

CASE 3521: Application of SINCLAIR
for three waterflood projects,
Eddy County, New Mexico.

CASE No.
3521

Application,
TRANSCRIPTS,
SMALL Exhibits
ETC.



ATLANTIC RICHFIELD COMPANY
North American Producing Division
SINCLAIR OIL CORPORATION
P. O. Box 1920
Hobbs, New Mexico

APR 25 1969

April 24, 1969

DOMESTIC OIL & GAS DIVISION

NEW MEXICO OIL CONSERVATION COMMISSION
P. O. Box 2088,
Santa Fe, New Mexico 87501

file

Gentlemen:

In compliance with Oil Conservation Commission's Rule 703, injection operations were commenced on the Turner "B" SP Well No. 67, April 5, 1969. This well is in the Sinclair Turner "B" Grayburg Jackson Waterflood Project.

This injection well was authorized as an injection well by the New Mexico Oil Conservation Case No. 3521, Order No. R-3185. The remaining wells Turner "B" No's 4, 5, and 30 have not yet been converted to water injection wells, but will be reported upon conversion.

Yours very truly,

L. M. Hembree
L. M. Hembree
Engineer

RMH:ds

cc: w/Orig.
cc: N.M.O.C.C. Drawer DD, Artesia, New Mexico
cc: U.S.G.S. Box 1857, Roswell, New Mexico
cc: Mr. Frank Irby, State Engineer Office, Santa Fe, New Mex.
cc: Regional Office
cc: file

OIL CONSERVATION COMMISSION

P. O. BOX 2082

SANTA FE, NEW MEXICO

March 6, 1967

Mr. Bocker Kelly
White, Gilbert, Koch & Kelly
Attorneys at Law
Post Office Box 787
Santa Fe, New Mexico

Dear Sir:

Reference is made to Commission Order No. R-3185, entered in Case No. 3521, approving the Sinclair Russell Grayburg-Jackson, Sinclair Turner "A" Grayburg-Jackson, and the Sinclair Turner "B" Grayburg-Jackson Waterflood Projects.

Injection into each of the authorized water injection wells shall be through tubing and packer, with the packer in each case being set as near as is practicable to the uppermost open perforation; in the case of open-hole completions, the packer shall be set as near as practicable to the casing shoe. The casing-tubing annulus in each well shall be loaded with a corrosion-inhibiting fluid and the annulus left open or fitted with a pressure gauge connection.

Prior to injection of water into the Turner "A" SP No. 5 and the Turner "B" SP No. 30, the perforations above the packers shall be squeezed with cement. Prior to injection of water into the Turner "A" SP No. 2, which at present has no cement behind the 6 5/8-inch casing, the casing shall be perforated and adequately squeeze cemented. Administrative approval of the Turner "B" SP Well No. 67 as Grayburg-Jackson water injection well and as an Abo producing well must be obtained prior to utilization of said well for water injection purposes.

COPY

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SANTA FE, NEW MEXICO

-2-

Mr. Booker Kelly
White, Gilbert, Koch & Kelly
Attorneys at Law
Santa Fe, New Mexico

March 6, 1967

As to allowable, our calculations indicate that when all 19 of the proposed water injection wells in the three projects have been placed on active injection, the maximum allowable which each of the three projects will be eligible to receive under the provisions of Rule 701-E-3 when the basic normal unit allowable is 42 barrels or less is as follows:

Russell Project:	266 barrels per day
Turner "A" Project:	630 barrels per day
Turner "B" Project:	854 barrels per day

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

In order that the allowable assigned to the projects may be kept current, and in order that the operator may fully benefit from the allowable provisions of Rule 701, it behooves him to promptly notify both of the aforementioned Commission offices by letter of any change in the status of wells in the project area, i.e., when active injection commences, when additional injection or producing wells are drilled, when additional wells are acquired through purchase or unitization, when wells have received a response to water injection, etc.

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

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/DSM/lr

cc: Mr. Frank Irby, State Engineer Office, Santa Fe, N. Mex.

Oil Conservation Commission - Artesia, New Mexico

U. S. Geological Survey - Box 1857 - Roswell, N. Mex.

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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
January 25, 1967

EXAMINER HEARING

IN THE MATTER OF:)
Application of Sinclair Oil.)
and Gas Company for three)
waterflood projects, Eddy County,)
New Mexico.)

Case No. 3521

Before Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case 3521.

MR. HATCH: Case 3521, application of Sinclair Oil and Gas Company for three waterflood projects, Eddy County, New Mexico.

(Whereupon Applicant's Exhibits 1 through 7 were marked for identification)

MR. KELLY: Bocker Kelly, on behalf of Sinclair.

I have one witness and ask that he be sworn.

(Witness sworn)

R. M. ANDERSON, called as a witness on behalf of the Applicant, having first been duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLY:

Q Would you state your name, position and employer, please?

A R.M. Anderson, Senior Petroleum Engineer, Sinclair Oil and Gas Company, Midland, Texas, Regional Office.

Q And your qualifications as an expert are a matter of record before this Commission, is that right?

A Yes, they are.

Q Would you refer to what has been marked Sinclair's Exhibit Number One, and briefly tell what you seek by this

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application?

A Sinclair's Exhibit Number One is an area map of the area that is the subject of this application, and that area is shaded in blue on Exhibit Number One. It consists of our Russell A lease, which is in the north half of Section 18. Correction, that is our just plain C.A. Russell lease, the "A" is incorrect on the Exhibit. That also shows our Turner A lease, which is the south half of Section 18, and the north half of Section 19, immediately below. And it also shows a portion of our Turner B lease, the portion of that lease is in the south half of Section 16, colored blue, and all of Section 20. The lease also contains all of the wells shown in Section 29, and all of the wells shown in the south half of Section 30. However, at this time, we are not proposing that this water-flood application on these leases extend down to the Sections to the south, just the area that is shaded.

MR. UTZ: The Turner A lease includes the south half of 16?

THE WITNESS: South half of 16 and north half of --

MR. UTZ: That is not marked Turner A, just Turner, right?

THE WITNESS: Yes, sir. The "A" which was added under the lease name Russell, should have been placed under the lease name Turner. The Exhibit should be corrected to reflect

that the Turner A lease is a 640 acre lease, more or less, and consists of these two half sections.

Q (By Mr. Kelly) Then it is all one waterflood project, but there is three leases involved, is that right?

A No, sir. Due to the fact that we have a difference in ownership under each of these three leases, it will have to be operated as three waterflood projects.

Q Yes, but, I mean, they are continuous and contiguous. Now, what is the situation with the waterflood on the north-east that you show?

A All of the wells to the north of the area shaded in blue that have arrows drawn through them are current water injection wells in a waterflood project operated by Sinclair on our Keel and West leases, and this pattern is an extension of the five-spot pattern established on those sections to the north.

Q Now, could you explain to the Examiner what zones you are injecting in and what the various symbols show on this plat?

