GTLT - \_\_\_\_9\_\_\_

# (1-28)-17N-2E Sunoco Energy Development Corporation (Sandoval County)

4-J(PA); 7-A(PA); 6-E(PA) & 12-G

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N. M. B. M.	1	
U. S. G. S	1	
Operator	1	
Land Office		

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DISTRIBUTION			P. O. Box 2088, Santa Fe 87501	0.4070
File	1	V	SEP A	18 1973
N. M. B. M.	1		SUNDRY NOTICES AND REPORTS	
U. S. G. S	1		ON	5. Indicate Type of Lease
Operator	1		GEOTHERMAL RESOURCES WELLS	State Fee X
Land Office			المريخ	5.a State Lease No.
	l		·	
Do Not Use This Form for P For Permit —" (Form G-101)	ropos ) for s	als to Such I	Drill or to Deepen or Plug Back to a Different Reservoir. Use "Application Proposals.)	
1. Type of well Geothe	ermal	Produ	ucer Temp. Observation	7. Unit Agreement Name · ·
· Low-T	emp <sup>-</sup>	Therm	al Injection/Disposal	NONE
2. Name of Operator				8. Farm or Lease Name
SUNDED ENERGY D	FVF	I OPM	ENT CORPORATION	SAN DIEGO GRANT
3. Address of Operator				9. Well No.
12700 PARK CENT	RAI	PLA	CE, SUITE 1500, DALLAS, TX 75251	4
4. Location of Well				10. Field and Pool, or Wildcat
Unit LetterJ	•	140	Feet From The SOUTH Line and 2300 Feet From	NONE
			1	
The <u>EAST</u> Lir	ne, Se	ction	Township 17N. Range 2E. NMPM	
	•			
	111	////	15. Elevation (Show whether DF, RT, GR, etc.)	12. County
			2300 (G.L.)	SANDOVAL
16.	~~~	Check	Appropriate Box To Indicate Nature of Notice, Report or Other Da	
NOTICE				
PERFORM REMEDIAL WOR	_	_	Fal	ENT REPORT OF:
TEMPORARILY ABANDON		7		ALTERING CASTING
PULL OR ALTER CASING	Ĺ	ī	COMMENCE DRILLING OPNS.	☐ PLUG & ABANDONMENT L
FOLL OR ALTER CASING	_	_	CHANGE PLANS	3 [_]
			OTHER	
OTHER			П	•
-				
17. Describe Proposed or co	mple	ted O	perations (Clearly state all pertinent details, and give pertinenet dates, incl	luding estimated date of starting any
proposed work) SEE RU	LE 20	03.		
	Th	is	nole was abandoned by: a) cutting off the $3/4^{\prime\prime}$ ;	pipe below
	gr	oun	d level; b) cementing the top 10' of the pipe ar	nd annulus;
	c)	co	vering the hole with soil and, d) restoring the	site as
		_	til	·
	ne	arl	y as possible to its original condition.	

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief. PROJECT SUPERVISOR E GEOTHERMAL SERVICES, TITLE \_ SENIOR PETROLEUM GEOLOGIST

CONDITIONS OF APPROVAL, IF ANY:

