LAW OFFICES
CASWELL S. NEAL
SHORT BUILDING POST OFFICE BOX 709
CARLSBAD, NEW MEXICO

FOSTER WINDHAM
CASWELL F. NEAL

Potash - Oil

May 4, 1951

Hon. R. R. Spurrier
Director of Oil and Gas Conservation Comm.
Capitol Building
Santa Fe, New Mexico

Dear Mr. Spurrier:

I am taking the liberty of mailing to you report by Dr. Lewis E. Young, Mining Engineer of Pittsburgh, Pennsylvania, and formerly President of the American Institute of Mining Engineers, who has been consulting engineer for International Minerals for some time, and who is probably as familiar as any man with the subject of drilling oil and gas wells on potash lands through mines.

I hope you will find this report both interesting and enlightening. I have mailed copies of it to each member of the committee appointed by the Land Commissioner.

Attached to the report you will find two prints indicating (1) method of casing gas in Pennsylvania, and (2) method of casing and cementing wells as used by one of the large gas companies when storing gas in wells in coal mining areas. From this you will observe that in the opinion of the gas company cement does not adhere well enough to steel casing to make the well tight and, therefore, acquagel is used. Whether this would be effective in high pressure areas seems extremely doubtful. At any rate, I hope you will find the enclosed of benefit to you in connection with your studies of the matter.

For your information, I also have a single copy of a report of the Rules and Regulations of the Department of Mines, Oil and Gas Division, of the State of West Virginia, copies of which will be sent to you a little later.

These may be helpful to your committee in working out some satisfactory solution to the matter at hand.

With kind regards.

Respectfully,

Caswell S. Neal

CSN:pn

CASWELL S. NEAL

DESIGNATED POTASH AREA SUBJECT TO

SPECIAL RULES AND REGULATIONS

T 18 S-R 30 E	Sec. 13 all
	Sec. 23, 24, all
	Sec. 25 W½
	Sec. 26, 27, all
	Sec. 33, 34, all
	Sec. 35 W½
T 18 S-R 31 E	Sec. 18 W½
T 19 S-R 29 E	Sec. 11 SE¼
	Sec. 12 S½
	Sec. 13 all
	Sec. 14 E½
	Sec. 23 NE¼
	Sec. 24 N½
T 19 S-R 30 E	Sec. 2, 3, 4, 5, all
	Sec. 7 S½
	Sec. 8 to 36 incl., all
T 19 S-R 31 E	Sec. 9, 10, all
	Sec. 11 W½
	Sec. 14 W½
	Sec. 15, 16, 17, 19, 20, 21, 22, all
	Sec. 23 W½
	Sec. 25 S½
	Sec. 26 to 36 incl., all

T 19 S-R 32 E	Sec. 23 S½
	Sec. 24, 25, 26, 27, all
	Sec. 28 S½
	Sec. 31 S½
	Sec. 32 S½
	Sec. 33 to 36 incl., all
T 19 S-R 33 E	Sec. 19, 30, 31, all
T 20 S-R 29 E	Sec. 22, 23, 24, 25, 26, 27, all
	Sec. 34, 35, 36, all
T 20 S-R 30 E	All
T 20 S-R 31 E	All
T 20 S-R 32 E	All
T 20 S-R 33 E	Sec. 5, 6, 7, 8, 9, all
	Sec. 15 to 23 incl., all
	Sec. 25 to 36 incl., all
T 20 S-R 34 E	Sec. 31 all
T 21 S-R 29 E	Sec. 1, 2, all
	Sec. 3 E½
	Sec. 10 E½
	Sec. 11, 12, 13, 14, all
	Sec. 15 E½
	Sec. 23 N½
	Sec. 24, 25, all
	Sec. 35 E½
	Sec. 36 all

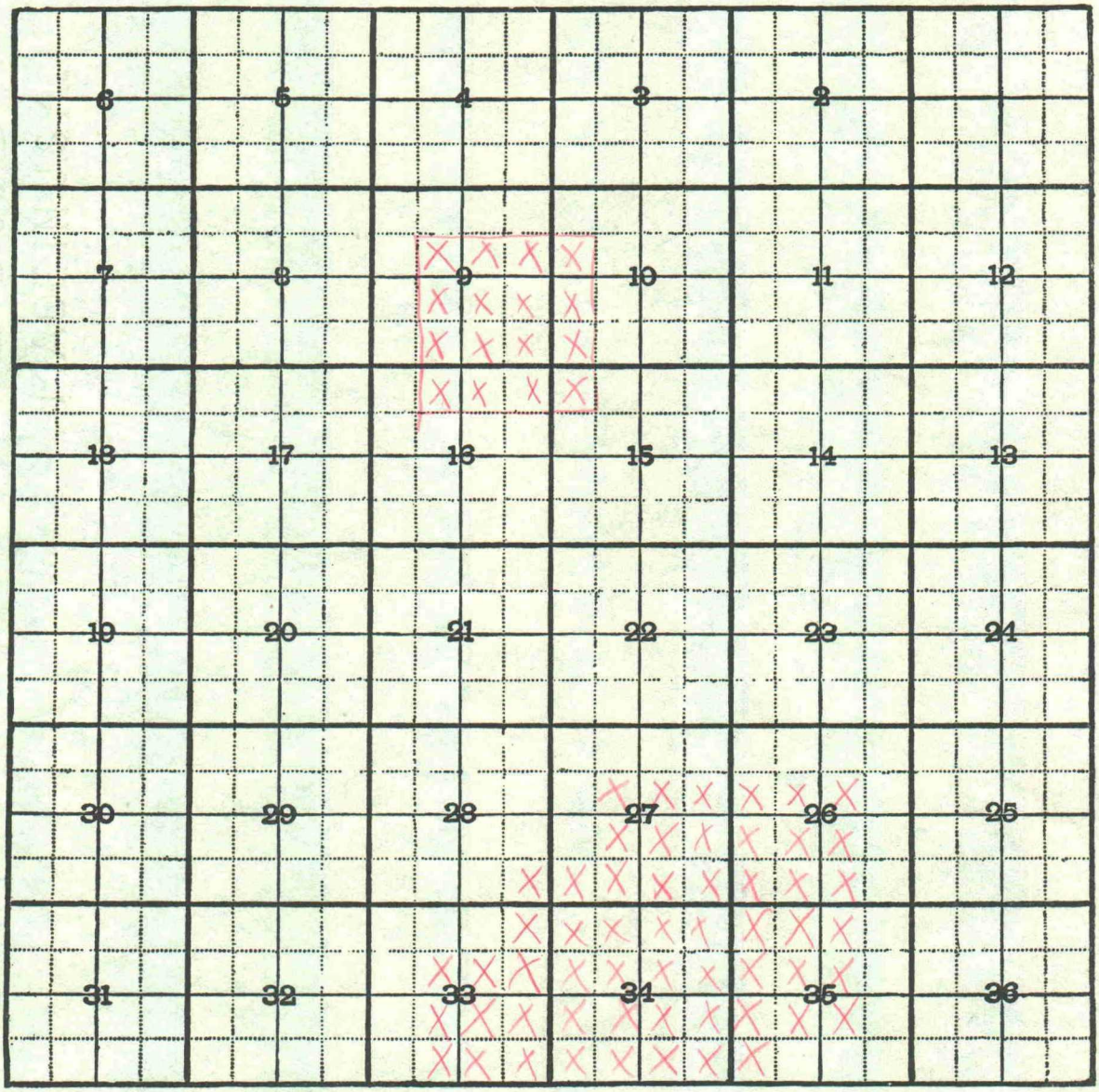
T 21 S-R 30 E	Sec. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, all
	Sec. 12 N½
	Sec. 13 to 22 incl., all
	Sec. 23 N½
	Sec. 24 N½
	Sec. 27 to 34 incl., all
	Sec. 35 S½
T 21 S-R 31 E	Sec. 1 N½
	Sec. 2 N½
	Sec. 4 W½
	Sec. 5, 6, all
	Sec. 18 S½
	Sec. 19 N½
T 21 S-R 32 E	Sec. 1 to 17 incl., all
	Sec. 21 to 27 incl., all
	Sec. 35, 36, all
T 21 S-R 33 E	West half of Township.
22S - 29E	Sec. 1, 2
	Sec. 3 S½
	Sec. 9 E½
	Sec. 10 to 16 incl., all
	Sec. 17 E½
	Sec. 20 E½
	Sec. 21 to 28 incl., all
	Sec. 33, 34, 35, 36, all
22S - 30E	All of Township except E½ Sec. 25 and E½ Sec. 36

