164 - 15', sandy soil	none detected
164 - 20', sandy soil	6.0 ppm
164 - 25', wet soil	38.0 ppm

Texaco 3940 Castro Valley Bl Castro Valley

HULL DEV... LABS
CERTIFIED ANALYSIS
Approved by:
STATE OF CALIFORNIA
DEPT. OF HEALTH SERVICES

The determination was done by GC with a FID, using Purge and Trap with an ultra high performance cross-linked methyl silicone capillary column.

P. Patel
PRAVIN PATEL (Chemist)

500 LAURELWOOD, SUITE 14 • SANTA CLARA, CALIFORNIA 95054 • (408) 727-3313

Department of Water Resources

File # 33

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

#P728 INV. ✓ AD. ✓ 3S/2W10A2-F 180493

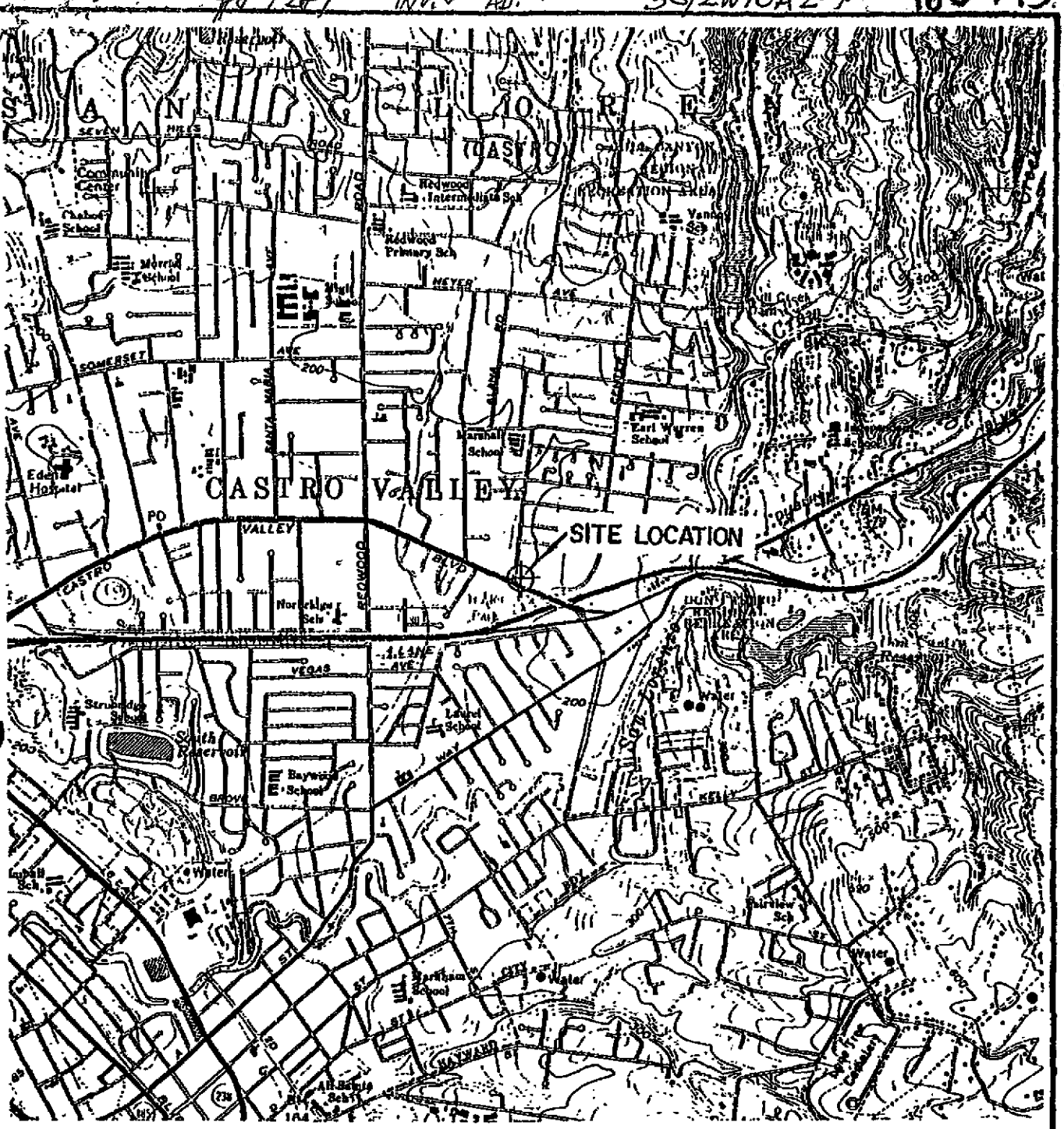


FIGURE 1
SITE LOCATION MAP

TEXACO REFINING & MARKETING INC.
3940 CASTRO VALLEY BLVD.
CASTRO VALLEY, CA.

N

TEXACO REFINING
& MARKETING INC.
CASTRO VALLEY, CALIFORNIA

0 MILES 1

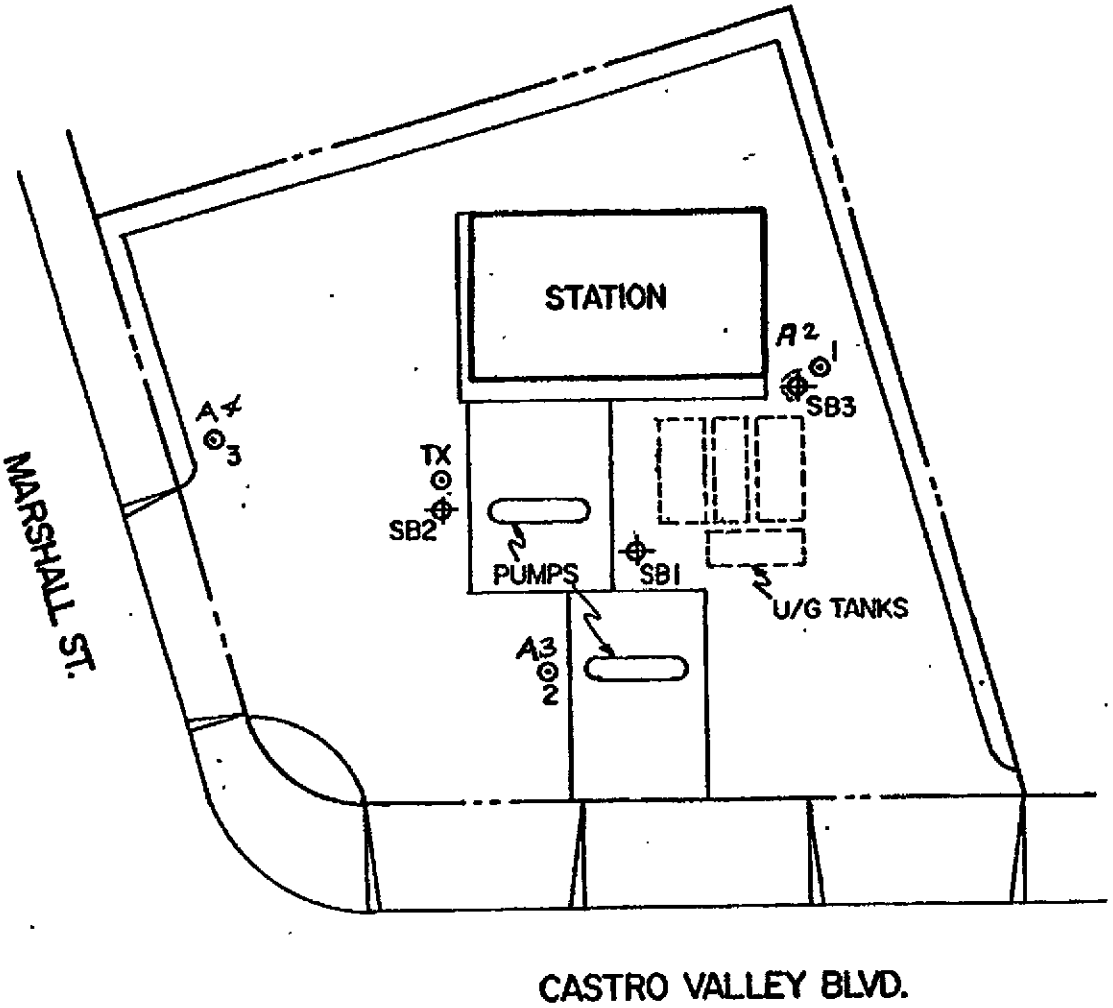
GROUNDWATER TECHNOLOGY

DRILLER: SIERRA PACIFIC

180493

35/2W10A2

#87281



LEGEND

⊙ MONITORING WELL

⌖ SOIL BORING

FIGURE 2

SITE PLAN

N

0 FEET 30

TEXACO REFINING
& MARKETING INC.
CASTRO VALLEY, CALIFORNIA

GROUNDWATER TECHNOLOGY

INV. ✓
AD. ✓

180493

35/2W10A2

GROUNDWATER TECHNOLOGY, INC. #87281

Monitoring Well 1 — Drilling Log

Project TEXACO CASTRO VALLEY — Owner TEXACO REF. AND MARK. INC.
Location CASTRO VALLEY, CA — Project Number 203-150-4080
Date Drilled 12/16/87 — Total Depth of Hole 45 FT — Diameter 10.5 IN.
Surface Elevation ____ — Water Level Initial 28 FT — 24-hour ____
Screen: Dia. 4 IN. — Length 40 FT — Slot Size .020 IN.
Casing: Dia. 4 IN. — Length 5 FT — Type PVC
Drilling Company SIERRA PACIFIC — Drilling Method HOLLOW STEM AUGER
Driller TODD BYARD — Log by JAN PRASIL
Geologist / Engineer ____ — License No. ____

Sketch Map: SEE SITE PLAN

Notes:

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
0					2 inches of asphalt over 5 inches base course
2				CL	Dark brown, sandy, silty clay (Medium stiff, dry, no product odor)
4		0	A 5, 11, 25		(Grades light brown with black mottling, less sandy, stiff)
6					
8					(Grades brown)
10		0	B 7, 11, 13	SC	Light brown clayey, silty, fine sand (Medium dense, dry, no product odor)
12					
14		0	C 3, 7, 9	CL	Brown silty, clay (Stiff, moist, no product odor)
16					(Grades sandy)
18		0	D 5, 7, 8	SC	Brown clayey, fine sand (Medium dense, moist, no product odor)
20					
22				CL	Brown silty clay (Stiff, moist, no product odor)
24		0	E 10, 17, 23		(Grades reddish brown with grey and black mottling)

1/88 REV. 0

180493

3S/2W10A2

GROUNDWATER TECHNOLOGY, INC. #8728

Monitoring Well 1

Drilling Log

Depth (feet)	Well Construction	P.I.D. (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
26				CL	Reddish-brown, silty clay (Continued) (Grades sandy)
28		0	F 12 17 24		Encountered water 12/16/87 (1305 hours)
30				SC	Reddish-brown, clayey, course sand (Dense, wet, no product odor)
32				CL	Brown, silty clay (Medium stiff, wet, no product odor)
34					
36					
38					(Grades with pebbles)
40					
42					
44					End of boring, installed monitoring well
46					
48					
50					
52					
54					
56					
58					

12/87 REV. A

TABLE 1

ANALYTICAL LABORATORY RESULTS - SOIL SAMPLES
[ppm]

SAMPLE	DEPTH (FT.)	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENE	BTEX	TOG	METHYLENE CHLORIDE	CHLOROFORM	MISC. HYDRO-CARBONS (C4-12)	TPH as GASOLINE
SB 1 C	(14-14.5)	ND	ND	ND	ND	ND	-	-	-	ND	ND
SB 1 F	(29-29.5)	ND	0.95	ND	ND	-	ND	1.9	0.025	ND	ND
SB 2 B	(9- 9.5)	ND	ND	ND	ND	ND	-	-	-	ND	ND
SB 2 F	(29-29.5)	ND	ND	ND	ND	ND	-	-	-	ND	ND
SB 3 C	(14-14.5)	ND	ND	ND	ND	ND	-	-	-	ND	ND
SB 3 F	(29-29.5)	ND	ND	ND	ND	ND	-	-	-	ND	ND
MW 1 E	(24-24.5)	ND	ND	0.24	2.0	-	-	ND	ND	-	-
MW 2 E	(24-24.5)	ND	ND	ND	ND	ND	-	-	-	14.0	14.0
MW 3 E	(24-24.5)	ND	ND	ND	ND	ND	-	-	-	ND	ND

ANALYTICAL LABORATORY RESULTS - WATER SAMPLES
[ppb]

SAMPLE	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENE	BTEX	MISC. HYDRO-CARBONS (C4-12)	TPH AS GASOLINE
SB 3	70	9	4	1,600	1,700	27,000	29,000
MW-1	15	12	3	190	220	1,900	2,100
MW-2	220	16	3	150	390	2,000	2,400
MW-3	ND	ND	ND	ND	ND	ND	ND

ND = Less than Practical Quantitation Levels as per EPA Federal Register
TOG = Total Oil and Grease
TPH = Total Petroleum Hydrocarbons
BTEX = Total Benzene, Toluene, Ethylbenzene, Xylene

