

GTLT - _____9_____

**(10-36)-17N-2E
Sunoco Energy
Development Corporation
(Sandoval County)**

**3-77-5; 3-77-8; 3-77-9; 3-77-
11; 3-77-10; 3-77-13; 3-77-15;
3-77-14 & 3-77-16**

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

SEP 18 1978

SUNDRY NOTICES AND REPORTS
ON
GEOTHERMAL RESOURCES WELLS

| | |
|--------------------------------|---|
| 5. Indicate Type of Lease | |
| State <input type="checkbox"/> | Fee <input checked="" type="checkbox"/> |
| 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 NONE |
| 2. Name of Operator SUNOCO ENERGY DEVELOPMENT CORPORATION | | 8. Farm or Lease Name SAN DIEGO GRANT |
| 3. Address of Operator 12700 PARK CENTRAL PL., STE. 1500, DALLAS, TX 75251 | | 9. Well No. 5 |
| 4. Location of Well Unit Letter <u>J</u> <u>1900</u> Feet From The <u>EAST</u> Line and <u>1900</u> Feet From The <u>S</u> Line, Section <u>10</u> Township <u>17N</u> Range <u>2E</u> NMPM. | | 10. Field and Pool, or Wildcat NONE |
| 15. Elevation (Show whether DF, RT, GR, etc.) 5960 | | 12. County SANDOVAL |

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

NOTICE OF INTENTION TO:

| | |
|--|--|
| PERFORM REMEDIAL WORK <input type="checkbox"/> | PLUG AND ABANDON <input type="checkbox"/> |
| TEMPORARILY ABANDON <input type="checkbox"/> | |
| PULL OR ALTER CASING <input type="checkbox"/> | CHANGE PLANS <input checked="" type="checkbox"/> |
| OTHER <input type="checkbox"/> | |

SUBSEQUENT REPORT OF:

| | |
|---|---|
| REMEDIAL WORK <input type="checkbox"/> | ALTERING CASING <input type="checkbox"/> |
| COMMENCE DRILLING OPNS. <input type="checkbox"/> | PLUG & ABANDONMENT <input type="checkbox"/> |
| CASING TEST AND CEMENT JOB <input type="checkbox"/> | |
| OTHER <input type="checkbox"/> | |

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.

This hole location was dropped from our drilling program and will
not be drilled in the near future.

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

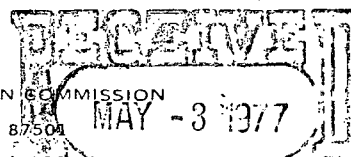
SIGNED Barry Williams TITLE PROJECT SUPERVISOR
GEOTHERMAL SERVICES, INC. DATE 9/10/78APPROVED BY Carl Ulvog TITLE SENIOR PETROLEUM GEOLOGIST DATE 9/20/78

CONDITIONS OF APPROVAL, IF ANY:

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NEW MEXICO OIL CONSERVATION COMMISSION

P. O. Box 2088, Santa Fe 87504



OIL CONSERVATION COMMISSION

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

5. Indicate Type of Lease

STATE ☐ FEE ☒

5.a State Lease No.

BLM

1a. Type of Work Drill ☒ Deepen ☐ Plug Back ☐

7. Unit Agreement Name

None

b. Type of Well Geothermal Producer ☐
Low-Temp Thermal ☐Temp Observation ☒
Injection/Disposal ☐

8. Farm or Lease Name

San Diego Grant

2. Name of Operator

SUNOCO ENERGY DEVELOPMENT CORPORATION

9. Well No.

3-77-5

3. Address of Operator

12700 Park Central Pl., Suite 1500, Dallas, TX 75251

10. Field and Pool, or Wildcat

None

4. Location of Well **

UNIT LETTER J LOCATED 1900 FEET FROM THE East LINE

AND 1900 FEET FROM THE S LINE OF SEC. 10 TWP. 17N RGE. 2E NMPM

projected

12. County

Sandoval

19. Proposed Depth

500 ft.

19A. Formation

unknown

20. Rotary or C.T.

rotary

21. Elevations (Show whether DF, RT, etc.)

5960 (GL)

21A. Kind & Status Plug. Bond

see note "A"

21B. Drilling Contractor

Geothermal Services

22. Approx. Date Work will start

June 15, 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 lbs. | 500' | 1.5 | 6" BGL |
| | | | | | |
| | | | | | |

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

**- All section lines projected

Note A- Type of bond will be \$10,000 multiple-well low-temperature
well or geothermal observation well bond. The bond is in
the process of being filed, and a bond number will be
furnished as soon as available before operations commence.

Not Drilled - 12/12

APPROVAL VALID
FOR 90 DAYS UNLESS
DRILLING COMMENCED

EXPIRES

8/11/77

ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive
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

Geothermal

Title Chief Geologist, Services, Inc. Date April 26, 1977

(This space for State Use)

APPROVED BY

Carl Ulvog

TITLE

SENIOR PETROLEUM GEOLOGIST

DATE

5/13/77

CONDITIONS OF APPROVAL, IF ANY:

GEOHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

| | | | | |
|---|------------------------------------|---------------------------------|---|---------------------------|
| Operator Sunoco Energy Development Corp. | | Lease San Diego Grant | | Well No. 3-77-5 |
| Letter J | Section 10 | Township 17N | Range 2E | County Sandoval |
| Actual Footage Location of Well: 1900 feet from the projected E line and 1900 feet from the S line (projected) | | | | |
| Ground Level Elev. 5960' | Producing Formation None | Pool None | Dedicated Acreage: None Acres | |

- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership 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.

Hole #3-77-5 to be located:
N1/4NW1/4SE1/4, sec.10, T.17N, R.2E

CERTIFICATION

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

Steve Quiett

Name

Steve Quiett

Position

Chief Geologist

Company

Geothermal Services, Inc.

Date

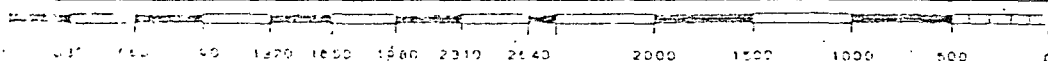
April 26, 1977

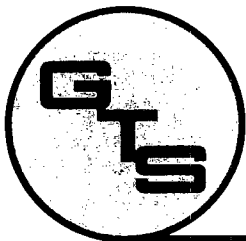
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Registered Professional Engineer
and/or Land Surveyor

Certificate No.





