# GTLT - \_\_\_\_2

# NMSU 1 UL: D 36-23S-2E Dona Ana County

## **Cancelled APD**



## STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

GOVERNOR NICK FRANKLIN GEORETARY

Y APODACA

June 8, 1978

POST OFFICE BOX 2008 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87501 (505) 827-2434

Mr. Lokesh Chaturvedi Principal Investigator, Las Alturas Geothermal Reservoir Confirmation Study NMSU Department of Civil Engineering Box 3CE Las Cruces, New Mexico 88003

Dear Mr. Chaturvedi:

Enclosed herewith is approved Form G-101 for re-entry to maximum depth of 1490 feet of the Clary & Ruther State Well No. 1, located 50 feet from the North line and 20 feet from the West line of Section 36, Township 23 South, Range 2 East, NMPM, Dona Ana County, New Mexico. Also approved Form G-101 for drilling NMSU Land Well No. 1, to be located 500 feet from the North line and 500 feet from the East line of Section 27 of the same township, which would be drilled to a maximum depth of 1000 feet.

It is my understanding that New Mexico State University is undertaking the re-entry and drilling of these wells as part of a DOE- and NMERB-funded project for geothermal research, and that you will plug the wells in accordance with Oil Conservation Division specifications as soon as logging has been completed. I am, therefore, hereby waiving the normal requirement for the posting of a plugging bond prior to approval of Forms G-101.

Very truly yours JÓE D. RAMEY Director

JDR/DSN/fd enc.

cc: Commissioner of Public Lands Carl Ulvog, Geothermal Inspector

Form G-	103
Adopted	10/1/74

NO, OF COPIES RECI	EIVED	NEW MEXICO OIL CONSERVATION COMMISSION	
DISTRIBUTION		P. O. Box 2088, Santa Fe 87501	
File			
м. в. м.		SUNDRY NOTICES AND REPORTS	
U. S. G. S		ON .	5. Indicate Type of Lease
Operator		GEOTHERMAL RESOURCES WELLS	State Fee
Land Office			5.a State Lease No.
Do Not Use This Form For Permit –" (Form		Drill or to Deepen or Plug Back to a Different Reservoir. Use "Application Proposals.)	
1. Type of well	Geothermal Prod	ucer 🗆 Temp. Observation 🔽	7. Unit Agreement Name
	Low-Temp Therm	nal 🔲 Injection/Disposal	

Low-Temp Thermal L Injection/Disposal L	<u> </u>
2. Name of Operator Lokesh Chaturvedi, Principal Investigator	8. Farm or Lease Name
Dept. of Energy and Minerals	NMSU
3. Address of Operator	9. Well No.
Box 3-PSL NMSU, Las Cruces, NM 88003	1
4. Location of Well	10. Field and Pool, or Wildcat
Unit LetterD50 Feet From The <u>North</u> Line and <u>50</u> Feet From	NMSU
The <u>West</u> Line, Section <u>36</u> Township <u>235</u> Range <u>2E</u> NMPN	n. (()))))))))))))))))))))))))))))))))))
· · · · · · · · · · · · · · · · · · ·	
(1) [] [] [] [] [] [] [] [] [] [] [] [] []	12. County
All	Dona Ana
16. Check Appropriate Box To Indicate Nature of Notice, Report or Other I	Data
NOTICE OF INTENTION TO: SUBSEQU	ENT REPORT OF:
PERFORM REMEDIAL WORK PLUG AND ABANDON	
TEMPORARILY ABANDON	PLUG & ABANDONMENT
LULL OR ALTER CASING CHANGE PLANS	в
OTHER	
OTHER	

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

This is notice that this well will not be drilled; cancel this permit.

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

APPROVED BY Carl 2000 TITLE SENIOR PETROLEUM GEOLOGIST DATE 7/15/81

CONDITIONS OF APPROVAL, IF ANY:

