GTLT - \_\_\_\_\_7\_\_\_

# (26&35)-24S-20W Chevron U.S.A. Inc. (Hidalgo County)

177-L(PA) & 477-O(PA)

TITLE Attorney-In-Fact	5/2/78 
	- 10 170
	•
the surface. The remaining void was filled with a cement, and the gr smoothed. Exact date of abandonment is not available.	
Hole was abandoned by filling with drilling mud and cuttings to within	
ý.	
7. Describe Proposed or completed Operations (Clearly state all pertinent details, and give pertinenet dates, incl proposed work) SEE RULE 203.	uding estimated date of starting an
OTHER	
OTHER	
TUIL OR ALTER CASING L. CHANGE PLANS L. CASING TEST AND CEMENT JOE	
EMPORARILY ABANDON COMMENCE DRILLING OPNS.	PLUG & ABANDONNIUM
REGRM REMEDIAL WORK PLUG AND ABANDON REMEDIAL WORK	ALTERING CASING
Check Appropriate Box To Indicate Nature of Notice, Report or Other Day  NOTICE OF INTENTION TO:  SUBSEQUE	
Cheek Appropriate Pay To Indicate Nature of Nation Payart or Other D	Hidalgo
15. Elevation (Show whether DF, RT, GR, etc.)	12. County
The W Line, Section 26 Township 24S Range 20W NMPM.	
. Location of Well	10. Field and Poot, or Wildcat Wildcat
P.O. Box 3722, San Francisco, CA 94119	177
Chevron U.S.A. Inc.	Mahen  9. Well No.
Low-Temp Thermal L.J. Injection/Disposal L.J Name of Operator	8. Farm or Lease Name
Type of well Geothermal Producer Temp. Observation  Low-Temp Thermal Injection/Disposal	7. Unit Agreement Name
.o Not Use This Form for Proposals to Drill or to Deepen or Plug Back to a Different Reservoir. Use "Application or Permit =" (Form G-101) for Such Proposals.)	
	THURHITHE
_and Office	5.a State Lease No.
inerator / GEOTHERMAL RESOURCES WELLS	State
J. S. C. S ON	5. Indicate Type of Lease
Y. M. B. M. SHNDRY MOTICES AND REPORTS	JUN 29 137
I L SUNDRY NOTICES AND REPORTS	Bent Market

ONDITIONS OF APPROVAL, IF ANY:

	5 4			XICO ÖIL COM O. Box 2088							
File.		2	٠.	0. 00% 2000	, Juit	a ic 0/50	) <b>i</b>		Form G-	101	
H.H.B.M.	-		ሊወወ፤ ፕሮጀ	ATTAN Edo oca	 אד דונו	notil	กตักกาม		SA. Incidet	,	Lesso ree [A
U.S.G.S. Operator	<u>;</u> - -		OR PLU	NTION FØR PER G BACK-1-GEOT	HERMAL	RESOURC	ES WEL		.5. State Les		
Land Office	L_L			G BACK-4-GEOT	UV 1	1 1977			irrirr	~~~	
				911 00.	-L.,	E SERVI	₿				
d. Type of Work	Drill [	x]	D	eepen []	C-	Plug"Ba	ick [	]	7. Unit Agre	rement Na.	ne ne
				] 1					8. Form or L	موموص	c
CHEVRO	N U.S.A	A. INC	• .						9. Well No.	177	
3. Address of Operator	Р.	.O. Bo	x 3722	San Franc	isco,	Ca. 941	.19		10. Field an	d Pool, o	Wildest
4. Location of Well	IT LETTER_	L		1500 ·	_ TEET FR	ом тн <u>е:</u>	······································	_LINE			
900	ET FROM THE	W	Lin	26 E OF SEC.	TWP.	24S	20W	HM2M			
									12. County Hidal	go	
					] !	posed Depth:				Rota	
21. Ulevations (Show who 4170!	ether DF, RT	, etc.)	21A. Kind	& Status Plug. Bond	121B. D.	illing Contract  named	later		22. Approx 12-	Date Wo.	₹ will stc.
1:3,		*	Р	ROPOSED CASING	AND CEME	ENT PROGRAM	Å	<del></del>			
SIZE OF HOL	E S	IZEOF	CASING	WEIGHT PER FO	OT SE	TTING DEP	TH SAC	KS OF	CEMENT	ES	st. Top
						···					
	·									· · · · · · · · · · · · · · · · · · ·	
			·		•				1		
Plan o	f Opera	ation A	Attach	ed	ř				*. *		•
									•	·	
				• .				٠,			
·							٠				
		•					•				
						en e	<b>5</b>				
	•				•					•	
		•									
H ABOVE SPACE DESCRIVE ZONG, CIVE BLOWOUT	PHEVENTER P	PROCHEM, 35	A 14 Y .	PROPOSAL IS TO DEEPE		·	A ON PREDS	ENT PAOC	DUCTIVE ZONE	AND PROPE	SED NEW P
hereby certify that the I	nformation s	bove ls tru	ടേമർ തെനു	lete to the best of m							
rened_ (/. 15	uine	<u></u>		Title_Attorn	ey-In-	-Fact	-	D	10-	3-77	
Vilhiasi	sace for Stat	e Use)					The second secon				-

SUPPOSED BY Carl Ulvag

SENIOR PETROLEUM GEOLOGIST

DATE 1-13-78

#### CHEVRON RESOURCES COMPANY

#### PLAN OF OPERATION

#### SHALLOW TEMPERATURE GRADIENT HOLES

EXH.	TRTT	"A"

#### 1. Description of the Operation

The Shallow Temperature Observation Hole Program, as conducted by the Chevron Resources Company, requires the drilling of 250-500 foot holes with a diameter of 4-3/4 to 5-3/8 inches. The number of holes will vary with the size of the area to be evaluated. These holes will be drilled by a state licensed drilling contractor using a truck mounted drill rig. The mud-out temperature will be monitored continually during the actual drilling.