A The wells that are colored red are classified as being in the Grayburg-Jackson field and it is the Grayburg-San Andres formation. The wells that are colored green are completed in the Friend field, the Seven Rivers formation, which is a shallower pay and is not involved in this application.

The wells that are colored yellow are in the Cedar Lake-Abo field, and one of those wells is a dual completion. The southernmost well on our proposed pattern is a dual completion well, completed in the Grayburg-Jackson field and the Cedar Lake-Abo field, and has been completed since it was drilled in 1960, in that manner. We are asking with regard to that well, that it be approved as an injection well as part of our pattern. I believe there is one other color on there, the blue or purple color, and that is a Pennsylvanian Gas well, the only well in the field, and it is a one well field.

Q What is the present status of this field as far as the completion rate?

A The field is in the, the proposed field that we are going to flood, is in the latter stage of primary depletion. The wells are producing at the present time on an average of three or four barrels of oil per day and they are all being artificially lifted.

Q Do you have anything else you want to add on Exhibit Number One?

A No, sir.

Q Now, referring to Exhibits Number Two and Three, would you explain that to the Examiner?

A Exhibits Two and Three are very similar to the diagrammatic sketches that were furnished with our application. I have

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added one additional piece of information on each well. I have put the well's exact location at the top of each diagram. This Exhibit reflects the actual condition of all of the proposed injection wells. There are eighteen wells total on Exhibits Two and Three that shows the size casing, where it is set, amount of cement used, the cement top to the best of our belief, and it further shows the condition of the wells after they have been converted. We have shown a tension type packer set on the bottom of the injection tubing. Some of these wells have been temporarily plugged back and are presently producing from a shallower zone in the San Andres-Grayburg series of zones. They will be cleaned out again to their old T.D. Several of the wells show perforations in the casing above the proposed packer setting. I believe two wells reflect those perforations and we will squeeze those perforations when we convert the well. We are going to fill the annulus of all of these wells with corrosion inhibited fluid and we will want to squeeze those perforations that are up in the hole. Those perforations are in the Grayburg-Jackson vertical limits in the shallower productive zones, but we have no plans to flood those zones at this time.

Q Which is the well that is the dual completion?

A On Exhibit Two, next to the last well on the right side of the Exhibit, Turner BSP No. 67, and that is the

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dual completion, presently completed with a Model D Packer, at 6940 feet. It was completed by setting 8-5/8 inch casing at 3800 feet with 900 sacks of cement. The top of the cement was measured to be 1,010 feet from the surface and after which time the well was drilled on down to the Abo and a 4-1/2 inch liner was run and set at 7221 and cement was circulated behind the liner all the way up into the 8-5/8's. So there is a solid cement sheet from 7221 all the way up to 1,010 feet.

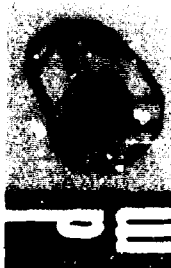
In this plat there is one other well I might mention on Exhibit Three. The third well from the left is the Turner A, SP No. 2, and this well was drilled in 1930, and the oil string was set in the open hole with a packer, and one ton of mud was placed on top of the packer. We do not know how effective that seal may be up behind that pipe. There is no seal on that pipe oil string, so in converting that to water injection service, we will perforate the casing somewhere down near the bottom, and we will squeeze sufficient amount of cement behind the casing to assure that our injection fluid will not migrate up the annulus on the outside of the casing.

Q Do you feel that the installation that you have described here, and shown on the two Exhibits, will, in all cases, effectively prevent any migration of fluid?

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A Yes, there will be no migration of fluid, in my opinion, up behind these casings into the formation, other than those that we propose to flood.

Q Now, referring to Exhibit Number Four, are you going to have to drill any additional injections wells?

A Yes, the proposed injection pattern shown on Exhibit One contemplates the drilling of one injection well and that well will be drilled near the center. The exact footage is 700 feet from the east line and 1840 feet from the north line of Section 19, and at the location as shown on the top of Exhibit Four, and that location is not colored on the map. It is the location in the southeast quarter of the northeast quarter of Section 19.

Q Your Exhibit Number Four doesn't show a packer. Would a packer be used in that?

A The packer was inadvertently omitted from the sketch when it was drawn. We will run the same type of packer on the bottom of the tubing of the proposed drilling well which will be our Turner A, SP Number 35, and like the other wells, we will have the annulus filled with corrosion inhibited fluid.

Q Now, going on to what has been marked as Exhibit Number Five, which is the production history of C.A. Russell's lease, would you go through the next three Exhibits and show

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The Examiner the production history of this field?

A Exhibit Five reflects the production history of C.A. Russell lease through 1965, and I have calculated and written on the right margin of the Exhibit what the average 1966 production has been; and in this case it is 3.03 barrels per well per day during the first eleven months of 1966.

This Exhibit shows the last several years of gas production and water production from this lease and, of course, the oil production, and it shows that the lease had declined to a rather flat state and is approaching the economic limit.

Exhibit Six consists of the same data on the Turner A lease and that average production in 1966 is 3.7 barrels per well per day. Exhibit Seven deals with just that portion of the B lease that is the subject of the application. I did not use the other wells and have just platted the oil production, and gas production and oil production from that portion of the lease that is to be flooded as a result of this application, and that portion of the lease averaged, in 1966, 4.83 barrels of oil per day.

Q Can occasional upswing in production be attributable to new drilling of, or work over of existing wells?

A Yes, sir.

Q Now, what is the total production from this field to date, and how much more do you think you can get if this

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application is granted and you have a successful flood project?

A The total production from the three project areas, which is the subject of the application, is currently in the vicinity of six million barrels, and as a result of this project, if this application is approved, I would expect an additional four million barrels of secondary oil to be recovered, an amount which would equal approximately half to two-thirds of ultimate primary from the properties.

Q Now, can you tell the Examiner what your source of water is and the type of water you will be injecting?

A Yes, we are going to initially inject about 400 barrels per well per day, which, for the 19 injection wells, comes out about 7,600 barrels of water per day. We will pick up about 2,500 barrels of produced water a day from the Keyo-West flood to the north. We will mix fresh water from the Ogallala with this produced water to make a total volume of 7,600 barrels per day for injection into these wells.

I might mention the Commissions's records reflect that Sinclair has laid about eleven miles of pipeline and has developed on the Ogallala water field for the Keyo-West flood and, of course that pipeline, the water-field development was for all of the, of our properties in the area, which includes the Keyo-West, which is under flood now. This property flooded a Section and a half to the south of this flood, which we will

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expand to at a later date.

I might add that we have secured approval in the State Engineer's office to make available at cost, base, water, sufficient quantities of water to the offset operators in Section 18 and 17, where we have shown a dashed pattern and we are working out cooperative agreements with them now. They have very small holes in there and does not justify much water development cost on their part, so we are going to make water available to them and we have the State Engineer's permission to do that.