Form G-	103
Adopted	10/1/74

			Form G-103
			Adopted 10/1/74
NO. OF COPIES RECEIVED	NEW MEXICO OIL CONSE		
DISTRIBUTION	P. O. Box 2088,	Santa Fe 87501	·
M. B. M.	SUNDRY NOTICES		5. Indicate Type of Lease
U. S. G. S Operator	ON GEOTHERMAL RE		State Fee
Land Office	GLOTHERMAL RE	SOURCES WEELS	5.a State Lease No.
	· · · · · · · · · · · · · · · · · · ·	· · ·	
Do Not Use This Form for Proposals to For Permit –" (Form G-101) for Such P		Different Reservoir. Use "Application	
1. Type of well Geothermal Produ	cer 🔲 Temp. Öbservation		7. Unit Agreement Name
Low-Temp Therma			8. Farm or Lease Name
	naturvedi, Principal Inv Energy and Minerals	vestigator	NMSU
3. Address of Operator	Energy and Minerais		9. Well No.
-	L NMSU, Las Cruces, NM	88003	1
4. Location of Well		· · · ·	10. Field and Pool, or Wildcat
Unit LetterD	50 Feet From The North	Line and <u>50</u> Feet From	NMSU
The <u>West</u> Line, Section _		•	
//////////////////////////////////////	15. Elevation (Show whethe	er DF, RT, GR, etc.)	12. County
	4200 feet above	e MSL	Dona Ana
16. Check	Appropriate Box To Indicate Na	ture of Notice, Report or Other Da	ta
NOTICE OF INTEN	ITION TO:	SUBSEQUE	NT REPORT OF:
PERFORM REMEDIAL WORK	PLUG AND ABANDON	REMEDIAL WORK	
TEMPORARILY ABANDON		COMMENCE DRILLING OPNS.	PLUG & ABANDONMENT
ALL OR ALTER CASING	CHANGE PLANS	CASING TEST AND CEMENT JOB	
		OTHER	·
OTHER		- ··	
17. Describe Proposed or completed Op proposed work) SEE RULE 203.	perations (Clearly state all pertinent	details, and give pertinenet dates, inclu	iding estimated date of starting any
This is notice that t	this well will not be d	rilled; cancel this permi	lt.
			- · · · ·
		. <u> </u>	
•			
			· · · ·
	· ·		
			-
hereby certify that the information	above is true and complete to the be	st of my knowledge and belief.	
· R.M.		· · · · · · · · · · · · · · · · · · ·	
SIGNER JUNU UM	TITLE P	roject Director	DATE 15 July 1980
<i>V0V_</i>			
0.07	10		7/1-1-1
	TITLE SE	NIOR PETROLEUM GEOLOGIST	DATE / 15 / 8/

CONDITIONS OF APPROVAL, IF ANY:

				,	
				د مسعد جانبارین آرا د	· · · · · · · · · · · · · · · · · · ·
NO. OF COPILS NECLIVED	NEW MEXICO OIL CONS	ERVATION COMMIS	SION 🕺	JUN 2	3 19 Form G-101
NOITUUTION ·	P. O. Box 2088,	Santa Fe 87501	۰ ``	)	10-1-74
			ſ	- Innicatu	Type of Leave
N. B.M.	APPLICATION FOR PERM		FPEN	STATE	Type of Lease
U.S.G.S. Operator	OR PLUG BACKGEOTH	ERMAL RESOURCES	WELL	54.State ! man	
Land Office	·			·····	
· ·					HHHHHHH
1. Type of Work Dwill F]		Dive Dee	· · · · ·	7. Unit Agree	ment Name
	Deepen [ ]	-		,	
		Temp Observatio jection/Disposa		8. Farm or Le	<b>^</b>
				State 9. Well No.	Land
	haturvedi, Principal In Energy & Minerals (sta		iect	9. wen No. 1	
3. Address of Operator Box 3CE,			<u>JCCL</u>	10. Field and	Pool, or Wildcot
	es, NM 88003				
4. Location of Well UNIT LETTER D	LOCATED 50	FEET FROM THE NOT	th	IIIIII	
AND 50 ALET FROM THE	west use as sec 36	1 23 S RCF. 2	E		
AND JO ALET FROM THE	West LINE OF SEC. 30	TWP. 23 RCF. 2		12. County	
AMMMMMMMMMM			1111111	Dona Ana	
				IIIIII	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		19. Proposed Depth	19A. Formation	mm	20. Rotery or C.T.
		1000 feet	sedimen		rotary
21. Clovetions (Show whether DF, RT, etc.	1 21A. Kind & Status Plug. Bond	2113. Drilling Contractor			Date Work will start-
4200 ft. above M.S.	L. not required	Sandia Laborat	ory	July	31, 1978
23.4	PROPOSED CASING A	D CEMENT PROGRAM			

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER.FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
			0		
			-	•	
	1				

This well is planned to be drilled if re-entry in Clary and Ruther State No. 1 is difficult or expensive or both. Permission for re-entry in Clary and Ruther Well has already been obtained. This well will not be drilled if the re-entry in Clary and Ruther Well is successful.

Order No. R-4860 Exhibit No. B

I homeby certify that the information above is true as	d complete to the best of my knowledge and belief.	
signed_WChatwwed-	TuleAssistant Professor	June 27, 1978
(This space for State Use)		
CONDITIONS OF APPROVAL, IF ANY	SENIOR PETROLEUM GEOLOGIST	DATE 6/29/78

