GEOTHERMAL SUNDAY NOTICE

The Bureau of Land Management (BLM) requests this form or other BLM-approved forms to be prepared and filled in triplicate with requisite attachments with the authorized officer. The authorized officer must approve this permit prior to any lease operations.

1a. Well Type: ☒ Production ☐ Injection ☐ Heat Exchange ☐ Observation ☐ Other

1b. Well Status: Shut-in

2. Name of Lessee/Operator
   CE Exploration / CalEnergy Co., Inc.

3. Address of Lessee/Operator
   950 W. Lindsey Road, Calipatria, CA 92233

4. Location of Well or Facility
   At surface: Approx. 1000' N & 200' W of SE corner Sec 21, T21S, R12E
   at TD: From surface location vs 2137.8 S 668.23 E 2034.1

5. Type of Work
   ☐ Change Plugs
   ☐ Site and Road Construction
   ☐ Construct New Production Facilities
   ☐ Alter Existing Production Facilities
   ☐ Convert to Injection
   ☐ Fracture Test
   ☐ Shoot or Acidize
   ☐ Repair Well
   ☐ Pull or Alter Casing
   ☐ Multiple Complete
   ☐ Abandon
   ☐ Other

15. Describe Proposed Operations (Use this space for well activities only. See instructions for current well conditions on reverse)
   See attachments 1 - 4 for current well condition
   1) Well completion, 2) Directional survey, 3) Well profile, 4) Location map

   See attachments 5 and 6 for proposed abandonment of Well 86-21

16. Describe Proposed Operations (Use this space for all activities other than well work)

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

Signed: [Signature]
Title: Resource Manager
Date: 08/27/99

(Approved by:
Title: [Title]
Date: 09/23/99

 Conditions of Approval, if any:
ATTACHED. 9/99 STRIPS. AND DOWNHOLE CONDITIONS OF APPROVAL

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 any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on reverse)
DOWNHOLE CONDITIONS OF APPROVAL FOR WELL 86-21

CE EXPLORATION
NEWBERRY VOLCANO GEOTHERMAL PROJECT
DESHUTES COUNTY, OREGON

Unless otherwise approved by the State geologist or his designated representative:

1. DOGAMI shall be notified at least 24-hours prior to start up of the plugging operations. Contacts are indicated on the attached September 1999 Stipulations.

2. Prior to plugging, blowout prevention equipment shall be installed and tested with clear water to 1,000 psig. BOPE shall consist of a blind ram and pipe ram capable of sealing around the coiled tubing.

3. Prior to starting plugging, at least 1,000 bbls of water shall be kept on site, connected to the wellhead in such a way that it can immediately be pumped down the well in an emergency. This condition will not be required once plug #2 has been successfully set and there is no longer any wellhead pressure.

4. All cement used in plugging will be API Class “G” with 40% silica flour. (Note: ASTM Type II Cement will not be accepted).

5. Plug #1 will considered successful only after tagging the top (full weight of coiled tubing or 10,000 lbs, whichever is less) and the top is found to be above 4,780’.

6. The design interval for plug #2 shall be 3,890’ to 4,250’.

7. Plug #2 will considered successful only after tagging the top (with the full weight of the coiled tubing or 10,000 lbs, whichever is less) and the top is found to be above 3,940’.

8. The design interval for plug #3 shall be 1,660’ to 1,860’.

9. During the setting of plug #3, the amount of mud displaced shall be monitored and compared to the amount of cement pumped, and the fall back shall be monitored for at least one hour. If either of these measurements exceeds 50 linear feet:

   a) Plug shall be tagged; and
   b) Plug #3 will considered successful only after tagging the top (with the full weight of the coiled tubing or 10,000 lbs, whichever is less) and the top is found above 1,710’.

10. Within 30 days of plugging, a report detailing the plugging operation will be submitted to:

    Dan Werneck
    Department of Geology and Mineral Industries
    800 NE Oregon Street
    Suite 965
    Portland, OR 97232
1. The operator of a geothermal well must keep a daily record of work, collect drill samples, and maintain a log of rock formations penetrated.

2. If redrilling, deepening, altering of casing, testing or plugging is planned, written notice must be given to the Department on an approved form. Verbal approval or disapproval can be given, but work approved this way must still be submitted in writing by the operator.

3. A well summary, well history, representative drill samples and copies of borehole surveys must be submitted to the Department within 60 days after completion, abandonment, or suspension. These records will be kept confidential for a four year period from the date of completion, abandonment or suspension. The operator may request from the Department an extension of the confidentiality period.

4. In the event of an emergency or blow-out, a Department representative should be contacted as soon as possible:

   Dennis Olmstead    Petroleum Engineer/Acting Deputy State Geologist
   (503) 731-4100 x228 (office)
   (503) 231-3835 (home)

   Dan Wermiel        Petroleum Geologist
   (503) 731-4100 x227 (office)
   (503) 646-8517 (home)

   John Beaulieu      State Geologist
   (503) 731-4100 x 319 (office)
   (503) 234-6323 (home)

5. Permission must be obtained from the Department of Environmental Quality (DEQ) for disposal of drilling mud or wastes. DEQ should be contacted in the event of any emergency that could affect adjoining properties.