We have one other property. We own 200 acres in the south half of Section 19, which is identified as Sinclair's Number 41 for the, for an oil company, and we will be expanding our flood onto that 200-acre property, also, at a later date.

Q You feel that your water source will be adequate for all of this expansion?

A Yes, our water source is adequate for the project today for the expansion that I have mentioned.

Q Do you expect that your injection rate will have to increase as time goes on?

A No, sir, I don't anticipate that our injection rate will increase over the 400 barrels per day. After we achieve fill-up in this area, it probably will be reduced.

Q Now, you have discussed this application completely

with the State Engineer's office and gotten their approval, is that correct?

A Yes, sir. Mr. Irby has advised me that he has written a letter to that effect also, and that the State Engineer's office has no objection to the application.

MR. KELLY: Does the Examiner have that letter?

Q (By Mr. Kelly) Now, in your opinion, would the granting of this application protect relative rights and prevent waste and promote the efficient production of oil?

A Yes.

Q Were Exhibits One through Seven prepared by you or under your supervision?

A Yes, sir.

MR. KELLY: We move the introduction of these Exhibits.

MR. UTZ: Without objection, the Exhibits will be entered into the record of this case.

(Whereupon Exhibits One through Seven, inclusive, were admitted in evidence.)

CROSS EXAMINATION

BY MR. UTZ:

Q What do you intend to do about tubing? Is it plain or plastic-coated?

A It would be plain tubing.

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Q Will these all be fresh waters, even the reclaimed water?

A No, the produced water is not potable, it is not fresh water. The produced water, after we get it back, it is no longer potable. We have had a laboratory analysis and we have determined that they will mix without any adverse effects.

Q How about the corrosion qualities of the water after it is mixed? Would there be any danger of corroding up plain tubing?

A I'm aware that we are presently experiencing any corrosion problems. They do not anticipate, or have not made any provisions for coating the tubing. They are going to use plain tubing, so I imagine corrosion is not a problem.

Q Have you checked the corrosion problem of water on your other floods, your Keyo flood?

A Yes, sir.

Q You use

A Well, they have sent samples of the water in. I know they are not experiencing any difficulty in the field. Corrosion is not a problem in the Keyo-West flood and they are not experiencing problems in the field, and I do not believe that they have found it necessary to run any particular tests. If they have, I'm not aware of them, and I would be if, had there been corrosion problems, I would have been advised of

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A Yes, sir.

Q You use

A Well, they have sent samples of the water in. I know they are not experiencing any difficulty in the field. Corrosion is not a problem in the Keyo-West flood and they are not experiencing problems in the field, and I do not believe that they have found it necessary to run any particular tests. If they have, I'm not aware of them, and I would be if, had there been corrosion problems, I would have been advised of

them.

Q What kind of a test do you propose to run on this casing to assure that it will withstand the pressure?

A On the injection wells?

Q Yes.

A Well, by injecting below a packer, we will not have pressure on the casing. We are going to keep the pressure off of the casing by setting a packer in the bottom of the casing.

Q Well, you will have pressure on the casing shoe, however, won't you?

A We will have pressure on a few feet of the casing that are below the tubing packer. Of course, the casing --

Q You don't plan to pressure up and see if your cement jobs are all satisfactory?

A I don't know how they could do that, Mr. Utz. The formations are open, of course, and they are very hopeful that they will be taking water. There will be no way of knowing whether it is going in the formation or up the outside of the casing, except we have ascertained that those casings have been cemented, with one exception, and we feel that there is adequate cement behind there to prevent that, but we certainly would hope that there would be no water moving up on the outside of the casing. We wouldn't be getting the water where we want it then.

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MR. UTZ: Are there any other questions of the witness? The witness may be excused.

(Witness excused)

MR. UTZ: Are there any statements? The case will be taken under advisement.

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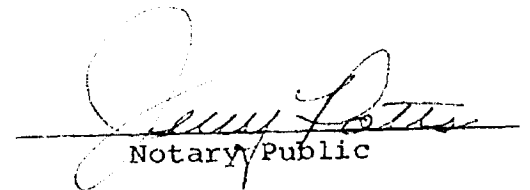
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STATE OF NEW MEXICO)
COUNTY OF BERNALILLO)

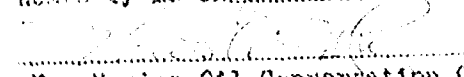
I, Jerry Potts, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me; and that the same is a true and correct record of the said proceedings,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

Witness my Hand and Seal this 6th day of April, 1967


Notary Public

My Commission Expires:

July 10, 1970

I do hereby certify that the foregoing is a complete record of the proceedings at the Bernalillo hearing of Case No. 12-1-1967 heard by me on April 2, 1967.
, Executive
New Mexico Oil Conservation Commission



SINCLAIR OIL & GAS COMPANY

P. O. Box 1920,
Hobbs, New Mexico

February 22, 1968

NEW MEXICO OIL CONSERVATION COMMISSION
P. O. Box 2088,
Santa Fe, New Mexico 87501

RECEIVED

FEB 27 1968

O. O. O.
ARTESIA, OFFICE

Gentlemen:

In compliance with Oil Conservation Commission's Rule 702, injection operations were commenced on the Turner "A" Well No. 2 in the Turner "A" Grayburg Jackson Waterflood Project effective February 21, 1968.

This waterflood project is authorized by the New Mexico Oil Conservation's Case No. 3521, Order No. R-3185.

The remaining wells on the Turner "B" (Well No. 4, 5, 30 and 67) as authorized by above Order No. R-3185 have not yet been converted to water injection wells, but will be reported upon conversion.

Yours very truly,

SINCLAIR OIL & GAS COMPANY

W. F. Burns
W. F. Burns
Superintendent

WFB:ds

cc: w/Orig. N.M.O.C.C. Drawer DD, Artesia, New Mexico
cc: U.S.G.S. Box 1857, Poswell, New Mexico
cc: Mr. Frank Irby, State Engineer Office, Santa Fe, New Mexico
cc: Regional Office
cc: file

MAIN OFFICE

'68 FEB 28 AM 8 39



SINCLAIR OIL & GAS COMPANY

P. O. Box 1920,
Hobbs, New Mexico

January 30, 1968

NEW MEXICO OIL CONSERVATION COMMISSION
P. O. Box 2088,
Santa Fe, New Mexico 87501

MAIN OFFICE 200

Gentlemen:

'68 JAN 31 AM 8 04

In compliance with Oil Conservation Commission's Rule 703, injection operations were commenced on the Sinclair Turner "A" Grayburg Jackson Waterflood Project and the Sinclair Turner "B" Grayburg Jackson Waterflood Project effective January 29, 1968. Water injection was commenced on the following wells:

Turner "A" Well No's. 5, 6, 9, 10, 11, 15 and 35.
Turner "B" Well No's. 3, 8, 11, 41 and 78.