T4080A

180493

Department of Water Resources

File # 34

CONFIDENTIAL

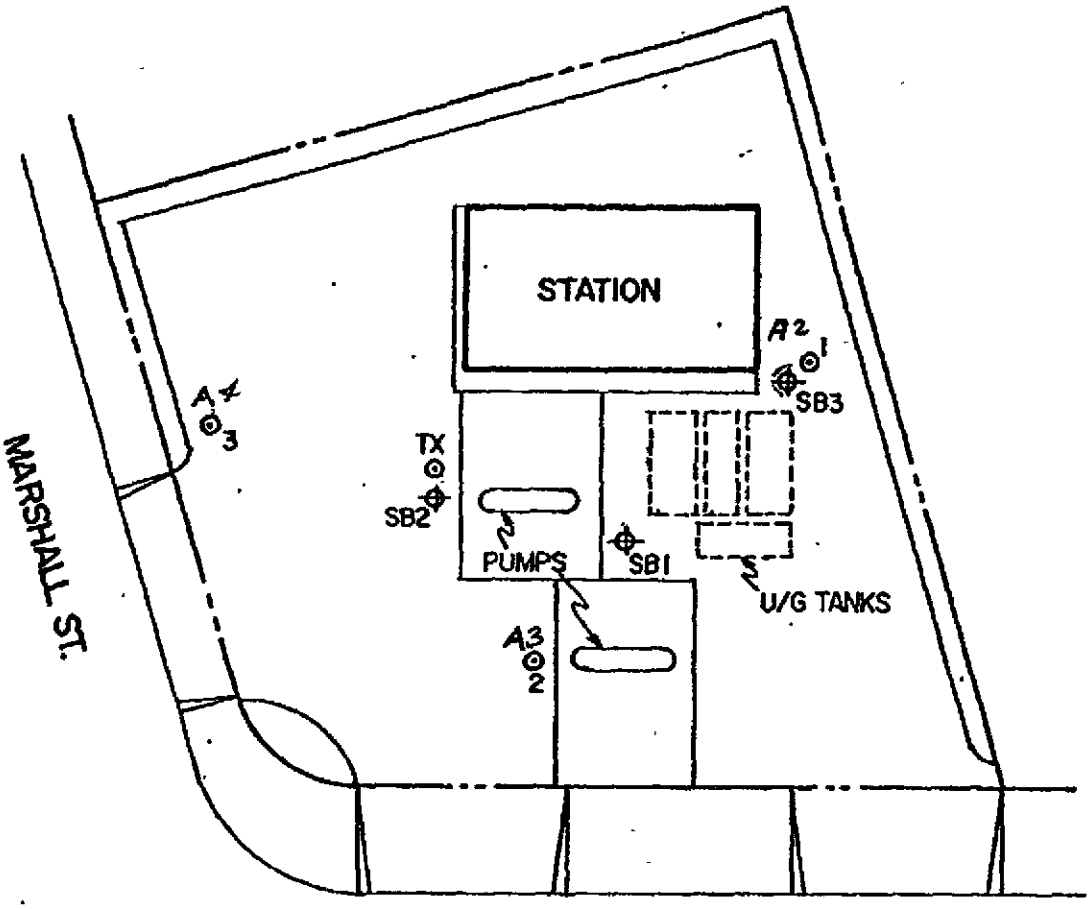
STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

180499

35/2W10A3

#87281



LEGEND

⊙ MONITORING WELL

⊕ SOIL BORING

FIGURE 2

SITE PLAN

N

0 FEET 30

TEXACO REFINING
& MARKETING INC.
CASTRO VALLEY, CALIFORNIA

GROUNDWATER TECHNOLOGY

#87281

INV. ✓
AP. ✓

180499
3S/2W10A3

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 2 — Drilling Log

Project TEXACO CASTRO VALLEY — Owner TEXACO REF. AND MARK. INC.
Location CASTRO VALLEY, CA — Project Number 203-150-4080
Date Drilled 12/17/87 — Total Depth of Hole 38 FT — Diameter 10.5 IN.
Surface Elevation ____ — Water Level Initial 23.5 FT — 24-hour ____
Screen: Dia. 4 IN. — Length 35 FT — Slot Size .020 IN.
Casing: Dia. 4 IN. — Length 3 FT — Type PVC
Drilling Company SIERRA PACIFIC — Drilling Method HOLLOW STEM AUGER
Driller TODD BYARD — Log by JAN PRASIL
Geologist / Engineer ____ — License No. ____

Sketch Map

SEE SITE PLAN

Notes

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
0					2 inches of asphalt over 5 inches base course
2				CL	Brown–grey silty, sandy clay (Medium stiff, dry, no product odor)
4		0	A 3 7 11		(Grades dark brown, stiff)
6					
8					(Grades light brown, less sandy)
10		0	B 3 7 14		(Grades brown, more sandy)
12					
14		0	C 6 12 12		(Grades light brown, more sandy)
16				SC	Light brown clayey, silty, fine sand (Medium dense, moist, no product odor)
18		0	D 3 5 8	CL	Light brown silty clay (Stiff, moist, no product odor)
20				SM	Light brown silty, clayey, medium sand (Loose, moist, no product odor)
22				CL	Light brown silty clay (Stiff, moist, no product odor)
24		0	E 5 5 7		(Grades brown, with pebbles)
					▼ Encountered water 12/17/87 (1035 hours)

1/88 REV. B

#87281

180499
3S/2W10A3

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 2

Drilling Log

Depth (feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
26		0		CL	Brown silty clay with pebbles (Continued)
28					(Grades light brown)
30					
32					
34		0		CL	Brown fine sandy clay (Stiff, wet, no product odor)
36					
38					End of drilling, installed monitoring well
40					
42					
44					
46					
48					
50					
52					
54					
56					
58					

12/87 REV. A

Department of Water Resources

File # 35

CONFIDENTIAL

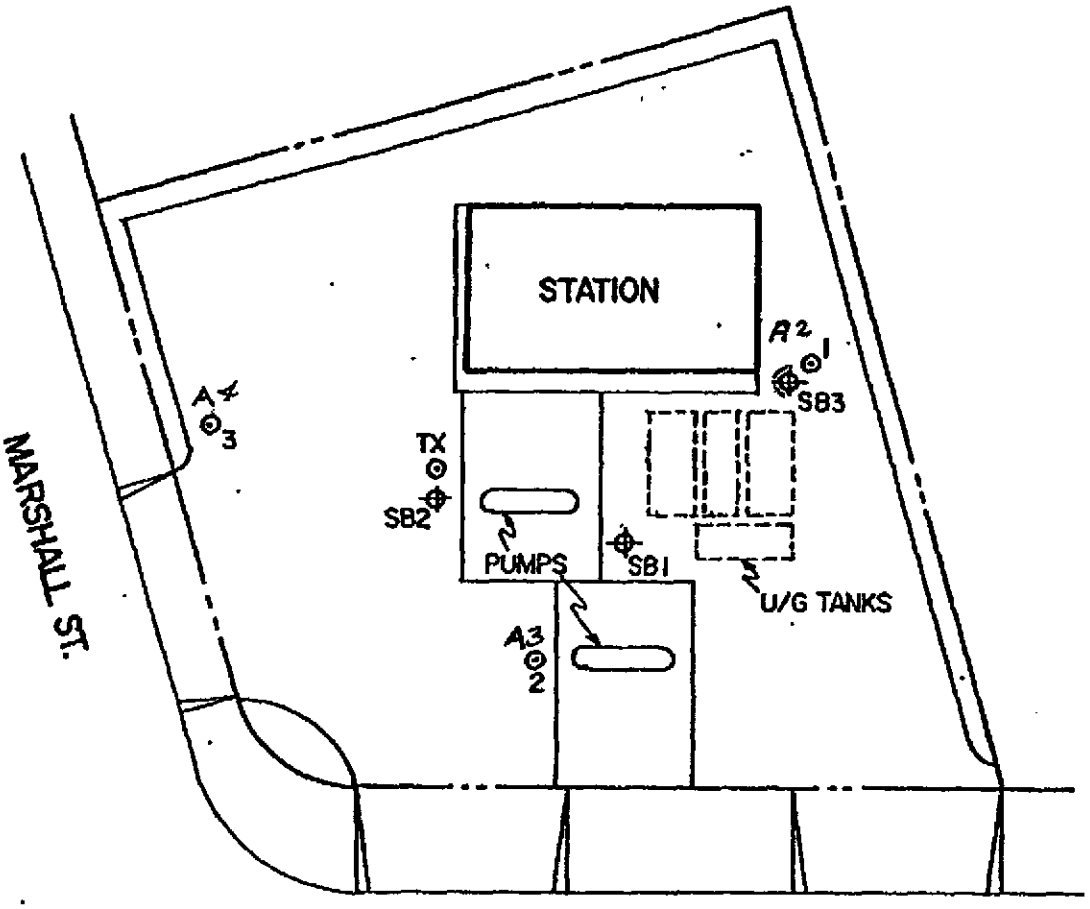
STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

180498

35/2W10A4

#87281



LEGEND

⊙ MONITORING WELL

⊕ SOIL BORING

FIGURE 2

SITE PLAN

N

0 FEET 30

TEXACO REFINING
& MARKETING INC.
CASTRO VALLEY, CALIFORNIA

GROUNDWATER TECHNOLOGY

#87281

INV. ✓
AD. ✓

180498
3S/2W10A4

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 3 — Drilling Log

Project TEXACO CASTRO VALLEY — Owner TEXACO REF. AND MARK. INC.
Location CASTRO VALLEY, CA — Project Number 203-150-4080
Date Drilled 12/17/87 — Total Depth of Hole 40 FT — Diameter 10.5 IN.
Surface Elevation — Water Level Initial 24 FT — 24-hour
Screen: Dia. 4 IN. — Length 35 FT — Slot Size .020 IN.
Casing: Dia. 4 IN. — Length 5 FT — Type PVC
Drilling Company SIERRA PACIFIC — Drilling Method HOLLOW STEM AUGER
Driller TODD BYARD — Log by JAN PRASIL
Geologist / Engineer — License No.

Sketch Map: SEE SITE PLAN

Notes

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
0					2 inches of asphalt over 5 inches base course
2				CL	Brown-grey silty, sandy clay (Medium stiff, dry, no product odor)
4		0	A 6 9 12		(Grades brown, stiff, less sandy)
6					(Grades more sandy)
8				SC	Light brown clayey, silty, fine sand (Loose, dry, no product odor)
10		0	B 3 6 10	CL	Light brown, silty clay (Stiff, dry, no product odor)
12					(Grades brown)
14		0	C 5 8 15	SM	(Grades sandy) Light brown, silty, clayey, medium sand (Medium dense, moist, no product odor)
16				CL	Light brown, silty clay (Stiff, moist, no product odor)
18		0	D 3 5 7	SM	Light brown, silty, clayey, medium sand (Loose, moist, no product odor)
20			4 8 10	CL	Light brown, silty clay (Stiff, moist, no product odor)
22					
24		0	E 10 12 18		▼ Encountered water 12/17/87 (1505 hours)

1/88 REV. 8

#87281

180498

35/2W10A4

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 3

Drilling Log

Depth (ft)	Well Construction	PID (ppm)	Sample No.	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
26				CL	Light brown, silty clay (Continued)
28					(Grades brown, with pebbles)
					(Grades sandy, wet)
			F 15		Dark brown, clayey, medium sand
30		0	25	SC	(Very dense, wet, no product odor)
			28		
32				CL	Light brown, silty, sandy clay (Wet, medium stiff, no product odor)
34		0			
36					(Grades more sandy)
38					(Grades brown)
40		0			End of boring, installed monitoring well
42					
44					
46					
48					
50					
52					
54					
56					
58					

12/87 REV. A

Department of Water Resources

File # 36

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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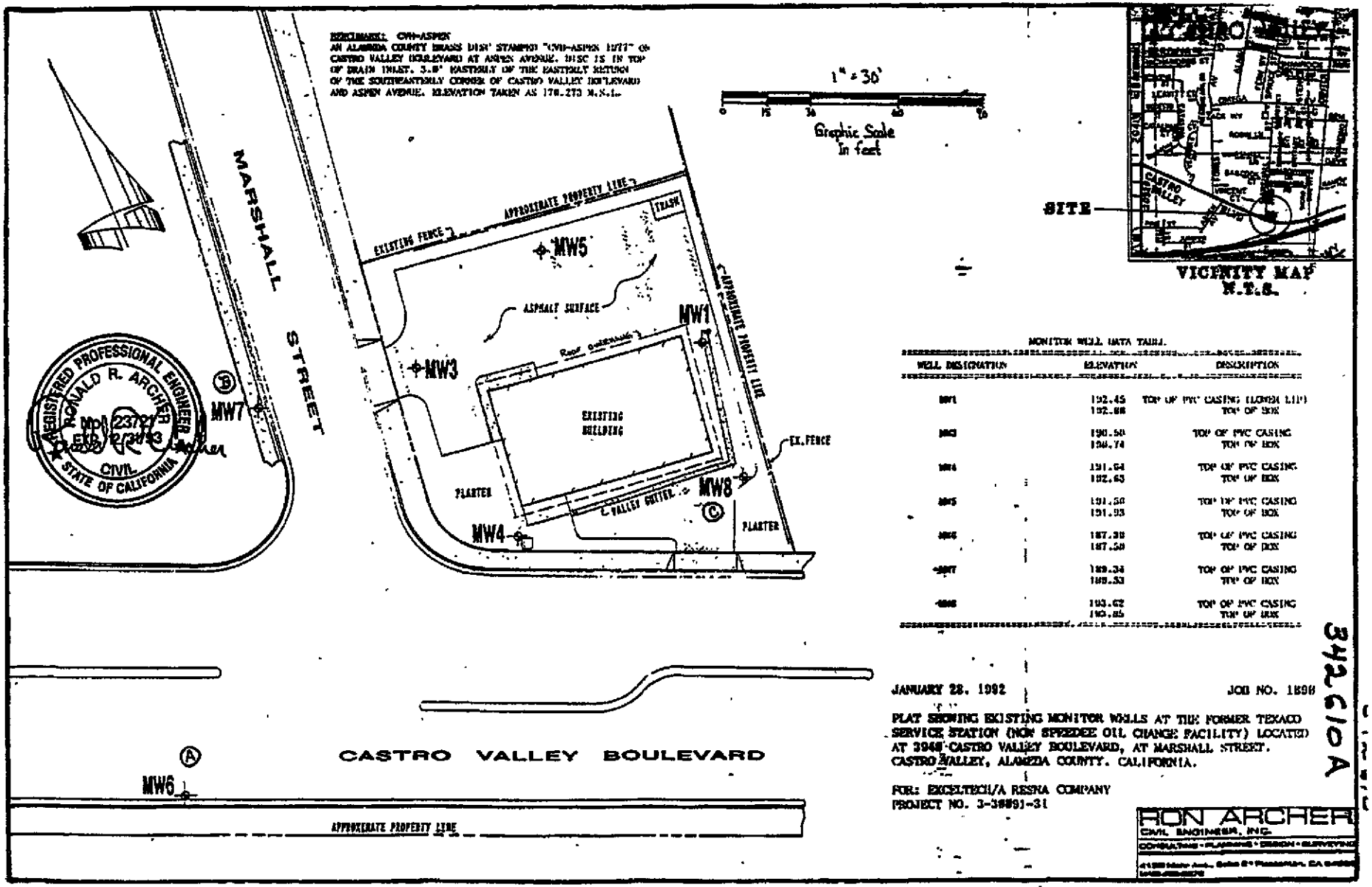


MONITOR WELL DATA TABLE.

