| ا ا                     |  |   | FORM APPROVED RECEIVED   |
|-------------------------|--|---|--|
| FORM 3160-5             |  | D STATES  |  |
| (June 1990)             |  | OF THE INTERIOR   | Budget Bureau No. 1004-0135  |
|                         | BUREAU OF LA   | ND MANAGEMENT   | Expires: March 31719937 - 4 AM 9 20  |
| SHIND                   | RY NOTICES AND REPOR                                   | TS ON WELLS   |  |
|                         |  | to deepen or reenter a different reservoir.   | 6. If Indian, Allottee or Tribe Name   |
|                         | se "APPLICATION FOR PE                                 | •   | o. If findian, Another of The Name William Of the Tarry  |
|                         | e All LIOATION TORT L                                  | Trivin 1 of Such proposals  |  |
|                         | SUBMIT IN TI   | RIPLICATE STATE OF THE PRINCIPLE OF THE | 7. If Unit or CA, Agreement Designation  |
| . Type of Weil          |  |   |  |
| Oil Gas                 |  | DEC. 2002   | 8. Well Name and No.   |
| Well X Weil             | Other  |   | Morton #1  |
|                         |  | S C C C C C C C C C C C C C C C C C C C   | 9. API Well No.  |
| . Name of Operator      |  | Cast.   | 30-045-25506   |
| Calpine Natural G       |  |   | 10. Field and Pool, or Exploratory Area  |
| . Address and Teleph    |  | 12 (2 (1) (1) (2) (2)   | Twin Mounds Pictured Cliffs  |
| <del> </del>            | ite 770, Denver, CO 80202                              |   | 11. County or Parish, State  |
|                         | otage, Sec., T., R., M., or S<br>' FEL Sec. 23-30N-14W | Survey Description)   | San Juan County, New Mexico  |
| 2.                      | CHECK APPROPRIATE                                      | BOX(es) TO INDICATE NATURE OF NOTICE  | CE REPORT OR OTHER DATA  |
|                         | SUBMISSION   |   | E OF ACTION  |
| / - <del>-</del>        |  |   | OF ACTION  |
| X Notic                 | e of Intent  | Abandonment   | Change of Plans  |
|                         |  | x Recompletion  | New Construction   |
| Subs                    | equent Report  | Plugging Back   | Non-Routine Fracturing   |
| <u> </u>                | · ·  | Casing Repair   | Water Shut-Off   |
| Final                   | Abandonment Notice                                     | Altering Casing   | Conversion to Injection  |
| _                       |  | Other   | Dispose Water  |
|                         |  | (Note: Report results of multiple   | completion on Well   |
|                         |  | Completion or Recompletion Re   | port and Log form.)  |
| work. If well is dire   | ctionally drilled, give subsu                          | Clearly state all pertinent details, and give professed locations and measured and true vertice in Fruitland Coal Gas formation.  | ertinent dates, including estimated date of starting any proposal depths for all markers and zones pertinent to this work.)* |
|                         |  | Fruitland Coal production will be commingled  | downhole.  |
| Attached is the pro     | posed proceedure to recor                              | mplete and commingle the Twin Mounds PC   | and Rasin Fruitland Coal formations  |
|                         | 0.6/ -   | CANA AZ   | and basin's radiand Goal formadons.  |
|                         | BAC  | (004AZ  |  |
|                         | •  |   |  |
|                         |  |   |  |
| 4. I horoby             | the foregoing in the second                            |   | · ·  |
| Signed Signed           | the foregoing is true and co                           | Title OPERATIONS MANA   | AGER Date 10/30/02   |
| Approved by             | ral or State office use)                               | Title   | NOV 2 6 2002   |
| Conditions of approv    | al, if any:  |   |  |
|                         |  |   |  |
| Title 18 U.S.C. Section | on 1001, makes it a crime f                            | or any person knowingly and willfully to make   | e to any department or agency of the United States andy false  |
| noncous of frauduler    | it atatements of representa                            | tions as to any mater within its jurisdiction.  |  |

\*See Instructions on Reverse Side

## Recompletion Procedure for

# Calpine Natural Gas Company Morton #1

Location: NE/4 Sec 23 T30N R14W Date: October 30, 2002

San Juan County, NM

Field: Twin Mounds PC Elev: GL 5825'

Recomplete in Basin Fruitland Coal Gas KB 5838'
E: BLM PBTD 4-1/2" @ 2256'

Surface: BLM PBTD 4-1/2" @ 2256' Minerals: BLM NM-26357 PC Perfs 1532'-1546'

1. Set and fill 2 frac tanks with city water and heat to 80 degrees. Check for anchors. MOL and RU completion rig. Hold safety meeting.

- 2. NU 2-3/8" relief line. Blow well down and kill with water if necessary.
- 3. ND tubing head and pull tubing slips. NU BOP. POOH with rods and pump. Should have 1-16' polish rod, 1-2' pony rod, 3-4' pony rods, 1-6' rod, 55 %" rods and 1 2"x 1 %"x12' RWAC pump on 3 -1" sinker bars.
- 4. PU 9 joints of tubing and clean out to 1904' KB.
- 5. POOH with tubing. Should have 57 jts of tubing, 1 seating nipple, 1-4' perforated sub and 1 joint of tail. RIH with tubing and set drillable bridge plug at 1528'. POOH with tubing.

