

559 50-30-039-07303

406-30-039-24502

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1160W

160-30-039-20376

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS  
NORTHWESTERN NEW MEXICOOperator MERIDIAN OIL INC. Location: Unit SW Sec. 19 Twp 28 Rng 6Name of Well/Wells or Pipeline Serviced S.J. 28-6-# 406, S.J. 28-6-# 160,  
S.J. 28-6-# 50.Elevation 6995 Completion Date 4-7-91 Total Depth 460' Land Type SF 080430-1Casing Strings, Sizes, Types & Depths 86' 8" PVC SURFACE CASINGIf Casing Strings are cemented, show amounts & types used 20 SACKS  
CEMENTIf Cement or Bentonite Plugs have been placed, show depths & amounts used  
NONEDepths & thickness of water zones with description of water: Fresh, Clear,  
Salty, Sulphur, Etc. Approximately 290'; Caught sample: CLEARDepths gas encountered: NONEGround bed depth with type & amount of coke breeze used: 460'; 150 SACKS  
of Asbury 4518 Flo CokeDepths anodes placed: 427, 417, 407, 397, 387, 377, 367, 357, 347, 338, 328, 318Depths vent pipes placed: 460'Vent pipe perforations: BOTTOM 300'

Remarks: \_\_\_\_\_

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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.

