

BEFORE THE
OIL CONSERVATION COMMISSION
MOBBS, NEW MEXICO

IN THE MATTER OF:

Case 1286

TRANSCRIPT OF PROCEEDINGS

August 7, 1957

DEARNLEY - MEIER & ASSOCIATES
INCORPORATED
GENERAL LAW REPORTERS
ALBUQUERQUE, NEW MEXICO
3-6691 5-9546

NEW MEXICO OIL CONSERVATION COMMISSION

1000 W. Broadway

Hobbs, NEW MEXICO

REGISTER

HEARING DATE _____ Examiner August 7, 1957 TIME: 9:00 a.m.

NAME:	REPRESENTING:	LOCATION:
Samuel E Jones	Slick Oil Corporation	Houston Texas
W. C. Barneburg	Slick Oil Corporation	Houston, Texas
Sammy D. Dooley	Continental Oil Co.	Hobbs, N. M.
Don H. Castle	Continental Oil Co.	Hobbs, N. M.
Edwin R. Anderson	Continental Oil Company	Hobbs, N. M.
J. Francis	"	"
Wm. McBrayer	Emerald Petroleum Corp.	Monument, N. Mex.
Walter R. ...	"	Hobbs N. M.
George L. Westbrook	"	Hobbs New Mexico
E. J. Fischer	OCC	Hobbs, New Mex.
Sam H. Paepke	Phillips Pet Co.	Midland Texas
R. H. ...	Phillips Pet Co.	Midland Texas
Sam Miller	"	Hobbs, N. Mex.
A. K. Palmer	Shell Oil Co.	Hobbs, N. Mex.
Jason Kellahin	Continental	Santa Fe, N. M.
W. J. Pooley	NMOC	"

ILLEGIBLE

BEFORE THE
OIL CONSERVATION COMMISSION
HOBBS, NEW MEXICO
August 7, 1957

IN THE MATTER OF:

CASE 1286: Application of Slick Oil Corporation for approval of the Slick Unit Agreement embracing 1,596 acres, more or less, in Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Slick Unit Agreement embracing 1,596 acres, more or less, of State of New Mexico Lands described as:

Township 12 South, Range 34 East
Section 36: All

Township 13 South, Range 34 East
Section 1: Lots 1, 2, 3, & 4,
S/2 N/2, S/2

Section 2: Lots 1 & 2, S/2 NE/4,
SE/4

all in Lea County, New Mexico.

Oil Conservation Commission
Office
1000 West Broadway
Hobbs, New Mexico

BEFORE:

WARREN W. MANKIN, Examiner

TRANSCRIPT OF HEARING

MR. MANKIN: The hearing will come to order. First case on the docket today is Case 1286.

MR. COOLEY: 1286. Application of Slick Oil Corporation for approval of the Slick Unit Agreement embracing 1,596 acres, more

or less, in Lea County, New Mexico. Representative, ~~Warren~~ Barneburg.
Mr. Barneburg, how many witnesses will you have?

MR. BARNEBURG: Two. Myself and Mr. S. E. Sims, geologist.
(Witnesses sworn.)

DIRECT EXAMINATION

BY MR. COOLEY:

Q State your full name and position, please?

A Warren C. Barneburg, Land Agent for Slick Oil Corporation.

Q Mr. Barneburg, have you previously testified before this
Commission?

A No, I haven't.

Q Would you give us a brief resume of your education and
experience, and background?

A I am employed by Slick Oil Corporation in the capacity as
Land Agent. The standard duties of a Land Agent are well known in
the industry, ~~leasing~~ ^{leasing} and preparing agreements and so forth.

MR. COOLEY: Are the witness's qualifications acceptable?

MR. MANKIN: Yes.

MR. COOLEY: Have you also a legal background?

A No, I do not.

MR. COOLEY: You may proceed if you have a prepared state-
ment, Mr. Barneburg.

A I have here a fully executed copy of the Unit Agreement
For The Development And Operation Of The Slick Unit Area Lea County,
New Mexico. This agreement has been executed ^{by all} in counter parts. It

was approved as to form and contents by the Land Office on July 15, 1957. We feel that the approval of this unit agreement would be for the best interest of the State of New Mexico, and that it will promote the conservation of the petroleum products. We request that this unit agreement be approved.

Q Do you have a copy of the unit agreement that you can submit as an exhibit? The unit agreement that was submitted with the application, the document which you wish to have approved.

A There has been one minor change to the document, as previously submitted, in that there has been inserted a Paragraph 8B. Would you care to have me read that paragraph?

Q Please do so.

A Paragraph 8B. "Without impairing the right of the Commissioner to terminate this agreement where provided for herein, Paragraphs 8 and 8A hereof shall not be construed to require any party, without its consent, to participate in or be liable for all or a portion of the cost of drilling any well. The expense of drilling the initial test well shall be borne as provided for in the Unit Operating Agreement. During the subsequent wells, where all parties do not agree to participate therein,--"

Q Let me interrupt you--

A (Continuing) --"Drilling of subsequent wells, where all parties do not agree to participate therein, shall be conducted in accordance with the provisions of Article XIII of the Unit Operating Agreement." This paragraph was submitted to the Land Office

prior to this hearing, and we have received verbal approval of the insertion of Paragraph 8B.

Q Mr. Barneburg, do you have a copy of the Unit Operating Agreement which **you** were referring to in 8B of the Unit Agreement?

A Yes, I do.

Q Would you please identify that as Exhibit 1 in this case.

A (Witness complies.)

MR. MANKIN: Are there objections to entering Exhibit 1, which is the Unit Operating Agreement in this case, in evidence?

(No response.)

MR. MANKIN: If not, it will be so entered. Do you have anything further, Mr. Barneburg?

A Nothing further.

EXAMINATION

BY MR. MANKIN:

Q You referred to the Unit Agreement being approved as to form, and I believe context?

A Yes.

Q By the State Land Office? A Yes.

Q What date?

A July 15, 1957.

Q And you also referred to an amendment by the State Land Office, and with the insertion of Paragraph 8B, which you read. That was also inserted and sent to you as of August the 5th, or have you received that as of that date?