	All distances must be f	from the outer boundari	es of the Section.	<u>/ 14N 2,3 1978</u>
NMSU - Lokesh Chat	turvedi	Luuse	nt-lease St	Woll No.
hit Latter Section	Township	Hanga	County	······································
D 36	23_S	2 E	Don	ia Ana Conta Fe
50 feet from the	north imagend	50	( ) ( ) <b>T</b>	rest line
50 feet from the round Level Flow. Producing F		Pool	feet from the W	Dedicated Acreage;
4200 feet				Aci
1. Outline the acreage dedic	cated to the subject w	ell by colored pen	cil or hachure n	narks on the plat below.
interest and royalty). 3. If more than one lease of dated by communitization,	different ownership is unitization, force-pool	dedicated to the w ing. etc?	cell, have the in	wnership thereof (both as to working the state working the state of all owners been conso
If answer is "no," list the	answer is "yes," type of owners and tract desc			n consolidated. (Use reverse side
-	-			d (by communitization, unitization, has been approved by the Commi
 ⊙ I		1	T [	CERTIFICATION
Proposed well is		1		
5 feet east of lary & Ruther		i		there has an atter sheet she takes made a
		•		
State Well No.1		1		tained herein is true and complete to s
-		1 1		tained herein is true and complete to p best of my knowledge and belief.
-				tained herein is true and complete to a
-				tained herein is true and complete to the best of my knowledge and belief. Mchaturech
-				tained herein is true and complete to p best of my knowledge and belief. WChaturved Name
-				tained herein is true and complete to p best of my knowledge and bellef. WChaturwech Name Lokesh Chaturvedi Position Assistant Professor Company
-				toined herein is true and complete to speed of my knowledge and bellef. WChatwwedde Name Lokesh Chaturvedi Position Assistant Professor Company New Mexico State Univ. Date
-				tained herein is true and complete to best of my knowledge and bellef. WCLAUWECH Name Lokesh Chaturvedi Position Assistant Professor Company New Mexico State Univ.
-				tained herein is true and complete to the best of my knowledge and bellef. Name Lokesh Chaturvedi Position Assistant Professor Company New Mexico State Univ. Dato June 27, 1978 I hereby certify that the well locati shown on this plat was plotted from file notes of actual surveys made by me under my supervision, and that the same
-				tained herein is true and complete to a best of my knowledge and bellef. McMaturwech <sup>.</sup> Name Lokesh Chaturvedi Position Assistant Professor Company New Mexico State Univ. Dato June 27, 1978 I hereby certify that the well locati shown on this plat was plotted from file notes of actual surveys made by me under my supervision, and that the same
-				tained herein is true and complete to a best of my knowledge and bellef. McMaturwedt Name Lokesh Chaturvedi Position Assistant Professor Company New Mexico State Univ. Dato June 27, 1978 I hereby certify that the well locati shown on this plat was platted from file notes of actual surveys made by me under my supervision, and that the sai is true and correct to the best of a
-	Order No. R-4 Exhibit No. 0			WChatwred: Name Lokesh Chaturvedi Position Assistant Professor Company New Mexico State Univ. Date June 27, 1978 I hereby certify that the well locati shown on this plat was plotted from file notes of actual surveys made by me under my supervision, and that the sai is true and correct to the best of r knowledge and belief.
-				tained herein is true and complete to a best of my knowledge and bellef. Name Lokesh Chaturvedi Position Assistant Professor Company New Mexico State Univ. Dato June 27, 1978 I hereby certify that the well locati shown on this plat was platted from file notes of actual surveys made by me under my supervision, and that the sai is true and correct to the best of a knowledge and belief. Date Surveyed Registered Professional Engineer

DEPARTMENT OF CIVIL ENGINEERING Box 3CE/Las Cruces, New Mexico 88003 Telephone (505) 646-3803

February 12, 1979

Santa Fe



Mr. Carl Ulvog Senior Petroleum Geologist New Mexico Oil Conservation Commission P.O. Box 2086 Santa Fe, NM 87503

Dear Mr. Ulvog:

Please find enclosed Forms G-103 for the two geothermal wells which we recently drilled on NMSU land. We are currently using the wells for research and would like to keep them open (unplugged) until December 31, 1979. Please note slight changes in the locations of these two wells.

At the present time, we have decided to cancel our plans for reopening the Clary and Ruther state well no. 1 in Section 36, T 23S, R 2E, NMPM. We did not get permission from the State Lands Commissioner to drill a well on state land at 50' FNL and 50' FWL, Sec. 36, T 23S, R 2E, NMPM. If we decide to carry out any drilling work in Section 36, we will, of course, notify you.

With personal regards and best wishes.

Sincerely yours,

Nocalimved.

Lokesh Chaturvedi Assistant Professor

ca Enclosures: Two (2) G-103 forms cc: N. N. Gunaji

DEPARTMENT OF CIVIL ENGINEERING Box 3CE/Las Cruces, New Mexico 88003 Telephone (505) 646-3803

February 12, 1979



Mr. Carl Ulvog Senior Petroleum Geologist New Mexico Oil Conservation Commission P.O. Box 2086 Santa Fe, NM 87503

4

Dear Mr. Ulvog:

Please find enclosed Forms G-103 for the two geothermal wells which we recently drilled on NMSU land. We are currently using the wells for research and would like to keep them open (unplugged) until December 31, 1979. Please note slight changes in the locations of these two wells.

At the present time, we have decided to cancel our plans for reopening the Clary and Ruther state well no. 1 in Section 36, T 23S, R 2E, NMPM. We did not get permission from the State Lands Commissioner to drill a well on state land at 50'FNL and 50' FWL, Sec. 36, T 23S, R 2E, NMPM. If we decide to carry out any drilling work in Section 36, we will, of course, notify you.

With personal regards and best wishes.