22S - 31E	Sec. 4 to 9 incl., all
	Sec. 17, 18, all
	Sec. 19 N½
22S - R33E	Sec. 4, 5, 6, all
23S - R29E	East half of Township.
	Sec. 4 E½
	Sec. 9 E½
23S - R30E	Sec. 1 S½
	Sec. 2 to 36 incl., all
23S - R31E	Sec. 7
	Sec. 8 S½
	Sec. 16 SW¼
	Sec. 17, 18, 19, 20, all
	Sec. 21 W½
	Sec. 28 to 33 incl., all
24S - R30E	Sec. 1 N½
	Sec. 2 N½
	Sec. 3 N½
24S - R31E	Sec. 4, 5, 6, all

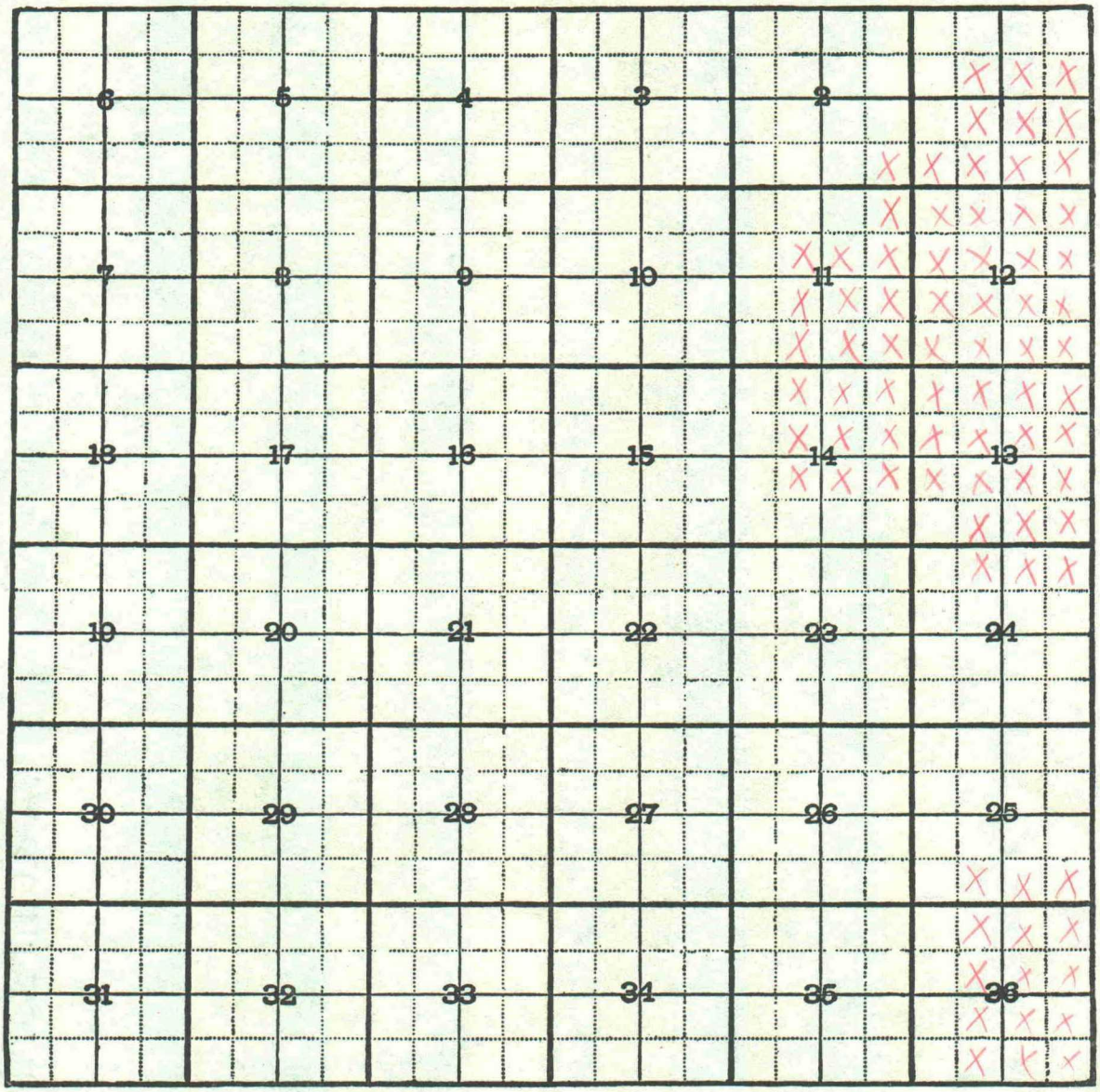
Date: 5/4/51

area A

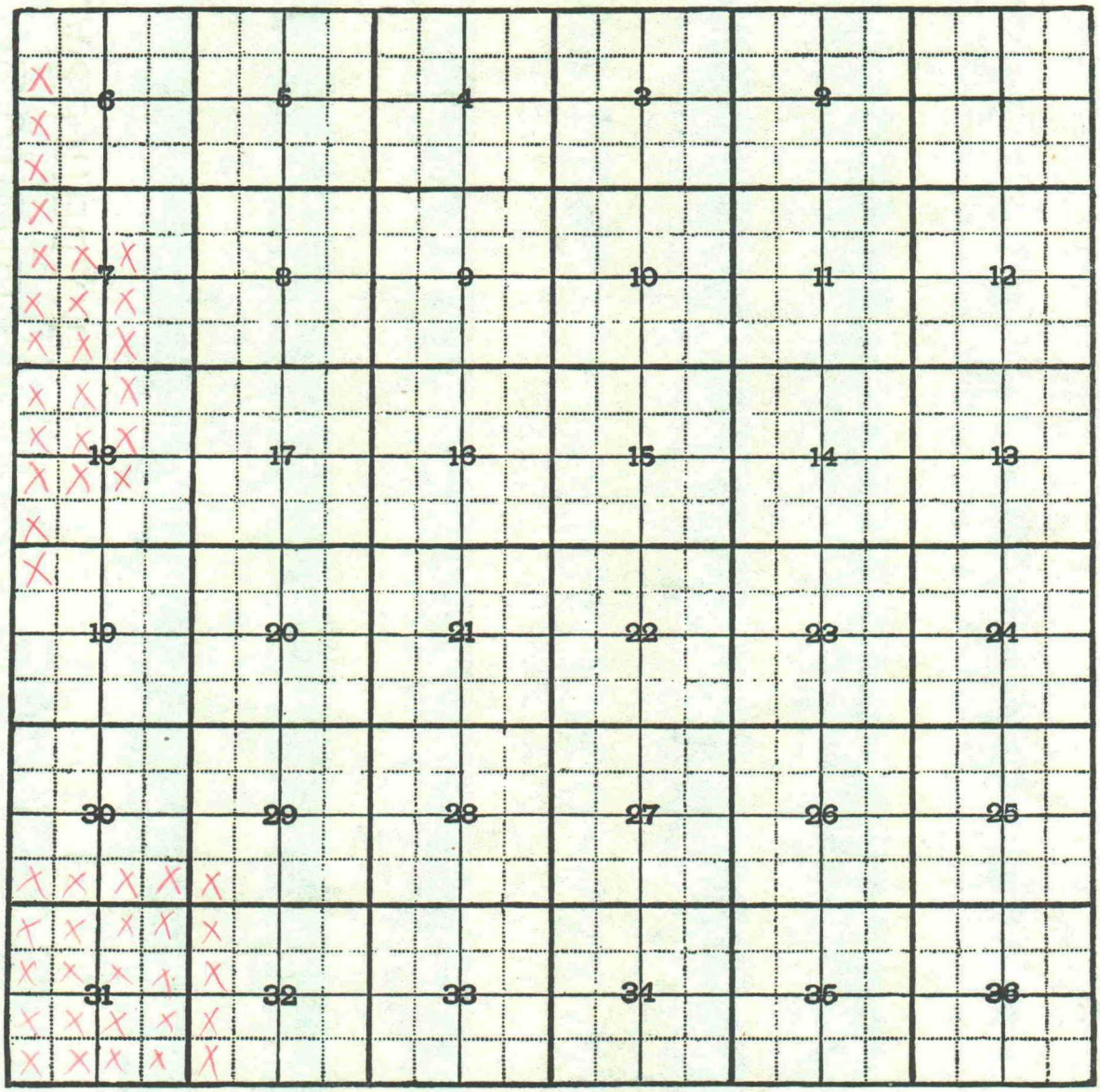
Township 19S *Range* 30E *County*



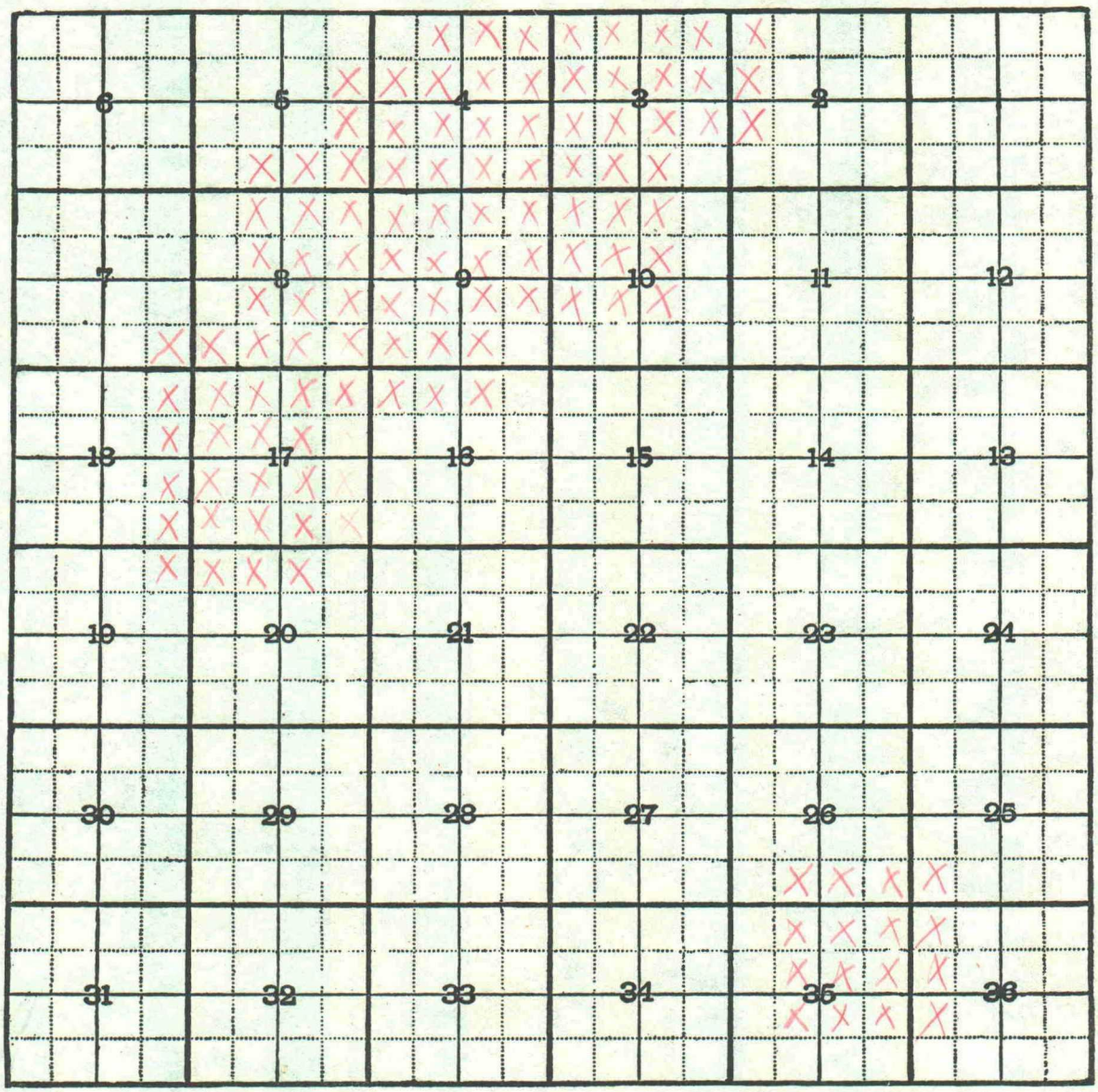
Township 21 S *Range* 29 E *County*



Township 21 S *Range* 30 E *County*



Township 20S *Range* 30E *County*



b. If an oil string in testing medium depth zones, the casing may be cemented with a nominal cement volume for testing purposes only, and if commercially productive, the string must be re-cemented by circulating cement from the top of the original cement job to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

4. Oil or Production String (Deep Wells)

This string shall be set on top or through the pay zone and cemented with a volume adequate to protect the pay zone and the casing above such zone, provided however, if no intermediate drilling casing shall have been run and commercial production obtained, that string shall be cemented to the surface or as provided by 3-a above.

5. Drilling Fluid for Salt Section

This fluid shall consist of water to which has been added sufficient salts of a character common to the zone penetrated to completely saturate the mixture. Other admixtures may be added to the system by the operator in overcoming any specific problem. This requirement is specifically inserted in order to prevent enlarged drill holes.

PROPOSED RULES AND REGULATIONS GOVERNING EXPLORATION FOR THE EXTRACTION OF OIL, GAS AND POTASH MINERALS ON NEW MEXICO STATE AND PRIVATELY OWNED LANDS INCLUDED IN PROVEN OR POTENTIAL PRODUCTION AREAS.

I.

OBJECTIVE

In an effort to assure the maximum conservation and economic recovery of oil, gas and potash minerals in the areas hereinafter defined the Oil Conservation Commission hereby promulgates the following rules and regulations:

II.

POTASH AREAS

These regulations shall be applicable to the proven or potential potash area herein defined as "Area A" and "Area B".

1. Area "A" . (List sections applicable)

2. Area "B" . (List sections applicable.

3. Each of the above described areas may be contracted or expanded from time to time as conditions may warrant by the Oil Conservation Commission after due notice and hearing.

III.

EXPLORATION OF AREAS

(1) Area "A"

(a) Drilling of oil and gas exploratory test wells shall not be permitted in Area "A" except upon leases outstanding as of the effective date of these regulations; PROVIDED, oil and gas wells shall not be drilled through any open potash mine or within 500 feet thereof under any conditions.

(b) Any oil or gas leases hereafter issued for lands within area "A" shall be subject to these regulations and no drilling shall be perm itted thereon unless the expressed permission of the Oil Conservation Commission is first had and obtained after due notice and hearing.