GEO THERMAL 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.

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

SEP 18 1978

SUNDRY NOTICES AND REPORTS
ON
GEOTHERMAL RESOURCES WELLS5. 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 NONE |
| 2. Name of Operator SUNOCO ENERGY DEVELOPMENT CORPORATION | 8. Farm or Lease Name SAN DIEGO GRANT |
| 3. Address of Operator 12700 PARK CENTRAL PL., STE. 1500, DALLAS, TX 75251 | 9. Well No. 8 |
| 4. Location of Well Unit Letter <u>0</u> <u>500</u> Feet From The <u>SOUTH</u> Line and <u>2300</u> Feet From The <u>E</u> Line, Section <u>14</u> Township <u>17N</u> Range <u>2E</u> NMPM. | 10. Field and Pool, or Wildcat NONE |
| 15. Elevation (Show whether DF, RT, GR, etc.) 6960 | 12. County SANDOVAL |

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐
PULL OR ALTER CASING ☐ CHANGE PLANS ☒
OTHER ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ PLUG & ABANDONMENT ☐
CASING TEST AND CEMENT JOB ☐
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.

This hole location was dropped from our drilling program and will
not be drilled in the near future.

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

SIGNED Barry Williams TITLE PROJECT SUPERVISOR DATE 9/10/78
GEOTHERMAL SERVICES, INC.APPROVED BY Carl Ulvog TITLE SENIOR PETROLEUM GEOLOGIST DATE 9/20/78

CONDITIONS OF APPROVAL, IF ANY:

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NEW MEXICO OIL CONSERVATION COMMISSION

P. O. Box 2088, Santa Fe 87501

MAY - 3 1977

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

5. Indicate Type of Lease

STATE ☐FEE ☒

5.a State Lease No.

7. Unit Agreement Name

None

8. Farm or Lease Name

San Diego Grant

9. Well No.

3-77-8

10. Field and Pool, or Wildcat

None

12. County

Sandoval

1a. Type of Work Drill ☒ Deepen ☐ Plug Back ☐b. Type of Well Geothermal Producer ☐Temp Observation ☒Low-Temp Thermal ☐Injection/Disposal ☐

2. Name of Operator

SUNOCO ENERGY DEVELOPMENT CORPORATION

3. Address of Operator

12700 Park Central Pl., Suite 1500, Dallas, TX 75251

4. Location of Well **

UNIT LETTER 0 LOCATED 500 FEET FROM THE South LINE

AND 2300 FEET FROM THE E LINE OF SEC. 14 TWP. 17N RGE. 2E NMPM

projected

19. Proposed Depth

500 ft.

19A. Formation

unknown

20. Rotary or C.T.

rotary

21. Elevations (Show whether DF, RT, etc.)

6960 (GL)

21A. Kind & Status Plug. Bond

see note "A"

21B. Drilling Contractor

Geothermal Services

22. Approx. Date Work will start

June 15, 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 lbs. | 500' | 1.5 | 6" BGL |
| | | | | | |
| | | | | | |

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

**- All section lines projected

Note A- Type of bond will be \$10,000 multiple-well low-temperature well or geothermal observation well bond. The bond is in the process of being filed, and a bond number will be furnished as soon as available before operations commence.

Not Drilled - 12/12

APPROVAL VALID
FOR 90 DAYS UNLESS
DRILLING COMMENCED.

EXPIRES 8/11/77

ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive 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.

Geothermal

ned Chief Geologist, Services, Inc. Title April 26, 1977 Date

(This space for State Use)

APPROVED BY Carl UlvogTITLE SENIOR PETROLEUM GEOLOGISTDATE 5/13/77

CONDITIONS OF APPROVAL, IF ANY:

GEOHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

| | | | | |
|--|------------------------------------|---------------------------------|---|---------------------------|
| Operator Sunoco Energy Development Corp. | | Lease San Diego Grant | | Well No. 3-77-8 |
| Letter 0 | Section 14 | Township 17N | Range 2E | County Sandoval |
| Actual Footage Location of Well: 500 feet from the projected S line and 2300 feet from the E line (projected) | | | | |
| Ground Level Elev. 6960' | Producing Formation None | Pool None | Dedicated Acreage: 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 ownership 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.

**Hole #3-77-8 to be located:
SW1/4SW1/4SE1/4, sec.14, T.17N, R.2E**

CERTIFICATION

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

[Signature]

Name

Steve Quiett

Position

Chief Geologist

Company

Geothermal Services, Inc

Date

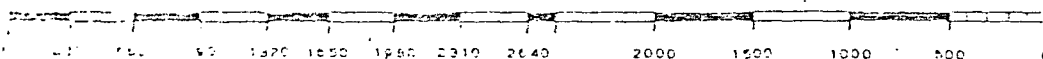
April 26, 1977

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.





GEO THERMAL 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 logging electric logs or reaching T.D. (if logs are not logged).
 - a. Install cement plug in first length of pipe. (If using cement plug, seal each joint with teflon tape or grease (waterlight)).
 - b. Steel pipe should be used when air temperature is 40°F or higher, as cement will not adhere.
 - c. Steel pipe should be used if drilling fluid temperature is 100°F or higher.
 - d. When pipe is installed, it must be 6" to 12" / 15cm to 30cm below ground level. (Cut and thread as necessary).
 - e. Fill pipe with LEAK OFF FLUID (fluid that is oily or contains solvents such as gasoline MUST NOT be used) or cement slurry. Do not seal.
 - f. Set paper or plastic bridge down open annulus at least 10" below ground level. Fill annulus with cement up to base of cap on pipe.
8. Clean up location and CHL.
9. Any excavated pits or mounds 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 to topography and restore location as nearly as possible to original condition.