Once each hole is completed a l inch (I.D.) black steel pipe, sealed at the bottom, will be placed in the hole with the top being 8-12 inches from the ground surface. The pipe is then filled with water and capped. The hole is then back-filled with cuttings and/or drilling mud to within 10 feet of the surface. The remaining void is then filled with cement.

As necessary, the pipe is unearthed and a temperature probe is lowered to total depth. Once the series of temperature logs is completed, the pipe is then filled with cement and buried. The ground surface is then smoothed and returned to as nearly as practical to pre-drilling condition.

The drilling operations will be suspended if the mud-out temperature reaches 125°F and cannot be lowered or stabilized with the addition of well-head or cooling devices. The hole will then be completed as a temperature gradient hole or abandoned.

The drilling operations will also be suspended if flowing hot water or steam at 150°F or more is encountered. The hole will then be completed as a temperature gradient hole by placing 1 inch (I.D.), black, steel pipe to total depth and cementing from total depth to surface. If the hole is to be abandoned it will be plugged with cement from total depth to surface.

If cold artesian flow is encountered the hole will be completed or abandoned as described in the paragraph above.

The equipment fordrilling, as well as the drill rig, consists of a water truck and a light pickup truck. The temperature probe consists of a thermometer or thermister device on the end of a wire line and a small tripod-mounted wheel for lowering the probe down the hole.

2. The following plan of operations as required by Section 270.34 of the Federal Regulations for Geothermal Operations on public acquired and

withdrawn lands, covering paragraphs (a) through (h), is submitted pursuant to Section 270.78:

- (a) The hole locations, lease numbers (Exhibit "B") and outline of a typical drill site layout (Exhibit "C") are attached.
- (b) No new roads will be constructed for this operation. Access to area of operations will be along existing roads.
- (c) No water sources on federally administered lands will be developed and no road building material will be used.
- (d) Campsites, airstrips or other supporting facilities will not be required.
- (e) Minimal access scars, limited mainly to tire impressions, may occur during the course of drilling the hole. All such disturbances will be restored as nearly as possible to pre-drilling condition. All materials will be removed from the area once the hole is completed.
- (f) Topographic features of the drill site areas and drainage can be observed from the attached map (Exhibit "B").
- (g) If drilling mud or foam are used they will be contained by portable steel containers. When the hole is completed, the mud residue will be dried and spread on the ground surface.
- (h) The Chevron Resources Company will use all reasonable precautions to prevent waste of geothermal resources and other natural resources found in the area. At all times during operations the following precautions will be taken:

Traffic will be light and only when necessary. Light pickups will be used whenever possible. To the extent possible, only existing roads, fence lines or jeep trails will be used.

Site preparation will be limited to driving the truck-mounted drill rig to the site and setting it up for drilling.

Since the topography is not severe, the construction of drill pads will not be required.

All vehicles will be equipped with spark arresters and will carry the required fire-fighting equipment and all adequate fire protection measures will be taken to prevent any damage from fire.

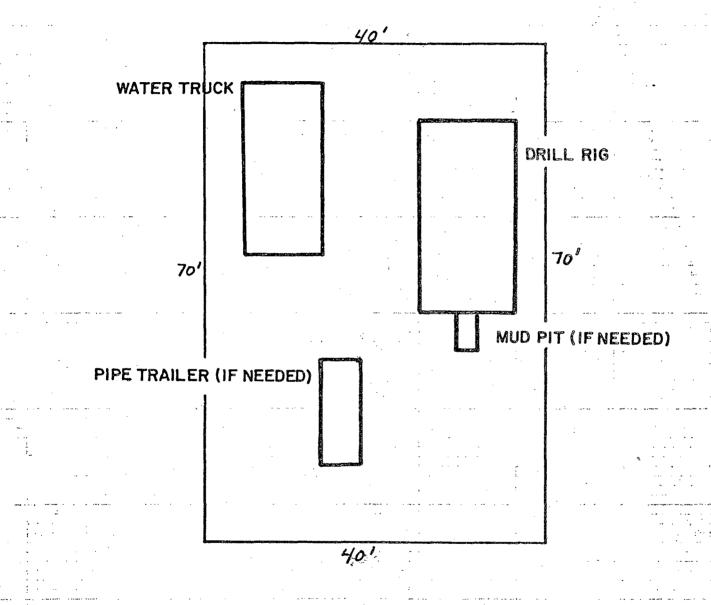
No water or other material will be pumped onto the surface of the ground which might result in soil erosion. Appropriate care will be taken so that natural drainage will not be affected and so that no pollution can occur to surface or ground water.

Geothermal operations will have no material impact on fish and the

disturbance of wildlife and vegetation in the area will be minor due to the short duration of operations and the limited number of personnel comprising the field crews. No significant damage or destruction of vegetation will occur and unavoidable dislocation of wildlife will be short term only.