(c) All future drilling of oil and gas test wells in area "A" shall be further subject to these rules and regulations.

(d) Where oil and gas wells are in production within this area no mine opening shall be driven to within less than 100 feet of such wells.

(2) Area "B"

(a) Oil and gas exploratory test wells may be drilled in accordance with the rules and regulations as hereinafter set forth.

(3) Hereafter upon the discovery of oil and gas in either area "A" or "B" the Oil Conservation Commission, after due notice and hearing, shall promulgate field or pool rules for the affected areas.

(4) Nothing herein contained shall be construed to prevent unitization agreements within areas "A" or "B" or both.

IV.

DRILLING, CASING AND CEMENTING PROGRAMS

(1) For the purposes of these regulations "shallow and "deep" zones are defined as follows:

(a) "Shallow Zone" shall include all formations above the base of the Delaware sand or above a depth of 5,000 feet, whichever is the lesser.

(b) "Deep Zone" shall include all formations below the base of the Delaware sand or below a depth of 5,000 feet, whichever is the lesser.

(2) The following rules and regulations shall be applicable to both shallow and deep zones, except where additional or special rules are noted.

(3) Surface Casing String:

(a) To prevent the intrusion of water, the surface casing string shall be set in the "Red Bed" section of the basal Russler formation immediately above the top of the salt section. or in the anhydrite at the top of the salt section as may be determined necessary by the regulatory engineer approving the drilling operation, and the same shall be cemented back to the ground surface or to the bottom of the cellar.

(b) The surface string may consist of new, second-hand or re-conditioned pipe. New pipe shall have received a mill test of not less than 600 pounds pressure per square inch; second-hand and re-conditioned pipe shall be retested to 600 pounds pressure per square inch before being run.

(c) Cement shall be allowed to stand a minimum of twelve hours under pressure and a total of twenty-four hours before drilling the plug or initiating tests.

(d) Tests of casing shutoff shall vary with the drilling methods being employed. If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of 600 pounds per square inch shall be applied. If a drop of 100 pounds per square inch or more should occur within 30 minutes, corrective measures shall be applied. If cable tools are used, the mud shall be bailed from the hole and if the hole does not remain dry for a period of one hour, corrective measures shall be applied.

(4) Salt Protection String

(a) A salt protection string shall be set at not less than 100 feet nor more than 200 feet below the base of the salt section.

(b) The string may consist of new, second-hand or reconditioned pipe capable of meeting the manufacturer's test specifications.

(c) The string may be cemented with a nominal cement volume for testing purposes only, and if commercially productive, the string must be recemented with not less than 150% of calculated volume necessary to circulate cement to the surface. The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with 3% of calcium chloride by weight of cement.