A I have not received the approval letter; however, I was informed that such a letter has been written. We have received verbal approval of Paragraph 8B on August the 6th.

Q You indicated you had signed copies of the Unit Agreement. Would that include all of the working interest owners--working and interest owners of this--

A (Interrupting) Yes, sir, it does include that.

Q Well, can you indicate who those working interest owners are?

A Yes. Would you like it described as in acreage?

Q No, just the names.

A Phillips Petroleum Company, F. J. Danglade--

THE REPORTER: Please spell that.

A D-a-n-g-l-a-d-e, Amerada Petroleum Corporation, Gulf Oil Corporation, the Ohio Oil Company, Skelly Oil Company, Warren Petroleum Corporation, Champlin Oil and Refining Company.

Q Alright, sir, and those persons that you have just listed have already signed this Unit Agreement?

A Yes.

Q And you have not got the signature of the State Land Office, but you have got the approval as to form and context?

A Yes.

Q That approval will be submitted to this Commission?

A Yes, sir.

BY MR. COOLEY:

Q The interest owners are independent of the State of New Mexico?
A Yes.

Q In Paragraph 8, in Drilling to Discovery--Paragraph 8 of the Unit Agreement,--

A (Interrupting) Yes.

Q (Continuing) --reads as follows: "Drilling to Discovery. The Unit Operator shall, within blank days after the effective date of this agreement, commence operations upon an adequate test well for oil and gas," et cetera, et cetera,--

A (Interrupting) Yes.

Q (Continuing) What figure is to be inserted in this blank space?

A The effective date of the agreement is July 19, 1957. We have inserted the figure, "22 days."

Q 22 days. Now, Paragraph 8 will read: "The Unit Operator shall, within 22 days after the effective date of this agreement."

A That is right.

BY MR. MANKIN:

Q Then, this 22 days will take the place of the 90 days, as is shown on one of the copies of the Unit Agreement?

A That is correct. That was necessary in order so that the well could be commenced prior to the expiration of the earliest lease that is contained in the Unit. The earliest lease expiration date is August the 11th, 1957. 22 days will make it to August the 10th.

Q So, with the termination on August 11, Slick Oil Corporation desires an early decision in the case so that drilling operations may commence?

A We would appreciate the earliest possible decision.

Q Then the intentions to drill, which was submitted on this well, dated July 25, to be located in the northeast quarter of the northwest quarter of Section 1, in Township 13 South, Range 34 East, that well has not yet been commenced?

A No, it has not yet been commenced.

Q But it will be commenced prior to this expiration date?

A Yes, sir, it will. Subject, of course, to the approval of the Land Commissioner and of the Oil Conservation Commissioner.

Q The Unit Agreement contains the standard clause, that in the event portions of a lease is contained in the Unit Agreement, that a well drilled inside the unit, but not on the lease to which I refer, we'll call it the 1-A Lease, will extend only to that portion of the lease that is inside the unit?

A Yes, sir, it does. The agreement contains the usual Segregation Clause, to which you are referring to.

Q And in the event the well is drilled on the lease, a portion of which is inside, and a portion which is outside, the entire lease would be extended. That is a hypothetical 1-A Lease, is half in and half out, and the well is drilled on the 1-A Lease, inside the unit, would it not extend the entire lease?

There has been considerable confusion on what constitutes a

standard Segregation Clause, that is why I want to clear this thing up.

Q Mr. Barneburg, is it not true, do you have knowledge, that all leases inside this unit area are separate and distinct from any other leases; in other words, it does not split a lease by this unit line?

A No, that is not true. I am sure that one of the leases is split by the unit line.

Q So, it would, the Segregation Clause would be an important aspect of this--

A (Interrupting) Yes, it would. I would like to read from Paragraph 12, Page 10, of the Unit Agreement.

MR. COOLEY: Page 10? A Yes.

MR. COOLEY: My copy doesn't go to Page 10. Are you talking about the Operating Agreement?

A No, the Unit Agreement. You are looking at the Operating Agreement, are you not?

MR. MANKIN: I believe so.

MR. COOLEY: Mine is on Page 10 at the bottom of that page, Paragraph 13.

A This agreement, of course, has been retyped since the copy was presented to you.

MR. COOLEY: It is Paragraph 12?

A Paragraph 12, yes, sir.

MR. COOLEY: Last Paragraph in the lease?

A Yes, sir, beginning with: "Any lease having only a portion of its lands committed hereto shall be segregated as to the portion committed and to the portion not committed, and the terms of such lease shall apply separately to such segregated portions commencing as of the effective date hereof." Shall I go on?

MR. COOLEY: I think my answer lies in the next paragraph, "Notwithstanding any of the provisions of this agreement to the contrary, any lease embracing lands of the State of New Mexico having only a portion of its lands committed hereto shall continue in full force and effect beyond the term provided therein as to all lands embraced in such lease, if unitized substances are discovered and are capable of being produced in paying quantities from some part of the lands embraced in such lease committed to this agreement." I have no further questions.

MR. MANKIN: Are there any further questions of Mr. Barneburg?

(No response.)

MR. MANKIN: Are there any statements to be made in this case?

(No response.)

MR. MANKIN: If not, Mr. Barneburg, you may be excused.

(Witness excused.)

S A M U E L E. S I M S

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

DIRECT EXAMINATION

BY MR. COOLEY:

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

A Samuel E. Sims, Vice-President of Slick Oil Corporation.

Q Mr. Sims, will you be testifying as to engineering or geological questions that involve expert knowledge?

A As a geologist~~is~~ and geophysicist, not as an engineer.

Q Would you please give us your educational background and what experience you have had as a geologist~~is~~ and geophysicist?

A I have had some twenty-two year's experience as a geophysicist, and in geology I attended the University of Houston, in which I have received a Geophysical Degree, Bachelor of Science Degree in Geology.

MR. COOLEY: Are the witness's qualifications acceptable?

MR. MANKIN: They are.

Q (By Mr. Cooley) Could you present, Mr. Sims, in your geological testimony--and I believe you have prepared a geology report, have you not?