This waterflood project is authorized by the New Mexico Oil Conservation's Case No. 3521, Order No. R-3185.

The remaining wells, Turner "A" Well No. 2 and Turner "B" Well No's. 4, 5, 30 and 67 as authorized by above Order No. R-3185 have not yet been converted to water injection wells, but will be reported upon conversion.

Yours very truly,

W. F. Burns
Superintendent

WFB:ds

cc: w/orig.
cc: N.M.O.C.C. Drawer DD, Artesia, New Mexico
cc: U.S.G.S. Box 1857, Roswell, New Mexico
cc: Mr. Frank Irby, State Engineer Office, Santa Fe, New Mexico
cc: Regional Office
cc: file

GOVERNOR
DAVID F. CARGO
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
GUYTON B. HAYS
MEMBER

P. O. BOX 2088
SANTA FE

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

February 19, 1968

Mr. Booker Kelly
White, Gilbert, Koch & Kelly
Attorneys at Law
Post Office Box 787
Santa Fe, New Mexico

Re: Case No. 3521
Order No. R-3185-A
Applicant:
Sinclair Oil & Gas Company

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.
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC x

Aztec OCC

Other State Engineer Office



SINCLAIR OIL & GAS COMPANY

Box 1920
Hobbs, New Mexico 88240

May 3 3 30 PM '67

May 2, 1967

file

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

Dear Sir:

In compliance with the Oil Conservation Commission's Rule 703, injection operations were started on the Sinclair Russell Grayburg-Jackson Waterflood Project.

The C. A. Russell Lease, Well No. 6 and 10 were converted to injection wells and injection operations commenced on April 29, 1967.

This waterflood project is authorized by the New Mexico Oil Conservation's Case No. 3521, Order No. R-3185.

Yours truly,

W. F. Burns
Superintendent

WFB:bj

cc: w/orig.
Oil Conservation Commission - Artesia, New Mexico
U. S. Geological Survey - Box 1857 - Roswell, New Mexico
Regional 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. 3521
Order No. R-3185

APPLICATION OF SINCLAIR OIL & GAS
COMPANY FOR THREE WATERFLOOD PROJ-
ECTS, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 25, 1967, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 1st day of February, 1967, 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, Sinclair Oil & Gas Company, seeks authority to institute three waterflood projects in the Grayburg-Jackson Pool by the injection of water into the Grayburg-San Andres formations through two wells on its C. A. Russell Lease, eight wells on its Turner "A" Lease, and nine wells on its Turner "B" Lease in Sections 17, 18, 19, and 20, Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico.

(3) That the applicant also seeks an administrative procedure whereby said projects could be expanded to include additional lands and injection wells in the area of said projects as may be necessary in order to complete an efficient injection pattern.

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

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CASE No. 3521
Order No. R-3185

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

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

IT IS THEREFORE ORDERED:

(1) That the applicant, Sinclair Oil & Gas Company, is hereby authorized to institute three waterflood projects in the Grayburg-Jackson Pool by the injection of water into the Grayburg-San Andres formations through the following-described 19 wells in Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico:

Sinclair Russell Grayburg-Jackson Waterflood Project

Injection wells:

C. A. Russell Well No. 6	979' FNL & 1400' FWL	Section 18
C. A. Russell Well No. 10	2147' FNL & 2374' FWL	Section 18

Sinclair Turner "A" Grayburg-Jackson Waterflood Project

Injection wells:

Turner "A" SP Well No. 2	2220' FSL & 427' FWL	Section 18
Turner "A" SP Well No. 5	332' FNL & 670' FWL	Section 19
Turner "A" SP Well No. 6	568' FSL & 1707' FWL	Section 18
Turner "A" SP Well No. 9	408' FNL & 1994' FEL	Section 19
Turner "A" SP Well No. 10	1940' FSL & 1839' FEL	Section 18
Turner "A" SP Well No. 11	589' FSL & 655' FEL	Section 18
Turner "A" SP Well No. 15	1635' FNL & 1698' FWL	Section 19
Turner "A" SP Well No. 35	700' FEL & 1840' FNL	Section 19

Sinclair Turner "B" Grayburg-Jackson Waterflood Project

Injection wells:

Turner "B" SP Well No. 3	309' FNL & 666' FWL	Section 20
Turner "B" SP Well No. 4	700' FSL & 1751' FWL	Section 17
Turner "B" SP Well No. 5	1989' FSL & 625' FWL	Section 17
Turner "B" SP Well No. 8	504' FNL & 2064' FEL	Section 20
Turner "B" SP Well No. 11	1785' FNL & 725' FEL	Section 20
Turner "B" SP Well No. 30	680' FSL & 632' FEL	Section 17
Turner "B" SP Well No. 41	1635' FNL & 1665' FWL	Section 20
Turner "B" SP Well No. 67	1650' FSL & 660' FWL	Section 20
Turner "B" SP Well No. 78	2130' FSL & 1980' FEL	Section 20

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CASE No. 3521
Order No. R-3185

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

PROVIDED HOWEVER, that the Secretary-Director of the Commission may approve expansion of said projects to include such additional lands and injection wells in the area of said projects as may be necessary to complete an efficient water injection pattern.

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

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

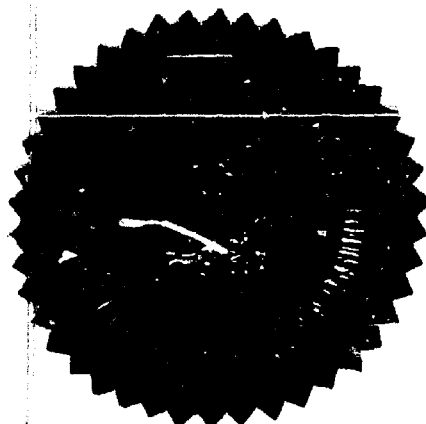
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


DAVID F. CARGO, Chairman


GUYTON B. HAYS, Member


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



esr/

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

CASE No. 3521
Order No. R-3185-A

IN THE MATTER OF THE APPLICATION OF
SINCLAIR OIL & GAS COMPANY FOR THREE
WATERFLOOD PROJECTS, EDDY COUNTY,
NEW MEXICO.