(d) Cement shall be allowed to stand a minimum of 12 hours under pressure and a total of 24 hours before drilling the plug or initiating tests. If the cement fails to reach the top of the salt, the salt protection casing shall be perforated just above the top of the cement and additional cement shall be used until the cement is brought to that point.

(e) One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission within _____days after the survey is made.

(f) Test of casing shall vary with the drilling method employed. If rotary is used, the mud shall be displaced with water and a hydraulic pressure of 1000 pounds per square inch shall be applied. If a drop of 100 pounds per square inch or more should occur within 30 minutes, corrective measures shall be applied. If cable tools are used, the mud shall be bailed from the hole and if the hole does not remain dry for a period of one hour corrective measures shall be applied.

(g) Additional and Special Rules Applicable to Deep Zones Only.

(1) Centralizers shall be used at every 150 feet of casing below the surface casing.

(2) When a drilling protection string is used the casing shall be cemented with a sufficient volume of cement to amply protect the casing and all shallow pay zones above the casing shoe, and in every instance the string shall be cemented from a point 1000 feet below the salt string back to the surface.

(5) Oil Production String:

(a) The string shall be set on top or through the pay zone and cemented with a volume adequate to protect the pay zone and the casing above such zone; PROVIDED, however, if no intermediate drilling casing shall have been run and commercial production obtained, the string shall be cemented to the surface or as provided by above.

(b) Cement shall be allowed to stand a minimum of 12 hours under pressure and a total of 24 hours before drilling the plug or initiating tests. Hydraulic pressure tests shall be applied to this string as above.

V.

PLUGGING AND ABANDONMENT OF WELLS

(1) Upon completion of production from wells which were drilled prior to the date upon which these regulations became effective, such wells shall be plugged in a manner that will provide a solid cement plug through the salt section and prevent liquids or gases from entering the hole above or below the salt section.

(2) Upon completion of production from wells drilled in accordance with these regulations, the wells shall be plugged by filling the casing cemented through the salt with cement or as provided in (1) above.

(3) If a well is dry or if the oil operator cannot complete a well and must abandon the hole, such well shall be plugged as provided in ( ) above.

VI.

LOCATION FOR TEST WELLS

Before drilling for oil and gas on lands within the Areas "A" or "B", a map or plat showing the location of the proposed well shall be prepared by the well operator and copies shall be sent to the Oil Conservation Commission and the potash lessee involved. If no objections to the location of the proposed well are made by the potash lessee within ten days, a drilling permit may be issued

and the work may proceed. If, however, the location of the proposed well is objected to by the potash lessee on the grounds that the location of the well is not in accordance with the foregoing regulations, the potash lessee may file a written objection for consideration and decision by the Oil Conservation Commission

VII.

INSPECTION OF DRILLING AND MINING OPERATION

(1) A representative of the potash lessee may be present during drilling, cementing, casing and plugging of all oil and gas wells on his leases to observe conformance with these regulations.

(2) A representative of the oil and gas lessee may inspect mine workings on his leases to observe conformance with these regulations.

VIII.

FILING OF WELL AND MINE SURVEYS

(1) Each oil and gas lessee shall furnish annually (on January 1st) to the Oil Conservation Commission and to the potash lessees involved, certified directional surveys from the surface to a point below the lowest known potash-bearing horizon for each oil and gas well drilled within area "A" during the preceding year.

(2) Each potash lessee shall furnish annually (on January 1st) to the Oil Conservation Commission and to the Oil and Gas lessee involved, a certified plat of the location of open mine workings underlying outstanding oil and gas leases.

IX.

APPLICABILITY OF STATEWIDE RULES AND REGULATIONS

(1) All general statewide rules and regulations governing the development operation and production of oil and gas in the State of New Mexico not inconsistent or in conflict herewith are applicable to the areas described herein.

X.

ADOPTION

The foregoing rules and regulations are hereby adopted by the Oil Conservation Commission and adopted, ratified and confirmed by the Commissioner of Public Lands of the State of New Mexico this _____day of August, 1951.

OIL CONSERVATION COMMISSION

_____

_____

_____

_____
Commissioner of Public Lands

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. 278
Order No. R-111-C

APPLICATION OF DUVAL SULPHUR
AND POTASH COMPANY FOR AN
AMENDMENT OF ORDER NO. R-111-A
TO INCLUDE ADDITIONAL ACREAGE
IN THE POTASH-OIL AREA, EDDY
COUNTY, NEW MEXICO

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on August 13, 1959, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 3rd day of September, 1959, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, 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, Duval Sulphur and Potash Company, is the owner of certain potash leases in Townships 18, 22, and 23 South, Range 30 East, NMPM, Eddy County, New Mexico.

(3) That the applicant seeks an amendment of Order No. R-111-A as amended by Order No. R-111-B to extend the Potash Oil Area as set forth in said orders to include the following described acreage:

Township 18 South, Range 30 East, NMPM

Section 22:	W/2 W/2
Section 27:	N/2 NW/4

Township 22 South, Range 30 East, NMPM

Section 13:	SE/4 SW/4
Section 23:	SE/4 and SE/4 NE/4
Section 24:	W/2
Section 25:	W/2
Section 26:	E/2 W/2 and E/2
Section 35:	E/2

TOWNSHIP 23 South, Range 30 East, NMPM

Section 2:	S/2 and NE/4

(4) That the evidence presented indicates that the above-described acreage contains potash deposits in commercial quantities with the following exceptions:

Township 18 South, Range 30 East, NMPM

Section 27:	NW/4 NW/4

Township 22 South, Range 30 East, NMPM

Section 13:	SE/4 SW/4
Section 24:	E/2 W/2
Section 25:	E/2 W/2

all in Eddy County, New Mexico.

(5) That to promote orderly development of the natural resources in the area, Order No. R-111-A as amended by Order No. R-111-B should be further amended to include the acreage in the Potash-Oil Area as proposed by the applicant with the above-mentioned exceptions.

IT IS THEREFORE ORDERED:

That Order No. R-111-A as amended by Order No. R-111-B be and the same is hereby further amended to include the following-described acreage within the confines of the Potash-Oil Area in Eddy County, New Mexico:

Township 18 South, Range 30 East

Section 22:	W/2 W/2
Section 27:	NE/4 NW/4

Township 22 South, Range 30 East, NMPM

Section 23:	SE/4 and SE/4 NE/4
Section 24:	W/2 W/2
Section 25:	W/2 W/2
Section 26:	E/2 W/2 and E/2
Section 35:	E/2

