

GTHT - ____002____

**WELL
PC-1**

ATTACHMENT 5.A.
OIL CONSERVATION DIVISION
2040-S. Pacheco
SANTA FE, NEW MEXICO 87501

Form G-103
Adopted 10-1-7
Revised 10-1-7

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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SUNDRY NOTICES AND REPORTS
ON
GEOTHERMAL RESOURCES WELLS

Federal Land Use

Agreement
5. Indicate Type of Lease
State ☐ Fee ☐
5.a State Lease No.

Do Not Use This Form for Proposals to Drill or to Deepen or Plug Back to a Different Reservoir. Use "Application For Permit -" (Form G-101) for Such Proposals.)

1. Type of well Geothermal Producer <input type="checkbox"/> Temp. Observation <input checked="" type="checkbox"/> Low-Temp Thermal <input type="checkbox"/> Injection/Disposal <input type="checkbox"/>	7. Unit Agreement Name Fenton Hill
2. Name of Operator Los Alamos National Laboratory	8. Farm or Lease Name
3. Address of Operator P.O.Box 1663 Los Alamos, NM 87545	9. Well No. PC-1
4. Location of Well Unit Letter _____ 1,966 Feet From The West Line and 3,084 Feet From The North Line, Section 18 Township 19N Range 3E NMPM.	10. Field and Pool, or Wildcat
15. Elevation (Show whether DF, RT, GR, etc.) 8,400'	12. County Sandoval

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input checked="" type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG & ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>		CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER <input type="checkbox"/>		OTHER _____	

17. Describe Proposed or completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 203.

Cut 4-1/2" casing at 1,300' and remove. Set 7" bridge plug at 1,250' and set 100 linear foot cement plugs above and below bridge plug. Fill hole with 9.5 ppg mud. Cut 7" casing at 1,000' and remove. Set 8-5/8" bridge plug at 950', set 100 linear foot plugs above and below bridge plug. Fill hole with 9.5 ppg mud. Set 50 linear plug at surface. Cut off casings 6' below ground level and weld plate with well name on top. Cover wellhead and restore location to original condition. See attached detailed procedures and casing schematic.

It is estimated that this proposed work may start in late July, 1996.

*mudded in! - attempt to pull?
what is temp?*

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

SIGNED James A. Almy TITLE FES-1 GROUP LEADER DATE 6/24/96

ATTACHMENT 5.B.

Los Alamos National Laboratory
Fenton Hill Hot Dry Rock Test Site
Well Abandonment Procedure
Well: PC-1

ThermaSource, Inc.

5-21-96

Pertinent Well Data

1. Well Completed 6-22-84.
2. Total Depth is 2178' in Precambrian.
3. 16" Conductor set at 15', no cement information available.
4. 10-3/4", 28 ppf casing set at 608', no cement information available.
5. 8-5/8", 28.5 ppf casing set at 1038', casing was mudded in with no cement information available.
6. 7" casing set at 1372' in approximately 40 linear feet of cement.
7. 5-1/2", 15.5 ppf liner set from 1335' to 1886'. Liner was set into cement. Cemented intervals not available.
8. 4-1/2" casing set in cement from surface to 2150'. No cement information available on cemented annulus.
9. Aquifers encountered at 225', 386', 690' (with static fluid level at 605'), 1100' (with static fluid level at 960').
10. Drilling assembly was left in hole on bottom.

Time Sequence of Operations

- | | |
|---------|--|
| | 1. Move in rig and center same over well. |
| 6 hours | 2. Nipple up necessary blow out preventer stack on 7" casinghead. |
| 6 hours | 3. Pick up 2-3/8" tubing work string and 3-3/4" bit. Run in hole with bit to check for fill and bridges. |

ATTACHMENT 5.B. (cont'd)

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Fenton Hill HDR
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- | | | |
|---------|-----|---|
| 6 hours | 4. | Trip out of hole and pick up internal 4-1/2" casing cutter. Run in hole to approximately 1300' and cut 4-1/2" casing. |
| 8 hours | 5. | Pull out of hole with casing cutter and pick up casing spear. Run in hole and engage 4-1/2" casing. Pull, retrieve and lay down 4-1/2" casing. |
| 4 hours | 6. | Pick up 6-1/8" bit and run in hole of 7" casing and check for fill and obstructions. |
| 3 hours | 7. | Trip out of hole and pick up 7" bridge plug and run in hole with same to 1250', approximately 50' above casing stub. Set plug at 1250'. |
| 2 hours | 8. | Mix and pump cement below bridge plug and dump enough cement on top of plug to fill 100 linear feet of 7" casing. Pull of cement and fill hole with heavy mud. |
| 6 hours | 9. | Trip out of hole and pick up 7" internal casing cutter. Cut 7" casing at approximately 1000'. Pull out of hole with cutter and attempt to pull top portion of 7" casing. |
| 8 hours | 10. | If successful in pulling 7" casing then run in hole with 7-7/8" bit and check for fill or obstruction. Trip out of hole and pick up 8-5/8" bridge plug and run in hole with same. Set bridge plug at 950' (50' above casing stub). Mix and pump cement below plug and dump enough cement on top of plug to fill 100 linear feet of 8-5/8" casing. |
| or | | |
| 4 hours | | If unsuccessful in pulling 7" casing then run into hole with 7" bridge plug and set same in 7" casing above cut area. Mix and pump cement below 7" bridge plug until obtain pressure build up. Pull out of bridge plug and dump enough cement on top of plug to fill 100 linear feet of 7" casing. |
| 4 hours | 11. | Fill hole with heavy non-corrosive gel mud. |