Sincerely yours,

Noralinved

Lokesh Chaturvedi Assistant Professor

ca Enclosures: Two (2) G~103 forms cc: N. N. Gunaji

12/6/78

Dear Mr. Wichaturvedi

We are beginning to get somewhat confused. Perhaps it is due to a bit of misunderstanding concerning actions you may have already taken or changes in your plans which are unclear to us. According to data on file here, you now hold permits for drilling the following:

C& K State Well no. 1; 50'FNL \$ 20'FWL, Sec. 36; MMSU Well no. 1; 500'FNL \$ 500'FEL, Sec 27; State Well no. 1; 50'FNL \$ 50'FWL, Sec 36; and MMSU Well no. 2; 1500'FNL \$ 1000'FWL, Sec 35; all in T 235, R 2 E, NMPM, Dona Ana Co.

Is it your intent that all of these locations be drilled or that permits be maintained for such drilling? If you have definitely desided to abandon any of these locations, please advise. Thank you Carl Elvog

See Plat of note attached

6460111 2431 Kul 212> County Dona Ana Pool TOWNSHIP 23 South Range 2 East NMPM 3 2 6 5 4 7 8 -9 -10 ---- 11 --12 - 18 -·17 · -16 -- 15 -14--13-22 <u>-</u> D2 3 19 20 -21-23 24 DT-1 AINMSU 0 ≫¦≏ 27 29-28 26-25 -30 -DT1 رما state CIR ٢Ň e Al - 31-- 32 -- 33 -- 34 -- 36 i I 500 feron North 400 fait from East line 12-11-78: Dr. Daw was in office. now Thinks NMSU # 3 will be drilled first.

N



## State of New Mexico



## Commissioner of Public Lands

PHIL R. LUCERO

June 12, 1978

P. O. BOX 1148 SANTA FE, NEW MEXICO 87501

New Mexico State University Box 3CE Las Cruces, New Mexico 88003

ATTN.: Prof. Lokesh Chaturvedi Department of Civil Engineering

Re: Las Alturas Geothermal Reservoir Confirmation Study; Clary and Ruther State No. 1 Well

Gentlemen:

This letter is in reply to your June 7, 1978 letter wherein you request permission to reopen the above-referenced well located on the  $NW_4^1NW_4^1$  of Section 36, Township 23 South, Range 2 East, N. M. P. M., in Dona Ana County, New Mexico. Your purpose in reopening the well is to take temperature measurements for experimental and research purposes only.

Permission is hereby granted by the Commissioner of Public Lands, for a period of 45 days from the date of this letter, to enter the  $NW_4^1NW_4^1$  of Section 36, Township 23 South, Range 2 East, to reopen the Clary and Ruther State No. 1 Well to conduct the above-mentioned research.

In exchange for the permission to enter upon the above-described state trust lands, New Mexico State University (NMSU) shall fully disclose, in writing, to the Commissioner of Public Lands the results of its experiments and shall further comply with the following conditions:

1. NMSU, including its heirs, assigns, agents, and contractors shall, at their own expense, fully comply with all laws, regulations, rules, ordinances,

New Mexico State University June 12, 1978 Page (2)

and requirements of the city, county, state, federal authorities and agencies, in all matters and things affecting the premises and operations thereon which may be enacted or promulgated under the governmental police powers pertaining to public health and welfare, including but not limited to conservation, sanitation, aesthetics, pollution, cultural properties, fire and ecology. Such agencies are not to be deemed third party beneficiaries hereunder; however, this clause is enforceable by the Commissioner of Public Lands as herein provided or as otherwise permitted by law.

2. NMSU shall save and hold harmless, indemnify and defend the State of New Mexico, the Commissioner of Public Lands, and his agent or agents, in their official and individual capacities, of and from any and all liability claims, losses, or damages arising out of or alleged to arise out of or indirectly connected with the operations of NMSU hereunder, off or on the hereinabove described lands, or the presence on said lands of any agent, contractor or subcontractor of NMSU.

3. NMSU, through its liability insurance with Commercial Standard Insurance Company, Policy No. 430147245, or other coverage, shall insure against destruction or injury to any improvements or livestock lawfully upon the lands.

4. Upon completion of research operations on the lands, NMSU, or its authorized representatives, shall notify the Commissioner of Public Lands, in writing, that such operations have been completed.

If the foregoing meets with your approval, please indicate your acceptance by having an authorized representative of NMSU sign the duplicate originals of this letter agreement in the space provided below and return one fully executed original to this office for our files.

Very truly yours,

PHIL R. LUCERO

Commissioner of Public Lands

PRL:ELP:crk cc: Ray Graham Jack Kennedy

AGREED TO and ACCEPTED

this day of

1978:

NEW MEXICO STATE UNIVERSITY

By:

Title:

## STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

> NICK FRANKLIN SECRETARY

### June 8, 1978

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE. NEW MEXICO 87501 (505) 827-2434

Mr. Lokesh Chaturvedi Principal Investigator, Las Alturas Geothermal Reservoir Confirmation Study NMSU Department of Civil Engineering Box 3CE Las Cruces, New Mexico 88003

Dear Mr. Chaturvedi:

Enclosed herewith is approved Form G-101 for re-entry to maximum depth of 1490 feet of the Clary & Ruther State Well No. 1, located 50 feet from the North line and 20 feet from the West line of Section 36, Township 23 South, Range 2 East, NMPM, Dona Ana County, New Mexico. Also approved Form G-101 for drilling NMSU Land Well No. 1, to be located 500 feet from the North line and 500 feet from the East line of Section 27 of the same township, which would be drilled to a maximum depth of 1000 feet.

