| Form 31 (April 2 | | | | UNITED STATES DEPARTMENT OF THE INTERIOR BURFAU OF LAND MANAGEMENT OCD-ARTESIA FORM APPROVED OMBNO 1004-0137 FORM APPROVED OMBNO 1004-0137 FORM APPROVED | | | | | | | | | 5 | | |
|---|--|-----------------|---------------------------------------|---|------------------------------|---------------|--|-------------|-----------------|-----------------------|------------|--|--------------|---------------------------------------|---------------------|
| | W | ELL CO | OMPLE | BURIAU ETION OR | | | | چھ RT AN | | | 150 | ····· | | ach 31/2007 | |
| | | | | | | | | | | | | NMLC-029338B | | | |
| | la Type of Well 🔽 Oil Well 🔲 Gas Well 🛄 Dry 🛄 Other b Type of Completion 🔄 New Well 🔄 Work Over 🛄 Deepen 🛄 Plug Back 📝 Diff Resyr | | | | | | | | | | | 6 If Indian, Allottee or Tribe Name | | | |
| | | . <u></u> | Othe | Recomplet | ion & Comm | ingle DH | IC-4033 | | | | | 7 Unita | or CA Agree | ement Name and No | |
| 2 Nan | 2 Name of Operation COG Operating LLC 8 Lease Name and Well No Harvard Federal #6 | | | | | | | | | | | | | | |
| 3 Add | | | | | | | | | | | | | | | |
| 4 Loca | | | | clearly and in | accordance wi | th Federa | | | | | | 10 Field | and Pool of | r Exploratory 6 5 11: | . Consider of salar |
| At s | At surface 2310 FNL &330 FWL, Unit E Loco Hills; Glorieta-Yeso 96718 | | | | | | | | | | | | | | |
| At to | op prod int | erval repo | orted belo | w | | | | | | | | Surve | y or Area 🤔 | Sec.12, F17S, R30E | |
| At to | tal depth | | | | | | | | | | | 12 Coun Eddy | ty or Parish | 13 State NM | |
| 14 Date | Spudded 25/2006 | | 15 | Date T D Rea 10/10/2006 | | | 16 Date C | • | | 7/2008 | | 17 Elevations (DF, RKB, RT, GL)* 3744' GL | | | |
| 18. Tota | | MD 625 | 50 | | Plug Back T I |) MD | 5725 | <u>x A</u> | ✓ Read 20 De | | ge Plug S | | | | |
| | • | TVD | | | 0 | TVD | 0,20 | | | | 0 0 | TV | D | | |
| 21. Type | Electric | & Other N | Aechanic | al Logs Run (S | Submit copy o | feach) | | · · · · · · | 1 | as well c as DST r | = | ✓ No Yes (Submit analysis) ✓ No Yes (Submit report) | | | |
| • | ctral Gam | | | | | | | | 1 | | Survey? | | | Submit copy) | |
| · · · · · · · · · · · · · · · · · · · | | | · · · · · · · · · · · · · · · · · · · | ort all strings | | Stage | e Cementer | No c | of Sks & | Slu | rry Vol | 0 | | Amount Pulled | |
| 17 1/2 | Hole Size Size/Grade Wt (#/ft 17 1/2 13 3/8 48 | | | | Fop (MD) Bottom (MD) 439 | | | | of Cemen | | | Cement Top* | | | |
| 12 1/4 | 8 5/8 | | | | 1571 | | | 800 s | | | | Surfac | | | |
| 7 7/8 | 5 1/2 | 1' | 7 | <u> </u> | 6150 | | | 1430 | SXS | | | Surfac | :e | · · · · · · · · · · · · · · · · · · · | |
| | | | | * | 1 | | | | | | | <u> </u> | | | |
| | 24 Tubing Record | | | | | | | | | | | | | | |
| Size | Dept | h Set (MI | D) Packe | er Depth (MD) | Size | Dept | h Set (MD) | Packer | Depth (M | D) | Size | Depth | Set (MD) | Packer Depth (MD) | |
| 2 7/8 25 Produ | 5681 Icing Interv | als | | | l | 26 | Perforation | n Record | | | | | | | |
| | Formatio | | | Тор | Bottom Perforated Interval | | | | | | | | erf Status | , | |
| | Andres (Andres (| | | 3190 3730 | | | <u>3190 - 3660</u> <u>3730 - 3930</u> | | | .041 72 .041 36 | | | | | |
| | | | | 4000 | 4490 | | | | .041 72 | | | | | | |
| | D) Yeso (Exsisting) 27 Acid, Fracture, Treatment, Cement Sci | | | | 5912 5044.5 - 5912 | | | | .041 152 | | 52 Open | | | | |
| | Depth Inter | ~ <u>`</u> | | | | | | | nd Type o | | | ····· | | | |
| <u> </u> | | | | | 500 gal 15% 500 gal 15% : | | | | | | | | | | |
| 3730 - 3 | | | | | 500 gal 15% : | | | | | | | | | | |
| 4000 - 4200, 4290 - 4490 Acidize w/5000 gal 15% acid. Frac w/119,000 gal gel; 153,383# 16/30 white sand; 42,000# 16/30 CRC sand. 28 Production - Interval A | | | | | | | | | | | | | | | |
| Date First Produced | Test Date | Hours Tested | Test Produc | | Gas MCF | Water BBL | Oil Grave Cort AP | 1ty 21 | Gas Gravi | | Production | Method | | | |
| Choke Size | Tbg Press Flwg Sl | Csg Press | 24 Hr Rate | | Gas MCF | Water BBL | Gas/Oil Ratio | | Well S | tatus | Shut In | | | 997 | |
| 28a Prod | | | | | -+ | u. | | | | | | | | | |
| Date First Produced | Test Date | Hours Tested | Test Producti | | Gas MCF | Watei BBL | Oil Gravi Corr API | | Gas Gravity | | Production | Method | | | |
| Choke Size | Tbg Press Flwg Sl | Csy Press | 24 Hr Rate | Oil BBL | Gas MCF | Water BBL | Gas/Oil Ratio | | Well St. | itus | | | | | |

