

#9 30-045-11219

# 293 30-045-27901

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS  
NORTHWESTERN NEW MEXICO

Operator Meridian Oil Location: Unit M Sec. 25 Twp 32 Rng 10

Name of Well/Wells or Pipeline Serviced San Juan 32-9 #293 + 9

CPS# 2260

Elevation 6309 Completion Date 9-19-91 Total Depth 332 Land Type F

Casing Strings, Sizes, Types & Depths 100' 8" P.V.C. Casing

If Casing Strings are cemented, show amounts & types used yes 28 sacks

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

None

Depths & thickness of water zones with description of water: Fresh, Clear,  
Salty, Sulphur, Etc. 110' - Fresh

Depths gas encountered: None

Ground bed depth with type & amount of coke breeze used: 332' Asbury  
Coke

Depths anodes placed: 320', 310', 300', 290', 270', 245', 235', 195', 185', 175', 165', 155', 145', 135', 125'

Depths vent pipes placed: From Surface to 332'

Vent pipe perforations: From 120' to 332'

Remarks:

RECEIVED  
FEB 24 1992

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# 2260                            | P/L NAME(S), NUMBER(S) San Juan 32-9 #293 & #9 |           |           |          |                         |
| WO # K794                            | TOTAL                                          | VOLTS 9.9 | AMPS 21.8 | OHMS .45 | DATE 9-18-91<br>9-19-91 |
| REMARKS (notes for construction log) |                                                |           |           |          |                         |

H<sub>2</sub>O - 110'

Perf From 120' - 332'