SEP 18 1978

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NEW MEXICO OIL CONSERVATION COMMISSION
P. O. Box 2088, Santa Fe 87501SUNDRY NOTICES AND REPORTS
ON
GEOTHERMAL RESOURCES WELLS

| | |
|--------------------------------|---|
| 5. Indicate Type of Lease | |
| State <input type="checkbox"/> | Fee <input checked="" type="checkbox"/> |
| 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 NONE |
| 2. Name of Operator SUNOCO ENERGY DEVELOPMENT CORPORATION | | 8. Farm or Lease Name SAN DIEGO GRANT |
| 3. Address of Operator 12700 PARK CENTRAL PLACE, SUITE 1500, DALLAS, TX 75251 | | 9. Well No. 9 |
| 4. Location of Well Unit Letter <u>H</u> <u>850</u> Feet From The <u>EAST</u> Line and <u>1800</u> Feet From The <u>NORTH</u> Line, Section <u>21</u> Township <u>17N</u> Range <u>2E</u> NMPM. | | 10. Field and Pool, or Wildcat NONE |
| 15. Elevation (Show whether DF, RT, GR, etc.) 5800 | | 12. County SANDOVAL |

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

NOTICE OF INTENTION TO:

| | |
|--|--|
| PERFORM REMEDIAL WORK <input type="checkbox"/> | PLUG AND ABANDON <input type="checkbox"/> |
| TEMPORARILY ABANDON <input type="checkbox"/> | |
| PULL OR ALTER CASING <input type="checkbox"/> | CHANGE PLANS <input checked="" type="checkbox"/> |
| OTHER <input type="checkbox"/> | |

SUBSEQUENT REPORT OF:

| | |
|---|---|
| REMEDIAL WORK <input type="checkbox"/> | ALTERING CASING <input type="checkbox"/> |
| COMMENCE DRILLING OPNS. <input type="checkbox"/> | PLUG & ABANDONMENT <input type="checkbox"/> |
| CASING TEST AND CEMENT JOB <input type="checkbox"/> | |
| OTHER <input type="checkbox"/> | |

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.

This hole location was dropped from our drilling program and will not be drilled
in the near future.

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

SIGNED Barry Williams TITLE PROJECT SUPERVISOR
GEOTHERMAL SERVICES, INC. DATE 9/10/78APPROVED BY Carl Ulvog TITLE SENIOR PETROLEUM GEOLOGIST DATE 9/20/78

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

OIL CONSERVATION

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

5. Indicate Type of Lease

STATE ☐FEE ☒

5.a State Lease No.

BLM

1

| | | | |
|------------------|--|--|---|
| 1a. Type of Work | Drill <input checked="" type="checkbox"/> | Deepen <input type="checkbox"/> | Plug Back <input type="checkbox"/> |
| b. Type of Well | Geothermal Producer <input type="checkbox"/> | Temp Observation <input checked="" type="checkbox"/> | Injection/Disposal <input type="checkbox"/> |
| | Low-Temp Thermal <input type="checkbox"/> | | |

7. Unit Agreement Name

None

8. Farm or Lease Name

San Diego Grant

9. Well No.

3-77-9

10. Field and Pool, or Wildcat

None

2. Name of Operator
SUNOCO ENERGY DEVELOPMENT CORPORATION3. Address of Operator
12700 Park Central Pl., Suite 1500, Dallas, TX 752514. Location of Well **
UNIT LETTER H LOCATED 850 FEET FROM THE East LINEAND 1800 FEET FROM THE N LINE OF SEC. 21 TWP. 17N RGE. 2E NMPM

projected

12. County

Sandoval

| | | |
|--|-------------------------------|----------------------------------|
| 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 |
| 5800 (GL) | see note "A" | Geothermal Services |
| | | 22. Approx. Date Work will start |
| | | June 15, 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 lbs. | 500' | 1.5 | 6" BGL |
| | | | | | |
| | | | | | |

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

**- All section lines projected

Note A- Type of bond will be \$10,000 multiple-well low-temperature
well or geothermal observation well bond. The bond is in
the process of being filed, and a bond number will be
furnished as soon as available before operations commence.

Not Drilled - 12/12

APPROVAL VALID
FOR 90 DAYS UNLESS
DRILLING COMMENCED.EXPIRES 8/11/77ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive
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.

Title Chief Geologist, Services, Inc. Date April 26, 1977

(This space for State Use)

APPROVED BY Carl Ulvog TITLE SENIOR PETROLEUM GEOLOGIST DATE 5/13/77
CONDITIONS OF APPROVAL, IF ANY:

GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

| | | | | |
|--|------------------------------------|---------------------------------|---|---------------------------|
| Operator Sunoco Energy Development Corp. | | Lease San Diego Grant | | Well No. 3-77-9 |
| U H | Section 21 | Township 17N | Range 2E | County Sandoval |
| Actual Footage Location of Well: 850 feet from the projected E line and 1800 feet from the N line (projected) | | | | |
| Ground Level Elev. 5800' | Producing Formation None | Pool None | Dedicated Acreage: 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 ownership 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.

**Hole #3-77-9 to be located:
NW1/4SE1/4NE1/4, sec. 21, T. 17N, R. 2E**

CERTIFICATION

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

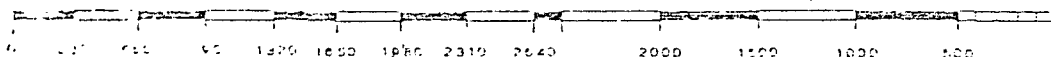
Name
Steve Quiett
Position
Chief Geologist
Company
Geothermal Services, Inc.
Date
April 26, 1977

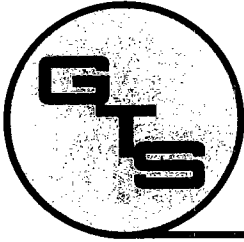
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.





GEO THERMAL 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.

NEW MEXICO OIL CONSERVATION COMMISSION

P. O. Box 2088, Santa Fe 87501

MAY -3 1977

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

5. Indicate Type of Lease

STATE ☐FEE ☒

5.a State Lease No.

7. Unit Agreement Name

None

8. Farm or Lease Name

San Diego Grant

9. Well No.

3-77-11

10. Field and Pool, or Wildcat

None

12. County

Sandoval

19. Proposed Depth

500 ft.

19A. Formation

unknown

20. Rotary or C.T.

rotary

21. Elevations (Show whether DF, RT, etc.).

6950 (GL)

21A. Kind & Status Plug. Bond

see note "A"

21B. Drilling Contractor

Geothermal Services

22. Approx. Date Work will start

June 15, 1977

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE

5-1/8"

SIZE OF CASING

3/4"

WEIGHT PER FOOT

1.14 lbs.