WELL DESIGNATION	ELEVATION	DESCRIPTION
MW1	192.45 192.88	TOP OF PVC CASING (LOWER LIP) TOP OF BOX
MW3	190.50 190.74	TOP OF PVC CASING TOP OF BOX
MW4	191.64 192.63	TOP OF PVC CASING TOP OF BOX
MW5	191.50 191.93	TOP OF PVC CASING TOP OF BOX
MW6	187.38 187.59	TOP OF PVC CASING TOP OF BOX
MW7	189.34 189.53	TOP OF PVC CASING TOP OF BOX
MW8	193.62 193.85	TOP OF PVC CASING TOP OF BOX

JANUARY 28, 1992 JOB NO. 1898

PLAT SHOWING EXISTING MONITOR WELLS AT THE FORMER TEXACO SERVICE STATION (NOW SPEEDEE OIL CHANGE FACILITY) LOCATED AT 3948 CASTRO VALLEY BOULEVARD, AT MARSHALL STREET, CASTRO VALLEY, ALAMEDA COUNTY, CALIFORNIA.

FOR: EXCELTECH/A RESNA COMPANY
PROJECT NO. 3-38891-31

RON ARCHER
CIVIL ENGINEER, INC.
CONSULTING - PLANNING - DESIGN - SURVEYING

342.610A

342610A 035 02W 10A07

RESNA EXPLORATORY BORING LOG

Project Name: Former Texaco Service Station
3940 Castro Valley Boulevard
Castro Valley, California

Project Number: 3-30091-31

Boring No. MW-6

Date Drilled: 1/20/91

Logged By: N.L. Nack

Depth (ft.)	Sample No.	Blows/Foot	Unified Soil Classification	SOIL DESCRIPTION	Water Level	OVM Reading (ppm)
				4" asphalt, 8" aggregate base		
1–3			CL	SILTY CLAY, possible artificial fill olive brown (2.5Y 4/4), silt ≈20%, sand ≈15%, stiff, moist		
4–9	6-1		CL	SILTY CLAY, yellowish brown (10YR 4/5), silt ≈ 20%, sand 5-10%, medium stiff, moist		
10–11	6-2	9	ML/CL	CLAYEY SILT, yellowish brown (10YR 4/5), clay ≈20%, sand ≈10-15%		3.1
12–16	6-3	11		increasing silt, pockets of silty sand		2.4
17–20			SW	SAND, dark yellowish brown, (10YR 4/4), ≈ 10-15% silt, well graded, medium dense, saturated (small perched zone)	▼	
21	6-4	13	CH/CL	CLAY, brown (10YR 5/3), ≈10% silt, ≈5% sand, very stiff, moist		

REVIEWED BY R.G./C.E.G.

342610A 03S02W10A07

RESNA EXPLORATORY BORING LOG

Project Name: Former Texaco Service Station
3940 Castro Valley Boulevard
Castro Valley, California

Boring No. MW-6

Date Drilled: 1/20/91

Project Number: 3-30091-31

Logged By: N. L. Nack

Depth (ft.)	Sample No.	Blows/Foot	Unified Soil Classification	SOIL DESCRIPTION	Water Level	OVM Reading (ppm)
22				CLAY, continued		
23						
24						
25						
26		18		Becoming gravelly		3.0
27						
28						
29						
30					▽	
31		30	GP	GRAVEL, brown to yellowish brown (10YR 4/3 to 10YR 5/8), sand ≈25-30%, gravel poorly graded, subangular to subrounded, <1/2-inch diameter, medium dense, saturated		2.8
32						
33						
34			SP	SAND, brown (10YR 4/3), poorly graded, silt ≈15%, flowing, loose		
35						
36						
37			GP	GRAVEL, brown to yellowish brown (10YR 4/3 - 10YR 5/8), sand ≈25-30%; gravel poorly graded, includes shale, sandstone, medium dense		
38						
39				Bottom of boring: 38 feet		
40				Groundwater encountered: 29 feet		
41						
42						

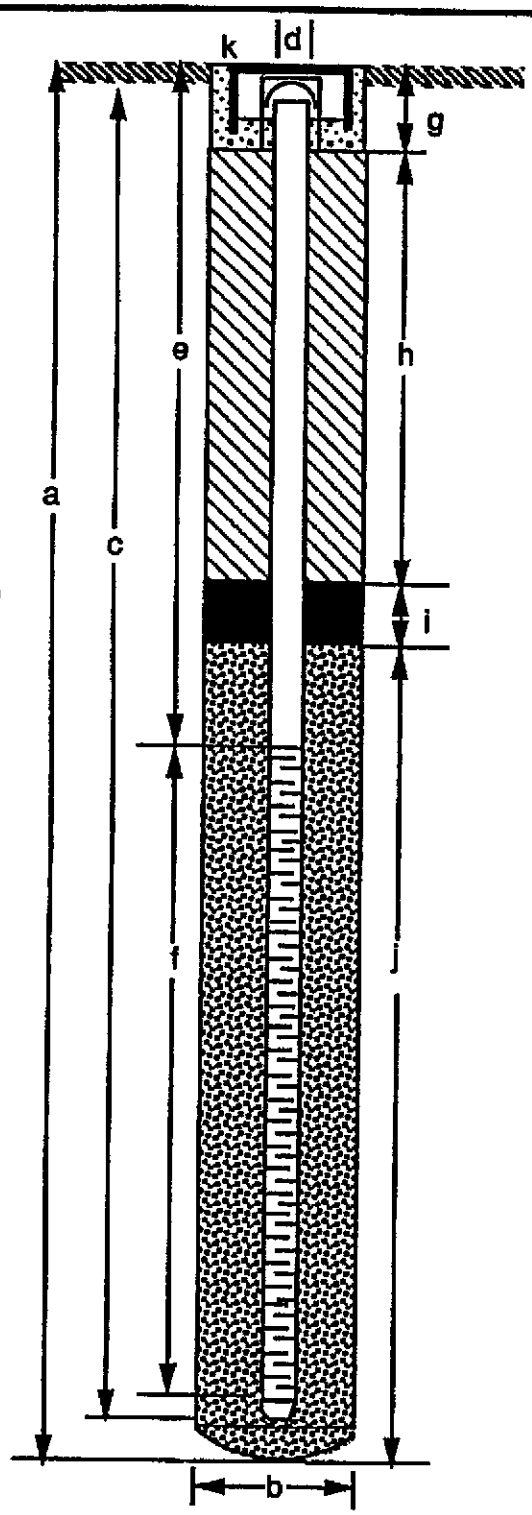
REVIEWED BY R.G./C.E.G.

342610A
03S02W 10A07

RESNA

MONITORING WELL DETAIL

Project Number	3-30091-31	**Boring/Well No.**	MW-6
Project Name	Former Texaco Service Station	**Top of Casing Elev.**	187.30
County	Alameda	**Ground Surface Elev.**	187.50
Well Permit No.	91685	**Datum**	Mean Sea Level



EXPLORATORY BORING

a. **Total depth** 38 ft.

b. **Diameter** 12 in.

Drilling method Hollow stem auger

WELL CONSTRUCTION

c. **Casing length** 38 ft.

Material Schedule 40 PVC

d. **Diameter** 4 in.

e. **Depth to top perforations** 26 ft.

f. **Perforated length** 12 ft.

Perforated interval from 38 **to** 26 ft.

Perforation type Slot

Perforation size 0.02 in.

g. **Surface seal** 2 ft.

Seal material Concrete

h. **Backfill** 21 ft.

Backfill material Neat Cement

i. **Seal** 2 ft.

Seal material Bentonite

j. **Gravel pack** 13 ft.

Pack material 2/12 sand

k. 12" diameter traffic-rated vault box, locking expansion cap

Department of Water Resources

File # 37

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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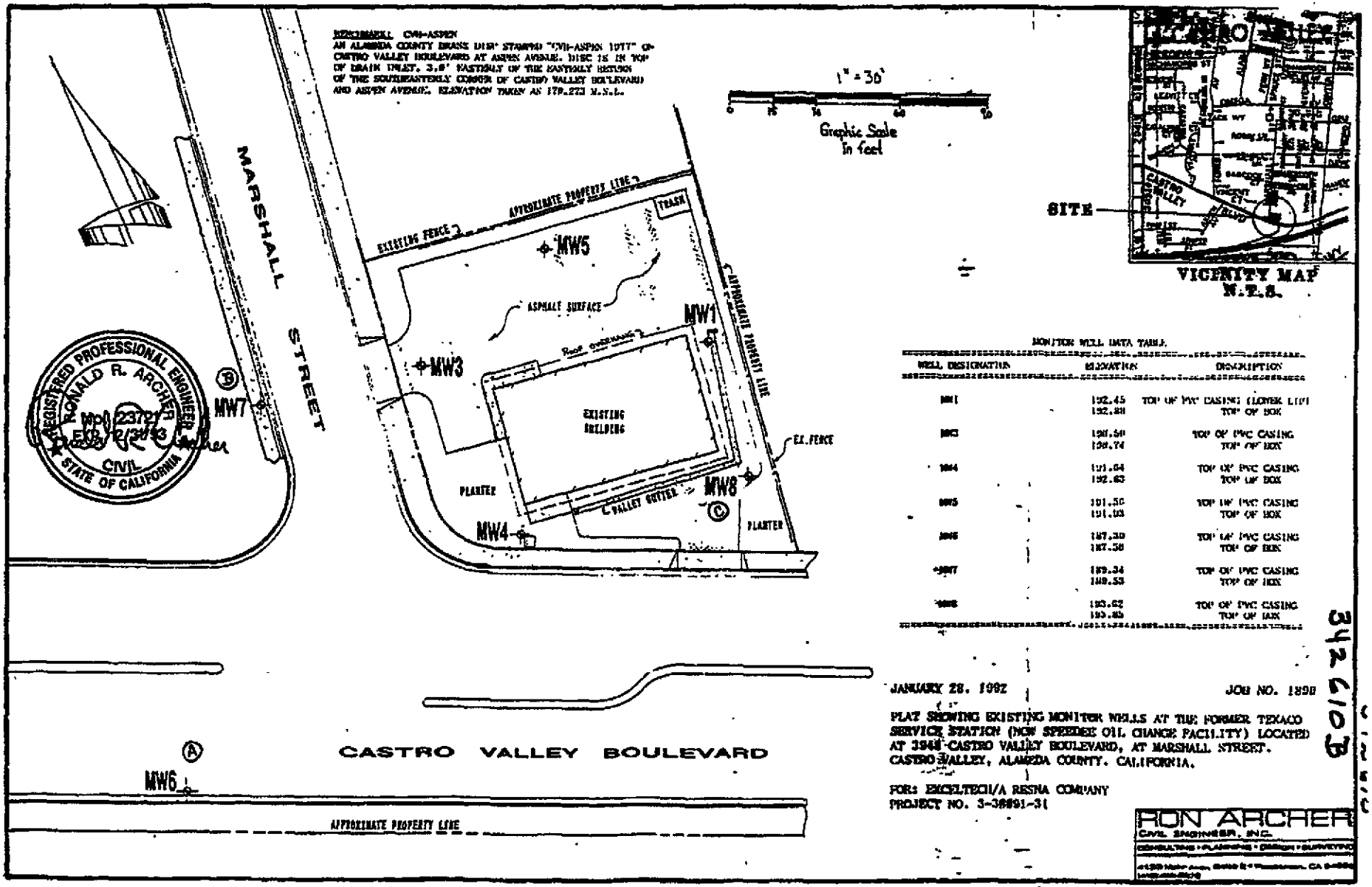


MONITOR WELL DATA TABLE

WELL DESIGNATION	ELEVATION	DESCRIPTION
MW1	192.45 192.88	TOP OF PVC CASING (LOWER LIP) TOP OF BOX
MW3	190.60 190.74	TOP OF PVC CASING TOP OF BOX
MW4	191.84 192.82	TOP OF PVC CASING TOP OF BOX
MW5	191.56 191.05	TOP OF PVC CASING TOP OF BOX
MW6	187.39 187.58	TOP OF PVC CASING TOP OF BOX
MW7	189.34 189.53	TOP OF PVC CASING TOP OF BOX
MW8	193.62 193.85	TOP OF PVC CASING TOP OF BOX

JANUARY 28, 1992 JOB NO. 1898

PLAT SHOWING EXISTING MONITOR WELLS AT THE FORMER TEXACO SERVICE STATION (NOW SPEEDEE OIL CHANGE FACILITY) LOCATED AT 3948 CASTRO VALLEY BOULEVARD, AT MARSHALL STREET, CASTRO VALLEY, ALAMEDA COUNTY, CALIFORNIA.

