CASE 4918: Application of TWIN-LAKES FOR A DUAL COMPLETION AND SALT WATER INJECTION, CHAVES CO.

Case Number

4918

Application

Transcripts.

Small Exhibits

ETC.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

October 30, 1984

TONEY ANAY.
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

Pelto Oil Company
Two Greenspoint Plaza
Suite 400
16825 Northchase
Houston, Texas 77060

Re: SWD Injection Permit
O'Brian C No. 3
Unit K, Sec. 1,
T-9-S, R-28-E,
Chaves County, N.M.
4/913

Gentlemen:

In an effort to update our files regarding Salt Water Disposal Permits, we are requesting some information on the above-mentioned well. Our records show that your company was issued a SWD Injection Permit No. R-4497 by us on March 21, 1973. Our records also show that since that time, this well has not been used for salt water disposal. Since a great deal of time has passed since your injection permit was granted, we assume that it is no longer your intention to use this well for water disposal purposes.

We are requesting information on the present status of this well, and whether or not your company intends to utilize this well for water disposal purposes at this time or in the near future. We would appreciate a response to this letter within thirty days. If we have not had a written response within that period of time, the injection permit granted by us will be rescinded.

Thank you for your cooperation in this matter.

Sincerely,

David Catanach

DAVID CATANACH
Petroleum Engineer

DC/dr

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
OIL CONSERVATION COMMISSION CONFERENCE ROOM
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO
Wednesday, March 14, 1973

EXAMINER HEARING

IN THE MATTER OF:

Application of Twinlakes Oil Company for a dual completion and salt water injection, Chaves County, New Mexico.

Case No. 4918

BEFORE: Richard L. Stamets
Examiner

TRANSCRIPT OF HEARING

MR. STAMETS: We will call next Case 4918.

MR. CARR: Case 4918, Application of Twinlakes Oil Company for a dual completion and a salt water injection, Chaves County, New Mexico.

MR. STEVENS: Mr. Examiner, I'm Donald G. Stevens, attorney in Santa Fe. We will have have one Witness to be sworn.

* * *

WILLIAM J. LeMAY,

appeared as a Witness and after being duly sworn according to law, testified as follows:

DIRECT EXAMINATION

BY MR. STEVENS:

Q Would you state your name, your residence, and your occupation, please?

A My name is William J. LeMay, I am a Consulting Geologist in Santa Fe, New Mexico.

Q Have you testified before the Commission and had your qualifications accepted?

A Yes, sir, I have.

MR. STEVENS: Are the Witness's qualifications acceptable?

MR. STAMETS: They are.

Q (By Mr. Stevens) Would you briefly state what the Applicant seeks in this Application, Mr. LeMay?

A Yes, Twinlakes Oil Company is seeking dual completion and a salt water injection program for their O'Brien "C" Well Number 3 located 1980 feet from the south and west lines of Section 1, Township

9 South, Range 28 East, Chaves County, New Mexico. They seek in this Application to inject produced salt water from the Devonian formation, which is being produced from the well, the Devonian-producing well, located in Unit M, Section 1, into the Devonian in the subject well through the 2 7/8-inch casing cemented in the wellbore. Also, in this well, they will attempt to produce San Andres oil through a similar 2 7/8-inch casing cemented in the wellbore.

Q Referring you to what has been marked as Exhibit Number 1, would you explain it for the Commission?

A Yes, Exhibit Number 1 is a well location land orientation map in the subject area. The wells that are colored red or circled red on this Exhibit are wells which have been drilled to and penetrated the Devonian in the area. The well colored green, located in Unit M of Section 1, is the subject well of this Application. You will note that in the Twinlake's Devonian field, there is only one producing well, and a number of dry holes surrounding this well. The acreage is owned predominately by the O'Brien people. The mineral rights are owned by the O'Brien people, and Twinlakes Company owns leases on the field property and most of the surrounding acreage property.

Q The surrounding acreage beyond the Twinlakes acreage, is it mostly open to your knowledge?

A Yes, it is mainly the O'Brien ranch, some of which Twinlakes Oil Company has under lease, but the majority of which is open acreage.

Q What are the wells which have no color surrounding them? What do they produce from them?

A They produce to the Twinlakes and San Andres field.

Q Referring you to what has been marked as Exhibit Number 2, would you go through it for the Commission, please?

A Yes, Exhibit Number 2 is a diagramatic sketch of the proposed production injection well. The Twinlakes Oil Company Number 3 O'Brien "C", as noted on this Exhibit, the surface elevation is 3954. The hole was drilled to 1957. This was an 11-inch hole and an 8 5/8-inch casing was set at 1957 and cement was circulated to the surface, that was 800 sacks of cement. The hole was then drilled to a total depth of 7316. The Devonian formation was Drill Stem Tested and produced, on DST 150 Mcf plus 4200 feet of oil-cut salt water, approximately 5 percent oil. Then, the tubing strings were run into the hole. The 2 7/8-inch production tubing was run to 2718 feet and cemented with 250 sacks of cement. The calculated top of the cement is 1800 feet, which would carry the top of the cement above the base of the 8 5/8-inch surface casing. The injection string of 2 7/8-inch tubing was then run to the TD of 7316 and cemented with 400 sacks. This would carry the top of the cement, calculated, to 5800 feet.

