GTLT - 9

22-1S-1W
Sunoco Energy Development Corporation (Socorro County)

5-77-1

Form G-103
Adopted 10/1/74

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NEW MEXICO OIL CONSERVATION COMMISSION
P. O. Box 2088, Santa Fe 87501

SUNDRY NOTICES AND REPORTS ON GEOTHERMAL RESOURCES WELLS

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 ☐ Temp. Observation ☒ Low-Temp Thermal ☐ Injection/Disposal ☐
7. Unit Agreement Name: None
2. Name of Operator: Sunoco Energy Development Corporation
8. Farm or Lease Name:
3. Address of Operator: 12700 Park Central Pl., Suite 1500, Dallas, TX 75251
9. Well No.: 5-77-1
4. Location of Well: Unit Letter J, 1900 Feet From The S. Line and 2300 Feet From The E. Line, Section 22 Township 1S. Range 1W. NMPM.
10. Field and Pool, or Wildcat: None
15. Elevation (Show whether DF, RT, GR, etc.): 4735' G.L.
12. County: Socorro

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐		COMMENCE DRILLING OPNS. ☐	PLUG & ABANDONMENT ☐
PULL OR ALTER CASING ☐	CHANGE PLANS ☒	CASING TEST AND CEMENT JOB ☐	
OTHER ☐		OTHER ☐	

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

The referenced temperature observation well has been dropped from the drilling program and will not be drilled. The site has not been occupied by any drilling equipment.

OCT 31 1977
OIL CONSERVATION COMM.
Santa Fe

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

SIGNED [signature] TITLE VICE PRESIDENT Geothermal Services, Inc. DATE 10/25/77

APPROVED BY Carl Ulvog TITLE SENIOR PETROLEUM GEOLOGIST DATE 11/22/77

CONDITIONS OF APPROVAL, IF ANY:

Form C-101
Adopted 10

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BLM 1

NEW MEXICO OIL CONSERVATION COMMISSION
P. O. Box 2088, Santa Fe 87501

RECEIVED
APR 25 1977
OIL CONSERVATION COMM.
Santa Fe

APPLICATION FOR PERMIT TO DRILL, DEEPEN OR PLUG BACK---GEOTHERMAL RESOURCES WELL

5.a Indicate Type of Lease: STATE ☐ FEE
5.a State Lease No.

1a. Type of Work: Drill [X] Deepen ☐ Plug Back ☐

b. Type of Well: Geothermal Producer ☐ Low-Temp Thermal ☐ Temp Observation [X] Injection/Disposal ☐

7. Unit Agreement Name: none

8. Farm or Lease Name:

2. Name of Operator: SUNOCO ENERGY DEVELOPMENT CORPORATION

9. Well No.: 5-77-1

3. Address of Operator: 12700 Park Central Pl., Suite 1500, Dallas, Texas 75251

10. Field and Pool, or Wildcat: none

4. Location of Well: UNIT LETTER J LOCATED 1900 FEET FROM THE South LINE AND 2300 FEET FROM THE East LINE OF SEC. 22 TWP. 1S RGE. 1W NMPM

12. County: Socorro

19. Proposed Depth	19A. Formation	20. Rotary or C.T.
500 ft	unknown	rotary

21. Elevations (Show whether DF, RT, etc.)	21A. Kind & Status Plug. Bond	21B. Drilling Contractor	22. Approx. Date Work will start
4735 ft (GL)	see note "A"	Geothermal Services	May 10, 1977

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
5-1/8"	3/4"	1.14#	500'	1.5	6" BGL

Program - See attached "Standard Shallow Temperature Gradient Hole Drilling Program".

Note A - Type of bond will be "$10,000 Multiple-Well Low-Temperature Well or Geothermal Observation Well Bond". Bond is in the process of being filed; a bond number will be furnished as soon as available before operations commence.