A We have to offer in evidence a seismic study, Exhibit 2, shall I mark it for you?

MR. COOLEY: We will do it now.

(Marked for identification Slick Oil Corporation's Exhibit 2).

A Exhibit 2, which comprises ~~of~~ two maps, being seismic structure maps, one being a structure map at the level of the lower Pennsylvania. The other being a seismic structure map on the

apparent upper Mississippi contact. These two structure maps indicate structural closures on both horizons in excess of a hundred and fifty feet, and the area of the unit covers the approximate outline of the structure map, as we believe that the drilling of this well will aid in the conservation of hydrocarbons produced as specified in this lease and unit.

MR. COOLEY: Does that conclude your statement, Mr. Sims?

A Yes, sir, it does.

EXAMINATION

BY MR. MANKIN:

Q Mr. Sims, this seismic picture you have presented, in the bottom, or lower Pennsylvanian and upper Mississippian, that includes a larger area--seismic work--which was performed by the Slick--or by some company for Slick Oil Corporation?

A This was prepared for us by the Empire Geophysical Corporation. It embraces a larger area than is shown in the unit.

Q Where is the nearest production, to this area, which you have in question here, the nearest comparable production?

A The Phillips Petroleum Corporation has a production in the field, whose name I do not know, approximately one mile north of the unit.

Q That would be the Ranger Lake--Ranger Unit?

A I understand it to be a Ranger name, but I do not know the precise name.

Q Do you recall what horizon it is producing from?

A The Pennsylvanian.

Q From the Pennsylvanian. However, this particular request here today is to test the Devonian, is it not?

A That is correct.

Q Would the particular area test the Devonian?

A Those wells have not all reached the Devonian. There has been a well which did reach the Devonian in this field.

Q There has been at least one test well, a Ranger Well, that went to the Devonian?

A Yes.

Q That compares structurally to this, or is it a separate structure?

A It is our belief that it is a separate structure, based on the seismic difference.

Q I notice from your seismic picture, both, on the lower Pennsylvanian and upper Mississippian, that you have closures, as you mentioned, of some hundred and fifty feet, was it not?

A We believe a hundred and fifty feet, yes, sir.

Q There is some area that is not taken into this unit, such as portions of Section 35, Amerada, and Lion, and in Section 6, portions of Tide Water, and McAdoo. Do you feel that what you have here is a realistic picture as you now see it from the seismic picture?

A Yes, sir.

Q Do you know whether there is a provision where the unit can be expanded, if necessary?

A There is not one now in the unit agreement to my knowledge.

sir.

Q And, the discovery I meant. The initial well to be drilled which would be drilled in Lot 3 of Section 1, of Township 13 South, Range 34 East, is somewhere near the crest of the structure as mapped here?

A I believe it to be so, sir.

Q From the geological report which you submitted with the application, I don't believe that you mentioned what possible productive horizon you feel would be found in the area. Would you relate those possible productive horizons?

A We have expectations of being able to secure production from the Pennsylvanian, and possibly the Mississippian, and the Devonian, if our structure map is correct.

Q Those three deeper horizons are what you feel may be productive?

A Those are our primary objectives, and we believe that reservoir is rock free in the area, may also be found productive in this area.

Q Other shallow zones?

A Yes, on other shallow zones.

Q All formations underlying the unit area are unitized by this agreement?

A That is correct, sir.

Q Mr. Sims, you feel that the area which you are attempting to drill in this unit should be oil productive rather than gas productive?

A I would say statistically so, it should be oil productive.

Q You have no reason to believe of any other near by pools, in either of the three principal zones that might be found primarily gas productive rather than oil productive?

A No, I do not, sir.

MR. FISCHER: Do you have any geological facts that you have used to suspect that possibly this area will be productive in the Devonian Formation, which is a larger lake, it if was dry?

A No geological data other than seismic data, sir. There were certain indications in the seismic data, which was indicated to us that this area would be higher than those, than that well which reached the Devonian in the field to the north.

MR. FISCHER: And the average ridge that you have outside the unit, that is within the closed contours, do you feel that it is likely to be as productive as, say, a portion unit, say the north-east quarter of Section 36?

A We do so.

MR. FISCHER: However you did not include them in the unit?

A In the northeast quarter of 36?

MR. FISCHER: Yes. If the northeast quarter was included in the unit, however, there are areas outside the unit that are in an equally, favorably structural position, they are not included; namely, the western portion of Section 6, and the western portion of Section 35. Was there some particular reason for disregarding those?

A No, sir. There was no structural reason for disregarding them. Our conception of the structure is that it is well within the

limits of the unit described.

MR. FISCHER: That is all.

MR. MANKIN: Any further questions of Mr. Sims?

(No response.)

MR. MANKIN: Mr. Cooley?

MR. COOLEY: No further questions.

MR. MANKIN: I believe that is all, the witness may be excused. First, I don't believe we put in Exhibit 2 in evidence. Would you like to have Exhibit 2 put in evidence in this case?

A If you please, Mr. Examiner. That Exhibit 2 consists of two portions. One of the seismic map on the Pennsylvanian, and one of the upper Mississippian.

MR. MANKIN: Are there objections to entering Exhibit 2 in evidence?

(No response.)

MR. MANKIN: If not, it will be so received. Is there anything further in this case?

(No response)

MR. MANKIN: Are there any statements to be made?

(No response)

MR. MANKIN: If there is nothing further we will take the case under advisement.

(Witness excused.)

