

1204 #1 A 30-045-23165
#3 30-045-20782

E

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: UniSE Sec. 9 Twp 30 Rng 10

Name of Well/Wells or Pipeline Serviced SUNRAY E #1A, #3

cps 1470w

Elevation 6502 Completion Date 9/10/80 Total Depth 380' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

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

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. 30' SAMPLE TAKEN

Depths gas encountered: N/A

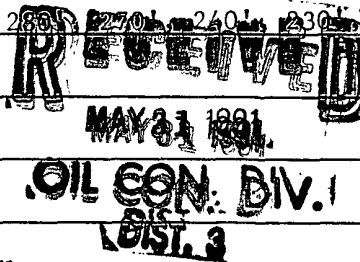
Type & amount of coke breeze used: N/A

Depths anodes placed: 320', 310', 300', 290', 280', 270', 260', 250', 240', 230', 220', 210'

Depths vent pipes placed: 375'

Vent pipe perforations: 360'

Remarks: gb #1



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). ☐

(2" X 60" Durion)

Completion Date 9/10/80

Well Name <u>SUNRAY E #1-A</u>		Location <u>SE 9-30-10</u>		CPS No. <u>1470 W</u>	
Type & Size Bit Used <u>6 3/4"</u>				Work Order No. <u>57471-21</u> <u>54843-19</u>	
Anode Hole Depth <u>380' T.D. 375'</u>	Total Drilling Rig Time	Total Lbs. Coke Used	Lost Circulation Mat'l Used	No. Sacks Mud Used	
Anode Depth					
# 1 <u>320'</u>	# 2 <u>310'</u>	# 3 <u>300'</u>	# 4 <u>270'</u>	# 5 <u>280'</u>	# 6 <u>270'</u>
# 7 <u>240'</u>	# 8 <u>230'</u>	# 9 <u>220'</u>	# 10 <u>210'</u>		
Anode Output (Amps)					
# 1 <u>2.4</u>	# 2 <u>2.4</u>	# 3 <u>3.0</u>	# 4 <u>3.1</u>	# 5 <u>3.3</u>	# 6 <u>2.4</u>
# 7 <u>3.4</u>	# 8 <u>3.4</u>	# 9 <u>2.7</u>	# 10 <u>2.4</u>		
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				No. 8 C.P. Cable Used	
Volts <u>12.2</u>	Amps <u>13.7</u>	Ohms <u>.89</u>			No. 2 C.P. Cable Used

Remarks: STATIC ON SUNRAY E #1-A 600' W = .78V INSULATED UNIONS OK
SUNRAY E #3 HAS BOND BOX #40-B INSULATED UNION OK
DRILLER SAID WATER AT 30' APPROX. 3 GAL./MIN. TOOK WATER SAMPLE. DRILLED
TO 380'. LOGGED 375'. INSTALLED 375' OF 1" P.V.C. VENT PIPE, PERFORATED
360'.

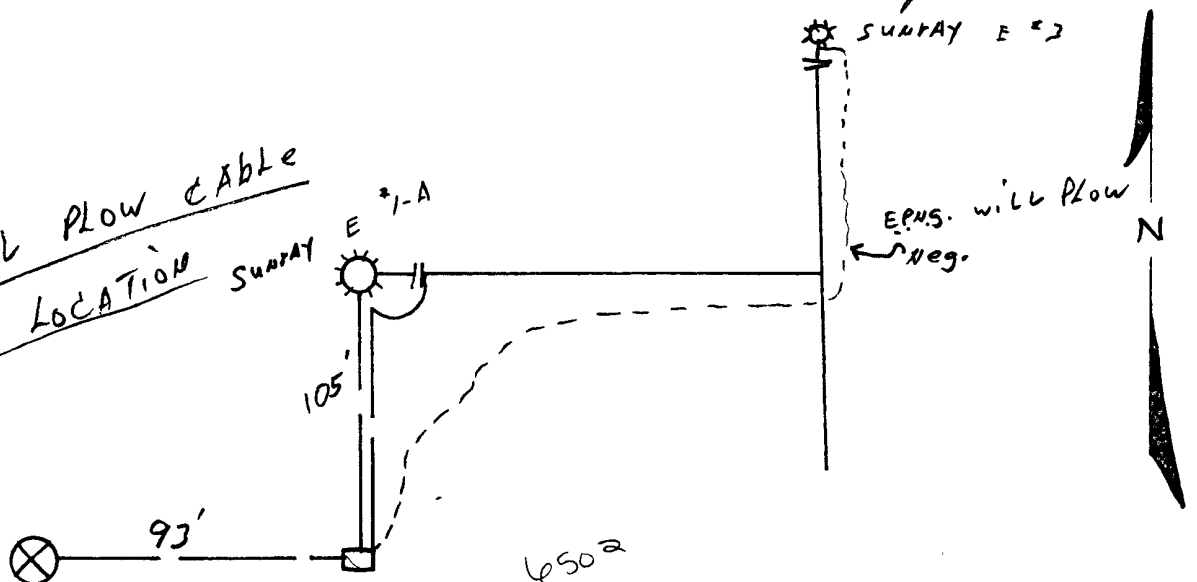
20' meter Loop pole
10' stub pole
60V 30A RECT.
Hole Depth -125'

