

CASE 5598: SKELLY OIL COMPANY
FOR A WATERFLOOD PROJECT, LEA
COUNTY, NEW MEXICO

CASE NO.

5598

APPLICATION,
TRANSCRIPTS,
SMALL EXHIBITS,

ETC.



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO
January 6, 1976



STATE GEOLOGIST
EMERY C. ARNOLD

Mr. Chester Blodget
Legal Counsel
Skelly Oil Company
Box 1650
Tulsa, Oklahoma 74102

Re: CASE NO. 5598
ORDER NO. R-5141

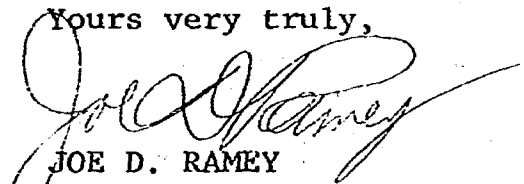
Applicant:

Skelly Oil Company

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Yours very truly,


JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC ☒
Artesia OCC _____
Aztec OCC _____

Other L. C. White

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. 5598
Order No. R-5141

APPLICATION OF SKELLY OIL CO. ANY
FOR A WATERFLOOD PROJECT, LEA
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on December 17, 1975, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 6th day of January, 1976, 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, Skelly Oil Company, seeks authority to institute a waterflood project on its Hughes-Federal Lease, Langlie-Mattix Pool, by the injection of water into the Queen formation through its Hughes-Federal Well No. 1, located in Unit P, and its Hughes-Federal Well No. 3, to be drilled in Unit N, both in Section 17, Township 23 South, Range 37 East, NMPM, Lea County, 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 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.

Case No. 5598
Order No. R-5141

(6) 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.

(7) That applicant further seeks an administrative procedure whereby the project area could be changed and expanded and additional wells at standard and non-standard locations put on injection and production.

IT IS THEREFORE ORDERED:

(1) That the applicant, Skelly Oil Company, is hereby authorized to institute a waterflood project on its Hughes-Federal Lease, Langlie-Mattix Pool, by the injection of water through its Hughes Federal Wells Nos. 1 and 3, located in Units P and N, respectively of Section 17, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico.

(2) 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.

(3) That the operator shall immediately notify the supervisor of the Commission's Hobbs district office of the failure of the tubing or packer in any of said injection wells, 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.

(4) That the subject waterflood project is hereby designated the Skelly Hughes-Federal Langlie-Mattix Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(5) 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.

(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 Skelly Hughes-Federal Langlie-Mattix 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

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Case No. 5598
Order No. R-5141

authorization to convert additional wells to injection or to drill additional production or injection wells shall include the following:

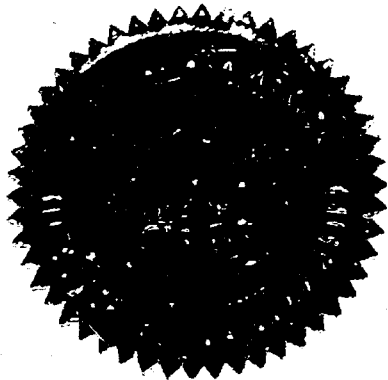
- (a) A plat showing the location of proposed well, all wells within the project area, and offset operators, locating wells which offset the project area.
- (b) A schematic drawing of any proposed injection well which fully describes the casing, tubing, perforated interval, and depth.
- (c) A letter 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 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



Phil R. Lucero
PHIL R. LUCERO, Chairman

Emery C. Arnold
EMERY C. ARNOLD, Member

Joe D. Ramey
JOE D. RAMEY, Member & Secretary

S E A L

jr/

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date DECEMBER 17, 1975 TIME: 9:00 A.M.

NAME	REPRESENTING	LOCATION
C. E. Blodgett	Skelly	Tulsa
FRANK PETRO	✓	MIDLAND
O. V. Stucky	✓	✓
H. L. Kenderich	El Paso Natural Gas	El Paso
G. F. Eickman Jr.	EPNG	Santa Fe
Donald G. Stearns	Stevens Oil Co.	" "
William J. LeMay	Harvard Exploration	Rooswell

Case 5598

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
December 17, 1975

EXAMINER HEARING

IN THE MATTER OF:

Application of Skelly Oil Company for
a waterflood project, Lea County,
New Mexico.

CASE
5598

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil
Conservation Commission:

William F. Carr, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

For the Applicant:

Chester E. Blodget, Esq.
Legal Counsel
Skelly Oil Company
Tulsa, Oklahoma

L. C. White, Esq.
WHITE, KOCH, KELLY & MCCARTHY
Attorneys at Law
220 Otero Street
Santa Fe, New Mexico

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General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

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1 MR. NUTTER: We will call the next Case, Number
2 5598.