The Devonian was perforated opposite the porosity at 7272 to 7287, and at 7292 to 7298, with two shots per foot. The other string of tubing was perforated opposite the slaughter porosity at 2585 to 2600 with two shots per foot. Both zones were tested with a swab. Swab gauges are not available, however, the Devonian did swab water with shows of gas; no oil was swabbed out. The San Andres did produce, initially, approximately ten barrels of oil per hour;

additional swabs recovered water and the well was shutdown for installation of pumping equipment over the San Andres zone.

Q Referring to what has been marked as Applicant's Exhibit Number 3, would you explain it for the Commission, please?

A Yes, Exhibit Number 3 is a structure map drawn on top of the Devonian porosity in the area. As you can see, the accumulation of Twinlakes is a very sharp structural feature with an oil-water contact being shown on the map. The main purpose of the map is to show the type of accumulation, which is structural, and the fact that the injection into the subject well is down-dip of the producing well.

Q Referring to what has been marked as Applicant's Exhibit Number 4, would you please go through it for the Commission?

A Exhibit Number 4 is a log of the proposed injection producing well showing the tops of the various formations encountered and the perforations in the San Andres-producing zone and the Devonian injection zone.

Q Mr. LeMay, how much water is currently being produced from the Number 1 "C" O'Brien, which, if this is approved, will be injected into the Number 3 "C" O'Brien?

A The O'Brien Number 1 "C" has produced an average of 200 to 250 barrels of water per day. This is in conjunction with an average of 90 barrels of oil per day.

Q This is the amount of water which is planned to be injected into the O'Brien 3 "C"?

A That's correct.

Q Will there be any effect upon this reservoir in the Devonian from the injection of this water?

A It's hoped that the injection of water will help to stabilize very minor pressure decline. The Twinlakes-Devonian field is essentially a water-dry reservoir. When the well was initially drilled, the discovery well, virgin pressure was calculated to be 2781 pounds. The extrapolated bottomhole pressure, the recent extrapolated bottomhole pressure, from the 1 "C" O'Brien was 2441 pounds. This was after 72 hours of shut-in. The approximate 300 pounds bottomhole pressure differential is probably caused by a pressurizing resulting from rather large fluid withdrawals from the O'Brien 1 "C". The injection into the subject well would hope to equalize the bottomhole pressure or produce a minor pressure maintenance type of operation in the field.

The bottomhole pressure of the Number 3 "C", when it was drilled, final shut-in pressure, was 2485 pounds. This is, again, approximately 300 pounds below the virgin pressure in the reservoir.

Q What kind of corrosion control has been contemplated for this injection program, Mr. LeMay?

A Well, first, the Devonian water is not very corrosive. Cactus Drilling Company used Devonian water to drill with, and they wouldn't do it if it was a highly corrosive water. However, going back aways, Dowell has recommended, and it was done, the injection of corban into the producing well. This was done because at that time there was a company pump on the installation and the Devonian water

was thought to be corrosive enough in this delicate pump that it could produce some corrosion and possibly scale and hurt the equipment. Now, fairly recently the produced water, along with the oil, in the Devonian was measured and Dowell calculated six parts per million of corban being produced back with the Devonian water. Dowell at that time did not recommend any additional treatment.

The produced waters would go from the producing well, the 1 "C" O'Brien, into a settling tank and then this water would be injected into the subject well of this Hearing. This type of program is being monitored every six months by Dowell and they are recommending treatment, water treatment, when necessary.

The producing well, actually, the tubing was just pulled prior to the Hearing and there is no evidence in the producing well of any scale or corrosive damage of the interior of the tubing. Also, there is treatment for the gas that is being produced; again, anticorrosive treatment. So, by protecting the equipment in the 1 "C" O'Brien with corrosive treatment, this same fluid is being injected -- we hope will be injected -- into the Applicant's subject well. This, in itself, has a built-in monitoring system with Dowell and also is an anticorrosive program.

Q Does this field have presently an exception to the No Pit Order?

A No, Twinlakes would like to see the No Pit Order remain because the San Andres water will still be disposed of as it has in the past, with pits; but the Devonian could have been disposed of this way except the capacity of the tanks and pits on location might have to be

increased if it is necessary to keep disposing of this water. But the main purpose is to help us stabilize some of the bottomhole pressure drawed on from the producing well.

Q Is there another factor here in that the San Andres you might not want to mix it for the injection into the Devonian reservoir?

A That's correct. The Devonian water, we know, is compatible, of course, with the Devonian reservoir; but the San Andres water, we are not too sure of. It's probably a different chemistry and may cause some problems.

Q Mr. LeMay, in your opinion, will granting of this Application prevent waste and protect the correlative rights of others?

A Yes, I know it certainly will.

MR. STEVENS: At this time we'd like to move the introduction of Exhibits 1 through 4 of the Applicant.

MR. STAMETS: Without objection, these Exhibits will be admitted into evidence.

MR. STEVENS: We have no further questions.

MR. STAMETS: Are there any questions of the Witness?

(No response.)

* * * * *

CROSS EXAMINATION

BY MR. STAMETS:

Q Mr. LeMay, referring to Exhibit Number 2, I see a calculated cement top on the long string of tubing at 5800.

A That's correct.

Q And then there must be some cement somewhere below the 2 7/8 tubing set at 2718 feet, but there also is certainly a void in there of a couple of thousand feet.