It is my understanding that New Mexico State University is undertaking the re-entry and drilling of these wells as part of a DOE- and NMERB-funded project for geothermal research, and that you will plug the wells in accordance with Oil Conservation Division specifications as soon as logging has been completed. I am, therefore, hereby waiving the normal requirement for the posting of a plugging bond prior to approval of Forms G-101.

truly yours, ĴÔE D. RAMEY Director

JDR/DSN/fd enc.

cc: Commissioner of Public Lands Carl Ulvog, Geothermal Inspector

DEPARTMENT OF CIVIL ENGINEERING Box 3CE/Las Cruces, New Mexico 88003 Telephone (505) 646-3803



June 7, 1978

Director New Mexico Oil Conservation Commission P.O. Box 2088 Santa Fe, NM 87501

Dear Sir:

As part of a research project funded by the Department of Energy and N.M.E.R.B., we would like to reopen a well and drill a new well in Dona Ana County. The well to be reopened is Clary and Ruther State No. 1 located in the northwest corner of Section 36, T 23S, R2E. The well to be drilled is on University (NMSU) land in the northeast corner of Sec. 27, T.23S, R2E. Both the wells are meant to collect geothermal gradient data as part of the research project. We undertake to plug the wells according to your specifications and requirements as soon as the logging is completed.

Since we plan to do this work for research under a DOE contract and a N.M. State E.R.B. contract and the drilling is to be done by Sandia Laboratory which is also under a DOE contract, we request you to kindly waive the requirements of posting a bond.

Kindly issue us the permits to drill and reopen the above mentioned wells and oblige. We would like to start this work on June 19, 1978. Enclosed please find forms G-101 and G-102 for the two proposed wells.

Yours faithfully, WChaturved'

Lokesh Chaturvedi Assistant Professor, Geological engineering Principal Investigator, NMERB Research Project

 $\mathbf{cd}$ 

Enclosures

DEPARTMENT OF CIVIL ENGINEERING Box 3CE/Las Cruces, New Mexico 88003 Telephone (505) 646-3803

June 7, 1978

NEXICO

Mr. Phil R. Lucero Commissioner of Public Lands P.O. Box 1148 Santa Fe, NM

Dear Commissioner Lucero:

We are working on a research project titled, "Las Alturas Geothermal Reservoir Confirmation Study," funded by the Energy Resources Board of New Mexico. As part of this research, we would like to attempt to reopen an old wildcat well--Clary and Ruther State No. 1 located about 50 feet south of the northwest corner of Sec. 36, T-23S, R.2E. The well is 2573 feet deep with cement plugs at the surface and at several points underground. Our intention is to reopen this well to a depth of approximately 1000 feet, log it for temperature distribution and then plug it back. We have applied to the Oil Conservation Commission for a permit to carry out this operation.

During a conversation with Mr. Ernest Padilla of your office, it appeared that you are concerned with this well proving or disproving the geothermal potential of the Las Cruces area. Let me assure you that this well will only tell us the geothermal gradient of that particular location and that information cannot be extended to cover the entire Las Cruces area.

The University has a liability insurance with Commercial Standard Insurance Co., policy number 430147245, which will cover us in case of a damage vis a vis grazing rights of private ranchers on state land.

Kindly give us permission to carry out this research project.

Sincerely yours,

la aturved'

Lokesh Chaturvedi Assistant Professor, Geological Engineering

cd

DEPARTMENT OF CIVIL ENGINEERING Box 3CE/Las Cruces, New Mexico 88003 Telephone (505) 646-3803

June 7, 1978



Mr. Phil R. Lucero Commissioner of Public Lands P.O. Box 1148 Santa Fe, NM

Dear Commissioner Lucero:

We are working on a research project titled, "Las Alturas Geothermal Reservoir Confirmation Study," funded by the Energy Resources Board of New Mexico. As part of this research, we would like to attempt to reopen an old wildcat well--Clary and Ruther State No. 1 located about 50 feet south of the northwest corner of Sec. 36, T-23S, R.2E. The well is 2573 feet deep with cement plugs at the surface and at several points underground. Our intention is to reopen this well to a depth of approximately 1000 feet, log it for temperature distribution and then plug it back. We have applied to the Oil Conservation Commission for a permit to carry out this operation.

During a conversation with Mr. Ernest Padilla of your office, it appeared that you are concerned with this well proving or disproving the geothermal potential of the Las Cruces area. Let me assure you that this well will only tell us the geothermal gradient of that particular location and that information cannot be extended to cover the entire Las Cruces area.

The University has a liability insurance with Commercial Standard Insurance Co., policy number 430147245, which will cover us in case of a damage vis a vis grazing rights of private ranchers on state land.

Kindly give us permission to carry out this research project.