Township 23 South, Range 30 East, NMPM

Section 2:	S/2 and NE/4

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

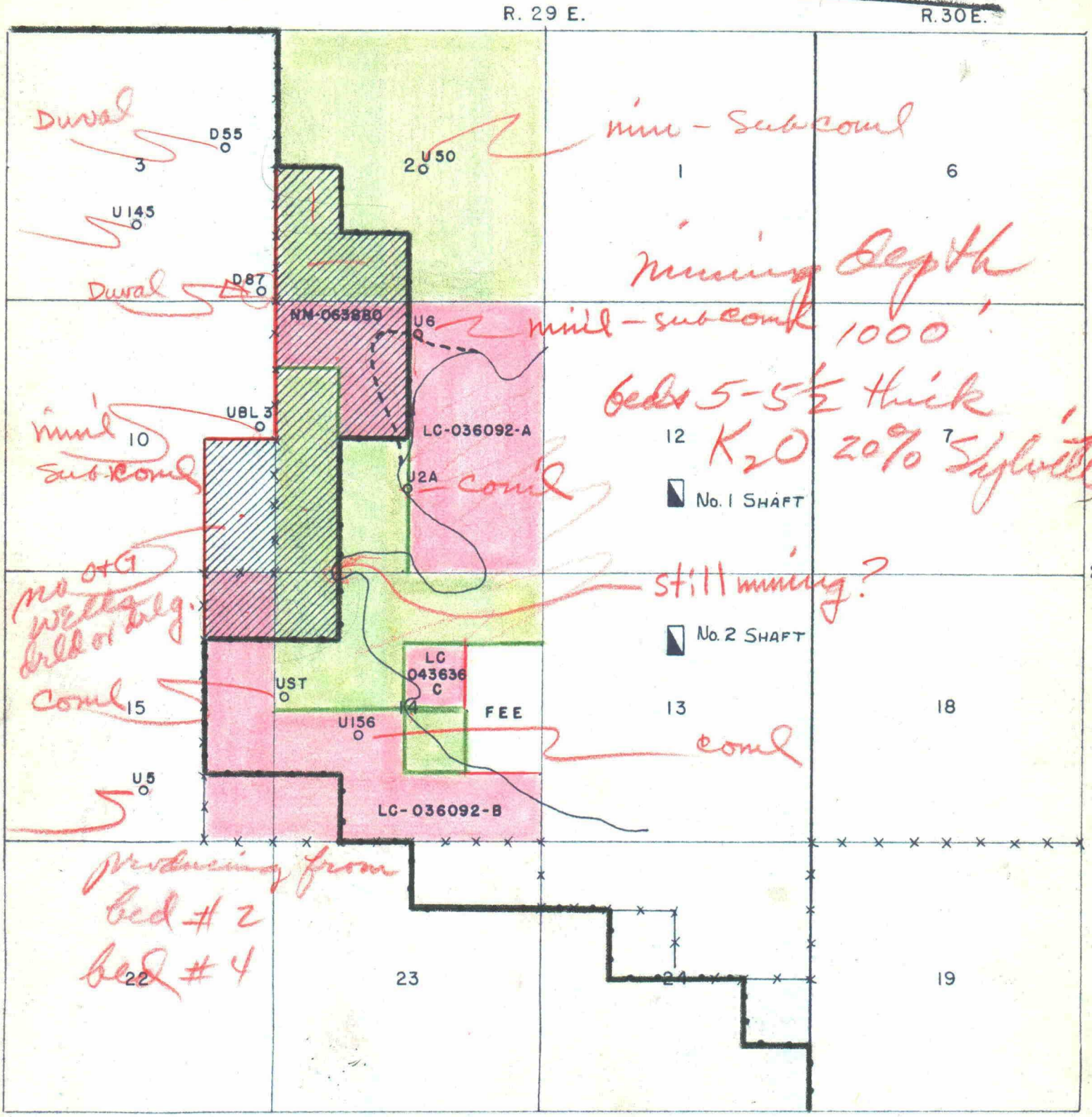
STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JOHN BURROUGHS, Chairman

MURRAY E. MORGAN, Member

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

lcr/



PROPOSED EXTENSION TO POTASH - OIL AREA (R-111-A)

POTASH - OIL LINE (R-111-A)

U.S. POTASH LEASE LINE (U.S.B. & C.)

APPROX. PRESENT LIMIT OF OPEN MINE WORKINGS

PROPOSED MINE EXTENSION

M-651 STATE LEASE

FEDERAL LEASE

U87 CORE TEST

Unit 2 14

AREA WEST OF USP MINE

Well No.	Date Completed	Ore Status Bed 2	Bed 2A	Bed 4
U-50	8-20-49	M	M	B
U-6	2-6-41	M	M	B
U-B1.3	2-18-30	M	B	B
U-2A	5-14-37	Lost Core		C
USt.(sec 14)	5-14-29	C	M	B
U-156	4-6-57	C	B	B
U-5	7-24-40	B	B	B

C = Commercial ore (USGS min. 4' @ 14% K_2O)

M = Mineralized (Bed definition, sub-commercial)

B = Barren

AREA EAST OF IMCC MINE

Well No.	Date Completed	Ore Status Bed 2	Bed 2A	Bed 4
U-22	2-18-46	B	M	C
U-24	4-29-46	B	M	B
U-26	8-22-46	B	C	M
U-97A	5-16-51	M	B	M
U-160	11-26-58	B	C	C
U-161	12-8-58	B	M	C

C = Commercial ore (USGS min. 4' @ 14% K_2O)

M = Mineralized (Bed definition, sub-commercial)

B = Barren

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE 278

TRANSCRIPT OF HEARING

AUGUST 13, 1959

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
AUGUST 13, 1959

IN THE MATTER OF:

CASE 278 Application of United States Borax & Chemical Corporation for an extension of the Potash-oil area as defined in Order No. R-111-A. Applicant, in the above-styled cause, seeks an extension of the potash-oil area as defined in Order No. R-111-A to include additional acreage in Townships 21 and 22 South, Ranges 29 and 30 East, NMPM, Eddy County, New Mexico.

BEFORE:

A. L. Porter
Murray Morgan

T R A N S C R I P T O F P R O C E E D I N G S

MR. PORTER: Take up next the application of the United States Borax & Chemical Corporation under the same case number.

MR. PAYNE: Case 278. Application of United States Borax & Chemical Corporation for an extension of the potash-oil area as defined in Order No. R-111-A.

MR. STAGNER: If the Commission please, my name is James W. Stagner. I am an attorney representing the United States Borax & Chemical Corporation.

MR. PORTER: How do you spell that name?

MR. STAGNER: S-t-a-g-n-e-r. We seek to have certain lands in Township 21 South, Range 29 East, and in Township 22 South, Range 30 East included in the potash-oil area as it was heretofore defined by the Commission.

I would like the Reporter to mark this map as Applicant's Exhibit 1, and the small maps as Applicant's Exhibit 2.

(Whereupon, the above mentioned Exhibits were marked for identification.)

MR. PORTER: I would like to call for other appearances in the case at this time, if there will be any.

(Witnesses sworn)

MR. STAGNER: If the Commission please, I might state that these small maps, which are Exhibit 2, are identical with the Exhibit 1 from which the witnesses will testify, except that in the case of Exhibit 2 the two Townships have been separated, and we will submit our testimony separately with respect to them, and we felt that by making that division the Commission could more easily follow the testimony.

MR. PORTER: You will offer Exhibit 1 in evidence?

MR. STAGNER: Yes, sir.

LOWELL B. PAGE, JR.,

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

DIRECT EXAMINATION

BY MR. STAGNER:

Q Please state your name.

A Lowell B. Page, Jr.

Q By whom are you employed?

A United States Potash Company Division, United States Borax & Chemical Corporation.

Q And in what capacity are you employed by that company?

A As geologist.

Q What is your training and experience as a geologist?

A I have a degree in geology from Michigan State, 1953, and have been with United States Potash & Borax Corporation for three years and three months as a geologist.

Q And Mr. Page, are you, from your employment by that company, familiar with its holdings in Eddy County, and with the matters about which you testify here?

A I am.

Q I hand you a map which has been marked Applicant's Exhibit 1, and ask you to state what that is?

A It's a map that we've prepared showing a portion of the R-111-A boundary along with our lease holdings, both Federal and State, and with the land in question under application.

Q Now, on this map, how are the present boundaries of the potash-oil area under R-111-A defined or shown?

A They are shown with the black line.

Q And how are the lands which you seek to have brought within that area defined on the map?

A They are cross-hatched.

Q And do the cross-hatches which appear on the map embrace all lands which are to be brought or sought to be brought within the area by this application?

A They are.

Q Now, referring first to the cross-hatched area in Township 21 South, Range 29 East, can you state what the continuous line drawn in ink on the map and in irregular fashion indicates?

A That line indicates the present outline of the western edge of our main ore body.

Q Does that line indicate the point to which mining has progressed up to this time?

A It does.

Q So that I take it that workings of the mine have already been extended as far west as the continuous irregular line shown in Township 21 South, Range 29 East?

A They do.

Q I notice that a part of that line extends over into the cross-hatched lands at the present time. Does this mean that the mine workings have already extended into the cross-hatched area?

A Yes, we have open mine workings in that area.

Q Now, I also note in the cross-hatched area a small dotted line that extends in irregular shape up into the cross-hatched area. What does that designate?

A That indicates a potential edge of the open mine workings subsequent to future mining.

Q Have you made any drillings horizontally into that area to determine whether or not commercial ore is present within the area lying between the continuous line referred to and the dotted line that is shown on the map?

A We have.

Q What do those tests indicate?

A They definitely establish that commercial ore exists within the dotted line area.

Q At what depth is the ore body at the present workings of your company adjacent to the cross-hatched area in Township 21 South, Range 29 East?

A Approximately a thousand feet.

Q And what is the thickness of the ore body at that point?

A At the present working phase the ore body is between five and five and a half feet in thickness.

Q And what is the K_2O content of the ore body at that point?

A Approximately 20 percent.

Q Is that equal to, or does it exceed the standard fixed by the U. S. G. S. for the purpose of determining the presence of commercial ore?

A It exceeds their minimum by quite a bit.

Q And what is the basis on which they have made the determination that commercial ore exists in the area?

A Four feet of 14 percent K_2O.

Q Now, is it certain that the production of ore within the cross-hatched area in Township 21 South, Range 29 East would be limited according to the dotted line which is shown on the map?

A The dotted line isn't a definite outline. That is, it is a hypothetical outline with what available information we have at this time.

Q Is it possible that the ore body may extend beyond the limits of that particular line?

