

BEFORE THE OIL CONSERVATION DIVISION

IN THE MATTER OF THE APPLICATION)
 OF BCO, INC. and HARRY L. BIGBEE)
 FOR ADMINISTRATIVE APPROVAL OF)
UNORTHODOX LOCATIONS)

APPLICATION

Applicants, BCO, Inc. and Harry L. Bigbee request the

Division Director to approve the proposed unorthodox locations described herein and for the reasons herein stated.

1. That said proposed wells will permit the completion of an efficient production pattern within the Escrito Gallup Unit area, in that said proposed wells will be drilled approximately 25-50 ft. structurally higher than existing wells where the Mayre Gallup sand has, as a result of prior water injection, become water cut to the extent it is not economically feasible to recover oil from said existing wells in said Mayre zone.

2. That attached hereto and marked Exhibit 1 is a copy of a letter of the Commission and the order of this Commission approving said Escrito Gallup Unit.

3. That attached hereto and marked Exhibit 2 is a copy of a plat of said Escrito Gallup Unit.

4. That attached hereto are the following described exhibits:

- (a) Copy of plat of certified survey of proposed Unorthodox location of Unit Escrito Gallup Unit Well No. 25, marked Exhibit 3.

Escrito Gallup Unit Well No. 25
 1920' FSL & 2120 FEL, Sec. 18, T25N, R7W,
 Rio Arriba Co., N.M.

NSL-1785

Rule 104 FI

Immediate!

(No waivers necessary)

RECEIVED
 Send to Ernie Padilla
 Address on next page!

Escrito Gallup Unit

- (b) Copy of plat of certified survey of proposed Unorthodox location of Unit Well No. 26, marked Exhibit 4.
450' FSL & 330' FEL, Sec. 18, T24N, R7W, Rio Arriba Co., N.M.
- (c) Copy of plat of certified survey of proposed Unorthodox location of Unit Well No. 27, marked Exhibit 5.
1840' FNL & 330' FEL, Sec. 19, T24N, R7W, Rio Arriba Co., N.M.
- (d) Copy of plat of certified survey of proposed Unorthodox location of Unit Well No. 28, marked Exhibit 6.
990' FNL & 2310' FWL, Sec. 20, T24N, R7W, Rio Arriba Co., N.M.
- (e) Copy of plat of certified survey of proposed Unorthodox location of Unit Well No. 29, marked Exhibit 7.
1840' FNL & 800' FEL, Sec. 20, T24N, R7W, Rio Arriba Co., N.M.

5. That BCO, Inc. is the operator of the Escrito

Gallup Unit and that either BCO, Inc. or Harry L. Bigbee operate and own the oil and gas rights within the adjoining or offsetting proration and spacing units affected by this application.

6. That it is believed that the drilling of said wells at the proposed Unorthodox locations is required in order to recover the greatest amount of oil from said unit.

WHEREFORE, applicant requests that the Division Director grant an appropriate exception to the applicable well location requirements without notice or hearing in that each of said proposed locations are more than 330 feet from applicable lease and unitized unit boundary and exceeds 10 feet from any subdivision boundary in that said wells permit the completion of an efficient production pattern within the Escrito Gallup secondary recovery project.

Respectfully submitted,

BCO, Inc. and Harry L. Bigbee



By: Ernest L. Padilla
Attorney for Applicant
P.O. Box 2523
Santa Fe, New Mexico 87501

State of New Mexico
Oil Conservation Commission

LAND COMMISSIONER
E. S. JOHNNY WALKER
MEMBER

P. O. BOX 2088
SANTA FE

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

December 14, 1964

Mr. Jason Kellahin
Kellahin & Fox
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

Dear Mr. Kellahin:

Enclosed herewith is Commission Order No. R-2796, entered in Case No. 3114, approving the BCO Escrito Gallup Waterflood Project.

Injection is to be through the three authorized injection wells which shall be equipped with 2 3/8-inch tubing and with packers, which shall be set within 100 feet of the uppermost perforation.

As to allowable, our calculations indicate that when all of the authorized injection wells have been placed on active injection, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is 2120 barrels per day.

Please report any error in this calculated maximum allowable immediately both to the Santa Fe office of the Commission and the appropriate district proration office.