FOR: EXCELTECH/A RESNA COMPANY
PROJECT NO. 3-38891-31

RON ARCHER CIVIL ENGINEER, INC.
CONSULTING • PLANNING • DESIGN • SURVEYING

342 6108

342610B 03502W1oA08

RESNA EXPLORATORY BORING LOG

Project Name: Former Texaco Service Station
3940 Castro Valley Boulevard
Castro Valley, California

Project Number: 3-30091-31

Boring No. MW-7

Date Drilled: 1/21/92

Logged By: N. L. Nack

Depth (ft.)	Sample No.	Blows/Foot	Unified Soil Classification	SOIL DESCRIPTION	Water Level	OVM Reading (ppm)
1				6" concrete, 8" base		
2			CL	SILTY CLAY, possible artificial fill, dark grayish brown (2.5Y 4/2), silt ≈20%, sand ≈20%, stiff, moist		
3						
4						
5						
6	7-1	21	CL	CLAY, brownish yellow (10YR 5/4), sand ≈30-40%, pockets of clayey sand, very stiff, damp		4.0
7						
8			SC	CLAYEY SAND brownish yellow (10YR 5/4), clay ≈30%, medium dense, moist		
9						
10						
11	7-2	15	ML	SILT, light yellowish brown (10YR 6/4) clay ≈10%, sand ≈15%, friable, rootholes, microlayers, medium stiff, moist		3.2
12						
13						
14				-increasing moisture, sand		
15						
16	7-3	22	SM	SILTY SAND, yellowish brown (10YR 5/4), silt ≈20-30%, fine-grained, trace coarse gravels, medium dense, damp		
17						
18						
19						
20						4.0
21	7-4	23	CL/CH	CLAY, brown (10YR 5/3), silt ≈15%, sand ≈5-10%, medium to high plasticity, stiff, moist		

REVIEWED BY R.G./C.E.G.

342610 B
03S02W10A08

RESNA EXPLORATORY BORING LOG

Project Name: Former Texaco Service Station
3940 Castro Valley Boulevard
Castro Valley, California

Project Number: 3-30091-31

Boring No. MW-7

Date Drilled: 1/21/92

Logged By: N. L. Nack

Depth (ft.)	Sample No.	Blows/Foot	Unified Soil Classification	SOIL DESCRIPTION	Water Level	OVM Reading (ppm)
22				CLAY, continued		
23			CL	SILTY CLAY, yellowish brown (10YR 5/4), silt ≈20-30%, very stiff, moist	▼	
24						
25	7-5	28		-small perched zone		6.5
26			SP	SAND, yellowish brown (10YR 5/4) poorly graded, silt ≈10%, medium dense, saturated, small perched zone		
27			CL	SILTY CLAY, yellowish brown (10YR 5/4), silt ≈20-30%, moist, stiff		
28						
29		15	ML	SILT, yellowish brown (10YR 5/4), fractured, stiff, moist	▽	
30						2.8
31		36	SC	CLAYEY SAND, yellowish brown (10YR 5/4), clay ≈10-20%, gravel ≈5%, saturated, dense		
32						
33						
34				-increasing sand and gravels, flowing		
35			GC	CLAYEY GRAVEL, brown to yellowish brown (10YR 4/3 to 10YR 5/8), clay ≈20%, gravel subrounded, ≤ 2" diameter, dense, saturated		
36				-sample from drill bit		
37						
38						
39						
40				Bottom of boring: 40 feet		
41				Groundwater encountered: 30 feet		
42						

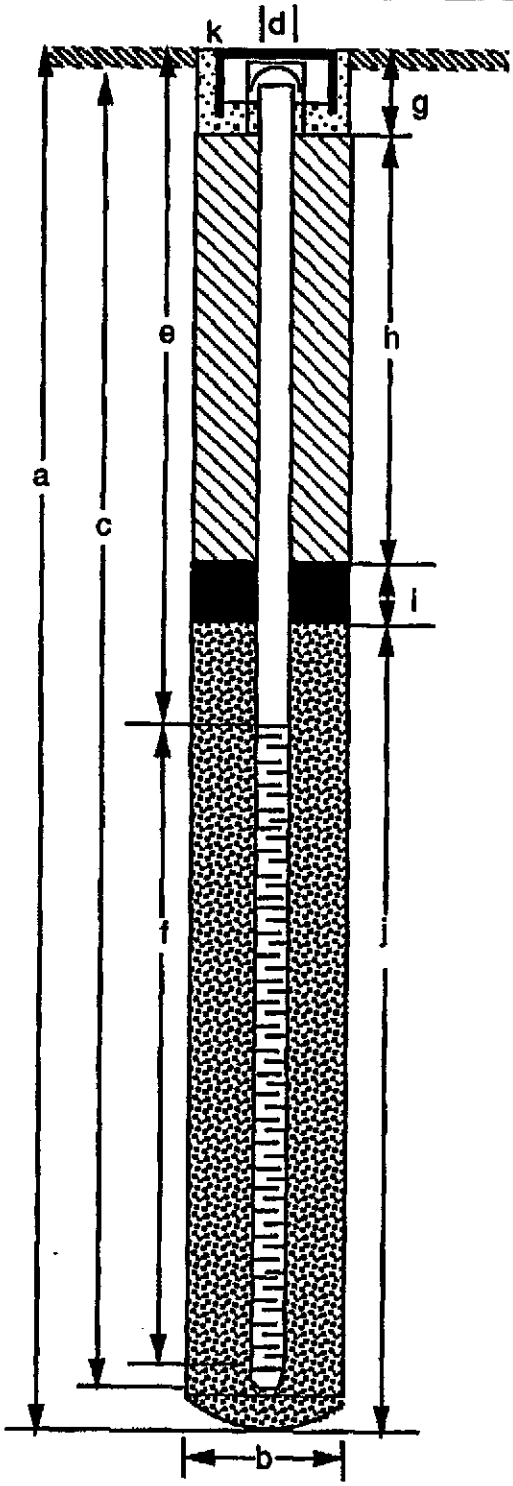
REVIEWED BY R.G./C.E.G.

RESNA

3426108 035 02W 10A08

MONITORING WELL DETAIL

Project Number	3-30091-31	**Boring/Well No.**	MW-7
Project Name	Former Texaco Service Station	**Top of Casing Elev.**	189.34
County	3940 Castro Valley Boulevard	**Ground Surface Elev.**	189.53
Well Permit No.	91685	**Datum**	Mean Sea Level



EXPLORATORY BORING

a. **Total depth** 40 ft.

b. **Diameter** 12 in.

Drilling method Hollow Stem Auger

WELL CONSTRUCTION

c. **Casing length** 38 ft.

Material Schedule 40 PVC

d. **Diameter** 4 in.

e. **Depth to top perforations** 28 ft.

f. **Perforated length** 10 ft.

Perforated interval from 38 **to** 28 ft.

Perforation type Slot

Perforation size 0.02 in.

g. **Surface seal** 2 ft.

Seal material Concrete

h. **Backfill** 23-1/2 ft.

Backfill material Neat Cement

i. **Seal** 1 ft.

Seal material Bentonite

j. **Gravel pack** 11.5 ft.

Pack material 2/12 sand

k. 12-inch diameter traffic-rated vault box locking expansion cap

NOTE: Hole caved bottom two feet due to flowing sand.

Department of Water Resources

File # 38

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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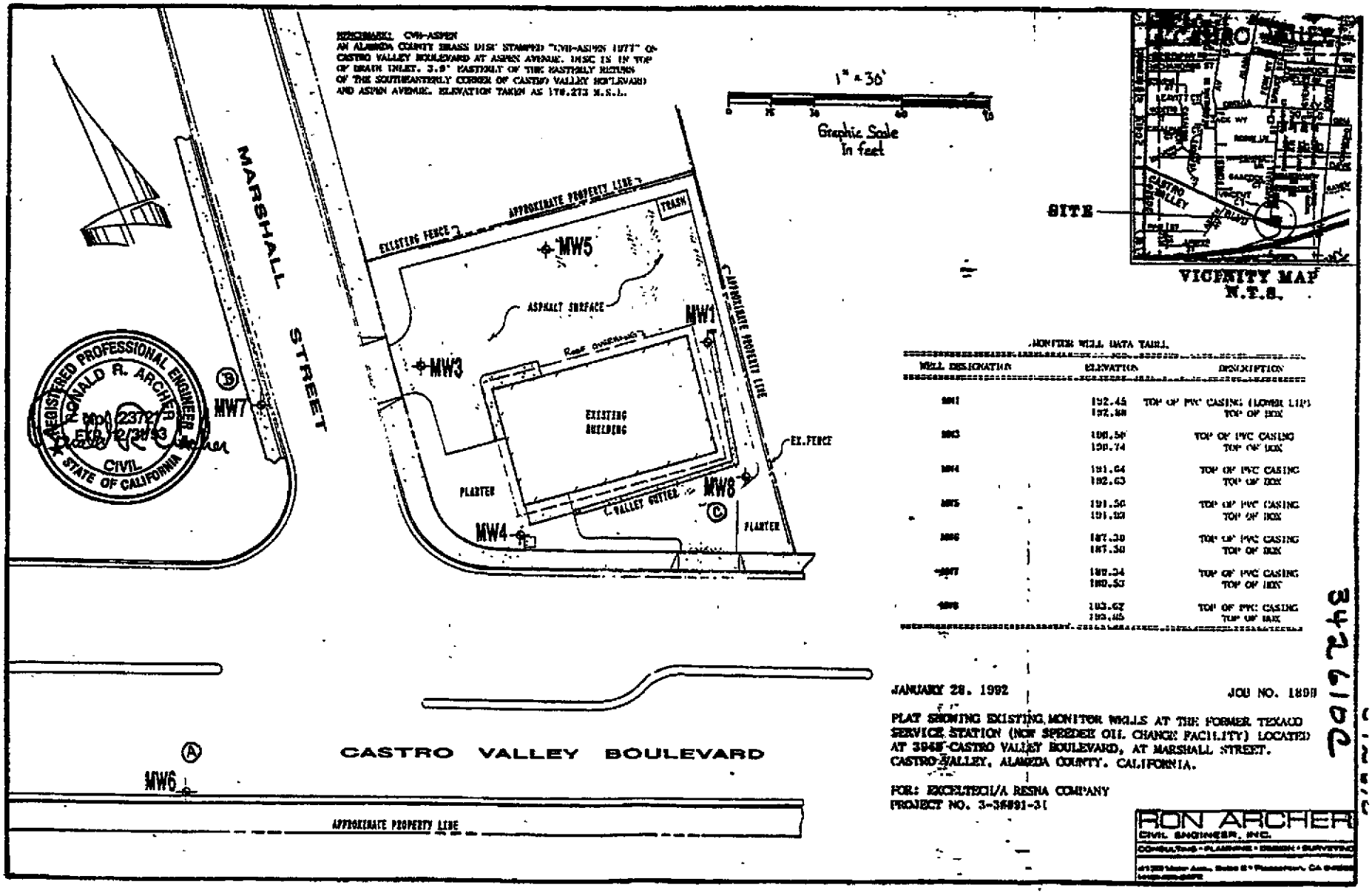


MONITOR WELL DATA TABLE

WELL DESIGNATION	ELEVATION	DESCRIPTION
MW1	192.45 192.88	TOP OF PVC CASING (LOWER LIP) TOP OF BOX
MW3	190.56 190.74	TOP OF PVC CASING TOP OF BOX
MW4	191.64 192.63	TOP OF PVC CASING TOP OF BOX
MW5	191.56 191.82	TOP OF PVC CASING TOP OF BOX
MW6	187.30 187.58	TOP OF PVC CASING TOP OF BOX
MW7	189.54 189.53	TOP OF PVC CASING TOP OF BOX
MW8	193.62 193.45	TOP OF PVC CASING TOP OF BOX

JANUARY 28, 1992

JOB NO. 1898

PLAT SHOWING EXISTING MONITOR WELLS AT THE FORMER TEXACO SERVICE STATION (NOW SPEEDEE OIL CHANGE FACILITY) LOCATED AT 3948 CASTRO VALLEY BOULEVARD, AT MARSHALL STREET, CASTRO VALLEY, ALAMEDA COUNTY, CALIFORNIA.

FOR: EXCELTECH/A RESNA COMPANY
PROJECT NO. 3-38891-31

RON ARCHER CIVIL ENGINEER, INC.
CONSULTING · PLANNING · DESIGN · SURVEYING

342610C

342610C 03502w 10Aug

RESNA EXPLORATORY BORING LOG

Project Name: Former Texaco Service Station
3940 Castro Valley Boulevard
Castro Valley, California

Project Number: 3-30091-31

Boring No. MW-8
Date Drilled: 1/22/92
Logged By: N.L. Nack

Depth (ft.)	Sample No.	Blows/Foot	Unified Soil Classification	SOIL DESCRIPTION	Water Level	OVM Reading (ppm)
				3" asphalt, 8" aggregate base		
1–3			CL	SILTY CLAY, possible fill, very dark grayish brown (2.5Y 3/2), silt ≈20-30% sand ≈20%, soft, moist		
4			CL	SILTY CLAY, yellowish brown (10YR 5/4), silt ≈30%, sand ≈20%, medium stiff, moist		5.5
6	8-1	12				
9			SM	SILTY SAND, brown (10YR 5/3), silt ≈30-40%, fine grained with pockets of sandy silt, medium dense, damp		9.2
11	8-2	13				
16	8-3	33		-interbedded/lensed sandy silt, sand, silty sand, very stiff to dense, damp		7.6
21	8-4	13	CL/CH	CLAY, dark grayish brown (10YR 4/2), silt ≈5%, sand ≈10%, medium to high plasticity, stiff, moist		8.2

REVIEWED BY R.G./C.E.G.

