

Logs 32337
32338

BROADBENT & ASSOCIATES

ENGINEERING, GEOLOGICAL & ENVIRONMENTAL CONSULTANTS

Transmittal

833 Nevada Highway
Suite 3B
Boulder City, NV 89005
(702) 293-6070

Date: June 2, 1989

Project: 89112

To: Nevada Department of Conservation
and Natural Resources
Division of Water Resources
1515 E. Tropicana Ave.
Las Vegas, Nevada 89119

Attention: Mr. Bill Quinn

We are sending by : Regular Mail
 Special Delivery
 Air Mail
 Express Mail
 Carrier
 Federal Express

The following: Enclosed
 Separately

Quantity:	Description:
1	Site Map
1	Lithologic Log of Monitor Well M-1
1	Lithologic Log of Monitor Well M-2
1	Construction Log of Monitor Well M-1
1	Construction Log of Monitor Well M-2

Div. of Water Resources
Branch Office - Las Vegas, NV

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Comments:

The enclosed site map and logs correspond to Waiver No. MO-2014

Sent by:

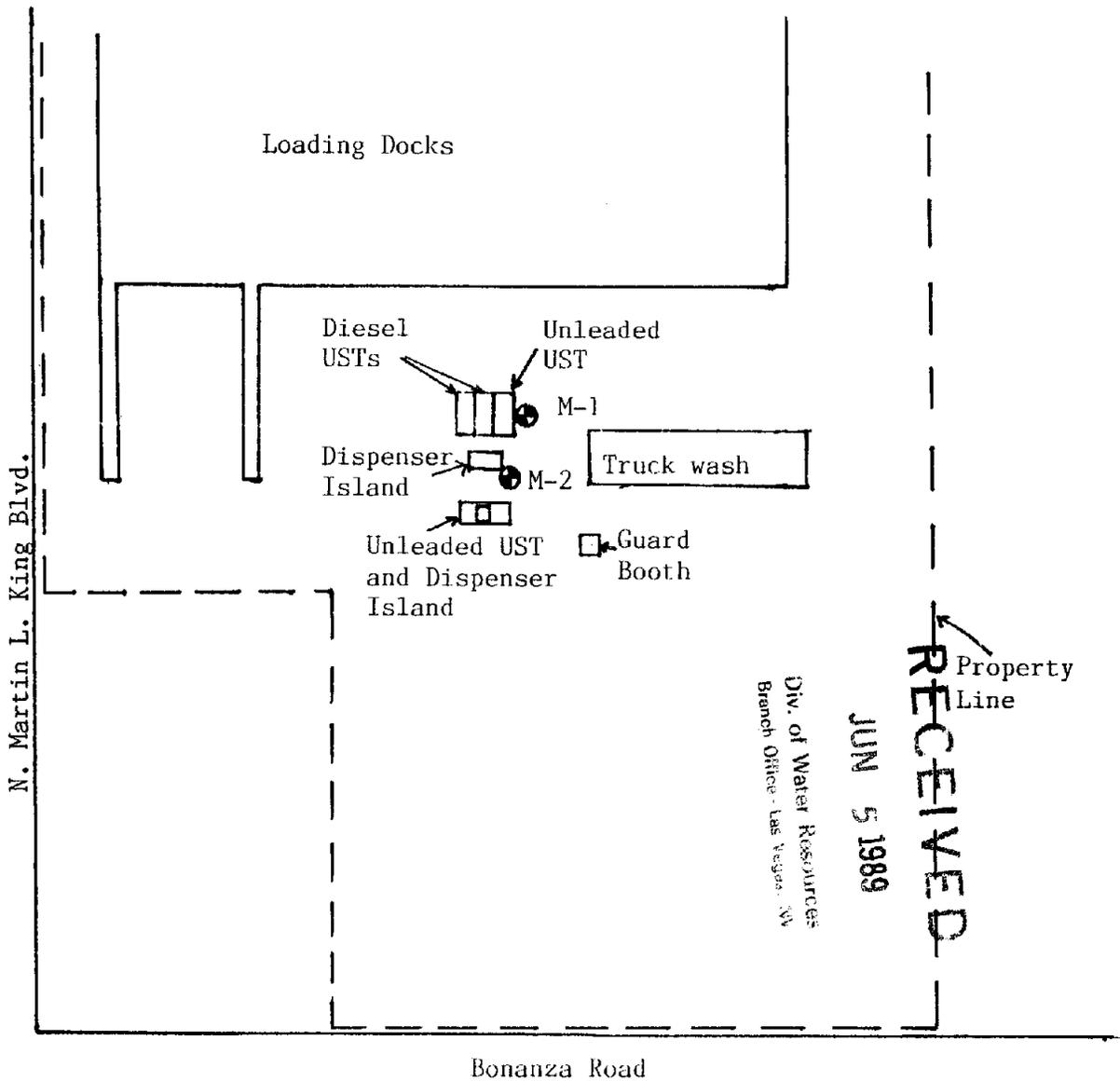

Robert H. Miller

Copies to:

Date: 5/25/89

Approved for Publication By: RCB

Prepared By: RHM



EXPLANATION

M-1  Monitor Well

Approximate Scale: 1-inch = 100 feet



North

PROJECT NO. 89112

DRAWING NO. 1

SITE MAP

MO-2014

SUMMARY OF LITHOLOGY

DATE DRILLED: 5/17/89

ELEVATION:

EQUIPMENT: Failing Air Rotary

Depth in Feet	Samples Blows/ Ft.	Moisture	Consistency	Color	Description	PID (ppm)	Remarks
		Dry	Med. Dense	Tan	GM: silty gravel		
5	22	Slightly moist	very stiff	Tan	CL: Gravelly clay, moderate plasticity, hydrocarbon odor and staining.	0.0	Putrid smell
10	16	Slightly moist	very stiff	Green	CL: silty clay, high plasticity, no hydrocarbon odor or stain.		Sample No. M1-11
		Wet	very dense		GW: Cemented gravels	75.3	Groundwater at 13' during drilling
			very hard	white	CALICHE		
		Wet	stiff	white	CL: Gravelly clay		
					As above		

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Logger: RHM
 Approved for Publication By: RCB
 Drilling Contractor: Kleinfelder
 Date: 5-19-89
 Driller: Mark Bucharme

GROUNDWATER END OF BORING AT 25.0 FEET

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED.

MONITOR WELL M-1

PROJECT NO. 89112
DRAWING NO. 2

MO-2014

SUMMARY OF LITHOLOGY

DATE DRILLED: 5/17/89

ELEVATION:

EQUIPMENT: Failing Air Rotary

Depth in Feet	Samples Blows/ Ft.	Moisture	Consistency	Color	Description	PID (ppm)	Remarks
5	18	Moist	Firm	Dark Tan	CL: Silty clay, moderate plasticity, strong fresh gasoline odor	585	Easy drilling
10	20	Slightly Moist	Hard	White	CL: Gravelly clay, very strong hydrocarbon odor, no stain	809	
15		Wet	Very Dense		GW: Cemented gravels, minor clay, gravels fine		Groundwater at 14' during drilling. Hard drilling at 15'
20		Wet	Very Stiff	White	CL: Gravelly clay		
25					As above		

Logger: RHM
 Approved for Publication By: RCB
 Drilling Contractor: Kleinfelder
 Date: 5-19-89
 Driller: Mark Bucharme

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 Branch Office - Las Vegas, NV

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GROUNDWATER
END OF BORING AT 25.0 FEET