Quad 65

APPROVAL VALID FOR 90 DAYS UNLESS DRILLING COMMENCED.
EXPIRES 8/11/77

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new producti zone. Give blowout preventer program, if any.

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

Signed [signature] Title Chief Geologist, Geothermal Services, Inc. Date April 18, 1977

(This space for State Use)

APPROVED BY Carl Ulvog TITLE SENIOR PETROLEUM GEOLOGIST DATE 5/13/77

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION
P. O. BOX 2088 SANTA FE 87501

Form G-102
Adopted 10/1/74

GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

RECEIVED
APR 25 1977
OIL CONSERVATION COMM.
Santa Fe

All distances must be from the outer boundaries of the Section.

Operator	Lease	Well No.
Sunoco Energy Development Corp.		5-77-1

Unit Letter	Section	Township	Range	County
J	22	1S	1W	Socorro

Actual Footage Location of Well:
1900 feet from the South line and 2300 feet from the East line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
4735'	None	None	None Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

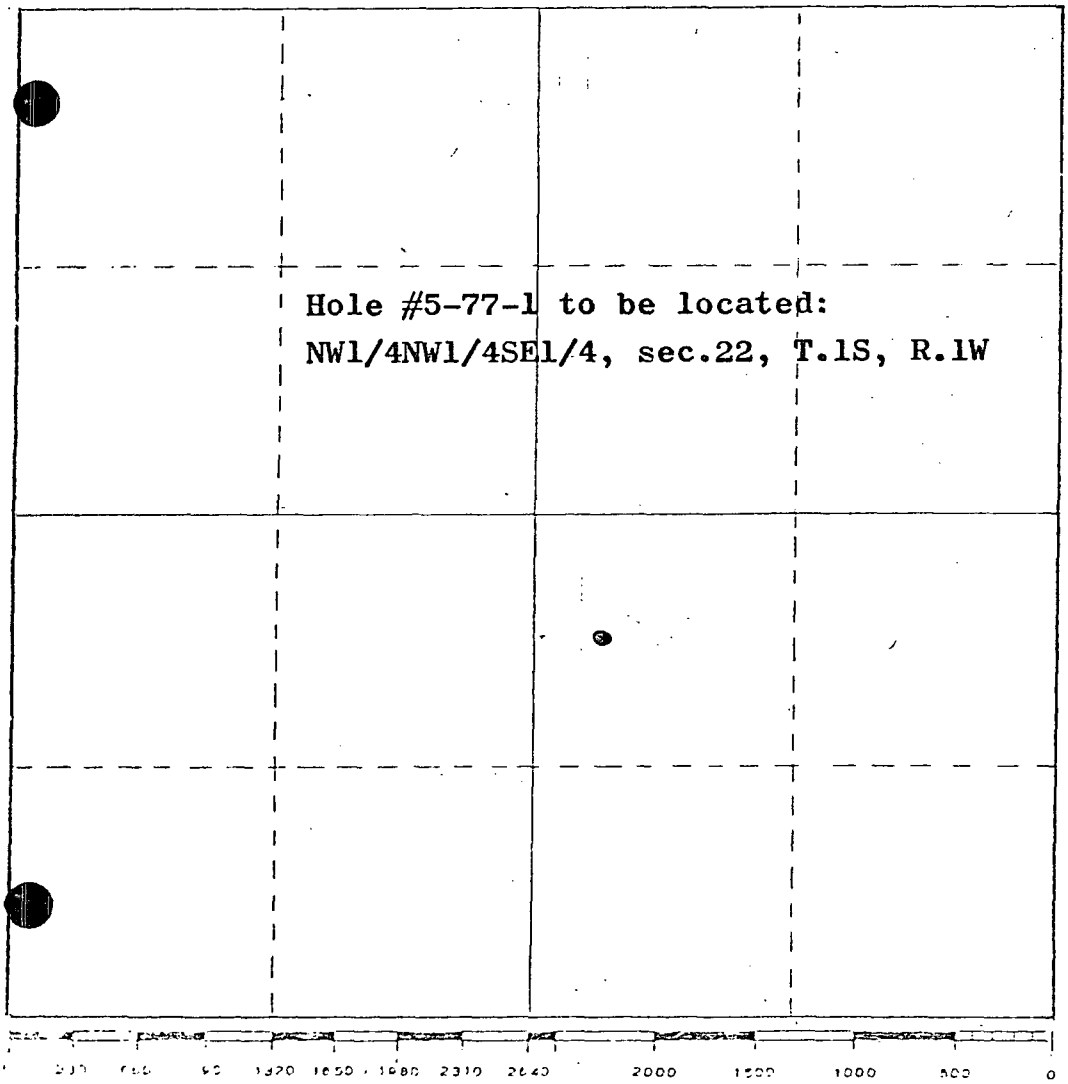
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownersip is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Name: Steve Quiett