## Complete Pictured Cliffs

- 6. Perforate 4 spf (0.38" holes) from 1510' to 1526'. Total of 64 holes. Depths refer to the open-hole logs.
- 7. Rig up frac equipment and pressure test surface lines.
- 8. Fracture with 60,000# of 20/40 Brady sand in a 25#/1000 gal cross-linked gel fluid. Pump rate at 50 BPM and expected treating pressure is 2000 psig. Max treating pressure is 3500 psig. Treat with the following schedule if pressure permits: (would prefer to ramp sand)

| Gel Vol.<br>(Gals.) | Sand Vol. (lbs.)                                      |
|---------------------|---|
| 7,000               | 0   |
| 3,000               | 3,000   |
| 5,000               | 10,000  |
| 5,000               | 15,000  |
| 5,000               | 20,000  |
| Resin 3,000         | 12,000  |
| 997                 | 0   |
| 28,997              | 60,000  |
|                     | (Gals.) 7,000 3,000 5,000 5,000 5,000 Resin 3,000 997 |

9. Close BOPs. RD frac company and install flowline with 1/4" ceramic choke. Flow well back to pit overnight.

.\* 10. When well dies, TIH with bailer on 2-3/8" EUE tubing and clean out to bridge plug at 1528. POOH with bailer. TIH with bit and drill out bridge plug and clean out to 1904'. TOH and lay down 9 joints of tubing. Finish POOH with tubing and lay down bit.

•

11. TIH with 1 tail joint, 1-4' perforated sub, Seating Nipple and 48 joints of 2 3/8" tubing. Land tubing at 1607' KB. RIH with rods and pump. Put well on production. RD and release rig.



### Surface Casing 221' 124 cu ft Cement

8-5/8", 24#, in 12 1/4" hole Class B w/ 2% CaCl. Circulate to surface

148 jts. 4 1/2" csg. 11.6 #/ft, J-55 New

2nd Stage 1715 cuft

Class B with 2% econofill

Circulated to Surface

| Pictured Cliffs | SPF | Shots |
|-----------------|-----|-------|
| 1532-1546       | 4   | 56    |

## Top of MV plug @ 2256

DV Tool @ ?

Cement

1st Stage 490 cu ft

50/50 Pox with 2% gel, 10% salt, 6 1/4 # Gilsonite

1/4# celloflake

| Dakota    | SPF | Shots     |
|-----------|-----|-----------|
| 6134-6152 | 1   | 18        |
| 6158-6162 | I   | 4         |
| 6164-6169 | 1   | 5         |
| 6205-6214 | 1   | 9         |
| 6240-6248 | 1   | 8         |
| 6348-6356 | 2   | 16        |
|           | z   | one Total |

PBTD 6,367 FLOAT COL. 6,367 SHOE 6,384 6,385

## Morton #1 Sec 22, Township 30N, Range 14W

Surface Location Btm Hole Loc.

1750' FNL & 1030' FEL Sec 23 T30N R14W

Field

Same as Surface Basin Dakota

County State

San Juan New Mexico 30-045-25506

API No. Lease No. G.L. Elevation K.B. Elevation

NM 26357

5825' 5838'

## **Tubing Configuration**

| Description                                    | Length |
|--|--------|
| КВ   | 12.0   |
| 48 Joints of 2 3/8" 4.7 #/ft. J-55 EUE EUE     | 1557.0 |
| 1 Seating Nipple                               | 1.1    |
| 1 4' Perforated sub                            | 4.2    |
| 1 Tail joints of 2 3/8" 4.7 #/ft. J-55 EUE EUE | 32.5   |
| Tubing Tail @                                  | 1606.8 |

## Rods and Pump Configuration

|    | Rods            | Pump                   |
|----|-----------------|------------------------|
| 55 | 3/4" rods       | 2" x 1 1/2" x 12' RWAC |
| 1  | 6' pony rod     | 3 1" Sinker Bars       |
| 3  | 4' pony rods    |                        |
| 1  | 2' pony rod     |                        |
| 1  | 16' polishd rod |                        |

District I State of New Mexico Form C-102 1625 N. French Dr., Hobbs, NM 88240 Energy, Minerals & Natural Resources Department Revised August 15, 2000 District II 1301 W. Grand Avenue, Artesia, NM 88210 Submit to Appropriate District Office OIL CONSERVATION DIVISION District III State Lease - 4 Copies 1220 South St. Francis Dr. 1000 Rio Brazos Rd., Aztec, NM 87410 Fee Lease - 3 Copies District IV Santa Fe, NM 87505 1220 S. St. Francis Dr., Santa Fe, NM 87505 ☐ AMENDED REPORT WELL LOCATION AND ACREAGE DEDICATION PLAT API Number <sup>2</sup> Pool Code <sup>3</sup> Pool Name 30-045-25506 71629 **BASIN FRUITLAND COAL** <sup>4</sup> Property Code <sup>5</sup> Property Name <sup>6</sup> Well Number 030454 **MORTON** #1 OGRID No. 8 Operator Name <sup>9</sup> Elevation 214274 CALPINE NATURAL GAS COMPANY, L.P. 5838 <sup>10</sup> Surface Location UL or lot no. Section Township Range Lot Idn Feet from the North/South line Feet from the East/West line County H 23 14W 30N 1750 FNL 1030 San Juan 11 Bottom Hole Location If Different From Surface UL or lot no. Section Township Range Lot Idn Feet from the North/South line Feet from the East/West line 3 County Dedicated Acres <sup>3</sup> Joint or Infill 14 Consolidation Code <sup>15</sup> Order No. 320 NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION 16 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Hugo Cartava Production Manager Title 11/1/02 Date 18SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the

same is true and correct to the best of my belief.

Signature and Seal of Professional Surveyor:

Date of Survey

Certificate Number