NUNC PRO TUNC ORDER

BY THE COMMISSION:

It appearing to the Commission that through inadvertence,
Order No. R-3185, dated February 1, 1967, does not reflect the
true and correct locations of certain existing wells which were
authorized for conversion to water injection by said order,

IT IS THEREFORE ORDERED:

(1) That the following well locations are hereby substituted
in lieu of those shown in Order No. R-3185 to correctly reflect
the locations of water injection wells authorized by said Order
No. R-3185:

Sinclair Russell Grayburg-Jackson Waterflood Project

Injection wells:

C. A. Russell Well No. 6	990' FNL & 1384' FWL	Section 18
C. A. Russell Well No. 10	2200' FNL & 2665' FEL	Section 18

Sinclair Turner "A" Grayburg-Jackson Waterflood Project

Injection wells:

Turner "A" SP Well No. 2	2200' FSL & 440' FWL	Section 18
Turner "A" SP Well No. 5	330' FNL & 660' FWL	Section 19
Turner "A" SP Well No. 6	660' FSL & 1980' FWL	Section 18
Turner "A" SP Well No. 9	330' FNL & 1980' FEL	Section 19
Turner "A" SP Well No. 10	1980' FSL & 1830' FEL	Section 18
Turner "A" SP Well No. 11	660' FSL & 660' FEL	Section 18
Turner "A" SP Well No. 15	1650' FNL & 1980' FWL	Section 19
Turner "A" SP Well No. 35	1800' FNL & 660' FEL	Section 19

-2-

CASE No. 3521

Order No. R-3185-A

Sinclair Turner "B" Grayburg-Jackson Waterflood Project

Injection wells:

Turner "B" SP Well No. 3	330' FNL & 660' FWL	Section 20
Turner "B" SP Well No. 4	660' FSL & 1980' FWL	Section 17
Turner "B" SP Well No. 5	1980' FSL & 660' FWL	Section 17
Turner "B" SP Well No. 8	660' FNL & 1980' FEL	Section 20
Turner "B" SP Well No. 11	1980' FNL & 660' FEL	Section 20
Turner "B" SP Well No. 30	660' FSL & 660' FEL	Section 17
Turner "B" SP Well No. 41	1650' FNL & 1650' FWL	Section 20
Turner "B" SP Well No. 67	1650' FSL & 660' FWL	Section 20
Turner "B" SP Well No. 78	2000' FSL & 1980' FEL	Section 20

(2) That this order shall be effective nunc pro tunc as of February 1, 1967.

DONE at Santa Fe, New Mexico, on this 19th day of February, 1968.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

DAVID F. CARGO, Chairman

GUYTON B. HAYS, Member

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

esr/

State of New Mexico
Oil Conservation Commission



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

P. O. BOX 2088
SANTA FE

February 1, 1967

Re: Case No. 3521
Order No. R-3185
Applicant:
SINCLAIR OIL & GAS COMPANY

Enclosed herewith is a copy of the above-referenced Commission order recently entered in the subject case. Letter pertaining to conditions of approval and maximum allowable to follow.

A. L. PORTER, Jr.
Secretary-Director

Carbon copy of order also sent to:

Other _____



STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS
STATE ENGINEER

January 23, 1967

ADDRESS CORRESPONDENCE TO:
STATE CAPITOL
SANTA FE, NEW MEXICO 87501

Mr. A. L. Porter, Jr.
Secretary-Director
Oil Conservation Commission
Santa Fe, N. M.

Dear Mr. Porter:

Reference is made to the application of Sinclair Oil and Gas Company which seeks approval to institute a water injection operation in the C. A. Russell, Turner "A" and a portion of the Turner "B" Leases in the Grayburg-Jackson pool. Further reference is made to my letter of December 30, 1966 to Sinclair and to their reply dated January 9, 1967, copies of which have been sent to you.

Mr. Anderson of Sinclair Oil and Gas Company called me today regarding the second paragraph of my letter to you dated January 19, 1967. After his explanation of the casing and cementing program that has been completed on their Turner "B" SP #67 well, it is my opinion that the casing and cementing program in this well is adequate and this office offers no objection to the granting of the application, including this well.

FEI/ma
cc=Horace N. Burton
L. C. White
F. H. Hennighausen

Yours truly,

S. E. Reynolds
State Engineer

By: *Frank E. Irby*
Frank E. Irby
Chief
Water Rights Div.



SINCLAIR OIL & GAS COMPANY

P. O. Box 3470

MIDLAND, TEXAS

January 9, 1967

Shy

LEGAL DEPARTMENT

Mr. Frank W. Troy, Chief
Water Rights Division
State Engineer's Office
State Capitol
Santa Fe, New Mexico 87501

Case 2521

Re: Application of Sinclair Oil & Gas Company for approval of a waterflood project on its C.A. Russell, Turner "A" and a portion of its Turner "B" Leases in the Grayburg-Jackson Pool, Eddy County, New Mexico

Dear Sir:

In response to your letter of December 30, 1966, we are pleased to furnish the additional information requested as follows:

1. Supplemental map of the proposed waterflood area wherein the well numbers have been made more legible.
2. With regard to the Turner "A" SP #5 and Turner "B" SP #30 proposed injection wells, it is our intention to squeeze the perforations shown on the diagrammatic sketches above the proposed packers. This will be necessary as we propose to fill all of the annulus with corrosion-inhibiting fluid during the time that the wells are used for injection purposes.
3. Our Turner "B" SP #67 is currently an Abo producer. It will be proposed as the flood is expanded to dually complete this well as an injection well into the Grayburg-Jackson field pay and a producing well from the Abo formation. We are seeking approval at this time to use the well as a future injection well and will request dual completion approval at a later date.
4. You will note that our Turner "A" SP #2 has no cement behind the 6-5/8" production string. This is to advise that we will perforate and squeeze this production string prior to converting the well to injection service.

STATE ENGINEER'S OFFICE
SANTA FE, N.M.
JAN 12 AM 9:19
1967

Mr. Frank H. Irby

-4-

January 9, 1967

It is hoped that this answers all of your questions concerning our application and we respectfully request that you advise your Conservation Commission of your approval prior to the hearing.

Please feel free to contact the undersigned if you desire any additional information concerning our application.

Very truly yours,

Horace N. Burton
Horace N. Burton
General Attorney

cc: Mr. A. L. Porter, Jr. (enc)
P. O. Box 1079
Santa Fe, New Mexico

Mr. L. C. White
P. O. Box 787
Santa Fe, New Mexico



STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS
STATE ENGINEER

January 19, 1967

ADDRESS CORRESPONDENCE TO:
STATE CAPITOL
SANTA FE, NEW MEXICO 87501

Mr. A. L. Porter, Jr.
Secretary-Director
Oil Conservation Commission
Santa Fe, New Mexico

Dear Mr. Porter:

Reference is made to the application of Sinclair Oil & Gas Company which seeks approval to institute a water injection operation in the C. A. Russell, Turner "A" and a portion of the Turner "B" Leases in the Grayburg-Jackson Pool. Further reference is made to my letter of December 30, 1966 to Sinclair and to their reply dated January 9, 1967, copies of which have been sent to you.

In view of this correspondence, this office offers no objection to the granting of the subject application except as it refers to the future conversion of the Turner "B" SP #67 well. In the case of this particular well, we would want to know prior to approval for its conversion that the casing and cementing program in the interval between the packers set at 2950' and at 6940' would be adequate.

FEI/ma
cc-Horace N. Burton
L. C. White
F. H. Hennighausen

Yours truly,

S. E. Reynolds
State Engineer

By: *Frank E. Irby*
Frank E. Irby
Chief
Water Rights Div.