In order that the allowable assigned to the project may be kept current, and in order that the operator may fully benefit from the allowable provisions of Rule 701, it behooves him to promptly notify both of the aforementioned Commission offices by letter of any change in the status of wells in the project area, i.e., when active injection commences, when additional injection or producing

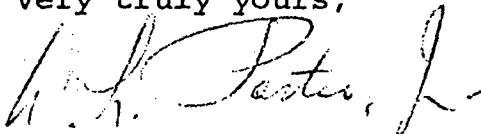
Page -2-

Mr. Jason Kellahin

wells are drilled, when additional wells are acquired through purchase or unitization, when wells have received a response to water injection, etc.

Your cooperation in keeping the Commission so informed as to the status of the project and the wells therein will be appreciated.

Very truly yours,



A. L. PORTER, Jr.
Secretary-Director

ALP/ir

cc: Oil Conservation Commission:
Hobbs
Aztec

Mr. Frank Irby

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-102
Revised 10-1-78

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

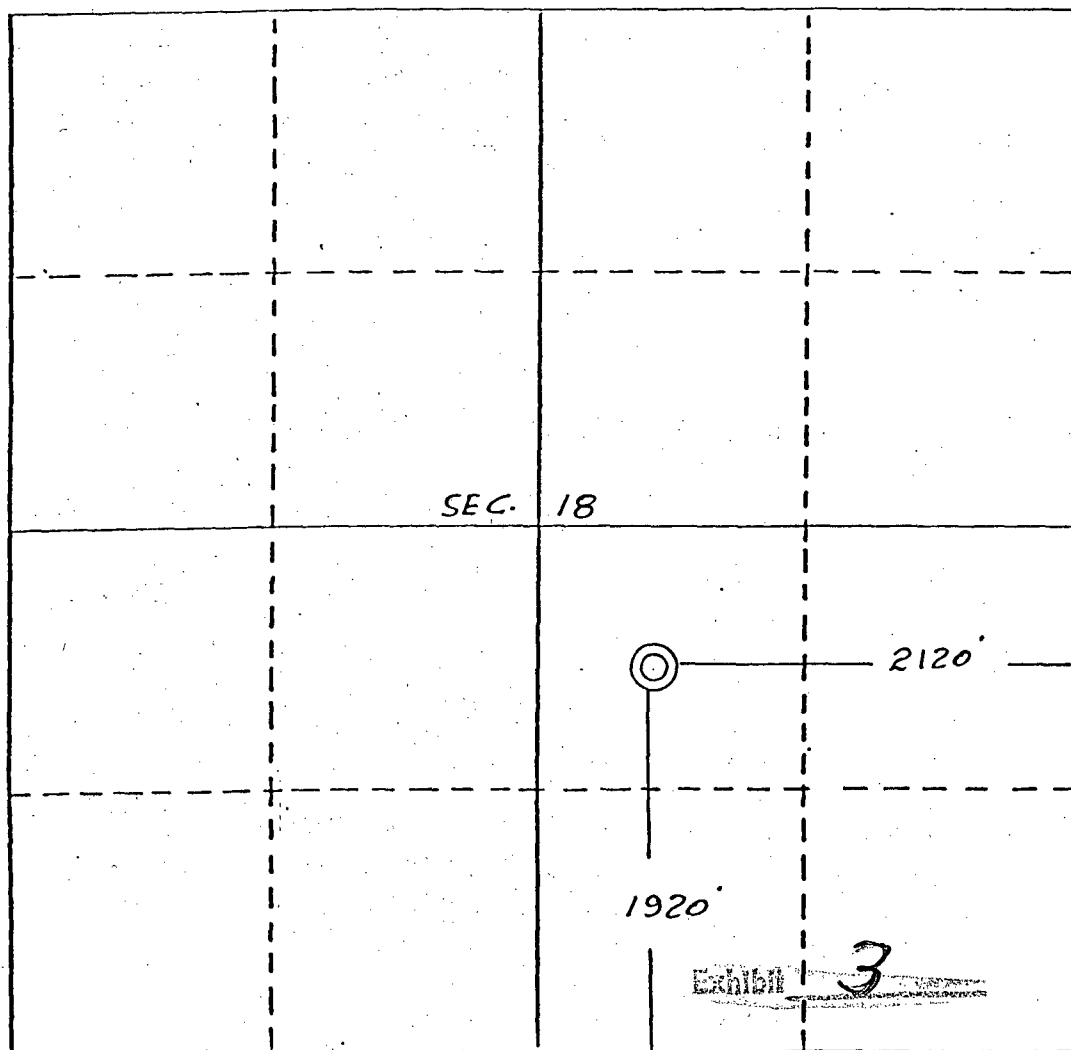
| | | | | |
|-----------------------------------|----------------------|-------------------------------------|---------------------------------|-----------------------------|
| Operator BCO, INC. | | Lease Escrito Gallup Unit | | Well No. 25 |
| Unit Letter J | Section 18 | Township 24 North | Range 7 West | County Rio Arriba |
| Actual Footage Location of Well: | | | | |
| 1920 feet from the South line and | | 2120 feet from the East line | | |
| Ground Level Elev. 7163 | 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 Division.



