

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

FRY APODACA
GOVERNOR

NICK FRANKLIN
SECRETARY

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

June 8, 1978

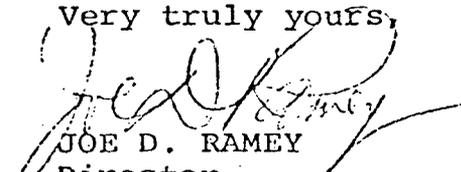
Mr. Lokesh Chaturvedi
Principal Investigator, Las Alturas
Geothermal Reservoir Confirmation Study
NMSU Department of Civil Engineering
Box 3CE
Las Cruces, New Mexico 88003

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,


JOE D. RAMEY
Director

JDR/DSN/fd
enc.

cc: Commissioner of Public Lands
Carl Ulvog, Geothermal Inspector

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

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U. S. G. S.	
Operator	
Land Office	

SUNDRY NOTICES AND REPORTS
ON
GEOTHERMAL RESOURCES WELLS

5. Indicate Type of Lease State <input type="checkbox"/> Fee <input type="checkbox"/>
5.a State Lease No.
7. Unit Agreement Name
8. Farm or Lease Name NMSU
9. Well No. 1
10. Field and Pool, or Wildcat NMSU
12. County Dona Ana

Do Not Use This Form for Proposals to Drill or to Deepen or Plug Back to a Different Reservoir. Use "Application For Permit -" (Form G-101) for Such Proposals.)

1. Type of well Geothermal Producer <input type="checkbox"/> Temp. Observation <input checked="" type="checkbox"/> Low-Temp Thermal <input type="checkbox"/> Injection/Disposal <input type="checkbox"/>
2. Name of Operator Lokesh Chaturvedi, Principal Investigator Dept. of Energy and Minerals
3. Address of Operator Box 3-PSL NMSU, Las Cruces, NM 88003
4. Location of Well Unit Letter <u>D</u> <u>50</u> Feet From The <u>North</u> Line and <u>50</u> Feet From The <u>West</u> Line, Section <u>36</u> Township <u>23S</u> Range <u>2E</u> NMPM.
15. Elevation (Show whether DF, RT, GR, etc.) 4200 feet above MSL

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

<p>NOTICE OF INTENTION TO:</p> <p>PERFORM REMEDIAL WORK <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/></p> <p>TEMPORARILY ABANDON <input type="checkbox"/></p> <p>PULL OR ALTER CASING <input type="checkbox"/> CHANGE PLANS <input checked="" type="checkbox"/></p> <p>OTHER <input type="checkbox"/></p>	<p>SUBSEQUENT REPORT OF:</p> <p>REMEDIAL WORK <input type="checkbox"/> ALTERING CASING <input type="checkbox"/></p> <p>COMMENCE DRILLING OPNS. <input type="checkbox"/> PLUG & ABANDONMENT <input type="checkbox"/></p> <p>CASING TEST AND CEMENT JOB <input type="checkbox"/></p> <p>OTHER <input type="checkbox"/></p>
--	--

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

This 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.

SIGNED Royal Lunniff TITLE Project Director DATE 15 July 1980

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

CONDITIONS OF APPROVAL, IF ANY:

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

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

SUNDRY NOTICES AND REPORTS
ON
GEOHERMAL RESOURCES WELLS

5. Indicate Type of Lease State <input type="checkbox"/> Fee <input type="checkbox"/>
5.a State Lease No.
7. Unit Agreement Name
8. Farm or Lease Name NMSU
9. Well No. 1
10. Field and Pool, or Wildcat NMSU
12. County Dona Ana

Do Not Use This Form for Proposals to Drill or to Deepen or Plug Back to a Different Reservoir. Use "Application For Permit -" (Form G-101) for Such Proposals.

