

30-045-12139

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICOOperator MERIDIAN OIL CO. Location: Unit NE Sec. 7 Twp. 30 Rng. 8Name of Well/Wells or Pipeline Serviced Howell C #3Elevation _____ Completion Date 11-28-90 Total Depth 460' Land Type _____Casing Strings, Sizes, Types & Depths 20' 8" PVC casing

If Casing Strings are cemented, show amounts & types used _____

If Cement or Bentonite Plugs have been placed, show depths & amounts used _____

Depths & thickness of water zones with description of water: Fresh, Clear,
Salty, Sulphur, Etc. water at 185 feet

Depths gas encountered: _____

Ground bed depth with type & amount of coke breeze used: 3800 lbsAshbury Petroleum Coke breezeDepths anodes placed: 420, 410, 400, 390, 380, 370, 360, 350, 340, 330Depths vent pipes placed: 450 ft. 1" pvc vent pipeVent pipe perforations: 200 feet

Remarks: _____

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

Drilling Log (Attach Hereto) ☒Completion Date 11-28-90

CPS #	Well Name, Line or Plant:	Work Order #	State:	Ins. Union Check																																																												
14-W	Howell c #3			☒ Good ☐ Bad																																																												
Location: NE1-30-8 Anode Size: 2" X 60" Anode Type: ANOTOL Size Bit: 6 3/4																																																																
Depth Drilled: 450	Depth Logged: 450	Drilling Rig Time	Total Lbs. Cable Used: 3800#	Lost Circulation Mat'l Used																																																												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">Anode Depth</td> <td># 1 420</td> <td># 2 410</td> <td># 3 400</td> <td># 4 390</td> <td># 5 380</td> <td># 6 370</td> <td># 7 360</td> <td># 8 350</td> <td># 9 340</td> <td># 10 330</td> </tr> <tr> <td colspan="2">Anode Output (Amps)</td> <td># 1 3.3</td> <td># 2 5.3</td> <td># 3 5.5</td> <td># 4 5.1</td> <td># 5 3.4</td> <td># 6 2.8</td> <td># 7 3.1</td> <td># 8 4.7</td> <td># 9 4.1</td> <td># 10 5.8</td> </tr> <tr> <td colspan="2">Anode Depth</td> <td># 11</td> <td># 12</td> <td># 13</td> <td># 14</td> <td># 15</td> <td># 16</td> <td># 17</td> <td># 18</td> <td># 19</td> <td># 20</td> </tr> <tr> <td colspan="2">Anode Output (Amps)</td> <td># 11</td> <td># 12</td> <td># 13</td> <td># 14</td> <td># 15</td> <td># 16</td> <td># 17</td> <td># 18</td> <td># 19</td> <td># 20</td> </tr> <tr> <td colspan="2">Total Circuit Resistance</td> <td colspan="4">Volts 11.7 Amps 17.8 Ohms .65</td> <td colspan="2">No. 8 C.P. Cable Used</td> <td colspan="4">No. 2 C.P. Cable Used</td> </tr> </table>					Anode Depth		# 1 420	# 2 410	# 3 400	# 4 390	# 5 380	# 6 370	# 7 360	# 8 350	# 9 340	# 10 330	Anode Output (Amps)		# 1 3.3	# 2 5.3	# 3 5.5	# 4 5.1	# 5 3.4	# 6 2.8	# 7 3.1	# 8 4.7	# 9 4.1	# 10 5.8	Anode Depth		# 11	# 12	# 13	# 14	# 15	# 16	# 17	# 18	# 19	# 20	Anode Output (Amps)		# 11	# 12	# 13	# 14	# 15	# 16	# 17	# 18	# 19	# 20	Total Circuit Resistance		Volts 11.7 Amps 17.8 Ohms .65				No. 8 C.P. Cable Used		No. 2 C.P. Cable Used			
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Remarks: Set 20' of 8" PVC casing. DRILLER said water at 200', waited 30 minutes, Blew water, Got water sample. Ran 450' of 1" PVC Vent Pipe. Perforated 200' of Vent Pipe. Left coke breeze approximately 285'

RECEIVED
DEC 20 1990

Rectifier Size: _____ V _____ A
 Addn'l Depth: _____
 Depth Credit: _____
 Extra Cable: 10'
 Ditch & 1 Cable: 15'
 25' Meter Pole: _____
 20' Meter Pole: _____
 10' Stub Pole: _____
 Junction Box: 1

IL CON. DIV.]
DIST. 3

All Construction Completed

Willis Knight Jr
(Signature)

GROUND BED LAYOUT SKETCH



O G.B. #1



**P.O. BOX 1359 • PHONE 334-6141
AZTEC, NEW MEXICO 87410**

COMPANY Meridian Oil DAILY DRILLING REPORT 11-28 1990

WELL NAME: <i>Howell C #3</i>	WELL NUMBER: <i>C#3</i>	SECTION: <i>7</i>	TOWNSHIP: <i>30</i>	RANGE: <i>8</i>
WATER AT: <i>185'</i>		FEET: <i>460'</i>		

DESCRIPTION OF FORMATION

[illegible]

REMARKS: SET 20' 8" PVC CASING. OBTAINED WATER SAMPLE AT 180'

Drilled to 460'