SETTING DEPTH

500'

SACKS OF CEMENT

1.5

EST. TOP

6" BGL

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

**- All section lines projected

Note A- Type of bond will be \$10,000 multiple-well low-temperature well or geothermal observation well bond. The bond is in the process of being filed, and a bond number will be furnished as soon as available before operations commence.

Not drilled - 12/12

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 productive 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 Chief Geologist Title Chief Geologist, Services, Inc. Date April 26, 1977

(This space for State Use)

APPROVED BY

Carl Ulvog

TITLE

SENIOR PETROLEUM GEOLOGIST

DATE

5/13/77

CONDITIONS OF APPROVAL, IF ANY:

GEOHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

| | | | | | |
|--|------------------------------------|---------------------------------|---|----------------------------|--|
| Operator Sunoco Energy Development Corp. | | Lease San Diego Grant | | Well No. 3-77-11 | |
| Letter M | Section 23 | Township 17N | Range 2E | County Sandoval | |
| Actual Footage Location of Well: 600 feet from the projected W line and 1100 feet from the S line (projected) | | | | | |
| Ground Level Elev. 6950' | Producing Formation None | Pool None | Dedicated Acreage: 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 ownership 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.

**Hole #3-77-11 to be located:
NW1/4SW1/4SW1/4, sec.23, T.17N, R.2E**

CERTIFICATION

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

[Signature]
Name

Steve Quiett

Position

Chief Geologist

Company

Geothermal Services, Inc.

Date

April 26, 1977

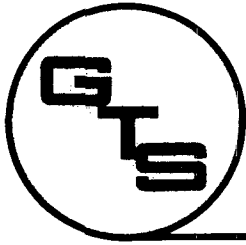
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

11 100 90 1370 1600 1880 2310 2640 2000 1500 1000 500 0



GEO THERMAL 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.

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

SEP 18 1978

SUNDRY NOTICES AND REPORTS
ON
GEOTHERMAL RESOURCES WELLS

| | |
|--------------------------------|---|
| Indicate Type of Lease | |
| State <input type="checkbox"/> | Fee <input checked="" type="checkbox"/> |
| 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 NONE |
| 2. Name of Operator SUNOCO ENERGY DEVELOPMENT CORPORATION | 8. Farm or Lease Name SAN DIEGO GRANT |
| 3. Address of Operator 12700 PARK CENTRAL PLACE, SUITE 1500, DALLAS, TX 75251 | 9. Well No. 11 |
| 4. Location of Well Unit Letter M 600 Feet From The WEST Line and 1100 Feet From The SOUTH Line, Section 23 Township 17N. Range 2E. NMPM. | 10. Field and Pool, or Wildcat NONE |
| 15. Elevation (Show whether DF, RT, GR, etc.) 6950' (G.L.) | 12. County SANDOVAL |

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

NOTICE OF INTENTION TO:

| | |
|--|--|
| PERFORM REMEDIAL WORK <input type="checkbox"/> | PLUG AND ABANDON <input type="checkbox"/> |
| TEMPORARILY ABANDON <input type="checkbox"/> | |
| PULL OR ALTER CASING <input type="checkbox"/> | CHANGE PLANS <input checked="" type="checkbox"/> |
| OTHER <input type="checkbox"/> | |

SUBSEQUENT REPORT OF:

| | |
|---|---|
| REMEDIAL WORK <input type="checkbox"/> | ALTERING CASING <input type="checkbox"/> |
| COMMENCE DRILLING OPNS. <input type="checkbox"/> | PLUG & ABANDONMENT <input type="checkbox"/> |
| CASING TEST AND CEMENT JOB <input type="checkbox"/> | |
| OTHER <input type="checkbox"/> | |

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.

This hole location was dropped from our drilling program and will not
be drilled in the near future.

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

SIGNED Barry Williams TITLE PROJECT SUPERVISOR
GEOTHERMAL SERVICES, INC. DATE 9-10-78APPROVED BY Carl Ulvog TITLE SENIOR PETROLEUM GEOLOGIST DATE 9/20/78

CONDITIONS OF APPROVAL, IF ANY:

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| Land Office | | |

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

SEP 18 1978

**SUNDRY NOTICES AND REPORTS
ON
GEOTHERMAL RESOURCES WELLS**

| | |
|--------------------------------|---|
| 5. Indicate Type of Lease | |
| State <input type="checkbox"/> | Fee <input checked="" type="checkbox"/> |
| 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 NONE |
| 2. Name of Operator SUNOCO ENERGY DEVELOPMENT CORPORATION | | 8. Farm or Lease Name SAN DIEGO GRANT |
| 3. Address of Operator 12700 PARK CENTRAL PLACE, SUITE 1500, DALLAS, TX 75251 | | 9. Well No. 10 |
| 4. Location of Well Unit Letter K 2500 Feet From The WEST Line and 1600 Feet From The S Line, Section 24 Township 17N. Range 2E. NMPM. | | 10. Field and Pool, or Wildcat NONE |
| 15. Elevation (Show whether DF, RT, GR, etc.) 6100' (G.L.) | | 12. County SANDOVAL |

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

NOTICE OF INTENTION TO:

| | |
|--|--|
| PERFORM REMEDIAL WORK <input type="checkbox"/> | PLUG AND ABANDON <input type="checkbox"/> |
| TEMPORARILY ABANDON <input type="checkbox"/> | |
| PULL OR ALTER CASING <input type="checkbox"/> | CHANGE PLANS <input checked="" type="checkbox"/> |
| OTHER <input type="checkbox"/> | |

SUBSEQUENT REPORT OF:

| | |
|---|---|
| REMEDIAL WORK <input type="checkbox"/> | ALTERING CASING <input type="checkbox"/> |
| COMMENCE DRILLING OPNS. <input type="checkbox"/> | PLUG & ABANDONMENT <input type="checkbox"/> |
| CASING TEST AND CEMENT JOB <input type="checkbox"/> | |
| OTHER <input type="checkbox"/> | |

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.

This hole location was dropped from our drilling program and will not be drilled in the near future.

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

SIGNED Barry Williams TITLE PROJECT SUPERVISOR DATE 9-10-78
GEOTHERMAL SERVICES, INC.

