

#18 30-039-07445

E

470

#96E 30-039-23864

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

Operator MERIDIAN OIL Location: Unit SW Sec. 11 Twp 28 Rng 5

Name of Well/Wells or Pipeline Serviced SAN JUAN 28-5 UNIT #18, #96E  
cps 1110w

Elevation 6971' Completion Date 9/30/77 Total Depth 630' 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. 395' - 408'

Depths gas encountered: N/A

Type & amount of coke breeze used: 85 SACKS

Depths anodes placed: 550', 540', 530', 520', 510', 500', 490', 480', 425', 415'

Depths vent pipes placed: 560' OF 1" PVC VENT PIPE

Vent pipe perforations: 250'

Remarks: gb #1

RECEIVED  
MAY 31 1991  
OIL CON. DIV.  
DIST. 3

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 9-30-77

|                                                     |                         |                                   |                             |                                   |                       |
|-----------------------------------------------------|-------------------------|-----------------------------------|-----------------------------|-----------------------------------|-----------------------|
| Well Name<br><b>SAN JUAN 28-5 UNIT #18</b>          |                         | Location<br><b>SW 11-28-5</b>     |                             | CPS No.<br><b>1110 W</b>          |                       |
| Type & Size Bit Used<br><b>6 3/4"</b>               |                         |                                   |                             | Work Order No.<br><b>53214.19</b> |                       |
| Anode Hole Depth<br><b>630</b><br><b>Logged 618</b> | Total Drilling Rig Time | Total Lbs. Coke Used<br><b>85</b> | Lost Circulation Mat'l Used | No. Sacks Mud Used                |                       |
| Anode Depth                                         |                         |                                   |                             |                                   |                       |
| # 1 <b>550</b>                                      | # 2 <b>540</b>          | # 3 <b>530</b>                    | # 4 <b>520</b>              | # 5 <b>510</b>                    | # 6 <b>500</b>        |
| # 7 <b>490</b>                                      | # 8 <b>480</b>          | # 9 <b>425</b>                    | # 10 <b>415</b>             |                                   |                       |
| Anode Output (Amps)                                 |                         |                                   |                             |                                   |                       |
| # 1 <b>3.6</b>                                      | # 2 <b>4.3</b>          | # 3 <b>4.2</b>                    | # 4 <b>3.9</b>              | # 5 <b>2.8</b>                    | # 6 <b>2.4</b>        |
| # 7 <b>2.4</b>                                      | # 8 <b>2.8</b>          | # 9 <b>2.3</b>                    | # 10 <b>3.2</b>             |                                   |                       |
| 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 <b>11.2</b>                                   | Amps <b>9.4</b>         | Ohms <b>1.2</b>                   |                             |                                   | No. 2 C.P. Cable Used |

Remarks: Static 600' N = 0.40. Driller said MAKING WATER between 395' & 408'. Drilled to 420' & Blew water. Started Inj. @ 420. Perforated 250' of 1" PVC Vent Pipe. Installed 560' of 1" PVC Vent Pipe slurred 85 SACKS of COKE.

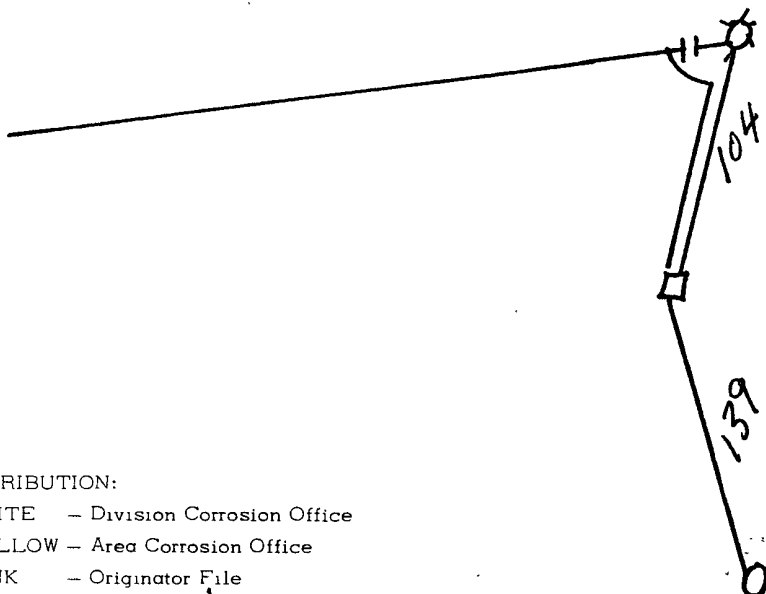
Installed 40V 16A Rectifier & stub Pole.