3 42610 C

RESNA EXPLORATORY BORING LOG

03502W10A09

Project Name: Former Texaco Service Station
3940 Castro Valley Boulevard
Castro Valley, California

Boring No. MW-8

Date Drilled: 1/22/92

Project Number: 3-30091-31

Logged By: N. L. Nack

Depth (ft.)	Sample No.	Blows/Foot	Unified Soil Classification	SOIL DESCRIPTION	Water Level	OVM Reading (ppm)
22				CLAY, continued		
23			CH	CLAY, mottled dark yellowish brown (10YR 4/6), silt ≈10%, sand ≈15%, highly plastic, trace gravel in shoe, very stiff, moist		
24						
25						
26	8-5	33				6.4
27						
28			GP	GRAVEL, mottled yellowish brown (10YR 5/4), silt ≈10%, sand ≈30%, gravel ~ 2-1/2 diameter, poorly graded, subangular, includes sandstone, cherts, dense, saturated	▽	
29						
30						
31		36				23.4
32						
33						
34						
35			SW	WELL GRADED SAND, mottled yellowish brown (10YR 5/4), well graded, gravel ≈15%, coarse grained, with pockets of clayey sand, saturated, dense		5.7
36		42				
37						
38				-flowing -sample from drill bit		
39						
40				Bottom of boring: 40 feet		
41				Groundwater encountered: 29 feet		
42						

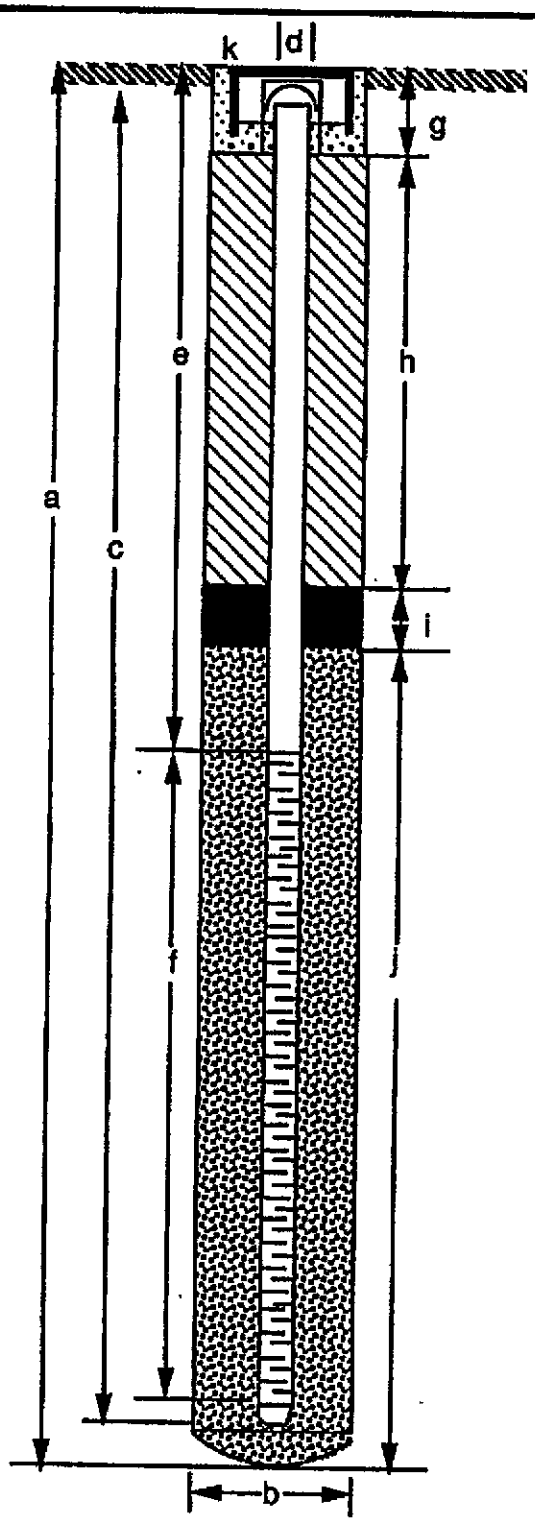
REVIEWED BY R.G./C.E.G.

343610C 035024 1of9

RESNA

MONITORING WELL DETAIL

Project Number	3-30091-31	**Boring/Well No.**	MW-8
Project Name	Former Texaco Service Station	**Top of Casing Elev.**	193.62
County	Alameda	**Ground Surface Elev.**	193.85
Well Permit No.	91685	**Datum**	Mean Sea Level



EXPLORATORY BORING

a. **Total depth** 40 ft.

b. **Diameter** 12 in.

Drilling method Hollow Stem Auger

WELL CONSTRUCTION

c. **Casing length** 40 ft.

Material Schedule 40 PVC

d. **Diameter** 4 in.

e. **Depth to top perforations** 24-1/2 ft.

f. **Perforated length** 15 ft.

Perforated interval from 39-1/2 **to** 24-1/2 ft.

Perforation type Slot

Perforation size 0.02 in.

g. **Surface seal** 2 ft.

Seal material Concrete

h. **Backfill** 20.5 ft.

Backfill material Cement

i. **Seal** 1 ft.

Seal material Bentonite

j. **Gravel pack** 16 ft.

Pack material 2/12 sand

k. 12-inch diameter traffic-rated vault box, locking expansion cap

NOTE: Hole caved 1/2-foot with flowing sands

Department of Water Resources

File # 39

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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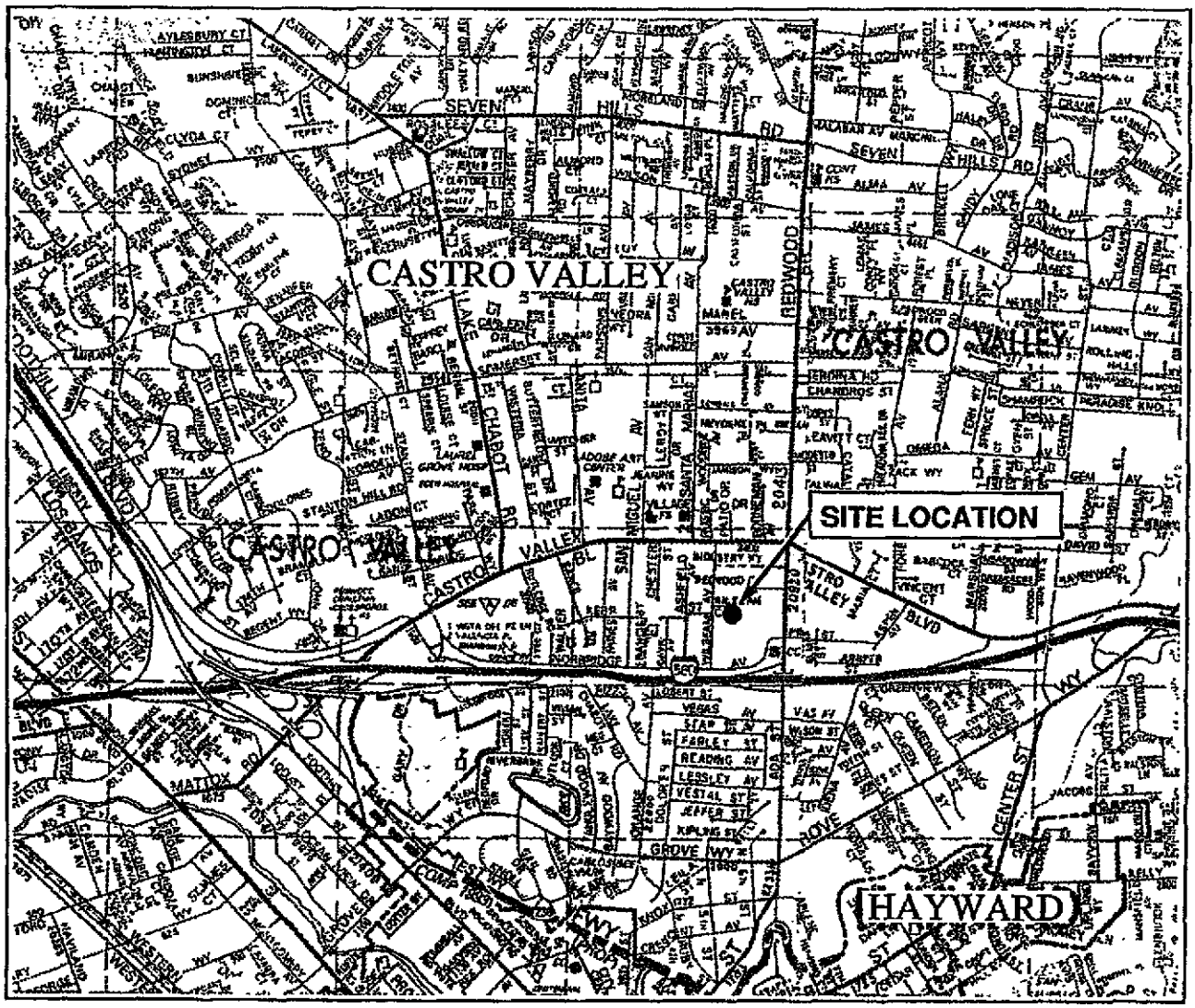

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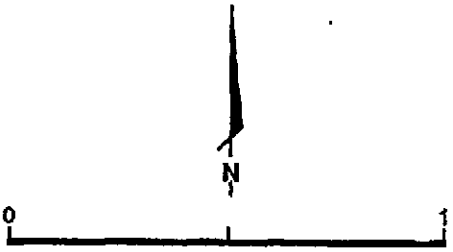
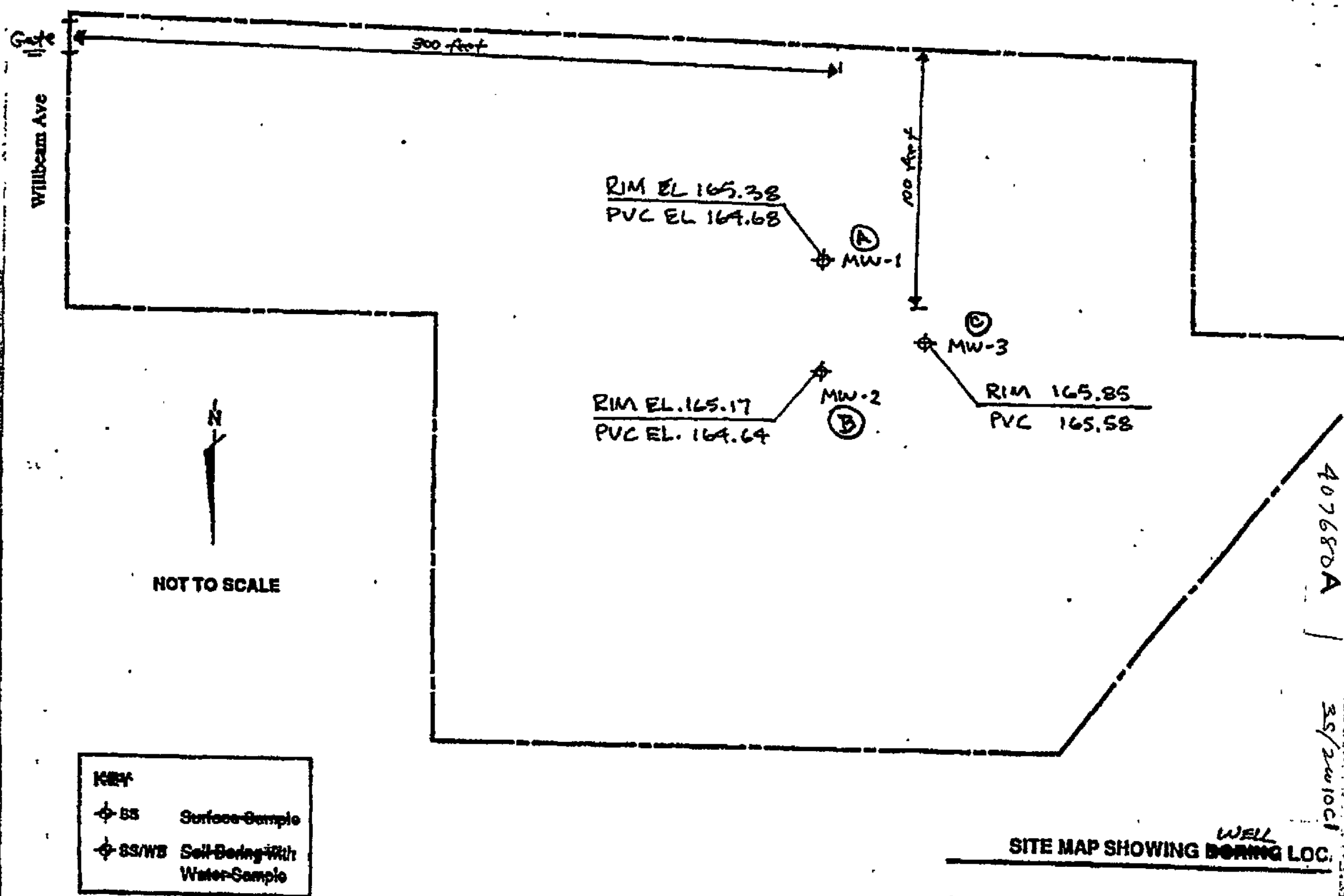


Scale in Miles

LOCATION MAP

BART
February 1993 Castro Valley District Corporation Yard
03715-051-043 Castro Valley, California

DAMES & MOORE FIGURE 1



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3S/2W 10C1

SITE MAP SHOWING WELL ~~BORING~~ LOC.