1. Type of well Geothermal Producer <input type="checkbox"/> Temp. Observation <input checked="" type="checkbox"/> Low-Temp Thermal <input type="checkbox"/> Injection/Disposal <input type="checkbox"/>	2. Name of Operator Lokesh Chaturvedi, Principal Investigator Dept. of Energy and Minerals
3. Address of Operator Box 3-PSL NMSU, Las Cruces, NM 88003	4. Location of Well Unit Letter <u>D</u> <u>50</u> Feet From The <u>North</u> Line and <u>50</u> Feet From The <u>West</u> Line, Section <u>36</u> Township <u>23S</u> Range <u>2E</u> NMPM.

15. Elevation (Show whether DF, RT, GR, etc.) 4200 feet above MSL
--

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

<p>NOTICE OF INTENTION TO:</p> <p>PERFORM REMEDIAL WORK <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/></p> <p>TEMPORARILY ABANDON <input type="checkbox"/> CHANGE PLANS <input checked="" type="checkbox"/></p> <p>PULL OR ALTER CASING <input type="checkbox"/></p> <p>OTHER <input type="checkbox"/></p>	<p>SUBSEQUENT REPORT OF:</p> <p>REMEDIAL WORK <input type="checkbox"/> ALTERING CASING <input type="checkbox"/></p> <p>COMMENCE DRILLING OPNS. <input type="checkbox"/> PLUG & ABANDONMENT <input type="checkbox"/></p> <p>CASING TEST AND CEMENT JOB <input type="checkbox"/></p> <p>OTHER <input type="checkbox"/></p>
--	--

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

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

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

SIGNED Royal Lunniff TITLE Project Director DATE 15 July 1980

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

CONDITIONS OF APPROVAL, IF ANY:

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

JUN 23 1978 Form G-101
10-1-74

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

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

5. Indicate Type of Lease STATE <input type="checkbox"/> FEDERAL <input type="checkbox"/>	
6A. State Lease No.	
7. Unit Agreement Name	
8. Farm or Lease Name State Land	
9. Well No. 1	
10. Field and Pool, or Wildcat	
12. County Dona Ana	
19. Proposed Depth 1000 feet	19A. Formation sediment
20. Rotary or C.T. rotary	
21. Elevations (Show whether DF, RT, etc.) 4200 ft. above M.S.L.	21A. Kind & Status Plug. Bond not required
21B. Drilling Contractor Sandia Laboratory	22. Approx. Date Work will start July 31, 1978

1a. Type of Work Drill [x] Deepen [] Plug Back []
1b. Type of Well Geothermal Producer [] Temp Observation [x] Low-Temp Thermal [] Injection/Disposal []
2. Name of Operator Lokesh Chaturvedi, Principal Investigator Dept. of Energy & Minerals (state) Research Project
3. Address of Operator Box 3CE, NMSU Las Cruces, NM 88003
4. Location of Well UNIT LETTER <u>D</u> LOCATED <u>50</u> FEET FROM THE <u>north</u> LINE AND <u>50</u> FEET FROM THE <u>west</u> LINE OF SEC. <u>36</u> TWP. <u>23 S</u> RGE. <u>2 E</u> NMPM
19. Proposed Depth 1000 feet
19A. Formation sediment
20. Rotary or C.T. rotary
21. Elevations (Show whether DF, RT, etc.) 4200 ft. above M.S.L.
21A. Kind & Status Plug. Bond not required
21B. Drilling Contractor Sandia Laboratory
22. Approx. Date Work will start July 31, 1978

PROPOSED CASING AND CEMENT PROGRAM

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

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

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM; IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTION ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Signed L. Chaturvedi Title Assistant Professor Date June 27, 1978

(This space for State Use)

APPROVED BY Carl Ulvog TITLE SENIOR PETROLEUM GEOLOGIST DATE 6/29/78

CONDITIONS OF APPROVAL, IF ANY:

GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

JUN 28 1978

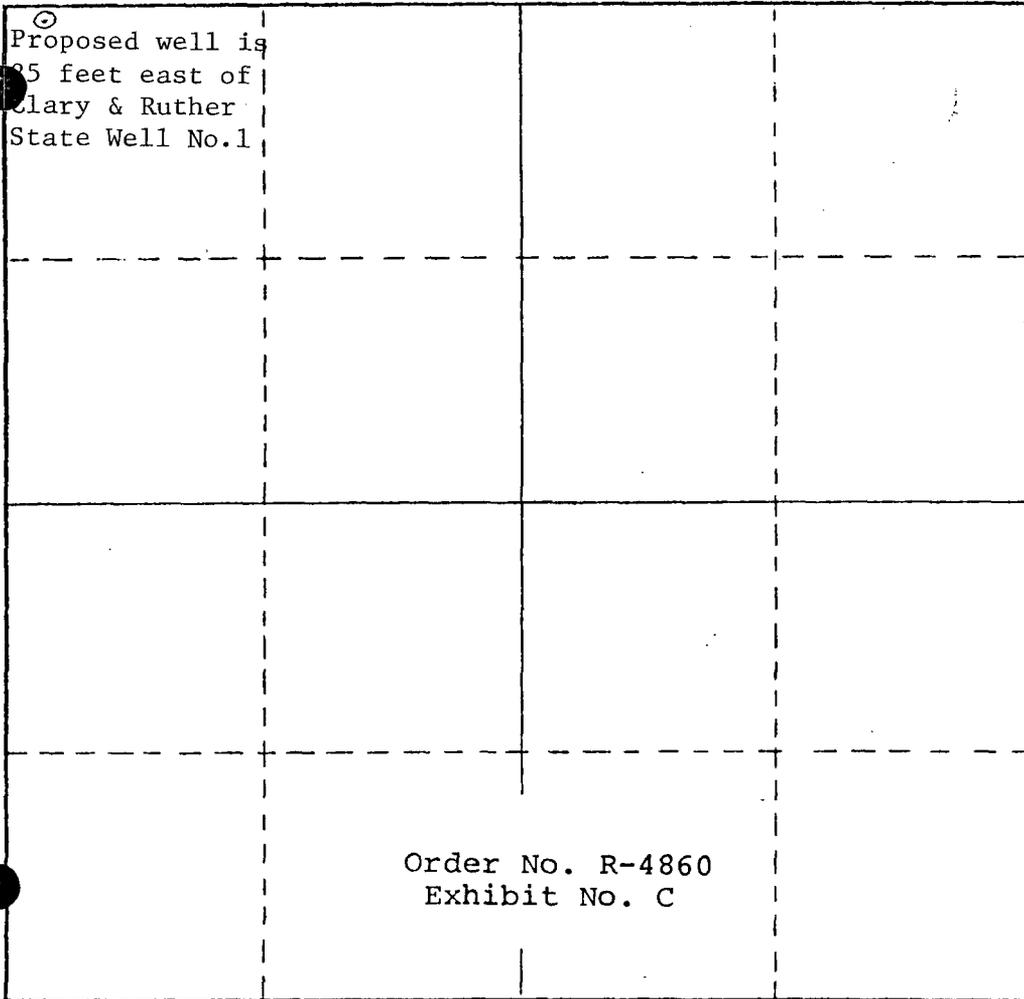
Operator NMSU - Lokesh Chaturvedi		Lease no present lease State Land			Well No. 1
Unit Letter D	Section 36	Township 23 S	Range 2 E	County Dona Ana Santa Fe	
Actual Footage Location of Well 50 feet from the north line and 50 feet from the west line					
Ground Level Elev. 4200 feet	Producing Formation	Pool	Dedicated Acreage: Acres		

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

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

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

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



CERTIFICATION

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

L. Chaturvedi

Name
Lokesh Chaturvedi

Position
Assistant Professor

Company
New Mexico State Univ.

Date
June 27, 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

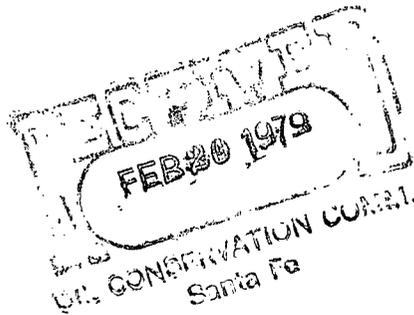
Certificate No.