A Definitely.

Q Are you familiar with core tests which have been drilled in that particular area?

A I am.

Q Can you refer to your memorandum on that and give the Commission the benefit of the core tests in Township 21 South, Range 29 East, NMPM which relate to the cross-hatched lands in that Township, give the Commission the benefit of what those show?

A Well, there are several wells. The only wells that I have information on are our own wells which are designated by a "U" and a number following, indicating the number of the well. The "D" wells are Duval, which I think are the only thing we will run into. I don't have any Duval information; the only thing I

have is ours. Starting in Section 2 of the Township, "U" 50, this well was drilled in 1949. It has mineralized zones, but they are sub-commercial. But it is actually without, or outside of this area we have under application. "U" 6, which is right on the boundary of the cross-hatched area and the present R-111-A boundary, is also mineralized but still sub-commercial. "U" 2 A is a commercial well, and it is on the boundary of our present workings. The State Well in Section 14 is commercial -- has commercial ore.

Q How is it designated on the map?

A "U S T" -- excuse me.

Q All right.

A And "U" 156, just to the southeast of "U S T", is also a commercial well. The "U B L" 3 is a mineralized zone. It is sub-commercial, but it is mineralized. I think that covers the area -- the wells in the immediate area. We have no vertical core tests within this cross-hatched area.

Q At the present time, from what bed, by number, is your company producing potash in Township 21 South, Range 29 East at this time?

A Bed 2 and bed 4.

Q And core tests, that you have referred to in your testimony, were they found to be commercial -- to indicate commercial bodies of ore in that bed of potash?

A Yes.

Q Now, --

MR. PORTER: You referred to two beds?

A Bed 2 and bed 4. We are producing from both beds in this area, and the core test information is based that, those two beds.

Q Now, have you prepared an Exhibit which shows the core tests referred to and the -- their showing with respect to being commercial ore or non-commercial ore, with respect to each bed in the particular area?

A I have.

Q Now, Mr. Page, have you been familiar with subsidence that has occurred in the United States Borax & Chamical Corporation area from the mining which it has done?

A Yes.

Q I'll ask you whether or not subsidence is limited to the last point of mining vertically, or whether or not it extends horizontally from the point where mining ends?

A It extends horizontally.

Q And upon the basis of the depth of mining at the point where the cross-hatched lands are in Township 21 South, Range 29 East, can you state to the Commission the approximate distance at which subsidence would be expected to occur from the farthest limits mined by the company in that area?

A It would be a thousand feet beyond the final mine workings.

Q I note that the cross-hatched area would extend more than 1,000 feet distant from the point where your present studies indicate commercial ore is certainly present?

A Yes.

Q Why have you requested that the Commission extend the boundaries of the potas-oil area a greater distance than the one thousand feet?

A We are -- actually, the present boundary as shown is not the ultimate outline of our ore body or of our mine. It is the -- strictly the present mining boundary. We are still and continuously mining in a western direction. Our phases are in commercial ores, and, so consequently, this boundary is going to gradually extend westward. With the core test information, we have a pretty fair idea that it will not extend beyond the requested area, but it is going to extend in a westerly direction beyond the point at which it shows now, and, consequently, we feel that we need some protection for this ore that we are going to mine out, and the fact that with the thousand foot of subsidence we will need that type of protection beyond our open mine workings. Now, this area is not a proposed mining area; this is something we are actually mining. I mean, this is our main mine, main ore body, and we've got everything at stake on this.

Q When this subsidence occurs, what is the effect on the body or mass that is lowered? Does it remain in a compact mass, or is it fractured in that process?

A The subsiding overburden during subsidence will, generally speaking, remain in a solid mass to a certain extent. Now, we have quite a salt cover over our open workings. Now, this salt will actually flow rather than frac to your break during subsidence. The limestone extends above the salt, and the surface very probably will fracture, but the salt itself flows and we get lateral and vertical movements.

Q With respect to the cross-hatched lands which are shown in Township 21 South, Range 29 East on Exhibit 1, are you in a position to state to the Commission that actual mining operations will be conducted by United States Borax & Chemical Corporation on those lands?

A Absolutely.

Q How soon will you expect to reach the cross-hatched lands in the course of mining?

A It will be a matter of weeks or a month or two, no longer than two months.

Q In your opinion, is the inclusion of the cross-hatched area shown in Township 21 South, Range 29 East on Exhibit 1, necessary to assure the safety of the mining operation of your company in that area?

A Definitely.

Q Now, are there any drilling oil wells in that area at the present time?

A No.

Q Is thre any production of oil or gas in that area at the present time?

A No.

Q Are there any dry holes drilled for oil or gas in that area at the present time, so far as you know?

A No.

Q Now, referring to the cross-hatched area which appears on the map in Township 22 South, Range 30 East, I notice again a continuous line drawn in ink in that Township. Will you state to the Commission, please, what that line indicates?

A That is a section of the eastern boundary; to the best of our knowledge, the open mine workings of International Chemical.

Q Now, the lines which are indicated on the map in green, what lands are they?

A Those lands we retain under State lease.

Q United States Borax & Chemical Corporation?

A Yes.

Q And those in red?

A We retained these lands under Federal lease.

Q And they are also leases of United States Borax & Chemical Corporation?

A Yes.

Q Then, it would appear that workings of International Minerals & Chemical Corporation are presently being conducted on leases held by your company under some arrangement with you?

A They are.

Q And is that a contract arrangement between U. S. Borax & Chemical Corporation and International Minerals & Chemical Corporation?

A It is.

Q Now, are you familiar with the core tests which have been drilled in that area by U. S. Borax & Chemical Corporation or its predecessor, U. S. Potash Company?

A I am.

Q Will you give the Commission, please, the benefit of the information you have resulting from the drilling of those core tests?

A The two indicated core tests designations, one is "I." Those are International core tests, of course, which we have no information. **The "U" tests are ours once again, and "U" 26, starting north and going south, "U" 26, this will be in Section 5, contains commercial ore. "U" 160 also contains commercial ore. "U" 24 is sub-commercial, but it is mineralized. "U" 161 is commercial ore, and "U" 97 A is mineralized, but sub-commercial.**

Q Now, I notice that in requesting inclusion of lands in Township 22 South, Range 30 East in the potash-oil area, you have not extended the boundaries as far south as core "U" 97 A. Will you state to the Commission why that was done and how the boundary requested was arrived at?

A Well, "U" 97 A is a sub-commercial well, and, conse-

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
August 17, 1955

IN THE MATTER OF:

Application of National Potash Company for extension of Area "A" of the potash-oil area in Eddy and Lea Counties, New Mexico, as defined by Order R-111 issued in Case 278.	Case No. 935
Application of the Commission upon its own motion for an order revising the existing provisions of Order R-111, issued in Case 278.	Case No. 278
Application of Southwest Potash Corporation for extension of Area "A" of the potash-oil area in Eddy County, as defined by Order R-111 issued in Case 278.	Case No. 889
Application of International Minerals and Chemical Corporation for extension of Area "A" of the potash-oil area in Eddy County, as defined by Order R-111 issued in Case 278.	Case No. 890
Application of Duval Sulphur and Potash Company for extension of Area "A" of the potash-oil area in Eddy County, as defined by Order R-111 issued in Case 278.	Case No. 891
Application of National Farmers Union Service Corporation for extension of Area "B" and creation of a new Area "A" in the potash-oil area in Eddy and Lea County, New Mexico, as defined by Order R-111 issued in Case 278.	Case No. 926
Application of U. S. Potash Company for extension of Area "A" of the potash-oil area in Eddy County, as defined by Order R-111 issued in Case 278.	Case No. 927 Consolidated.

Before:

Honorable John F. Simms
Mr. E. S. (Johnny) Walker
~~Mr. William B. Macey~~

quently, there is no commercial ore in it, and we don't feel there is any extension of commercial ore within that area. But "U" 161 is a very commercial ore. It is well above the U. S. G. S. established minimum. And in our method which is an established universal method of calculating ore reserves and hypothetical or approximate ore reserve outlines and mining boundaries, we have established that the probable extent of commercial ore will not be outside of the proposed area, but will exist somewhere within the cross-hatched area here.

Q Now, can you state whether or not that area will be mined by either International Minerals & Chemical Corporation under contract with United States Borax & Chemical Corporation or by United States Borax & Chemical Corporation itself?

A To the best of my knowledge, it will.

Q And the cross-hatched area which appears on the map, Exhibit 1, in Township 22 South, Range 30 East, is the area in that Township which you request the Commission to add to the potash area as defined,in the previous order?

A It is.