## CPS GROUND BED CONSTRUCTION WORKSHEET

| CPS#                                                                                                                                                                                | P/L NAME(s), NUMBER(s)                  |         |       |           |         |             |           |         |       |           |         |        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|---------|-------|-----------|---------|-------------|-----------|---------|-------|-----------|---------|--------|
| 1160 W                                                                                                                                                                              | 5J 28-6-#406; 5J 28-6-#160; 5J 28-6-#50 |         |       |           |         |             |           |         |       |           |         |        |
| WO #                                                                                                                                                                                | TOTAL                                   | VOLTS   | AMPS  | - OHMS    | DATE    | NAME        |           |         |       |           |         |        |
|                                                                                                                                                                                     |                                         | 12.96   | 13.8  | .94       | 9-7-91  | W.R. MCGAHA |           |         |       |           |         |        |
| REMARKS (notes for construction log)                                                                                                                                                |                                         |         |       |           |         |             |           |         |       |           |         |        |
| 86' 8" PVC surface casing cemented in/ 20 sacks. Hid H <sub>2</sub> O approx. 290'; Installed 460' 1" PVC vent pipe perforated bottom 300'. Loaded 150 sacks Ashbury 4518 Fla Coke. |                                         |         |       |           |         |             |           |         |       |           |         |        |
| DEPTH                                                                                                                                                                               | LOG ANODE                               | ANODE # | DEPTH | LOG ANODE | ANODE # | DEPTH       | LOG ANODE | ANODE # | DEPTH | LOG ANODE | ANODE # |        |
| 100                                                                                                                                                                                 |                                         |         | 295   | .6        |         | 490         |           |         | 685   |           |         |        |
| 105                                                                                                                                                                                 |                                         |         | 300   | .5        |         | 495         |           |         | 690   |           |         |        |
| 110                                                                                                                                                                                 |                                         |         | 305   | .5        |         | 500         |           |         | 695   |           |         |        |
| 115                                                                                                                                                                                 |                                         |         | 310   | .5        |         | 505         |           |         | 700   |           |         |        |
| 120                                                                                                                                                                                 |                                         |         | 315   | .5        |         | 510         |           |         | ANODE | DEPTH     | NO      | FULLY  |
| 125                                                                                                                                                                                 |                                         |         | 320   | .6        |         | 515         |           |         | *     |           | COKE    | COKE D |
| 130                                                                                                                                                                                 |                                         |         | 325   | .8        |         | 520         |           |         | 1     | 427       | 1.2     | 3.4    |
| 135                                                                                                                                                                                 |                                         |         | 330   | .9        |         | 525         |           |         | 2     | 417       | 2.3     | 5.3    |
| 140                                                                                                                                                                                 |                                         |         | 335   | 1.2       |         | 530         |           |         | 3     | 407       | 1.7     | 4.9    |
| 145                                                                                                                                                                                 |                                         |         | 340   | 1.9       |         | 535         |           |         | 4     | 397       | 1.7     | 5.1    |
| 150                                                                                                                                                                                 |                                         |         | 345   | 2.6       |         | 540         |           |         | 5     | 387       | 1.7     | 5.2    |
| 155                                                                                                                                                                                 |                                         |         | 350   | 2.1       |         | 545         |           |         | 6     | 377       | 1.9     | 5.1    |
| 160                                                                                                                                                                                 |                                         |         | 355   | 1.5       |         | 550         |           |         | 7     | 367       | 2.0     | 4.7    |
| 165                                                                                                                                                                                 |                                         |         | 360   | 1.4       |         | 555         |           |         | 8     | 357       | 1.9     | 5.3    |
| 170                                                                                                                                                                                 |                                         |         | 365   | 1.9       |         | 560         |           |         | 9     | 347       | 2.1     | 5.3    |
| 175                                                                                                                                                                                 |                                         |         | 370   | 1.0       |         | 565         |           |         | 10    | 338       | 1.5     | 4.4    |
| 180                                                                                                                                                                                 |                                         |         | 375   | 1.6       |         | 570         |           |         | 11    | 328       | .8      | 2.4    |
| 185                                                                                                                                                                                 |                                         |         | 380   | 1.5       |         | 575         |           |         | 12    | 318       | .6      | 2.2    |
| 190                                                                                                                                                                                 |                                         |         | 385   | 1.7       |         | 580         |           |         | 13    |           |         |        |
| 195                                                                                                                                                                                 |                                         |         | 390   | 1.7       |         | 585         |           |         | 14    |           |         |        |
| 200                                                                                                                                                                                 | 1.0                                     |         | 395   | 1.6       |         | 590         |           |         | 15    |           |         |        |
| 205                                                                                                                                                                                 | 1.0                                     |         | 400   | 1.7       |         | 595         |           |         | 16    |           |         |        |
| 210                                                                                                                                                                                 | 1.0                                     |         | 405   | 1.9       |         | 600         |           |         | 17    |           |         |        |
| 215                                                                                                                                                                                 | .8                                      |         | 410   | 2.3       |         | 605         |           |         | 18    |           |         |        |
| 220                                                                                                                                                                                 | .9                                      |         | 415   | 2.1       |         | 610         |           |         | 19    |           |         |        |
| 225                                                                                                                                                                                 | .7                                      |         | 420   | 1.7       |         | 615         |           |         | 20    |           |         |        |
| 230                                                                                                                                                                                 | 1.1                                     |         | 425   | 1.3       |         | 620         |           |         | 21    |           |         |        |
| 235                                                                                                                                                                                 | 1.1                                     |         | 430   | 1.1       |         | 625         |           |         | 22    |           |         |        |
| 240                                                                                                                                                                                 | .7                                      |         | 435   | 1.0       |         | 630         |           |         | 23    |           |         |        |
| 245                                                                                                                                                                                 | .6                                      |         | 440   | .7        |         | 635         |           |         | 24    |           |         |        |
| 250                                                                                                                                                                                 | .5                                      |         | 445   | .6        |         | 640         |           |         | 25    |           |         |        |
| 255                                                                                                                                                                                 | .5                                      |         | 450   | .6        |         | 645         |           |         | 26    |           |         |        |
| 260                                                                                                                                                                                 | .5                                      |         | 455   | .6        | 460     | 650         |           |         | 27    |           |         |        |
| 265                                                                                                                                                                                 | .9                                      |         | 460   |           |         | 655         |           |         | 28    |           |         |        |
| 270                                                                                                                                                                                 | .8                                      |         | 465   |           |         | 660         |           |         | 29    |           |         |        |
| 275                                                                                                                                                                                 | .7                                      |         | 470   |           |         | 665         |           |         | 30    |           |         |        |
| 280                                                                                                                                                                                 | 1.2                                     |         | 475   |           |         | 670         |           |         |       |           |         |        |
| 285                                                                                                                                                                                 | 1.0                                     |         | 480   |           |         | 675         |           |         |       |           |         |        |
| 290                                                                                                                                                                                 | .8                                      |         | 485   |           |         | 680         |           |         |       |           |         |        |

DISTRIBUTION - original - permanent CPS FILE

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# API WATER ANALYSIS REPORT FORM