COLLEGE OF ENGINEERING

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

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,

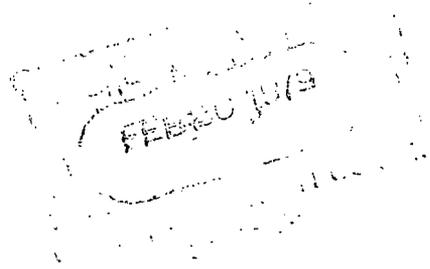
Lokesh Chaturvedi
Assistant Professor

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

COLLEGE OF ENGINEERING

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

February 12, 1979



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

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With personal regards and best wishes.

Sincerely yours,

A handwritten signature in cursive script, appearing to read 'Lokesh Chaturvedi'.

Lokesh Chaturvedi
Assistant Professor

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

12/6/78

Dear Mr. Unchaturvedi:

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 & R State Well No. 1; 50' FNL & 20' FWL, Sec. 36;

● NMSU Well No. 1; 500' FNL & 500' FEL, Sec 27;

State Well No. 1; 50' FNL & 50' FWL, Sec 36; and

NMSU Well No. 2; 1500' FNL & 1000' FWL, Sec 35;

all in T 23 S, 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 decided to abandon any of these locations, please advise. Thank you -

Carl Ellvog

See Plat & note attached

6460111

243 (Kuh)

