

0000 2211: Application of UNION for
water injection well
- South Cayrock Green Unit.

~~XXXX~~
XXXX

-asa / No.

2211

Application, Transcript,
Small Exhibits, Etc.

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Date 3/6/61

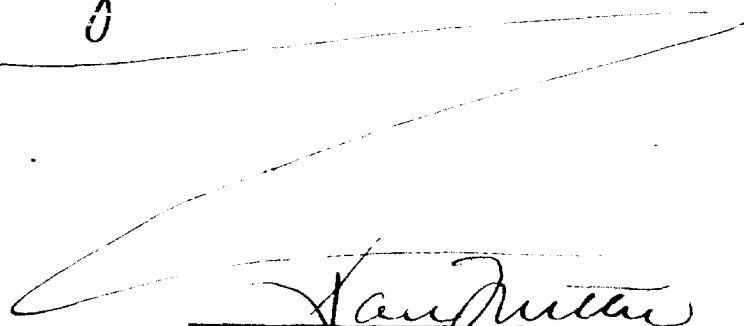
CASE NO. 2211

HEARING DATE 9 am 3/3/61
DSN @ SF

My recommendations for an order in the above numbered case(s) are as follows:

Enter order approving ~~unorthodox~~
location for Union for water
injection well @ a pt. 1325'
FNL & 330' FEL of Sec 18 T15S
R 31 E Chover Co.

Supersede that portion of order
No. R-1729 which authorized an
injection well @ a pt. 1315' FNL
& 330' FEL of Sec 18


Staff Member
Examiner

GOVERNOR
EDWIN L. MECHEM
CHAIRMAN

State of New Mexico
Oil Conservation Commission

LAND COMMISSIONER
E. S. JOHNNY WALKER
MEMBER



D. A. BOX 271

SANTA FE

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

March 9, 1961

Mr. Jack Campbell
Campbell & Russell
Box 766
Roswell, New Mexico

Re: Case No. 2211
Order No. B-1729-A
Applicant:
Union Oil Company of California

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

ir/

Carbon copy of order also sent to:

Hobbs OCC X
Artesia OCC X
Aztec OCC

OTHER

CASE 2208:

Application of Great Western Drilling Company for a water injection-oil producing dual completion and for an exception to Rule 107 (d). Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Federal ~~nm~~ Well No. 1, located in the NW/4 NE/4 of Section 8, Township 9 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the injection of water into an interval from 4300 feet to 9400 feet and the production of oil from an undesignated Pennsylvanian pool. Applicant further seeks an exception to Rule 107 (d) to permit the setting of tubing in said well more than 250 feet above the top of the pay section.

CASE 2209:

Application of The Atlantic Refining Company for permission to commingle the production from two separate pools and for an automatic custody transfer system. Applicant, in the above-styled cause, seeks permission to commingle the oil production from the Denton-Wolfcamp and Denton-Devonian Pools from all wells presently completed or hereafter drilled on the State "T" Lease, comprising the SE/4 NW/4, E/2 SW/4 and SW/4 SW/4 of Section 2, Township 15 South, Range 37 East, Lea County, New Mexico. Applicant further seeks permission to install an automatic custody transfer system to handle said commingled production.

The following cases will not be heard before 1:00 P.M.

CASE 2210:

Application of Humble Oil & Refining Company for an automatic custody transfer system. Applicant, in the above-styled cause, seeks permission to install an automatic custody transfer system to handle the commingled production from the Eumont, Arrowhead and Langlie-Mattix Pools from all wells presently completed or hereafter drilled on the State "M" Lease, comprising portions of Sections 17, 18, 19, 20, 29 and 30, Township 22 South, Range 37 East, Lea County, New Mexico.

CASE 2211:

Application of Union Oil Company of California for an unorthodox water injection well location. Applicant, in the above-styled cause, seeks permission to locate a water injection well in the South Caprock Queen Unit, Caprock-Queen Pool, at an unorthodox location 1325 feet from the North line and 330 feet from the East line of Section 18, Township 15 South, Range 31 East, Chaves County, New Mexico.

Union Oil Company of California

M I D L A N D T E X A S

Case 2211

February 10, 1961

Mr. A. L. Porter, Jr.
Secretary Director
New Mexico Oil Conservation Commission
P. O. Box 371
Santa Fe, New Mexico

Subject: Request for Hearing
Change of Location
South Caprock Queen Unit
Injection Well

Dear Mr. Porter:

Union Oil Company of California, Operator of the South Caprock Queen Unit, respectfully requests that a hearing be scheduled to change the location of South Caprock Queen Unit Injection Well No. 1-18, Tract 6. This is an unorthodox location, being 1315' from the north line and 330' from the east line of Section 18, T-15-S, R-31-E. We request that this location be moved to a point 1325' from the north line and 330' from the east line of Section 18, T-15-S, R-31-E.

The original location of this well, proposed at the hearing of Case 2032 in July, 1960, was on the quarter-quarter section line, and it was moved in order to attribute it to some 40-acre tract. This request is for the purpose of moving the well into the southeast quarter of the northeast quarter of Section 18.