All Construction Completed

GROUND BED LAYOUT SKETCH

JE Stalks
(Signature)
E #1A 4 Neg. Reg. 1 Sta. O.T.
E #3 4 Sta. Reg. 1 Sta. O.T.

E.P.N.G. WILL PLOW CABLE
ON THIS LOCATION



DRILLING DEPARTMENT

CPS# 14⁷⁰~~11~~ W

Sunday $E \# 1 - A \# 3$

W.O.# 57471-21 & 54843-19

DAILY DRILLING REPORT

LEASE

WELL NO.

CONTRACTOR 3-C Drilling

RIG NO. ~~2~~ 1

REPORT NO.

DATE SEPT. 10 1980

MORNING

DAYLIGHT

EVENING

Driller Bryan

Total Men In Crew 3

Driller

Total Men In Crew

Driller

Total Men In Crew

[illegible]

NO. DC	SIZE	LENG.	NO. DC	SIZE	LENG.	NO. DC	SIZE	LENG.
BIT NO.	NO. DC	SIZE <i>4 1/2</i>	LENG. <i>20'</i>	BIT NO.	NO. DC	SIZE	LENG.	BIT NO.
SEP. NO.	STANDS		SERIAL NO.	STANDS		SERIAL NO.		STANDS
SIZE <i>6 3/4</i>	SINGLES <i>19</i>		SIZE	SINGLES		SIZE		SINGLES
TYPE <i>rock</i>	DOWN ON KELLY		TYPE	DOWN ON KELLY		TYPE		DOWN ON KELLY
MAKE	TOTAL DEPTH <i>380' T.D. 375'</i>		MAKE	TOTAL DEPTH		MAKE		TOTAL DEPTH

[illegible]

FROM		TO		TIME BREAKDOWN		FROM		TO		TIME BREAKDOWN	
0	40	sandstone - water 30' 3g.p.m.		380	320	shale					
40	120	sandstone		320	380	sand & shale					
120	200	lentonite & shale									
200	220	sand & shale									
220	260	shale									
260	280	lentonite & shale									

REMARKS -

REMARKS - drilled to 40' on the 9th
had water standing next A.M.
at approx 30'. Rate producing
approx 3 gallons per minute
Good water sample

Total hole depth 380'
Total log depth 375'

REMARKS -

SIGNED: Toolpusher

SIGNED: Toolpusher Brian Buge

____ Company Supervisor

El Paso Natural Gas Company
ENGINEERING CALCULATION

Sheet. _____ of _____
Date _____
By _____
File _____

SUNRAY E # 1-A
SUNRAY E # 3

C.P.S. 1470 W
SE 9-30-10

W.O. 57471-21
54843-19

MW	gals/mol
16.04	C ₁ 6.4
30.07	C ₂ 10.12
44.10	C ₃ 10.42
58.12	iC ₄ 12.38
58.12	nC ₄ 11.93
72.15	iC ₅ 13.85
72.15	nC ₅ 13.71
86.18	iC ₆ 15.50
86.18	C ₆ 15.57
100.21	iC ₇ 17.2
100.21	C ₇ 17.46
114.23	C ₈ 19.39
28.05	C ₂ 9.64
42.08	C ₃ 9.67

MW	MISC.	gals/mol
32.00	O ₂	3.37
28.01	CO	4.19
44.01	CO ₂	6.38
64.06	SO ₂	5.50
34.08	H ₂ S	5.17
28.01	N ₂	4.16
2.02	H ₂	3.38