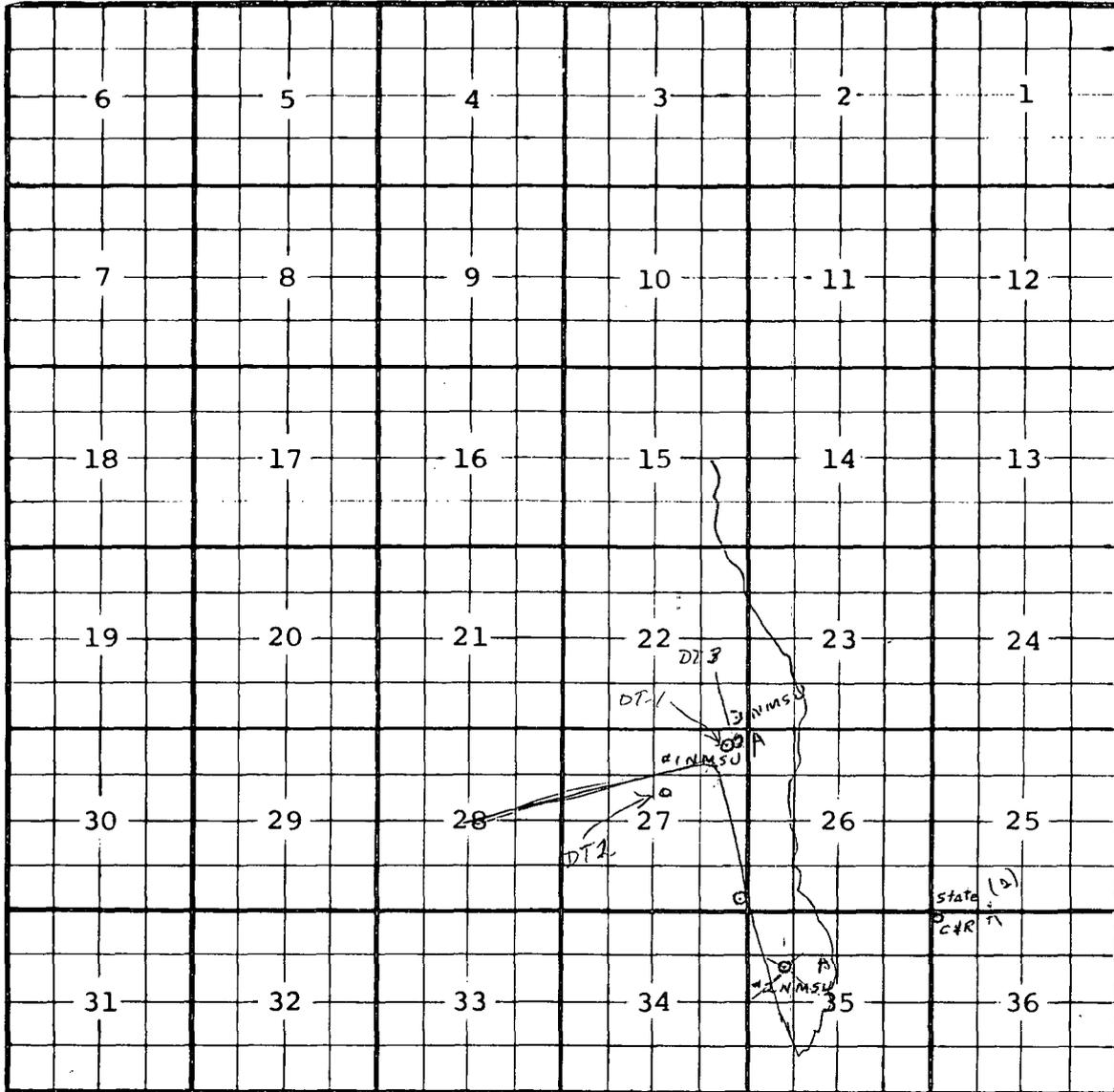
2127

County Dona Ana Pool

TOWNSHIP 23 South

Range 2 East

NMPM

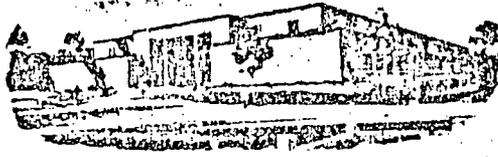


500 feet North 400 feet from
East line

12-11-78: Dr. Daw was in office. Now

thinks NMSU #3 will be drilled first.

State of New Mexico



Commissioner of Public Lands

PHIL R. LUCERO
COMMISSIONER

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 $\frac{1}{4}$ NW $\frac{1}{4}$ 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 $\frac{1}{4}$ NW $\frac{1}{4}$ 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.

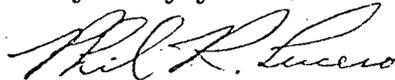
2. NMSU shall save and hold harmless, indemnify and defend the State of New Mexico, the Commissioner of Public Lands, and his agent or agents, in their official and individual capacities, of and from any and all liability claims, losses, or damages arising out of or alleged to arise out of or indirectly 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

JERRY APODACA
GOVERNOR

NICK FRANKLIN
SECRETARY

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

June 8, 1978

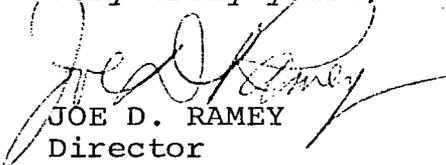
Mr. Lokesh Chaturvedi
Principal Investigator, Las Alturas
Geothermal Reservoir Confirmation Study
NMSU Department of Civil Engineering
Box 3CE
Las Cruces, New Mexico 88003

Dear Mr. Chaturvedi:

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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,


JOE D. RAMEY
Director

JDR/DSN/fd
enc.

cc: Commissioner of Public Lands
Carl Ulvog, Geothermal Inspector

COLLEGE OF ENGINEERING

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,

Lokesh Chaturvedi

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

cd

Enclosures

COLLEGE OF ENGINEERING

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

Copy



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,

Lokesh Chaturvedi

Lokesh Chaturvedi
Assistant Professor,
Geological Engineering

cd

COLLEGE OF ENGINEERING

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

Copy



June 7, 1978

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Commissioner of Public Lands
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Santa Fe, NM

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Kindly give us permission to carry out this research project.

