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TRANSMITTAL PAGE

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TO: Scott Jerry - Alameda County

FROM: Mardo Kaprealian

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SUBJECT: Unocal S/S # 3072 - Castro Val.
1/ Site Plan 2/ Borings 3/ Table 1

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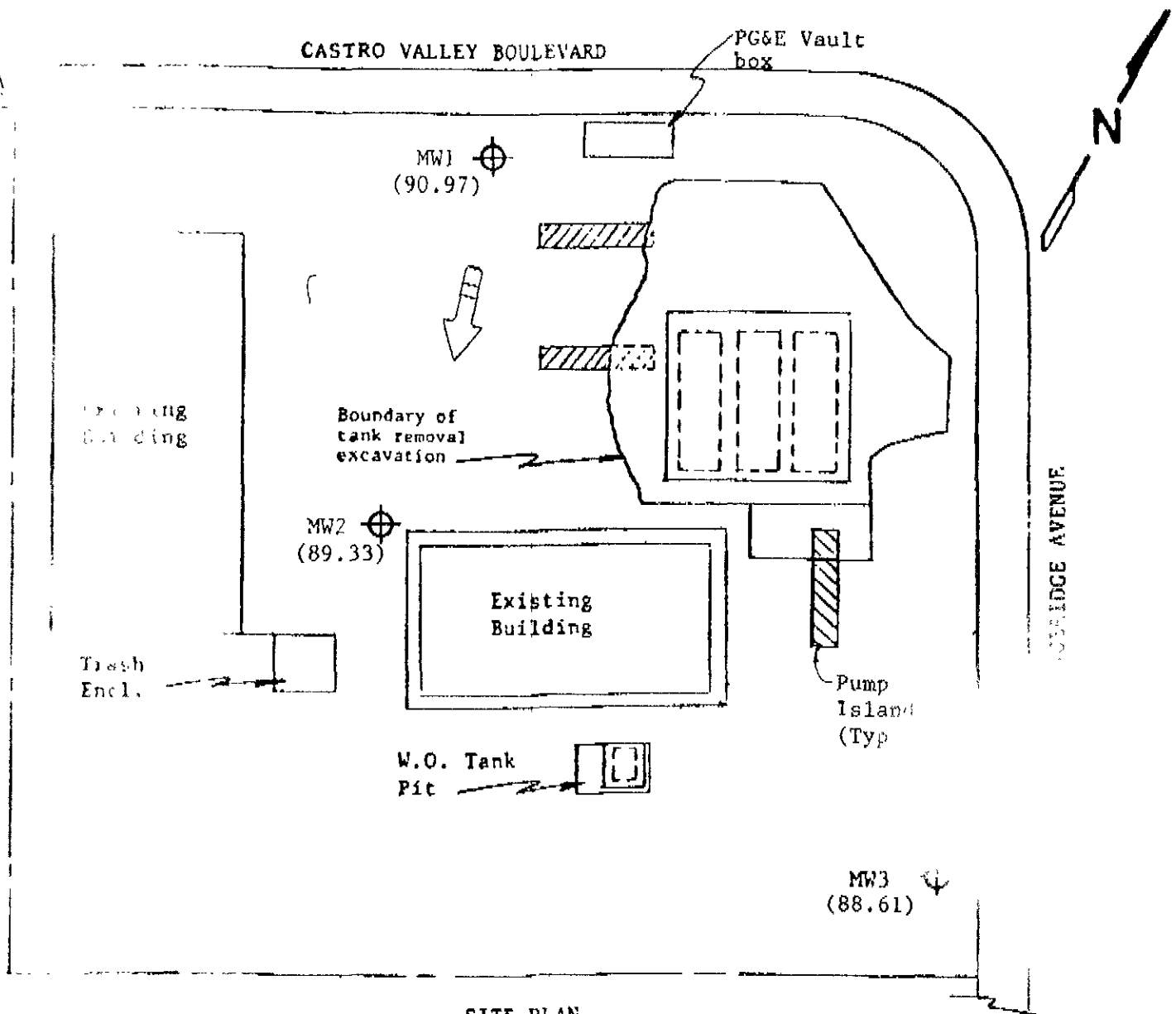


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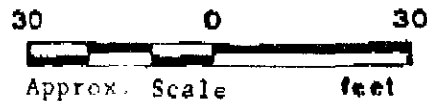


SITE PLAN

LEGEND

- Monitoring Well
- () Ground water elevation on 1/24/90. Elevation at top of MW1 well cover assumed 100.00' as datum.