A That's correct.

Q What kind of monitoring will be done to insure that the water is not escaping into this interval instead of the Devonian interval?

A Well, the initial completion on the San Andres was very satisfactory. The cement displaced ten pounds of mud and water was circulated to the surface. The perforations were acidized and it came back real strong with oil, so that we feel certainly the amount of cement used covers the perforations exceptionally well and no problem with the San Andres or with the Devonian, and it was hard to imagine any leaks in there or any way that it could be contaminated except by, well, it seems like it's a closed system.

Q You may have misunderstood my question. The area I'm concerned about is, say, from 3000 feet down to 5800 feet.

A Would there be no cement between the --

Q That's right and no casings. Should there be a leak in the tubing there, it would be exposed to that interval.

A I couldn't see offhand too much damage a leak would do in there because you are not contaminating surface water. You are tied right down through the San Andres production; and, as far as I could see, if we did have a leak develop in there, it would go out into one of the formations that produces salt water in the area. At the present time, I don't think that Twinlakes has any program to monitor that phase of

their operation.

Q I believe we have a rule which requires us to have wells cased and cemented in such a way as to keep the waters in the zones where they were and where they are intended to be. It doesn't say it in that many words, but I believe we are required to do that. If there was an Application to inject into those zones as well, there wouldn't be any question; but we are talking about putting the water in the Devonian, so I would think that some sort of testing procedure would have to be carried along here in order to be sure that the water was going where it was supposed to be.

A The normal salt water disposal, of course, has an annulus there which can be monitored. This type of a completion would not lend itself to that monitoring-type system. In the past there had been some openhole salt water disposals where they've cemented intermediate casing and they've had 3000 feet of the openhole for disposal purposes and it wasn't monitored as to which zone it would go into. In the event of a casing or a tubing leak, this may fall into that category, unless the Commission would see a practical way to monitor this type of system.

Q Will there be a gauge on the Devonian tubing to monitor the pressures? I guess you are talking about a vacuum.

A To date, it looks like the water will go in under vacuum, in the swab test. But, in the event it was under any sort of pressure, the pressure gauge could be instituted on the surface to cover this kind of situation.

MR. STEVENS: I might speak for the Applicant in this connection,

Mr. Examiner. It's my understanding that a Triplex pump will pump this small amount of salt water into the Devonian string. Thereafter, should any particular increase of pump pressure occur, then there would be some indication that; one, the Devonian would be either plugging up or; two, that possibly we might have a leak out into some other formation.

Q (By Mr. Stamets) I wonder if the Applicant would be opposed to installing some corrosion coupon in the system to monitor corrosion.

A Yes, I think, if required by the Commission, the Applicant would certainly -- the Applicant has its own monitoring system on a six month basis currently and would certainly go along with a requirement that the Commission felt was desirable in that regard.

Q Now, you say a six month basis. How does this operate?

A Well, every six months Dowell checks the produced water from the Devonian well and finds if it is corrosive or not, and if it needs additional treatment. That same water, of course, will be injected without any additional chemical additives, if it's found to be noncorrosive, right into the subject injection well, and so on. In this regard, there is a six-month testing setup on the lease.

Q I presume the Applicant wouldn't object to some corrosive coupon test with the possibility of applying for an exception to this after a year, if it proves to be unnecessary.

A I think this would be agreeable to the Applicant.

MR. STAMETS: Are there any other questions?

(No response.)

MR. STAMETS: If not, the Witness may be excused and we will take the case under advisement. The Hearing is adjourned.

* * * * *

STATE OF NEW MEXICO)
)ss
COUNTY OF BERNALILLO)

I, JOHN DE LA ROSA, a Court Reporter, in and for the County of Bernalillo, State of New Mexico do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me; and that the same is a true and correct record of the said proceedings to the best of my knowledge, skill and ability.

Court Reporter

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 4918, heard by me on March 14, 1973.

Richard L. Stamets, Examiner
New Mexico Oil Conservation Commission

I N D E X

E X H I B I T S

	OFFERED	ADMITTED
Exhibit #1	9	9
Exhibit #2	9	9
Exhibit #3	9	9
Exhibit #4	9	9

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date MARCH 14, 1973 TIME: 9 A.M.

NAME	REPRESENTING	LOCATION
E.R. Manning	El Paso Natural Gas Co	El Paso, Tex
W.S. Wildt	AGUA, INC	Hobbs, N.M.
C. D. Kahoun	Gulf Oil Co - US	Midland TX
J.D. Dent	Gulf Oil Corp	Midland
Donald K. Stamets	Texaco Inc	Santa Fe
Wilbur J. Lemay	Texaco Inc	Santa Fe
Ellen Cain	Belco Petr Corp	Midland, Tex.

TWINLAKES OIL COMPANY
P. O. BOX 1797
SANTA FE, NEW MEXICO 87501

Donald G. Stevens
President

505 982-2893

File Case 4918

RECEIVED
APR 13 1973
O. C. C.