Sincerely yours,

Lokesh Chaturvedi

Lokesh Chaturvedi
Assistant Professor,
Geological Engineering

cd

NO. OF COPIES RECEIVED	6
DISTRIBUTION	
File	IX
B.M.	1
U.S.G.S.	1
Operator	1
Land Office	1

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

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

5. Indicate Type of Lease
STATE FEE

5.a State Lease No.

BLM

1a. Type of Work Drill Reopen Deepen Plug Back
Re-entry of Clary & Ruther State #1

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

7. Unit Agreement Name

8. Farm or Lease Name
C&R State

2. Name of Operator Lokesh Chaturvedi, Principal Investigator
Dept. of Energy Research Project

9. Well No. 1 ~~State~~

3. Address of Operator Box 3CE, NMSU
Las Cruces, NM 88003

10. Field and Pool, or Wildcat
Wildcat

4. Location of Well UNIT LETTER D LOCATED 50 FEET FROM THE North LINE
AND 20 FEET FROM THE West LINE OF SEC. 36 TWP. 23 S. RGE. 2 E NMPM

12. County
Dona Ana

19. Proposed Depth 1490 (Max.)
19A. Formation Sediment
20. Rotary or C.T. Rotary

21. Elevations (Show whether DF, RT, etc.) 4200 ft above m.s.l.
21A. Kind & Status Plug. Bond Not Required
21B. Drilling Contractor Sandia Laboratory
22. Approx. Date Work will start June 19, 1978

PROPOSED CASING AND CEMENT PROGRAM

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 separately. 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.

Signed L Chaturvedi Title Assistant Professor Date June 7, 1978

(This space for State Use)

APPROVED BY Daniel S. Nutter TITLE DANIEL S. NUTTER DATE 6/8/78
CHIEF ENGINEER

CONDITIONS OF APPROVAL, IF ANY:
Subject to approval for re-entry by Commissioner of Public Lands

GEOHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

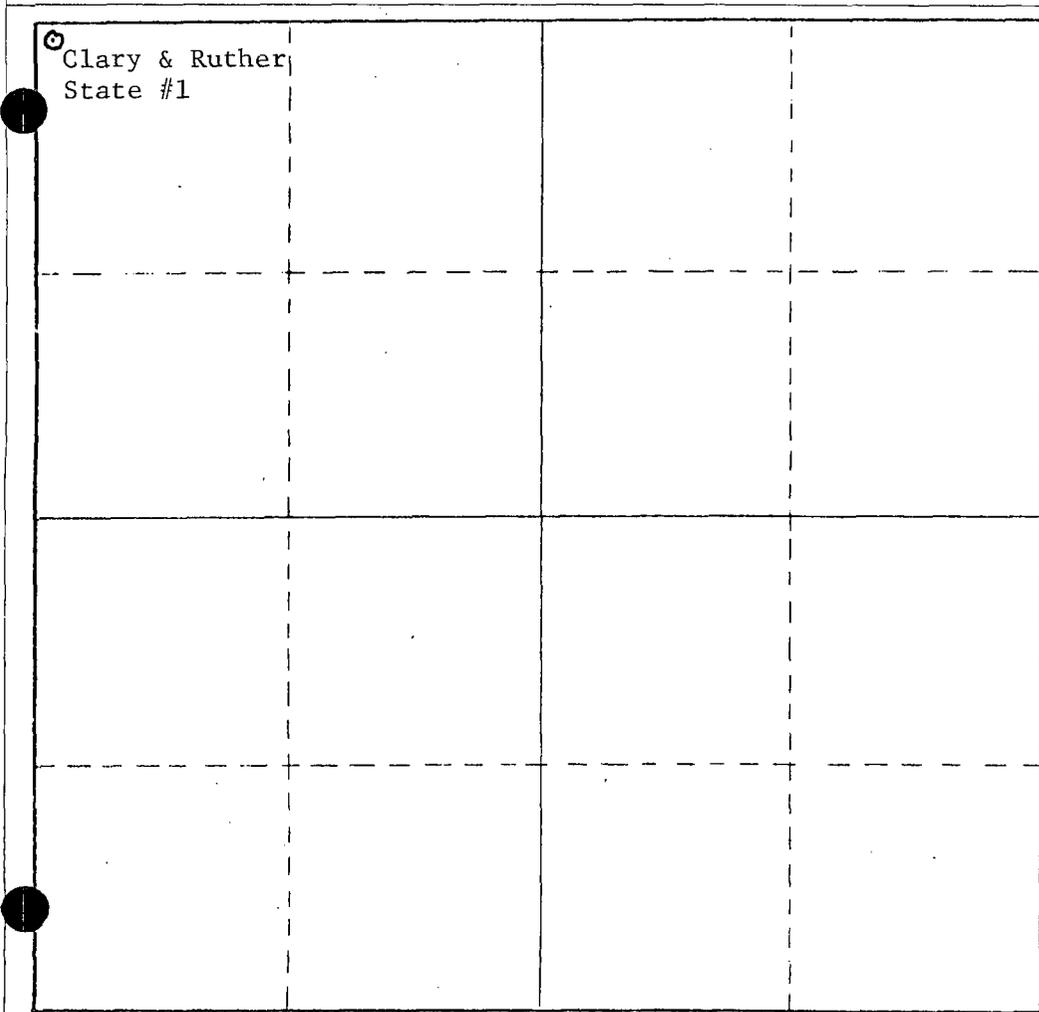
Operator NMSU - Lokesh Chaturvedi		Lease No present lease			Well No. Clary & Ruther State #1	
Unit Letter D	Section 36	Township 23 S	Range 2 E	County Dona Ana		
Actual Footage Location of Well: 50 feet from the North line and 20 feet from the West line						
Ground Level Elev. 4200 ft.	Producing Formation		Pool		Dedicated Acreage: Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