3 MR. CARR: Case 5598, application of Skelly Oil
4 Company for a waterflood project, Lea County, New Mexico.

5 MR. BLODGET: Mr. Examiner, I'm Chester Blodget
6 attorney for Skelly Oil Company. I believe L. C. White,
7 attorney here in Santa Fe has heretofore entered his
8 appearance in this Case as a local attorney.

9 MR. NUTTER: Yes, we have the appearance.

10 MR. BLODGET: We have one witness to be sworn.

11 (THEREUPON, the witness was duly sworn.)

12 O. V. STUCKEY

13 called as a witness, having been first duly sworn, was
14 examined and testified as follows:

15

16 DIRECT EXAMINATION

17 BY MR. BLODGET:

18 Q Would you state your name, occupation and by whom
19 are you employed?

20 A My name is O. V. Stuckey, I'm employed by Skelly
21 Oil Company, Midland, Texas as a Production Engineering
22 Specialist.

23 Q Have you heretofore testified before this Commission
24 and have your qualifications been accepted?

25 A Yes, sir.

1 MR. BLODGET: Are the witness's qualifications
2 acceptable?

3 MR. NUTTER: Yes, he is qualified.

4 Q (Mr. Blodget continuing.) Are you familiar with the
5 application of Skelly for an order to authorize a waterflood
6 project in the Langlie-Mattix pool on its Hughes Federal lease
7 in Section 17, Township 23 South, Range 37 East, Lea County,
8 New Mexico?

9 A Yes.

10 Q I call your attention to what has been designated
11 as Skelly Exhibit Number One, would you identify that, please,
12 and discuss it?

13 A This Exhibit One is a map indicating the wells
14 within a two-mile radius of the Skelly Hughes Federal lease
15 with the designation of the completion intervals and with the
16 standard map symbols for producing wells, abandoned wells,
17 injection wells, et cetera.

18 Q Was this exhibit prepared by you or under your
19 direction and supervisions?

20 A Yes.

21 Q Now, would you point out on that particular exhibit
22 where the proposed injection well is going to be located?

23 A There is a proposed injection well in the southeast
24 quarter of the southwest quarter of Section 17 and in the
25 southeast quarter of the southeast quarter of Section 17.

1 The first well is the Hughes Federal Number 3 Well which is
2 presently being drilled and the latter well, the Hughes
3 Federal Number 1, which is presently on production, and which
4 we propose to convert to injection service.

5 Q Now, where will the water be obtained that you
6 plan to inject?

7 A From Skelly's Jal Water System.

8 Q And what is the planned injection rate and the
9 planned maximum pressure?

10 A Our planned injection rate is five hundred barrels
11 per day per well at thirteen hundred pounds.

12 Q I call your attention to what has been marked as
13 Exhibit 2-A, would you identify that and discuss it, please?

14 A Exhibit A is a diagrammatic sketch of the Hughes
15 Federal Well Number 1 which shows the casing, cementing data,
16 perforated intervals, proposed packer location and various
17 other well data.

18 Q Was that exhibit prepared by you or under your
19 direction?

20 A It was.

21 Q I call your attention to what has been marked as
22 Exhibit 2-B and state, please, what that shows and discuss
23 same?

24 A This is a diagrammatic sketch of the Hughes Federal
25 Well Number 3 which was designated as a proposed water

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1 injection well to be drilled. This well has been spudded,
2 drilling operations are under way.

3 Q Was that exhibit prepared by you or under your
4 direction and supervision?

5 A It was.

6 Q I call your attention now to Exhibit Number Three.
7 Would you identify that please?

8 A Exhibit Number Three is a copy of the well log on
9 the Hughes Federal Well Number 1, a gamma ray neutron log
10 which was run in September of this year.

11 Q Was that prepared by you or under your supervision?

12 A It was.

13 Q I call your attention to Skelly Exhibit Number Four,
14 would you identify that, please?

15 A Exhibit Number Four is an analysis of the water
16 from the Jal Water System which is the water which we propose
17 to utilize for this waterflood project.

18 Q Was that exhibit prepared by you or under your
19 supervision and direction?

20 A It was.

21 Q In your opinion would the granting of this
22 application result in the recovery of otherwise unrecoverable
23 oil and thereby prevent waste as well as in the meantime
24 protecting correlative rights?

25 A It would.

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1 Q Now, would you give us a little history of the
2 wells involved and any estimates you may have for future
3 recovery of the oil?

4 A This lease was originally developed in 1945 by
5 Samedan by the drilling of Well Number 1 under the designation
6 the Hughes B-3 Number 6. This well produced approximately
7 forty-two thousand, four hundred and twenty-six barrels of
8 oil up to 1969 when the Langlie-Mattix zone was abandoned and
9 the well drilled deeper and cased and completed in the
10 Blinebry.

11 Following the purchase of this lease from Samedan
12 this well was recompleted in September of 1975 in the Langlie-
13 Mattix. It potentialled at four barrels of oil per day and
14 is presently producing approximately one and a half barrels
15 per day.