Case 1286

UNIT AGREEMENT
FOR THE DEVELOPMENT AND OPERATION
OF THE SLICK UNIT AREA
LEA COUNTY, NEW MEXICO

THIS AGREEMENT, entered into as of the _____ day of _____,
1957, by and between the parties subscribing, ratifying or consenting hereto, and
herein referred to as the "parties hereto",

WITNESSETH:

WHEREAS, the parties hereto are the owners of working, royalty or other
oil or gas interests in the unit area subject to this agreement; and

WHEREAS, the Commissioner of Public Lands of the State of New Mexico
(hereinafter referred to as "Commissioner") is authorized by an Act of the Legis-
lature (Sec. 3, Chap. 88, Laws 1943) as amended by Sec. 1 of Chapter 162, Laws
of 1951, (Chap. 7, Art. 11, Sec. 39, N.M. Statutes 1953 Annotated), to consent to
and approve the development or operation of state lands under agreements made by
lessees of state land jointly or severally with other lessees where such agreements
provide for the unit operation or development of part of or all of any oil or gas pool,
field, or area; and

WHEREAS, the Commissioner of Public Lands of the State of New Mexico
is authorized by an Act of the Legislature (Sec. 1, Chap. 162), (Laws of 1951, Chap.
7, Art. 11, Sec. 41 N.M. Statutes 1953 Annotated) to amend with the approval of
lessee, evidenced by the lessee's execution of such agreement or otherwise, any oil
and gas lease embracing state lands so that the length of the term of said lease may
coincide with the term of such agreements for the unit operation and development of
part of or all of any oil or gas pool, field or area; and

WHEREAS, the Oil Conservation Commission of the State of New Mexico
(hereinafter referred to as the "Commission") is authorized by an Act of the
Legislature (Chap. 72, Laws 1935; Chap. 65, Art. 3, Sec. 14 N.M. Statutes 1953
Annotated), to approve this agreement and the conservation provisions hereof;
and

End to Application

WHEREAS, the parties hereto hold sufficient interests in the Slick Unit Area covering the land hereinafter described to give reasonably effective control of operations therein; and

WHEREAS, it is the purpose of the parties hereto to conserve natural resources, prevent waste and secure other benefits obtainable through development and operation of the area subject to this agreement under the terms, conditions and limitations herein set forth.

NOW, THEREFORE, in consideration of the premises and the promises herein contained, the parties hereto commit to this agreement their respective interests in the below defined unit area, and agree severally among themselves as follows:

1. UNIT AREA. The following described land is hereby designated and recognized as constituting the unit area:

NEW MEXICO PRINCIPAL MERIDIAN, NEW MEXICO

Township 12 South, Range 34 East

Section 36: All - 640 acres

Township 13 South, Range 34 East

Section 1: Lots 1, 2, 3, and 4, S-1/2 N-1/2, S-1/2 - 637.12 acres
318.77

Section 2: Lots 1 and 2, S-1/2 NE-1/4, SE-1/4 - 318.83 acres

containing 1,595.⁸⁹~~12~~ acres, more or less.

Exhibit "A" attached hereto is a map showing the unit area and the boundaries and identity of tracts and leases in said area to the extent known to the Unit Operator. Exhibit "B" attached hereto is a schedule showing to the extent known to the Unit Operator the acreage, percentage and kind of ownership of oil and gas interests in all lands in the unit area. However, nothing herein or in said schedule

or map shall be construed as a representation by any party hereto as to the ownership of any interest other than such interest or interests as are shown in said map or schedule as owned by such party. Exhibits "A" and "B" shall be revised by the Unit Operator whenever changes in ownership in the unit area render such revision necessary, or when requested by the Commissioner of Public Lands, hereinafter referred to as "Commissioner".

All land committed to this agreement shall constitute land referred to herein as "unitized land" or "land subject to this agreement".

2. UNITIZED SUBSTANCES. All oil, gas, natural gasoline and associated fluid hydrocarbons in any and all formations of the unitized land are unitized under the terms of this agreement and herein are called "unitized substances".

3. UNIT OPERATOR. Slick Oil Corporation, with offices at Houston, Texas, is hereby designated as Unit Operator and by signature hereto commits to this agreement all interests in unitized substances vested in it as set forth in Exhibit "B", and agrees and consents to accept the duties and obligations of Unit Operator for the discovery, development and production of unitized substances as herein provided. Whenever reference is made herein to the Unit Operator, such reference means the Unit Operator acting in that capacity and not as an owner of interests in unitized substances, and the term "working interest owner" when used herein shall include or refer to Unit Operator as the owner of a working interest when such an interest is owned by it.

4. RESIGNATION OR REMOVAL OF UNIT OPERATOR. Unit Operator shall have the right to resign at any time but such resignation shall not become effective until a successor Unit Operator has been selected and approved in the manner provided for in Section 5 of this agreement. The resignation of the Unit Operator shall not release the Unit Operator from any liability or any default by it hereunder occurring prior to the effective date of its resignation.

Unit Operator may, upon default or failure in the performance of its duties or obligations hereunder, be subject to removal by the same percentage

vote of the owners of working interests determined in like manner as herein provided for the selection of a new Unit Operator. Such removal shall be effective upon notice thereof to the Commissioner.

The resignation or removal of the Unit Operator under this agreement shall not terminate his right, title or interest as the owner of a working interest or other interest in unitized substances, but upon the resignation or removal of Unit Operator becoming effective, such Unit Operator shall deliver possession of all equipment, materials and appurtenances used in conducting the unit operations and owned by the working interest owners to the new duly qualified successor Unit Operator or to the owners thereof if no such new Unit Operator is elected, to be used for the purpose of conducting unit operations hereunder. Nothing herein shall be construed as authorizing removal of any material, equipment and appurtenances needed for the preservation of any wells.

5. SUCCESSOR UNIT OPERATOR. Whenever the Unit Operator shall resign as Unit Operator or shall be removed as hereinabove provided, the owners of the working interests according to their respective acreage interests in all unitized land shall by a majority vote select a successor Unit Operator; provided that, if a majority but less than seventy-five percent (75%) of the working interests qualified to vote is owned by one party to this agreement, a concurring vote of sufficient additional parties, so as to constitute in the aggregate not less than seventy-five percent (75%) of the total working interests, shall be required to select a new operator. Such selection shall not become effective until (a) a Unit Operator so selected shall accept in writing the duties and responsibilities of Unit Operator, and (b) the selection shall have been approved by the Commissioner. If no successor Unit Operator is selected and qualified as herein provided, the Commissioner at his election may declare this unit agreement terminated.

