| Submit 3 Copies To Appropriate District Office | State of New Mexico | Form C-103 |
|--|------------------------------------|--------------------------------------|
| District I Energy, Minerals and Natural Resources | | WELL APINO. May 27, 2004 |
| 1625 N. French Dr., Hobbs, NM 88240 District II | | 30-025-36569 |
| District II 1301 W. Grand Ave., Artesia, NM 882 CEIVED CONSERVATION DIVISION District III 1000 Rio Brazos Rd., Aztec, NM 89010 2 1 2010 District IV 1220 South St. Francis Dr. Santa Fe, NM 87505 | | 5. Indicate Type of Lease |
| | | STATE FEE S |
| District IV Santa Fe, NM 87505 | | 6. State Oil & Gas Lease No. |
| 1220 S. St. Francis Dr., Santa Fe, NM 87505 HOBBSOCD | | |
| SUNDRY NOTICES AND REPORTS ON WELLS | | 7. Lease Name or Unit Agreement Name |
| (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH | | / |
| PROPOSALS) 1. Type of Well: Oil Well Gas Well Other | | Laguna Deep Unit |
| | | 8. Well Number |
| 2. Name of Operator | | 9. OGRID Number |
| Cimarex Energy Co. of Colorado | | 162683 ✓ |
| 3. Address of Operator | | 10. Pool name or Wildcat |
| 600 N. Marienfeld, Ste. 600; Midland, TX 79701 | | Gem; Morrow, E (Gas) |
| 4. Well Location | | dem, Morrow, E (dds) |
| SHL Unit Letter M: 660 feet from the South line and 660 feet from the West line / | | |
| Section 25 Township 19S Range 33E NMPM County Lea | | |
| 11. Elevation (Show whether DR, RKB, RT, GR, etc.) | | |
| 3602' GR | | |
| Pit or Below-grade Tank Application ☐ or Closure ☐ | | |
| Pit type Depth to Groundwater Distance from nearest fresh water well Distance from nearest surface water | | |
| Pit Liner Thickness: Below-Grade Tank: Volume bbls; Construction Material | | |
| 12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data | | |
| NOTICE OF INTENTION | TO: SUB | SEQUENT REPORT OF: |
| _ = | ND ABANDON REMEDIAL WOR | |
| TEMPORARILY ABANDON CHANGE | <u>=</u> 1 | |
| _ | .E COMPL CASING/CEMENT | l JOB \square |
| OTHER: Commingle M & L Morrow, add addtl L Morrow 🛛 OTHER: | | |
| 13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or | | |
| recompletion. | | |
| The Laguna Deep Unit No. 8 is currently producing from Middle Morrow perfs @ 13170-13254' with a CIBP over Lower Morrow perfs @ | | |
| 13378-13398.' Cimarex plans to commingle M & L Morrow, as well as add additional L Morrow perfs and install gas lift, as shown below | | |
| and on the following procedure. | | |
| • ND WH & NU 5K BOP. Release o/o tool and rele | ease nacker TOOH w/ nkr and the | |
| • Drill out cement and CIBP @ 13350' and push CIBP to bottom @ 13660.' | | |
| • Re-perf L Morrow 13378-13398' and perf new L Morrow @ 13334-13338' w/ 3 spf, 72 holes. | | |
| Acidize with 2000 gal Methanol acid. | | |
| RIW w/ tbg, perf sub,pkr, and gas lift valves on tubing with pkr @ 13100.' Begin gas lift injection. | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below- | | |
| grade tank has been/will be constructed or closed according to NMOCD guidelines, a general permit or an (attached) alternative OCD-approved plan | | |
| SIGNATURE Volta Livil 1400 | TITLE Regulatory Analyst | DATE |
| DATE July 15, 2010 | | |
| | mail address: nkrueger@cimarex.com | n Telephone No. 432-620-1936 |
| For State Use Only | | |
| APPROVED BY: | TITLE PETROLEUM EN | DATE DATE |
| Conditions of Approval (if any): | | |
| · · · · · · · · · · · · · · · · · · · | | 7.4 |

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LAGUNA DEEP UNIT #8 LOWER MORROW RECOMPLETION

API#30-025-36569 660' FSL & 660' FWL Section 25, T19S, R33E Lea County, New Mexico

GL: KB: 3602'

TD DRILLER:

3631'

PBTD

13660'

CIBP @ 13,350' W/ 35' CMT

SURF CSG :

13-3/8" OD 48#/FT H-40 @ 502' Cmtd W/ 470 SX.(168 SX CIRC)

INTER CSG:

9-5/8" OD 40#/FT J-55 @ 4775' Cmtd W/ 2185 SX. TOC @ 280'-TEMP SUR.