December 30, 1966

File 3521

Sinclair Oil & Gas Company
P. O. Box 1470
Midland, Texas

Attn. Mr. Horace N. Burton
General Attorney

Gentlemen:

Reference is made to your application to the Oil Conservation Commission dated December 28, 1966 which seeks approval to institute a water injection operation in the C. A. Russell, Turner "A" and a portion of the Turner "B" Leases in the Grayburg-Jackson Pool.

I am unable to identify the wells on the plat showing the location of the proposed injection wells, since the Kraftone has diminished the contrast on the plat and made the numbers unreadable. The Turner "A" SP #5 and Turner "B" SP #30 shown on the diagrammatic sketches of the wells indicate perforations in the casing above the packer. Please advise how these perforations will be closed.

The Turner "B" SP #67 appears to be designed for dual completion. Nothing is said in the application concerning a dual completion. The application states that injection will be into the Grayburg-San Andres formations so I assume that the tubing in this well which goes down to 6940' below the surface is for the purpose of producing the Abo formation. Please explain this well completion more clearly.

By receiving answers to these questions at an early date, I may be able to give a waiver prior to the hearing.

FEI/ma
cc-A. L. Porter, Jr.

Yours truly,

Frank E. Irby
Chief
Water Rights Division

Docket No. 3-67

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 25, 1967

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

The following cases will be heard before Elvis A. Utz, Examiner, or
Daniel S. Nutter, Alternate Examiner:

CASE 3516: Application of Texas Pacific Oil Company for several non-standard gas proration units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the rededication of certain acreage and the establishment of the following non-standard gas proration units in Township 23 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico:

A 200-acre non-standard unit comprising the SE/4 of Section 20 and the NW/4 SW/4 of Section 21, dedicated to its State "A" A/c-1 Well No. 2 located 2260 feet from the South line and 330 feet from the West line of said Section 21;

A 160-acre non-standard unit comprising the E/2 SW/4, SW/4 SW/4, and SW/4 SE/4 of Section 21 dedicated to its State "A" A/c-1 Well No. 8 located 660 feet from the South line and 1980 feet from the East line of said Section 21;

A 160-acre non-standard unit comprising the SW/4 of Section 4, dedicated to its State "A" A/c-1 Well No. 18 located 660 feet from the South and West lines of said Section 4;

An 80-acre non-standard unit comprising the S/2 NW/4 of Section 4 dedicated to its State "A" A/c-1 Well No. 15 located 1980 feet from the North and West lines of said Section 4;

A 120-acre non-standard unit comprising the N/2 NW/4 and NW/4 NE/4 of Section 4, dedicated to its State "A" A/c-1 Well No. 23 located 660 feet from the North line and 2310 feet from the East line of said Section 4;

A 160-acre non-standard unit comprising the W/2 SW/4, SE/4 SW/4, and SW/4 SE/4 of Section 9 dedicated to its State "A" A/c-1 Well No. 12 located 660 feet from the South line and 1980 feet from the East line of said Section 9.

CASE 3517: Application of Pan American Petroleum Corporation for a vapor recovery system, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to install, at its central tank battery for the Navajo Tribal P, N, and U Leases in the Tocito-Dome Pennsylvanian "D" Pool, San Juan County, New Mexico, a vapor recovery system including facilities for extracting the liquids from said vapor, with a provision that said liquids would not be chargeable to the oil allowable for said leases.

CASE 3518: Application of Pan American Petroleum Corporation for an unorthodox location and possible directional drilling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the Tocito Dome-Pennsylvanian "D" Pool rules as promulgated by Order No. R-2758 to permit the drilling of its Navajo Tribal "N" Well No. 9 at an unorthodox location 600 feet from the North line and 1200 feet from the West line of Section 20, Township 26 North, Range 18 West, Tocito Dome-Pennsylvanian "D" Pool, San Juan County, New Mexico. Applicant further seeks authorization, if the Pennsylvanian "D" producing section is found above the gas-oil contact or below the oil-water contact, to intentionally deviate said well in such direction and to such extent as necessary to obtain a commercial well, provided that said well would not be bottomed any nearer than 100 feet to the outer boundary of the 160-acre proration unit.

CASE 3519: Application of Robert N. Enfield for compulsory pooling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order force-pooling all mineral interests in the Chaveroo-San Andres Pool underlying the NW/4 NW/4 of Section 11, Township 8 South, Range 33 East, Chaves County, New Mexico.

CASE 3520: Application of Southern Natural Gas Company for the creation of a new pool and for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new pool for Wolfcamp production for its State "C" Well No. 1 located in Unit C of Section 11, Township 11 South, Range 33 East, Lea County, New Mexico, and for the promulgation of special rules therefor, including a provision for 80-acre proration units.

CASE 3521: Application of Sinclair Oil & Gas Company for three waterflood projects, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute three waterflood projects in the Grayburg-Jackson Pool by the injection of water into the Grayburg-San Andres formations through two wells on its Russell Lease, eight wells on its Turner "A" lease, and nine wells on its Turner "B" lease in Sections 17, 18, 19 and 20, Township 17 South, Range 31 East, Eddy County, New Mexico.

CASE 3522: Application of Texaco Inc. for suspension of cancellation of underproduction and extension of deliverability test deadline, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order suspending the scheduled cancellation of the underproduction attributable on July 31, 1966, to its H. J. Loe Federal B Wells Nos. 2 and 3, located in Section 23, Township 29 North, Range 12 West, Basin-Dakota Gas Pool, San Juan County, New Mexico, said underproduction not having been made-up during the 6 months period ending January 31, 1967, due to said wells having been shut-in November 10, 1966,

Docket No. 3-67

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(Case 3522 continued)

upon the transfer of the connecting pipeline from an intra-state status to an interstate status and delay in obtaining FPC approval for the sale of gas from said wells in interstate commerce. Applicant further seeks an extension of time in which to conduct the 1966 deliverability test of the Loe Well No. 3 until after FPC approval for gas sales has been received, and the well restored to production.



SINCLAIR OIL & GAS COMPANY

P. O. Box 1470
MIDLAND, TEXAS

December 28, 1966

LEGAL DEPARTMENT

Mr. A. L. Porter, Jr.
Secretary-Director
Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

100-3521
Re: Application of Sinclair Oil &
Gas Company for approval of a
waterflood project on its C.A.
Russell, Turner "A" and a por-
tion of its Turner "B" Leases
in the Grayburg-Jackson Pool,
Eddy County, New Mexico

Dear Sir:

Enclosed is the original with attachments, plus two copies
without attachments of the subject Application which we request
that you file and set for hearing at the earliest convenience.
Mr. L. C. White will serve as our local counsel in this matter.