August 1992 Castro Valley District Copora
3715-051-043 Castro Valley,

DAMES & MOORE FI

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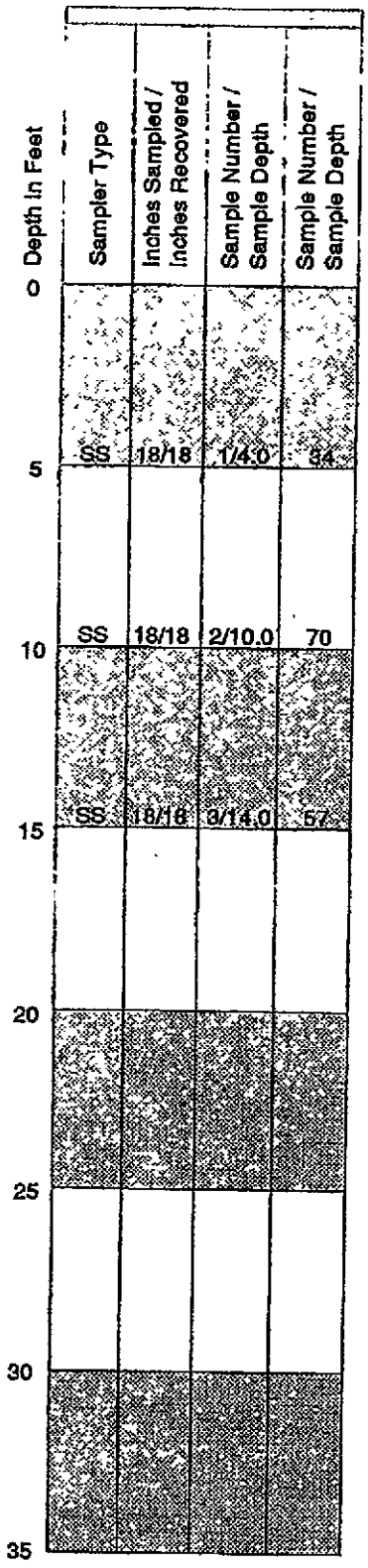
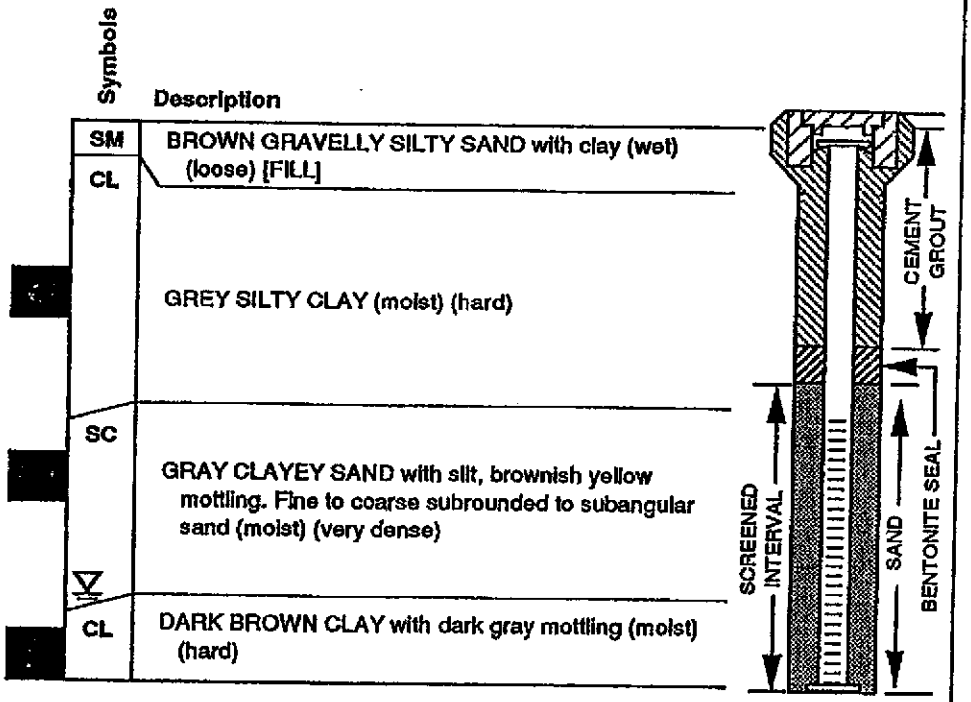
MW-1





Boring completed to a depth of 15.5 feet

NOTES

1. Boring completed at a depth of 15.5 feet on 2/18/93.
2. Boring log indicates interpreted subsurface conditions only at the location and the time the boring was drilled.
3. For an explanation of terms used see the Soil Classification Chart and Key to Sampling, Plate —.

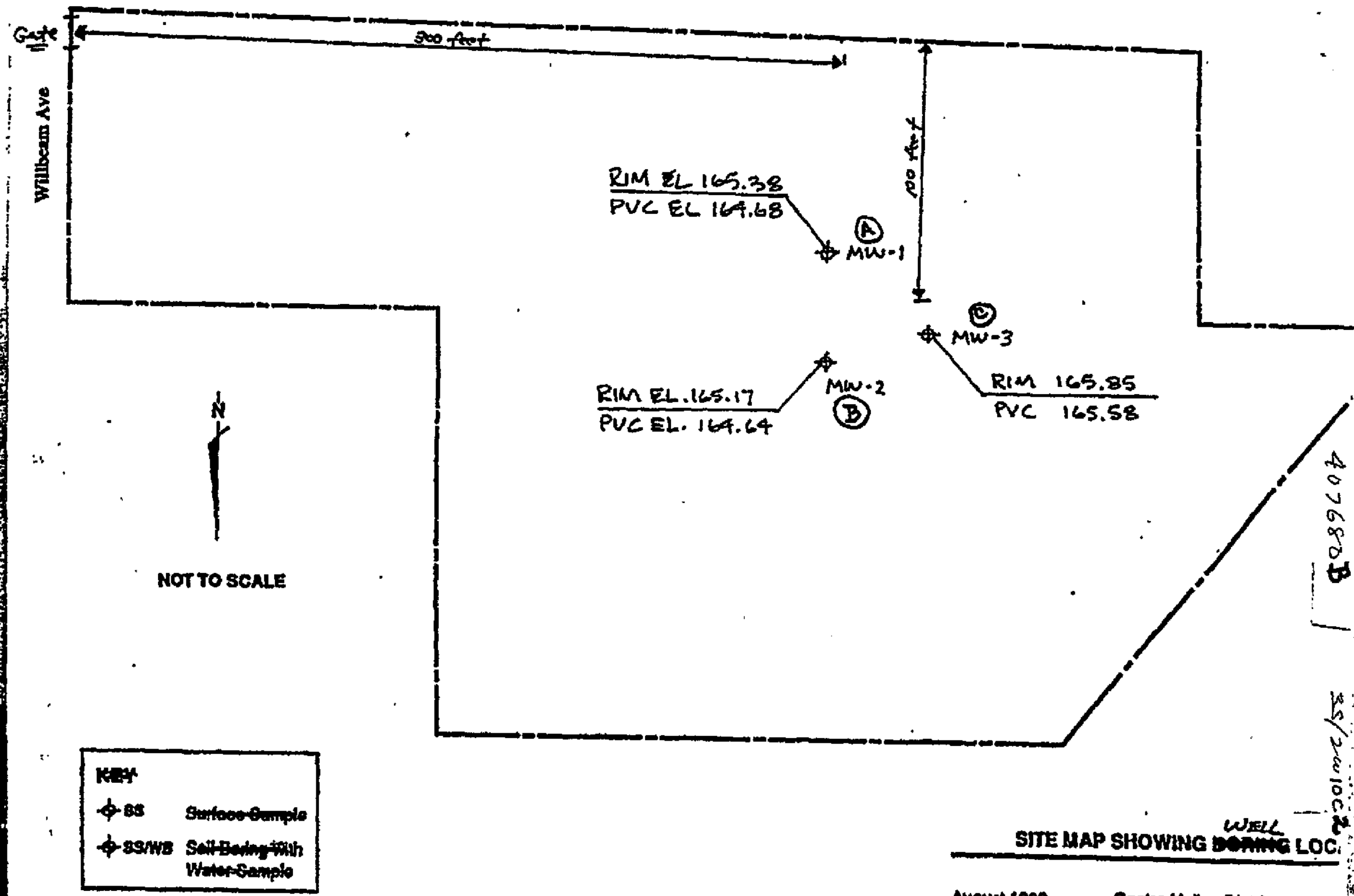
Department of Water Resources

File # 40

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED



SITE MAP SHOWING ~~BORING~~ WELL LOC.

August 1992
3715-051-043

Castro Valley District Copora
Castro Valley,

DAMES & MOORE

FI

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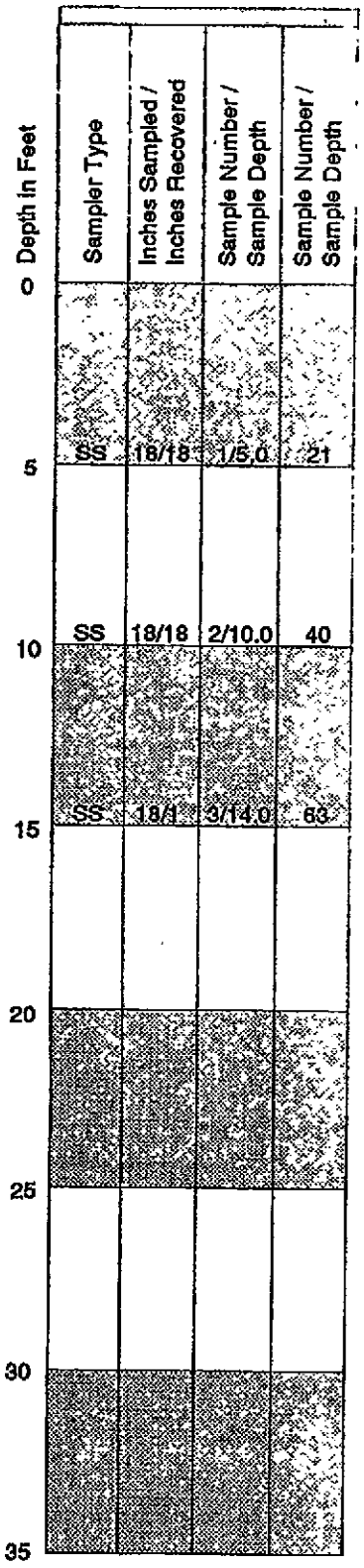
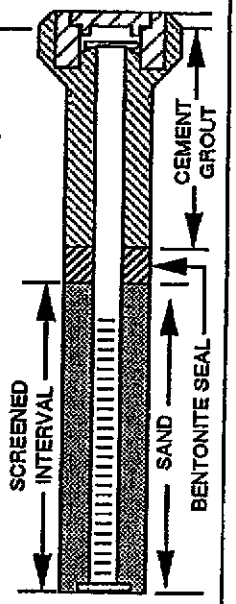
MW-2



Symbols	Description
SM	BROWN GRAVELLY SILTY SAND with clay (wet) (loose) [FILL]
CL	DARK GRAY CLAY, trace silt (moist) (very stiff)
SC	Grades to olive gray silty clay @ 9.0 ft.
	OLIVE GREY SILTY CLAYEY SAND, fine grained, brownish yellow mottling (moist) (dense)
	Coarsening sand @ 13.0 ft.
CL	OLIVE GRAY CLAY with dark gray mottling, trace silt (moist) (hard)



Boring completed to a depth of 15.5 feet

NOTES

1. Boring completed at a depth of 15.5 feet on 2/18/93.
2. Boring log indicates interpreted subsurface conditions only at the location and the time the boring was drilled.
3. For an explanation of terms used see the Soil Classification Chart and Key to Sampling, Plate —.