Direction of ground water flow



Unocal S/S #3072
2445 Castro Valley Blvd.
Castro Valley, CA

TABLE 1
MONITORING DATA

<u>Well No.</u>	<u>Top of Well Elevation (feet)*</u>	<u>Depth to Water (feet)</u>	<u>Water Surface Elevation (feet)</u>	<u>Sheen Presence</u>	<u>Volume Purged (Gallons)</u>
(Monitored on January 24, 1990)					
MW1	100.00	9.03	90.97	--	0
MW2	98.77	9.44	89.33	--	0
MW3	96.08	7.47	88.61	--	0
(Monitored and Purged on January 22 & 23, 1990)					
MW1	100.00	10.07	89.93	None	120
MW2	98.77	10.29	88.48	None	45
MW3	96.08	8.12	87.96	None	130

* Elevation at top of MW1 well cover assumed 100.00' as datum.

B O R I N G L O G

Project No. 91-P89-1106	Boring & Casing Diameter 9" 2"	Logged By D.L.
Project Name Unocal Castro Valley	Well Head Elevation N/A	Date Drilled 1/18/90
Boring No. MW1	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	C. W. level	Depth (ft) Samples	Strati- graphy USCS	Description
		0		A.C. Pavement Clay, sand, and gravel: fill
			CH	Clay, high plasticity, stiff, moist, black.
5/1/14		5		Color change at 5 feet to dark gray 10-15% sand.
			N/A	Shale bedrock, weathered, locally hard, fractured, slightly moist, olive brown, clayey inside fractures.
16/33/43				
		10		
22/46/ 50-5"				Shale bedrock at 13 feet, as above, wet.
		15		
		20		Color change at 20 feet to very dark gray.

B O R I N G L O G

Project KEI-P89		Boring & Casing Diameter 9" 2"		Logged By D.L.
Project Name Unocal Castro Valley		Well Head Elevation N/A		Date Drilled 1/18/90
Boring No. MW1		Drilling Method Hollow-stem Auger	Drilling Company EGI	
Penetration blows/6"	G. W. level	Depth (ft) Samples	Strati- graphy USCS	Description
		25	N/A	Shale bedrock, weathered, locally hard, fractured, moist, very dark gray, clayey in fractures.
		30		
		35		
		40		
				TOTAL DEPTH: 25.5'

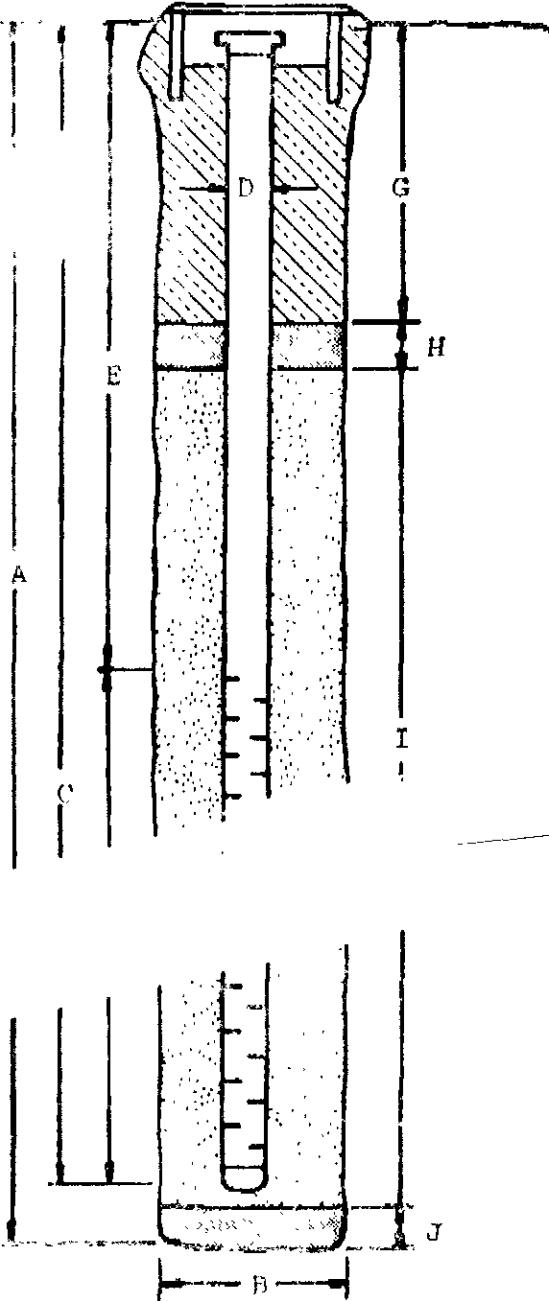
W E L L C O M P L E T I O N D I A G R A M

PROJECT NAME: Unocal - Castro Valley BORING/WELL NO. MW1

PROJECT NUMBER: KEI-P89-1106

WELL PERMIT NO.: _____

Flush-mounted Well Cover



A. Total Depth: 25.5'

B. Boring Diameter*: 9"

Drilling Method: Hollow Stem Auger

C. Casing Length: 25.5'

Material: Schedule 40 PVC

D. Casing Diameter: OD = 2.375"

ID = 2.067"

E. Depth to Perforations: 8'

F. Perforated Length: 17.5'

Machined Perforation Type: Slot

Concrete

H. Seal: 2'

Seal Material: Bentonite

I. Gravel Pack: 19.5'

Pack Material: RMC Lonestar Sand

Size: #3

J. Bottom Seal: None

Seal Material: N/A

*Boring diameter can vary from 8 1/4" to 9" depending on bit wear.

