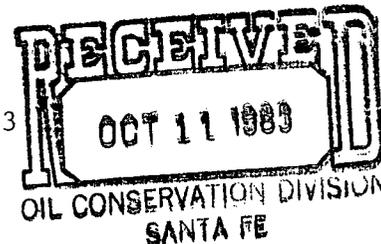


Anadarko 



October 5, 1983

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501
Attn: Mr. R. L. Stamets

Re: Grier Federal Well No.20
Administrative Order NSL-1739

Amend →

to correct footage location

Gentlemen:

Corrected Forms 9-331C and C-102 for the subject well are submitted for your information. The distance from the West Section line was in error due to the small size of Section 31, T16S, R31E. This, however, does not change the well location within the dedicated 40 acres.

Please contact me if further information is needed. Thank you for your consideration in this matter.

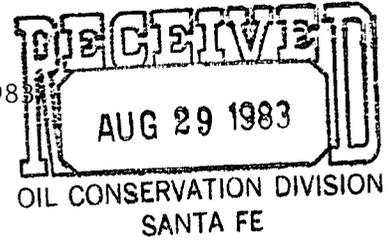
Very truly yours,

Michael Bridges

Michael Bridges

MB:gks

*NSL 1739
Rule 104 F
No off sets
I mm date*



August 25, 1983

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501
Attn: Division Director

Dear Sir:

Anadarko Production Company requests administrative approval to drill the Grier Federal No.20 at an unorthodox location 1250' from the north line and 1078' from the west line of Section 31, Township 16 South, Range 31 East, Eddy County, New Mexico. An application to drill this well was filed August 9, 1983.

*Square Lake
Pool 1*

The Anadarko Consolidated Square Lake Waterflood Project, which includes the Grier Waterflood, was authorized July 2, 1975 by Order Number R-5065. Paragraph 6 of this order provides for such unorthodox locations.

The proposed well will be completed as an infill producer in the Grayburg formation. The location is 10 feet from the quarter-quarter line and further than 330 feet from lease boundaries. This well is needed to recover secondary reserves not obtainable by existing wells.

Attached are copies of the C-102, the Division Order Number R-5065, and a location plat. If additional information is needed please contact me at 915-682-1666.