CERTIFICATION

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

Name

Position

Company

Date

I have personally located the location shown on this plat or was assisted by field notes of actual survey 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

December 8, 1983

Registered Professional Engineer
and/or Land Surveyor

Edgar L. Risenhoover

Certificate No. 5979

Edgar L. Risenhoover, L.S.

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088
SANTA FE, NEW MEXICO 87501Form C-102
Revised 10-1-7

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

| | | | | | |
|--|---------------------|------------------------------|-----------------|----------------------|-----------------------------|
| Operator BCO, Inc. | | Lease Escrito Gallup Unit | | | Well No. 26 |
| Unit Letter P | Section 18 | Township 24 North | Range 7 West | County Rio Arriba | |
| Actual Footage Location of Well: 450 feet from the South line and 330 feet from the East line | | | | | |
| Ground Level Elev. 7218 | Producing Formation | | Pool | | Dedicated Acreage: Acres |

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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 Division

| | |
|-----------|--|
| SEC 18 | |
| Exhibit 4 | |
| 450' 330' | |

CERTIFICATION

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

Name _____

Position _____

Company _____

Date _____

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

EDGAR L. RISENHOVER
NEW MEXICO
5979
REGISTERED LAND SURVEYOR

Date Surveyed

December 8, 1983

Registered Professional Engineer
and/or Land Surveyor

Edgar L. Risenhoover

Certificate No. 5979

Edgar L. Risenhoover, L.S.

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

| | | | | | |
|---|---------------------|------------------------------|-----------------|----------------------------|----------------|
| Operator BCO, Inc. | | Lease Escrito Gallup Unit | | | Well No. 27 |
| Unit Letter H | Section 19 | Township 24 North | Range 7 West | County Rio Arriba | |
| Actual Footage Location of Well: 1840 feet from the North line and 330 feet from the East line | | | | | |
| Ground Level Elev. 7160 | Producing Formation | | Pool | Dedicated Acreage: Acre | |

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 Division

SEC 19

1840'

330'

Exhibit 5

CERTIFICATION

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

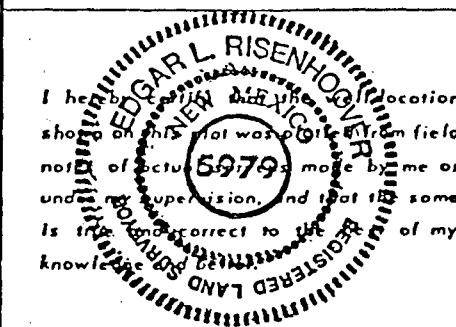
Name

Position

Company

Date

I hereby certify that the location shown on this plat was plotted from field notes of actual survey made by me or under my supervision, and that the same is true and correct to the best of my knowledge.



Date Surveyed

December 8, 1983

Registered Professional Engineer
and/or Land Surveyor

Edgar L. Risenhoover

Certificate No. 5979

Edgar L. Risenhoover, L.S.

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

| | | | | |
|---|---------------------|------------------------------|-----------------------------|----------------------|
| Operator BCO, Inc. | | Lease Escrito Gallup Unit | | Well No. 28 |
| Unit Letter C | Section 20 | Township 24 North | Range 7 West | County Rio Arriba |
| Actual Footage Location of Well: 990 feet from the North line and 2310 feet from the West line | | | | |
| Ground Level Elev. 7285 | 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 Division

990'

2310'

SEC 20

Exhibit 6

CERTIFICATION

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

Name

Position

Company

Date

I hereby certify that the well location shown on this plat was plotted from field notes of actual survey made by me or under my supervision, and that the same is true and correct to the best of my knowledge.

Date Surveyed

December 7, 1983

Registered Professional Engineer
and/or Land Surveyor

Edgar L. Risenhoover

Certificate No. 5979

Edgar L. Risenhoover, L.S.