We will appreciate it very much if you will include this hearing on your March 3rd docket.

Very truly yours,

W D Owens

W. D. Owens
Division Engineer

WDO:bn
cc: Mr. Dan Hutter

BEFORE THE
 OIL CONSERVATION COMMISSION
 Santa Fe, New Mexico
 March 3, 1961

IN THE MATTER OF:

Application of Union Oil Company of California for an
 unorthodox water injection well location. Applicant,) Case
 in the above-styled cause, seeks permission to locate) 2211
 a water injection well in the South Caprock Queen Unit,
 Caprock-Queen Pool, at an unorthodox location 1325 feet
 from the North line and 330 feet from the East line of
 Section 18, Township 15 South, Range 31 East, Chaves
 County, New Mexico.

BEFORE:

Daniel S. Nutter, Examiner.

TRANSCRIPT OF PROCEEDINGS

MR. NUTTER: Hearing will come to order. Next case 2211.

MR. MORRIS: Application of Union Oil Company of California
 for an unorthodox water injection well location.

MR. CAMPBELL: Mr. Examiner, I am Jack M. Campbell, Camp-
 bell and Russell, Roswell, New Mexico, appearing on behalf of the
 applicant, Union Oil Company of California. We have one witness.

(Witness sworn.)

WILLIAM D. OWENS,

called as a witness, having been previously duly sworn, testified
 as follows:

DIRECT EXAMINATION

BY MR. CAMPBELL:

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO



DEARINLEY-MEIER REPORTING SERVICE, Inc.

PHC NE CH 3-6691

ALBUQUERQUE, NEW MEXICO

Q Will you state your name, please?

A William D. Owens.

Q Where do you live, Mr. Owens?

A Midland, Texas.

Q By whom are you employed?

A Union Oil of California.

Q In what capacity?

A Division Engineer, Central Division.

Q Have you previously testified before this Commission or its examiners?

A Yes, sir.

Q Are you acquainted with the South Caprock-Queen Unit waterflood which Union Oil Company of California is the operator?

A Yes, sir.

Q Did you testify at the original hearing prior to the approval of this project?

A Yes, sir.

Q Are you acquainted with the application in this case?

A Yes, sir.

Q Will you state to the Examiner what you are seeking here?

A We want to move the location of our injection well No. 7, as shown on Exhibit 1, to the SE/4 of the NE/4 of Section 18, Township 15 South, Range 31 East.

Q Where is that well location presently situated?

A It is in the NE/4 of the NE/4, same section, township and



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ALBUQUERQUE, NEW MEXICO

PHONE CH 3-6691

Page.

Q At the time of the original hearing was it your proposal that this well be located on the quarter-quarter section line?

A Yes, sir.

Q And subsequent to that time, with the approval of the Commission, did you change the location to a location slightly north of the quarter-quarter section?

A We moved it five feet north of the line, yes, sir.

Q You are now seeking to move the location south of the line; is that correct?

A Five feet south.

Q What is the reason for that?

A The location being in the NE of the NE eliminates one diagonal waterflood allowable, and we would like to move it into the other quarter-quarter to obtain that allowable for our project.

Q Mr. Owen, this project is one in which you are starting to flood in the gas cap area on the west flank of the project, are you not?

A Yes, sir. We are attempting to build up a water bank along the west side of the field and prevent loss of the oil into the gas cap.

Q Do you believe in doing it in this manner you are going to be able, ultimately, to obtain a greater recovery of oil from this project?

A Yes, sir. Our calculations indicate two and a third



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PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

million barrels would be lost to the gas cap if we didn't do it in this manner.

Q In doing it in this manner are you, in fact, going to greater economic expense than if you would otherwise do, than if it were on a regular five-spot pattern?

A Yes, sir. There are no wells on the west side and, of course, there are no allowables on the west side. In our initial injection it will take some time to fill up.

Q You don't expect to get a response immediately?

A No, sir.

Q You believe if you are permitted to drill this well in the SE/4 of this quarter-quarter section and get the additional allowable it will make your project more economically feasible to you?

A Yes, sir. We will have about \$500,000 in this thing before we get a drop out of it, and we want to get every barrel we can, yes, sir.

Q If you are able to operate this waterflood project on an economically feasible basis you believe that you will, therefore, obtain a greater ultimate recovery of secondary oil?

A Yes, sir.

MR. CAMPBELL: That is all the questions I have.

BY MR. NUTTER:

Q Mr. Owen, when the well was previously moved off the line it would have been just as feasible to have moved it five south as



as it was to move it five feet north. As it turned out there was an extra 40-acre tract that could be subdivided if it was moved south?

A Yes, sir.

Q Did you say you expected to prevent the migration of two million barrels?

A Two and a third million barrels.

MR. NUTTER: Any further questions of Mr. Owen?

BY MR. PAYNE:

Q Why didn't you drill it further to the west, Mr. Owen?