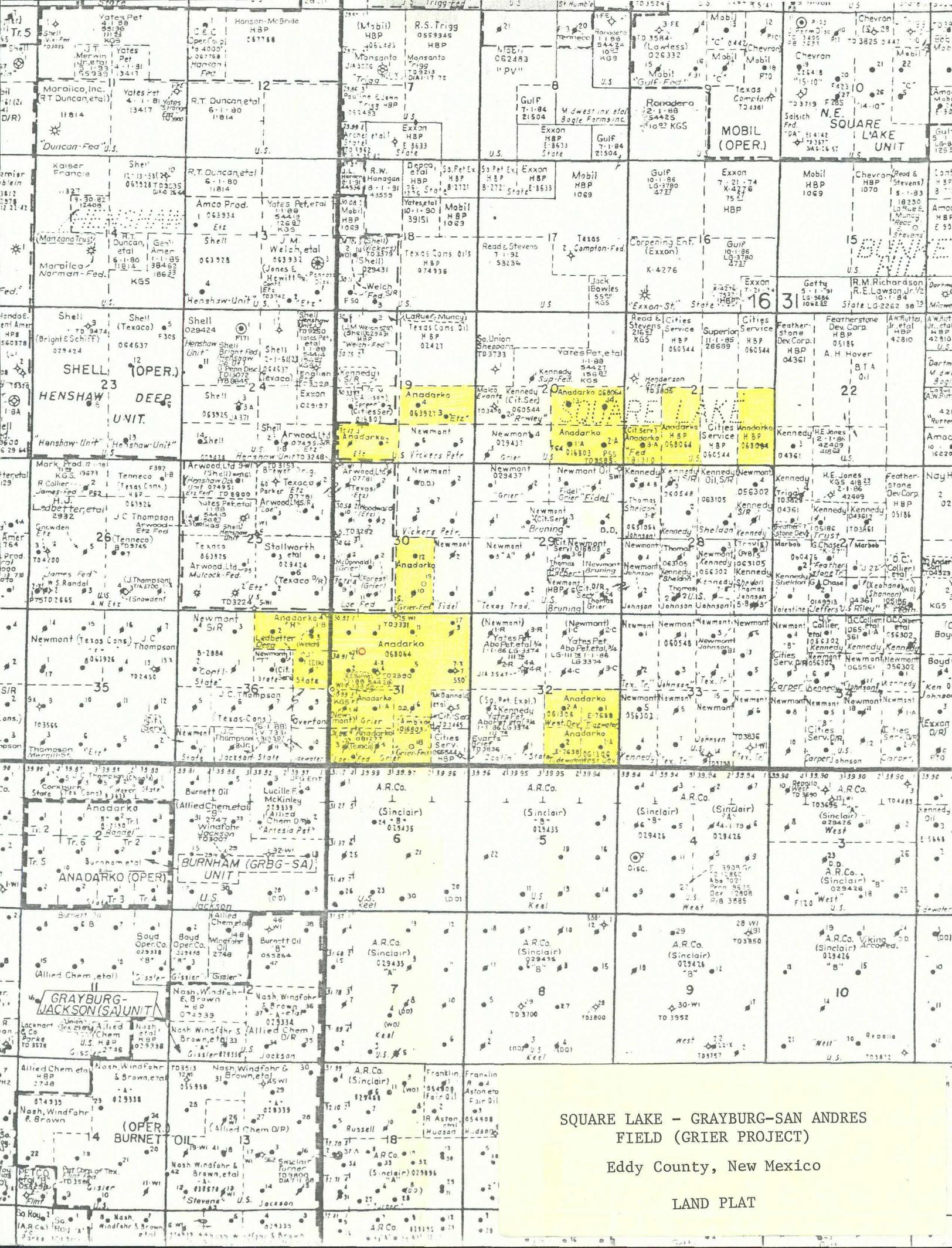
Thank you for your consideration in this matter.

Very truly yours,

Michael Bridges

Michael Bridges
Production Engineer

MB:gks

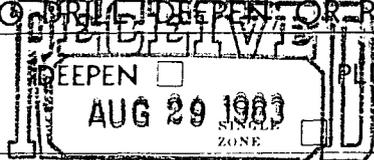


SQUARE LAKE - GRAYBURG-SAN ANDRES
 FIELD (GRIER PROJECT)
 Eddy County, New Mexico
 LAND PLAT

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN OR PLUG BACK

1a. TYPE OF WORK
 DRILL DEEPEN PLUG BACK
 b. TYPE OF WELL
 OIL WELL GAS WELL OTHER MULTIPLE ZONE



5. LEASE DESIGNATION AND SERIAL NO.
LC - 068064
 6. IF INDIAN, ALLOTTEE OR TRIBE NAME
 7. UNIT AGREEMENT NAME
 8. FARM OR LEASE NAME
Grier Federal
 9. WELL NO.
20
 10. FIELD AND POOL, OR WILDCAT
Square Lake-Grayburg-SA
 11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA
31 - 16S - 31E
 12. COUNTY OR PARISH
Eddy
 13. STATE
New Mexico

2. NAME OF OPERATOR
Anadarko Production Company
 OIL CONSERVATION DIVISION
SANTA FE

3. ADDRESS OF OPERATOR
P. O. Drawer 130, Artesia, New Mexico 88210

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
 At surface
 1250' FNL & 1078' FWL Sec. 31, T16S, R31E, Eddy Co., N.M.
 At proposed prod. zone
Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 Approximately 7 miles Northeast of Loco Hills, New Mexico

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any)	1250'	16. NO. OF ACRES IN LEASE	461.75	17. NO. OF ACRES ASSIGNED TO THIS WELL	40
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	850'	19. PROPOSED DEPTH	3400'	20. ROTARY OR CABLE TOOLS	Rotary
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3814.7' GL				22. APPROX. DATE WORK WILL START* August 22, 1983	