							A				
NO. OF COPIES REC	EIVED	4	NEV	W MEXICO OI	L CONSER	VATION COM	ussiQN.		E 1111	•	•
DISTRIBUTION	v			P. O. Bo	ox 2088, Sa	nta Fe 8750					
File	1	V				Ú.	MAY	-3 137	5 Ladicate		
N.M.B.M.							j\/		5. Ladicate	Type of L	_ease
U.S.G.S.		<u>                                     </u>	APPL	ICATION FO	OR PERMI	T TO DRIVE,	DEFINE	WATION (	STATE L	J	FEE X
Operator			OR PLU	JG BACKG	EOTHER	MAL RESOUF	CES WE	ilda Fo	5.a State L	ease No.	
Land Office									m	m	,,,,,,,,,
BLM						•					
1a. Type of Work	Drill D	<u> </u>		Deepen 🗆		Plug Bac	k 🗀		7. Unit Agr	eement Nar	<u>17777777</u> ne
				•					Non	e ·	
b. Type of Well	•	mal Produce		•		mp Observatio			8. Farm or	Lease Name	:
·	Low-Ten	np Thermal			: inje	ection/Disposal	· • • · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		Diego	<u> Grant</u>
<ol><li>Name of Operator SUNOCO ENI</li></ol>	PDCV DE	WET ODM	מיתי כנ	ADDAR ATT	ON.	• •			9. Well No.	7 ~ A	
3. Address of Operator		PARTOLIN	HAT CC	JII OIGH	ON	<u> </u>	· `		3-77		Wildcat
12700 Parl		al Pl	. Suit	te 1500.	Dalla	as, TX	75251		Non		· · · · · · · · · · · · · · · · · · ·
4. Location of Well	**				,	ом тне <u><b>Sol</b></u>	*	LINE	111111	HIII	TITTI
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AND 2300 FE	EET FROM	THE E	LINE OF	SEC. T	WP. 171	RGE.	2E	NMPM			
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	<i>HHH</i>	####	77777	<i>HHH</i>		9. Proposed Dep		9A. Formatio	(//////	20. Rotary	
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(This)	space for Sta	ie Usej		· · · · · · · · · · · · · · · · · · ·							

CYDITIONS OF APPROVAL, IF ANY:

TITLE SENIOR PETROLEUM GEOLOGIST

DATE 5/13/77

GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

All distances must be from the outer boundaries of the Section. Well No. Lease 3-77-4 Sunoco Energy Development Corp. San Diego Grant Unit Letter Township Section Sandoval 2E 17N Actual Footage Location of Well: feet from the E 1400 feet from the projected S line and 2300 line(projected) Dedicated Acreage: Producing Formation Ground Level Elev. 7360 None None None 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 rovalty). 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. Hole #3-77-4 to be located: SW1/4NW1/4SE1/4, sec.1, T.17N, R.2E Name <u>Steve Quiett</u> Chief Geologist Geothermal Services, Inc. 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. 1379 1650 1980 2310 2640 1500 1000 500



7860 CONVOY COURT, SAN DIEGO, CALIFORNIA 92111 • (714) 565-4712



- 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, <u>STOP DRILLING</u> 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 <u>CLEAN WATER</u> (water that is oily or contains solvents such as gasoline <u>MUST NOT</u> 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.

CONDITIONS OF APPROVAL, IF ANY:

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DISTRIBUTION		P. O. Box 2088; Santa Fe 87501 SEP	181870	
File	1 1			
N. M. B. M.	1	SUNDRY NOTICES AND REPORTS	•	
U. S. G. S	1	ON	5. Indicate Type	of Lease
Operator	7	GEOTHERMAL RESOURCES WELLS	State .	Fee 🗓
Land Office		SESTILETIMALE NESSONOES WEELS	5.a State Lease N	ło.
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For Permit —" (Form G-101)		Drill or to Deepen or Plug Back to a Different Reservoir. Use "Application Proposals.)	VIIIIIII	
1. Type of well Geothe	ermai Prod	ucer Temp. Observation	7. Unit Agreemer	nt Name
Low-T	emp Therr	nal Injection/Disposal	NONE	
2. Name of Operator			8. Farm or Lease	Name
SUNOCO ENERG	Y DEVE	OPMENT CORPORATION	SAN DIEG	O GRANT
3. Address of Operator			9. Well No.	
12700 PARK C	ENTRAL	PLACE, SUITE 1500, DALLAS, TX 75251	7	
4. Location of Well			10. Field and Poo	ol, or Wildcat
Unit LetterA	2	00 Feet From The NORTH Line and 450 Feet From	NONE	
Omt Letter			11111111	
EAST		14 17N. 2E. NMPM.		
ineLir	ie, Section	NMPM.		
	11111	15. Elevation (Show whether DF, RT, GR, etc.)	12. County	<i>XHHHHH</i>
		7100'(G.L.)	SANDOVAL	
16.	Char	k Appropriate Day To Indicate Nature of Notice Depart of Other De		-7777777777777777777777777777777777777
10.	Chec	k Appropriate Box To Indicate Nature of Notice, Report or Other Da	ita	
			NT REPORT OF:	_
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TEMPORARILY ABANDON		COMMENCE DRILLING OPNS.	☐ PLUG &	ABANDONMENT L
PULL OR ALTER CASING	لـا	CHANGE PLANS CASING TEST AND CEMENT JOB	,	
		OTHER		۲
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OTHER				
17. Describe Proposed or co	mpleted (	perations (Clearly state all pertinent details, and give pertinenet dates, incl	uding estimated day	te of starting any
proposed work) SEE RU		permission permission as permission desired, and give permission duries, men		of starting any
This h	ole wa	s abandoned by: a) cutting off the 3/4" pipe bel	OW	
	4			
ground	level	; b) cementing the top 10' of the pipe and annul	ūs;	
•				
c) cov	ering	the hole with soil and, d) restoring the site as	•	
nearly	as po	ssible to its original condition.		
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18. I hereby certify that the	informatio	n above is true and complete to the best of my knowledge and belief.		
		PROJECT SUPERVISOR		
SIGNED San	W//	GEOTHERMAL SERVICES, INC.	9/10	0/78
	1	11166	UMIE	
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	200	Lilung SENIOR PETROLEUM GEOLOGIST	9/9	0/78