| DEPTH | LOG ANODE | ANODE | DEPTH | LOG ANODE | ANODE | DEPTH | LOG ANODE | ANODE | DEPTH | LOG ANODE | ANODE | DEPTH     | LOG ANODE | ANODE     |
|-------|-----------|-------|-------|-----------|-------|-------|-----------|-------|-------|-----------|-------|-----------|-----------|-----------|
| 100   |           |       | 295   | 1.6       |       | 490   |           |       | 685   |           |       |           |           |           |
| 105   |           |       | 300   | 1.6       | 3     | 495   |           |       | 690   |           |       |           |           |           |
| 110   |           |       | 305   | 1.6       |       | 500   |           |       | 695   |           |       |           |           |           |
| 115   |           |       | 310   | 1.5       | 2     | 505   |           |       | 700   |           |       |           |           |           |
| 120   |           |       | 315   | 1.6       |       | 510   |           |       |       | ANODE     | DEPTH | LOG ANODE | DEPTH     | LOG ANODE |
| 125   | 1.9       | 15    | 320   | 1.7       | 1     | 515   |           |       |       |           |       |           |           |           |
| 130   | 1.9       | 14    | 325   | 1.7       |       | 520   |           |       | 1     | 320       | 1.7   | 5         |           |           |
| 135   | 1.9       |       | 330   | TD-332    |       | 525   |           |       | 2     | 310       | 1.5   | 5         |           |           |
| 140   | 1.7       |       | 335   | TD-332    |       | 530   |           |       | 3     | 300       | 1.6   | 4         |           |           |
| 145   | 1.9       | 13    | 340   |           |       | 535   |           |       | 4     | 290       | 1.5   | 4         |           |           |
| 150   | 1.9       |       | 345   |           |       | 540   |           |       | 5     | 270       | 1.4   | 4         |           |           |
| 155   | 1.3       | 12    | 350   |           |       | 545   |           |       | 6     | 250       | 1.5   | 4         |           |           |
| 160   | 1.0       |       | 355   |           |       | 550   |           |       | 7     | 235       | 1.9   | 4.5       |           |           |
| 165   | 1.6       | 11    | 360   |           |       | 555   |           |       | 8     | 195       | 1.9   | 6         |           |           |
| 170   | 2.0       |       | 365   |           |       | 560   |           |       | 9     | 185       | 1.9   | 7         |           |           |
| 175   | 1.7       | 10    | 370   |           |       | 565   |           |       | 10    | 175       | 1.8   | 6.5       |           |           |
| 180   | 1.9       |       | 375   |           |       | 570   |           |       | 11    | 165       | 1.8   | 6.5       |           |           |
| 185   | 1.9       | 9     | 380   |           |       | 575   |           |       | 12    | 155       | 1.5   | 5         |           |           |
| 190   | 1.9       |       | 385   |           |       | 580   |           |       | 13    | 145       | 1.9   | 6         |           |           |
| 195   | 1.7       | 8     | 390   |           |       | 585   |           |       | 14    | 135       | 1.9   | 6         |           |           |
| 200   | 1.1       |       | 395   |           |       | 590   |           |       | 15    | 125       | 1.9   | 6         |           |           |
| 205   | .7        |       | 400   |           |       | 595   |           |       | 16    |           |       |           |           |           |
| 210   | .8        |       | 405   |           |       | 600   |           |       | 17    |           |       |           |           |           |
| 215   | .8        |       | 410   |           |       | 605   |           |       | 18    |           |       |           |           |           |
| 220   | .6        |       | 415   |           |       | 610   |           |       | 19    |           |       |           |           |           |
| 225   | .3        |       | 420   |           |       | 615   |           |       | 20    |           |       |           |           |           |
| 230   | 1.0       |       | 425   |           |       | 620   |           |       | 21    |           |       |           |           |           |
| 235   | 1.9       | 7     | 430   |           |       | 625   |           |       | 22    |           |       |           |           |           |
| 240   | 1.6       |       | 435   |           |       | 630   |           |       | 23    |           |       |           |           |           |
| 245   | 1.5       | 6     | 440   |           |       | 635   |           |       | 24    |           |       |           |           |           |
| 250   | 1.4       |       | 445   |           |       | 640   |           |       | 25    |           |       |           |           |           |
| 255   | 1.3       |       | 450   |           |       | 645   |           |       | 26    |           |       |           |           |           |
| 260   | 1.0       |       | 455   |           |       | 650   |           |       | 27    |           |       |           |           |           |
| 265   | 1.0       |       | 460   |           |       | 655   |           |       | 28    |           |       |           |           |           |
| 270   | 1.4       | 5     | 465   |           |       | 660   |           |       | 29    |           |       |           |           |           |
| 275   | 1.4       |       | 470   |           |       | 665   |           |       | 30    |           |       |           |           |           |
| 280   | 1.1       |       | 475   |           |       | 670   |           |       |       |           |       |           |           |           |
| 285   | 1.1       |       | 480   |           |       | 675   |           |       |       |           |       |           |           |           |
| 290   | 1.4       | 4     | 485   |           |       | 680   |           |       |       |           |       |           |           |           |

DISTRIBUTION: original - permanent CPS FILE

COPY - Division Corrosion Supervisor

COPY - Region Corrosion Specialist

# API WATER ANALYSIS REPORT FORM

 Laboratory No. 25910930-1F

2260W

|                                        |                             |                                         |                                 |                                     |  |
|----------------------------------------|-----------------------------|-----------------------------------------|---------------------------------|-------------------------------------|--|
| Company<br><u>MERIDIAN OIL</u>         |                             | Sample No.                              |                                 | Date Sampled<br><u>9-19-91</u>      |  |
| Field                                  |                             | Legal Description<br><u>M-25, 32-10</u> |                                 | County or Parish<br><u>SAN JUAN</u> |  |
| State<br><u>N.M.</u>                   |                             |                                         |                                 |                                     |  |
| Lease or Unit                          | Well<br><u>5J 32-9 #293</u> | Depth<br><u>110'</u>                    | Formation<br><u>WATER TABLE</u> | Water, B/D                          |  |
| Type of Water (Produced, Supply, etc.) |                             | Sampling Point<br><u>C.P GROUND BED</u> |                                 | Sampled By                          |  |