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24.0#	1550'	Approx. 400 - circulated
7-7/8"	5-1/2"	15.5#	3400'	Approx. 1000 - circulated

- Rig up Rotary Tools.
- Drill 12-1/4" hole to approx. 1550'; set & circulate or ready-mix cement to surface on 8-5/8" casing. Install and test Series 900 Double Ram Hydraulic Blowout Preventor.
- Drill 7-7/8" hole to T D (approx. 3400'); run Open Hole Logs.
- Set & circulate cement on 5-1/2" casing from T D to surface. (If water flow is encountered in the Grayburg (2900'), an openhole inflatable packer will be run directly above water flow, cement will be circulated and packer set).
- Perforate, acidize and fracture treat.
- Run 2-3/8" tubing, rods and bottomhole pump; install pumping equipment and place well on production.

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. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED Trauman D. Jones TITLE Field Foreman DATE August 9, 1983

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

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

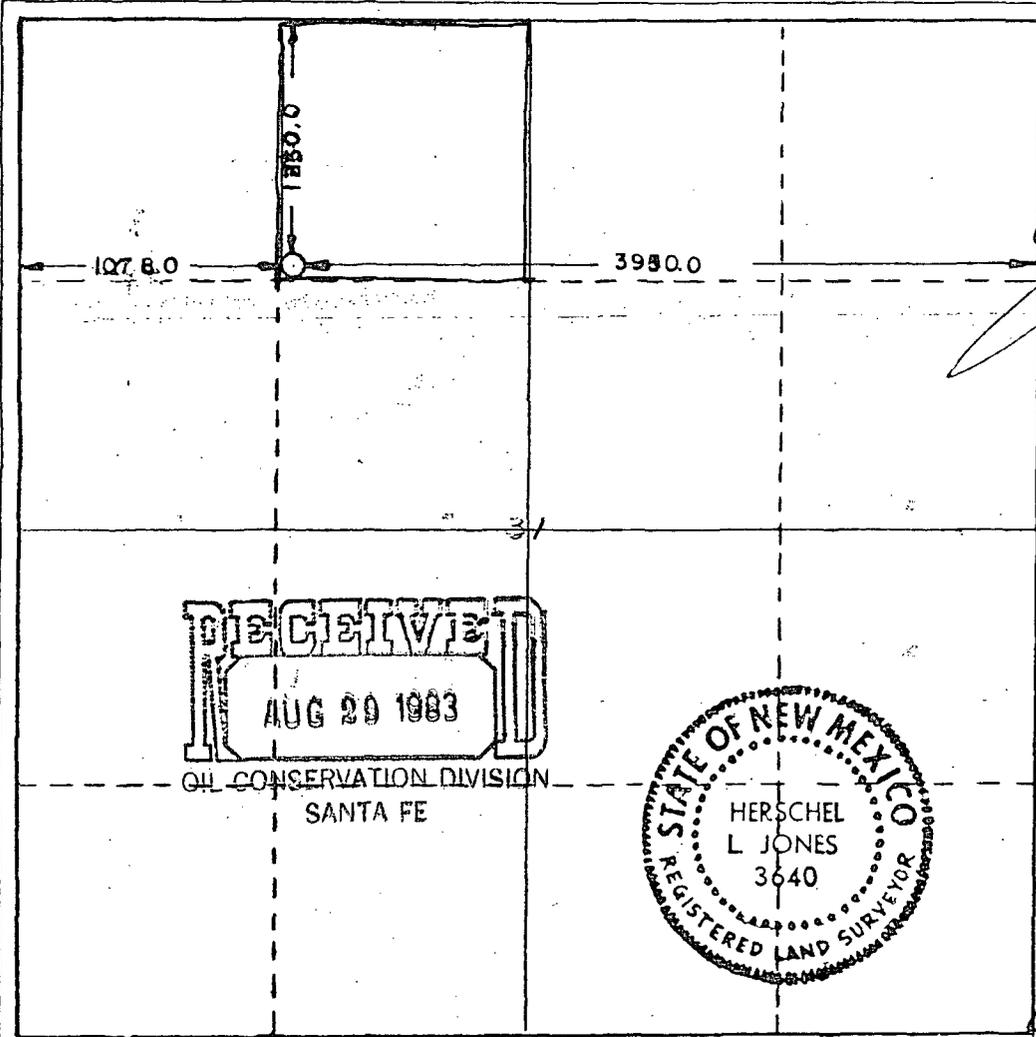
Operator ANADARKO PRODUCTION COMPANY		Lease GRIER FEDERAL		Well No. 20
Unit Letter "C"	Section 31	Township 16 South	Range 31 East	County Eddy
Actual Footage Location of Well: 1250' feet from the North		line and 1078	feet from the West East line	
Ground Level Elev. 3814.7	Producing Formation Grayburg-San Andres	Pool Square Lake Grayburg-San Andres	Dedicated Acreage: 40 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.