CONDITIONS OF APPROVAL, IF ANY:

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DISTRIBUTION			·	P. O. Box 2088,	Sant	a Fe 87501	75		•
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N.M.B.M.	1			:		1 / A 10 / 10 / 10 / 10 / 10 / 10 / 10 /	فيهبدأ القبح عجو	STATE	
U.S.G.S. Operator	!		APPL	ICATION FOR PER	MIT	TO DRILL, DEEPEN	MMCO IN	5.a State Lo	FEE A
Land Office	-		OR PLU	G BACKGEOTH	ERM	AL RESOURCES WE	) [[[		
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1a. Type of Work Drill	DX.	) ·		Deepen		Plug Back 🗀		7. Unit Agr	eement Name
						-		None	<b>e</b>
			oducer 🔲			p Observation 🚨		8. Farm or l	Lease Name
Low-	Tem	p The	ermal $\square$	l	Injec	tion/Disposal 🗆		San	<u>Diego Grant</u>
2. Name of Operator								9. Well No.	
SUNOCO ENERGY	DE	VEL	OPMENT CO	RPORATION_	· ·			3-7	
3. Address of Operator			Di Cada	- 1500 Dol		g TV 75951			d Pool, or Wildcat
12700 Park Cer								None	
4. Location of Well UNIT L	ETT	E.R	<b>A</b> LOCAT	EDFEET_	FRO	M THE North	LINE		
AND 450 FEET FRO	ом т	ЫF	E LINE OF	SEC. <b>14</b> TWP.	17	N RGE. 2E	NMPM		
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					19.	Proposed Depth 19	A. Formatio		20. Rotary or C.T.
	777	7777			}	500 ft.	unkno	Т	rotary
21. Elevations (Show whether 7/00) 7100				& Status Plug. Bond		3. Drilling Contractor othermal Serv	ricos	22. Approx	x. Date Work will start e 15, 1977
77.00 7100	;(_1	GL.)	see_	note "A"	ue	othermar berv	TCCS	, oun	2 10, 1311
			, P	ROPOSED CASING A	ND C	CEMENT PROGRAM			
SIZE OF HOLE		SIZE	OF CASING	WEIGHT PER FOOT	Ť	SETTING DEPTH	SVCKS UE	CEMENT .	EST. TOP
5-1/8."	+	_	3/4"	1.14 lbs		500'		5	6" BGL
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·			•						
Prog	gran	n –	See attac	h <mark>ed</mark> "Standa	rd	Shallow Temp	eratur	e Gradi	ient
				Hole D	ri.	lling Program	111		
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11000	, ,,					rvation well			ond is in
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hereby certify that the informs	tion a	ove'	is true and comp	lete to the best of my	knov				
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sued	<del>/</del>	<u> </u>	<u> </u>	Title Uniel Ge	OTC	gist,Service	s, inc	ne ADI'	1977
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DNDITIONS OF APPROVAL, I	IF AN	۱۷: ۰	<i>)</i> ,						

#### GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

All distances must be from the outer boundaries of the Section. Well No. Operator Lease 3-77-7 Sunoco Energy Development Corp. San Diego Grant County Unit Letter Section Township Sandoval 2E 17N Actual Footage Location of Well: ine(projected) feet from the projected N line and 200 450 feet from the E Dedicated Acreage: Producing Formation Ground Level Elev. 7100' 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? .If answer is "yes," type of consolidation\_ ' Yes No 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. Hole #3-77-7 to be located: NE1/4NE1/4NE1/4, sec.14, T.17N, R.2E <u>Steve Quiett</u> Position <u>Chief Geologist</u> Geothermal Services, Inc. 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. 1329 1830 ipen 2319 1500 1000 500



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- 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 immediate of the global electric logs or reaching T.D. (3) see the negod).
  - a. Install and which we first length of pipe.
    (If using the start ght).
  - b. Steel pip with he was the air temperature is 40°F or locally as a library will not adhere.
  - c. Steel pipe per to be a set of calling fluid temperature assumpt: 100 % () (1. °C)
  - d. When pipe the idea to be 6" to 12"/ . 15cm to 50 m to own thread as proposare?
  - e. Fill pipe with LEA work (water that is oily or contain appears of the gasoline MUST NOT be used) don't had be used.
  - f. Set paper is a rail by idgo down open annulus at least problem be a mount level. Fill annulus with coment problems of cap on pipe.
- 8. Clean up location The Wall Gling
- 9. Any excavated pith any ample when be backfilled to conform to the original to be apply.
- 10. When temperature have leted, fill pipe with cement from 10 / 3 paid top of the, fill excavation to original ground to have a letter between the letter as nearly as possible to drig the andition.

NO. OF COPIES RECEIVED	NEW MEXICO OIL CONSERVATION COMMISSION	
DISTRIBUTION	P. O. Box 2088, Santa Fe 87501	•
File / /		
N. M. B. M.	SUNDRY NOTICES AND REPORTS	
U. S. G. S	ON WARRY	5. Indicate Type of Lease
Operator /	GEOTHERMAL RESOURCES WELLS	State L Fee
Land Office		5.8 State Lease No.
Do Not Use This Form for Proposals to Drill or to For Permit —" (Form G-101) for Such Proposals.)	Deepen or Plug Back to a Different Reservoir. Use "Application	
1. Type of well Geothermal Producer	Temp. Observation	7. Unit Agreement Name
Low-Temp Thermal	Injection/Disposal	None
2. Name of Operator		8. Farm or Lease Name
Sunoco Energy Develo	pment Corporation	San Diego Grant
	l., Suite 1500, Dallas, TX 75251	
4. Location of Well	1900	10. Field and Pool, or Wilocat
Unit Letter 5 700 F	eet From TheLine andFeet From	om None
N 15	Township 17N Range 2E NM	
The Line, Section	Township 1 1N Range 2C NM	PM. ////////////////////////////////////
111111111111111111111111111111111111111	. Elevation (Show whether DF, RT, GR, etc.)	12. County
	5900 G.L.	Sandoval
16. Check Appropri	ate Box To Indicate Nature of Notice, Report or Other	
NOTICE OF INTENTION TO:	· · · · · · · · · · · · · · · · · · ·	QUENT REPORT OF:
	ND ABANDON AREMEDIAL WORK	ALTERING CASING
TEMPORARILY ABANDON	COMMENCE DRILLING OPNS.	₹1
PULL OR ALTER CASING CHANGE		
• •		
	OTHER	
OTHER		
17. Describe Proposed or completed Operations (Comproposed work) SEE RULE 203.	Clearly state all pertinent details, and give pertinenet dates,	including estimated date of starting a
On 8/12/7	7 Hole No. 3-77-6 was spudd	led at <u>2:30</u> AM PM
. The hole was 7	r.D.'d on 8/15/77 @ 320 ' B	3GL
OK-Inspected		
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•		
	•	
		•
	·	
	•	
18. I hereby certify that the information above is tro	ne and complete to the best of my knowledge and belief.	- 1 <i>j</i>
SIGNED SUCCESSIONED	TITLE Chief Geologist	DATE 8 /13/77
The state of the s	Geothermal Services,	
APPROVED BY Carl Ulvon	SENIOR PETROLEUM GEOLOGIST	DATE 8/16/77
CONDITIONS OF APPROVAL, IF ANY:		