April 10, 1973

Mr. Bill Gressett
New Mexico Oil Conservation Commission
P. O. Drawer DD
Artesia, New Mexico

Re: Mutiple Completion-Twinlakes Oil Company No. 3 O'Brien "C", Unit K, Section 1, Township 9S, Range 28E, Chaves County, New Mexico

Dear Mr. Gressett:

In accordance with N. M. O. C. C. rule 112-A, VI (c) and (f), this letter is to inform you of the following:

1. Twinlakes Oil Company commenced a segregation test of the dual strings of 2 7/8 casing in the #3 O'Brien on the day the well commenced producing, March 22, 1973. Pressures were taken on each side of the casing, then each side was opened alternately with no pressure drop. The San Andres side was then pumped for two hours, with no pressure drop or increase being logged in the Devonian side. No oil or gas from the San Andres side was noted in the Devonian side and no Devonian gas or water was noted in the San Andres side.

2. I have enclosed a diagrammatic sketch of a mechanical installation of this well, as per regulation VI (f) along with a copy of the gas-oil ratio report. The log of the well has been previously submitted to your office.

Please let me know if you need additional information concerning this report.

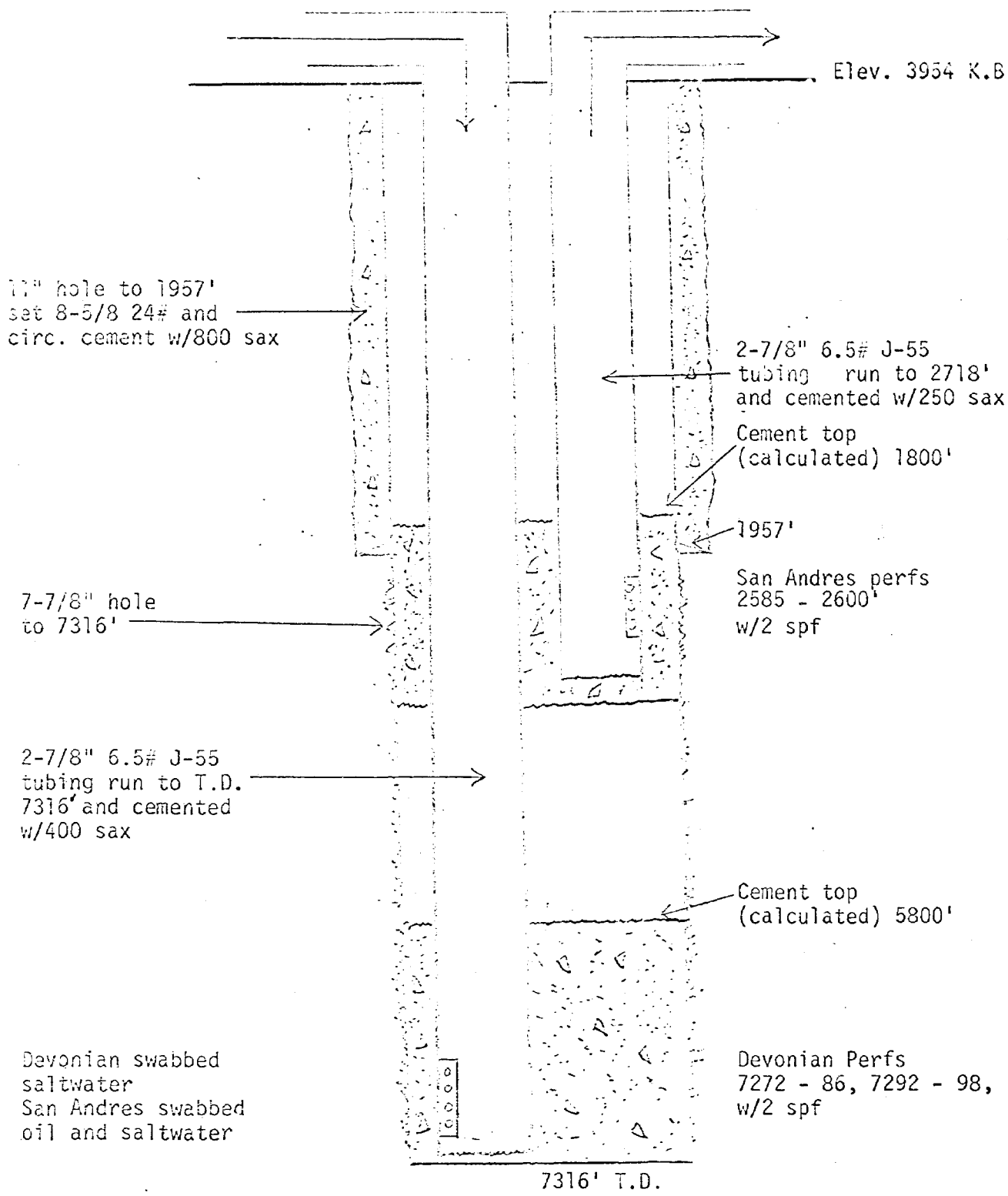
Yours very truly,

Donald G. Stevens

Donald G. Stevens
President

DGS:dmc

Diagrammatic Well Sketch
Twinlakes Oil Co. #3 O'Brien "C"
Twin Lakes Devonian and San Andres Pools
Chaves County New Mexico



N.M.O.C.C. Case No. 4918, Exhibit No. 2

OIL CONSERVATION COMMISSION

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

GOVERNOR
BRUCE KING
CHAIRMAN

LAND COMMISSIONER
ALEX J. ARMIJO
MEMBER

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

March 22, 1973

Re: Case No. 4918
Order No. R-4497
Applicant:

Twinlakes Oil Company

Mr. Don Stevens
Attorney at Law
Post Office Box 1797
Santa Fe, New Mexico

Dear Sir:

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

Very truly yours,

A. L. Porter, Jr.

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC x
Artesia OCC x
Aztec OCC

OTHER State Engineer Office

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. 4918
Order No. R-4497

APPLICATION OF TWINLAKES OIL
COMPANY FOR A DUAL COMPLETION
AND SALT WATER INJECTION,
CHAVES COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on March 14, 1973, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 21st day of March, 1973, 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, Twinlakes Oil Company, seeks authority to complete its O'Brien "C" Well No. 3, located in Unit K of Section 1, Township 9 South, Range 28 East, NMPM, Chaves County, New Mexico, as a dual completion (tubingless) to permit the production of oil from the Twinlakes-San Andres Pool and the injection of produced Devonian salt water into the Devonian formation, Twin Lakes-Devonian Pool, Chaves County, New Mexico, through parallel strings of 2 7/8-inch casing cemented in a common wellbore.

(3) That within the approximate interval from 2718 feet to 5800 feet there is no cement behind the 2 7/8-inch casing string.

(4) That to ensure that the injected salt water does not escape into this interval, the injection should be monitored by means of a pressure gauge and a corrosion measurement device.

(5) That the results of said monitoring should be submitted monthly to the Commission and that an administrative procedure should be provided to extend said reporting period after one year from the date of first injection.

(6) That the mechanics of the proposed dual completion are feasible and in accord with good conservation practices.

(7) That approval of the subject application will prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Twinlakes Oil Company, is hereby authorized to complete its O'Brien "C" well No. 3, located in Unit K of Section 1, Township 9 South, Range 28 East, NMPM, Chaves County, New Mexico, as a dual completion (tubingless) to permit the production of oil from the Twinlakes-San Andres Pool and the injection of produced Devonian salt water into the Devonian formation, Twin Lakes-Devonian Pool, Chaves County, New Mexico, through parallel strings of 2 7/8-inch casing cemented in a common wellbore.

PROVIDED HOWEVER, that the injection shall be monitored by means of a pressure gauge and an acceptable corrosion measurement device; that the results of said monitoring shall be reported monthly to the Artesia district office of the Commission; that the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations insofar as said rule is not inconsistent with this order;

PROVIDED FURTHER, that the applicant shall take zone segregation tests upon completion and annually thereafter during the Annual Gas-Oil Ratio Test Period for the Twin Lakes-San Andres Pool.

(2) That after one year from the date of first injection, the Secretary-Director of the Commission may modify the provisions of Order (1) above to permit less frequent reporting of corrosion monitoring provided that a written application for modification is submitted, and that such application presents substantial evidence that corrosion rates in the injection casing are minimal.

(3) 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

BRUCE KING, Chairman

ALEX J. ARMIJO, Member

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

S E A L

dr/

DOCKET: EXAMINER HEARING - WEDNESDAY - MARCH 14, 1973

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

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

ALLOWABLE: (1) Consideration of the allowable production of gas for April, 1973, from seventeen prorated pools in Lea, Eddy, Roosevelt and Chaves Counties, New Mexico;

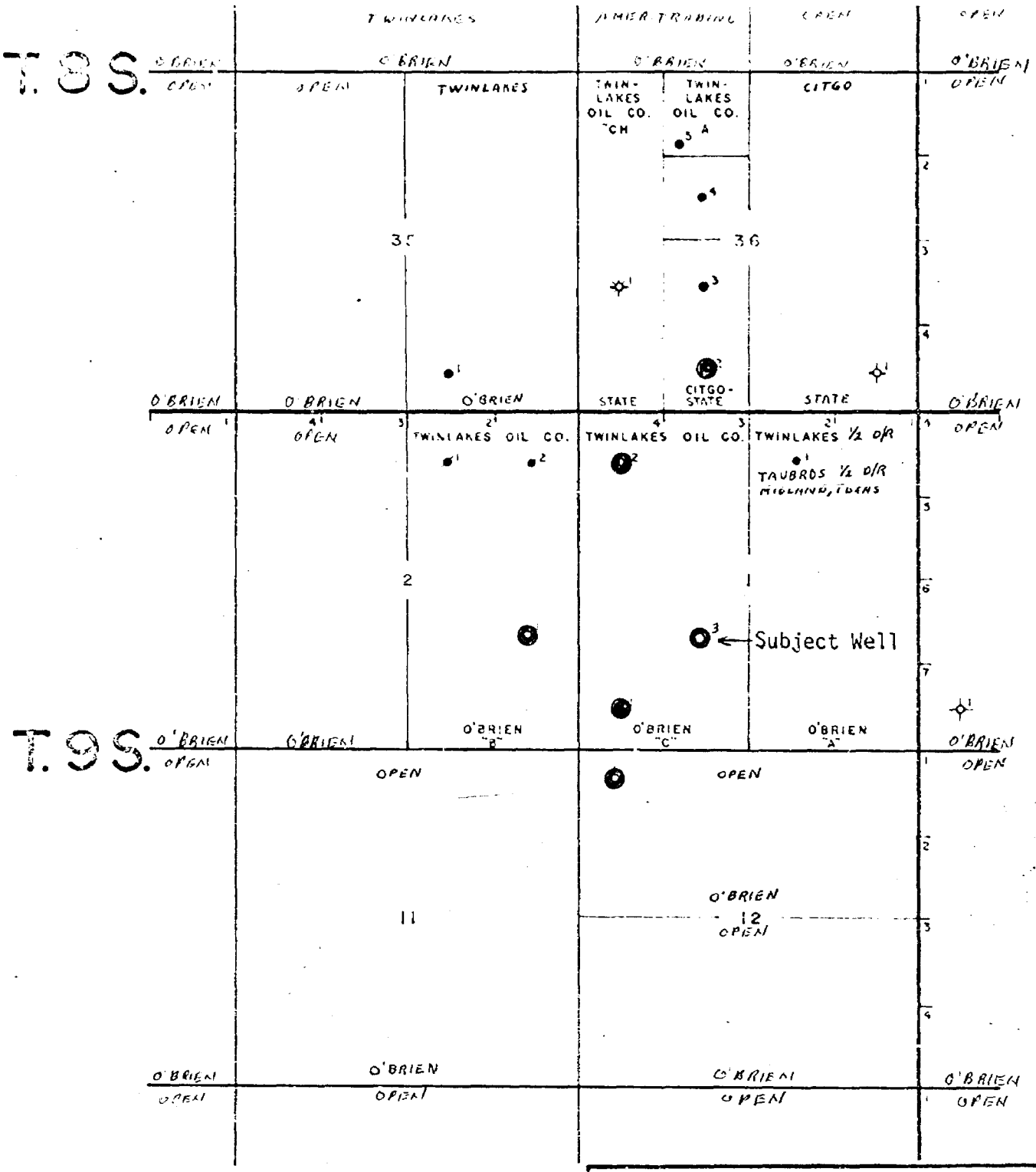
(2) Consideration of the allowable production of gas from nine prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico, for April, 1973.