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

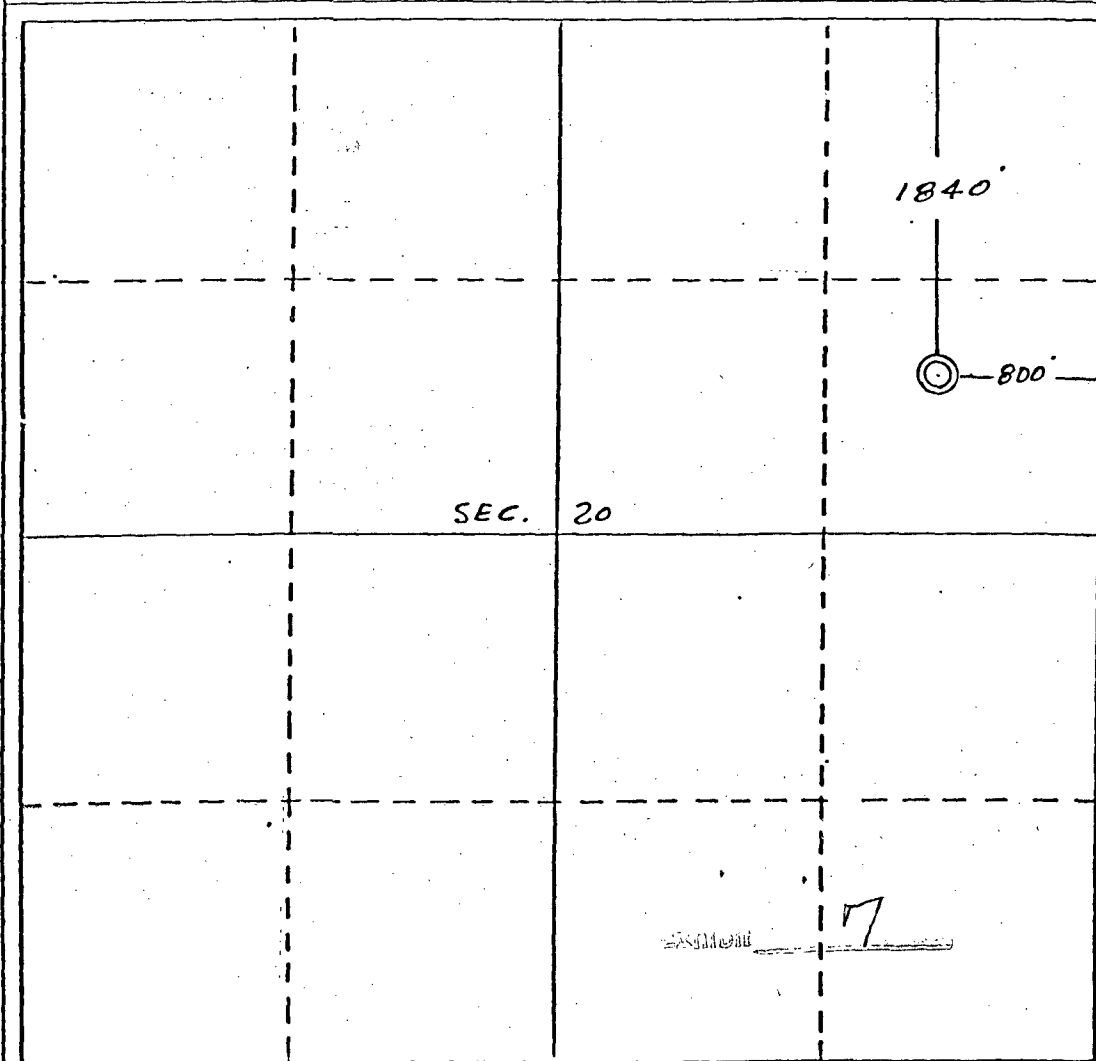
| | | | | | | | | |
|---|---------------------|----------------------|------------------------------|----------------------|--|----------------------------|--|--|
| Operator BCO, Inc. | | | Lease Escrito Gallup Unit | | | Well No. 29 | | |
| Unit Letter H | Section 20 | Township 24 North | Range 7 West | County Rio Arriba | | | | |
| Actual Footage Location of Well: 1840 feet from the North line and 800 feet from the East line | | | | | | | | |
| Ground Level Elev. 7315 | Producing Formation | | Pool | | | Dedicated Acreage: Acre | | |

