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**CALPINE NATURAL GAS COMPANY**  
1200 17<sup>TH</sup> Street, Suite 770, Denver, Colorado 80202  
720-359-9144; FAX 720-359-9140

To: David Catnach From: Hugo Cartaya

Fax: 505-476-3462 Date: 4/27/03

Phone: \_\_\_\_\_ Pages: 10

Re: \_\_\_\_\_

☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply

Comments:

Roosevelt #1 - Scheduled to be P&A'd

ATTACHED WELLBORE DIAGRAM & APPROVED

Sundry Coolidge #1 - Scheduled to be  
recompleted into PC/FC. Attached  
wellbore diagram & approved sundry.

The wellbore diagrams (which have all  
the construction info) can be  
emailed if you can't read the fax.  
Thanks

# ROOSEVELT #1

Actual



**Surface**  
 Casing 289' 8 5/8" 245  
 Cement w/ 125 sz. Class B

**Production**  
 Casing 0-6159' KB 4-1/2" J L 68  
 Cement w/ 875 sz. 700 Class B sealed with 175 sz 50-50 permix

Temperature Log Anomaly @ 600'  
 Possible cement bond top in annulus

**Notes**  
 Run CBL from 2094'-6407'  
 VOC 2438'  
 Good Pressure Test from 2589' to 4915'

Cliff House Perforations 2802-2885 (Proposed)

Pt. Lookout Perforations 3735-3830 (Proposed)

Gallop Cement Plug Tagged Cement at 4936'

Dakota Cement Plug 50 Sx plug

Dakota Perfs 5891-6046

FBTD 6,096'  
 TD 6,189'

Surface Location 1850' ETL & 750' FEL N18E Sec 23 T30N R14W

Field Basin Dakota  
 County San Juan  
 State New Mexico  
 API No. 10-045-26488  
 Lease No. NM-20314  
 G.L. Elevation 7547'  
 K.B. Elevation 5661'

Form 3160-5  
(August 1999)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or reenter an  
abandoned well. Use Form 3160-3 (APD) for such proposals.

RECEIVED

FORM APPROVED  
OASIS No. 1004 0135  
Expires November 30, 2000

5. Lease Serial No.

NM 20314

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.

Roosevelt #1

9. API Well No.

30-045-26458

10. Field and Pool, or Exploratory Area

Basin Dakota

11. County or Parish, State

San Juan

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input checked="" type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operations (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompletes horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 90 days following completion of the involved operations. If this operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Calpine Natural Gas proposes to plug the Roosevelt #1 according to the attached procedure. This well will be re-drilled (Roosevelt SWD #1) on the same pad for use as a salt water disposal well.

SEE ATTACHED FORM  
COMPLETED ON 2/25/03

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)

Paul C. Thompson, P.E.

Title

Agent

Signature

Paul C. Thompson

Date

February 17, 2003

Approved by

[Signature]

Title

PE

Date

2/25/03

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

FFO

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

(Instructions on reverse)

OPERATOR

## Walsh Engineering and Production

F & A Procedure for  
Calpine Natural Gas  
Roosevelt #1Location: SE/4 Sec 22 T30N R14W  
San Juan County, NM

Date: February 17, 2003

Field: Basin Dakota  
Surface: BLM  
Minerals: BLM NM 20314

Elev: KB 5657'

## Procedure:

1. MOL and RU completion rig. Hold safety meeting.
2. Install BOP and NU 2-3/8" relief line from the tubinghead to the pit.
3. Pull the 2-3/8" tubing to approximately 3635'. Spot Plug #1 (16 sx - 19 cu.ft.) from 3835' to 3635' (100' above and below the Point Lookout top at 3735').
4. TOH to 2902'. Spot Plug #2 (16 sx - 19 cu.ft.) from 2902' to 2702' (100' above and below the Cliff House top at 2802').
5. TOH to 1368'. Spot Plug #3 (45 sx - 53 cu.ft.) from 1368' to 776' (100' below the Pictured Cliffs top at 1268' and 100' above the Fruitland top at 876').
5. TOH to 269'. Spot Plug #4 (21 sx - 25 cu.ft.) from 269' to the surface (50' below the surface casing shoe. TOH with the tubing and fill the 4-1/2" casing with cement. Leave hole standing full of cement. ND BOP. *rat - 2600' by T's* *sample must be made outside 4 1/2" casing* *to cement outside*
6. Cut off wellhead and install dryhole marker. Reclaim location as per BLM specifications.



Paul C. Thompson, P.E.