16 Q You are speaking of the Number 1 Well?

17 A The Number 1 well.

18 The Number 2 Well, which is the other active well
19 at present on this lease, was drilled by Cornell Oil Company
20 in December of 1966 and after penetrating the Langlie-Mattix
21 zone in an unsuccessful attempt to stimulate the well, the
22 well was plugged back to the Jalmat gas zone and produced
23 until July 16th, 1975. At that time the lease was sold to
24 Skelly. The Jalmat gas zone was depleted and the Jalmat
25 perforations were squeezed off, the well was drilled and

1 was deepened on down to the Langlie-Mattix and completed in
2 that interval.

3 It also potentialed at four barrels of oil per
4 day and is presently producing approximately a barrel and a
5 half.

6 This historical on these two wells and the present
7 performance indicates that this lease is at or near the economic
8 limit from primary production and we propose to place the lease
9 under waterflood for secondary recovery.

10 Q Do you have any estimates of possible future recovery
11 if it is placed under waterflood?

12 A We estimate that the future recovery from placing
13 this lease under waterflood will result in approximately two
14 hundred and thirty thousand barrels recovery which would not
15 be available without secondary recovery operations.

16 This additional recovery would require the drilling
17 of the Number 3 Well as an injector, the location indicated
18 on Exhibit One, and the drilling of a producing well which is
19 designated as Well Number 4 on Exhibit One.

20 Q Have all of the operators offsetting the proposed
21 injection well area been notified of the proposed waterflood
22 project?

23 A They have.

24 Q And I believe it is also set out in the application
25 that Skelly is also requesting that any order entered herein

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1 will provide for administrative change or extension of the
2 project area and the conversion or drilling of additional
3 wells by administrative means without the necessity of a
4 separate hearing. Is that your understanding of what the
5 application says?

6 A. It is.

7 MR. BLODGET: We tender the Exhibits One through
8 Four into evidence.

9 MR. NUTTER: Skelly's Exhibits One, A-Two, Two-B,
10 and Three and Four will be admitted into evidence.

11 (THEREUPON, Skelly's Exhibits One through Four
12 were admitted into evidence.

13 MR. BLODGET: We pass the witness.

14
15 CROSS EXAMINATION

16 BY MR. NUTTER:

17 Q Mr. Stuckey, the entire extent of the Hughes
18 Federal lease is this one-hundred-and-sixty-acre tract
19 described on this Exhibit Number One, is that correct?

20 A. Yes, that is correct.

21 Q And it currently has two wells on it for the total
22 wells?

23 A. That is correct.

24 Q Now, the Exhibit A-One and A-Two show the two
25 proposed injection wells and the casing and cementing

1 programs of those wells. Now, this waterflood is in Section
2 17 of 23, 37 and to the north of this I see what has been
3 labeled on Exhibit One the Skelly Penrose B Unit and the
4 Penrose A Unit. Those are the two units that are involved
5 in the so-called problem area that has been the subject of
6 several Commission hearings in the last year or so, is that
7 not true?

8 A. That's true.

9 Q. What was the southern extent of the area that was
10 described as being the so-called problem area in those other
11 cases?

12 A. The southern limitation is the area running along
13 the southern boundary of the Penrose A and B Units.

14 Q. In other words, the top two tiers of sections on this
15 Exhibit Number One in Township 23 South, 37 East?

16 A. Yes.

17 Q. Okay, since this is within a mile of that area, did
18 the casing and cementing program comply with the standard
19 that the Commission has established for the cementing of wells
20 in that problem area?

21 A. Yes, they do.

22 Q. Okay, now, on your old well which is going to be
23 converted to an injection well, it appears that there is
24 nine-and-five-eighths-inch casing cemented in there at about
25 eleven hundred and fourteen feet without the top being

1 available and there is a string of seven-inch intermediate
2 down to thirty-five, sixty cemented to the surface, is that
3 correct?

4 A Yes.

5 Q And then the long string comes back to thirty-four
6 fifty, which is below the shoe on the intermediate, but is
7 there another cement job on that same string then?

8 A Yes, sir, you will notice on the left-hand it is
9 indicated where this casing was perforated with two shots at
10 thirty-four hundred and fifty feet, squeezed with seventy-five
11 sacks and perforated with two shots at three thousand feet
12 and cemented back to the surface with two hundred and twenty-
13 five sacks and forty-three sacks were reversed out at the
14 surface.

15 Q So we have through the salt section then, we have
16 three strings of pipe, or two strings of pipe with cement
17 circulated on through the salt section?

18 A Yes, sir.

19 Q Okay, now, referring to the other well that you
20 propose to drill, it would have eight-and-five-eighths surface
21 pipe at five hundred feet circulated, right?

22 A Yes, sir.

23 Q And the long string would also be circulated, no
24 intermediate pipe on this one?

25 A Yes, this eight-and-five-eighths has been set at

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1 five hundred and three feet and circulated to the surface.