Brian E. Barger

Driller

Tool Dresser

Meridian 011

CPS #: 14-W WELL NAME: Howell C #3 LOCATION: NE7-30-8 DATE: 11-28-90

TOTAL VOLTS: 11.7 TOTAL AMPS: 2.8 OHMS RESISTANCE: 65

DEEP	LOG ANODE NO.	DEEP	LOG ANODE NO.	DEEP	LOG ANODE NO.	DEEP	LOG ANODE NO.	DEEP	LOG ANODE NO.	DEEP	LOG ANODE NO.	ANODE READINGS			
												NO.	DEPTH	NO COKE	WITH COKE
5		185	1.6		365	1.3		545				1	420	1.8	3.3
10		190	1.3		370	1.1	4	550				2	410	3.1	5.3
15		195	1.80		375	1.1		555				3	400	3.2	5.5
20		200	1.70		380	1.2	5	560				4	390	3.2	5.1
25		205	1.70		385	1.8		565				5	380	1.6	3.4
30		210	1.70		390	2.3	4	570				6	370	1.3	2.8
35		215	1.70		395	2.5		575				7	360	1.7	3.1
40		220	1.60		400	2.4	3	580				8	350	2.6	4.7
45		225	1.60		405	2.3		585				9	340	2.3	4.1
50		230	1.50		410	2.4	2	590				10	330	2.9	5.8
55		235	1.50		415	1.9		595							
60		240	1.1		420	1.5	1	600							
65		245	1.90		425	1.80		605							
70		250	1.0		430	1.70		610							
75		255	1.80		435	1.70		615							
80		260	1.70		440	1.90		620							
85		265	1.70		445	1.70		625							
90		270	1.80		450	1.70	T.D.	630							
95		275	1.70		455			635							
100		280	1.70		460			640							
105		285	1.0		465			645							
110		290	1.90		470			650							
115		295	1.80		475			655							
120		300	1.3		480			660							
125		305	1.9		485			665							
130		310	1.9		490			670							
135		315	2.1		495			675							
140		320	2.0		500			680							
145		325	2.1		505			685							
150		330	2.2	10	510			690							
155		335	2.3		515			695							
160		340	2.2	9	520			700							
165		345	1.9		525			705							
170		350	2.1	8	530			710							
175		355	2.0		535			715							
180		360	1.6	7	540			720							

REMARKS: Set 20' of 8" PVC casing. Driller said wet at 160', waited drilled to 200' waited 30 minute blow mud got water sample

API WATER ANALYSIS REPORT FORM

EXHIBIT E

Laboratory No. 25-901203-18

Company MERIDIAN OIL INC.		Sample No.		Date Sampled 11-27-90	
Field CEDAR HILL		Legal Description NE 1-30-8		County or Parish State	
Lease or Unit		Well HOWELL C#3	Depth 200'	Formation	Water, B/D
Type of Water (Produced, Supply, etc.)			Sampling Point		Sampled By W. KNIGHT JR.

DISSOLVED SOLIDS

CATIONS

	mg/l	me/l
Sodium, Na (calc.)	292	12.7
Calcium, Ca	24	6.2
Magnesium, Mg	17	1.4
Barium, Ba	-	-

OTHER PROPERTIES

pH	7.41
Specific Gravity, 60/60 F.	1.0013
Resistivity (ohm-meters) 61 F.	4.5

Total Dissolved Solids (calc.)

1424

ANIONS

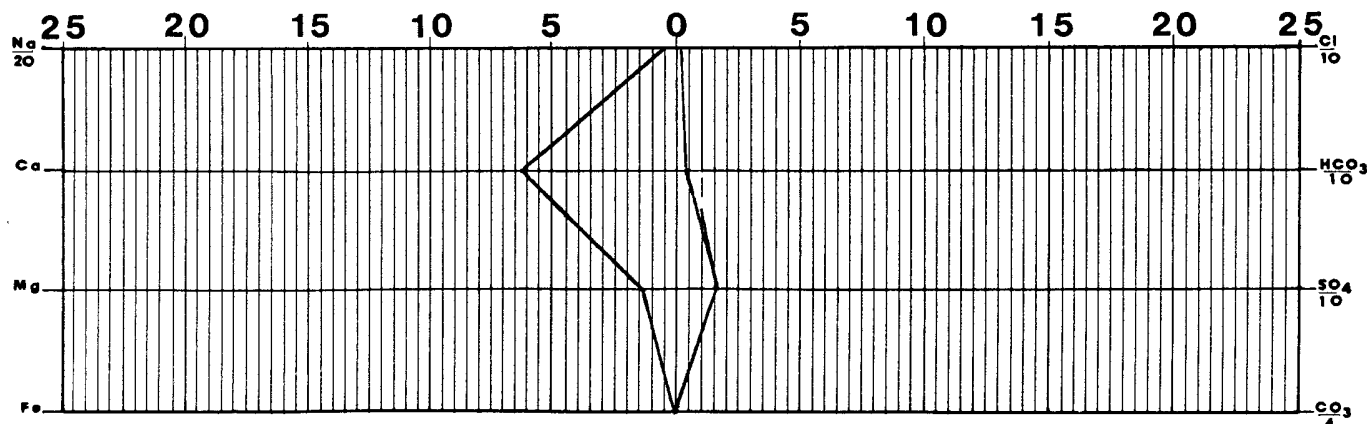
Chloride, Cl	68.2	1.92
Sulfate, SO_4	723	15.1
Carbonate, CO_3	-	-
Bicarbonate, HCO_3	200	3.27

Iron, Fe (total)
Sulfide, as H_2S

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REMARKS & RECOMMENDATIONS:

ATTN: WARD ARNOLD



Date Received 3rd Dec, 1990.	Preserved	Date Analyzed 4th Dec, 1990.	Analyzed By R.H.
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