CASE 4915: Application of Belco Petroleum Corporation for a dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its James Ranch Unit Well No. 3 located in Unit J of Section 1, Township 23 South, Range 30 East, Eddy County, New Mexico, in such a manner as to produce gas from the Strawn and Atoka formations, Los Medanos Field Area, through the casing-tubing annulus and through tubing, respectively.

CASE 4916: Application of Agua, Inc. for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation through the openhole interval from 4400 feet to 5000 feet in its proposed SWD Well No. C-2 located in Unit C of Section 2, Township 22 South, Range 37 East, adjacent to the South Eunice-San Andres Pool, Lea County, New Mexico.

CASE 4917: Application of Gulf Oil Corporation for a non-standard location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to simultaneously dedicate a 640-acre standard gas proration unit, Eumont Gas Pool, to two wells, the W. A. Ramsay Well No. 17 at a standard location in Unit J, and W. A. Ramsay Well No. 46 at a non-standard location in Unit E, Section 27, Township 21 South, Range 36 East, Lea County, New Mexico.

CASE 4918: Application of Twinlakes Oil Company for a dual completion and salt water injection, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its O'Brien "C" Well No. 3 located in Unit K of Section 1, Township 9 South, Range 28 East, in such a manner as to permit the attempted production of oil from the Twinlakes San Andres Pool and the injection of produced salt water into the Devonian formation, Twin Lakes-Devonian Pool, Chaves County, New Mexico, through parallel strings of 2 7/8-inch casing cemented in a common wellbore.