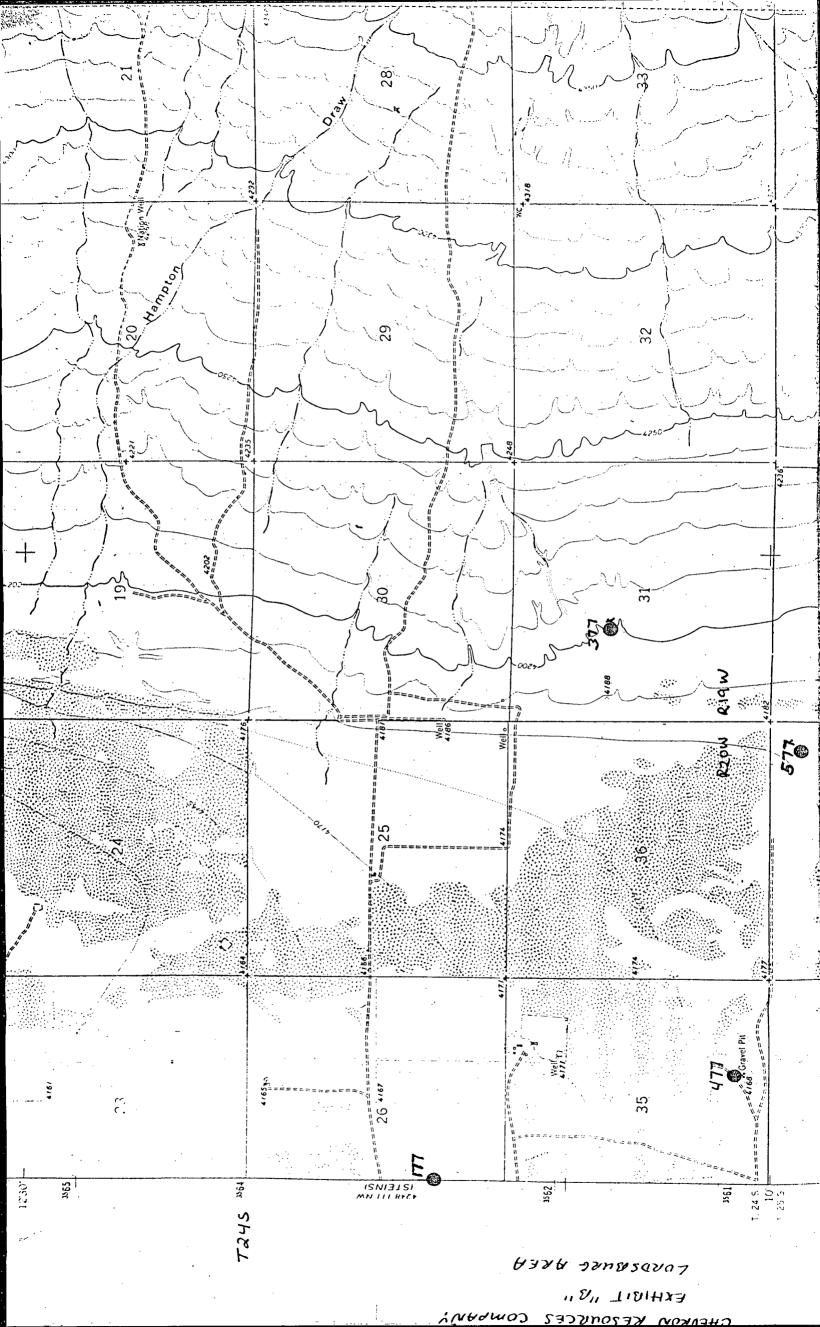
Mufflers and other available devices will be used on all vehicles to control noise pollution. Minor air pollution will occur from vehicle exhaust, but all feasible measures will be used to control this pollution, in compliance with applicable laws, rules and regulations. Minor air pollution will occur from dust caused by vehicle traffic on dirt roads. Since this pollution is dependent upon natural road conditions and is temporary it therefore has no significant affect on the areas environment.

There will be very little hazard to public health and safety due to the lack of population in the area. All such hazard is confined to the crew or the rig. All appropriate safety measures and equipment will be utilized.



SCHEMATIC OF SHALLOW TEMPERATURE HOLE DRILL SITE

EXHIBIT "C."



Certificate No.

NEW MEXICO OIL CONSERVATION COMMISSION

GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT All distances must be from the outer boundaries of the Section Well No. CHEVRON U.S.A. INC. 177 Township T245 fret from the line and Grand Lyvel Flay. Productny Formation Dedicated Accord 4170 1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plut 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? 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 comtained herein is true and complete to the best of my knowledge and belief. <u> Attornev-in-Fact</u> Chevron U.S.A. Inc. Date Janua #y 31, 1978 I hereby certify that the well location shown on this plat was platted 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. Data Surveyed Registered Professional Engineer end/or Land Surveyor

ore

## GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

		All distances mu		ster boundaries o	( the Saction.	The state of the s	·	
CHE CHE	VRON U.S.A. 1		Linana	M. MAHEN		AR 02	1978 W-	177
Unit Letter	26	Township T24S	Hote	R20W	County	HIDALGO		<i>. </i>
7. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	ation of Well:	S ,	ne æid	900	et from the	C. W 3		
11701 41701	Producting Fo		Ponl	I e	เกร		line Dedicated	
1. Outline the	e acreage dedic	tated to the subje	ect well by co	olored pencil	or hachure	marks on th	ie plut be	
2. If more the interest an		s dedicated to the	e well, outline	e each and id	entify the (	ownership ti	hereof (bc	oth as to work
		different ownershi unitization, force-			, have the i	interests of	all owne	ers been consc
Yes	☐ No If a	answer is "yes," t	type of consol	idation				**
		owners and tract	t descriptions	which have a	ctually bee	en consolida	ated. (Úse	e reverse side
No allowab		ned to the well un						
forced-pool sion.	ing, or otherwise	e) or until a non-st	undard unit, e	uminating su	ch interest	e, has been	approvec	d by the Comm
	1	1	/	<del>/</del>	1		CERTIFIC	CATION
/				i i		1	· ·	the Information c
	/	<b>/</b>   .		/		i		and complete to a and belief.
			_			Nemp	1	
			/	1	/	Position	M. Tu	mer
/						1 (/	ttorney-	-in-Fact
	! /					Ch	,	J.S.A. Inc.
				/			anta Fy 3	31, 1978
	/			1		I hereby	certify tha	at the well locati
/	!			/		shown on	this plat we	ros plottad from fil veys made by ma
	/	/				under my :	supervision, and correct	r, and that the sa to the best of
/		/_		<u> </u>		knowledgi	e and belief.	<b>f.</b>
	/					Date Surveye	ed ed	
/				/		Registered F		I Engineer
		/				Registered Pand		पुरसाववर
/			North State of the	1		Cortliterate N	40.	
310 850	90 1320 1850 10	980 2310 2540	2000 1500	1000	200 0			

## GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

All distances must be from the outer boundaries of the Section AR U 2 1978 1 miles Louis CHEVRON U.S.A. INC. M. MAHEN Township CHIDALGO 26 T245 R20W Location of Well; S 900 test from the line and feet from the Count Level Liev. Producing Formation Dedicated Acreage: 41701 Acre a 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 consoliduted by communitization, unitization, force-pooling. etc? 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. Attornev-in-Fac Chevron U.S.A. Inc. January 31, 1978 I hereby certify that the well location shown on this plat was platted 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. Data Surveyed Registered Professional Engineer and/or Land Surveyes Certificate No.

1850

1980

2000

1500

Grant Lyvet Llev.

41701

sion.

210

1980

2000

1980

2000

1500

500

			, ,	S 27	44.4	
D. OF COPIES RECEIVED	N		ERVATION COMMISSION	the second	white was the second	
DISTRIBUTION		P. O. Box 2088, 9	Santa Fe 87501	t III:	N 29 1978	``
ile	1 1			. 00.	1010	
. M. B. M.		SUNDRY NOTICES	S AND REPORTS	·		
. s. G. s		ON	J	i where	5. Indicate Typ	
perator	/	GEOTHERMAL RES	SOURCES WELLS		State L	l'ee
and Office					5.a State Lease	No.
o Not Use This Form for Pr or Permit —" (Form G-101)		eepen or Plug Back to a D	Different Reservoir. Use "A	opplication		
Type of well Geothe	rmal Producer	Temp. Observation			7. Unit Agreem	ant Name
Low-Te	emp Thermal	Injection/Disposal				
Name of Operator			Maria and a second seco		8. Farm or Lea.	se Name
Chevron U.S.A.	Tnc.				Kerr	
Address of Operator					9. Well No.	
P.O. Box 3722,	San Francisco.	CA 94119			477	
Location of Well	341 114114	<u> </u>		···-	10. Field and P	ool, or Wildeat
	700Fe	et From The S	Line and 1950	_Feet From		177777
TP.	25	Olia	201.1	į		
The E Lin	e, Section <u>55</u>	Township <u>24S</u>	Range <u>∠UW</u>	NМРМ.		
777777777777	· · · · · · · · · · · · · · · · · · ·	Elevation (Show whether	DE DT CR atc.		12. County	77/1//////
	///////////////////////////////////////					
	7/////////	4175	(Ground)		Hidalgo	VIIII
o.	Check Appropria	te Box To Indicate Na	iture of Notice, Report of	or Other Da	ta	
NOTICE	OF INTENTION TO:			SUBSEQUE	NT REPORT OF:	
REORM REMEDIAL WOR	K PLUG AN	D ABANDON	REMEDIAL WORK	The state of the s	STATE OF THE PERSON NAMED IN	ING CASING
MPQRARILY ABANDON		•	COMMENCE DRILLIN	IG OPNS	L	& ABANDONA
	[·····]	p	TOURIST DITTELL		1200	2 ABANOON
ILL OR ALTER CASING	L. CHANGE	PLANS	CASING TEST AND C	EMENT IOR		
JLL OR ALTER CASING	LJ · CHANGE	PLANS L	CASING TEST AND C	EMENT JOB		
JLL OR ALTER CASING	LJ · CHANGE	PLANS L	CASING TEST AND C		<del>-</del>	
JLL OR ALTER CASING					<del>-</del>	
OTHER	mpleted Operations (C		OTHER			
OTHER  Describe Proposed or co proposed work) SEE RUI  Hole was abando the surface. T	ompleted Operations <i>(C</i> LE 203. ned by filling he remaining vo	learly state all pertinent with drilling m	details, and give pertinene tud and cuttings to the a cement, and	t dotes, inclu	nding estimated a	ate of starting
OTHER  Describe Proposed or co proposed work) SEE RUI  Hole was abando the surface. To	ompleted Operations <i>(C</i> LE 203. ned by filling he remaining vo	with drilling moid was filled w	details, and give pertinene tud and cuttings to the a cement, and	t dotes, inclu	nding estimated a	ate of starting
OTHER  Describe Proposed or co proposed work) SEE RUI  Hole was abando the surface. To	ompleted Operations <i>(C</i> LE 203. ned by filling he remaining vo	with drilling moid was filled w	details, and give pertinene tud and cuttings to the a cement, and	t dotes, inclu	nding estimated a	ate of starting
OTHER  Describe Proposed or co proposed work) SEE RUI  Hole was abando the surface. T	ompleted Operations <i>(C</i> LE 203. ned by filling he remaining vo	with drilling moid was filled w	details, and give pertinene tud and cuttings to the a cement, and	t dotes, inclu	nding estimated a	ate of starting
OTHER  Describe Proposed or co proposed work) SEE RUI  Hole was abando the surface. To	ompleted Operations <i>(C</i> LE 203. ned by filling he remaining vo	with drilling moid was filled w	details, and give pertinene tud and cuttings to the a cement, and	t dotes, inclu	nding estimated a	ate of starting