40-	210-	1.5 - ⑩	DRILLER SAID WATER AT 30'
		1.6	Approx. 3 gal./min. TOOK WATER
50-	20-	1.8 - ⑨	SAMPLE. DRILLED TO 380'
		2.1	Logged 375'. INSTALLED 375'
60-	30-	2.1 - ⑧	OT 1" P.V.C. VENT PIPE.
		2.1	Perforated 360'.
70-	40-	2.2 - ⑦	
		1.8	
80-	50-	1.2	
		1.2	
90-	60-	1.2	12.2 V. 13.7 A. = .89
		1.4	9/10/80
100-	70-	1.8 - ⑥	<i>JS</i>
		1.9	
10-	80-	2.2 - ⑤	
		2.0	
20-	90-	1.9 - ④	
		1.9	
30-	300-	1.9 - ③	
		1.5	
40-	10-	1.3 - ②	
		1.5	
50-	20-	1.5 - ①	
		.8	
60-	30-	.4	1-320'- 1.8 - 2.4
		.5	2-310'- 1.8 - 2.4
70-	40-	.7	3-300'- 2.3 - 3.0
		.6	4-290'- 2.5 - 3.1
80-	50-	.6	5-280'- 2.4 - 3.3
		.4	6-270'- 1.9 - 2.4
90-	60-	2.0	7-240'- 2.5 - 3.4
		2.3	8-230'- 2.5 - 3.4
200-	70-	2.0	9-220'- 2.0 - 2.7
		375' T.D.	10-210'- 1.7 - 2.4
	80-	Drilled To	

EL PASO NATURAL GAS COMPANY
SAN JUAN DIVISION
FARMINGTON, NEW MEXICO
PRODUCTION DEPARTMENT WATER ANALYSIS

Analysis No. 1-10039 Date 11-12-80
Operator El Paso Natural Gas Well Name Sun Ray E #1A
Location SE 9-30-10 County San Juan State New Mexico
Field Kutz Formation _____
Sampled From CPS 1473 W. 030 ft