6. ACCOUNTING PROVISIONS. The Unit Operator shall pay in the first instance all costs and expenses incurred in conducting unit operations hereunder and such costs and expenses and the working interest benefits accruing hereunder

shall be apportioned among the owners of the unitized working interests in accordance with an operating agreement by and between the Unit Operator and the other owners of such interests, whether one or more, separately or collectively. Any agreement or agreements entered into between the working interest owners and the Unit Operator as provided in this section, whether one or more, are herein referred to as the "Operating Agreement". No such agreement shall be deemed either to modify any of the terms and conditions of this unit agreement or to relieve the Unit Operator of any right or obligation established under this unit agreement, and in case of any inconsistencies or conflict between this unit agreement and the operating agreement, this unit agreement shall prevail.

7. RIGHTS AND OBLIGATIONS OF UNIT OPERATOR. Except as otherwise specifically provided herein, the exclusive right, privilege and duty of exercising any and all rights of the parties hereto which are necessary or convenient for prospecting for, producing, storing, allocating and distributing the unitized substances are hereby delegated to and shall be exercised by the Unit Operator as herein provided. Acceptable evidence of title to said rights shall be deposited with said Unit Operator and, together with this agreement, shall constitute and define the rights, privileges and obligations of Unit Operator. Nothing herein, however, shall be construed to transfer title to any land or to any lease or operating agreement, it being understood that under this agreement the Unit Operator, in its capacity as Unit Operator, shall exercise the rights of possession and use vested in the parties hereto only for the purposes herein specified.

8. DRILLING TO DISCOVERY. The Unit Operator shall, within 22 days after the effective date of this agreement, commence operations upon an adequate test well for oil and gas upon some part of the lands embraced within the unit area and shall drill said well with due diligence to a depth sufficient to test the Devonian formation or to such a depth as unitized substances shall be discovered in paying quantities at a lesser depth or until it shall, in the opinion of Unit Operator, be determined that the further drilling of said well shall be unwarranted or impracticable; provided, however, that Unit Operator shall not, in any event, be

required to drill said well to a depth in excess of ^{13,700}~~13,200~~ feet. Until a discovery of a deposit of unitized substances capable of being produced in paying quantities, Unit Operator shall continue drilling diligently, one well at a time, allowing not more than six months between the completion of one well and the beginning of the next well, until a well capable of producing unitized substances in paying quantities is completed to the satisfaction of the Commissioner, or until it is reasonably proven to the satisfaction of the Unit Operator that the unitized land is incapable of producing unitized substances in paying quantities in the formations drilled hereunder.

Any well commenced prior to the effective date of this agreement upon the unit area and drilled to the depth provided herein for the drilling of an initial test well shall be considered as complying with the drilling requirements hereof with respect to the initial well. The Commissioner may modify the drilling requirements of this section by granting reasonable extensions of time when in his opinion such action is warranted. Failure to comply with the drilling provisions of this article shall automatically terminate this agreement as to all its terms, conditions and provisions and all rights, privileges and obligations granted by this unit agreement shall cease and terminate as of the date of any such default.

9. PARTICIPATION AFTER DISCOVERY. Upon completion of a well capable of producing unitized substances in paying quantities, the owners of working interests shall participate in the production therefrom and in all other producing wells which may be drilled pursuant hereto in the proportions that their respective leasehold interests covered hereby on an acreage basis bears to the total number of acres committed to this unit agreement, and such unitized substances shall be deemed to have been produced from the respective leasehold interests participating therein. For the purpose of determining any benefits accruing under this agreement and the distribution of the royalties payable to the State of New Mexico, each separate lease shall have allocated to it such percentage of said production as the number of acres in each lease respectively committed to this agreement bears to the total number of acres committed hereto.

8A. PLAN OF FURTHER DEVELOPMENT AND OPERATION. Within 6 months after completion of a well capable of producing unitized substances in paying quantities, the Unit Operator shall submit for the approval of the Commissioner, and the Commission, an acceptable plan of development and operation for the unitized land which, when approved by the Commissioner, and the Commission, shall constitute the further drilling and operating obligations of the Unit Operator under this agreement for the period specified therein. Thereafter, from time to time before the expiration of any existing plan, the Unit Operator shall submit for the approval of the Commissioner, and the Commission, a plan for an additional specified period for the development and operation of the unitized land. Any plan submitted pursuant to this section shall provide for the exploration of the unitized area and for the determination of the area or areas thereof capable of producing unitized substances in paying quantities in each and every productive formation and shall be as complete and adequate as the Commissioner, and the Commission, may determine to be necessary for timely development and proper conservation of the oil and gas resources of the unitized area and shall (a) specify the number and locations of any wells to be drilled and the proposed order and time for such drilling; and (b) to the extent practicable specify the operating practices regarded as necessary and advisable for proper conservation of natural resources. Separate plans may be submitted for separate productive zones, subject to the approval of the Commissioner and the Commission. Such plan or plans shall be modified or supplemented when necessary to meet changed conditions or to protect the interests of all parties to this agreement. Reasonable diligence shall be exercised in complying with the obligations of this approved plan of development. The Commissioner is authorized to grant a reasonable extension of the 6-month period herein prescribed for submission of an initial plan of development where such

action is justified because of unusual conditions or circumstances. After completion hereunder of a well capable of producing any unitized substances in paying quantities no further wells, except such as may be necessary to afford protection against operations not under this agreement or such as may be specifically approved by the Commissioner shall be drilled except in accordance with a plan of development approved as herein provided.

8B. Without impairing the right of the Commissioner to terminate this agreement where provided for herein, Paragraphs 8 and 8A hereof shall not be construed to require any party, without its consent, to participate in or be liable for all or a portion of the cost of drilling any well. The expense of drilling the initial test well shall be borne as provided for in the Unit Operating Agreement. Drilling of subsequent wells, where all parties do not agree to participate therein, shall be conducted in accordance with the provisions of Article XIII of the Unit Operating Agreement.

Notwithstanding any provision contained herein to the contrary, each working interest owner shall have the right to take such owner's proportionate share of the unitized substances in kind or to personally sell or dispose of the same, and nothing herein contained shall be construed as giving or granting to the Unit Operator the right to sell or otherwise dispose of the proportionate share of any working interest owner without specific authorization from time to time so to do.