 Laboratory No. 25910909-1A

1160W

|                                        |  |                                        |  |                                       |  |
|----------------------------------------|--|----------------------------------------|--|---------------------------------------|--|
| Company<br><u>MERIDIAN OIL</u>         |  | Sample No.                             |  | Date Sampled<br><u>9/7/91</u>         |  |
| Field                                  |  | Legal Description<br><u>SW 19-28-6</u> |  | County or Parish<br><u>RIO ARriba</u> |  |
| State<br><u>N.M.</u>                   |  | Lease or Unit<br><u>ST 28-6 #406</u>   |  | Depth                                 |  |
| Well                                   |  | Formation<br><u>FC GR. BED</u>         |  | Water, B/D                            |  |
| Type of Water (Produced, Supply, etc.) |  | Sampling Point<br><u>GROUND BED</u>    |  | Sampled By<br><u>W.R. McGAHA</u>      |  |

## DISSOLVED SOLIDS

### CATIONS

|                    | mg/l       | me/l       |
|--------------------|------------|------------|
| Sodium, Na (calc.) | <u>590</u> | <u>26</u>  |
| Calcium, Ca        | <u>410</u> | <u>21</u>  |
| Magnesium, Mg      | <u>16</u>  | <u>1.3</u> |
| Barium, Ba         |            |            |
|                    |            |            |
|                    |            |            |

## OTHER PROPERTIES

|                                       |               |
|---------------------------------------|---------------|
| pH                                    | <u>8.0</u>    |
| Specific Gravity, 60/60 F.            | <u>1.0044</u> |
| Resistivity (ohm-meters) <u>72</u> F. | <u>3.40</u>   |
|                                       |               |
|                                       |               |

Total Dissolved Solids (calc.)

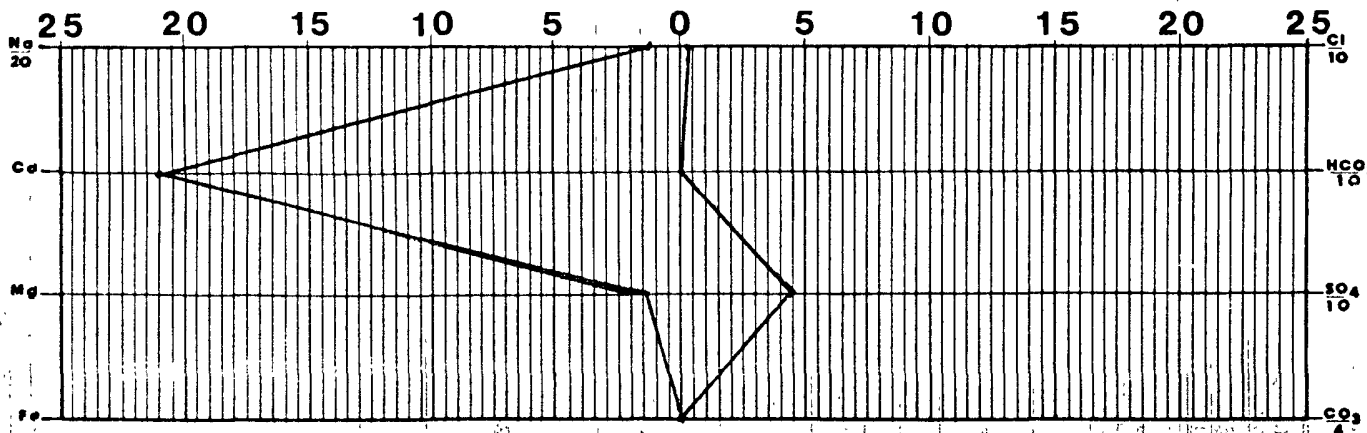
3360

### ANIONS

|                      |             |            |
|----------------------|-------------|------------|
| Chloride, Cl         | <u>110</u>  | <u>3.0</u> |
| Sulfate, $SO_4$      | <u>2100</u> | <u>44</u>  |
| Carbonate, $CO_3$    | <u>0</u>    | <u>0</u>   |
| Bicarbonate, $HCO_3$ | <u>55</u>   | <u>0.9</u> |
|                      |             |            |
|                      |             |            |

 Iron, Fe (total)  
Sulfide, as  $H_2S$ 
  

## REMARKS & RECOMMENDATIONS:



|                                  |                        |                                   |                          |
|----------------------------------|------------------------|-----------------------------------|--------------------------|
| Date Received<br><u>09/09/91</u> | Preserved<br><u>No</u> | Date Analyzed<br><u>9/9-10/91</u> | Analyzed By<br><u>ES</u> |
|----------------------------------|------------------------|-----------------------------------|--------------------------|



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