FORM 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

2001 MAY 24 PM 2:34

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reenter a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals

**SUBMIT IN TRIPLICATE**

5. Lease Designation and Serial No.
NM 26357

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

1. Type of Well
Oil [ ] Well Gas [X] Well [ ] Other

8. Well Name and No.
Morton #1

9. API Well No.
30-045-25506

2. Name of Operator
Calpine Natural Gas

10. Field and Pool, or Exploratory Area
Dakota Basin

3. Address and Telephone No.
1200 17th St., Suite 770, Denver, CO 80202

11. County or Parish, State
San Juan County, New Mexico

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
1750' FNL & 1030' FEL Sec. 23-30N-14W

RECEIVED
JUN 2001
OIL CON. DIV.
DIST. 3

12. CHECK APPROPRIATE BOX(es) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION | TYPE OF ACTION | |
|---|---|---|
| [X] Notice of Intent | [ ] Abandonment | [ ] Change of Plans |
| [ ] Subsequent Report | [x] Recompletion | [ ] New Construction |
| [ ] Final Abandonment Notice | [ ] Plugging Back | [ ] Non-Routine Fracturing |
| | [ ] Casing Repair | [ ] Water Shut-Off |
| | [ ] Altering Casing | [ ] Conversion to Injection |
| | [ ] Other | [ ] Dispose Water |

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Calpine is proposing to abandon the existing Dakota formation in the subject well and recomplete into the Twin Mounds Picture Cliff formation
Attached is the proposed proceedure to abandon the existing zone and recomplete into the ~~Twin Mounds~~ PC formations.

Harper Hill FS/PC
78160

14. I hereby certify that the foregoing is true and correct
Signed [signature] Title OPERATIONS MANAGER Date 05/21/01

(This space for Federal or State office use)
Approved by /s/ Jim Lovato Title _____ Date JUN - 7
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States andy false, ficticious or fraudulent statements or representations as to any mater within its jurisdiction.

*See Instructions on Reverse Side

NMOCD

Recompletion Procedure for

# Calpine Natural Gas Company
# Morton #1

Location: NE/4 Sec 23 T30N R14W
San Juan County, NM

Date: May 17, 2001

Field: Basin Dakota
Recomplete in Twin Mounds PC
Surface: BLM
Minerals: BLM NM-26357

Elev: GL 5825'
KB 5838'
4-1/2" @ 6370'
DK Perfs 6134' - 6356'

**Plug Dakota Procedure:**

1. Dig workover pit. Set and fill 2 frac tanks with city water and heat to 80 degrees. Check for anchors. Set pump jack. 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. Pick up an additional joints (198' - 6 jts) of 1-1/2" EUE tubing and TIH to approximately 6356' KB. The 1-1/2" tubing is currently landed at 6158' KB.

4. **Pump Plug #1 - Dakota.** Spot 50 sx (59 cu.ft.) of Cl "B" neat cement from 6356' to approximately 6034'. Cement is designed to cover from the base of the Dakota perfs to 100' above the top Dakota perf with 100% excess.

5. TOH (standing back) 1-1/2" EUE tubing to approximately 5500' KB and WOC 4 hrs. TIH and verify cement top.

6. Load hole with water. TOH (laying down) to approximately 5363' KB.

7. **Pump Plug #2 - Gallup** Spot 15 sx (18 cu.ft.) of Cl "B" neat cement from approximately 5363' KB to approximately 5163'. Cement is designed to cover 100' above and below the Gallup top.

8. TOH (laying down) to approximately 4309' KB.

9. **Pump Plug #3 - Mesa Verde.** Spot 100 sx (118 cu.ft.) of Cl "B" neat cement from approximately 4309' KB to approximately 2942'. Cement is designed to cover 100' below the Point Lookout top and 100' above the Cliff House top.

10. TOH (laying down) the 1-1/2" tubing to approximately 2000'. Load hole with fresh water and pressure test the casing to 1500 psi. Finish TOH. Should have a total of 190 jts of 1-1/2" plus a seating nipple.

**Complete Pictured Cliffs**

11. Rig up Wireline truck and run GR/CCL from 1700' to 1000'. Perforate 4 spf (0.38" holes) from 1532' to 1546'. Total of 56 holes. Depths refer to the open-hole logs.

12. Rig up frac equipment and pressure test surface lines.

13. 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)

| Stage | Gel Vol. (Gals.) | Sand Vol. (lbs.) |
|---|---|---|
| Pad | 7,000 | 0 |
| 1.0 ppg 20/40 | 3,000 | 3,000 |
| 2.0 ppg 20/40 | 5,000 | 10,000 |
| 3.0 ppg 20/40 | 5,000 | 15,000 |
| 4.0 ppg 20/40 | 5,000 | 20,000 |
| 4.0 ppg 20/40 Resin | 3,000 | 12,000 |
| Flush | 997 | 0 |
| Total | 28,997 | 60,000 |

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

15. When well dies, TIH with sand bailer on 2-3/8" EUE tubing and clean out to PBTD or 300' below the lowest perf. TOH and lay down bailer.

16. TIH with tail joint, 4' perforated sub, and seating nipple, on 2-3/8", 4.7#, J-55, EUE 8rd tubing and set the seating nipple below the deepest perforation. ND BOP and NU tubinghead.

17. Run a 2" X 1-1/2" X 12' RWAC pump on ¾" rods. Space out the pump and hang off the rods. Start the pump jack and check for pump action.

18. Rig down and release rig. First deliver well.