			•	1 2 1 2 1 2 1 2 1	3年3内里台	E-1 11 11	
NO. OF COPIES RECEI	VED 4	NE	EW MEXICO OIL CONS	ERVATION COMMISSION	مسلمه خسفهسد آجر	-(11)	
DISTRIBUTION			P. O. Box 2088,	Santa Fe 87501	Y -3 137	7	
File	1,				יכוט וו	[المالير]	
N.M.B.M.	1			. And Same	=	5. Indicate	Type of Lease
U.S.G.S.	1	APP	LICATION FOR PER	MIT TO DRILL, DEEPE	ERVATION	STATE [	FEE ]
Operator	1	ORPI	LIG BACKGEOTHE	ERMAL RESOURCES W	Canta re	5.a State Le	ease No.
Land Office			OG BAOK GEOTTI	IIIIAE IIEGOOIIGES W			
BLM	1						
1a. Type of Work	Drill X		Deepen 🗆	Plug Back - 🗀			eement Name
	Goothorma	l Producer 🔲		Temp Observation 🛣		None	
				Injection/Disposal		8. rarm or	Lease Name
	Low-Temp	Thermal $\square$		Injection/Disposar —		San	<u>Diego Grant</u>
2. Name of Operator					i	9. Well No.	-
SUNOCO ENER	CGY DEV	ELOPMENT C	CORPORATION			<u> </u>	<u>-77</u> >6
3. Address of Operator						10. Field and	d Pool, or Wildcat
	Centra	<u>ıl Pl., Sui</u>	te 1500, Dal	las, TX 75251		<u> </u>	<del></del>
4. Location of Well	NIT LETTE	R E LOCA	ATED 900 FEET	FROM THE West	LINE		
		* "					
AND 1800 FEET	T FROM TH	E N LINE OF	SEC. 15 TWP.	17N RGE. 2E	NMPM	777777	
						12. County	
			projected/			Sandova	al ())))))
	11111			19. Proposed Depth	19A. Formation	n	20. Rotary or C.T.
				500 ft.	unkno	wn	rotary
21. Elevations (Show wh	ether DF, R	T, etc.) 21A. Kit	nd & Status Plug. Bond	21B. Drilling Contractor.		22. Appro	x. Date Work will start
59	00 (G	L) see	e note "A"	Geothermal Ser	vices	June	e 15, 1977
			PROPOSED CASING A	ND CEMENT PROGRAM			**
SIZE OF HOLE	5	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
		``					
· P	rogram	- See atta	ached "Standa	urd Shallow Ten	meratur	e Gradi	ient
1	- 051 am	. 200 4000	Hole I	rilling Progra	ım <sup>11</sup>		
*	*_ 117	soction 1	ines project				
			<del>-</del>				•
N	ote A-	Type of b well or g	ond will be seothermal ob	\$10,000 multip servation well	le-well bond.	low-te	emperature ond is in

the process of being filed, and a bond number will be furnished as soon as available before operations mence.

APPROVAL INLESS

FOR 90 DAYS UNLESS DRILLING COMMENCED

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

true and complete to the best of my knowledge and belief.