Very truly yours,

Horace N. Burton
Horace N. Burton
General Attorney

HNB:11

Encs.

cc: State Engineer
P. O. Box 1079
Santa Fe, New Mexico

Mr. L. C. White
P. O. Box 787
Santa Fe, New Mexico

SECRET MAILED

Date 1-12-67 *h*

BEFORE THE OIL CONSERVATION COMMISSION OF THE
STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION
OF SINCLAIR OIL & GAS COMPANY FOR
APPROVAL OF A WATERFLOOD PROJECT
ON ITS C. A. RUSSELL, TURNER "A"
AND A PORTION OF ITS TURNER "B"
LEASES IN THE GRAYBURG-JACKSON
POOL, EDDY COUNTY, NEW MEXICO }

CASE NO. 3527

ORDER NO. _____

A P P L I C A T I O N

SINCLAIR OIL & GAS COMPANY, a Maine corporation with an operating office in Midland, Texas, hereby makes application under Rule 701 for approval to institute a water injection operation in its C. A. Russell, Turner "A" and a portion of its Turner "B" leases in the Grayburg-Jackson Pool, Eddy County, New Mexico, and in support thereof shows:

1.

That Sinclair Oil & Gas Company is the owner and operator of its C. A. Russell lease, consisting of the NW/4 and W/2 of the NE/4 of Section 18, Township 17 South, Range 31 East, NMPM, its Turner "A" lease consisting of the S/2 of Section 18 and N/2 of Section 19, Township 17 South, Range 31 East, NMPM and that portion of its Turner "B" lease consisting of the S/2 of the S/2 and NW/4 of the SW/4 of Section 17, and all of Section 20, Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico. Said leases are in an advanced stage of depletion and applicant desires to institute a secondary recovery program by waterflooding. The Grayburg and San Andres formations are the zones proposed to be flooded.

2.

Attached and filed herewith is a plat showing the location of the proposed injection wells and all other wells within the radius of two miles from said proposed injection wells, and showing also the lessees and operators within the two-mile radius.

3.

Attached and filed herewith are the logs run on all proposed injection wells except wells on which logs are not available.

4.

Attached hereto and filed herewith is a diagrammatic sketch of the proposed injection wells showing all casing strings, including diameters and setting depths, quantities used and tops of cement, perforated or open hole intervals, tubing strings including diameters and setting depths and the type and location of packers, if any.

5.

Applicant proposes to inject fresh water from the Lea County Underground Water Basin into the Grayburg and San Andres formations at an average depth of 2,750 feet below the surface at an initial rate of 7,600 barrels per day which is 400 barrels per day per injection well.

6.

A copy of this application, complete with all attachments, has been sent to the State Engineer's Office, Box 1079, Santa Fe, New Mexico.

7.

Applicant proposes that the waterflood project should be governed by the provisions of Rule 701 of the Commission's Rules and Regulations, including those provisions regarding allocation of allowables. Applicant also proposes to submit to the Commission monthly progress reports of the waterflood project in accordance with Rule 704 and Rule 1119 of the Commission's Rules and Regulations. Applicant further alleges that the granting of this application will be in the interest of prevention of waste and will not impair correlative rights.

WHEREFORE, applicant prays that the Commission set this application for public hearing before an Examiner in Santa Fe, New Mexico, that notice be issued according to law, and that upon hearing this application be granted.

WHITE, GILBERT, KOCH & KELLY
P. O. Box 787
Santa Fe, New Mexico

Horace N. Burton

HORACE N. BURTON
P. O. Box 1470
Midland, Texas

DRAFT

GMH/esr
2-16-68

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

CASE No. 3521
Order No. R-3185-A

IN THE MATTER OF THE APPLICATION OF
SINCLAIR OIL & GAS COMPANY FOR THREE
WATERFLOOD PROJECTS, EDDY COUNTY,
NEW MEXICO.

NUNC PRO TUNC ORDER

BY THE COMMISSION:

It appearing to the Commission that through inadvertence,
Order No. R-3185, dated February 1, 1967, does not reflect the
true and correct locations of certain existing wells which were
authorized for conversion to water injection by said order,

IT IS THEREFORE ORDERED:

(1) That the following well locations are hereby substituted
in lieu of those shown in Order No. R-3185 to correctly reflect
the locations of water injection wells authorized by said Order
No. R-3185:

Sinclair Russell Grayburg-Jackson Waterflood Project

Injection wells:

C. A. Russell Well No. 6	990' FNL & 1384' FWL	Section 18
C. A. Russell Well No. 10	2200' FNL & 2665' FEL	Section 18

Sinclair Turner "A" Grayburg-Jackson Waterflood Project

Injection wells:

Turner "A" SP Well No. 2	2200' FSL & 440' FWL	Section 18
Turner "A" SP Well No. 5	330' FNL & 660' FWL	Section 19
Turner "A" SP Well No. 6	660' FSL & 1980' FWL	Section 18
Turner "A" SP Well No. 9	330' FNL & 1980' FEL	Section 19
Turner "A" SP Well No. 10	1980' FSL & 1830' FEL	Section 18
Turner "A" SP Well No. 11	660' FSL & 660' FEL	Section 18
Turner "A" SP Well No. 15	1650' FNL & 1980' FWL	Section 19
Turner "A" SP Well No. 35	1800' FNL & 660' FEL	Section 19

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CASE No. 3521

Order No. R-3185-A

Sinclair Turner "B" Grayburg-Jackson Waterflood Project

Injection wells:

Turner "B" SP Well No. 3	330' FNL & 660' FWL	Section 20
Turner "B" SP Well No. 4	660' FSL & 1980' FWL	Section 17
Turner "B" SP Well No. 5	1980' FSL & 660' FWL	Section 17
Turner "B" SP Well No. 8	660' FNL & 1980' FEL	Section 20
Turner "B" SP Well No. 11	1980' FNL & 660' FEL	Section 20
Turner "B" SP Well No. 30	660' FSL & 660' FEL	Section 17
Turner "B" SP Well No. 41	1650' FNL & 1650' FWL	Section 20
Turner "B" SP Well No. 67	1650' FSL & 660' FWL	Section 20
Turner "B" SP Well No. 78	2080' FSL & 1980' FEL	Section 20

(2) That this order shall be effective nunc pro tunc as of
February 1, 1967.

DONE at Santa Fe, New Mexico, on this _____ day of February,
1968.



SINCLAIR OIL & GAS COMPANY

P. O. Box 1470
MIDLAND, TEXAS 79701
February 13, 1968

WEST TEXAS REGION

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

Attention: Mr. A. L. Porter, Jr.