ATTACHMENT 5.B. (cont'd)

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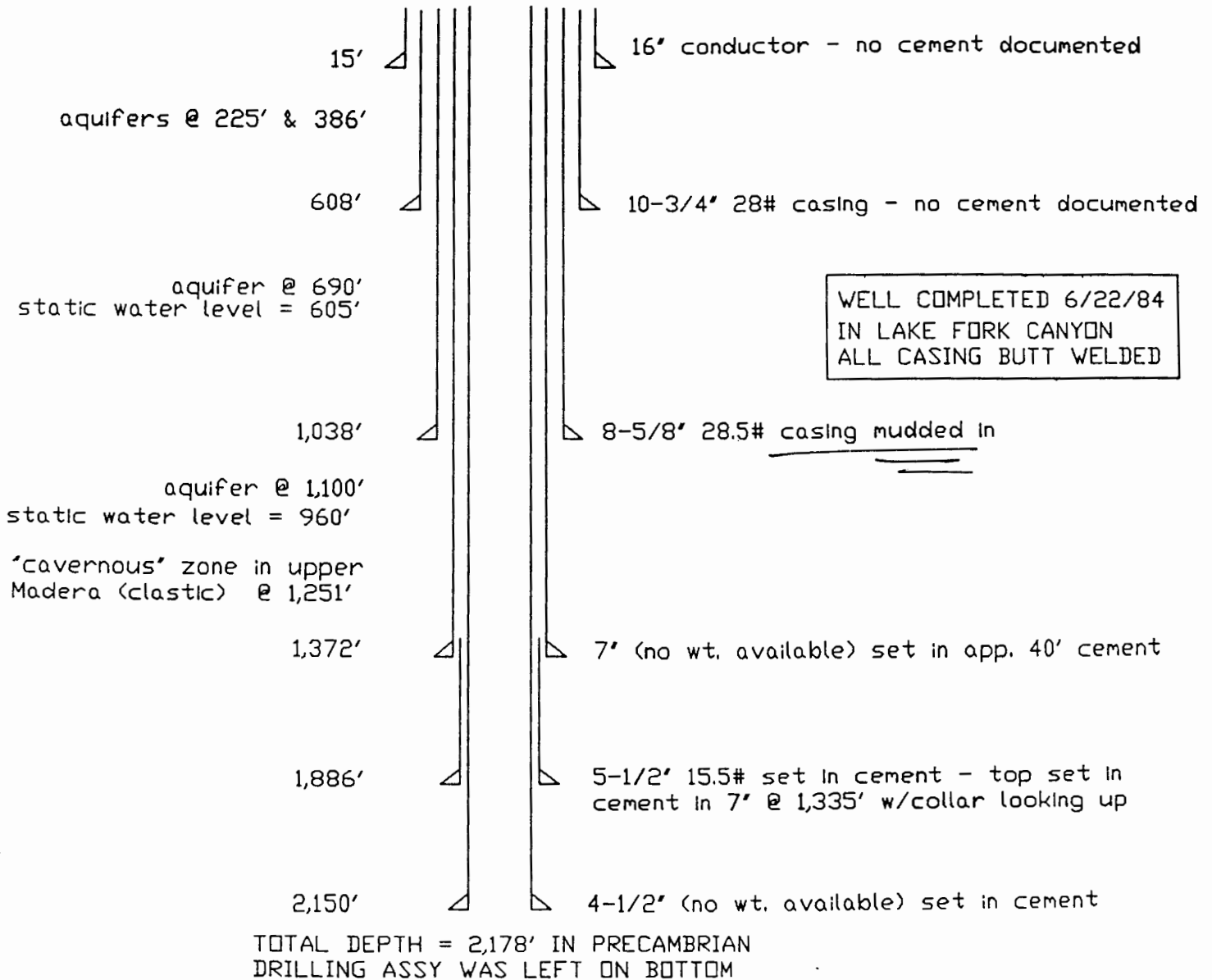
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|---------|-----|--|
| 2 hours | 12. | Set addition cement plug in casing hole from surface to 50'. |
| 4 hours | 13. | Cut and remove all casings 6' below ground level. Weld steel plate on top of casings with well number welded on top of same. |
| 2 hours | 14. | Cover wellhead and restore location to natural condition. |
| 4 hours | 15. | Rig down rig and move same off location. |
| | 16. | Release rig to next well. |

61 or 65 hours Total Time on Location

ATTACHMENT 5.C.

PC-1 WELLBORE SCHEMATIC
DATA DERIVED FROM D.MILES DAILY REPORTS

5/17/96



What is Temp.