2 Q I see. Do you have any idea of the cost of drilling
3 and completing these two wells?

4 A We have estimated the cost of drilling the Well
5 Number 3 and equipping it for injection at eleven thousand,
6 five hundred and seven dollars.

7 Q Okay.

8 A The cost of drilling and completing the Number 4
9 producing well is approximately one hundred and fifty thousand.
10 I do not have the exact figure with me on that.

11 Q Okay. Now, is the waterflood shown on your Exhibit
12 on your E. L. Steeler lease immediately north of this Hughes
13 Federal lease already in operation?

14 A Yes, sir, it is.

15 MR. NUTTER: Are there any other questions of
16 Mr. Stuckey?

17 A And the Johnson lease which adjoins it on the
18 south is under partial flood with Number 4.

19 Q You have one injection well there?

20 A Yes, one injection well.

21 MR. NUTTER: Are there any further questions of
22 Mr. Stuckey? He may be excused.

23 (THEREUPON, the witness was excused.)

24 MR. NUTTER: Do you have anything further, Mr.
25 Blodget?

MR. BLODGET: No, sir.

MR. NUTTER: Does anyone have anything they wish to
offer in Case 5598? We will take the Case under advise-
ment.

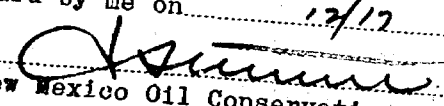
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REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a court reporter, do hereby
 certify that the foregoing and attached Transcript of Hearing
 before the New Mexico Oil Conservation Commission was reported
 by me, and the same is a true and correct record of the said
 proceedings to the best of my knowledge, skill and ability.


 Sidney F. Morrish, Court Reporter

I do hereby certify that the foregoing is
 a complete record of the proceedings in
 the Examiner hearing of Case No. 5598
 heard by me on 12/12, 1975

 Examiner
 New Mexico Oil Conservation Commission

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 Phone (505) 982-9212

WHITE,
KOCH, KELLY
&
McCARTHY

Case 5598

November 18, 1975

New Mexico Oil Conservation Commission
State Land Office
Santa Fe, New Mexico 87501

Re: Application for Waterflood Project,
Hughes-Federal Well Nos. 1 and 3,
Langlie-Mattix Pool, Lea County,
New Mexico

Gentlemen:

I have enclosed an original entry of appearance
in the above-captioned matter on behalf of Skelly
Oil Company.

Sincerely,

L. C. White
L. C. WHITE

LCW:m
enclosure as indicated
of/8700

L. C. White
Sumner S. Koch
William Booker Kelly
John F. McCarthy, Jr.
Kenneth Bateman

Benjamin P. Phillips
Ronald M. Friedman
C. Emery Cudd, Jr.

Attorneys and Counselors at Law

220 Otero St., P.O. Box 787, (505)982-4374, Santa Fe, N.M. 87501 — P.O. Drawer E, (505)758-4338, Taos, N.M. 87571

BEFORE THE NEW MEXICO
OIL CONSERVATION COMMISSION

IN THE MATTER OF THE APPLICATION OF
SKELLY OIL COMPANY FOR AN ORDER
AUTHORIZING A WATERFLOOD PROJECT IN
THE LANGLIE-MATTIX POOL ON ITS
HUGHES-FEDERAL LEASE IN SECTION 17,
TOWNSHIP 23 SOUTH, RANGE 37 EAST,
LEA COUNTY, NEW MEXICO

Case No. 5598

FORMAL APPEARANCE OF
LOCAL COUNSEL

Comes now L. C. White, of the firm of White, Koch, Kelly &
McCarthy, P. O. Box 787, Santa Fe, New Mexico 87501 and herewith
enters his formal appearance as local counsel for Skelly Oil
Company in the above-entitled matter.

WHITE, KOCH, KELLY & MCCARTHY

By L. C. White by [signature]



SKELLY OIL COMPANY

P. O. BOX 1650

TULSA, OKLAHOMA 74102

LAW DEPARTMENT
CHESTER E. BLODGET
SENIOR ATTORNEY

November 12, 1975

Case 5598



Re: Application for Waterflood Project,
Hughes-Federal Well Nos. 1 and 3,
Langlie-Mattix Pool, Lea County,
New Mexico.

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

Gentlemen:

We are enclosing the original and two copies of the above-mentioned application.

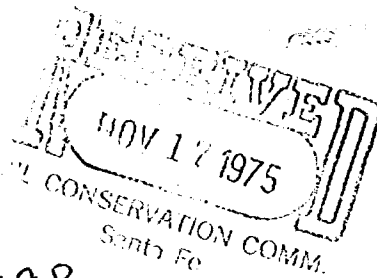
We would appreciate your setting this matter down for hearing on the December 17, 1975 docket.

Yours very truly,

CEB:br
Encl.