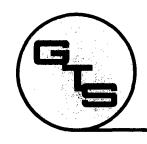
Geothermal
Title Chief Geologist, Services, Incpare

SENIOR PETROLEUM GEOLOGIST

GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

Operator			Leas				Well No.	· · · · · · · · · · · · · · · · · · ·
Sunoco Enc	ergy Deve	elopment (	Corp.	San Di	ego Grant	t	3-77	<b>'-6</b> .
Unit Letter	Section	Township		Range	County			
E	15	·	L7N	2E	Sa	andoval		· <u> </u>
Actual Footage Loca							(mma ia	(5a+a
90			ed W line and	1800	feet from the		line(proje edicated Acreage:	ctear
Ground Level Elev. 5900 1	1	g Formation	Pool					
·····		ne	11.1	None	1		None	Acres
1. Outline	the acreage de	dicated to the s	ubject well by co	lored pench of	nachule marks	on the plat be	iow.	
2. If more and roy:		e is dedicated t	o the well, outlir	ne each and ide	entify the own	ership thereof	(both as to working	ng interest
		se of different of ization, force-po		ted to the wel	l, have the int	erests of all ov	wners been consol	idated by
☐ Yes	□ No ·	If answer is "ye	s," type of conso	lidation				
		• •						
If answer is necessary.) _	"no," list the	e owners and tr	act descriptions v	vhich have actu	ially been con	solidated. (Use	reverse side of th	is form if
							mmunitization, us by the Commission	
roiced poen	ng, or otherwi	30) OF UNIT 4 110	. Standard direct		,, ,	-FF		
				1	7		CERTIFICATION	
		÷	•	1			CERTIFICATION	
	- 1,	•		i	* :	1	certify that the in	
	1			1			erein is true and con	
	Hole	e #3-77-6	to be loca	ited:		the best of	my knowledge and b	ener. I
	1		L/4, sec.15	1	.2E	1 to	Due	#
	+	_ `_ `				Name	0	4
	_ 1 -			1		Position	Quiett	
į (	3			1	1	1.	Geologist	
	I			. 1	ĺ	Company	40010810	
	1			l E		Geothern	nal Service	es, In
	i i			j		Date	00 1000	
	1			1	ł	April	26, 1977	
	<del></del>			1 .		_		
	,			1		I hereby ce	ertify that the well	location
	l				ł	shown on th	nis plat was plotted f	rom field
	j.		•		į	notes of ac	tual surveys made b	oy me or
	!			i I		1	upervision, and that	
	l			i	)	j	correct to the bes	st of my
	l		دسر	1		k nowledge a	na pellel.	Ţ
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	, }			1		Date Surveyed		
	1			1		Registered Profe	essional Engineer	
	1			ì		and/or Land Su		
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	!			!				
Feet . Married . Francisco						Certificate No.		
· 31 /62 6	5 1326 leno	1980 2310 264	9 2000	1000	500 D	1		



7860 CONVOY COURT, SAN DIEGO, CALIFORNIA 92111 • (714) 565-4712



- 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 immediate there is a gleetric logs or reaching f.D. (if the is ged).
  - a. Install we write the first length of pipe.

    (If using the pipe and each joint with tellowing the poster watertight).
  - b. Steel pipe and be pain then air temperature is 40 For this, and we coment will not adhere.
  - c. Steel pipe the beautifully fulling fluid temperature countries that If you're.
  - d. When pipe there the must be end of 12"/ 15cm to 36 to power and level. (Cut and thread as the argent argents)
  - e. Fill pipe then LEAR JETHR (water that is oily or contain) repents then as goodline MUST NOT be used) (a) lighted to the bound seal.
  - f. Set poor for religious down open annulus at least with belong being sund towel. Fill annulus with comes of the religious cap on pipe.
- 8. Clean up location + FifGUI.
- 9. Any excavated pitr in emps of the backfilled to conform to the original to have ships.
- 10. When temperature we had are a leted, fill pipe with cement from 10'/5000 (cp'c) had, fill excavation to eniginal ground top stocky but restore location as nearly as possibly by high condition.