Sincerely yours,

Mr. atwied

Lokesh Chaturvedi Assistant Professor, Geological Engineering

cd

\$

							Form G-101 Adopted 10/1/74
NO. OF COPIES RECEI	VED 6	NEV	MEXICO OIL CONSER	VATION COMMISSIO	N		
DISTRIBUTION			P. O. Box 2088, Sa	nta Fe 87501			
File	IX						
3.M.	1					5. Indicate	Type of Lease
U.S.G.S.	1	APPL	ICATION FOR PERM		PEN	STATE	FEE
Operator	1		JG BACKGEOTHER			5.a State Le	ase No.
Land Office	1						
BLM	1			<i>۱</i>			
1a. Type of Work	Drill X Re-entry	Reopen of Clary &	Deepen 🗌 Ruther State #1	Plug Back		7. Unit Agre	ement Name
b. Type of Well		l Producer 🔲		mp Observation	XI I	8. Farm or L	lease Name
	Low-Temp		•			C	# R State
	Dept. of	Energy Rese	rincipal Invest arch Project	igator		9. Well No.	1 <del>State</del>
3. Address of Operator	Box 3CE,	NMSU				10. Field and	d Pool, or Wildcat
	Las Cruc	es, NM 88003				Wildc	at
4. Location of Well	JNIT LETTE	RDLOCA	red50feet f	ROM THE North	LINE		
AND 20 FEE	T FROM TH	West LINE OF	sec. 36 <sub>twp.</sub> 23	S, <sub>rge.</sub> 2 E	NMPM		
						12. County Dona Ana	
	//////			19. Proposed Depth	19A. Formatio	n an	20. Rotary or C.T.
				1490 (Max.)	Sediment		Rotary
21. Elevations (Show w 4200		T, etc.) 21A. Kin 2 M·S·C· Not R	d & Status Plug. Bond equired	21B. Drilling Contracto Sandia Labora		22. Appro: June 1	x. Date Work will start 9, 1978
			enclosed letter PROPOSED CASING AN		M		
SIZE OF HOLE		SIZE OF CASING	WEIGHT PER FOOT			OFMENT	

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
				!	
					1

The proposed action is to reopen an existing well, Clary and Ruther State No. 1 located near NMSU campus. This action is part of a research program funded by N.M. Department of Energy and Minerals. The purpose of reopening the well is to measure the geothermal gradient in the well, after which the well will be plugged back. Application to state land office for waiver of bond is being sent seperately. Copy of that letter enclosed.

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.

•

Signer WChatwrveh' Assistant Professor	June 7, 1978
(This space for State Use) APPROVED BY Auditum TITLE DANIEL S. NUTTER CONDITIONS OF APPROVAL, IF ANY: Audited to approval for he sering by Gramminiane	DATE 6/8/78 & Public Lands

NEW	MEXIC		CON	SERVAT	ION	COMMISSION
	P. O.	вох	2088	SANTA	FE	87501

### GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

ΔП	distances	must	he	from	the	outer	boundaries	of	the	Section
A	uistances	musi	06	110111	<i>cue</i>	outer	Donnanies	01	cire	Section.

\* <u>+</u> ·

		An distances must be	tom the outer pounda	and an the Bachon.		
	Lokesh Chatur		Lease No presen	t lease		Well No.Clary & Ruther State #1
Unit Letter D	Section 36	Township 23 S	Range 2 E	County Don	a Ana	
Actual Footage Locat 50	ion of Well:	orth line	20	feet from the	West	line
Ground Level Elev.	Producing Form		Pool		Ded	icated Acreage:
4200 ft.						Acres
1. Outline the	he acreage dedicate	d to the subject well b	y colored pencil or	hachure marks or	the plat belo	ow.
2. If more t and royal		edicated to the well, o	outline each and id	entify the owners	hip thereof (b	ooth as to working interes
		different ownersip is d n, force-pooling, etc?	edicated to the we	ll, have the intere	ests of all own	ners been consolidated by
🗌 Yes	□ No If ans	swer is "yes," type of a	consolidation			
If answer is necessary.)	•	ers and tract descripti	ons which have act	ually been consol	idated. (Use 1	reverse side of this form i
No allowabl	e will be assign	ed to the well until until a non-standard u				munitization, unitization
lorced-poolin	ig, of otherwise) of		init, emmating suc			by the commission.
O <sub>Clary &amp; Ru</sub>	ther		   		С	ERTIFICATION
State #1			l		l hereby ce	rtify that the information
	L.					rein is true and complete to
	1		1		Nen	w knowledge and belief.
	· + ~		·	N	Lokesh Ch	
	1		1			Professor Mexico State
	1			4	Universit	
			1		ompany Las Cruce	
			l		June 7, 1	
					shown on thi notes of actu under my su	tify that the well location s plat was plotted from field Ial surveys made by me or pervision, and that the same
	   +				is true and knowledge an	correct to the best of my d belief.
	1 	,	k L			
	,t 		ł . 	.   Ľ	Date Surveyed	
•	.   		1		Registered Profes nd/or Land Sur	ssional Engineer veyor
L	I		) 			
Statutes	· · · · · · · · · · · · · · · · · · ·				ertificate No.	