PROD CSG:

5-1/2" OD 17#/FT P-110 @ 13,651' Cmtd W/ 685 SX - STAGE 1

1145 SX - STAGE 2 THROUGH DV TOOL.

DV TOOL :

9965' - tested to 1600#

PACKER :

5-1/2" x 2-3/8" WL AS-1X PKR w/X nipple, 1.875. BTM OF PKR @ 13097'

TUBING :

2-3/8" L-80 (421 JOINTS)

PERFS :

MIDDLE MORROW PERFS @ 13170'-74', 13204'-209', 13250'-13254'

LOWER MORROW PERFS @ 13378'-13398' (BELOW CIBP)

LOWER MORROW

1. RECONFIGURE BATTERY FOR GAS LIFT AND INSTALL NEW COMPRESSOR.

- 2. MIRU SLICK LINE. RIW WITH GR FOR TD CHECK. POOH. RIW AND SET 1.875 PLUG IN X-NIPPLE.
- 3. MIRU PULLING UNIT. ND WELLHEAD AND NU BOPS. RELEASE ON/OFF TOOL. SWAB WELL DOWN TO 9000'. LATCH ONTO PACKER W/ ON/OFF TOOL. RELEASE PACKER AT 13097'. TOOH WITH PACKER AND TUBING.
- 4. RIH W/ 4-3/4" BIT, 6 3-1/2" DRILL COLLARS, X-OVER SUB, ON 2-3/8" TUBING. RU FOAM AIR UNIT. DRILL OUT CEMENT AND CIBP @ 13350'. PUSH CIBP TO BOTTOM AT ~13,660'. NOTE FILL. CIRCULATE BOTTOMS UP. TOOH AND LAY DOWN TUBING, DRILL COLLARS AND BIT.
- 5. MIRU WIRELINE AND FULL LUBRICATOR. RE-PERFORATE LOWER MORROW 13378'-13398' AND 13334'-13338' (NEW) UNDERBALANCED WITH PREMIUM DEEP-PENETRATING CHARGES WITH 3 SPF ON 120 DEGREE PHASING (24' - 72 HOLES). CORRELATED TO HALLIBURTON LATEROLOG 10/28/2005
- 6. DELIVER 2-7/8" PRODUCTION STRING, CVD.
- 7. PU AND RIW 2 7/8" TBG WITH TREATING PACKER. TEST IN HOLE TO 7000# BELOW SLIPS. SET PACKER 13100' AND TREAT WITH 2000 GAL METHANOL ACID. POOH.
- 8. RIW W/ 300' OF 2-7/8" TAIL PIPE, PERFORATED SUB, PACKER, AND GAS LIFT VALVES ON 2-7/8" TUBING AS PER DESIGN.. SET PACKER AT 13100'.
- 9. BEGIN GAS LIFT INJECTION DOWN CASING WITH MAX GAS INJECTION PRESSURE OF 1200 PSI.

CIMAREX ENERGY CO. OF COLORADO Laguna Deep Unit #8 Spudded: 21-Aug-2005 Gem East (Morrow) API: 30-025-36569 Recompleted: 6-2006 **CURRENT COMPLETION** Howard Miller: 22-Jun-2006 660' FSL & 660' FWL KB: 3.631' DF: 3,630' GL: 3,602' Sec 25, T-19-S, R-33-E Lea Co, New Mexico Casing Strings: 20" OD conductor @ 69' Tubing Detail: from 11/21/06 rpt 421 jts 2 3/8" L80 tbg tubing set in 22000# compression 13-3/8" (17-1/2" hole), 48#, H-40 WL AS-1X pkr w/X nipple, 1.875 @ 502' w/ 470 sx cmt Otis Watermelon plug Circ 168 sx 2 3/8" SN on btm TOC @ surface BTM OF PKR @ 13,097' 9-5/8" (12-1/4" hole), 40#, J-55 @ 4,775' w/ 2185 sx cmt - did not circ Temp Survey TOC - 280' 1" w/ 50 sx 5-1/2" (8-3/4" hole), 17#, P-110 @ 13,651' Stage 1: 685 sx cmt Open DV - circ 25 Bbl cmt Stage 2: 1145 sx cmt DV - 9,965' Marker it - 13,000' FC - 13,559' FS - 13,655 Morrow Perfs: 13,170'-174' w/6 SPF, 11/10/06 Morrow Perfs: 13,204'-209', 13,250'-54' (60 holes) 10/30/2006 The Park of the State of the St Morrow Perfs: 5 1/2" CIBP @ 13,350' w/35' cmt 13,378' - 13,398' @ 4 spf BD w/ KCl - natural flow 6/28/2006 - swabbed dn ... recvd 57 BW w/ 30 min afterflow BHP bomb = 2050# 185dTD: 13,660' **PBTD: 13,507'** (original)

4/4/2010 Jesse Parkison