N. C. C. C. C. 1975年

NO. OF COPIES RECEIVED	NEW MEXICO OIL CONSERVATION COMMISSION	
DISTRIBUTION	P. O. Box 2088, Santa Fe 87501	
File /		
N. M. B. M.	SUNDRY NOTICES AND REPORTS	
U. S. G. S	ON TO STATE OF THE ONE	5. Indicate Type of Lease
Operator /	GEOTHERMAL RESOURCES WELLS	State Fee [
Land Office	GEOTHERWAL RESOURCES WELLS	5.a State Lease No.
	s to Drill or to Deepen or Plug Back to a Different Reservoir. Use "Application	
For Permit —" (Form G-101) for Su		7. Unit Agreement Name ·
1. Type of well Geothermal P		
Low-Temp Th	nermal L Injection/Disposal L	None  8. Farm or Lease Name
2. Name of Operator	r Development Componetion	:
	y Development Corporation	San Diego Grant
3. Address of Operator 12700 Park C	entral Pl., Suite 1500, Dallas, TX 75251	9. Well No. 3-77-12
4. Location of Well		10. Field and Pool, or Wilocat
Unit Letter Ga	400 Feet From The E Line and 2400 Feet From	None
}		
The N Line Sect	ion 28 Township 17N Range 2E NMPI	
Zwe, see		
	15. Elevation (Show whether DF, RT, GR, etc.)	12. County
	5700 GL	Sandoval ()
16. C	neck Appropriate Box To Indicate Nature of Notice, Report or Other I	Data
•	1	
_		JENT REPORT OF:
PERFORM REMEDIAL WORK		ALTERING CASING
TEMPORARILY ABANDON L	COMMENCE DRILLING OPNS.	PLUG & ABANDONME
PULL OR ALTER CASING L	CHANGE PLANS L CASING TEST AND CEMENT JO	DB LJ
•	OTHER	
OTHER		
OTTICK		
17. Describe Proposed or completed	d Operations (Clearly state all pertinent details, and give pertinenet dates, in	cluding estimated date of starting a
proposed work) SEE RULE 203	<u>.</u>	
	0/01	2.22
On	8/9/77 Hole No. 3-77-12 was spudde	ed at <b>9:00</b> (AM) PM
. The ho	ole was T.D.'d on <u>8/12/77</u> @ <u>280</u> ' BG	$\mathbf{L}$
01	T. D	
0K - J	repleted	-
	V	
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-	•	
	•	
•		
	,	
	•	
18. I hereby certify that the informa	tion above is true and complete to the best of my knowledge and belief.	
1 to		0/17/77
SIGNED W	TITLE Chief Geologist	DATE 0 /13/ ( )
	A Geothermal Services,	Inc.
A N	a parableum centaciet	· 4/11/
APPROVED BY Carl U	TITLE SENIOR PETROLEUM GEOLOGIST	B/16/77
CONDITIONS OF ADDOCAL IS A	$\mathcal{O}$	
CONDITIONS OF APPROVAL, IF A		