APPROVED BY Carl Uevog TITLE SENIOR PETROLEUM GEOLOGIST DATE 9/20/78

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION

P. O. Box 2088, Santa Fe, N.M. 87501

MAY -3 1977

OIL CONSERVATION COMMISSION

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

| | |
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| U.S. | 1 |
| Operator | 1 |
| Land Office | |

BLM

5. Indicate Type of Lease

STATE ☐FEE ☒

5.a State Lease No.

7. Unit Agreement Name

None

8. Farm or Lease Name

San Diego Grant

9. Well No.

3-77-10

10. Field and Pool, or Wildcat

None

12. County

Sandoval

| | | | |
|---|--|--|---|
| 1a. Type of Work | Drill <input checked="" type="checkbox"/> | Deepen <input type="checkbox"/> | Plug Back <input type="checkbox"/> |
| b. Type of Well | Geothermal Producer <input type="checkbox"/> | Temp Observation <input checked="" type="checkbox"/> | Low-Temp Thermal <input type="checkbox"/> |
| 2. Name of Operator | SUNOCO ENERGY DEVELOPMENT CORPORATION | | |
| 3. Address of Operator | 12700 Park Central Pl., Suite 1500, Dallas, TX 75251 | | |
| 4. Location of Well | ** UNIT LETTER <u>K</u> LOCATED <u>2500</u> FEET FROM THE <u>West</u> LINE | | |
| AND <u>1600</u> FEET FROM THE <u>S</u> LINE OF SEC. <u>24</u> TWP. <u>17N</u> RGE. <u>2E</u> NMPM | | | |

projected

19. Proposed Depth

500 ft.

19A. Formation

unknown

20. Rotary or C.T.

rotary

| | | | |
|--|-------------------------------|--------------------------|----------------------------------|
| 21. Elevations (Show whether DF, RT, etc.) | 21A. Kind & Status Plug. Bond | 21B. Drilling Contractor | 22. Approx. Date Work will start |
| 6100 (GL) | see note "A" | Geothermal Services | June 15, 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 lbs. | 500' | 1.5 | 6" BGL |
| | | | | | |
| | | | | | |

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

**- All section lines projected

Note A- Type of bond will be \$10,000 multiple-well low-temperature well or geothermal observation well bond. The bond is in the process of being filed, and a bond number will be furnished as soon as available before operations commence.

Active - 12/12

not drilled

APPROVAL VALID
FOR 90 DAYS UNLESS
DRILLING COMMENCEDEXPIRES 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 productive 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

Title Chief Geologist, Services, Inc. Date April 26, 1977

(This space for State Use)

APPROVED BY

Carl Ulvog

TITLE

SENIOR PETROLEUM GEOLOGIST

DATE

5/13/77

CONDITIONS OF APPROVAL, IF ANY:

GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

| | | | | | |
|---|------------------------------------|------------------------|---------------------------------|---|----------------------------|
| Operator Sunoco Energy Development Corp. | | | Lease San Diego Grant | | Well No. 3-77-10 |
| Section Letter K | Section 24 | Township 17N | Range 2E | County Sandoval | |
| Actual Footage Location of Well: 2500 feet from the projected W line and 1600 feet from the S line (projected) | | | | | |
| Ground Level Elev. 6100' | Producing Formation None | | Pool None | Dedicated Acreage: 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 ownership 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.

**Hole #3-77-10 to be located:
NE1/4NE1/4SW1/4, sec.24, T.17N, R.2E**

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 26, 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.

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

SEP 18 1978

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| G. S. | 1 | |
| Operator | 1 | |
| Land Office | | |

SUNDRY NOTICES AND REPORTS
ON
GEOTHERMAL RESOURCES WELLS

| | |
|---|--|
| 5. Indicate Type of Lease State <input type="checkbox"/> Fee <input checked="" type="checkbox"/> | |
| 5.a State Lease No. | |
| 7. Unit Agreement Name NONE | |
| 8. Farm or Lease Name SAN DIEGO GRANT | |
| 9. Well No. 13 | |
| 10. Field and Pool, or Wildcat NONE | |
| 12. County SANDOVAL | |

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"/> | 2. Name of Operator SUNOCO ENERGY DEVELOPMENT CORPORATION |
| 3. Address of Operator 12700 PARK CENTRAL PLACE, SUITE 1500, DALLAS, TX 75251 | |
| 4. Location of Well Unit Letter J 2200 Feet From The EAST Line and 2000 Feet From The SOUTH Line, Section 25 Township 17N. Range 2E. NMPM. | |

15. Elevation (Show whether DF, RT, GR, etc.)
6025' (G.L.)

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐
PULL OR ALTER CASING ☐ CHANGE PLANS ☒
OTHER ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ PLUG & ABANDONMENT ☐
CASING TEST AND CEMENT JOB ☐
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.

This hole location was dropped from our drilling program and will not
be drilled in the near future.

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

SIGNED Barry Williams PROJECT SUPERVISOR
TITLE GEOTHERMAL SERVICES, INC. DATE 9-10-78APPROVED BY Carl Ullvog TITLE SENIOR PETROLEUM GEOLOGIST DATE 9/20/78

CONDITIONS OF APPROVAL, IF ANY:

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| Operator | |
| Land Office | |

NEW MEXICO OIL CONSERVATION COMMISSION

P. O. Box 2088, Santa Fe 87501

MAY -3 1977

APPLICATION FOR PERMIT TO DRILL, DEEPEN
OR PLUG BACK--GEOTHERMAL RESOURCES WELL5. Indicate Type of Lease
STATE ☐ FEE ☒
5.a State Lease No.