SCALE

0 1000 2000 3000 4000

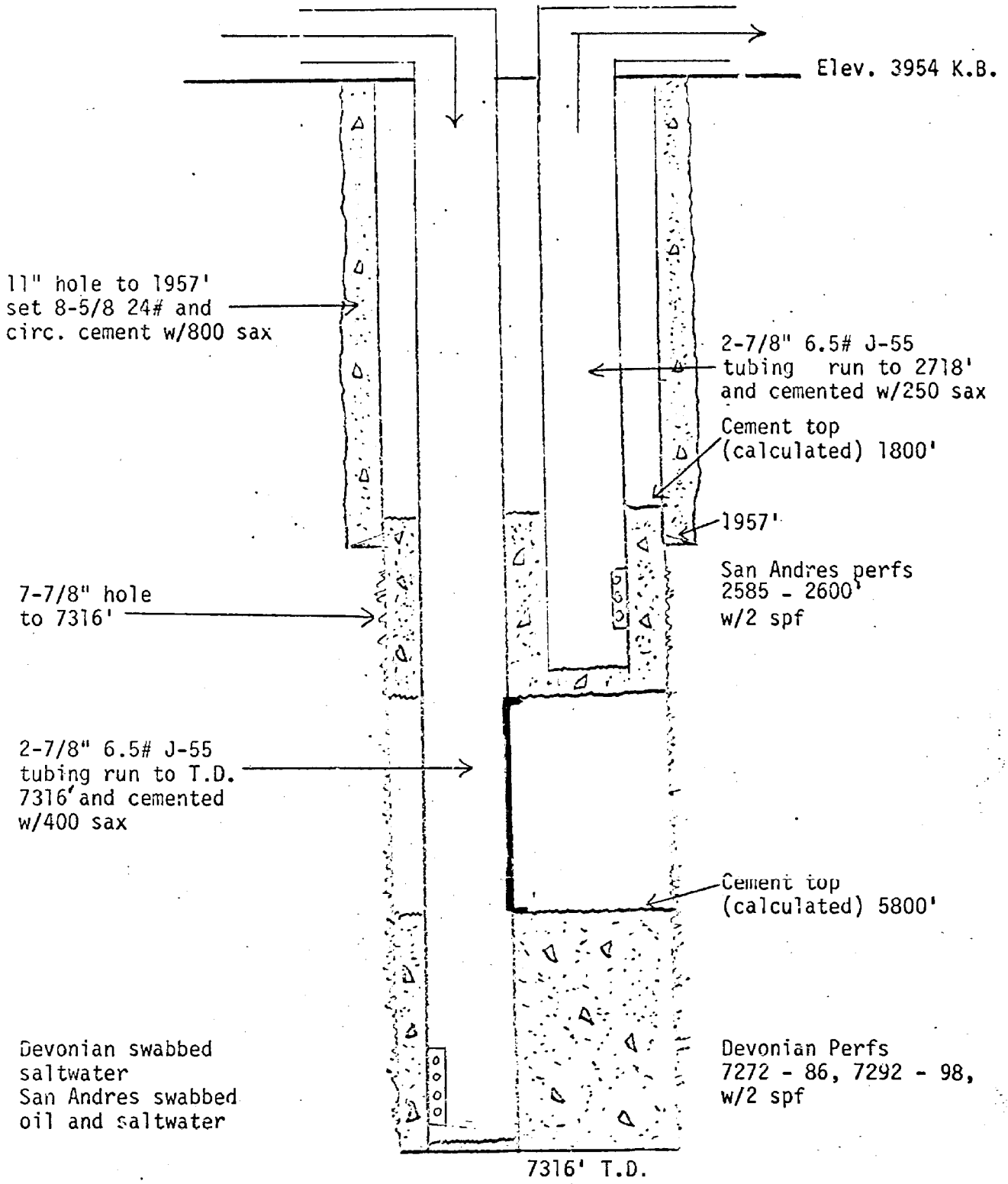
TWINLAKES OIL COMPANY

TWIN LAKES FIELD
CHAVES COUNTY, N.M.

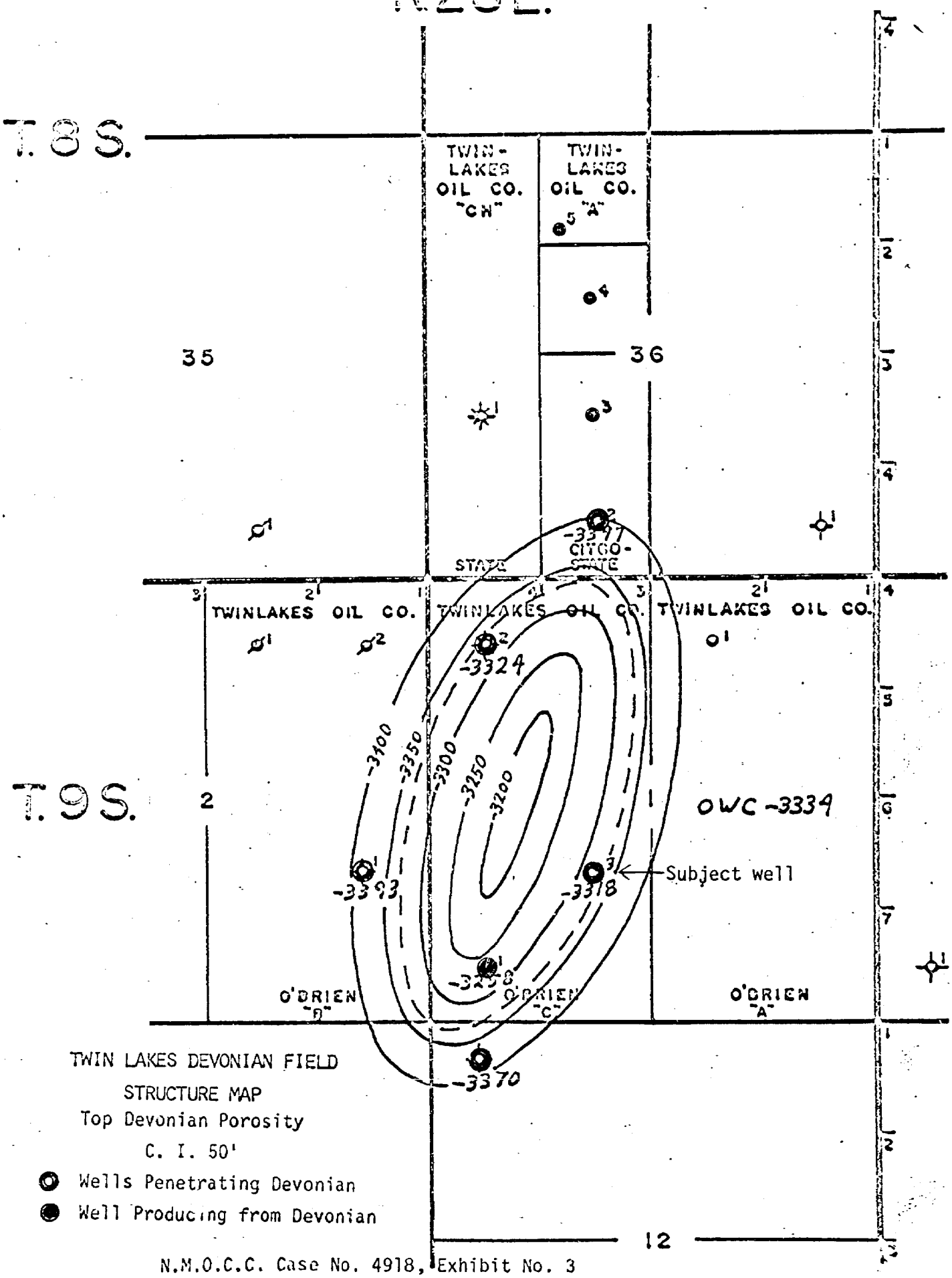
- San Andres Wells
- Wells Penetrating Devonian
- Well Producing From Devonian