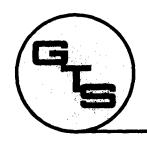
~ <u>_</u>		· ·					WALV.		Form ( Adopte	G-101 ed 10/1,
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N.M.B.M.	1.1						stryation	5. Andicate	Type of Lease	
U.S.G.S.	/		APPL	ICATION FO	OR PERMI	T TO DRILL, DEEF	ENata Fe	31AIL L		EE X
Operator	/					MAL RESOURCES	20	5.a State L	ease No.	
Land Office								111111	mmm.	7777
BLM	F			,			•			////
	- N	<i>7</i> 1				Diver De de		7. Unit Agr	eement Name	7777
1a. Type of Work	Drill 2	<b>L</b> )		Deepen 🗆		Plug Back 🖸	٠.	Non	•	•
b. Type of Well	Geotheri	mal Producer				mp Observation 🕺	]		Lease Name	
	Low-Ten	np Thermal			Inje	ction/Disposal ==	]	San	Diego Gra	int
2. Name of Operator	·			, , , , , , , , , , , , , , , , , , ,				9. Well No.	,	
SUNOCO ENE	RGY DI	EVELOPME	NT CC	RPORATI	ON			3-77		
3. Address of Operator					D 11	WV 5505			d Pool, or Wildcat	
12700 Park	<u>Centr</u>	ral Pl.,	Suit	e 1500,	ратта	as, TX 7525	)T .	Non	e 	777
4. Location of Well *	UNIT LET	TERG_	_LOCAT	ED <b>2400</b> _	_FEET FR	ом тне ${f East}$	LINE			
AND 2400 FE	ET EDOM	THE N L	INIT OF	22	wp. <b>17</b>	N RGE. 2E	NMPM			
	77777	111111	1111	777777	Trin	N RGE. 2E		12. County		HH,
			r,0'1,6¢	<b>:</b> \$ <b>\$</b> \$////				Sandov	al IIIII	////
	<i>      </i>	<i>                                      </i>	1111	<i>       </i>	11111		///////			1111
										<u> </u>
					111133	Proposed Depth	19A. Formati		20. Rotary or C.T.	:
					11111	500 ft.	unkn		_ rotary	
21. Elevations (Show w <b>570</b>	. ^	(GL)		& Status Plug note "A		B. Drilling Contractor		22. Appro June	x. Date Work will s $15,\ 1977$	tart
	٠		see_	110 CC 1	<u></u>		71 12000			
			P	ROPOSED CA	SING AND	CEMENT PROGRAM		•	•4	
SIZE OF HOLE		SIZE OF CA	SING	WEIGHT PE	R FOOT	SETTING DEPTH	SACKS O	F CEME <b>NT</b>	EST. TOP	
5-1/8."		3/4"		1.14	lbs.	500'		. 5	6" BGL	
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	Progra	m- See	attac	ched "St	andard	l Shallow Te	mperatu:	re Gradi	lent	
•				Но	le Dri	lling Progr	'am''			
•	**- Al	l secti	on li	nes pro	jected	l .				
	Note A	- Type	of bo	nd will	be \$1	0,000 multi	ple-wel	l low-te	emperatur <mark>e</mark>	:
		well	or ge	otherma	l obse	ervation wel	l bond.	The bo	ond is in	
,						led, and a				
		furni	shed	as soon	as av	ailable bef	ore ope			
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		<b>4</b> .						FOR 90 DA	OLLMENCED.	
				نتنا	>	•		DRILLING C	OMMENCED,	
		•		$\mathcal{N}_{\mathcal{N}}$				8/1	1/77	•
AROVE SPACE DESC	יפופר מסס	יייייי שויייי	D A M. 14	avanaent ie ta	deeper or 1	olug back, give data or	EXP			
	nter progra			proposal is to	Geepen of )	ones back, give data of	- Present broad	CLIVE ZONE AND	new pro	ouctive
ereby certify that the i	nformation	above is true :	d comp	elete to the bes	st of my kn	owledge and belief.				
and Alton	$\sqrt{}$	w 83/	<b>/</b>	mu. Chio	f Cool	Geoth <u>ogist,Servi</u>		٨	1 ne iomm	,
		- my		Title CILLE	1 0601	OSTOPORT VI	1110	oa te _Apr1	1 20, 1977	
(This s	pace for Sto	ne Usej		•						

SENIOR PETROLEUM GEOLOGIST

DATE 5/13/77

#### GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

All distances must be from the outer boundaries of the Section. Well No. Operator Lease San Diego Grant Sunoco Energy Development Corp. 3-77-12 Township Range County Unit Letier Section Sandoval 17N 2E Actual Footage Location of Well: 2400 line(projected) feet from the projected E line and 2400 feet from the N Dedicated Acreage: Producing Formation Ground Level Elev. 5700' None None 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 If answer is "yes," type of consolidation\_\_\_\_ ☐ No 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 Hole #3-77-12 to be located: contained herein is true and complete to the best of my knowledge and belief. SW1/4SW1/4NE1/4, sec.28, T.17N, R.2E <u>Steve Quiett</u> Position Chief Geologist Geothermal Services, Inc. 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 knowleåge and belief. Date Surveyed Registered Professional Engineer and/or Land Surveyor Certificate No. 1320 1650 1985 2310 2000 1500 1000



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- 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 <u>CLEAN WATER</u> (water that is oily or contains solvents such as gasoline <u>MUST NOT</u> 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.