MAIL OFFICE
3 FEB 15 PM 1 09

Gentlemen:

On January 25, 1967, the undersigned presented testimony in support of Sinclair Oil & Gas Company's application for approval of three (3) waterflood projects in the Grayburg-Jackson Field, Eddy County, New Mexico. Exhibits Nos. 2, 3 and 4 among other things, showed the locations of the oil wells which were the proposed injection wells. It has recently come to my attention that the locations reflected on said Exhibits were erroneous and it is requested that Commission Order No. R-3185 (copy of which is attached) be amended to reflect the corrected locations as listed below:

Sinclair Russell Grayburg-Jackson Waterflood Project

Injection wells:

C. A. Russell Well No. 6	990' FNL & 1384' FWL	Section 18
C. A. Russell Well No. 10	2200' FNL & 2665' FEL	Section 18

Sinclair Turner "A" Grayburg-Jackson Waterflood Project

Injection wells:

Turner "A" SP Well No. 2	2200' FSL & 440' FWL	Section 18
Turner "A" SP Well No. 5	330' FNL & 660' FWL	Section 19
Turner "A" SP Well No. 6	660' FSL & 1980' FWL	Section 18
Turner "A" SP Well No. 9	330' FNL & 1980' FEL	Section 19
Turner "A" SP Well No. 10	1980' FSL & 1830' FEL	Section 18
Turner "A" SP Well No. 11	660' FSL & 660' FEL	Section 18
Turner "A" SP Well No. 15	1650' FNL & 1980' FWL	Section 19
Turner "A" SP Well No. 35	660' FEL & 1800' FNL	Section 19

New Mexico Oil Conservation Commission
Attention: Mr. A. L. Porter, Jr.

February 13, 1968
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Sinclair Turner "B" Grayburg-Jackson Waterflood Project

Injection wells:

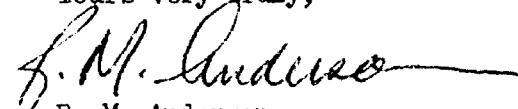
Turner "B" SP Well No. 3	330' FNL & 660' FWL	Section 20
Turner "B" SP Well No. 4	660' FSL & 1980' FWL	Section 17
Turner "B" SP Well No. 5	1980' FSL & 660' FWL	Section 17
Turner "B" SP Well No. 8	660' FNL & 1980' FEL	Section 20
Turner "D" SP Well No. 11	1980' FNL & 660' FEL	Section 20
Turner "D" SP Well No. 30	660' FSL & 660' FEL	Section 17
Turner "B" SP Well No. 41	1650' FNL & 1650' FWL	Section 20
Turner "B" SP Well No. 67	1650' FSL & 660' FWL	Section 20
Turner "B" SP Well No. 78	1980' FEL & 2080' FSL	Section 20

Said errors occurred as a result of my using the well locations from a Certified Surveyor's Plat dated October 29, 1958, instead of the correct locations on file with the Commission. I mistakenly believed that the wells had been accurately located by Sinclair's Surveyor and that the Commission should be advised of the new footages. Upon recently having this matter brought to my attention, I contacted the Surveyor and he advised that the purpose of the Survey was to ascertain the correct elevations of the many wells for reservoir study and log correlation purposes and that the well locations shown thereon were plane-table stadia rod estimates intended only to help identify the individual wells for elevation associations.

The correct locations, as tabulated above, are from the individual well files and were previously reported on the completion forms filed with the Oil Conservation Commission and to the best of my knowledge and belief reflect the actual locations of the wells. All wells are regularly located under applicable Commission rules except the C. A. Russell Well No. 10. This well was authorized at its unorthodox location by Special Order No. 847 dated December 29, 1949.

Please advise if you require additional information concerning this matter.

Yours very truly,


R. M. Anderson
Region Regulatory Engineer

RMA/ar
cc: Oil Conservation Commission
P. O. Drawer "DD"
Artesia, New Mexico
Attn: Mr. W. A. Gressett

White, Gilbert, Koch & Kelly
P. O. Box 787
Santa Fe, New Mexico

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. 3521
Order No. R-3185

APPLICATION OF SINCLAIR OIL & GAS
COMPANY FOR THREE WATERFLOOD PROJ-
ECTS, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 25, 1967, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 1st day of February, 1967, 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, Sinclair Oil & Gas Company, seeks authority to institute three waterflood projects in the Grayburg-Jackson Pool by the injection of water into the Grayburg-San Andres formations through two wells on its C. A. Russell Lease, eight wells on its Turner "A" Lease, and nine wells on its Turner "B" Lease in Sections 17, 18, 19, and 20, Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico.

(3) That the applicant also seeks an administrative procedure whereby said projects could be expanded to include additional lands and injection wells in the area of said projects as may be necessary in order to complete an efficient injection pattern.

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

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CASE No. 3521
Order No. R-3185

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

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

IT IS THEREFORE ORDERED:

(1) That the applicant, Sinclair Oil & Gas Company, is hereby authorized to institute three waterflood projects in the Grayburg-Jackson Pool by the injection of water into the Grayburg-San Andres formations through the following-described 19 wells in Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico:

Sinclair Russell Grayburg-Jackson Waterflood Project

Injection wells:

C. A. Russell Well No. 6	979' FNL & 1400' FWL	Section 18
C. A. Russell Well No. 10	2147' FNL & 2374' FWL	Section 18

Sinclair Turner "A" Grayburg-Jackson Waterflood Project

Injection wells:

Turner "A" SP Well No. 2	2220' FSL & 427' FWL	Section 18
Turner "A" SP Well No. 5	332' FNL & 670' FWL	Section 19
Turner "A" SP Well No. 6	568' FSL & 1707' FWL	Section 18
Turner "A" SP Well No. 9	408' FNL & 1994' FEL	Section 19
Turner "A" SP Well No. 10	1940' FSL & 1839' FEL	Section 18
Turner "A" SP Well No. 11	589' FSL & 655' FEL	Section 18
Turner "A" SP Well No. 15	1635' FNL & 1698' FWL	Section 19
Turner "A" SP Well No. 35	700' FEL & 1840' FNL	Section 19

Sinclair Turner "B" Grayburg-Jackson Waterflood Project

Injection wells:

Turner "B" SP Well No. 3	309' FNL & 666' FWL	Section 20
Turner "B" SP Well No. 4	700' FSL & 1751' FWL	Section 17
Turner "B" SP Well No. 5	1989' FSL & 625' FWL	Section 17
Turner "B" SP Well No. 8	504' FNL & 2064' FEL	Section 20
Turner "B" SP Well No. 11	1785' FNL & 725' FEL	Section 20
Turner "B" SP Well No. 30	680' FSL & 632' FEL	Section 17
Turner "B" SP Well No. 41	1635' FNL & 1665' FWL	Section 20
Turner "B" SP Well No. 67	1650' FSL & 660' FWL	Section 20
Turner "B" SP Well No. 78	2130' FSL & 1980' FEL	Section 20

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CASE No. 3521

Order No. R-3185

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

PROVIDED HOWEVER, that the Secretary-Director of the Commission may approve expansion of said projects to include such additional lands and injection wells in the area of said projects as may be necessary to complete an efficient water injection pattern.

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

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

DAVID F. CARGO, Chairman

GUYTON B. HAYS, Member

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

S E A L

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