N.M.O.C.C. Case No. 4918, Exhibit No. 1

Diagrammatic Well Sketch
Twinlakes Oil Co. #3 O'Brien "C"
Twin Lakes Devonian and San Andres Pools
Chaves County New Mexico



N.M.O.C.C. Case No. 4918, Exhibit No. 2



TWIN LAKES DEVONIAN FIELD

STRUCTURE MAP

Top Devonian Porosity

C. I. 50'

◎ Wells Penetrating Devonian

● Well Producing from Devonian

N.M.O.C.C. Case No. 4918, Exhibit No. 3

TWINLAKES OIL COMPANY
P. O. BOX 1797
SANTA FE, NEW MEXICO 87501

Donald G. Stevens
President

505 982-2893

Case 49:3
(recd 3/19/73)

February 14, 1973

New Mexico Oil Conservation Commission
P. O. Box 2308
Santa Fe, New Mexico 87501

Gentlemen:

Twinlakes Oil Company seeks a dual completion and salt water injection as set out below after hearing of said application by the New Mexico Oil Conservation Commission.

I would appreciate your advertising this proposed hearing, hopefully to be held on March 14, 1973. The below proposed advertisement includes all pertinent information necessary for the application, I believe.

Application of Twinlakes Oil Company for a dual completion and salt water injection, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its O'Brien "C" Well No. 3 located in Unit K of Section 1, Township 9 South, Range 28 East, in such a manner as to permit the attempted production of oil from the Twinlakes San Andres Pool and the injection of produced salt water into the Devonian formation, Twin Lakes-Devonian Pool, Chaves County, New Mexico, through parallel strings of 2 7/8-inch casing cemented in a common wellbore.

Yours very truly,

TWINLAKES OIL COMPANY

Donald G. Stevens
President

DGS:dmc

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. 4918

Order No. R-4497

APPLICATION OF TWINLAKES OIL
COMPANY FOR A DUAL COMPLETION
AND SALT WATER INJECTION,
CHAVES COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on March 14, 1973 at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this _____ day of March, 1973, 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, Twinlakes Oil Company, seeks authority to complete its O'Brien "C" Well No. 3, located in Unit K of Section 1, Township 9 South, Range 28 East, NMPM, Chaves County, New Mexico, as a dual completion (tubingless), to permit the ~~attempted~~ production of oil from the Twinlakes-San Andres Pool and the injection of produced Devonian salt water into the Devonian formation, Twin Lakes-Devonian Pool, Chaves County, New Mexico, through parallel strings of 2 7/8-inch casing cemented in a common wellbore.

(3) That within the approximate interval from ~~between the approximate depths of~~ 2718 feet to 5800 feet ~~[redacted]~~ there is no cement behind the 2 7/8-inch casing string.

(4) That to ensure that the injected salt water does not escape into this interval, the injection should be monitored by means of a ~~[redacted]~~ pressure gauge and a corrosion measurement device.

(5) That the results of ~~the~~ said monitoring should be submitted monthly to the Commission ~~on Form C-120, Monthly~~ and that an administrative procedure should be provided to extend said reporting period after one year from the date of first injection.

(6)~~(3)~~ That the mechanics of the proposed dual completion are feasible and in accord with good conservation practices.

(7)~~(4)~~ That approval of the subject application will prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Twinlakes Oil Company, is hereby authorized to complete its O'Brien "C" Well No. 3, located in Unit K of Section 1, Township 9 South, Range 28 East, NMPM, Chaves County, New Mexico, as a dual completion (tubingless) to permit the ~~attempted~~ production of oil from the Twinlakes-San Andres Pool and the injection of produced Devonian salt water into the Devonian formation, Twin Lakes-Devonian Pool, Chaves County, New Mexico, through parallel strings of 2 7/8-inch casing cemented in a common wellbore.

Provided However, that the injection ~~[illegible]~~ shall be monitored by means of a pressure gauge and an acceptable corrosion measurement device; that the results of said monitoring shall be reported monthly to the Artesia district office of the Commission;

that the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations insofar as said rule is not inconsistent with this order;

PROVIDED FURTHER, that the applicant shall take Zone segregation tests upon completion and annually thereafter during the Annual Gas-Oil Ratio Test Period for the Twin Lakes-San Andres Pool.

(3) That after one year from the date of first injection, the Secretary Director of the Commission may modify the provisions of Order (1) above to permit less frequent reporting of corrosion monitoring provided that a written application for modification is submitted and that such application presents ~~evidence that~~ substantial evidence that corrosion rates in the injection casing are minimal.

(3)(2) 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.