B O R I N G L O G

Project KEI-P81 106	Boring & Casing Diameter 9" 2"	Logged By D.L.
Project Name Unocal Castro Valley	Well Head Elevation N/A	Date Drilled 1/18/90
Boring No. MW2	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (ft) Samples	Strati- graphy USCS	Description
36/48/ 50-5"			SW- SC	Clayey sand with gravel, 15% clay, gravel as above, hard, wet, olive brown.
			N/A	Shale bedrock, very hard, fractured, dark yellowish brown to dark brown.
22/50-5"		25		Shale bedrock, well weathered to clay, locally hard, very dark gray.
50-3"		30		No recovery, shale bedrock, as above near refusal.
		35		
		40		
				TOTAL DEPTH: 30'

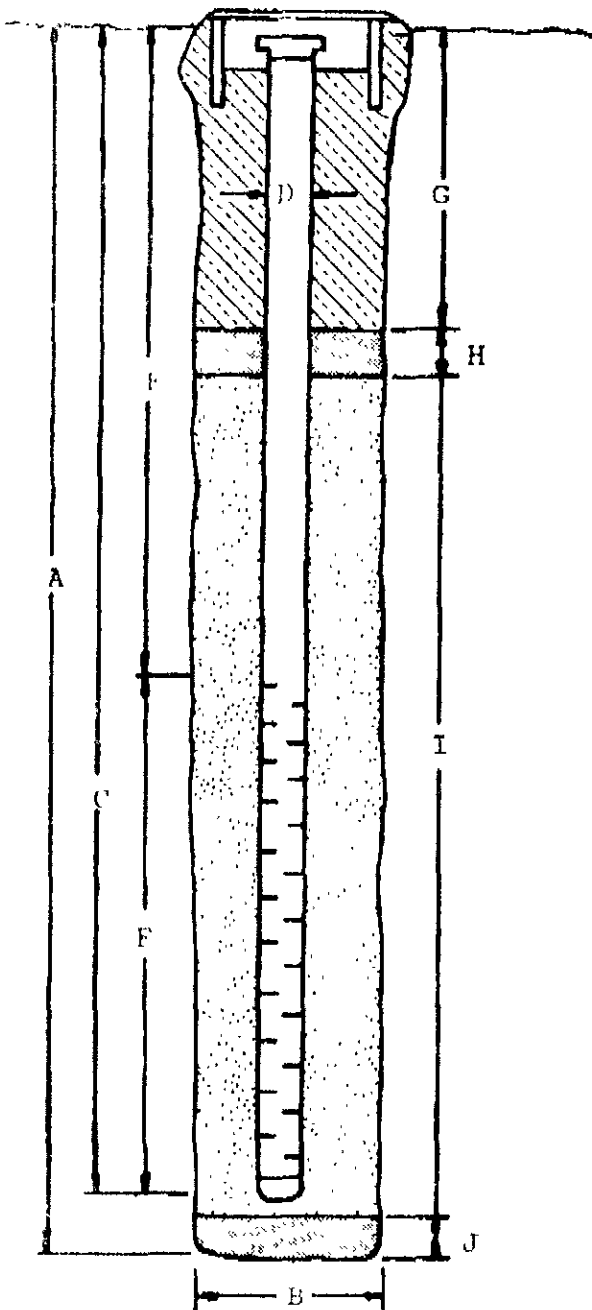
WELL COMPLETION DIAGRAM

PROJECT NAME: Unocal - Castro Valley BORING/WELL NO: 92

PROJECT NUMBER: KEY-P89-1106

WELL PERMIT NO.: _____

Flush-mounted Well Cover



A. Total Depth: 30'

B. Boring Diameter*: 9"

Drilling Method: Hollow Stem

Aspec

C. Casing Length: 25'

Material: Schedule 40 PVC

D. Casing Diameter: OD = 2.375"

ID = 2.067"

E. Deposition: _____

F. Perforation Length: 49'

Machined

Perforation Type: Slot

Perforation Size: 0.020"

G. Substrate: 2'

Seal Material: Concrete

H. Seal: 2'

Seal Material: Monite

I. Gravel Pack: _____

nestar

Pack Material: Sand

Size: #3

Bottom Seal: None

Seal Material: N/A

*Boring diameter can vary from 8-1/4" to 9" depending on bit wear.

