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

30-045-07169

Operator MERIDIAN OIL CO. Location: Unit G Sec. 28 Twp 28 Rng 8

Name of Well/Wells or Pipeline Serviced Grambling A # 3

Elevation ____ Completion Date 8/30/90 Total Depth 210 Land Type ____

Casing Strings, Sizes, Types & Depths 20 ft. 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 70 ft. got sample

Depths gas encountered: ____

Ground bed depth with type & amount of coke breeze used:

210 ft. 4100 lbs Ashbury Petroleum Coke

Depths anodes placed: 195, 175, 155, 145, 135, 125, 115, 105, 95, 85

Depths vent pipes placed: 210 ft.

Vent pipe perforations: ____

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.

FM-07-0238 (Rev. 10-82)

WELL CASING

# CATHODIC PROTECTION CONSTRUCTION REPORT

DAILY LOG

II 17

Drilling Log (Attach Hereto) ☐

Completion Date 8-30-90

| CPS # | Well Name, Line or Plant | Work Order # | Static: | Ins Union Check |
|---|---|---|---|---|
| 5-W | Grambling A #3 | | | ☒ Good ☐ Bad |

| Location: | Anode Size: | Anode Type: | Size Bit: |
|---|---|---|---|
| G28-28-8 | 2" X 60" | ANOTEC | 6 3/4" |

| Depth Drilled | Depth Logged | Drilling Rig Time | Total Lbs. Coke Used | Lost Circulation Mat'l Used | No. Sacks Mud Used |
|---|---|---|---|---|---|
| 210' | 210' | | 4100 # | | |

| | #1 | #2 | #3 | #4 | #5 | #6 | #7 | #8 | #9 | #10 |
|---|---|---|---|---|---|---|---|---|---|---|
| Anode Depth | 195 | 175 | 155 | 145 | 135 | 125 | 115 | 105 | 95 | 85 |
| Anode Output (Amps) | 2.8 | 2.8 | 4.8 | 7.3 | 7.8 | 7.9 | 7.6 | 7.7 | 7.0 | 5.6 |

| | #11 | #12 | #13 | #14 | #15 | #16 | #17 | #18 | #19 | #20 |
|---|---|---|---|---|---|---|---|---|---|---|
| Anode Depth | | | | | | | | | | |
| Anode Output (Amps) | | | | | | | | | | |

| Total Circuit Resistance | | | No. 8 C.P. Cable Used | No. 2 C.P. Cable Used |
|---|---|---|---|---|
| Volts 12.25 | Amps 19.3 | Ohms .63 | | |

Remarks: Set 20' of 8" PVC casing. Driller said water at 70', waited 30 minutes, blew water and got water sample. Rand 210' of 1" PVC vent pipe. Left coke breeze approximately 60'. Perforated 140' of vent pipe.

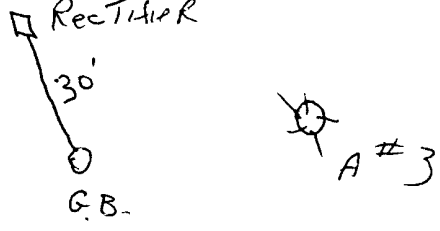
Rectifier Size: _____ V _____ A
Addn'l Depth _____
Depth Credit: _____
Extra Cable: 10'
Ditch & 1 Cable: 30'
25' Meter Pole: _____
20' Meter Pole: _____
10' Stub Pole: _____
Junction Box: 1