10. ALLOCATION OF PRODUCTION. All unitized substances produced from each tract in the unitized area established under this agreement, except any part thereof used for production or development purposes hereunder, or unavoidably lost, shall be deemed to be produced equally on an acreage basis from the several tracts of the unitized land, and for the purpose of determining any benefits that accrue on an acreage basis, each such tract shall have allocated to it such percentage of said production as its area bears to the entire unitized area. It is hereby agreed that production of unitized substances from the unitized area shall be allocated as provided herein, regardless of whether any wells are drilled on any particular tract of said unitized area.

11. PAYMENT OF RENTALS, ROYALTIES AND OVERRIDING ROYALTIES. All rentals due the State of New Mexico shall be paid by the respective lease owners in accordance with the terms of their leases.

All royalties due the State of New Mexico under the terms of the leases committed to this agreement shall be computed and paid on the basis of all unitized substances allocated to the respective leases committed hereto; provided, however, the State shall be entitled to take in kind its share of the unitized substances allocated to the respective leases, and in such case the Unit Operator shall make deliveries of such royalty oil in accordance with the terms of the respective leases.

If the Unit Operator introduces gas obtained from sources other than the unitized substances into any producing formation for the purpose of repressuring, stimulating or increasing the ultimate recovery of unitized substances therefrom,

a like amount of gas, if available, with due allowance for loss or depletion from any cause may be withdrawn from the formation into which the gas was introduced royalty free as to dry gas but not as to the products extracted therefrom; provided, that such withdrawal shall be at such time as may be provided in a plan of operation consented to by the Commissioner and approved by the Commission as conforming to good petroleum engineering practice; and provided further, that such right of withdrawal shall terminate on the termination of this unit agreement.

If any lease committed hereto is burdened with an overriding royalty, payment out of production or other charge in addition to the usual royalty, the owner of each such lease shall bear and assume the same out of the unitized substances allocated to the lands embraced in each such lease as provided herein.

12. LEASES AND CONTRACTS CONFORMED AND EXTENDED INsofar AS THEY APPLY TO LANDS WITHIN THE UNITIZED AREA. The terms, conditions and provisions of all leases, subleases, operating agreements and other contracts relating to the exploration, drilling, development or operation for oil or gas of the lands committed to this agreement, shall, upon approval hereof by the Commissioner be and the same are hereby expressly modified and amended insofar as they apply to lands within the unitized area to the extent necessary to make the same conform to the provisions hereof and so that the length of the secondary term as to lands within such area will be extended insofar as necessary to coincide with the term of this agreement and the approval of this agreement by the Commissioner or the lessee, be effective to conform the provisions and extend the term of each such lease as to lands within the unitized area to the provisions and terms of this agreement; but otherwise to remain in full force and effect. Each lease committed to this agreement, insofar as it applies to lands within the unitized area, shall continue in force beyond the term provided therein so long as this agreement remains in effect, provided, drilling operations upon the initial test well provided for herein shall have been commenced or said well is in the process of being drilled by the Unit Operator prior to the expiration of the shortest term lease committed

to this agreement. Termination of this agreement shall not affect any lease which pursuant to the terms thereof or any applicable laws shall continue in full force and effect thereafter. The commencement, completion, operation or production of a well on any part of the unit area shall be respectively construed and considered as the commencement or completion or operation or production of a well within the terms and provisions of each of the oil and gas leases to the same extent as though such commencement, completion, operation or production was carried on, conducted on or obtained from any such leased tract.

Any lease having only a portion of its lands committed hereto shall be segregated as to the portion committed and to the portion not committed, and the terms of such lease shall apply separately to such segregated portions commencing as of the effective date hereof. Notwithstanding any of the provisions of this agreement to the contrary, any lease embracing lands of the State of New Mexico having only a portion of its lands committed hereto shall continue in full force and effect beyond the term provided therein as to all lands embraced in such lease, if unitized substances are discovered and are capable of being produced in paying quantities from some part of the lands embraced in such lease committed to this agreement at the expiration of the secondary term of such lease; or if, at the expiration of the secondary term, the lessee or the Unit Operator is then engaged in bona fide drilling or reworking operations on some part of the lands embraced therein shall remain in full force and effect so long as such operations are being diligently prosecuted, and if they result in the production of unitized substances, said lease shall continue in full force and effect as to all of the lands embraced therein, so long thereafter as unitized substances in paying quantities are being produced from any portion of said lands.

13. CONSERVATION. Operations hereunder and production of unitized substances shall be conducted to provide for the most economical and efficient recovery of said substances without waste, as defined by or pursuant to state laws or regulations.

14. DRAINAGE. The Unit Operator shall take appropriate and adequate measures to prevent drainage of unitized substances from unitized lands by wells on lands not subject to this agreement.

15. COVENANTS RUN WITH LAND. The covenants herein shall be construed to be covenants running with the land with respect to the interests of the parties hereto and their successors in interest until this agreement terminates, and any grant, transfer or conveyance, of interest in land or leases subject hereto shall be and hereby is conditioned upon the assumption of all privileges and obligations hereunder by the grantee, transferee or other successor in interest. No assignment or transfer of any working, royalty or other interest subject hereto shall be binding upon Unit Operator until the first day of the calendar month after Unit Operator is furnished with the original, photostatic or certified copy of the instrument of transfer.

16. EFFECTIVE DATE AND TERM. This agreement shall become effective upon approval by the Commissioner and shall terminate in two years after such date unless (a) such date of expiration is extended by the Commissioner, or (b) a valuable discovery of unitized substances has been made on unitized land during said initial term or any extension thereof in which case this agreement shall remain in effect so long as unitized substances can be produced from the unitized land in paying quantities, and, should production cease, so long thereafter as diligent operations are in progress for the restoration of production or discovery of new production and so long thereafter as the unitized substances so discovered can be produced as aforesaid. This agreement may be terminated at any time by not less than seventy-five percent (75%) on an acreage basis of the owners of the working interests signatory hereto with the approval of the Commissioner. Likewise, as provided in Section 8 hereof, the failure to comply with the drilling provisions of this unit agreement shall as of the date of any such default, automatically terminate this unit agreement.