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

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

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



CERTIFICATION

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

Lokesh Chaturvedi
Lokesh Chaturvedi

Name
Assistant Professor
Position New Mexico State University

Company
Las Cruces, NM 88003

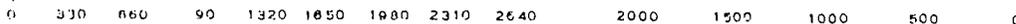
Date
June 7, 1978

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.



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

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

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

1a. Type of Work Drill Reopen Deepen Plug Back
Re-entry of Clary & Ruther State #1
b. Type of Well Geothermal Producer Temp Observation
Low-Temp Thermal Injection/Disposal

7. Unit Agreement Name
8. Farm or Lease Name
C&R State

2. Name of Operator Lokesh Chaturvedi, Principal Investigator
Dept. of Energy Research Project

9. Well No. **1 State**

3. Address of Operator Box 3CE, NMSU
Las Cruces, NM 88003

10. Field and Pool, or Wildcat
Wildcat

4. Location of Well UNIT LETTER **D** LOCATED **50'** FEET FROM THE **North** LINE
AND **20** FEET FROM THE **West** LINE OF SEC. **36** TWP. **23 S.** RGE. **2 E** NMPM

12. County
Dona Ana



19. Proposed Depth 1490 (Max.)	19A. Formation Sediment	20. Rotary or C.T. Rotary
21. Elevations (Show whether DF, RT, etc.) 4200 ft above m.s.l.	21A. Kind & Status Plug. Bond Not Required	21B. Drilling Contractor Sandia Laboratory
(see enclosed letter)		22. Approx. Date Work will start June 19, 1978

PROPOSED CASING AND CEMENT PROGRAM

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

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I hereby certify that the information above is true and complete to the best of my knowledge and belief.
Signed **L Chaturvedi** Title **Assistant Professor** Date **June 7, 1978**

(This space for State Use)
APPROVED BY **Daniel S. Nutter** TITLE **DANIEL S. NUTTER** DATE **6/8/78**
CONDITIONS OF APPROVAL, IF ANY: **CHIEF ENGINEER**