*All Construction Completed*

Willis Knight Jr.
*(Signature)*

**GROUND BED LAYOUT SKETCH**





CONSTRUCTION LOGGING READINGS

Meridan Oil

CPS #: 5-W WELL NAME: Grambling A #3 LOCATION: G28-28-8 DATE: 8-30-90

TOTAL VOLTS: 12.25 TOTAL AMPS: 19.3 OHMS RESISTANCE: .63

| DEEP | LOG ANODE | ANODE NO. | DEEP | LOG ANODE | ANODE NO. | DEEP | LOG ANODE | ANODE No. | DEEP | LOG ANODE | ANODE No. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | | | 185 | .90 | | 365 | | | 545 | | |
| 10 | | | 190 | 1.0 | | 370 | | | 550 | | |
| 15 | | | 195 | 1.1 | 1 | 375 | | | 555 | | |
| 20 | | | 200 | 1.2 | | 380 | | | 560 | | |
| 25 | | | 205 | 1.1 | | 385 | | | 565 | | |
| 30 | | | 210 | — | TD | 390 | | | 570 | | |
| 35 | | | 215 | | | 395 | | | 575 | | |
| 40 | | | 220 | | | 400 | | | 580 | | |
| 45 | | | 225 | | | 405 | | | 585 | | |
| 50 | | | 230 | | | 410 | | | 590 | | |
| 55 | | | 235 | | | 415 | | | 595 | | |
| 60 | | | 240 | | | 420 | | | 600 | | |
| 65 | | | 245 | | | 425 | | | 605 | | |
| 70 | 50 | | 250 | | | 430 | | | 610 | | |
| 75 | 1.1 | | 255 | | | 435 | | | 615 | | |
| 80 | 1.3 | | 260 | | | 440 | | | 620 | | |
| 85 | 2.0 | 10 | 265 | | | 445 | | | 625 | | |
| 90 | 1.9 | | 270 | | | 450 | | | 630 | | |
| 95 | 2.2 | 9 | 275 | | | 455 | | | 635 | | |
| 100 | 2.3 | | 280 | | | 460 | | | 640 | | |
| 105 | 2.4 | 8 | 285 | | | 465 | | | 645 | | |
| 110 | 2.4 | | 290 | | | 470 | | | 650 | | |
| 115 | 2.4 | 7 | 295 | | | 475 | | | 655 | | |
| 120 | 2.5 | | 300 | | | 480 | | | 660 | | |
| 125 | 2.6 | 6 | 305 | | | 485 | | | 665 | | |
| 130 | 2.4 | | 310 | | | 490 | | | 670 | | |
| 135 | 2.6 | 5 | 315 | | | 495 | | | 675 | | |
| 140 | 2.4 | | 320 | | | 500 | | | 680 | | |
| 145 | 2.5 | 4 | 325 | | | 505 | | | 685 | | |
| 150 | 2.2 | | 330 | | | 510 | | | 690 | | |
| 155 | 1.4 | 3 | 335 | | | 515 | | | 695 | | |
| 160 | .90 | | 340 | | | 520 | | | 700 | | |
| 165 | .60 | | 345 | | | 525 | | | 705 | | |
| 170 | .90 | | 350 | | | 530 | | | 710 | | |
| 175 | 1.0 | 2 | 355 | | | 535 | | | 715 | | |
| 180 | .90 | | 360 | | | 540 | | | 720 | | |

ANODE READINGS

| NO. | DEPTH | NO COKE | WITH COKE |
|---|---|---|---|
| 1 | 195 | 1.4 | 2.8 |
| 2 | 175 | 1.2 | 2.8 |
| 3 | 155 | 2.0 | 4.8 |
| 4 | 145 | 3.9 | 7.3 |
| 5 | 135 | 4.1 | 7.8 |
| 6 | 125 | 4.2 | 7.9 |
| 7 | 115 | 3.7 | 7.6 |
| 8 | 105 | 3.7 | 7.7 |
| 9 | 95 | 3.2 | 7.0 |
| 10 | 85 | 2.5 | 5.6 |

REMARKS: Driller said hit water at 70', waited 30 minutes. Blew water and got water sample. Set 20' of 8" PVC casing

# BURGE CORROSION SYSTEMS, INC.

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

COMPANY Meridian Oil DAILY DRILLING REPORT 8-30 19 90

| WELL NAME: | WELL NUMBER: | SECTION: | TOWNSHIP: | RANGE: |
|---|---|---|---|---|
| Grambling | A-3 | G-28 | 28 | 08 |

WATER AT: FEET: 70' HOLE MADE:

DESCRIPTION OF FORMATION

| FROM | TO | FORMATION IS | COLOR |
|---|---|---|---|
| 0' | 18' | 8" PVC Casing - Contaminated - Cemented | |
| 18' | 70' | Sand Stone - Bentonite - Watersand 10 GPM | |
| 70' | 80' | Watersand | |
| 80' | 90' | Bentonite | |
| 90' | 160' | Shale (Red) Blue/Black shale streamers | |
| 160' | 195' | Sand/Shale/Bentonite Mix | |
| 195' | 200' | Sand/Shale Mix. | |