OTHER  Describe Proposed or co proposed work) SEE RUI  Hole was abando the surface. To	ompleted Operations <i>(C</i> LE 203. ned by filling he remaining vo	with drilling moid was filled w	details, and give pertinene tud and cuttings to the a cement, and	t dotes, inclu	nding estimated a	ate of starting
OTHER  Describe Proposed or co proposed work) SEE RUI  Hole was abando the surface. To	ompleted Operations <i>(C</i> LE 203. ned by filling he remaining vo	with drilling moid was filled w	details, and give pertinene tud and cuttings to the a cement, and	t dotes, inclu	nding estimated a	ate of starting
OTHER  Describe Proposed or co proposed work) SEE RUI  Hole was abando the surface. To	ompleted Operations <i>(C</i> LE 203. ned by filling he remaining vo	with drilling moid was filled w	details, and give pertinene tud and cuttings to the a cement, and	t dotes, inclu	nding estimated a	ate of starting
OTHER  Describe Proposed or co proposed work) SEE RUI  Hole was abando the surface. To	ompleted Operations <i>(C</i> LE 203. ned by filling he remaining vo	with drilling moid was filled w	details, and give pertinene tud and cuttings to the a cement, and	t dotes, inclu	nding estimated a	ate of starting
OTHER  Describe Proposed or co proposed work) SEE RUI  Hole was abando the surface. To	ompleted Operations <i>(C</i> LE 203. ned by filling he remaining vo	with drilling moid was filled w	details, and give pertinene tud and cuttings to the a cement, and	t dotes, inclu	nding estimated a	ate of starting
OTHER  Describe Proposed or co proposed work) SEE RUI  Hole was abando the surface. To	ompleted Operations <i>(C</i> LE 203. ned by filling he remaining vo	with drilling moid was filled w	details, and give pertinene tud and cuttings to the a cement, and	t dotes, inclu	nding estimated a	ate of starting
OTHER  Describe Proposed or co proposed work) SEE RUI  Hole was abando the surface. T	ompleted Operations <i>(C</i> LE 203. ned by filling he remaining vo	with drilling moid was filled w	details, and give pertinene tud and cuttings to the a cement, and	t dotes, inclu	nding estimated a	ate of starting
OTHER  Describe Proposed or co proposed work) SEE RUI  Hole was abando the surface. To	ompleted Operations <i>(C</i> LE 203. ned by filling he remaining vo	with drilling moid was filled w	details, and give pertinene tud and cuttings to the a cement, and	t dotes, inclu	nding estimated a	ate of starting
OTHER  Describe Proposed or co proposed work) SEE RUI  Hole was abando the surface. To	ompleted Operations <i>(C</i> LE 203. ned by filling he remaining vo	with drilling moid was filled w	details, and give pertinene tud and cuttings to the a cement, and	t dotes, inclu	nding estimated a	ate of starting
OTHER  Describe Proposed or co proposed work) SEE RUI  Hole was abando the surface. To	ompleted Operations <i>(C</i> LE 203. ned by filling he remaining vo	with drilling moid was filled w	details, and give pertinene tud and cuttings to the a cement, and	t dotes, inclu	nding estimated a	ate of starting
OTHER  J. Describe Proposed or co proposed work) SEE RUI Hole was abando the surface. To smoothed. Exac	mpleted Operations (C LE 203. ned by filling he remaining vo t date of aband	with drilling moid was filled was forment is not	details, and give pertinene tud and cuttings to the a cement, and	t dates, inclu	nding estimated a	ate of starting
OTHER  J. Describe Proposed or co proposed work) SEE RUI Hole was abando the surface. To smoothed. Exac	mpleted Operations (C LE 203. ned by filling he remaining vo t date of aband	with drilling moid was filled was forment is not	details, and give pertinene and and cuttings that a cement, and available.	t dates, inclu	nding estimated a	ate of starting
Describe Proposed or coproposed work) SEE RUI Hole was abandon the surface. To smoothed. Exact	mpleted Operations (C LE 203. ned by filling he remaining vo t date of aband	with drilling moid was filled was forment is not	details, and give pertinent and and cuttings that a cement, and available.	t dates, inclu	nding estimated a	ate of starting

ONDITIONS OF APPROVAL, IF ANY:

NO. OF COMIES SICIL	V I, D			KICO DIE C						
NOLTUBERTALD			Р.	0. Box 20	188, Sa	ınta Fe 87	501			
rile.	1						•		Form G-	
N.M.B.M.			•			•	الماسيدية			Type of Leone
U.S.G.S.			APPLICA	VTION FOR A	PERMIT	TO DRÍLL,	DEEPEN	>	STATE	FCE X
Operator			OR PLUG	G BACKGE	EOTHER	MAL RESOUR	CES WEL		S. Stale Lea	se Ma.
Land Office						1	1:0V 14	1911		
·							1.04 -	_ [		
						Ċ.		10 . C		
a. Type of Work	Drill			eepen []		Pilug			7. Unit Agre	ement Name
b. Type of Well	Geothe Low-Te	ermal P emo The	roducer rmal [		Ter	mp.Observa rtion/Dism	tion [X		8. Form or L. E.L. Ke	
. Name of Operator								J	9. Well No.	
		C)	HEVRON I	U.S.A. IN	Ċ.	,			477	
3. Address of Operator	P.O. I	Box 37		Francisc	0				10. Field and	i Pool, or Wildcet
. Location of Well	UNIT LETTER	,	Loc	700	FEE	T FROM THE		_LINE }		
.,,1950	PECT FROM T	гне Е		5 OF SEC. 35	7 W T	24S	20W	нмэм		
									12: County Hidalgo	
<i>\</i>	+++++	444	4444	HHHH	777	++++++	4444	777	minm	:/://///////
<i>```</i>	<i>}}}}}</i>	+++++	HHH	HHHH	15.	Proposed Depth	19A. F	ormation	777777	20, Hotay or C.T.
						500'				Rotary
il. Llaveilons (Show n	hether Dr. 1	(1), e.c.)	21A. Kind	A States Plug. B	iond 210	B. Drilling Contro	ctor .		22. Approx	Date Work will store
4175'			1			be named		· -	12-	1-77
23.			- <del></del>	2022152 615					.1	
			P	ROPOSED CASIN	NG AND (	EWENT PROCE	AM			•
SIZE OF HO	LE .	SIZE OF	CASING	WEIGHT PER	FOOT	SETTING DE	PTH SAC	KSOF	CEMENT	EST. TOP
			÷							
	1			ļ						
	•			•		•	•			,
P	lan of	opera	tion at	tached						
									•	
	٠.		÷							
	٠.									•
			·			·				
						·				
							a			
		٠.								
							· ·			

MPROVED BY Carl Ulvag

SENIOR PETROLEUM GEOLOGIST

Title Attorney-In-Fact

DATE 1-13-78

10-3-77

#### CHEVRON RESOURCES COMPANY

#### PLAN OF OPERATION

#### SHALLOW TEMPERATURE GRADIENT HOLES

EXH	TR	ΤŢ	7 8	A 86
$r_i \wedge r_i$	ın			Α.

### 1. Description of the Operation

The Shallow Temperature Observation Hole Program, as conducted by the Chevron Resources Company, requires the drilling of 250-500 foot holes with a diameter of 4-3/4 to 5-3/8 inches. The number of holes will vary with the size of the area to be evaluated. These holes will be drilled by a state licensed drilling contractor using a truck mounted drill rig. The mud-out temperature will be monitored continually during the actual drilling.

Once each hole is completed a 1 inch (I.D.) black steel pipe, sealed at the bottom, will be placed in the hole with the top being 8-12 inches from the ground surface. The pipe is then filled with water and capped. The hole is then back-filled with cuttings and/or drilling mud to within 10 feet of the surface. The remaining void is then filled with cement.

As necessary, the pipe is unearthed and a temperature probe is lowered to total depth. Once the series of temperature logs is completed, the pipe is then filled with cement and buried. The ground surface is then smoothed and returned to as nearly as practical to pre-drilling condition.

The drilling operations will be suspended if the mud-out temperature reaches 125°F and cannot be lowered or stabilized with the addition of well-head or cooling devices. The hole will then be completed as a temperature gradient hole or abandoned.

The drilling operations will also be suspended if flowing hot water or steam at 150°F or more is encountered. The hole will then be completed as a temperature gradient hole by placing 1 inch (I.D.), black, steel pipe to total depth and cementing from total depth to surface. If the hole is to be abandoned it will be plugged with cement from total depth to surface.

If cold artesian flow is encountered the hole will be completed or abandoned as described in the paragraph above.

The equipment fordrilling, as well as the drill rig, consists of a water truck and a light pickup truck. The temperature probe consists of a thermometer or thermister device on the end of a wire line and a small tripod-mounted wheel for lowering the probe down the hole.

2. The following plan of operations as required by Section 270.34 of the Federal Regulations for Geothermal Operations on public acquired and

withdrawn lands, covering paragraphs (a) through (h), is submitted pursuant to Section 270.78:

- (a) The hole locations, lease numbers (Exhibit "B") and outline of a typical drill site layout (Exhibit "C") are attached.
- (b) No new roads will be constructed for this operation. Access to area of operations will be along existing roads.
- (c) No water sources on federally administered lands will be developed and no road building material will be used.
- (d) Campsites, airstrips or other supporting facilities will not be required.
- (e) Minimal access scars, limited mainly to tire impressions, may occur during the course of drilling the hole. All such disturbances will be restored as nearly as possible to pre-drilling condition. All materials will be removed from the area once the hole is completed.
- (f) Topographic features of the drill site areas and drainage can be observed from the attached map (Exhibit "B").
- (g) If drilling mud or foam are used they will be contained by portable steel containers. When the hole is completed, the mud residue will be dried and spread on the ground surface.
- (h) The Chevron Resources Company will use all reasonable precautions to prevent waste of geothermal resources and other natural resources found in the area. At all times during operations the following precautions will be taken:

Traffic will be light and only when necessary. Light pickups will be used whenever possible. To the extent possible, only existing roads, fence lines or jeep trails will be used.

Site preparation will be limited to driving the truck-mounted drill rig to the site and setting it up for drilling.

Since the topography is not severe, the construction of drill pads will not be required.

All vehicles will be equipped with spark arresters and will carry the required fire-fighting equipment and all adequate fire protection measures will be taken to prevent any damage from fire.