# Coolidge #1 22, Township 30N, Range 14W

Surface Location 950' FNL & 1190' FEL Sec 22 T30N R14W  
 Bore Hole Loc. Same as Surface  
 Field Basin Dakota  
 County San Juan  
 State New Mexico  
 API No. 30-045-26184  
 Lease No. NM 15272  
 G.L. Elevation 5671'  
 K.B. Elevation 5681'

Surface Casing 193'  
 Cement 118 cu ft  
 9-5/8", 36#, in 12 1/4" hole  
 Class B w/ 2% CaCl. Circulate to surface

Prod. Casing 0-6183'  
 148 jts. 4 1/2" casg. 11.6 #/ft, J-55 New

Cement 2nd Stage  
 1339 cu ft  
 Class B with 2% cement  
 Circulated to Surface

## Tubing Configuration

Description	Length
KB	10
1 2 3/8" x 1 1/2" X-over	1.5
183 Joints of 1 1/2" 2.9 #/ft. J-55 EUE plastic coated tube	5897.33
1 Seating Nipple	0.55
1 Joints of 1 1/2" used tubing	32.08
Tubing Tail @	5941.46

DV Tool @ 4211

Cement 1st Stage  
 258 cu ft + 221 cu ft  
 258 cu ft Class B with 2 % cement plus 221 cu ft 50/50 Fox with 2% gel, 10% salt, 6 1/4 # Gelsolite  
 1/4# gel/solite

SPF	Shots
5912-5923	1
5932-5938	6
5943-5947	4
5998-6022	12
6030-6051	21

Zone Total 54

PBTD 6,139'  
 FLOAT COL. 6,141'  
 SHOE 6,183'  
 TD 6,187'

Submit 3 Copies To Appropriate District Office  
 District I  
 1625 N. French Dr., Hobbs, NM 88240  
 District II  
 1301 W. Grand Avenue, Artesia, NM 88210  
 District III  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV  
 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
 Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION  
 1220 South St. Francis Dr.  
 Santa Fe, NM 87505

Form C-103

Revised March 25, 1999

WELL API NO. 30-045-26184
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. NM 15272
Lease Name or Unit Agreement Name: oolidge Com
7. Well No. #1
9. Pool name or Wildcat

## SUNDRY NOTICES AND REPORTS ON WELLS

(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-103) FOR SUCH PROPOSALS.)

1. Type of Well:  
 Oil Well ☐ Gas Well ☒ Other

2. Name of Operator  
 Calpine Natural Gas Company, L.P.

3. Address of Operator  
 1200 17th Street, STE 770, Denver, CO 80202

4. Well Location

Unit Letter A 950 feet from the North line and 1190 feet from the East line

Section 22 Township 30N Range 14W NMPM County San Juan

10. Elevation (Show whether DR, RKB, RT, GR, etc.)

## 11. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

## NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐ CHANGE PLANS ☐

PULL OR ALTER CASING ☐ MULTIPLE COMPLETION ☐

OTHER: Recomplete and downhole commingle ☒

## SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐

CASING TEST AND CEMENT JOB ☐

OTHER: ☐

12. 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.

Calpine is proposing to abandon the Dakota formation and recomplete into the Harper Hills and Basin Fruitland Coal Gas formation. The formations will be commingled down hole.

Division Order : 11363

Names of Commingled Pools : Basin Fruitland Coal Gas and Harper Hills FS/PC @ 8169

Perforated Intervals: Harper Hills 1315-1325 (proposed) Basin Fruitland Coal 1296-1308 (proposed)

Allocation Method : We will submit historical averages of of production from Pictured Cliffs wells from surrounding sections and compare that with the historical average production of commingled Pictured Cliffs and Fruitland Coal production and propose an allocation formula based on the average differences.

Commingling of the two formations will not reduce the total value of the total remaining production.

Calpine has sent a sundry notice to the BLM of the proposed action.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Nugo Cartava TITLE Production Manager DATE 11/27/02

Type or print name Nugo Cartava Telephone No. (720) 946-1302

(This space for State use)

APPROVED BY STEVEN N. HAYDEN TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 1 DATE DEC - 5 2002

Conditions of approval, if any:

**Recompletion Procedure for  
Calpine Natural Gas Company  
Coolidge Com #1**

Location: NE/4 Sec 22 T30N R14W  
San Juan County, NM

Date: April 21, 2003

Field: Basin Dakota

Recomplete in Twin Mounds PC and Basin Fruitland Coal

Surface: BLM

Minerals: BLM NM-15272

Elev: GL 5671'

KB 5681'

4-1/2" @ 6183'

DV Tool @ 4211'

DK Perfs 5912' - 6051'