All Construction Completed

*W Z Louth*

(Signature)

GROUND BED LAYOUT SKETCH



DISTRIBUTION:

- WHITE - Division Corrosion Office
- YELLOW - Area Corrosion Office
- PINK - Originator File

6971

El Paso Natural Gas Company  
ENGINEERING CALCULATION

Sheet: \_\_\_\_\_ of \_\_\_\_\_  
Date: \_\_\_\_\_  
By: \_\_\_\_\_  
File: \_\_\_\_\_

SAN JUAN 28-5 UNIT #18 SW 11-28-5 1110 W 53214.19

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

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

|                     |           |                                     |       |
|---------------------|-----------|-------------------------------------|-------|
| STATIC 600 W = 2.70 |           | DRILLER SAID MAKING WATER @ 400'    |       |
| HOU 16 A RECTIFIER  |           | Blow water                          |       |
| STUB PIPE           |           | Perforated 250' of 1" PVC Vent Pipe |       |
|                     |           | Installed 560' of 1" PVC Vent Pipe  |       |
|                     |           | Shipped 85 sacks of coke            |       |
| 400 .3              | 40 .2     |                                     |       |
| .5                  | .2        |                                     |       |
| 10 1.3              | 40 .6     |                                     |       |
| 1.4                 | .6        |                                     |       |
| 20 1.3              | 80 .3     |                                     |       |
| 1.2                 | .2        |                                     |       |
| 30 1.0              | 90 .9     |                                     |       |
| .2                  | .7        |                                     |       |
| 40 .3               | 600 .5    |                                     |       |
| .3                  | .9        |                                     |       |
| 50 .3               | 10 1.0    |                                     |       |
| .4                  | .9        |                                     |       |
| 60 .7               | 6 1.9 + D |                                     |       |
| .6                  |           |                                     |       |
| 70 .8               | 30        |                                     |       |
| 1.3                 | ① 550     | 1.5                                 | 3.6   |
| 80 1.4              | ② 510     | 1.8                                 | 4.3   |
| 1.3                 | ③ 530     | 1.6                                 | 4.2   |
| 90 1.2              | ④ 520     | 1.5                                 | 3.9   |
| 1.2                 | ⑤ 510     | 1.0                                 | 2.8   |
| 500 1.1             | ⑥ 500     | 1.1                                 | 2.4   |
| 1.0                 | ⑦ 490     | 1.2                                 | 2.4   |
| 10 1.0              | ⑧ 480     | 1.3                                 | 2.8   |
| .9                  | ⑨ 425     | 1.2                                 | 2.3   |
| 20 1.0              | ⑩ 415     | 1.6                                 | 3.2   |
| 1.3                 |           |                                     |       |
| 30 1.4              |           |                                     |       |
| 1.5                 |           |                                     |       |
| 40 1.5              |           | 11.2                                | VOLTS |
| 1.6                 |           | 9.4                                 | AMPS  |
| 50 1.4              |           | 1.2                                 | OHMS  |
| .8                  |           |                                     |       |