Position: Chief Geologist

Company: Geothermal Services, Inc.

Date: April 18, 1977

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 knowledge and belief.

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

GEOTHERMAL SERVICES, INC.
7860 CONVOY COURT, SAN DIEGO, CALIFORNIA 92111 • (714) 565-4712

STANDARD SHALLOW TEMPERATURE GRADIENT HOLE DRILLING PROGRAM
(500'/150m; Rubber Tired Equipment; Rotary/Mud)

1. Coordinate "Special Stipulations" or other unusual requirements with the Project Geologist prior to set-up and spud.

2. Choose location and orientation of drilling rig so as to minimize surface disturbance.

3. Drill 4" to 6" hole to maximum depth of 500'/150m. Take cuttings samples, cores, etc. at direction of Project Geologist.

4. If drilling with mud, use regular Bentonite drilling mud. No toxic additives are to be used in drilling fluids without permission of Project Geologist. Have supply of lost circulation material available. Use portable mud pits unless specifically directed otherwise.

5. Have a supply of Barite available in case of artesian flow. If artesian flow is encountered, comply with United States Geological Survey's Stipulations.

6. Mud return temperature shall be measured and recorded on "Drilling History" every 10'/3m.

    a. If temperature reaches 120°F/50°C, STOP DRILLING and circulate for 30 minutes, monitoring mud temperature and pit volume for possible hot artesian flow. If no flow, run pipe at this depth after logging is completed.

    b. If there is a sudden increase in temperature of the drilling mud (several degrees in only a few feet) STOP DRILLING and circulate for 30 minutes, monitoring mud temperature and pit volume for possible hot artesian flow. If no flow, continue drilling CAUTIOUSLY, keeping a careful watch on return temperature of drilling fluid. In no case shall drilling continue after mud return temperature reaches 120°F/50°C.

7. Run pipe immediately after running electric logs or reaching T.D. (if hole is not logged).

   a. Install cap on bottom of first length of pipe. (If using steel pipe, seal each joint with teflon tape to ensure watertight).

   b. Steel pipe must be used when air temperature is 40°F or below, as PVC cement will not adhere.

   c. Steel pipe must be used if drilling fluid temperature exceeds 100°F/40°C.

   d. When pipe is landed, top must be 6" to 12"/ 15cm to 30cm below ground level. (Cut and thread as necessary).

   e. Fill pipe with CLEAN WATER (water that is oily or contains solvents such as gasoline MUST NOT be used) and install cap. Do not seal.

   f. Set paper, rag or dirt bridge down open annulus at least 10'/3m below ground level. Fill annulus with cement up to base of cap on pipe.

8. Clean up location THOROUGHLY.

9. Any excavated pits or sumps must be backfilled to conform to the original topography.

10. When temperature surveys are completed, fill pipe with cement from 10'/3m to top of pipe, fill excavation to original ground topography and restore location as nearly as possible to original condition.

GEOTHERMAL SERVICES, INC.
San Diego, California
December, 1975