17. RATE OF PRODUCTION. All production and the disposal thereof shall be in conformity with allocations, allotments and quotas made or fixed by the Com-

mision and in conformity with all applicable laws and lawful regulations.

18. APPEARANCES. Unit Operator shall, after notice to other parties affected, have the right to appear for and on behalf of any and all interests affected hereby before the Commissioner of Public Lands and the New Mexico Oil Conservation Commission and to appeal from orders issued under the regulations of the Commissioner or Commission or to apply for relief from any of said regulations or in any proceedings relative to operations pending before the Commissioner or Commission; provided, however, that any other interested party shall also have the right at his own expense to appear and to participate in any such proceeding.

19. NOTICES. All notices, demands or statements required hereunder to be given or rendered to the parties hereto shall be deemed fully given, if given in writing and personally delivered to the party or sent by postpaid registered mail, addressed to such party or parties at their respective addresses set forth in connection with the signatures hereto or to the ratification or consent hereof or to such other address as any such party may have furnished in writing to party sending the notice, demand or statement.

20. UNAVOIDABLE DELAY. All obligations under this agreement requiring the Unit Operator to commence or continue drilling or to operate on or produce unitized substances from any of the lands covered by this agreement shall be suspended while, but only so long as, the Unit Operator, despite the exercise of due care and diligence, is prevented from complying with such obligations, in whole or in part, by strikes, war, acts of God, Federal, State or municipal law or agencies, unavoidable accidents, uncontrollable delays in transportation, inability to obtain necessary materials in open market, or other matters beyond the reasonable control of the Unit Operator whether similar to matters herein enumerated or not.

21. LOSS OF TITLE. In the event title to any tract of unitized land or substantial interest therein shall fail and the true owner cannot be induced to join the unit agreement so that such tract is not committed to this agreement or the

operation thereof hereunder becomes impracticable as a result thereof, such tract may be eliminated from the unitized area, and the interest of the parties readjusted as a result of such tract being eliminated from the unitized area. In the event of a dispute as to the title to any royalty, working or other interest subject hereto, the Unit Operator may withhold payment or delivery of the allocated portion of the unitized substances involved on account thereof without liability for interest until the dispute is finally settled, provided that no payments of funds due the State of New Mexico shall be withheld. Unit Operator as such is relieved from any responsibility for any defect or failure of any title hereunder.

22. SUBSEQUENT JOINDER. Any oil or gas interest in lands within the unit area not committed hereto prior to the submission of this agreement for final approval either by the Commission or Commissioner may be committed hereto by the owner or owners of such rights subscribing or consenting to this agreement or executing a ratification thereof, and if such owner is also a working interest owner, by subscribing to the operating agreement providing for the allocation of costs of exploration, development and operation. After operations are commenced hereunder, the right of subsequent joinder by a working interest owner shall be subject to all the requirements of any applicable operating agreement between the working interest owners relative to the allocation of costs of exploration, development and operation. A subsequent joinder shall be effective as of the first day of the month following the filing with the Commissioner and the Commission of duly executed counterparts of the instrument or instruments committing the interest of such owner to this agreement, but such joining party or parties before participating in any benefits hereunder shall be required to assume and pay to Unit Operator their proportionate share of the unit expense incurred prior to such party's or parties' joinder in the unit agreement, and the Unit Operator shall make appropriate adjustments caused by such joinder, without any retroactive adjustment of revenue.

23. COUNTERPARTS. This agreement may be executed in any number of counterparts, no one of which needs to be executed by all parties or may be ratified or consented to by separate instrument in writing specifically referring hereto, and

shall be binding upon all those parties who have executed such a counterpart, ratification or consent hereto with the same force and effect as if all such parties had signed the same document and regardless of whether or not it is executed by all other parties owning or claiming an interest in the lands within the above described unit area.

IN WITNESS WHEREOF, the undersigned parties hereto have caused this agreement to be executed as of the respective dates set forth opposite their signatures.

ATTEST:

Secretary

Date _____

SLICK OIL CORPORATION

By: _____
President

UNIT OPERATOR AND WORKING
INTEREST OWNER

ATTEST:

Secretary

Date _____

PHILLIPS PETROLEUM COMPANY

By: _____

ATTEST:

Secretary

Date _____

AMERADA PETROLEUM CORPORATION

By: _____

ATTEST:

Secretary

Date _____

GULF OIL CORPORATION

By: _____

ATTEST:

Secretary

Date _____

OHIO OIL COMPANY

By: _____

ATTEST:

Secretary

Date _____

SKELLY OIL COMPANY

By: _____

ATTEST:

WARREN PETROLEUM CORPORATION

Secretary

By: _____

Date _____

ATTEST:

CHAMPLIN REFINING COMPANY

Secretary

By: _____

Date _____

Date _____

Date _____

Date _____

Date _____

F. J. Danglede

STATE OF _____ |

SS.

COUNTY OF _____ |

The foregoing instrument was acknowledged before me this ____ day
of _____, 1957 by _____, _____ of Slick
Oil Corporation, a _____ corporation on behalf of said corporation.

My commission expires:

Notary Public

STATE OF _____ |

SS.

COUNTY OF _____ |

The foregoing instrument was acknowledged before me this ____ day

of _____, 1957 by _____,
of Phillips Petroleum Company, a _____ corporation on behalf of said
corporation.

My commission expires:

Notary Public

STATE OF _____ |
 | SS.
COUNTY OF _____ |

The foregoing instrument was acknowledged before me this _____ day of
_____, 1957 by _____, _____ of Amerada
Petroleum Corporation, a _____ corporation on behalf of said corporation.

My commission expires:

Notary Public

STATE OF _____ |
 | SS.
COUNTY OF _____ |

The foregoing instrument was acknowledged before me this _____ day of
_____, 1957 by _____, _____ of Gulf Oil
Corporation, a _____ corporation on behalf of said corporation.