Q At what depth approximately is the International Minerals & Chemical Corporation mining on the lease shown in Township 22 South, Range 30 East, NMPM at the present time?

A Approximately 900 feet.

Q So that I take it by the rule which you have applied before, subsidence would be expected to extend a distance of at

least 900 feet from the end of the workings when they shall occur?

A Yes.

Q Are there any oil or gas wells now being drilled in that area?

A No.

Q Are there any locations staked for any oil or gas wells in that area?

A Not to my knowledge.

Q Is there any oil or gas production in that area at the present time?

A No.

Q And have there been oil or gas wells drilled in that area?

A No.

Q Are you sure that no wells have been drilled at any time in that area?

A Not within the cross-hatched area.

Q Have there been in the vicinity of the cross-hatched area?

A Yes.

Q And can you state to the Commission where those wells were drilled?

A The wells are designated on the map as "G O." A number, I think, were Gypsy Oil wells, which I believe was Gulf Oil. I have no information on these wells. They are not producing

anything, to my knowledge, and I don't believe they ever have.

Q Are they presently abandoned?

A Yes.

MR. STAGNER: I think that is all we would care to ask this witness unless the Commission has some questions.

MR. PORTER: Do you care to offer your Exhibits at this time?

MR. STAGNER: Yes, sir. I would like to have this marked as Applicant's Exhibit 3, and that is a tabulation of the core tests about which the witness has testified.

MR. PORTER: Were these Exhibits prepared by you or under your supervision?

A Yes, sir.

MR. PORTER: Without objection, the Exhibits will be admitted.

(Whereupon, the above mentioned Exhibits were received in evidence.)

MR. PORTER: Does anyone have a question of Mr. --

CROSS EXAMINATION

BY MR. NUTTER:

Q Your No. D 0 3 in Section 10, depicted on Exhibit No. 1, --

A Yes.

Q -- 21, 29, --

A Yes, sir.

Q -- was that sub-commercial because of the thickness of the bed or grade of ore?

A The grade of ore.

Q Now, "U" 2 A was a commercial well, so somewhere in between "U" 2 A and "U" B L 3, the grade of ore has dropped to less than commercial quantities, is that right?

A That is right.

Q Now, your "U" 6, you note it as being sub-commercial, and your dotted line goes to that. Do you figure you could mine that far north?

A That well is practically on the limits. It is sub-commercial, technically speaking, and you can mine within a few feet from it and be commercial.

Q On what do you base your extension of your mining operation to the west there in your dotted line?

A It is a hypothetical line, actually. I mean, this line is not intended to designate where we will mine, it is to indicate that the trend of ore in this area is extending in that direction.

Q Well now, this Duval "D" 87 well in the southeast corner of Section 3, you don't have any information at all on what that well is doing?

A None whatsoever.

Q Is it possible to obtain that information for the Commission, or do you think Duval --

A I imainge the would be reluctant to forward it to us; they would probably forward it to you, but not foward it to us.

Q Now, this little tongue of your open mine workings there on the line between Section 11 and 14, --

A Yes, sir.

Q --is that area still being mined?

A At the present time we are not pulling any ore out of that area, but there is ore that can and will be taken.

Q When you quit mining in this area, were you in commercial quality ore?

A There is commercial ore in the place.

Q You didn't stop mining because you were getting into a non-commercial area there?

A No.

Q Now, you stated that the beds in this general area were five to five and a half feet thick, and you were mining 20 percent K_2O, is that sylvite or langbeinite?

A Sylvite.

Q Now, how about there in, on the other Exhibit, 22, 30, International is mining in your lease there to the location of your "U" 22 Well?

A That's right.

Q What thickness of bed are they mining in there?

A I believe it is around six feet thick.

Q What is the percentage of the ore in that area?

A In that immediate area it is running about 23 percent sylvite.

Q And "U" 26 and "U" 160 showed commercial deposits?

A Yes, sir.

MR. NUTTER: I believe that's all. Thank you.

MR. PORTER: Anyone else have a question of Mr. --

MR. STAGNER: I would like to ask one more question. If the Commission please, it was discovered after our application was filed that there were two 40-acre tracts on which International Minerals & Chemical Corporation had a lease which we believe were within the boundaries as they existed, and we have since found out they were not, and I should like to have Applicant's Exhibit 4 identified, and ask the witness one question.

MR. PORTER: Yes, sir.

REDIRECT EXAMINATION

BY MR. STAGNER:

Q Mr. Page, I hand you the -- Applicant's Exhibit 4, and ask you to state what that is?

A It is a letter of authorization by **Neal, Newman & Neal**, attorneys-at-law in Carlsbad, stating that International Minerals & Chemical has no objection and actually backs us in our proposed extension.

Q They are attorneys for International Minerals?

A They are.

MR. STAGNER: We offer Applicant's Exhibit 4 in evi-

dence.

MR. PORTER: Without objection, it will be admitted.

(Whereupon, Applicant's Exhibit 4 was received in evidence.)

Q (By Mr. Stagner) Can you think of anything else, Mr. Page, you would like to say with respect to this application about which I have not made inquiry?

A No, I believe the subject has been covered.

MR. STAGNER: That is all that we have.

MR. PORTER: Anyone have anything further to offer in Case 278? Take the case under advisement.

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, J. A. Trujillo, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in Stenotype and reduced to typewritten transcript by me, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this, the 25th day of August 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

NOTARY PUBLIC

My Commission Expires:

October 5, 1960

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

COPY

September 4, 1959

Mr. Don G. McCormick
Attorney at Law
Reese, McCormick, Lusk & Paine
Bujac Building
Carlsbad, New Mexico

Dear Mr. McCormick:

On behalf of your client, Duval Sulphur and Potash Company, we enclose one copy of Order No. R-111-C issued by the Oil Conservation Commission on September 3, 1959 in Case No. 278.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ir/

Enclosure

Copy also
to Charlie White
9-10-59
JL

DRAFT
FHF:lcr
August 27

8/31

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. 278
Order No. R-111-C

8/28

APPLICATION OF DUVAL SULPHUR
AND POTASH COMPANY FOR AN
AMENDMENT OF ORDER No. R-111-A
TO INCLUDE ADDITIONAL ACREAGE
IN ~~FOR~~ THE POTASH-OIL AREA,
EDDY COUNTY, NEW MEXICO

8/31

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on August 13, 1959, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this _____ day of September, 1959, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, 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, Duval Sulphur and Potash Company, is the owner of certain potash leases in Townships 18, 22, and 23 South, Range 30 East, NMPM, Eddy County, New Mexico.

(3) That the applicant seeks an amendment of Order No. R-111-A as amended by Order No. R-111-B to extend the Potash-Oil Area as set forth in said orders to include the following described acreage:

Township 18 South, Range 30 East, NMPM

Section 22: W/2 W/2

Section 27: N/2 NW/4

single space

(double space between townships)

Township 22 South, Range 30 East, NMPM

Section 13: SE/4 SW/4

Section 23: SE/4 and SE/4 NE/4

Section 24: W/2

Section 25: W/2

Section 26: E/2 W/2 and E/2

Section 35: E/2

Township 23 South, Range 30 East, NMPM

Section 2: S/2 and NE/4

(4) That the evidence presented indicates that the above-described acreage contains potash deposits in commercial quantities with the following exceptions: SE/4 SW/4 of Section 13; E/2 W/2 of Section 24; the E/2 W/2 of Section 25, all in Township 22 South, Range 30 East, and the NW/4 NW/4 of Section 27, Township 18 South, Range 30 East ~~NMPM, Eddy County, New Mexico.~~

~~all in Eddy County, New Mexico~~

(5) That to promote orderly development of the natural resources in the area, Order No. R-111-A as amended by Order No. R-111-B should be further amended to include the acreage in the Potash-Oil Area as proposed by the applicant with the above-mentioned exceptions.

IT IS THEREFORE ORDERED:

That Order No. R-111-A as amended by Order No. R-111-B be and the same is hereby further amended to include the following-described acreage within the confines of the Potash-Oil Area in Eddy County, New Mexico:

Township 18 South, Range 30 East

Section 22: W/2 W/2

Section 27: NE/4 NW/4

Township 18 South, Range 30 East, NMPM

Section 27: NW/4 NW/4

Township 22 South, Range 30 East, NMPM

Section 13: SE/4 SW/4

Section 14: E/2 W/2

Section 25: E/2 W/2

all in Eddy County, New Mexico

Township 22 South, Range 30 East, NMPM

Section 23: SE/4 and SE/4 NE/4

Section 24: W/2 W/2

Section 25: W/2 W/2

Section 26: E/2 W/2 and E/2

Section 35: E/2

Township 23 South, Range 30 East, NMPM

Section 2: S/2 and NE/4

DONE at .....