Subject to approval for re-entry by Commissioner of Public Lands

GEOHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

Operator NMSU - Lokesh Chaturvedi		Lease No present lease		Well No. Clary & Ruther State #1	
Letter D	Section 36	Township 23 S	Range 2 E	County Dona Ana	

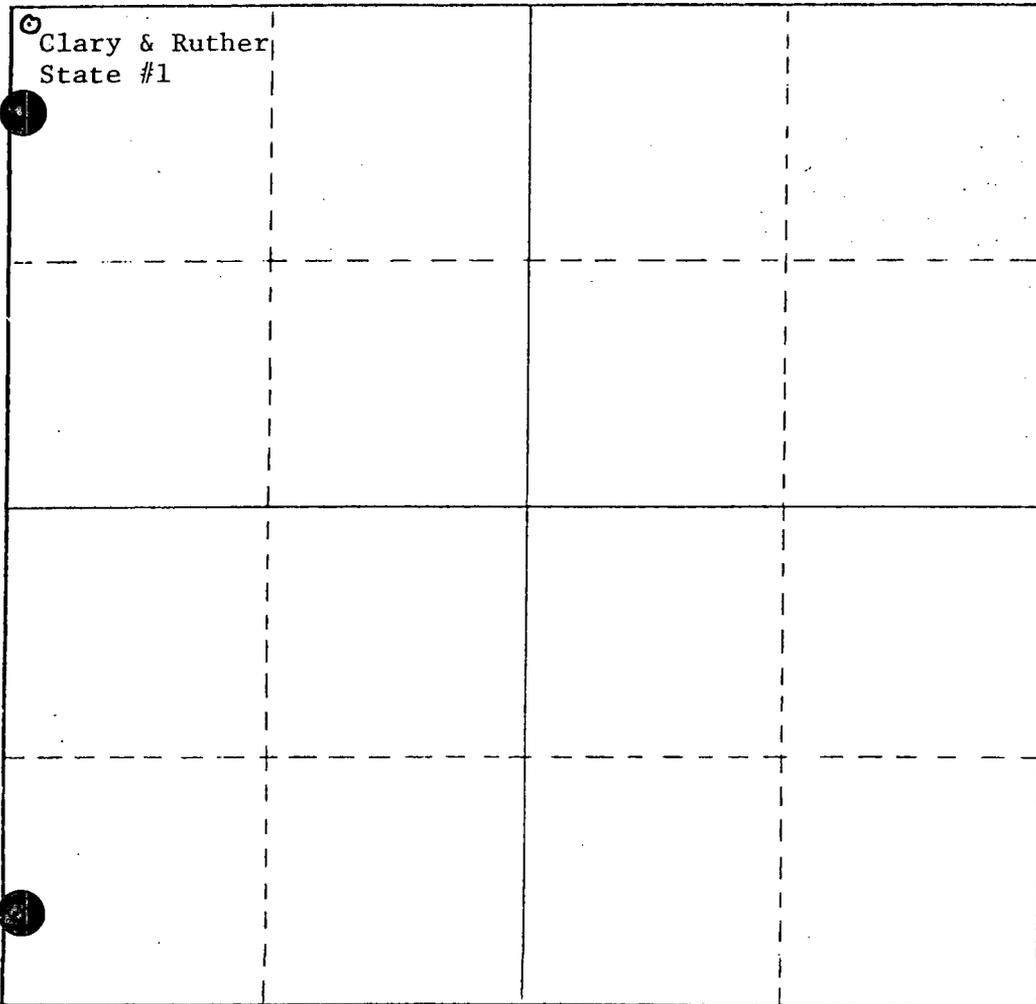
Actual Footage Location of Well:
50 feet from the **North** line and **20** feet from the **West** line

Ground Level Elev. 4200 ft.	Producing Formation	Pool	Dedicated Acreage: Acres
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Lokesh Chaturvedi
Lokesh Chaturvedi

Name
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Position **New Mexico State University**

Company
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Date
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