Jerry E. Buckles
Name

Jerry E. Buckles

Position
Area Supervisor

Company
Anadarko Production Company

Date
August 9, 1983

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
July 21, 1983

Registered Professional Engineer and/or Land Surveyor

Herschel L. Jones
Certificate No. 3640

RECEIVED
AUG 29 1983
OIL CONSERVATION DIVISION
SANTA FE



0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

SQUARE LAKE POOL
(Anadarko Consolidated Square Lake Waterflood Project)
Eddy County, New Mexico

Order No. R-5065, Authorizing Anadarko Production Company to Consolidate Certain Waterflood Projects in the Grayburg and San Andres Formations in the Square Lake Pool, Eddy County, New Mexico, July 22, 1975.

Application of Anadarko Production Company for Waterflood Project Consolidation, Waterflood Expansion, and an Administrative Procedure, Eddy County, New Mexico.

CASE NO. 5518
Order No. R-5065

ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9 a.m. on July 2, 1975, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 22nd day of July, 1975, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Anadarko Production Company, is the operator and successor in interest to those certain waterflood projects and waterflood buffer zones heretofore approved by the Commission, as follows:

(a) The Anadarko Square Lake Etz Waterflood project.

(b) The Anadarko Square Lake Grier No. 2 Waterflood project.

Both of which were approved by Commission Order No. R-3677, dated February 13, 1969.

(c) The Kennedy Oil Company Square Lake Waterflood project, approved by Commission Order No. R-2920, dated June 8, 1965.

(d) The Cima Capitan, Inc., et al., cooperative waterflood project in the Square Lake Pool, approved by Order No. R-2977, dated October 7, 1965, in which project applicant has succeeded to the interests of Western Oil Fields, Inc., and Cima Capitan, Inc.

(3) That for convenience of operation, reporting, and control of said projects, they should be consolidated into a single project.

(4) That the applicant seeks to expand said project by the injection of water into the Grayburg and San Andres formations through its Baxter "A" Federal Well No. 1 in Unit O of Section 20 and its Federal "A" Well No. 3 in Unit M of Section 21, both located in Township 16 South, Range 31 East, NMPM, Square Lake Pool, Eddy County, New Mexico.

(5) That the proposed waterflood project consolidation and expansion should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(6) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.

(7) That an administrative procedure should be established whereby additional injection and producing wells at orthodox and unorthodox locations in the project area may be approved without notice and hearing.

(8) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant is hereby authorized to consolidate for purposes of operation and reporting those certain waterflood projects and waterflood buffer zones heretofore approved by the Commission, as follows:

(a) The Anadarko Square Lake Etz Waterflood project;

(b) The Anadarko Square Lake Grier No. 2 Waterflood project;

(c) The Kennedy Oil Company Square Lake Waterflood project; and

(d) The Cima Capitan, Inc., et al., cooperative waterflood project in the Square Lake Pool;

all in Eddy County, New Mexico.

(2) That the resultant consolidated waterflood project is hereby designated the Anadarko Consolidated Square Lake Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of Commission Rules and Regulations.