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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 Division



CERTIFICATION

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

Name _____

Position _____

Company _____

Date _____

I hereby certify that the well location shown on this plat was located from field notes of actual survey 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

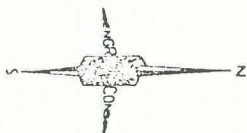
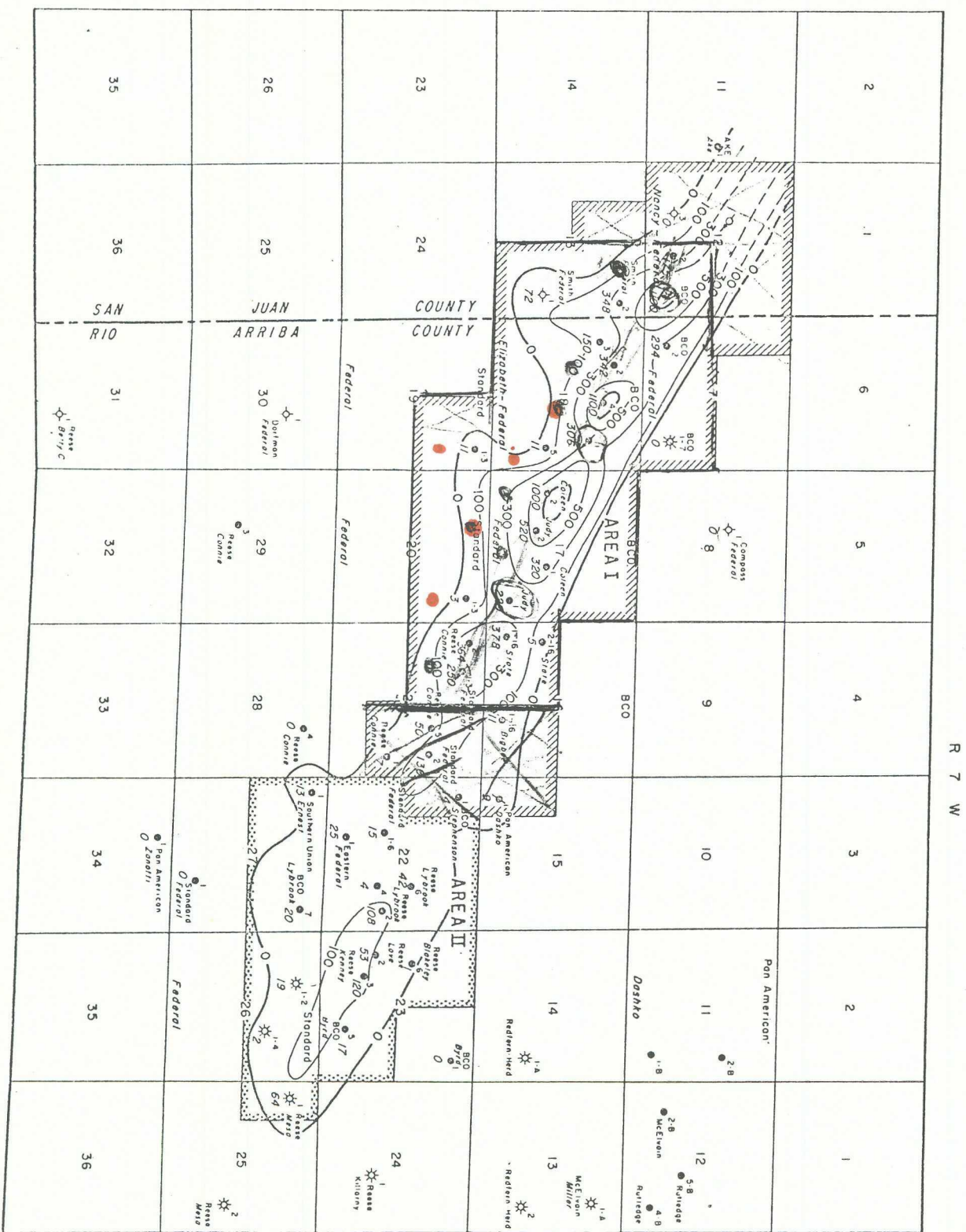
December 7, 1983

Registered Professional Engineer and/or Land Surveyor

Edgar L. Risenhoover

Certificate No. 5979

Edgar L. Risenhoover, L.S.