REMARKS: Top 20' Contaminated - Saturated by petroleum products. Cemented back to surface. Hot water sample - 70'-80' 10 GPM

Driller Brian E. Burge Tool Dresser

# API WATER ANALYSIS REPORT FORM

Laboratory No.

| Company | Sample No. | Date Sampled |
|---|---|---|
| MERIDIAN OIL, INC. | CPS- 5-W | 8/29/90 |

| Field | Legal Description | County or Parish | State |
|---|---|---|---|
| | G-28-28-8 | | |

| Lease or Unit | Well | Depth | Formation | Water, B/D |
|---|---|---|---|---|
| GRAMBLING | A-3 | | | |

| Type of Water (Produced, Supply, etc.) | Sampling Point | Sampled By |
|---|---|---|
| | 70' | M.D. McFARLAND |

**DISSOLVED SOLIDS**

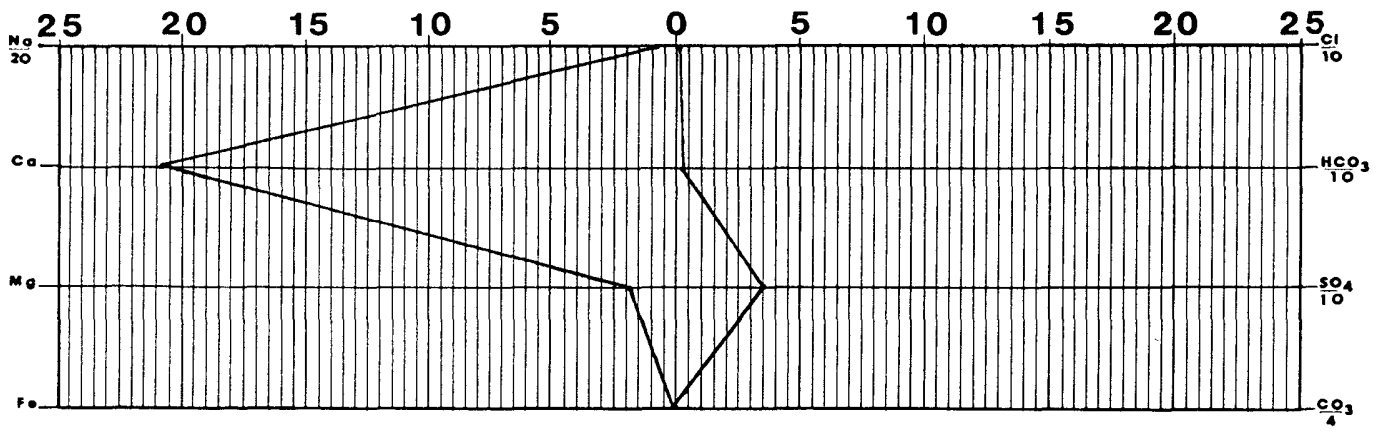
| *CATIONS* | *mg/l* | *me/l* |
|---|---|---|
| Sodium, Na (calc.) | 396 | 17.2 |
| Calcium, Ca | 417 | 20.8 |
| Magnesium, Mg | 23 | 1.9 |
| Barium, Ba | | |

| *ANIONS* | | |
|---|---|---|
| Chloride, Cl | 32 | 0.9 |
| Sulfate, $So_4$ | 1700 | 35.4 |
| Carbonate, $CO_3$ | — | — |
| Bicarbonate, $HCO_3$ | 222 | 3.6 |

**OTHER PROPERTIES**

| | |
|---|---|
| pH | 7.39 |
| Specific Gravity, 60/60 F. | 1.0052 |
| Resistivity (ohm-meters) 77° F. | 3.80 |
| Total Dissolved Solids (calc.) | 2790 |
| Iron, Fe (total) | |
| Sulfide, as $H_2S$ | |

REMARKS & RECOMMENDATIONS:




| Date Received | Preserved | Date Analyzed | Analyzed By |
|---|---|---|---|
| 9-5-90 | | 9-5-90 | MKL |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