1a. Type of Work Drill ☒ Deepen ☐ Plug Back ☐
b. Type of Well Geothermal Producer ☐ Temp Observation ☒
Low-Temp Thermal ☐ Injection/Disposal ☐
2. Name of Operator
SUNOCO ENERGY DEVELOPMENT CORPORATION
3. Address of Operator
12700 Park Central Pl., Suite 1500, Dallas, TX 75251
4. Location of Well **
UNIT LETTER J LOCATED 2200 FEET FROM THE East LINE
AND 2000 FEET FROM THE S LINE OF SEC. 25 TWP. 17N RGE. 2 E NMPM
projected

7. Unit Agreement Name
None
8. Farm or Lease Name
San Diego Grant9. Well No.
3-77-13
10. Field and Pool, or Wildcat
None12. County
Sandoval

19. Proposed Depth 500 ft. 19A. Formation unknown 20. Rotary or C.T. rotary
21. Elevations (Show whether DF, RT, etc.) 6025 (GL) 21A. Kind & Status Plug. Bond see note "A" 21B. Drilling Contractor Geothermal Services 22. Approx. Date Work will start June 15, 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 lbs. | 500' | 1.5 | 6" BGL |
| | | | | | |

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

**- All section lines projected

Note A- Type of bond will be \$10,000 multiple-well low-temperature
well or geothermal observation well bond. The bond is in
the process of being filed, and a bond number will be
furnished as soon as available before operations commence.

Not Drilled 12/12

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 productive
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.

Signature: [Signature] Title: Chief Geologist, Services, Inc. Date: April 26, 1977

(This space for State Use)

APPROVED BY: Carl Uvog TITLE: SENIOR PETROLEUM GEOLOGIST DATE: 5/13/77
CONDITIONS OF APPROVAL, IF ANY

GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

| | | | | | |
|---|------------------------------------|------------------------|---------------------------------|---|----------------------------|
| Operator Sunoco Energy Development Corp. | | | Lease San Diego Grant | | Well No. 3-77-13 |
| Letter J | Section 25 | Township 17N | Range 2 E | County Sandoval | |
| Actual Footage Location of Well: 2200 feet from the projected E line and 2000 feet from the S line (projected) | | | | | |
| Ground Level Elev. 6025' | Producing Formation None | | Pool None | Dedicated Acreage: 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 ownership 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.

Hole #3-77-13 to be located:

NW1/4NW1/4SE1/4, sec.25, T.17N, R.2E

CERTIFICATION

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

Steve Quiett

Name

Steve Quiett

Position

Chief Geologist

Company

Geothermal Services, Inc.

Date

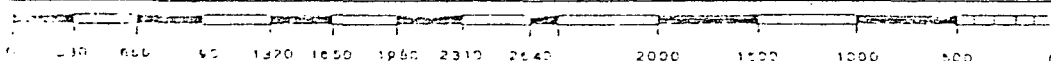
April 26, 1977

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.





GEO THERMAL 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.

| | | |
|------------------------|---|---|
| NO. OF COPIES RECEIVED | | |
| DISTRIBUTION | | |
| File | 1 | ✓ |
| N. M. B. M. | 1 | |
| G. S. | 1 | |
| Operator | 1 | |
| Land Office | | |

NEW MEXICO OIL CONSERVATION COMMISSION
P. O. Box 2088, Santa Fe 87501SUNDRY NOTICES AND REPORTS
ON
GEOTHERMAL RESOURCES WELLS

SEP 18 1978

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

SAN DIEGO GRANT

3. Address of Operator

12700 PARK CENTRAL PLACE, SUITE 1500, DALLAS, TX 75251

9. Well No.

15

4. Location of Well

Unit Letter F 1400 Feet From The WEST Line and 2200 Feet From

10. Field and Pool, or Wildcat

NONE

The NORTH Line, Section 33 Township 17N. Range 2E. NMPM.

15. Elevation (Show whether DF, RT, GR, etc.)

5660' (G.L.)

12. County

SANDOVAL

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐TEMPORARILY ABANDON ☐PULL OR ALTER CASING ☐CHANGE PLANS ☒OTHER ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐COMMENCE DRILLING OPNS. ☐ PLUG & ABANDONMENT ☐CASING TEST AND CEMENT JOB ☐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.

This hole location was dropped from our drilling program and will not be drilled in the near future.

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

SIGNED Barry Williams PROJECT SUPERVISOR
TITLE GEOTHERMAL SERVICES, INC. DATE 9-10-78APPROVED BY Carl Ulvog TITLE SENIOR PETROLEUM GEOLOGIST DATE 9/20/78

CONDITIONS OF APPROVAL, IF ANY:

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

MAY -3 1977

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

5. Indicate Type of Lease

STATE ☐FEE ☒

5a State Lease No.

7. Unit Agreement Name

None

8. Farm or Lease Name

San Diego Grant

9. Well No.

3-77-15

10. Field and Pool, or Wildcat

None

12. County

Sandoval

| | |
|------------------------|---|
| NO. OF COPIES RECEIVED | 4 |
| DISTRIBUTION | |
| File | 1 |
| N.M. | 1 |
| U.S. | 1 |
| Operator | 1 |
| Land Office | |

BLM

1

| | | | |
|--|---|--|---|
| 1a. Type of Work | Drill <input checked="" type="checkbox"/> | Deepen <input type="checkbox"/> | Plug Back <input type="checkbox"/> |
| b. Type of Well | Geothermal Producer <input type="checkbox"/> | Temp Observation <input checked="" type="checkbox"/> | Low-Temp Thermal <input type="checkbox"/> |
| 2. Name of Operator | SUNOCO ENERGY DEVELOPMENT CORPORATION | | |
| 3. Address of Operator | 12700 Park Central Pl., Suite 1500, Dallas, TX 75251 | | |
| 4. Location of Well | UNIT LETTER F LOCATED 1400 FEET FROM THE West LINE | | |
| AND 2200 FEET FROM THE N LINE OF SEC. 33 TWP. 17N RGE. 2E NMPPM | | | |

projected

19. Proposed Depth

500 ft.

19A. Formation

unknown

20. Rotary or C.T.

rotary

21. Elevations (Show whether DF, RT, etc.)

5660 (GL)

21A. Kind & Status Plug. Bond

see note "A"

21B. Drilling Contractor

Geothermal Services

22. Approx. Date Work will start

June 15, 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 lbs. | 500' | 1.5 | 6" BGL |
| | | | | | |
| | | | | | |

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

**- All section lines projected

Note A- Type of bond will be \$10,000 multiple-well low-temperature
well or geothermal observation well bond. The bond is in
the process of being filed, and a bond number will be
furnished as soon as available before operations commence.

not Drilled - 12/12

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 productive 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 Steve Smith Title Chief Geologist, Services, Inc. Date April 26, 1977

(This space for State Use)

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

CONDITIONS OF APPROVAL, IF ANY:

GEOHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

| | | | | |
|---|------------------------------------|---------------------------------|---|----------------------------|
| Operator Sunoco Energy Development Corp. | | Lease San Diego Grant | | Well No. 3-77-15 |
| Letter F | Section 33 | Township 17N | Range 2E | County Sandoval |
| Actual Footage Location of Well: 1400 feet from the projected W line and 2200 feet from the N line (projected) | | | | |
| Ground Level Elev. 5660' | Producing Formation None | Pool None | Dedicated Acreage: None Acres | |

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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 ownership 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.