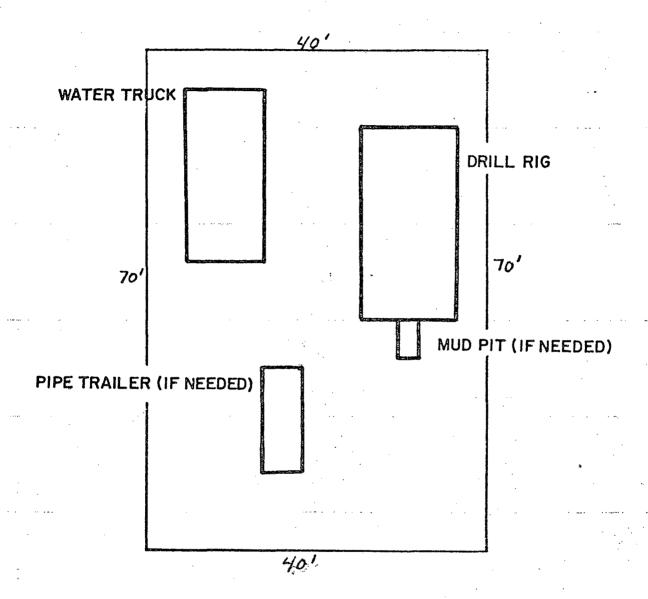
No water or other material will be pumped onto the surface of the ground which might result in soil erosion. Appropriate care will be taken so that natural drainage will not be affected and so that no pollution can occur to surface or ground water.

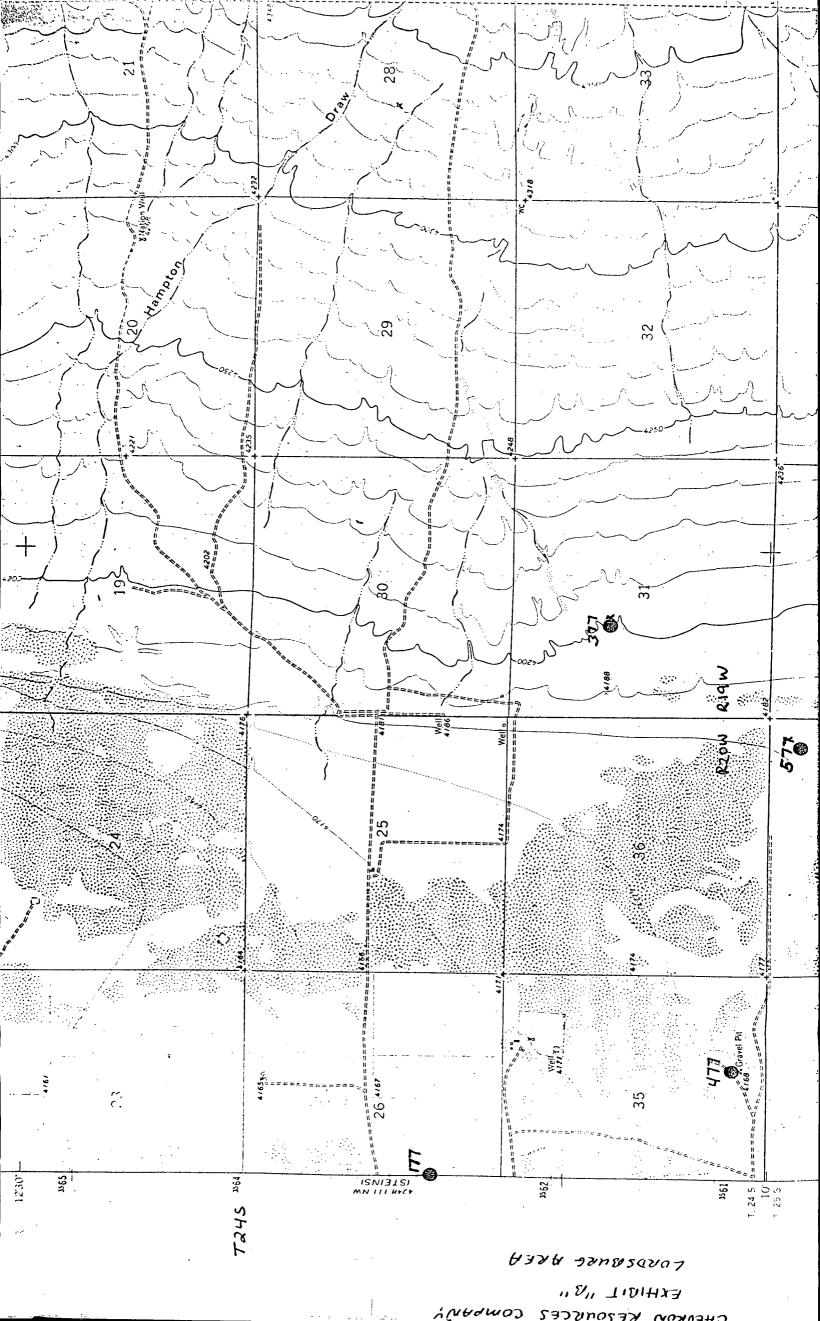
Geothermal operations will have no material impact on fish and the

disturbance of wildlife and vegetation in the area will be minor due to the short duration of operations and the limited number of personnel comprising the field crews. No significant damage or destruction of vegetation will occur and unavoidable dislocation of wildlife will be short term only.

Mufflers and other available devices will be used on all vehicles to control noise pollution. Minor air pollution will occur from vehicle exhaust, but all feasible measures will be used to control this pollution, in compliance with applicable laws, rules and regulations. Minor air pollution will occur from dust caused by vehicle traffic on dirt roads. Since this pollution is dependent upon natural road conditions and is temporary it therefore has no significant affect on the areas environment.

There will be very little hazard to public health and safety due to the lack of population in the area. All such hazard is confined to the crew or the rig. All appropriate safety measures and equipment will be utilized.





## GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

		All distances must	be from the outer box	ndaries of the	Section.	ر المراجع الم		, , , , , , , , , , , , , , , , , , ,	
Ciperator			Luane	L, KERF		:::AR 0	2 1978.	1,77	
Unit Letter	EVRON U.S.A.	INC.	Hongo		County on we			477	
0	35	T24S		ow l		DGGERVAT	YON COM	M	
Acts if Footoge Loc						Santa			······································
700	feet from the	S 'line	<sub>and</sub> 1950	feet f	rom the	E	line		
Cround Level Flow.	Producing Pr	rmution	Post			Dec	licated Acrea	;e:	·
4175'								Ac	cres
		ated to the subject dedicated to the				•	,		
interest a	nd royalty).	different ownership	•						٠.
dated by c	communitization,	unitization, force-p	ooling. etc?				·	, consc	
Yes		inswer is "yes;" ty							<del></del>
this form i	f necessary.)	owners and tract o					····		
No allowel forced-poo sion.	ole will be assign ling, or otherwise	ned to the well unti ) or until a non-star	l all interests hav ndard unit, elimins	e been con ting such	isolidated ( interests, ha	by commun as been app	itization, to	initizatio ie Comm	on, nis-
			!	<del></del>		CE	RTIFICATIO	N	*
· ·			l i		-     ,	harahy carell	y that the Inf	ormation c	
	1				11		ls true and co		
	1		1		11		wledge and b		,,
	+			<del>-</del>	- Na	Pe	Total Marie		<u></u>
	1		1		Po	sityon torney-i	n-fact		
	ļ	ļ				mpony.	<u> </u>		
	Į.		j t		CH	nevron U.	S.A. Inc.		
	i i		1		Dai	=	_		
			)		Jā	anuary 31	, 1978		
					s n	hown on this otes of actua nder my supe	Ify that the value of the value	red from fic de.by me hat the sa	ield or ome
k					k	nowledge and	belief.		
					Dat	o Survoyed			<u>:</u>
							ssional Engin	eer	
					and	∕or Lænd Surv	eyor		
Paris Paris		STANDING DISTRICT	V V		TTE Cor	tliicate No.			<del></del>
1	90 1320 1850 19	30 2310 2640	2000 1500 16	00 500	0				

NEW MEXICO OIL CONSERVATION COMMISSION

#### NEW MEXICO OIL CONSERVATION COMMISSION

Form G-102

GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PHAT All distances must be from the outer boundaries of the Section. Cape reitor KERR CHEVRON U.S.A. INC. Township Himgo County Unit Lotte HIDALGO T24S R20W Arts, if Posterio Location of Wall; Ε 700 fret from the line and feet from the Ground Level Llav. Pont Productna Parmatton Dedicated Acreage: 4175 Асгез 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? If answer is "yes," type of consolidation \_\_\_ Yes 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. orney-in-Fac Chevron U.S.A. Inc. January 31, 1978 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 Cartificate No. 330 1320 1650 1980 2310 2000 1500 1000 500

NEW MEXICO OIL CONSERVATION COMMISSION FORM G-102 GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLATS All distances must be from the outer boundaries of the Section. E. L. KERR CHEVRON U.S.A. INC. County L CONSTITUTION Himgo T24S R20W HIDALGOSania -Acts if Footage Location of Well: teet from the biss enil Producing Pormation Ground Level Lloy. Dedicated Acreage: 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? No If answer is "yes," type of consolidation \_\_\_ Yes 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 Commis-CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. <u> Attorney-In-Fac</u> Chevron U.S.A. Inc. January 31, 1978 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.

Cipo tottor

Unit Letter

700

41751

sion.

1320 1650 1980 2310

2000

1500

1000

GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT 2 1978

		All distances must be fr	om the outer boundaries of	of the Section.		.010
.ge rator CHE	VRON U.S.A.	INC.	E. L. K	ERR '	L CONSE	7/47/01/ CO1 2477
Init Lotter	Section	Township .	R:m 79	County	S	inta re
0	35	T24S	R20W	HI HI	DALGO	
Antual Mootege Loc 700	ation of Well:	S 'ling and	1950 to	est from the	E	1.
Frand Level Hov.	Productny F	1117 1213	Pool	or i.ou the		line Dedicated Acreage:
4175'			· · · · · · · · · · · · · · · · · · ·			Acres
1. Outline the	e acreage dedic	eated to the subject we	ll by colored pencil	or hachure r	narks on t	he plat below.
2. If more th interest ar	an one lease is id royalty).	s dedicated to the well	, outline each and id	entify the o	wnership t	hereof (both as to working
3. If more that dated by c	in one lease of ommunitization,	different ownership is c unitization, force-pooli	ledicated to the well, ng. etc?	, have the ir	iterests of	f all owners been consoli-
Yes	☐ No If	answer is "yes," type o	consolidation		· · · · · · · · · · · · · · · · · · ·	· · ·
this form it No allowab	f necessary.) le will be assig	ned to the well until all	interests have been	consolidate	d (by com	ated. (Use reverse side of munitization, unitization,
sion.	ing, or otherwise	s/or until a non-standare	i unit, enminating su	ch interests	, has been	approved by the Commis-
`.			İ			CERTIFICATION
:			i j			certify that the information con-
	i	·	 			rein Is true and complete to the y knowledge and belief.
	 				Noons 0	
	1		, !		Position	· lune
			·		Company:	ey-in-Fact
· ·	í I					u.S.A. Inc.
	i		i		Date	, 31, 1978
					January	7 71, 1970
	!		i			
						certify that the well location this plat was plotted from field
						actual surveys made, by me or
		,	`		·	supervision, and that the same
						and correct to the best of my earnd belief.
					Date Survey	ed
					Registered I and/or Land	Professional Englineer I Surveyor
	<u>\</u>					
30 000	90 1320 1850 19	80 2310 2540 2000	• •	500 0	Certificate	No.