3715-061-043/11-93

DAMES & MOORE

PLATE —

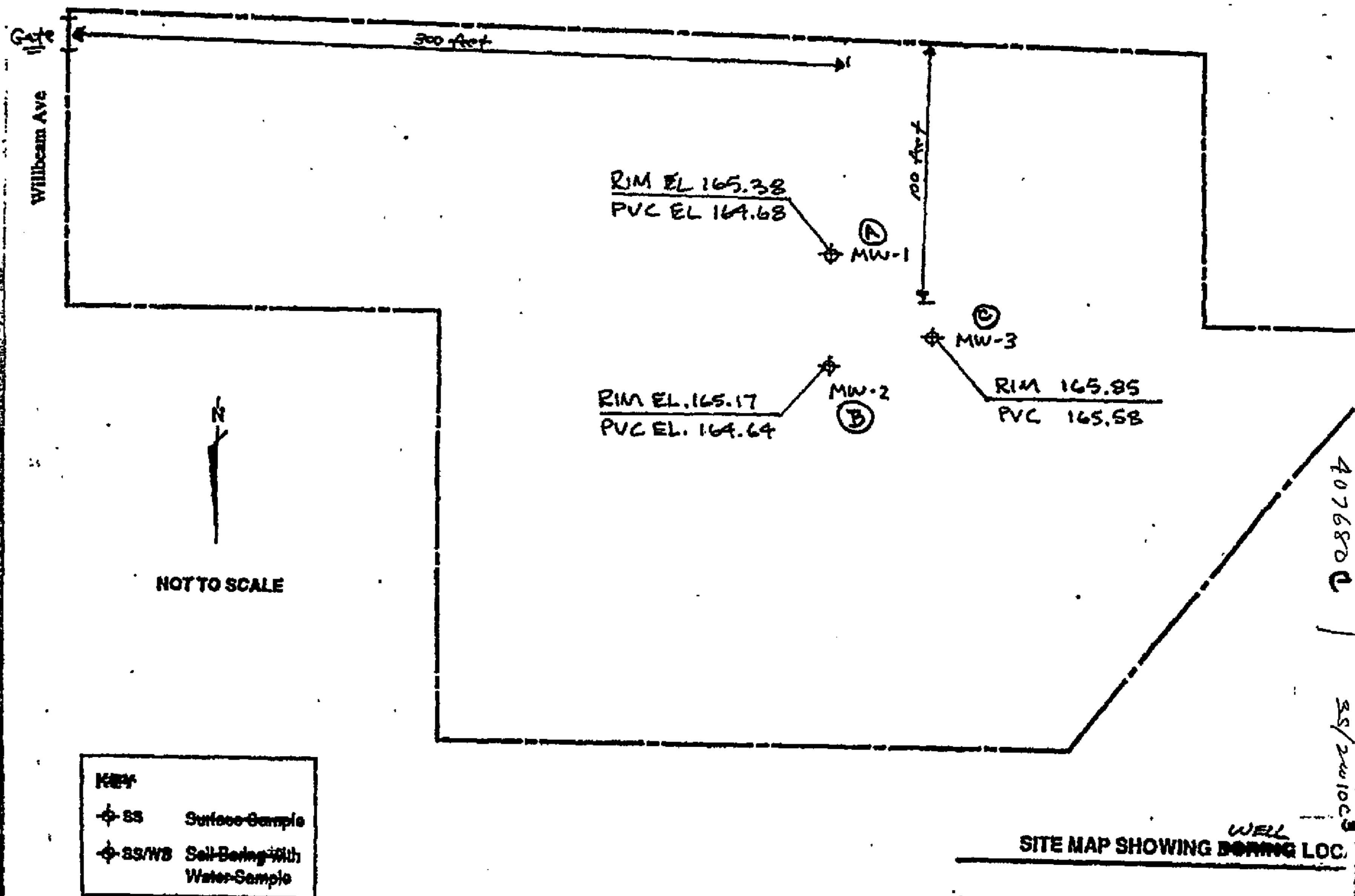
Department of Water Resources

File # 41

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED



SITE MAP SHOWING ~~BORING~~ WELL LOC

August 1992
3715-051-043

Castro Valley District Copora
Castro Valley,

DAMES & MOORE

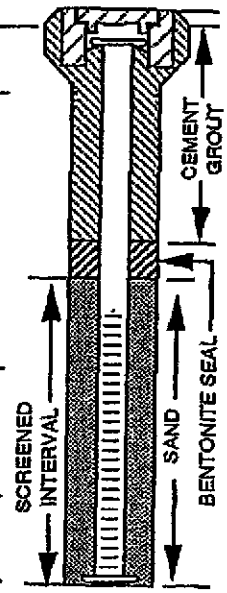
FI

407680C 03502W10C03

MW-3

Depth in Feet	Sampler Type	Inches Sampled / Inches Recovered	Sample Number / Sample Depth	Sample Number / Sample Depth
0				
5	SS	18/18	1/5.0	67
10	SS	18/18	2/10.0	50
15	SS	18/18	3/14.0	68
20				
25				
30				
35				

Symbols	Description
SM	BROWN GRAVELLY SILTY SAND with clay, (wet) (loose) [FILL]
CL	DARK GRAY CLAY (moist) (hard)
SM	OLIVE GRAY SILTY SAND with clay, fine to very fine grained. Some brownish yellow mottling (very dense)
CL	OLIVE GRAY CLAY with dark gray mottling (moist) (hard)



Boring completed to a depth of 15.5 feet

NOTES

1. Boring completed at a depth of 15.5 feet on 2/18/93.
2. Boring log indicates interpreted subsurface conditions only at the location and the time the boring was drilled.
3. For an explanation of terms used see the Soil Classification Chart and Key to Sampling, Plate —.

3715-061-043/11-93

DAMES & MOORE

PLATE —

Department of Water Resources

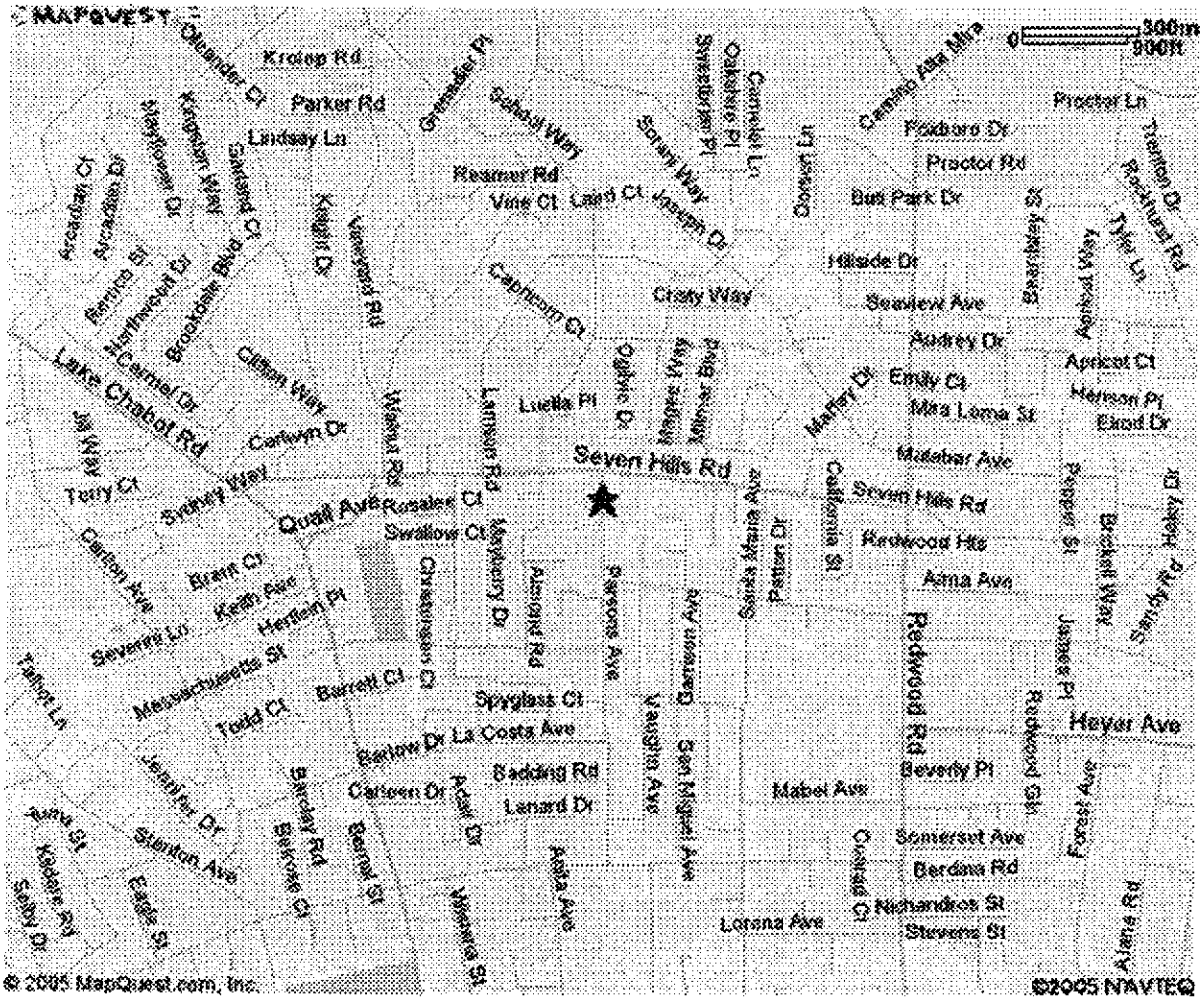
File # 42

P&D Notes

MAPQUEST.

[18700-18849] Parsons Ave
Castro Valley CA
94546 US

Notes:

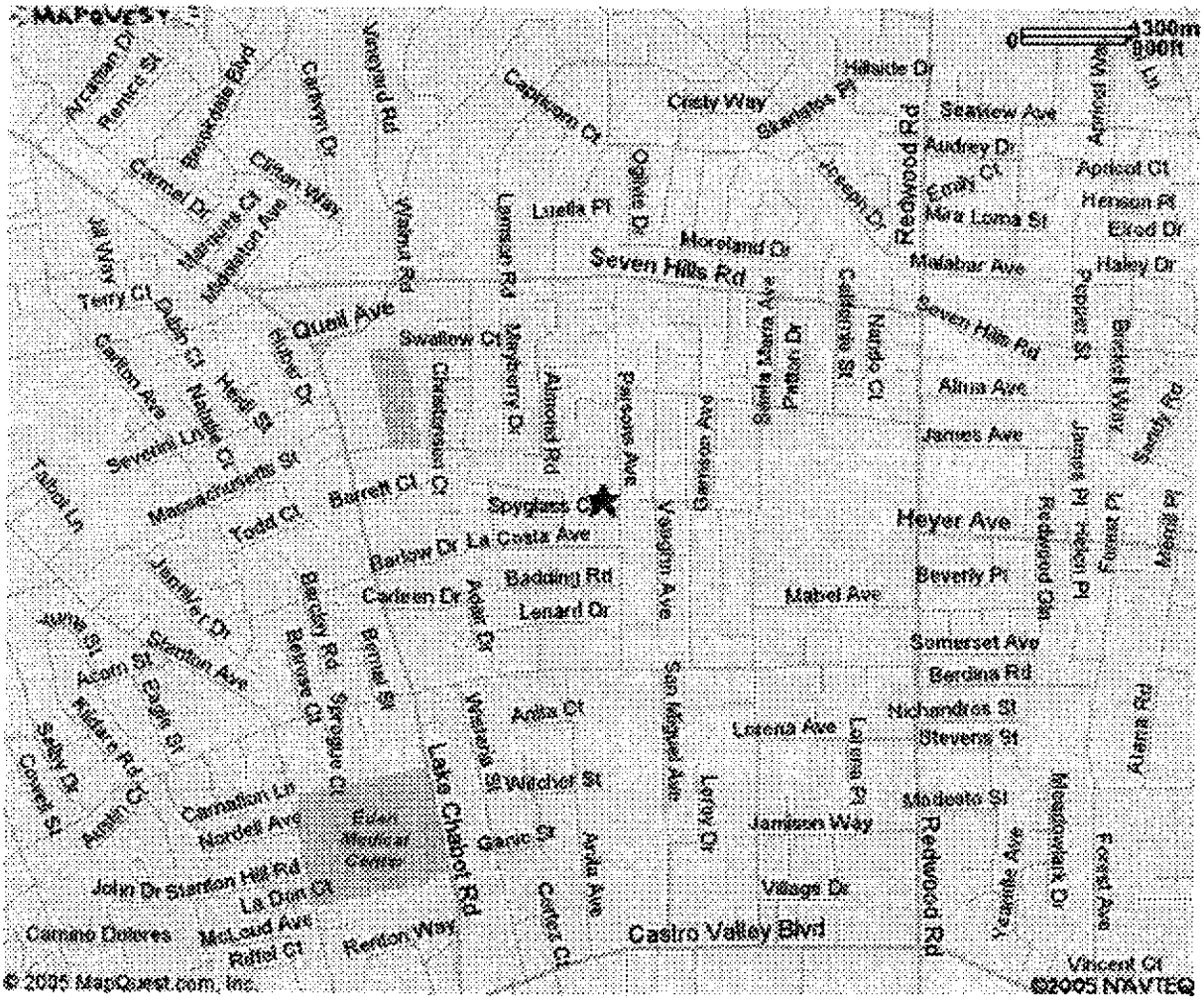


P&D Notes

MAPQUEST

[3600-3699] Parsons Ct
Castro Valley CA
94546 US

Notes:



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WELL COMPLETION REPORT
(WELL LOGS)

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Department of Water Resources

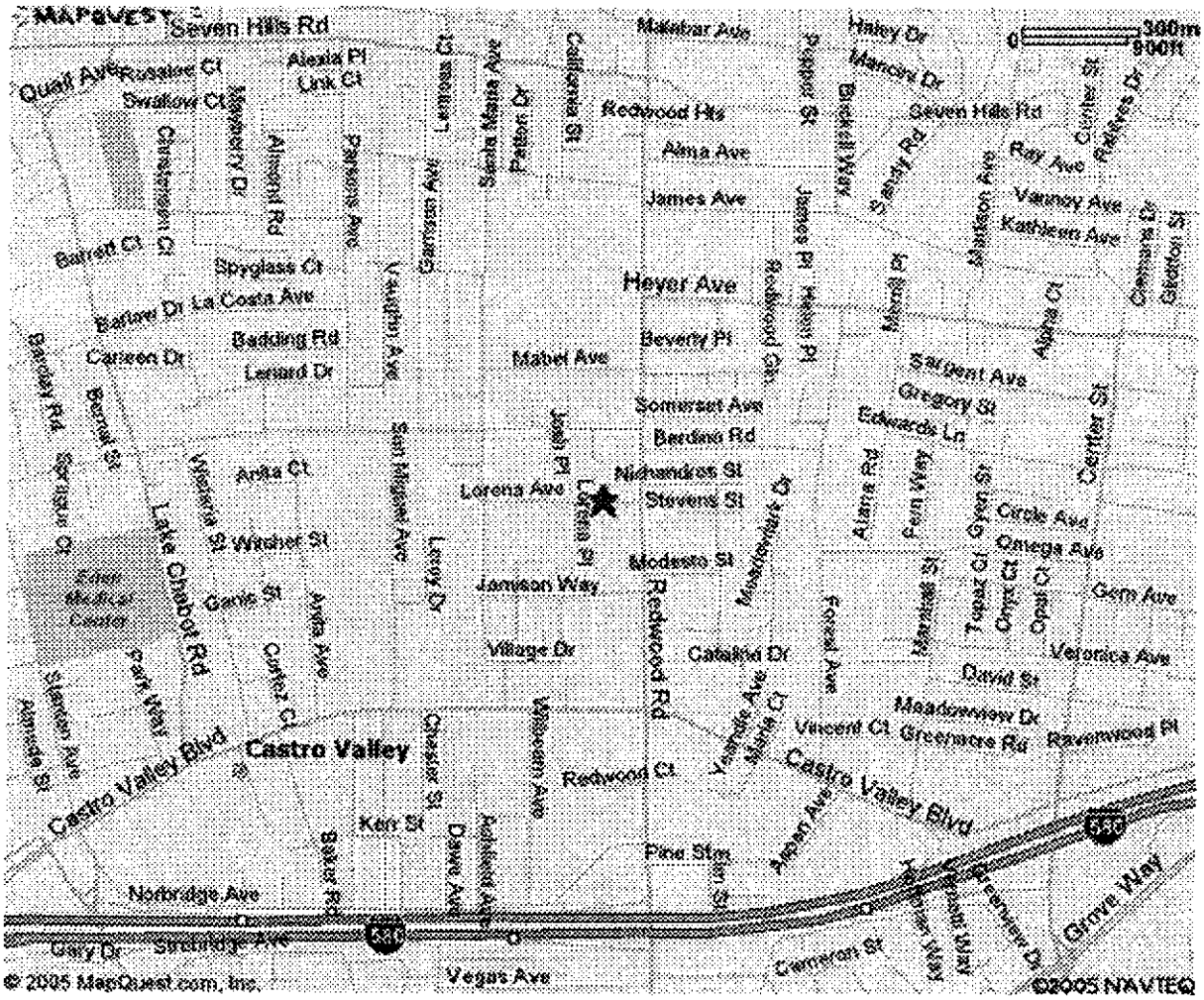
File # 43

P&D Notes

MAPQUEST

[3800-3899] Lorena Ave
Castro Valley CA
94546 US

Notes:



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(WELL LOGS)

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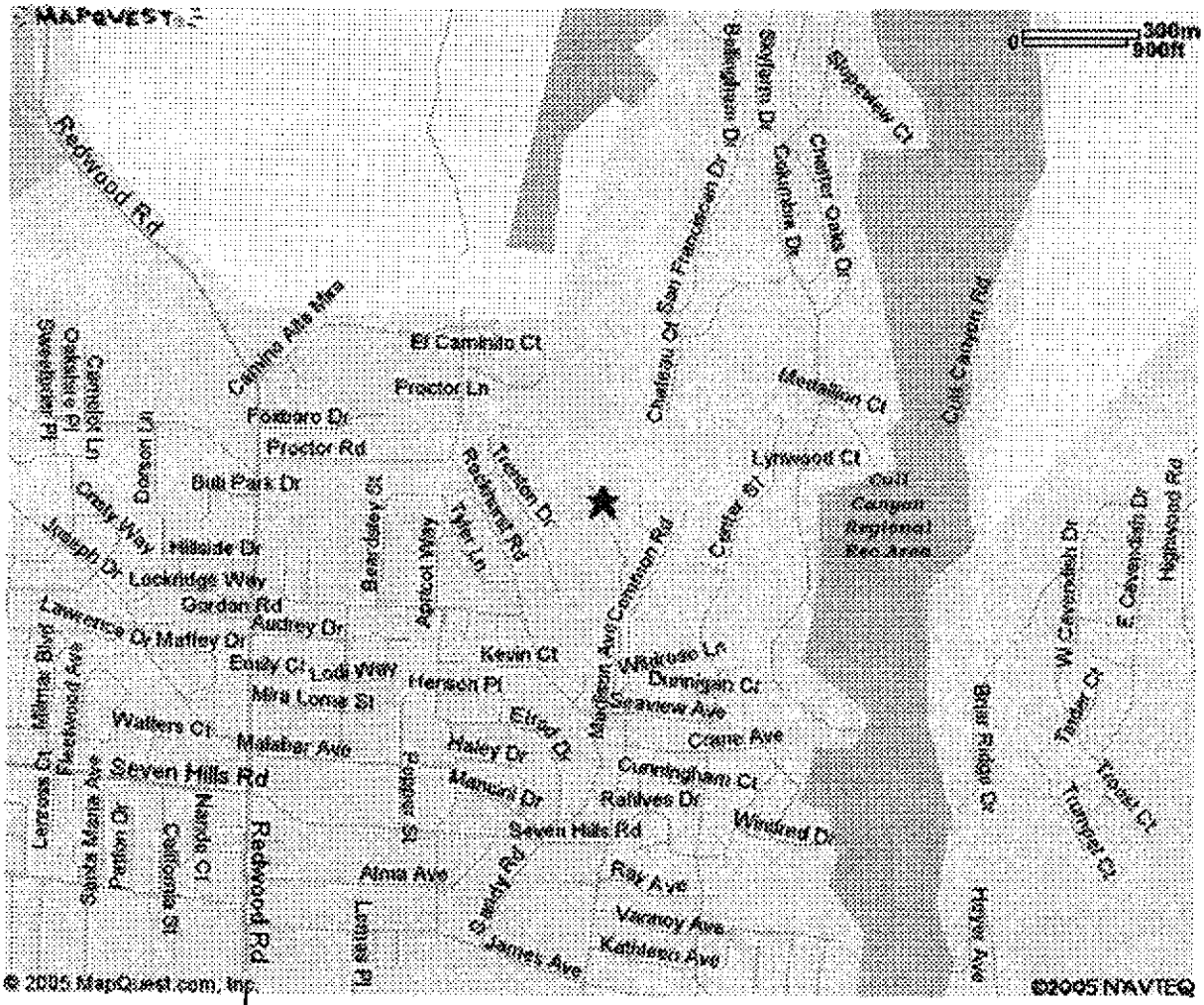
Department of Water Resources

File # 44

MAPQUEST

[17300-17999] Madison Ave
Castro Valley CA
94546 US

Notes:



Castro Valley Blvd is 325 ft below the bottom of this page

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(WELL LOGS)

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Department of Water Resources

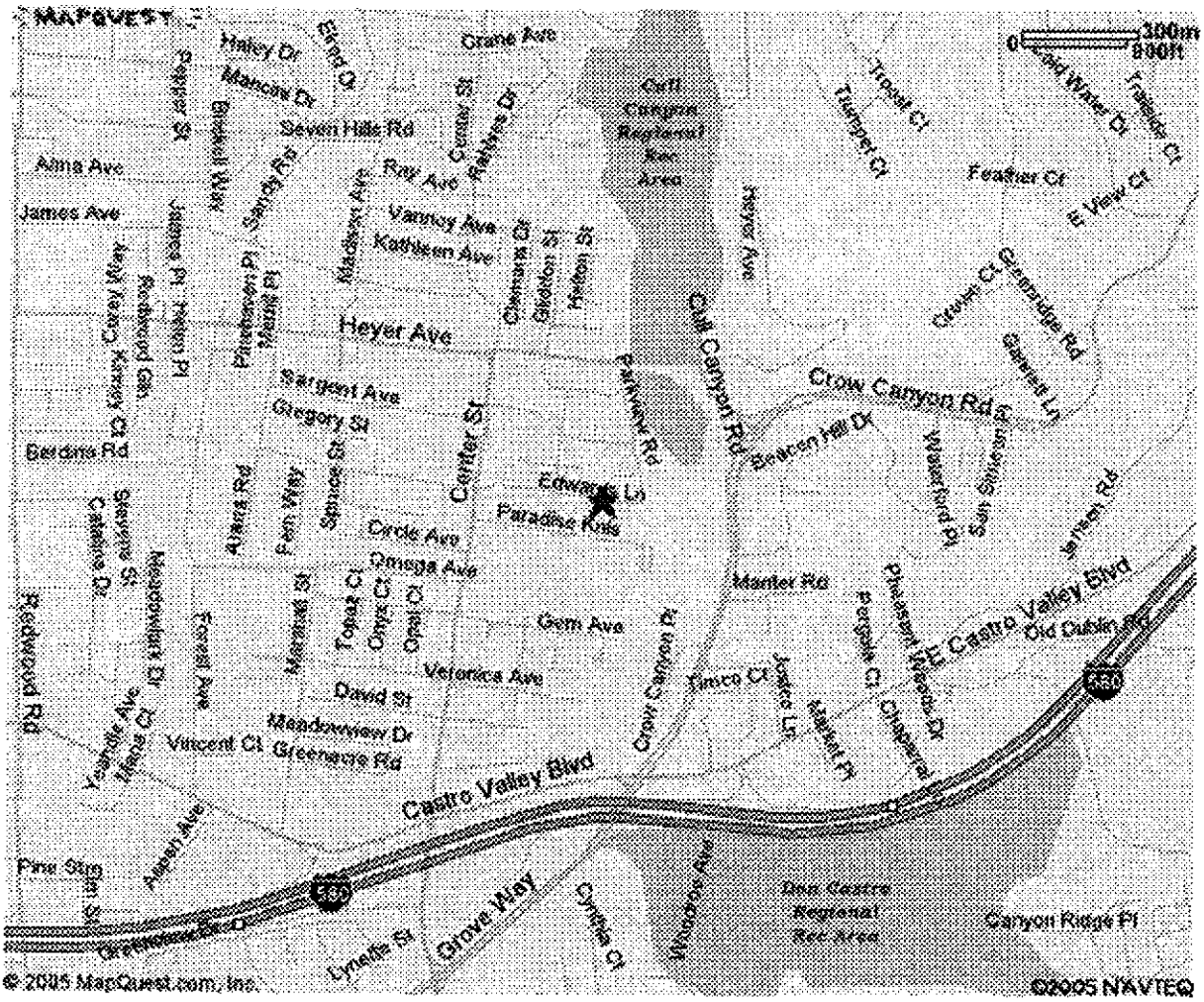
File # 45

P&D Notes

MAPQUEST

[4546-4599] Edwards Ln
Castro Valley CA
94546 US

Notes:



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WELL COMPLETION REPORT
(WELL LOGS)

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Department of Water Resources

File # 46

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

Department of Water Resources

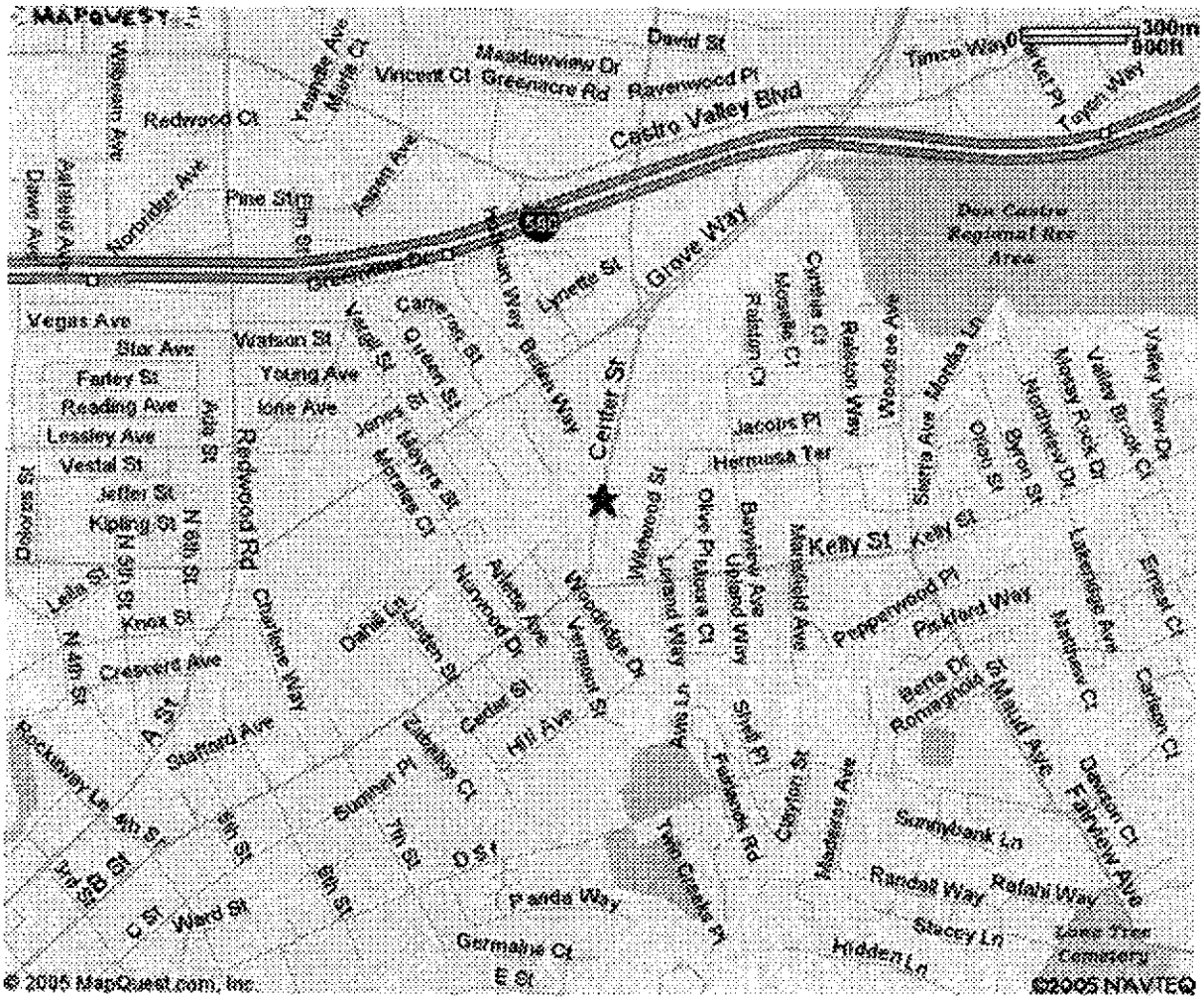
File # 47

P&D Notes

MAPQUEST

[22500-22523] Center St
Hayward CA
94541 US

Notes:



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WELL COMPLETION REPORT
(WELL LOGS)

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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