WELL CASING  
CATHODIC PROTECTION CONSTRUCTION REPORT  
DAILY LOG

GROUP 24

Drilling Log (Attach Hereto) ☐

Completion Date 9-13-77

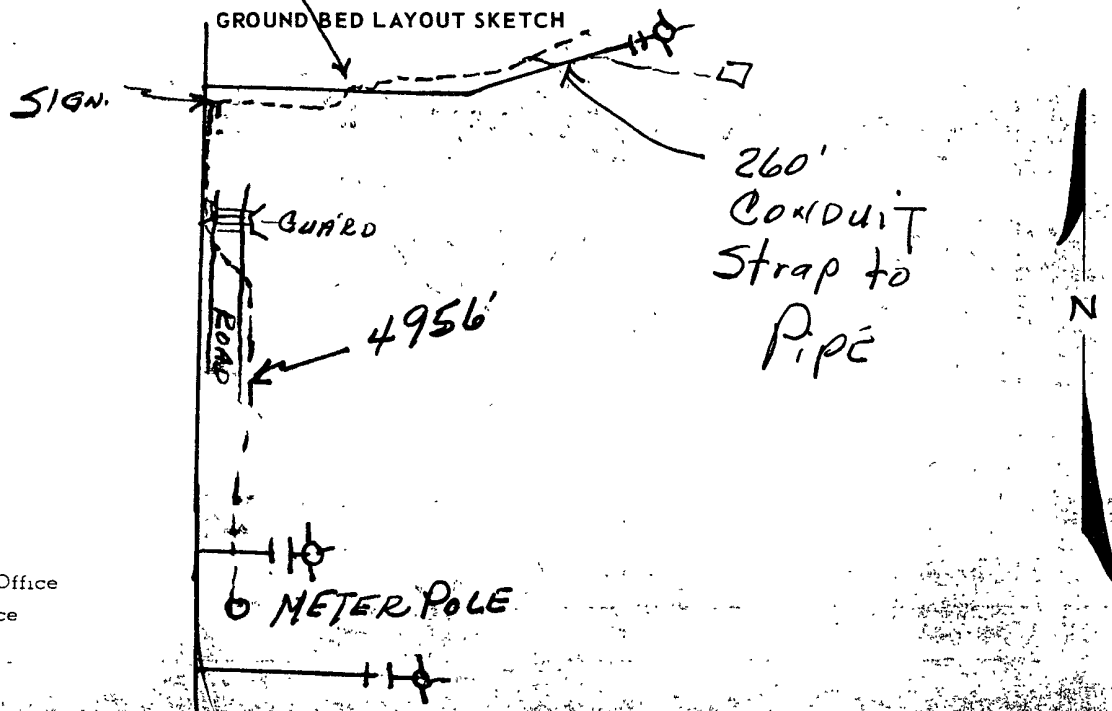
|                                  |                         |                              |                             |                                   |      |
|----------------------------------|-------------------------|------------------------------|-----------------------------|-----------------------------------|------|
| Well Name<br><b>SJ. 28-5 #18</b> |                         | Location<br><b>SW11-28-5</b> |                             | CPS No.<br><b>1110W</b>           |      |
| Type & Size Bit Used             |                         |                              |                             | Work Order No.<br><b>53214.19</b> |      |
| Anode Hole Depth                 | Total Drilling Rig Time | Total Lbs. Coke Used         | Lost Circulation Mat'l Used | No. Sacks Mud Used                |      |
| Anode Depth                      |                         |                              |                             |                                   |      |
| # 1                              | # 2                     | # 3                          | # 4                         | # 5                               | # 6  |
| # 1                              | # 2                     | # 3                          | # 4                         | # 5                               | # 6  |
| Anode Output (Amps)              |                         |                              |                             |                                   |      |
| # 1                              | # 2                     | # 3                          | # 4                         | # 5                               | # 6  |
| # 1                              | # 2                     | # 3                          | # 4                         | # 5                               | # 6  |
| Anode Depth                      |                         |                              |                             |                                   |      |
| # 11                             | # 12                    | # 13                         | # 14                        | # 15                              | # 16 |
| # 11                             | # 12                    | # 13                         | # 14                        | # 15                              | # 16 |
| Anode Output (Amps)              |                         |                              |                             |                                   |      |
| # 11                             | # 12                    | # 13                         | # 14                        | # 15                              | # 16 |
| # 11                             | # 12                    | # 13                         | # 14                        | # 15                              | # 16 |
| Total Circuit Resistance         | No. 8 C.P. Cable Used   |                              | No. 2 C.P. Cable Used       |                                   |      |
| Volts                            | Amps                    | Ohms                         |                             |                                   |      |

Remarks: **BURY A.C. CABLE, METER POLE TO RECT ON LOC. at SJ. 28-5 #18**

50' CONDUIT  
STRAP TO PIPE

All Construction Completed

*Sanels*  
(Signature)



DISTRIBUTION:

WHITE - Division Corrosion Office  
YELLOW - Area Corrosion Office  
PINK - Originator File

## DAILY DRILLING REPORT

|                                                                                                                                                                               |     |                       |                                  |                         |  |                                                                                                                                                                                               |     |                |                                  |                        |  |                                                                                                                                                                                  |     |                |                                  |        |  |  |  |  |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------------------|----------------------------------|-------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----------------|----------------------------------|------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----------------|----------------------------------|--------|--|--|--|--|--|--|--|
| LEASE                                                                                                                                                                         |     | WELL NO. <u>1110W</u> |                                  | CONTRACTOR <u>Posey</u> |  | RIG NO.                                                                                                                                                                                       |     | REPORT NO.     |                                  | DATE <u>9-30-77</u> 19 |  |                                                                                                                                                                                  |     |                |                                  |        |  |  |  |  |  |  |  |
| MORNING                                                                                                                                                                       |     |                       |                                  |                         |  | DAYLIGHT                                                                                                                                                                                      |     |                |                                  |                        |  | EVENING                                                                                                                                                                          |     |                |                                  |        |  |  |  |  |  |  |  |
| Driller _____ Total Men In Crew _____                                                                                                                                         |     |                       |                                  |                         |  | Driller <u>Albert L. Posey</u> Total Men In Crew _____                                                                                                                                        |     |                |                                  |                        |  | Driller _____ Total Men In Crew _____                                                                                                                                            |     |                |                                  |        |  |  |  |  |  |  |  |
| FROM                                                                                                                                                                          | TO  | FORMATION             | WT-BIT                           | R.P.M.                  |  | FROM                                                                                                                                                                                          | TO  | FORMATION      | WT-BIT                           | R.P.M.                 |  | FROM                                                                                                                                                                             | TO  | FORMATION      | WT-BIT                           | R.P.M. |  |  |  |  |  |  |  |
|                                                                                                                                                                               |     |                       |                                  |                         |  |                                                                                                                                                                                               |     |                |                                  |                        |  |                                                                                                                                                                                  |     |                |                                  |        |  |  |  |  |  |  |  |
| BIT NO. _____ NO. DC _____ SIZE _____ LENG. _____<br>SER NO. _____ STANDS _____<br>SIZE _____ SINGLES _____<br>TYPE _____ DOWN ON KELLY _____<br>MAKE _____ TOTAL DEPTH _____ |     |                       |                                  |                         |  | BIT NO. _____ NO. DC _____ SIZE _____ LENG. _____<br>SERIAL NO. _____ STANDS _____<br>SIZE <u>6 3/4</u> SINGLES _____<br>TYPE <u>Rock</u> DOWN ON KELLY _____<br>MAKE _____ TOTAL DEPTH _____ |     |                |                                  |                        |  | BIT NO. _____ NO. DC _____ SIZE _____ LENG. _____<br>SERIAL NO. _____ STANDS _____<br>SIZE _____ SINGLES _____<br>TYPE _____ DOWN ON KELLY _____<br>MAKE _____ TOTAL DEPTH _____ |     |                |                                  |        |  |  |  |  |  |  |  |
|                                                                                                                                                                               |     |                       |                                  |                         |  |                                                                                                                                                                                               |     |                |                                  |                        |  |                                                                                                                                                                                  |     |                |                                  |        |  |  |  |  |  |  |  |
|                                                                                                                                                                               |     |                       |                                  |                         |  |                                                                                                                                                                                               |     |                |                                  |                        |  |                                                                                                                                                                                  |     |                |                                  |        |  |  |  |  |  |  |  |
|                                                                                                                                                                               |     |                       |                                  |                         |  |                                                                                                                                                                                               |     |                |                                  |                        |  |                                                                                                                                                                                  |     |                |                                  |        |  |  |  |  |  |  |  |
|                                                                                                                                                                               |     |                       |                                  |                         |  |                                                                                                                                                                                               |     |                |                                  |                        |  |                                                                                                                                                                                  |     |                |                                  |        |  |  |  |  |  |  |  |
| MUD RECORD                                                                                                                                                                    |     |                       | MUD, ADDITIVES USED AND RECEIVED |                         |  | MUD RECORD                                                                                                                                                                                    |     |                | MUD, ADDITIVES USED AND RECEIVED |                        |  | MUD RECORD                                                                                                                                                                       |     |                | MUD, ADDITIVES USED AND RECEIVED |        |  |  |  |  |  |  |  |