A Well, we are well out in the gas cap, Mr. Payne. We have good control on that and we don't want to get way out in the gas cap. It fits in with the pattern of the other wells, and will give us the water bank we hope to build up.

MR. NUTTER: Any further questions? Mr. Owen may be excused.

MR. CAMPBELL: I would like to offer Union Oil's Exhibit No. 1 in Case 2211.

MR. NUTTER: Exhibit 1 will be admitted into evidence. Does anyone have anything further they wish to offer in 2211? Case will be taken under advisement.

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO



STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, JUNE PAIGE, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 11th day of March, 1961.

June Paige
Notary Public - Court Reporter

My Commission expires:
May 11, 1964.

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6651

ALBUQUERQUE, NEW MEXICO



I N D E X

<u>WITNESS</u>	<u>PAGE</u>
WILLIAM D. OWENS	
Direct Examination by Mr. Campbell	2
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QUESTIONS by Mr. Payne	5

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHO IE CH 3-6691

ALBUQUERQUE, NEW MEX.CO

E X H I B I T S

<u>NUMBER</u>	<u>EXHIBIT</u>	<u>IDENTIFIED</u>	<u>OFFERED</u>	<u>ADMITTED</u>
Ex.#1	Plat	2	5	5

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 2211
heard by me on 3/3, 19 61.
Isidore, Examiner
New Mexico Oil Conservation Commission



DRAFT

RSM/esr
March 7, 1961

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. 2211

Order No. R-1729-A

APPLICATION OF UNION OIL COMPANY
OF CALIFORNIA FOR AN UNORTHODOX
WATER INJECTION WELL LOCATION IN
THE CAPROCK-QUEEN POOL, LEA AND
CHAVES COUNTIES, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 3 o'clock a.m. on March 3, 1961, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this _____ day of March, 1961, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, 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 by Order No. R-1729, the applicant was authorized to locate its Well No. 1-18, a water injection well, at an unorthodox location 1315 feet from the North line and 330 feet from the East line of Section 18, Township 15 South, Range 31 East, NMPM, Chaves County, New Mexico.

(3) That the applicant seeks an amendment of Order No. R-1729 to provide for an unorthodox water injection well location in the Caprock-Queen Pool for the above-described Well No. 1-18 at a point 1325 feet from the North line and 330 feet from the East line of Section 18, Township 15 South, Range 31 East, NMPM, Chaves County, New Mexico.

(4) That the proposed location will result in as thorough and efficient sweep of the oil as would the previously authorized location.

Copy to
Jim K.
as soon
as order
signed

RSM
3/7
3/8

at
3/8

IT IS THEREFORE ORDERED:

(1) That the applicant, Union Oil Company of California, is hereby authorized to locate its Well No. 1-18, a water injection well, at an unorthodox location in the Caprock-Queen Pool at a point 1325 feet from the North line and 330 feet from the East line of Section 18, Township 15 South, Range 31 East, NMPM, Chaves County, New Mexico.

(2) That the portion of Order No. R-1729 authorizing the location of applicant's Well No. 1-18 at a point 1315 feet from the North line and 330 feet from the East line of said Section 18 is hereby superseded.

DONE at Santa Fe, New Mexico, on the day and year herein-above designated.

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. 2211
Order No. R-1729-A

APPLICATION OF UNION OIL COMPANY
OF CALIFORNIA FOR AN UNORTHODOX
WATER INJECTION WELL LOCATION IN
THE CAPROCK-QUEEN POOL, LEA AND
CHAVES COUNTIES, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on March 3, 1961, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 9th day of March, 1961, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, 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 by Order No. R-1729, the applicant was authorized to locate its Well No. 1-18, a water injection well, at an unorthodox location 1315 feet from the North line and 330 feet from the East line of Section 18, Township 15 South, Range 31 East, NMPM, Chaves County, New Mexico.

(3) That the applicant seeks an amendment of Order No. R-1729 to provide for an unorthodox water injection well location in the Caprock-Queen Pool for the above-described Well No. 1-18 at a point 1325 feet from the North line and 330 feet from the East line of Section 18, Township 15 South, Range 31 East, NMPM, Chaves County, New Mexico.

(4) That the proposed location will result in as thorough and efficient sweep of the oil as would the previously authorized location.

-2-

CASE No. 2211

Order No. R-1729-A

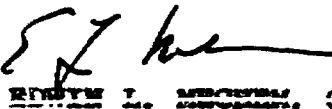
IT IS THEREFORE ORDERED:

(1) That the applicant, Union Oil Company of California, is hereby authorized to locate its Well No. 1-18, a water injection well, at an unorthodox location in the Caprock-Queen Pool at a point 1325 feet from the North line and 330 feet from the East line of Section 18, Township 15 South, Range 31 East, NMPN, Chaves County, New Mexico.

(2) That the portion of Order No. R-1729 authorizing the location of applicant's Well No. 1-18 at a point 1315 feet from the North line and 330 feet from the East line of said Section 18 is hereby superseded.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION



ERNEST L. ANDERSON, Chairman



E. S. WALKER, Member



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

esr/