Form G-101 Adopted 10/1/74

NON COPIES RECEIVED	NEW	MEXICO OIL CONSER	VATION COMMISSION				
DISTRIBUTION		P. O. Box 2088, Sa	nta Fe 87501				
File				г			
NGR.M.				1		Type of Lease	
U.945.S.	APPLI	CATION FOR PERMI	T TO DRILL, DEEPE	IN, L	STATE L	FEE	
Operator	OR PLU	G BACKGEOTHER	MAL RESOURCES W	ELL	5.a State Le	ease No.	
Land Office					<del></del>		
			х. — .				
1a. Type of Work Drill Re-ent	Reopen [ ry of Clary & R	Deepen 🗌 Suther State #1	Plug Back		7. Unit Agre	eement Name	
	mal Producer 🔲	Te	mp Observation 🖾	-	8. Farm or 1	Lease Name	
	np Thermal 🛛	-	ection/Disposal			State	
Dept.	Chaturvedi, Pr of Energy Resea	incipal Investi Irch Project	gator	-	9. Well No.	1 <del>State</del>	
3. Address of Operator Box 30	E, NMSU					d Pool, or Wildcat	
Las Cr	uces, NM 88003				Wildc	at	
4. Location of Well UNIT LET		ED 50 <sup>°,</sup> FEET FR		LINE			
AND 20 FEET FROM	THE West LINE OF S	<sub>SEC.</sub> 36 <sub>тwp.</sub> 23	S. RGE. 2 E	NMPM			
					12. County Iona Ana		
		UIIIIIII,	9. Proposed Depth	19A. Formation	1 .	20. Rotary or C.T.	
		///////////////////////////////////////	490 (Max.)	Sediment		Rotary	
21. Elevations (Show whether DF 4200 ft ab	RT, etc.) 21A. Kind OVE M.S.C. Not RE	& Status Plug. Bond 2 equired	1B. Drilling Contractor Sandia Laborato	ory `	22. Approx. Date Work will start June 19, 1978		
	(see e	enclosed letter) ROPOSED CASING AND			·		
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF	CEMENT	EST. TOP	
·	· · · · · · · · · · · · · · · · · · ·						

The proposed action is to reopen an existing well, Clary and Ruther State No. 1 located near NMSU campus. This action is part of a research program funded by N.M. Department of Energy and Minerals. The purpose of reopening the well is to measure the geothermal gradient in the well, after which the well will be plugged back. Application to state land office for waiver of bond is being sent seperately. Copy of that letter enclosed.

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.

1 hereby certify that the information above is true and complete to the best of my knowledge and belief. Signed Signed Title Assistant Professor	June 7, 1978
APPROVED BY Conduction TITLE DANIEL S. NUTTER	DATE 6/8/78
CONDITIONS OF APPROVAL, IF ANY: Adjust to approval for the early by Commissioner	