Hole #3-77-15 to be located:
SW1/4SE1/4NW1/4, sec.33, T.17N, R.2E

CERTIFICATION

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

[Signature]

Name

Steve Quiett

Position

Chief Geologist

Company

Geothermal Services, Inc.

Date

April 26, 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.



GEO THERMAL 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.

SEP 18 1978

NEW MEXICO OIL CONSERVATION COMMISSION
P. O. Box 2088, Santa Fe 87501SUNDRY NOTICES AND REPORTS
ON
GEOTHERMAL RESOURCES WELLS

5. Indicate Type of Lease

State ☐Fee ☒

5.a State Lease No.

| | | |
|------------------------|---|---|
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| File | / | ✓ |
| N. M. B. M. | / | |
| G. S. | / | |
| Operator | / | |
| Land Office | | |

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"/> |
| 2. Name of Operator | SUNOCO ENERGY DEVELOPMENT CORPORATION | |
| 3. Address of Operator | 12700 PARK CENTRAL PLACE, SUITE 1500, DALLAS, TX 75251 | |
| 4. Location of Well | Unit Letter C 1400 Feet From The WEST Line and 300 Feet From | |
| | The NORTH Line, Section 35 Township 17N. Range 2E. NMPM. | |

7. Unit Agreement Name

NONE

8. Farm or Lease Name

SAN DIEGO GRANT

9. Well No.

14

10. Field and Pool, or Wildcat

NONE

15. Elevation (Show whether DF, RT, GR, etc.)

6400' (G.L.)

12. County

SANDOVAL

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

NOTICE OF INTENTION TO:

| | |
|--|--|
| PERFORM REMEDIAL WORK <input type="checkbox"/> | PLUG AND ABANDON <input type="checkbox"/> |
| TEMPORARILY ABANDON <input type="checkbox"/> | CHANGE PLANS <input checked="" type="checkbox"/> |
| PULL OR ALTER CASING <input type="checkbox"/> | OTHER <input type="checkbox"/> |

SUBSEQUENT REPORT OF:

| | |
|---|---|
| REMEDIAL WORK <input type="checkbox"/> | ALTERING CASING <input type="checkbox"/> |
| COMMENCE DRILLING OPNS. <input type="checkbox"/> | PLUG & ABANDONMENT <input type="checkbox"/> |
| CASING TEST AND CEMENT JOB <input type="checkbox"/> | OTHER <input type="checkbox"/> |

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.

This hole location was dropped from our drilling program and will not be drilled in the near future.

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

SIGNED Barry Williams PROJECT SUPERVISOR
TITLE GEOTHERMAL SERVICES, INC. DATE 9-10-78APPROVED BY Carl Ulvog TITLE SENIOR PETROLEUM GEOLOGIST DATE 9/20/78

CONDITIONS OF APPROVAL, IF ANY:

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| File | 1 ✓ |
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| U.S. | 1 |
| Operator | 1 |
| Land Office | |

NEW MEXICO OIL CONSERVATION COMMISSION

P. O. Box 2088, Santa Fe, N.M. 87501

MAY -3 1977

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

5. Indicate Type of Lease

STATE ☐FEE ☒

5.a State Lease No.

7. Unit Agreement Name

None

8. Farm or Lease Name

San Diego Grant

9. Well No.

3-77-14

10. Field and Pool, or Wildcat

None

12. County

Sandoval

| | | | |
|--|---|--|---|
| 1a. Type of Work | Drill <input checked="" type="checkbox"/> | Deepen <input type="checkbox"/> | Plug Back <input type="checkbox"/> |
| b. Type of Well | Geothermal Producer <input type="checkbox"/> | Temp Observation <input checked="" type="checkbox"/> | Injection/Disposal <input type="checkbox"/> |
| 2. Name of Operator | SUNOCO ENERGY DEVELOPMENT CORPORATION | | |
| 3. Address of Operator | 12700 Park Central Pl., Suite 1500, Dallas, TX 75251 | | |
| 4. Location of Well | UNIT LETTER <u>C</u> LOCATED <u>1400</u> FEET FROM THE <u>West</u> LINE | | |
| AND <u>300</u> FEET FROM THE <u>N</u> LINE OF SEC. <u>35</u> TWP. <u>17N</u> RGE. <u>2E</u> NMPM | | | |

projected

| | | | | | |
|--|-----------|-------------------------------|--------------|----------------------------------|---------------------|
| 19. Proposed Depth | 500 ft. | 19A. Formation | unknown | 20. Rotary or C.T. | rotary |
| 21. Elevations (Show whether DF, RT, etc.) | 6400 (GL) | 21A. Kind & Status Plug. Bond | see note "A" | 21B. Drilling Contractor | Geothermal Services |
| | | | | 22. Approx. Date Work will start | June 15, 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 lbs. | 500' | 1.5 | 6" BGL |
| | | | | | |

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

**- All section lines projected

Note A- Type of bond will be \$10,000 multiple-well low-temperature well or geothermal observation well bond. The bond is in the process of being filed, and a bond number will be furnished as soon as available before operations commence.

Not Drilled - 12/12

APPROVAL VALID
FOR 90 DAYS UNLESS
DRILLING COMMENCED

EXPIRES 8/11/77

N ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive 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 Stanley Smith Title Chief Geologist, Services, Inc. Date April 26, 1977

(This space for State Use)

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

CONDITIONS OF APPROVAL, IF ANY:

GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

| | | | | | |
|--|------------------------------------|---------------------------------|---------------------|---|--|
| Operator Sunoco Energy Development Corp. | | Lease San Diego Grant | | Well No. 3-77-14 | |
| Letter C | Section 35 | Township 17N | Range 2E | County Sandoval | |
| Actual Footage Location of Well: 1400 feet from the projected W line and 300 feet from the N line (projected) | | | | | |
| Ground Level Elev. 6400' | Producing Formation None | | Pool None | Dedicated Acreage: 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 ownership 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.