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MONITOR WELL M-2

PROJECT NO. 89112
 DRAWING NO. 3

MO-2014

CONSTRUCTION LOG OF WELL NO. M-1

DEPTH
IN
FEET

DATE COMPLETED: May 18, 1989

Well Type: Monitor

Casing Type: Flush threaded schedule 40 PVC

Casing Dia: 4-inch

Casing Lengths: 10 feet

Screen Size: 0.020-inch slotted

Screen Length: 15 feet

Tailpipe Length: None

Vault Type: Lockable 8-inch diameter

Vault Stickup: Flush with grade

Locking Cover type: Lockable vault

Filter Material: #12 silica sand

Filter Volume: 4.7 cubic feet

Seal Material: Bentonite Pellets

Seal Volume: 0.5 cubic feet

Grout Material: Portland Cement

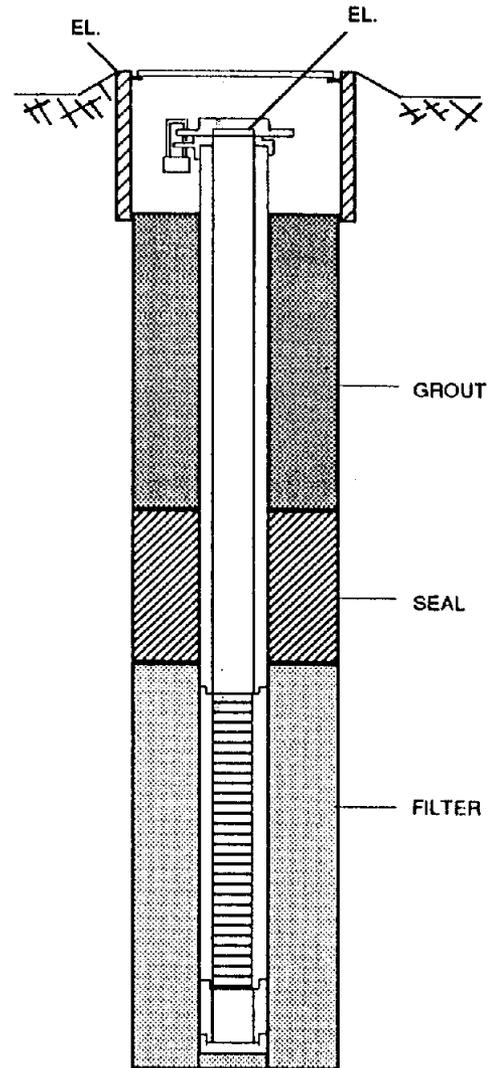
Grout Volume: 1.3 cubic feet

Bore Dia: 8-inch

Total Depth: 25 feet

Comments:

0
0.5
5
7
10
25



Prepared by: RHM Approved for publication by: RCB Date: 5/22/89

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PROJECT NO. 89112

DRAWING NO. 34

MO-2014

CONSTRUCTION LOG OF WELL NO. M-2

5/22/89 Date: RCB Approved for publication by: RHM Prepared by:

Well Type: Monitor

Casing Type: Flush threaded schedule 40 PVC

Casing Dia: 4-inch

Casing Lengths: 8 feet

Screen Size: 0.020-inch slotted

Screen Length: 15 feet

Tailpipe Length: None

Vault Type: Lockable 8-inch diameter

Vault Stickup: Flush with grade

Locking Cover type: Lockable vault

Filter Material: #12 silica sand

Filter Volume: 4.4 cubic feet

Seal Material: Bentonite Pellets

Seal Volume: 0.7 cubic feet

Grout Material: Portland cement

Grout Volume: 1.1 cubic feet

Bore Dia: 8-inch

Total Depth: 25 feet

Comments: Hole caved to 23 feet. Bottom of casing at 23 feet.

DEPTH IN FEET

DATE COMPLETED: May 18, 1989

0

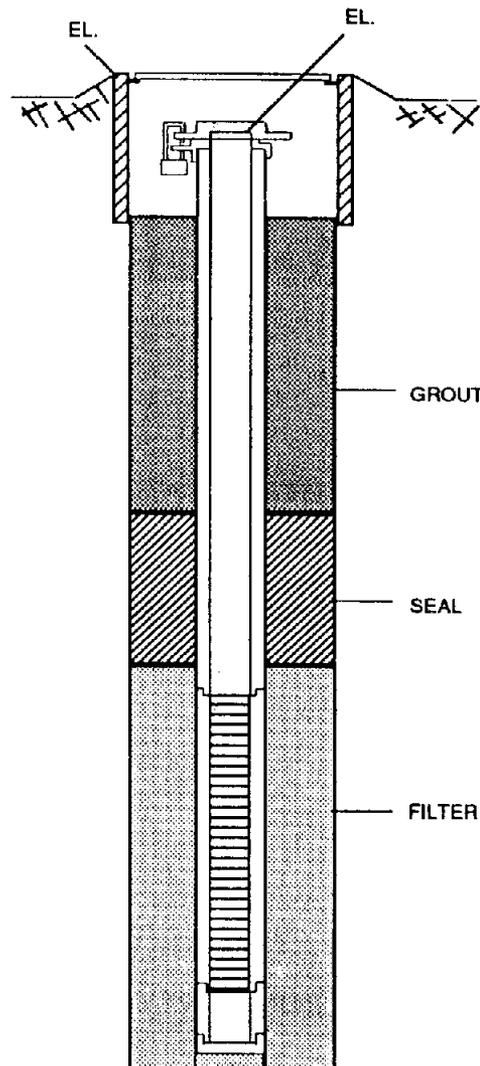
0.5

4

6.5

8

23



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PROJECT NO.

89112

DRAWING NO.

5

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