LEGEND

- LEGEND
- | | |
|---|--|
| ○ | LOCATION |
| ● | OIL WELL |
| ◇ | DRY HOLE |
| ⊛ | GAS WELL |
| ④ | LOCATION PROPOSED WATER INJECTION WELL |
| ⑤ | PROPOSED WATER INJECTION WELL |
| ⑥ | PLUGGED & ABANDONED WELL |

FIGURE 5

RESERVOIR CAPACITY (KH) MAP

MAYRE ZONE

ESCRITO-GALLUP FIELD

RIO ARriba COUNTY, NEW MEXICO
CONTOUR INTERVAL: 200 & 500 Md-ft.

1000 0 1000 2000 3000 4000 5000 6000

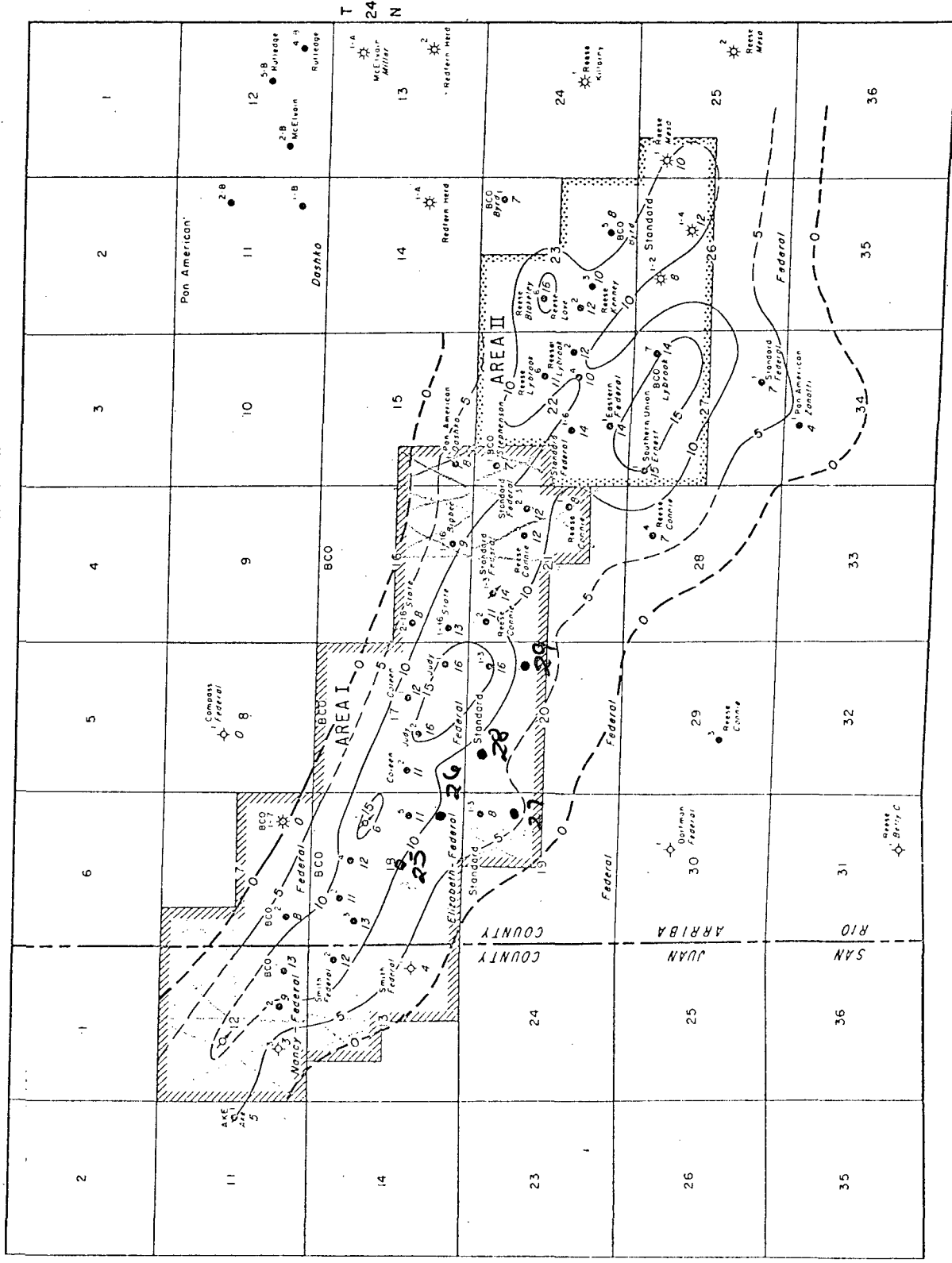
THE UNIVERSITY OF CHICAGO

THE UNIVERSITY OF CHICAGO

ENGINEERING & CONSULTING DEPT.