(3) That the applicant is hereby authorized to expand said Consolidated Square Lake Waterflood Project in the Square Lake Pool by the injection of water into the Grayburg and San Andres formations through the following-described wells in Township 16 South, Range 31 East, NMPM, Eddy County, New Mexico:

Lease Name	Well No.	Unit	Section
Baxter "A" Federal	1	O	20
Federal "A"	3	M	21

(4) That injection into each of said wells shall be through internally coated tubing, set in a packer which shall be located as near as practicable to the uppermost perforation; that the casing-tubing annulus of each injection well shall be loaded with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak detection device.

(5) That the operator shall immediately notify the supervisor of the Commission's Artesia district office of the failure of the tubing or packer in any injection well, the leakage of water or oil from around any producing well, or the leakage of water or oil from any plugged and abandoned well within the project area and shall take such timely steps as may be necessary or required to correct such failure or leakage.

(SQUARE LAKE (ANADARKO CONSOLIDATED SQUARE LAKE WATERFLOOD PROJECT) POOL - Cont'd.)

(6) The Secretary-Director of the Commission is hereby authorized to approve such additional producing wells and injection wells at orthodox and unorthodox locations within the boundaries of the Anadarko Consolidated Square Lake Waterflood Project area as may be necessary to complete an efficient production and injection pattern, provided said wells are drilled no closer than 330 feet to any lease line nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary. To obtain such approval, the project operator shall file proper application with the Commission, which application, if it seeks authorization to convert additional wells to injection or to drill additional production or injection wells shall include the following:

(a) A plat showing the location of proposed well, all wells within the project area, and offset operators, locating wells which offset the project area.

(b) A schematic drawing of the proposed well which fully describes the casing, tubing, perforated interval, and depth.

(c) A letter stating that all offset operators to the proposed well have been furnished a complete copy of the application and the date of notification.

The Secretary-Director may approve the proposed well if, within 20 days after receiving the application, no objection to the proposal is received. The Secretary-Director may grant immediate approval, provided waivers of objection are received from all offset operators.

(7) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(8) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

LUSK-STRAWN POOL
(Lusk-Strawn Deep Unit Pressure Maintenance)
Lea and Eddy Counties, New Mexico

Order No. R-5123, Authorizing Llano, Inc. to Institute a Pressure Maintenance Project on the Lusk-Strawn Deep Unit in the Lusk-Strawn Pool, Lea and Eddy Counties, New Mexico, November 17, 1975.

Application of Llano, Inc. for a Pressure Maintenance Project, Lea and Eddy Counties, New Mexico.

CASE NO. 5564
Order No. R-5123

ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9 a.m. on October 8, 1975, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 17th day of November, 1975, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Llano, Inc., seeks authority to institute a pilot pressure maintenance project in the Lusk Strawn Pool, Lea and Eddy Counties, New Mexico, by the injection of extraneous gas into the Strawn formation through two wells in its Lusk Strawn Deep Unit Area, and by the cycling and reinjection of produced gas from said unit and pool.

(3) Applicant further seeks rules governing said project, including but not limited to provision for expansion of the project area, placing additional wells on injection, changes in injection pattern for sweep efficiency and determination of project allowable.

(4) That the initial project area should consist of the following described acreage in Lea and Eddy Counties, New Mexico:

TOWNSHIP 18 SOUTH, RANGE 32 EAST, NMPM
Section 31: SE/4
Section 32: SW/4

TOWNSHIP 19 SOUTH, RANGE 31 EAST, NMPM
Section 12: NE/4

TOWNSHIP 19 SOUTH, RANGE 32 EAST, NMPM
Section 5: W/2
Section 6: E/2
Section 7: N/2
Section 8: W/2