6. No fluid shall be discharged unless a permit has been issued by DEQ.

7. Notice shall be given to the State Geologist or designated representative:
   a. Prior to construction of drill site and sump.
   b. Prior to BOP tests after running casing strings.
   c. Prior to performing work to complete or abandon a well.
   d. Prior to pulling casing strings.
   e. Prior to deviating a well from vertical.
   f. In the event of fire, spill of fluids, or serious accident.

8. Unless the surface owner wants the drilling pad to be left, the site is to be restored to as near original condition as practical, including revegetation with a native species.

9. This permit does not include land-use approval. A separate approval should be obtained from the county or city in which the drilling takes place.

10. The State Geologist or his representative may enter the site at any time to make inspections and/or witness work done.

11. Release of the bond will be granted following proper plugging of the hole, restoration of the drillsite, and filing of the required records.
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

GEOTHERMAL WELL COMPLETION REPORT

The Bureau of Land Management (BLM) requires this form or other BLM-approved forms to be prepared and filed in duplicate with requisite attachments with the authorized officer within 30 days after completion of permitted operations.

1a. Well Type: ☑ Production ☐ Injection ☐ Disposal ☐ Water Supply ☐ Observation

1b. Completion: ☑ New ☐ Workover ☐ Deepened ☐ Plugback ☐ Redrill

[ ] Recompleted ☑ Drilled & Abandoned ☐ Other

2. Name of Lessee/Operator
C E EXPLORATION

3. Address of Lessee/Operator
34 N W First Ave., Suite 302, Portland, Oregon 97209

18. Location of Well
At Surface: App 1000' N & 200' W of SE corner Sec 21, T21S, R12E
At Top of Production Zone:
At Total Depth: From surface location V.S. 2137.80 S 668.23 E 2034.1

19. Total Depth
Measured: 9200'

20. Plugback Total Depth
Measured: 9200'

21. Elevation:
Reference Datum: ☑ GR ☐ MAT ☐ DF ☐ KB ☐ RT ☐ Casinghead Flange ☐ Other

22. Drilling Media:
☐ Air ☐ Water ☑ Mud ☐ Foam ☐ Other

List Characteristics: Mud drill from surface to 9200'

23. Log Type & Intervals
Ran Schlumberger FMS-Temp & G R Logs from 9198' to 4196'
Ran Schlumberger DIL-LTD-CNL & G R Logs from 4196' to 8900'. Ran Dialog Calliper 0'-4199'

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27. Cement Squeeze, Acid, Fracture, etc. (detail type, amount, intervals)

28. PERFORATION RECORD

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29. Attachments & Previous Submittals: List all reports, surveys, tests and logs, not listed in item 23, which have resulted from drilling and completion operations. List relevant previously furnished data with date of submittal referenced.

See Attachment

30. Well Status: ☐ Producing ☐ Shut-In ☐ Suspended ☐ Injection ☐ Disposal ☐ Heat Exchange ☐ Abandoned ☐ Water Supply ☐ Other

31. Do you consider the well to be commercial? ☑ Yes ☐ No  Explain:

Well has not been tested commercial

SIGNED __________________________ Title __________________________ Date: ________

(Cocontinued on reverse) Attachment #1
### Directional Survey Report

**CalEnergy Company**

**Well ID:** 86-21Y551040  
**Well Name:** NEWBERRY 86-21

**Plane of Vertical Section:** 105 degrees

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**Calculations using Minimum Curvature Method**

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## Directional Survey Report

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**Well Name:** NEWBERRY 86-21  
**Plane of Vertical Section:** 105 degrees

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NEWBERRY 86-21

SPUD 8/29/84
COMPLETION 11/16/85
MD 8200', TVD 8867', BCD -2587'

9 5/8' Scab Liner
1758'
30° CSG
9 5/8' Liner Hung
3987'
9 5/8' Liner Hung
3987'
13 3/8' CSG
4199'
Top of Perfs 5701'

9 5/8' Liner

12 1/4' Hole
TD 9200' MD

Attachment #3
Newberry Crater
Abandonment Procedure
Well 86-21

1) Mobilize coil tubing unit and cement pumping units.

2) Obtain any required gas samples while bleeding off wellhead pressure. Ample Scott air packs should be present during bleedoff in case of toxic gasses.

3) RIH circulate water while recording surface temperatures.

4) Plug #1 pump 200 lin. Ft (100% excess) of 15.8# cement with 40% silica from 4929' to 4729'. POOH and wait on cement.

5) RIH and tag cement plug#1, if plug is not present repeat step 4.

6) POOH with tubing to 4250' while displacing with drilling mud made of 9.0 #/gal and 36 Viscosity.

7) Plug #2 pump 200 lin. Ft (100% excess) of 15.8# cement with 40% silica from 4250' to 3940'. POOH and wait on cement.

8) RIH and tag cement plug#2, if plug is not present repeat step 7.

6) Pull tubing to 1808' while displacing with drilling mud made of 9.0 # and 36 Viscosity.

7) Plug #3 pump 100 lin. Ft of 15.8 # cement with 40% silica from 1808' to 1708'.

8) Pull tubing to 1040' while displacing with drilling mud made of 9.0 # and 36 Viscosity.

9) Plug #4 pump 1040 lin. Ft of 15.8 # cement with 40 % silica.

10) Top off cement from surface.

11) Cut off all casings 4' below ground level. Weld plate on 13 3/8" casing inscribed with well name, number and date. Fill in hole to ground level.

12) Clean up pad. Release equipment.

Note * All operations and/or plugs are to be witnessed and approved by the BLM representative.