MARCH 24, 1964

R 7 W



LEGEND

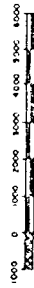
- LOCATION
- OIL WELL
- ✧ DRY HOLE
- ✧ GAS WELL
- ✧ LOCATION PROPOSED WATER INJECTION WELL
- ✧ PROPOSED WATER INJECTION WELL
- ✧ PLUGGED & ABANDONED WELL

FIGURE 6

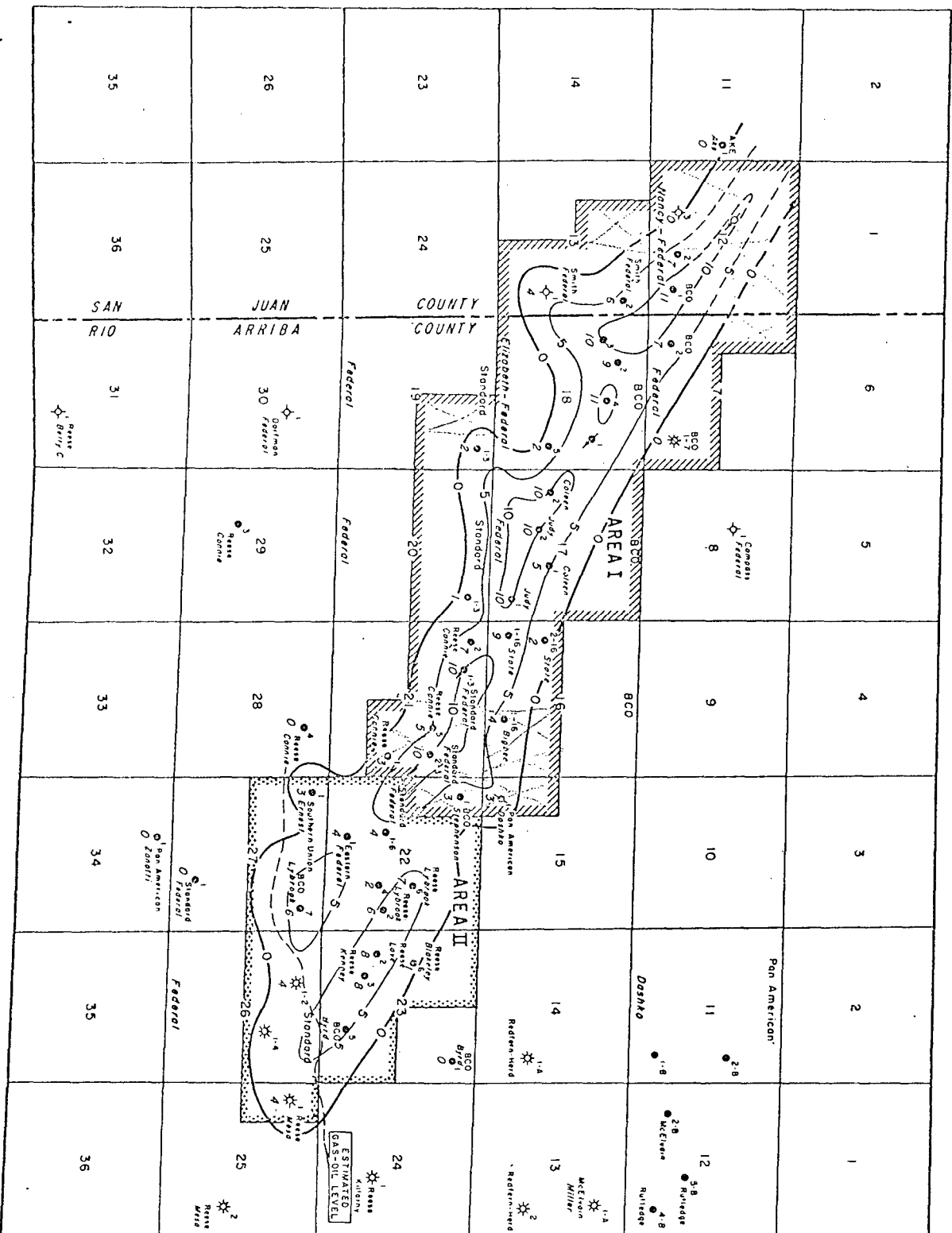
GROSS ISOPACH MAP
(PERMEABILITY > 0.1 Md)