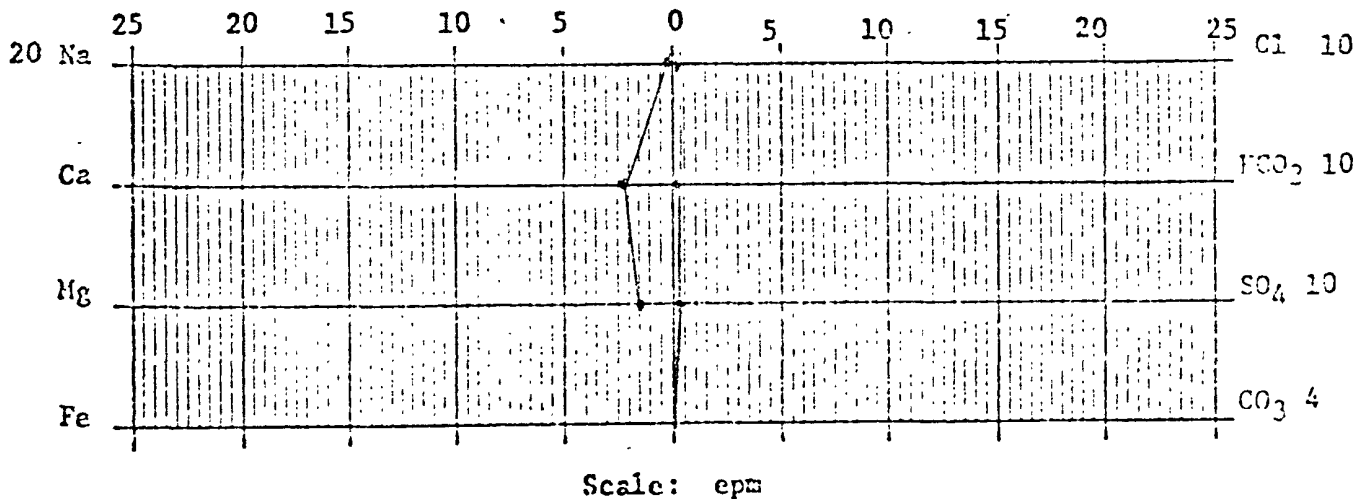
Date Sampled 9-10-80 By _____

Tbg. Press.	Csg.	Surface Csg. Press.
Sodium <u>35</u> ppm <u>1.5</u> epm	Chloride <u>34</u> ppm <u>1.0</u> epm	
Calcium <u>41</u> <u>2.1</u>	Bicarbonate <u>76</u> <u>1.2</u>	
Magnesium <u>16</u> <u>1.3</u>	Sulfate <u>130</u> <u>2.7</u>	
Iron <u>No test</u>	Carbonate <u>0</u> <u>0</u>	
H ₂ S <u>No test</u>	Hydroxide <u>0</u> <u>0</u>	

cc: C.B. O'Nan
R.A. Ullrich
E.R. Paulek
J.W. McCarthy
A.M. Smith
W.B. Shropshire
D.C. Adams
File

Total Solids Dissolved 658
pH 7.1
Sp. Gr. 1.0013 At _____ 60°F
Resistivity 1961 ohm-cm at _____ 77°F

Joe Barnett
Chemist



CPS #1470u

EL PASO NATURAL GAS COMPANY
 SAN JUAN DIVISION
 FARMINGTON, NEW MEXICO
 PRODUCTION DEPARTMENT WATER ANALYSIS

Analysis No. 1-10097 Date 1-19-81
 Operator El Paso Natural Gas Well Name Sunray E #1-A
 Location SE 9-30-10 County San Juan State New Mexico
 Field Kutz Formation Mesa Verde
 Sampled From Separator

Date Sampled 12-11-80 By Noel Rogers

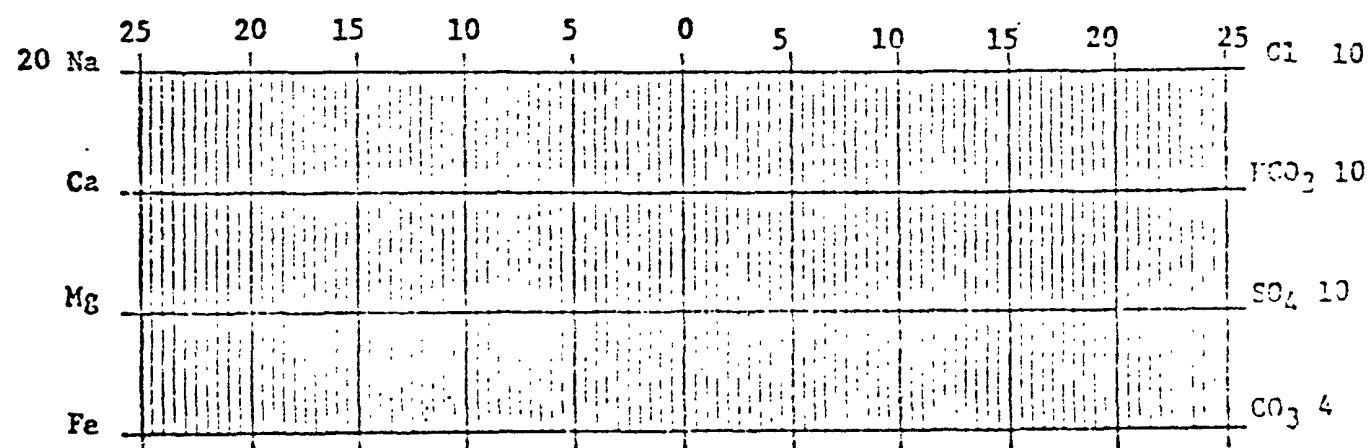
Tbg. Press. _____	Csg. _____	Surface Csg. Press. _____
ppm	epm	ppm epm
Sodium _____	Chloride _____	
Calcium _____	Bicarbonate _____	
Magnesium _____	Sulfate _____	
Iron <u>150</u> <u>5.4</u>	Carbonate _____	
H ₂ S _____	Hydroxide _____	

cc: C.B. O'Nan
 R.A. Ullrich
 E.R. Paulek
 J.W. McCarthy
 A.M. Smith
 W.B. Shropshire
 D.C. Adams
 File

Total Solids Dissolved _____
 pH _____
 Sp. Gr. _____ At _____ 60°F
 Resistivity _____ ohm-cm at _____ °F

Hermie P. Bird
 Chemist

AB



Scale: epm