**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 additional joints (132' - 4 jts) of 1-1/2" EUE tubing and TIH to approximately 6073' KB. The 1-1/2" tubing is currently landed at 5941' KB.
4. **Pump Plug #1 - Dakota.** Spot 50 sx (59 cu.ft.) of Cl "B" neat cement from 6073' to approximately 5751'. 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 5300' KB and WOC 4 hrs. TIH and verify cement top.
6. Load hole with water. TOH (laying down) to approximately 5152' KB.
7. **Pump Plug #2 - Gallup** Spot 15 sx (18 cu.ft.) of Cl "B" neat cement from approximately 5152' KB to approximately 5002'. Cement is designed to cover 100' above and below the Gallup top.
8. TOH (laying down) to approximately 3802' KB.
9. **Pump Plug #3 - Mesa Verde.** Spot 100 sx (118 cu.ft.) of Cl "B" neat cement from approximately 3802' KB to approximately 2425'. 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 188 jts of 1-1/2".

**Complete Pictured Cliffs and Basin Fruitland Coal**

11. Rig up Wireline truck and run GR/CCL from 1700' to 1000'. Perforate 2 SPF (0.38" holes) from 1320' to 1324'. Total of 8 holes. Perforate 2 SPF (0.38" holes) from 1297' to 1310'. Total of 26 holes. Depths refer to the open-hole logs.
12. Rig up frac equipment and pressure test surface lines. Fracture with 75,000# of 20/40 Brady sand in 25#/1000 gal cross-linked gel fluid.

13. RU wireline. RIH with perforating gun and flow through composite bridge plug run in tandem.
14. Set flow through composite bridge plug at 1230. Perforate 4 SPF (0.38" holes) from 1175' to 1184'. Total of 36 holes. Depths refer to the open-hole logs.
15. Fracture with 35,000# of 20/40 Brady sand in a 25#/1000 gal cross-linked gel fluid.
16. Close BOPs. RD frac company and install flowline with 1/4" ceramic choke. Flow well back to pit overnight.
17. When well dies, TIH with bit on 2-3/8" EUE tubing and clean out and drill out bridge plug at 1230' with foam unit. Clean out to PBTD. POOH with tubing and lay down bit.
18. TIH with 1 tail joint, 1-4' perforated sub, Seating Nipple and 2 3/8" tubing. Land tubing. RIH with rods and pump. Put well on production. RD and release rig.



**Supplement to State of New Mexico C-108****V. See attached map****VI. Wells within Area of Review**

- a) Coolidge #1
- b) Operator: Calpine Natural Gas
- c) 950' FNL and 1190' FEL Section 22, T30N, R14W
- d) Producer of natural gas from Dakota formation (Perfs. 5912-6021)
- e) Drilled and completed March of 1985
- f) TD: 6187'; PBTD: 6139'
- g) Status: Shut-In – Proposed to be recompleted into Fruitland Coal and Pictured Cliffs formations.

**VII. Operating Data**

- a) Proposed Average Injection Rate: 2000 BWPD
- b) Maximum Injection Rate: 2400 BWPD
- c) Closed System with injection water placed into a series of 400 Bbl. tanks and then filtered into a suction tank and then pumped into the well.
- d) Proposed Average Injection Pressure: < 450 psig
- e) Maximum Injection Pressure: +/- 560 psig
- f) Water Source will be Fruitland Coal and Pictured Cliffs production and is compatible with receiving formation. Offset well in Section 15, T30N, R14W water from Fruitland Coal has TDS= 3970 ppm. Offset well Morton #1 in Section 23-30N-14W from the Pictured Cliffs has TDS=9315 ppm.
- g) Will swab in and obtain water sample during Recompletion and analyze water at that time.

**VIII. Geologic Data of Injection Zone**

- a) Formation Name: Point Lookout and Cliff House
- b) Description: Sandstone interspersed with shales
- c) Thickness: 873' from 3672- 4055' KB (Pt. Lookout) and 2799' - 3672' KB (Cliff House)
- d) Point Lookout will be perforated 3735-3830', Cliff House will be perforated 2802' - 2895'.
- e) Aquifers with water above Cliff House will be Fruitland Coal and Pictured Cliffs with TDS +/- 3900 ppm.
- f) No aquifers below Cliff House/Point Lookout with water less than 10,000 ppm.

**IX. Stimulation Program**

- a) If required after injection testing it is proposed that the Point Lookout and Cliff House will be fracture stimulated with 50,000# of sand each..

**X. No logs will be run since the well is a direct offset of Roosevelt #1 (within 50').****XI. Not applicable.**

**XII. Calpine Natural Gas has examined available engineering and geologic data and has found no evidence of open faults or hydrologic connections between the proposed disposal zones and any underground sources of drinking water.**

**XIV. Attached is a copy of the certified mail to the owner of the surface and to each leasehold operator within one half mile of the well location. Attached is a copy of the proof of publication.**