| Time                                                                                                                                                                          | Wt. | Vis.                  |                                  |                         |  | Time                                                                                                                                                                                          | Wt. | Vis.           |                                  |                        |  | Time                                                                                                                                                                             | Wt. | Vis.           |                                  |        |  |  |  |  |  |  |  |
|                                                                                                                                                                               |     |                       |                                  |                         |  |                                                                                                                                                                                               |     |                |                                  |                        |  |                                                                                                                                                                                  |     |                |                                  |        |  |  |  |  |  |  |  |
|                                                                                                                                                                               |     |                       |                                  |                         |  |                                                                                                                                                                                               |     |                |                                  |                        |  |                                                                                                                                                                                  |     |                |                                  |        |  |  |  |  |  |  |  |
|                                                                                                                                                                               |     |                       |                                  |                         |  |                                                                                                                                                                                               |     |                |                                  |                        |  |                                                                                                                                                                                  |     |                |                                  |        |  |  |  |  |  |  |  |
| FROM                                                                                                                                                                          | TO  | TIME BREAKDOWN        |                                  |                         |  | FROM                                                                                                                                                                                          | TO  | TIME BREAKDOWN |                                  |                        |  | FROM                                                                                                                                                                             | TO  | TIME BREAKDOWN |                                  |        |  |  |  |  |  |  |  |
| 0                                                                                                                                                                             | 8   | Surface               |                                  |                         |  | 120                                                                                                                                                                                           | 132 | Sand Wet       |                                  |                        |  | 285                                                                                                                                                                              | 355 | Shale          |                                  |        |  |  |  |  |  |  |  |
| 8                                                                                                                                                                             | 35  | Shale                 |                                  |                         |  | 132                                                                                                                                                                                           | 195 | Shale          |                                  |                        |  | 355                                                                                                                                                                              | 367 | Sand Wet       |                                  |        |  |  |  |  |  |  |  |
| 35                                                                                                                                                                            | 60  | Sandstone             |                                  |                         |  | 195                                                                                                                                                                                           | 230 | Shale Sandy    |                                  |                        |  | 367                                                                                                                                                                              | 385 | Sandy shale    |                                  |        |  |  |  |  |  |  |  |
| 60                                                                                                                                                                            | 68  | Sand Wet              |                                  |                         |  | 230                                                                                                                                                                                           | 255 | Shale          |                                  |                        |  | 385                                                                                                                                                                              | 395 | Shale          |                                  |        |  |  |  |  |  |  |  |
| 68                                                                                                                                                                            | 89  | Shale                 |                                  |                         |  | 255                                                                                                                                                                                           | 267 | Sand Dry       |                                  |                        |  | 395                                                                                                                                                                              | 408 | Sand Wet MU    |                                  |        |  |  |  |  |  |  |  |
| 89                                                                                                                                                                            | 120 | Sandy shale           |                                  |                         |  | 267                                                                                                                                                                                           | 285 | Sand Wet       |                                  |                        |  | 408                                                                                                                                                                              | 475 | Shale          |                                  |        |  |  |  |  |  |  |  |
| REMARKS -                                                                                                                                                                     |     |                       |                                  |                         |  | REMARKS -                                                                                                                                                                                     |     |                |                                  |                        |  | REMARKS -                                                                                                                                                                        |     |                |                                  |        |  |  |  |  |  |  |  |
|                                                                                                                                                                               |     |                       |                                  |                         |  | Drilled <u>630 ft</u><br>Logged <u>5618 ft</u><br>making Water <u>395-408 ft</u><br>injected <u>420 ft</u>                                                                                    |     |                |                                  |                        |  | <u>475-498</u> Sandy shale<br><u>498-560</u> Red shale<br><u>560-578</u> Sandy shale<br><u>578-595</u> Shale<br><u>595-630</u> Shale Sandy                                       |     |                |                                  |        |  |  |  |  |  |  |  |

SIGNED: Toolpusher \_\_\_\_\_

Company Supervisor \_\_\_\_\_