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

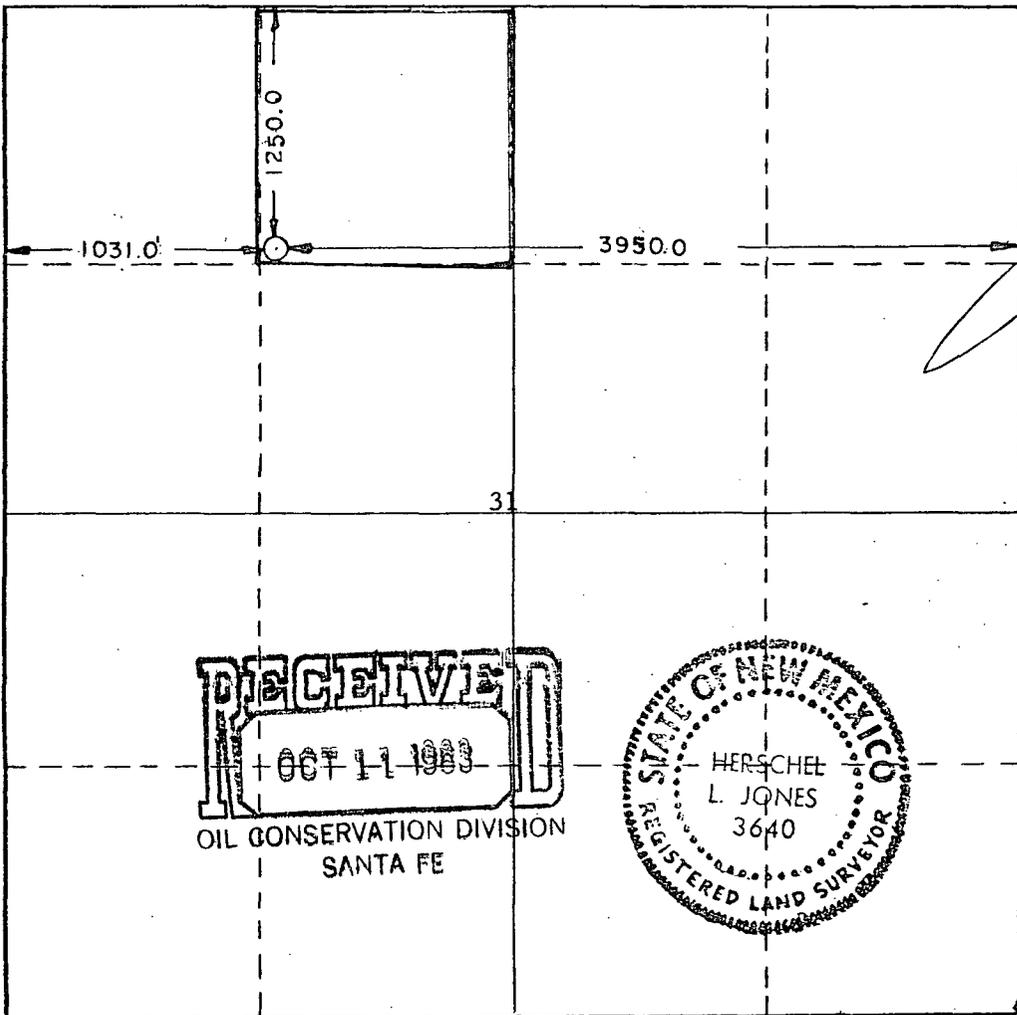
All distances must be from the outer boundaries of the Section.

Operator ANADARKO PRODUCTION COMPANY		Lease GRIER FEDERAL		Well No. 20
Unit Letter "C"	Section 31	Township 16 South	Range 31 East	County Eddy
Actual Footage Location of Well: 1250' feet from the North line and 1031 feet from the West line 3950 East				
Ground Level Elev. 3814.7	Producing Formation Grayburg-San Andres	Pool Square Lake	Dedicated Acreage: 40 Acres	

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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).
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 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.



RECEIVED
OCT 11 1983
OIL CONSERVATION DIVISION
SANTA FE

STATE OF NEW MEXICO
HERSCHEL L. JONES
3640
REGISTERED LAND SURVEYOR

CERTIFICATION

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

Name

Jerry E. Buckles
Jerry E. Buckles

Position

Area Supervisor

Company

Anadarko Production Company

Date

August 30, 1983

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

July 21, 1983

Registered Professional Engineer and/or Land Surveyor

Certificate No.

Herschel L. Jones
3640

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0