Chester E. Blodget

BEFORE THE OIL CONSERVATION COMMISSION OF
THE STATE OF NEW MEXICO



IN THE MATTER OF THE APPLICATION OF)
SKELLY OIL COMPANY FOR AN ORDER)
AUTHORIZING A WATERFLOOD PROJECT IN)
THE LANGLIE-MATTIX POOL ON ITS)
HUGHES-FEDERAL LEASE IN SECTION 17,)
TOWNSHIP 23 SOUTH, RANGE 37 EAST,)
LEA COUNTY, NEW MEXICO.)

CASE NO. 5598

A P P L I C A T I O N

Comes now Skelly Oil Company and alleges and states:

1. That it is a Delaware corporation authorized to do business in the State of New Mexico, and that it operates wells on its Hughes-Federal lease, located in Section 17, Township 23 South, Range 37 East, Lea County, New Mexico.

2. That Applicant seeks permission to institute a waterflood project in the Langlie-Mattix Pool by converting its Hughes-Federal Well No. 1 to a water injection well. The water to be injected will come from Applicant's Jal Water System. The anticipated initial volume injected will be 500 barrels of water per day at a maximum pressure of 1800 psi.

3. That Applicant also seeks permission to drill a water injection well (Hughes-Federal Well No. 3), and to inject water through said well into the Langlie-Mattix Pool. Said well to be located in the Southeast Quarter (SE/4) of the Southwest Quarter (SW/4) of Section 17, Township 23 South, Range 37 East, Lea County, New Mexico. The water to be injected will also come from the Jal Water System. The anticipated initial volume injected will be 500 barrels of water per day at a maximum pressure of 1800 psi.

4. That the proposed waterflood project will result in the recovery of otherwise unrecoverable oil, thereby preventing waste. Further, correlative rights will be protected.

5. That based on performance and information gained from the injection into the aforementioned wells, the Applicant may request administrative approval to expand or change the project and convert additional wells to water injection without showing waterflood response.

6. That operators offsetting the proposed injection wells have heretofore been notified of this proposed waterflood project.

WHEREFORE, PREMISES CONSIDERED, Applicant requests that this matter be set down for hearing, that notice hereof be given as required by law, that at the conclusion of said hearing based on the evidence adduced, the Commission enter its order granting Skelly Oil Company permission to develop a waterflood project in the Langlie-Mattix Pool through injection in its Hughes-Federal Well Nos. 1 and 3, located in Section 17, Township 23 South, Range 37 East, Lea County, New Mexico; to further provide for administrative change or expansion of the project area, and the conversion or drilling of additional wells by administrative means without the necessity of separate hearings; and for such other orders, rules and regulations as may be necessary in the premises.

DOCKET MAILED

Date 12/5/75

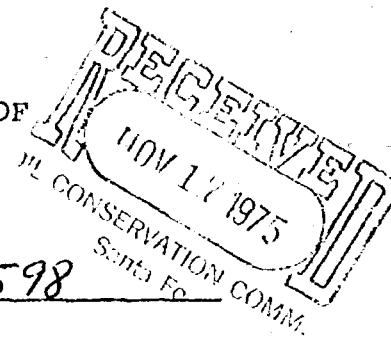
Respectfully submitted,

SKELLY OIL COMPANY

By Chester E. Blodget
Chester E. Blodget
Its Attorney

OF COUNSEL:
L. C. White, Attorney
White, Koch, Kelly & McCarthy
220 Otero Street
P. O. Box 787
Santa Fe, New Mexico 87501

BEFORE THE OIL CONSERVATION COMMISSION OF
THE STATE OF NEW MEXICO



IN THE MATTER OF THE APPLICATION OF)
SKELLY OIL COMPANY FOR AN ORDER)
AUTHORIZING A WATERFLOOD PROJECT IN)
THE LANGLIE-MATTIX POOL ON ITS)
HUGHES-FEDERAL LEASE IN SECTION 17,)
TOWNSHIP 23 SOUTH, RANGE 37 EAST,)
LEA COUNTY, NEW MEXICO.)

CASE NO. 5598

A P P L I C A T I O N

Comes now Skelly Oil Company and alleges and states:

1. That it is a Delaware corporation authorized to do business in the State of New Mexico, and that it operates wells on its Hughes-Federal lease, located in Section 17, Township 23 South, Range 37 East, Lea County, New Mexico.

2. That Applicant seeks permission to institute a waterflood project in the Langlie-Mattix Pool by converting its Hughes-Federal Well No. 1 to a water injection well. The water to be injected will come from Applicant's Jal Water System. The anticipated initial volume injected will be 500 barrels of water per day at a maximum pressure of 1800 psi.

3. That Applicant also seeks permission to drill a water injection well (Hughes-Federal Well No. 3), and to inject water through said well into the Langlie-Mattix Pool. Said well to be located in the Southeast Quarter (SE/4) of the Southwest Quarter (SW/4) of Section 17, Township 23 South, Range 37 East, Lea County, New Mexico. The water to be injected will also come from the Jal Water System. The anticipated initial volume injected will be 500 barrels of water per day at a maximum pressure of 1800 psi.