B O R I N G L O G

Project No. KET-P89-1106	Boring & Casing Diameter 9" 2"	Logged By D.L.
Project Name Unocal Castro Valley	Well Head Elevation N/A	Date Drilled 1/19/90
Boring No. MW3	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (ft) Samples	Strati- graphy USCS	Description
		0		A.C. Pavement Sand and gravel: fill
				Silty clay, high plasticity, stiff, moist, very dark grayish brown, 5-10% sand.
10/17/22		5	CH	Gravelly clay, high plasticity, 5-10% silt, very stiff, moist, light olive brown.
20/21/24			GC	Clayey gravel with sand, very dense, moist to wet, olive brown, gravel is almost entirely shale.
23/28/33	▼	10		
18/30/23		15		Clayey gravel with sand, as above, occasionally grading to gravelly clay, very stiff, moist, olive brown.
		20		

B O R I N G L O G

Project No. KE1-P89-1106	Boring & Casing Diameter 9" 2"	Logged By D.L.
Project Name Unocal Castro Valley	Well Head Elevation N/A	Date Drilled 1/19/90
Boring No. MW3	Drilling Method Hollow-stem Auger	Drilling Company EGI

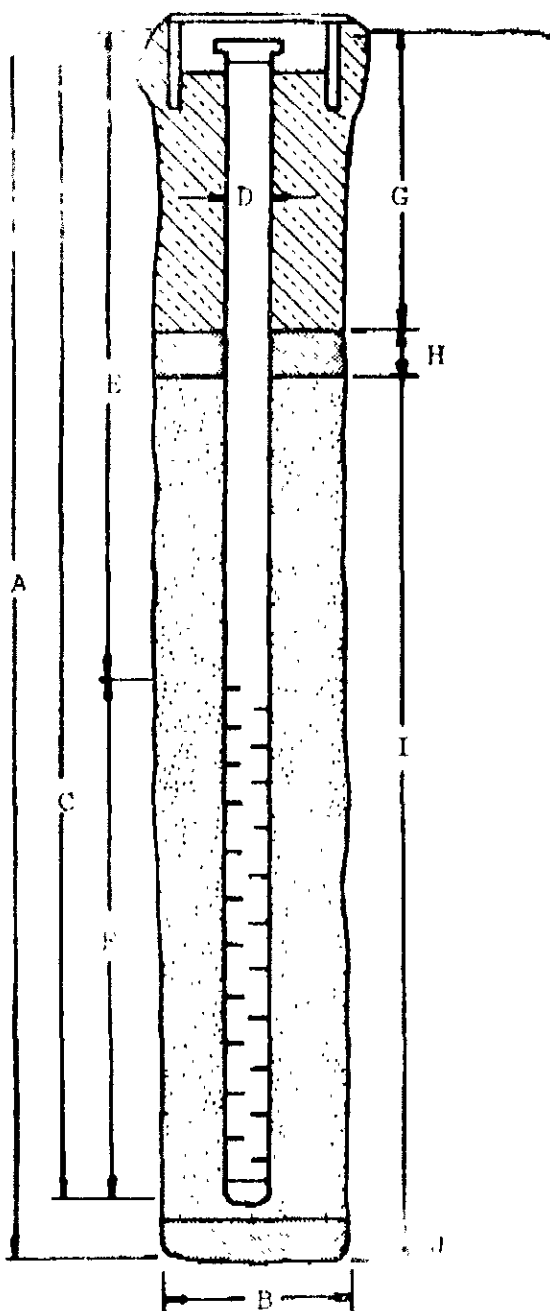
Penetration blows/6"	G. W. level	Depth (ft) Samples	Strati- graphy USCS	Description
				Clayey gravel with sand, as above, ocasionally grading to gravelly clay, as above.
		25		
		30		
		35		
		40		
				TOTAL DEPTH: 22'

WELL COMPLETION DIAGRAM

PROJECT NAME: Unocal - Castro Valley BORING/WELL NO. MW3PROJECT NUMBER: KEJ-P89-1106

WELL PERMIT NO.: _____

Flush-mounted Well Cover



- A. Total Depth: 22'
- B. Boring Diameter*: 9"
Drilling Method: Hollow Stem Auger
- C. Casing Length: 22'
Material: Schedule 40 PVC
- D. Casing Diameter: OD = 2.375"
ID = 2.067"
- E. Depth to Perforations: 5'
- F. Perforated Length: 17'
Perforation Type: Machined Slot
Perforation Size: 0.020"
- G. Surface Seal: 4'
Seal Material: Concrete
- H. Seal: 18'
Seal Material: Bentonite
- I. Gravel Pack: _____
Pack Material: RMC Lonestar Sand
Size: #3
- J. Bottom Seal: None
Seal Material: N/A

*Boring diameter can vary from 8-1/4" to 9" depending on bit wear.