My commission expires:

Notary Public

STATE OF _____ |
 | SS.
COUNTY OF _____ |

The foregoing instrument was acknowledged before me this _____ day of
_____, 1957 by _____, _____ of Ohio Oil
Company, a _____ corporation on behalf of said corporation.

My commission expires:

Notary Public

STATE OF _____ |
 | SS.
COUNTY OF _____ |

The foregoing instrument was acknowledged before me this _____ day of
_____, 1957 by _____, _____ of Skelly Oil
Company, a _____ corporation on behalf of said corporation.

My commission expires:

Notary Public

R. 34. E

R. 35. E

T. P. C. & O. Co.
7. 10. 56

26

25

30

Magnolia
3. 10. 57

Sunray Mid-Cont.
6. 21. 65

T. P. C. & O. Co.
11. 15. 65

State

State

State

Amerada
11. 17. 63

Lion
7. 10. 60

Phillips
8. 11. 57

8. 10. 58

Gulf
6. 21. 65

①

320 Ac.

308.32 Ac.

35

Amerada
6. 10. 57

36

F. J. Danglede
10. 10. 57

Amerada
10. 10. 57

31

②

240 Ac.

③

80 Ac.

State

State

State

3-39.51

2-39.43

1-39.34

4-39.30

3-39.28

2-39.28

1-39.26

4-39.26

3-39.46

2-39.60

Warren Pet.
9. 21. 64

⑦

Gulf
5. 10. 58

④

⑤

⑥

Tide Water
11. 10. 60

H. B. Nolan
6. 1. 59

L

Champlin Refg.
11. 10. 60

⑧

④

⑤

⑥

④

⑤

⑥

⑦

⑧

⑨

⑩

⑪

⑫

⑬

⑭

Gulf
5. 10. 58

④

Ohio
4. 11. 59

⑤

160 Ac.

Skelly
1. 10. 63

⑥

160 Ac.

L. N. McAdoo,
et al
10. 25. 61

⑦

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State

State

State

Phillips
6. 10. 58

Tide Water
4. 11. 59

Phillips
6. 10. 58

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State

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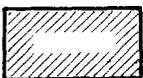
State

Champlin
11. 10. 60

Warren Pet.
7. 11. 59

C. B. Read
7. 1. 59

Clara A. Elkan



Unit outline

EXHIBIT "A"
SLICK UNIT AGREEMENT
LEA COUNTY, NEW MEXICO
SCALE: 1" = 2000'



T
12
S

T
13
S

R. 34. E

R. 35. E

T. P. C. & O. Co.
7-10-56

26

25

30

T. P. C. & O. Co.
11-15-65

Magnolia
3-10-57

Sunray Mid-Cont.
6-21-65

State

State

State

Amerada
11-17-63

Lion
7-10-60

Phillips
8-11-57

8-10-58

Gu
C-2-55

35

Amerada
6-10-57

36

F. J. Danglede
10-10-57

Amerada
10-10-57

31

State

State

State

3-39.51

2-39.43
Warren Pet.
8-21-64
78.8 Ac.

1-39.40

4-39.50

5-39.28

2-39.28

1-39.28

Tide Water
11-10-60

3-38.46
H. B. Nolan
6-1-59

Champlin Refg.
11-10-60
80 Ac.

(7.75 Total 477.10 Ac.)
1.575

73.984

Gu
5-10-58

Ohio
4-11-59

Skelly
1-10-63

L. N. McAdoo,
et al
10-25-61

6
Champlin
Refg.
11-10-60

Gu
10-10-57

State

State

State

Phillips
4-10-58

Tide Water
4-11-59

Phillips
6-10-58

J. C. Sarth

U.S. Min.

State

State

State

11

12

7

Seismic

CONTOURED ON : UPPER MISSISSIPPIAN
CONTOUR INTERVAL : 5 MILLISECONDS



Unit outline

EXHIBIT "A"

SLICK UNIT AGREEMENT

LEA COUNTY, NEW MEXICO

SCALE : 1" = 2000'

T
12
S

T
13
S



EXHIBIT "B"
SLICK UNIT AREA
LEA COUNTY, NEW MEXICO
SCHEDULE SHOWING THE PERCENTAGE AND KIND OF OWNERSHIP OF OIL AND GAS
INTERESTS IN ALL LANDS IN THE UNIT AREA

Tract No.	Description of Land	No. of Acres	State Lease No. and Expiration	Basic Royalty	Overriding Royalty and Percentage	Working Interest Owner
22	T. 12 S., R. 34 E. Sec. 36: N/2	320	E-1443 8-11-57	State of N. M.	None	Phillips Petroleum Co.
23	T. 12 S., R. 34 E. Sec. 36: SW $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$	240	E-1518 10-10-57	State of N. M.	None	F. J. Danglede
24	T. 12 S., R. 34 E. Sec. 36: E $\frac{1}{2}$ SE $\frac{1}{4}$	80	E-1519 10-10-57	State of N. M.	None	Amerada Petroleum Corp.
25	T. 13 S., R. 34 E. Sec. 1: Lots 1, 2, 3, 4, S/2 N/2 Sec. 2: SE $\frac{1}{4}$	477.12	E-1865 5-10-58	State of N. M.	None	Gulf Oil Corporation
26	T. 13 S., R. 34 E. Sec. 1: SW $\frac{1}{4}$	160	E-2580 4-11-59	State of N. M.	None	Ohio Oil Company
27	T. 13 S., R. 34 E. Sec. 1: SE $\frac{1}{4}$	160	E-6873 1-10-63	State of N. M.	None	Skelly Oil Company
28	T. 13 S., R. 34 E. Sec. 2: Lots 1 & 2	78.77	E-8473 9-21-64	State of N. M.	None	Warren Petroleum Corp.
29	T. 13 S., R. 34 E. Sec. 2: S $\frac{1}{2}$ NE $\frac{1}{4}$	80	E-4645 11-10-60	State of N. M.	None	Champion Refining Co.

STATE TRACTS AGGREGATING 1595.89 ACRES, MORE OR LESS
LEA COUNTY, NEW MEXICO

ILLEGIBLE