4. That the proposed waterflood project will result in the recovery of otherwise unrecoverable oil, thereby preventing waste. Further, correlative rights will be protected.

5. That based on performance and information gained from the injection into the aforementioned wells, the Applicant may request administrative approval to expand or change the project and convert additional wells to water injection without showing waterflood response.

6. That operators offsetting the proposed injection wells have heretofore been notified of this proposed waterflood project.

WHEREFORE, PREMISES CONSIDERED, Applicant requests that this matter be set down for hearing, that notice hereof be given as required by law, that at the conclusion of said hearing based on the evidence adduced, the Commission enter its order granting Skelly Oil Company permission to develop a waterflood project in the Langlie-Mattix Pool through injection in its Hughes-Federal Well Nos. 1 and 3, located in Section 17, Township 23 South, Range 37 East, Lea County, New Mexico; to further provide for administrative change or expansion of the project area, and the conversion or drilling of additional wells by administrative means without the necessity of separate hearings; and for such other orders, rules and regulations as may be necessary in the premises.

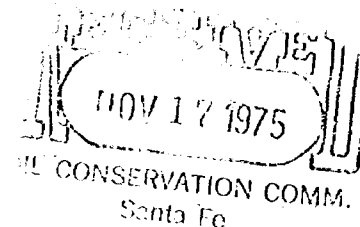
Respectfully submitted,

SKELLY OIL COMPANY

OF COUNSEL:
L. C. White, Attorney
White, Koch, Kelly & McCarthy
220 Otero Street
P. O. Box 787
Santa Fe, New Mexico 87501

By Chester E. Blodget
Chester E. Blodget
Its Attorney

BEFORE THE OIL CONSERVATION COMMISSION OF
THE STATE OF NEW MEXICO



IN THE MATTER OF THE APPLICATION OF)
SKELLY OIL COMPANY FOR AN ORDER)
AUTHORIZING A WATERFLOOD PROJECT IN)
THE LANGLIE-MATTIX POOL ON ITS)
HUGHES-FEDERAL LEASE IN SECTION 17,)
TOWNSHIP 23 SOUTH, RANGE 37 EAST,)
LEA COUNTY, NEW MEXICO.)

CASE NO. 5598

A P P L I C A T I O N

Comes now Skelly Oil Company and alleges and states:

1. That it is a Delaware corporation authorized to do business in the State of New Mexico, and that it operates wells on its Hughes-Federal lease, located in Section 17, Township 23 South, Range 37 East, Lea County, New Mexico.

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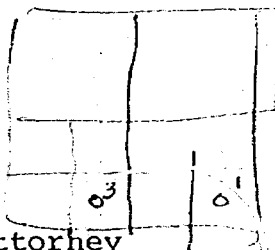
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4. That the proposed waterflood project will result in the recovery of otherwise unrecoverable oil, thereby preventing waste. Further, correlative rights will be protected.

5. That based on performance and information gained from the injection into the aforementioned wells, the Applicant may request administrative approval to expand or change the project and convert additional wells to water injection without showing waterflood response.

6. That operators offsetting the proposed injection wells have heretofore been notified of this proposed waterflood project.


WHEREFORE, PREMISES CONSIDERED, Applicant requests that this matter be set down for hearing, that notice hereof be given as required by law, that at the conclusion of said hearing based on the evidence adduced, the Commission enter its order granting Skelly Oil Company permission to develop a waterflood project in the Langlie-Mattix Pool through injection in its Hughes-Federal Well Nos. 1 and 3, located in Section 17, Township 23 South, Range 37 East, Lea County, New Mexico; to further provide for administrative change or expansion of the project area, and the conversion or drilling of additional wells by administrative means without the necessity of separate hearings; and for such other orders, rules and regulations as may be necessary in the premises.



Respectfully submitted,

SKELLY OIL COMPANY

OF COUNSEL:
L. C. White, Attorney
White, Koch, Kelly & McCarthy
220 Otero Street
P. O. Box 787
Santa Fe, New Mexico 87501


Chester E. Blodget
Its Attorney

Docket No. 31-75

Dockets Nos. 1-76 and 3-76 are tentatively set for hearing on January 7 and January 21, 1976. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - DECEMBER 17, 1975

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Daniel S. Nutter, Examiner, or Richard L. Stamets, Alternate Examiner:

- ALLOWABLE:
- (1) Consideration of the allowable production of gas from seventeen prorated pools in Lea, Eddy, Roosevelt, and Chaves Counties, New Mexico, for January, 1976.
 - (2) Consideration of the allowable production of gas from five prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico, for January, 1976.