*(See instructions and spaces for additional data on page 2)

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| 28b Producti | on - Interval C | | | | | | | | |
|----------------|-----------------|--------|------------|-----|-----|-------|-------------|-----------|-------------------|
| Date First | Test Date | Hours | Test | Oil | Gas | Water | Oil Gravity | Gas | Production Method |
| Produced | | Tested | Production | BBL | MCF | BBL | Corr API | Gravity | |
| Choke | Tbg. Press | Csg | 24 Hr | Oil | Gas | Water | Gas/Oil | Well Stat | lus |
| Size | Flwg | Press | Rate | BBL | MCF | BBL | Ratio | | |
| 28c Production | on - Interval D | · | | | | | | I | |
| Date First | Test Date | Hours | Test | Oil | Gas | Water | Oil Gravity | Gas | Production Method |
| Produced | | Tested | Production | BBL | MCF | BBL | Corr API | Gravity | |
| Choke | Tbg Press. | Csg | 24 Hr. | Oil | Gas | Water | Gas/Oil | Well Stat | us |
| Size | Flwg | Press | Rate | BBL | MCF | BBL | Ratio | | |

31 Formation (Log) Markers

29. Disposition of Gas (Sold, used for fuel, vented, etc.)

Sold

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30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof. Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, tlowing and shut-in pressures and recoveries.

| Formation | Тор | Bottom | Description, Contents, etc | Name | Тор | |
|-----------|-----|--------|----------------------------|---------------|-------------|--|
| Formation | Тор | Bottom | Description, Contents, etc | Name | Meas. Depth | |
| | | | | Lamar | 1530' | |
| | | | | Bell Canyon | 1598' | |
| | | | | Cherry Canyon | 2714' | |
| | | | | Brushy Canyon | 3640' | |
| | | | | Bone Spring | 4976' | |
| | | | | Wolfcamp | 8009' | |
| | | | | Strawn | 10,090' | |
| | | | | Atoka | 10,570' | |
| | | | | Morrow | 10,810' | |
| | | | | | ļ | |
| | | | | | | |
| | | | | | | |

32 Additional remarks (include plugging procedure)

| | ms have been attached by placing a check in the appropriate boxes lectrical/Mechanical Logs (1 full set req'd) | DST Report X | Directional Survey | | | | | | |
|---|--|-------------------|----------------------------------|--|--|--|--|--|--|
| s | undry Notice for plugging and cement verification | X Other Deviation | Survey | | | | | | |
| 34 I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)* | | | | | | | | | |
| Name(please print) | Tina Huprta | Title | Regulatory Compliance Supervisor | | | | | | |
| Signature | Cline Huerte | Date | September 23, 2008 | | | | | | |
| Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any taise, fictitious or traudulent statements or representations as to any matter within its jurisdiction | | | | | | | | | |
| (Continued on page 3) | | | (Form 3160-4, page2) | | | | | | |