Hole #3-77-14 to be located:
NW1/4NE1/4NW1/4, sec.35, T.17N, R.2E

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 26, 1977

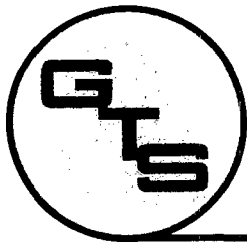
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Registered Professional Engineer
and/or Land Surveyor

Certificate No.

0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 6500 7000 7500 8000 8500 9000 9500 10000



GEO THERMAL 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.

SEP 13 1978

| | | |
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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 <input type="checkbox"/> | Fee <input checked="" type="checkbox"/> |
| 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 NONE |
| 2. Name of Operator SUNOCO ENERGY DEVELOPMENT CORPORATION | | 8. Farm or Lease Name SAN DIEGO GRANT |
| 3. Address of Operator 12700 PARK CENTRAL PLACE, SUITE 1500, DALLAS, TX 75251 | | 9. Well No. 16 |
| 4. Location of Well Unit Letter N 1800 Feet From The WEST Line and 200 Feet From The SOUTH Line, Section 36 Township 17N. Range 2E. NMPM. | | 10. Field and Pool, or Wildcat NONE |
| 15. Elevation (Show whether DF, RT, GR, etc.) 5940' (G.L.) | | 12. County SANDOVAL |

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

NOTICE OF INTENTION TO:

| | |
|--|--|
| PERFORM REMEDIAL WORK <input type="checkbox"/> | PLUG AND ABANDON <input type="checkbox"/> |
| TEMPORARILY ABANDON <input type="checkbox"/> | |
| PULL OR ALTER CASING <input type="checkbox"/> | CHANGE PLANS <input checked="" type="checkbox"/> |
| OTHER <input type="checkbox"/> | |

SUBSEQUENT REPORT OF:

| | |
|---|---|
| REMEDIAL WORK <input type="checkbox"/> | ALTERING CASING <input type="checkbox"/> |
| COMMENCE DRILLING OPNS. <input type="checkbox"/> | PLUG & ABANDONMENT <input type="checkbox"/> |
| CASING TEST AND CEMENT JOB <input type="checkbox"/> | |
| OTHER <input type="checkbox"/> | |

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.

This hole location was dropped from our drilling program and will not be drilled in the near future.

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

SIGNED Bryon Williams PROJECT SUPERVISOR
TITLE GEOTHERMAL SERVICES, INC. DATE 9-10-78

APPROVED BY Carl Ulvog TITLE SENIOR PETROLEUM GEOLOGIST DATE 9/20/78

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION

P. O. Box 2088, Santa Fe 87501

APPLICATION FOR PERMIT TO DRILL, DEEPEN, -3 1977
OR PLUG BACK--GEOTHERMAL RESOURCES WELLOIL CONSERVATION COMMISSION
Santa Fe

5. Indicate Type of Lease

STATE ☐FEE ☒

5.a State Lease No.

| | |
|------------------------|---|
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| DISTRIBUTION | |
| File | 1 |
| N. M. | 1 |
| U. S. | 1 |
| Operator | 1 |
| Land Office | |

BLM

1

| | | | |
|---|---|---|---|
| 1a. Type of Work Drill <input checked="" type="checkbox"/> Deepen <input type="checkbox"/> Plug Back <input type="checkbox"/> | 7. Unit Agreement Name None | | |
| b. 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"/> | 8. Farm or Lease Name San Diego Grant | | |
| 2. Name of Operator SUNOCO ENERGY DEVELOPMENT CORPORATION | 9. Well No. 3-77-16 | | |
| 3. Address of Operator 12700 Park Central Pl., Suite 1500, Dallas, TX 75251 | 10. Field and Pool, or Wildcat None | | |
| 4. Location of Well ** UNIT LETTER <u>N</u> LOCATED <u>1800</u> FEET FROM THE <u>West</u> LINE AND <u>200</u> FEET FROM THE <u>S</u> LINE OF SEC. <u>36</u> TWP. <u>17N</u> RGE. <u>2E</u> NMPM <u>projected</u> | 12. County Sandoval | | |
| 19. Proposed Depth 500 ft. | 19A. Formation unknown | 20. Rotary or C.T. rotary | |
| 21. Elevations (Show whether DF, RT, etc.) 5940 (GL) | 21A. Kind & Status Plug. Bond see note "A" | 21B. Drilling Contractor Geothermal Services | 22. Approx. Date Work will start June 15, 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 lbs. | 500' | 1.5 | 6" BGL |
| | | | | | |
| | | | | | |

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

**- All section lines projected

Note A- Type of bond will be \$10,000 multiple-well low-temperature
well or geothermal observation well bond. The bond is in
the process of being filed, and a bond number will be
furnished as soon as available before operations commence.

Status unknown - 12/12

ND

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 productive 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, Services, Inc. Date April 26, 1977

(This space for State Use)

APPROVED BY Carl Ulvog TITLE SENIOR PETROLEUM GEOLOGIST DATE 5/13/77
CONDITIONS OF APPROVAL, IF ANY:

GEOHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

| | | | | | |
|--|------------------------------------|---------------------------------|---|----------------------------|--|
| Operator Sunoco Energy Development Corp. | | Lease San Diego Grant | | Well No. 3-77-16 | |
| Letter N | Section 36 | Township 17N | Range 2E | County Sandoval | |
| Actual Footage Location of Well: 1800 feet from the projected W line and 200 feet from the S line (projected) | | | | | |
| Ground Level Elev. 5940' | Producing Formation None | Pool None | Dedicated Acreage: None Acres | | |

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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 ownership 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.

**Hole #3-77-16 to be located:
SW1/4SE1/4SW1/4, sec.36, T.17N, R.2E**

CERTIFICATION

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

[Signature]

Name

Steve Quiett

Position

Chief Geologist

Company

Geothermal Services, Inc

Date

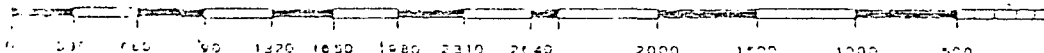
April 26, 1977

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.





GEO THERMAL 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.