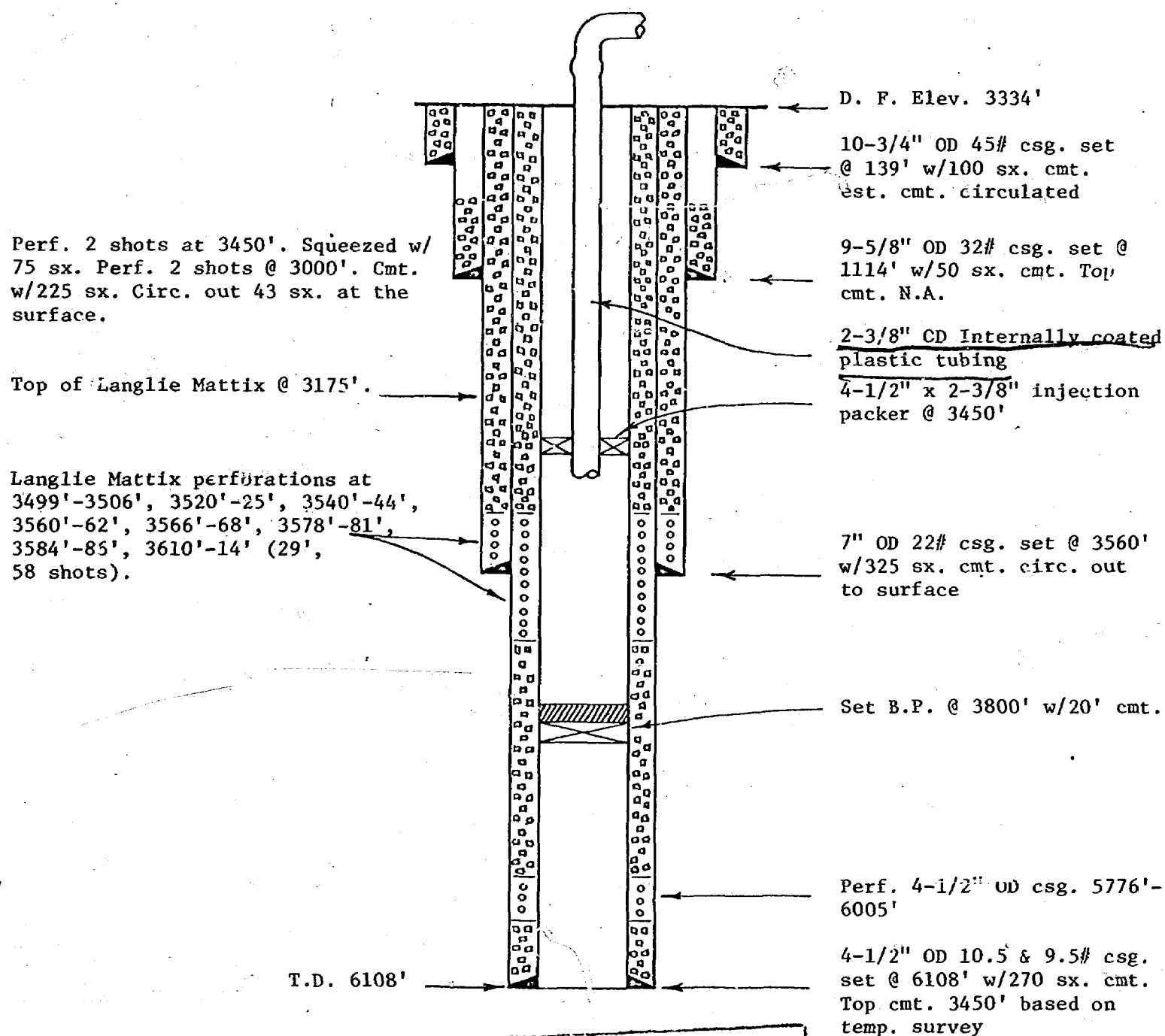
CASE 5598: Application of Skelly Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Langlie-Mattix Pool by the injection of water through its Hughes Federal Well Nos. 1 and 3, located in Units N and P, respectively, of Section 17, Township 23 South, Range 37 East, Lea County, New Mexico. Applicant further seeks an administrative procedure whereby the project area could be changed and expanded and additional wells at standard and non-standard locations put on injection and production.

CASE 5599: Application of Stevens Oil Company for special pool rules, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the Twin Lakes-Devonian Pool, including a provision for 80-acre spacing and a special gas-oil ratio limit and depth bracket allowable, Chaves County, New Mexico.

CASE 5583: (Continued from December 3, 1975 Examiner Hearing)

Application of Stevens Oil Company for a pilot waterflood project, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pilot waterflood project in the Twin Lakes-San Andres Pool by injection of produced water through its Twinlakes Oil Company Well No. 1, located in Unit D of Section 12, Township 9 South, Range 28 East, Chaves County, New Mexico.