## DISSOLVED SOLIDS

### CATIONS

|                    | mg/l       | me/l       |
|--------------------|------------|------------|
| Sodium, Na (calc.) | <u>200</u> | <u>8.9</u> |
| Calcium, Ca        | <u>270</u> | <u>14</u>  |
| Magnesium, Mg      | <u>6.1</u> | <u>0.5</u> |
| Barium, Ba         |            |            |
|                    |            |            |
|                    |            |            |

## OTHER PROPERTIES

|                                        |               |
|----------------------------------------|---------------|
| pH                                     | <u>7.3</u>    |
| Specific Gravity, 60/60 F.             | <u>1.0028</u> |
| Resistivity (ohm-meters) <u>70' F.</u> | <u>5.70</u>   |
|                                        |               |
|                                        |               |
|                                        |               |

Total Dissolved Solids (calc.)

1600.

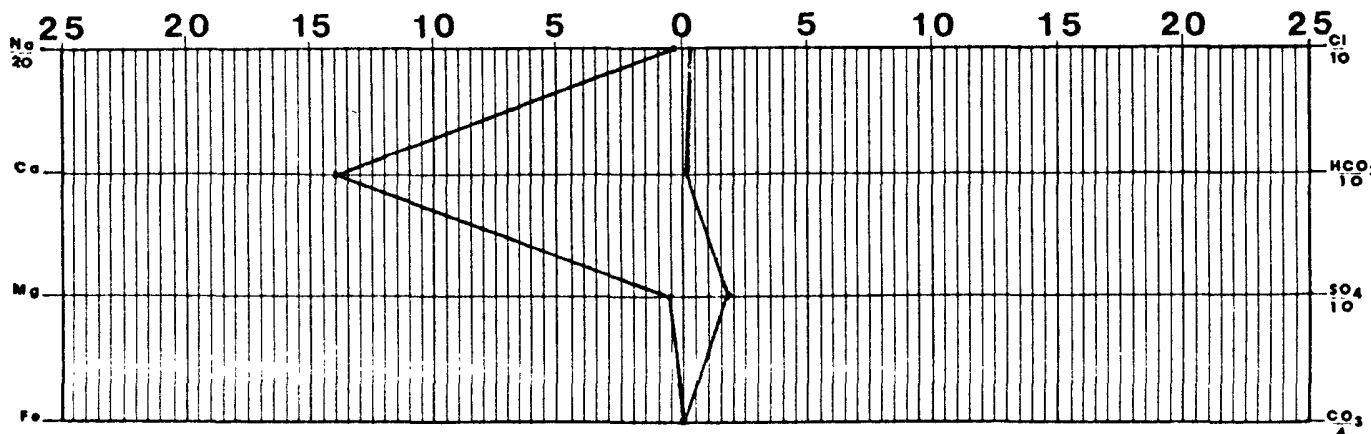
### ANIONS

|                      |            |            |
|----------------------|------------|------------|
| Chloride, Cl         | <u>120</u> | <u>3.5</u> |
| Sulfate, $SO_4$      | <u>860</u> | <u>18</u>  |
| Carbonate, $CO_3$    | <u>0</u>   | <u>0</u>   |
| Bicarbonate, $HCO_3$ | <u>120</u> | <u>1.9</u> |
|                      |            |            |
|                      |            |            |

Iron, Fe (total)

 Sulfide, as  $H_2S$ 

REMARKS &amp; RECOMMENDATIONS:



|                                 |                        |                                      |                          |
|---------------------------------|------------------------|--------------------------------------|--------------------------|
| Date Received<br><u>9/30/91</u> | Preserved<br><u>No</u> | Date Analyzed<br><u>9/30-10/1/91</u> | Analyzed By<br><u>ES</u> |
|---------------------------------|------------------------|--------------------------------------|--------------------------|



**TECH, Inc.**  
 333 East Main  
 Farmington  
 New Mexico  
 87401  
 505/327-3311