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

-

Operator       All distances must be from the outer boundaries of the Section.         Operator       NMSU - Lokesh Chaturvedi       Lease       Well No.Clarr Ruther State         Outerter       Section 36       Township 23 S       Range 2 E       County Dona Ana         Actual Footage Location of Well:       50       feet from the North line and 20       feet from the West line         Ground Level Elev.       Producing Formation       Pool       Dedicated Acreage:         4200 ft.       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 and royalty).         3. If more than one lease of different ownersip is dedicated to the well, have the interests of all owners been consolid communitization, unitization, force-pooling, etc?         □       Yes       No         If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this necessary.)         No allowable will be assigned to the well until all interests have been consolidated (by communitization, unif forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission the best of my knowledge and bell to be workedge and bell	
NMSU - Lokesh Chaturvedi       No present lease       Ruther Sta         Outling       Section 36       Township 23 S       Range 2 E       County Dona Ana         Actual Footage Location of Well:       50       feet from the North       line and       20       reat from the West       line         Ground Level Elev.       Producing Formation       Pool       Dedicated Acreage:       Peol       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 and royalty).       3. If more than one lease of different ownersip is dedicated to the well, have the interests of all owners been consolid communitization, unitization, force-pooling, etc?       Yes       No       If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this necessary.)         No allowable will be assigned to the well until all interests have been consolidated (by communitization, uniforced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission contained herein is true and commission the best of my knowledge and bell         © Clary & Ruther       State #1       Image: CERTIFICATION       Image: CERTIFICATION	<u>ν</u> δ.
Actual Footage Location of Well:       S0       feet from the North       line and       20       feet from the West       line         Ground Level Elev.       Producing Formation       Pool       Dedicated Acreage:       4200 ft.       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 and royalty).         3. If more than one lease of different ownersip is dedicated to the well, have the interests of all owners been consolid communitization, unitization, force-pooling, etc?       Image: Communitization of the owners and tract descriptions which have actually been consolidated. (Use reverse side of this necessary.)         No       If answer is "yes," type of consolidation       If orced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission or the east of my knowledge and beil owner the information of the best of my knowledge and beil owner the best of my knowledge and beil owner the best of my knowledge and beil owner the owner the best of my knowledge and beil owner	
50       feet from the North line and 20       feet from the West line         Ground Level Elev.       Producing Formation       Pool       Dedicated Acreage:         4200 ft.       Producing Formation       Pool       Dedicated Acreage:         1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.       1.       If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working and royalty).         3. If more than one lease of different ownersip is dedicated to the well, have the interests of all owners been consolid communitization, unitization, force-pooling, etc?       Image: Communitization force-pooling, etc?         If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this necessary.)       No allowable will be assigned to the well until all interests have been consolidated (by communitization, unif forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission the best of my knowledge and bell         Clary & Ruther       CERTIFICATION       I hereby certify that the infor contained herein is true and communities of the best of my knowledge and bell	
Ground Level Elev.       Producing Formation       Pool       Dedicated Acreage:         4200 ft.       Producing Formation       Pool       Dedicated Acreage:         1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.       2.         2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working and royalty).       3.         3. If more than one lease of different ownersip is dedicated to the well, have the interests of all owners been consolid communitization, unitization, force-pooling, etc?       Image: Pool         If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this necessary.)       No allowable will be assigned to the well until all interests have been consolidated (by communitization, unif forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission the best of my knowledge and bell with the tree information is true and communities the set of my knowledge and bell with the tree in the set of my knowledge and bell with the tree in the set of my knowledge and bell with the tree in the set of my knowledge and bell with the set of my	
4200 ft.       .         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 and royalty).         3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolid 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 necessary.)         No       allowable will be assigned to the well until all interests have been consolidated (by communitization, unif force-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission         Clary & Ruther       CERTIFICATION         I hereby certify that the infor contained herein is true and commute best of my knowledge and below.	
<ul> <li>If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working and royalty).</li> <li>If more than one lease of different ownersip is dedicated to the well, have the interests of all owners been consolid communitization, unitization, force-pooling, etc?         <ul> <li>Yes</li> <li>No</li> <li>If answer is "yes," type of consolidation</li> <li>If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this necessary.)</li> <li>No allowable will be assigned to the well until all interests have been consolidated (by communitization, unif forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission</li> </ul> </li> <li>Clary &amp; Ruther state #1         <ul> <li>Lary &amp; Ruther state #1</li> <li>Lary &amp; Ruther state #1</li> <li>No will be assigned to the well until all interests have been consolidated (by communitization, unit forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission or the best of my knowledge and bell would be an otherwise in the information of the best of my knowledge and bell would be approved by the communities the best of my knowledge and bell would be best of my knowledge and bell would be best of my knowledge and bell would be approved by the communities the best of my knowledge and bell would be approved by the communities of the best of my knowledge and bell would be been the best of my knowledge and bell would be been the best of my knowledge and bell would be best of my knowledge and bell would be</li></ul></li></ul>	Acres
and royalty). 3. If more than one lease of different ownersip is dedicated to the well, have the interests of all owners been consolid 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 necessary.) No allowable will be assigned to the well until all interests have been consolidated (by communitization, unit 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 info contained herein is true and com, the best of my knowledge and bel WWWthreef	
communitization, unitization, force-pooling, etc?         Yes       No         If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this necessary.)         No       allowable will be assigned to the well until all interests have been consolidated (by communitization, uni forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission         Clary & Ruther       CERTIFICATION         State #1       I         Model Herein is true and communities of my knowledge and bell         Model Multiple         Model Multiple         Model Multiple         Multiple </td <td>interes</td>	interes
If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this necessary.) No allowable will be assigned to the well until all interests have been consolidated (by communitization, uni forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission Clary & Ruther State #1 CERTIFICATION <i>the best of my knowledge and bell</i> WWWtWWed	lated by
necessary.)	
necessary.) No allowable will be assigned to the well until all interests have been consolidated (by communitization, uni forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission Clary & Ruther State #1 CERTIFICATION I hereby certify that the info contained herein is true and com the best of my knowledge and bell Wenturved	: form i
forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission Clary & Ruther State #1 CERTIFICATION I hereby certify that the info contained herein is true and com the best of my knowledge and bell Wenturved	
Clary & Ruther State #1 Clary & Ruther State #1 CERTIFICATION I hereby certify that the info contained herein is true and com the best of my knowledge and bel Wenthreeh	tization
Clary & Ruther State #1	
Clary & Ruther State #1	
State #1 I hereby certify that the info contained herein is true and com the best of my knowledge and bel Wenturven	
contained herein is true and com the best of my knowledge and bel WCUAturved	rmation
Wenaturved.	
Lokesh Chaturvedi	ief.
Lokesh Chaturvedi	•
Name	
Assistant Professor	
Position New Mexico State	
University Company	
Las Cruces, NM 88003	<u>ن</u>
Date June 7, 1978	
I hereby certify that the well I	ocation
shown on this plat was plotted fro	m field
notes of actual surveys made by	
under my supervision, and that th is true and correct to the best	
knowledge and belief.	or my
┝····································	
Date Surveyed	
Registered Professional Engineer	
and/or Land Surveyor	
	<u> </u>
9 330 660 90 1320 1850 1980 2319 2640 2000 1509 1000 500 0	

• • ••

-

\_\_\_\_\_. .

-

Form G-102 Adopted 10/1/74

•