Skelly's Proposed Hughes Federal Waterflood Project
 Diagrammatic Sketch Of The Proposed Water Injection Well
 Hughes Federal Well No. 1
 Unit P, Sec. 17, T23S-R37E
 Langlie Mattix Field
 Lea County, New Mexico



BEFORE ENGINEER NUTTER
 OIL CONSERVATION DIVISION
 Skelly EXHIBIT NO. A-2
 CASE NO. 5598

EXHIBIT NO. 2-A

ENJAY CHEMICAL COMPANY

Houston Chemical Plant
8230 Stedman, Houston, Texas 77029

November 15, 1971
WATER ANALYSIS



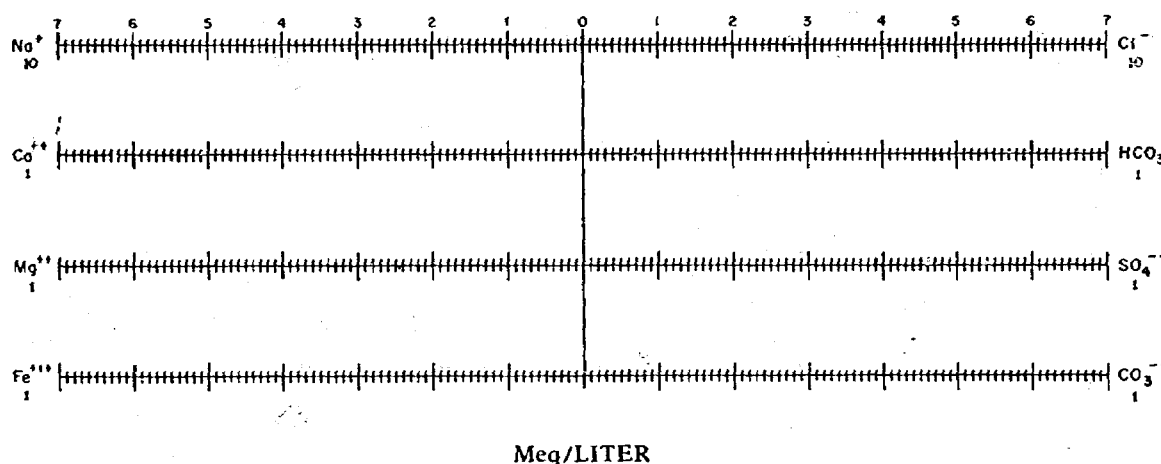
SAMPLE DESCRIPTION: Water sample from Jal Water System Dollarhide meter run submitted for routine correlation. Sample taken 11-12-71.

COMPANY: Skelly Oil Company
STSR NUMBER: 117175
REQUESTED BY: J. L. Davis

DATE RECEIVED: 11-13-71
ANALYZED BY: T. G. Crawford

	Mg/L	Meq/L		
Sodium	3,184	138.4	pH	6.75
Calcium	668	33.4	Specific Gravity at 60 °F.	1.0100
Magnesium	299	24.6	Resistivity ohms/m @77°F	0.550
Chloride	5,113	144.2	Temperature °F	83
Sulfate	1,665	34.6		<u>Mg/L</u>
Bicarbonate	1,074	17.6	Oil Content	
Carbonate	0	0.0	Organic Matter	
Hydroxide	0	0.0	Hydrogen Sulfide	875
TOTAL	12,003			
Dissolved Iron				
Total Iron	0.21			

WATER PATTERN (Stiff Method)



Remarks:

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Spelly EXHIBIT NO. 4
C. 5598

Exhibit 4

DRAFT

dr/

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. 5598

Order No. R- 5141

APPLICATION OF SKELLY OIL COMPANY
FOR A WATERFLOOD PROJECT, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on December 17,
19 75, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this day of January, 1976, 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, Skelly Oil Company, seeks
authority to institute a waterflood project on its Hughes-
Federal Lease, Langlie-Mattix Pool, by the injection of
water into the Queen formation through its
Hughes-Federal Wells Nos. 1 and 2 located in Unit N and P, and
its Hughes-Federal well No 3, to be drilled in Unit N, both in
Section 17, respectively, of Township 23 South, Range 37 East, NMPM, Lea
County, 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 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.

(6) 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.

(7) That applicant further seeks an administrative procedure whereby the project area could be changed and expanded and additional wells at standard and non-standard locations put on injection and production.

IT IS THEREFORE ORDERED:

(1) That the applicant, Skelly Oil Company, is hereby authorized to institute a waterflood project on its Hughes - Federal Lease, Langlie-Mattix Pool, by the injection of water through its Hughes Federal Wells Nos. 1 and 3, located in Units ^P~~1~~ and ^N~~2~~, respectively, of Section 17, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico.

(2) 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.

(3) That the operator shall immediately notify the supervisor of the Commission's Hobbs district office of the failure of the tubing or packer in any of said injection wells, 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.

(4) That the subject waterflood project is hereby designated the Skelly Hughes-Federal Langlie-Mattie Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(5) 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.

(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 Skelly Hughes Federal Langlie Mattie 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~~ ^{an} proposed ^{injection} 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 ratification.

-4-

Case No. 5598
Order No. R-

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 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 herein-
above designated.