MAYRE ZONE

ESCRITO-GALLUP FIELD
RIO ARriba COUNTY, NEW MEXICO
CONTOUR INTERVAL: 5 FEET



CORE LABORATORIES, INC.
ENGINEERING & CONSULTING DEPT.
MARCH 24, 1964



LEGEND

- LOCATION
- OIL WELL
- ◇ DRY HOLE
- ★ GAS WELL
- ⌵ LOCATION PROPOSED WATER INJECTION WELL
- ⌵ PROPOSED WATER INJECTION WELL
- ⌵ PLUGGED & ABANDONED WELL

FIGURE 7.

NET ISOPACH MAP
(PERMEABILITY > 1.0 Md)

MAYRE ZONE

ESCRIDO-GALLUP FIELD
RIO ARRIBA COUNTY, NEW MEXICO

CONTOUR INTERVAL: 5 FEET

1000 0 2000 3000 4000 5000 6000

CORE LABORATORIES, INC.
ENGINEERING & CONSULTING DEPT.

MARCH 24, 1964

Attention

ERNEST L. PADILLA
ATTORNEY AND COUNSELOR AT LAW

First Northern Plaza
P.O. Box 2523
Santa Fe, New Mexico 87501
(505) 988-7577

January 9, 1984

Joe D. Ramey, Director
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

RE: Application of BCO, Inc. and Harry L. Bigbee for
Administrative Approval of Unorthodox Locations

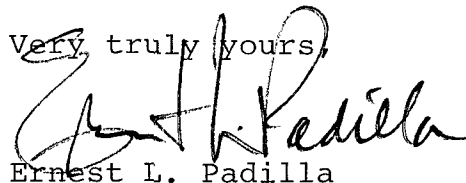
Dear Mr. Ramey:

Enclosed in triplicate is the application of BCO, Inc.
and Harry L. Bigbee for administrative approval of unorthodox
locations within the Escrito Gallup Unit.

By way of information and further reference, I would
direct your attention to your Administrative Order NSL-1692,
issued on May 4, 1983, which granted approval for three
similar non-standard locations within the Escrito Gallup Unit.

Please let me know if we can supply additional informa-
tion or answer any questions that you may have.

Very truly yours,



Ernest L. Padilla

ELP/bp

Enclosures

cc: Harry L. Bigbee
BCO, Inc.

RECEIVED
OIL CONSERVATION DIVISION

JAN 9 1984

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE No. 3114
Order No. A-2796

APPLICATION OF BCO, INC., FOR A
WATERFLOOD PROJECT, SAN JUAN AND
RIO ARriba COUNTIES, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on October 28, 1964, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter

NOW, on this 14TH day of December, 1964, 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, BCO, Inc., seeks permission to institute a waterflood project in the Escrito-Gallup Oil Pool in the Escrito Gallup Pool Unit Area by the injection of water into the Gallup formation through three injection wells in Sections 17 and 18, Township 24 North, Range 7 West, and Section 12, Township 24 North, Range 8 West, NMPM, San Juan and Rio Arriba Counties, New Mexico.

(3) That the wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.

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

(5) 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.

CASE No. 3114
Order No. R-2796

IT IS THEREFORE ORDERED:

(1) That the applicant, BCO, Inc., is hereby authorized to institute a waterflood project in the Escrito-Gallup Oil Pool in the Escrito Gallup Pool Unit Area by the injection of water into the Gallup formation through the following-described wells:

Judy Federal Well No. 1, Unit P of Section 17,
Township 24 North, Range 7 West

Elizabeth Federal Well No. 1, Unit H of Sec-
tion 18, Township 24 North, Range 7 West

Nancy Federal Well No. 1, Unit P of Section 12,
Township 24 North, Range 8 West

(2) That the subject waterflood project shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(3) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1119 of the Commission Rules and Regulations.

(4) 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.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JACK M. CAMPBELL, Chairman

E. S. WALKER, Member

A. L. PORTER, Jr., Member & Secretary

S X A L

csi/