GILBERT, WHITE AND GILBERT
ATTORNEYS AND COUNSELORS AT LAW
BISHOP BUILDING
SANTA FE, NEW MEXICO

CARL H. GILBERT
L. C. WHITE
WILLIAM W. GILBERT
SUMNER S. KOCH
EDWIN E. PIPER, JR.

August 27, 1959

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

Re: OCC Case No. 278
Application of Duval Sulphur and Potash Company for extension of potash-oil area.

Dear Mr. Porter:

I am forwarding herewith copies of Texaco's leases Nos. 163970 and 163971 which the Commission requested at its hearing last August 13th.

With kindest personal regards, I am

Sincerely,

L. C. WHITE

LCW:LG
Enclosures

TEXACO
INC.
PETROLEUM PRODUCTS

DOMESTIC PRODUCING DEPARTMENT
MIDLAND DIVISION

P. O. BOX 3109
MIDLAND, TEXAS

August 20, 1959

Mr. L. C. White
Gilbert, White and Gilbert
Bishop Building
Santa Fe, New Mexico

Dear Mr. White:

Attached are copies of Texaco's leases No. 163970 and 163971. As you will recall, during the August 13 hearing of Duval Sulphur for an extension of the Potash Area in T-18-S, R-30-E, Mr. Porter asked for a copy of these leases to clarify my testimony that the leases were not considered as being held by production.

In rechecking with our Land Department, it was again stated that these leases are twenty-year leases with preferential right to renew. The leases are never considered to be held by production; however, any royalty payment may be applied toward the yearly rental.

I am sorry that the copies were not furnished sooner, but I have been out of the office for the past several days.

With kindest personal regards, I remain

Yours very truly,

J. E. Robinson, Jr.

J. E. Robinson, Jr.
Petroleum Engineer

JERjr-DL
Attach.

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- - -

4-208 e

"A" Lease

UNITED STATES

DEPARTMENT OF THE INTERIOR

GENERAL LAND OFFICE

(Sec. 14-13)

Serial Las Cruces 028978 (a)

Lease of Oil and Gas Lands Under the Act of February 25, 1920.

THIS INDENTURE OF LEASE, entered into, in triplicate, as of the 29th day of December, 1939, by and between the UNITED STATES OF AMERICA, party of the first part, hereinafter called the lessor, acting in this behalf by the Secretary of the Interior, and

Leo R. Manning, Rich R. Carter, Will Ed Carter, George L. Reese, Jr., and James W. Stagner, all of Carlsbad, New Mexico, and Gordon Wells of Artesia, New Mexico,

party of the second part, hereinafter called the lessee, under, pursuant, and subject to the terms and provisions of the act of Congress approved February 25, 1920, (Public No. [illegible]), entitled "An Act to Promote the Mining of Coal, Phosphate, Oil, Oil Shale, Gas, [illegible] on the Public Domain," hereinafter referred to as the act, which is made a [illegible], WITNESSETH:

[illegible] 1 Purpose. That the lessor in consideration of rents and royalties to be [illegible] covenants to be observed as herein set forth, does hereby grant and lease [illegible] the exclusive right and privilege to drill for, mine, extract, remove, and [illegible] the oil and gas deposits in or under the following-described tract of [illegible] the Loco Hills Area, New Mexico, and more particularly described as follows:

N½ NW¼, E½ Sec. 21, W½ W½ Sec. 22, N½ NE¼ Sec. 28, T. 18 S., [illegible]

N.M.P.M., containing 640 acres,

together with the right to construct and maintain thereupon all works, [illegible] waterways, roads, telegraph or telephone lines, pipe lines, reservoirs, [illegible] stations, or other structures necessary to the full enjoyment thereof, [illegible] twenty (20) years, with the preferential right in the lessee to renew this lease [illegible] successive periods of ten (10) years, upon such reasonable terms and conditions [illegible] prescribed by the lessor, unless otherwise provided by law at the time of the [illegible] of such periods.

"A" Lease

The lessee agrees to enter into and abide by any unit agreement for the development of the pool, field, or area embracing the lands included herein which may be [illegible] able to or prescribed by the Secretary of the Interior, and to be bound by the [illegible] prescribed in the regulations of April 4, 1932.

SEC. 2. In consideration of the foregoing, the lessee hereby agrees:

(a) Bond. To furnish a bond with approved corporate surety in the penal sum of $5,000, conditioned upon compliance with the terms of the lease.

(b) Wells. To maintain in a state of production wells equal in number to the number of the now existing producing wells on the leased land until the oil deposits are exhausted or until the proven territory has been drilled, and in case such existing wells are less than the number of 40-acre tracts or lots embraced in the lease, to proceed with reasonable diligence within three months of delivery hereof to install on the leased land a standard or other efficient drilling outfit and equipment, and to commence drilling at least one well and to continue such drilling with reasonable diligence to production or to a point where the well is demonstrated unsuccessful, and thereafter to continue drilling with reasonable diligence at least one well at a time until the lessee shall have drilled producing wells which, with any producing wells now on the land, equal in number the number of 40-acre tracts or lots embraced in the leased premises, unless the lessor shall for any reason deemed sufficient consent in writing to the drilling of a less number of wells; the lessee further agrees to drill all necessary wells to offset the wells of others on adjoining land or deposits not the property of the United States and on adjoining land operated under Government lease at 5 per cent royalty.

(c) Royalty and Rents. To pay the lessor in advance, beginning with the date of the execution of this lease, a rental of one dollar per acre per annum during the continuance hereof, the rental so paid for any one year to be credited on the royalty for that year, together with a royalty on all oil and gas produced from the land leased herein (except oil or gas used for production purposes on said land or unavoidably lost), as follows: Five percentum (5%):

(1) On gas and casing-head gasoline:

On gas, whether same shall be gas from which the casing-head gasoline has been extracted or otherwise, 5 per cent of the value thereof in the field where produced.

On casing-head gasoline, 5 per cent of the value of the casing-head gasoline extracted from the gas produced and sold, computed on the basis provided for in the [illegible] ing regulations.

The value in the field where produced, of gas and casing-head gasoline, for royalty purposes, unless such gas or casing-head gasoline is disposed of under an [illegible] sales contract or other method as provided in subdivision (d) of this section, shall be fixed by the Secretary of the Interior.

In cases where the gas produced and sold has a value both for casing-head content and as dry gas from which the casing-head gasoline has been extracted,

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[illegible] shall be paid on both of such values.

[illegible], such royalties shall be due and payable monthly on the 15th [illegible] following the calendar month in which produced, to the Register of [illegible] in which the land is situated; when paid in kind, such royalty oil shall [illegible] provided by the lessee on the premises where produced, unless otherwise [illegible] by the parties hereto, at such times as may be required by the lessor: [illegible] the lessee shall not be required to hold such royalty oil in storage longer [illegible] after the end of the calendar month in which said oil is produced: And [illegible] further, That the said lessee shall be in no manner responsible or held liable for [illegible] loss or destruction of such oil in storage from causes over which the lessee has no [illegible]; such royalties, whether in value or kind, shall be subject to reduction whenever the average daily production of any oil well shall not exceed ten (10) barrels per [illegible] in the judgment of the lessor the wells can not be successfully operated upon the [illegible] fixed herein.

(d) Sales contracts. To file with the Secretary of the Interior [illegible] sales contracts for the disposition of oil and gas produced hereunder except [illegible] purposes on the land leased, and in the event the United States shall [illegible] royalties in money instead of in oil or gas, not to sell or otherwise dispose of the products of the land leased except in accordance with a sales contract [illegible] approved by the Secretary of the Interior.

"A" Lease

(e) Monthly statements. To furnish monthly statements in detail [illegible] may be prescribed by the lessor, showing the amount, quality, and value of [illegible] produced and saved during the preceding calendar month as the basis [illegible] royalty due the lessor. The leased premises and all wells, [illegible] fixtures thereon or connected therewith and all books and accounts of the [illegible] be open at all times for the inspection of any duly authorized officer of the Department.

(f) Plats and reports. To furnish annually and at such times as the [illegible] shall require, in the manner and form prescribed by the Secretary of the Interior, a plat showing all development work and improvements on the leased [illegible] mation, with a report as to all buildings, structures, or other [illegible] said leased lands, accompanied by a report in detail as to the [illegible] depreciation, and cost of operation, together with a statement [illegible] oil and gas produced and sold, and the amount received therefrom [illegible].

(g) Log of wells. To keep a log in the form [illegible] the wells drilled by the lessee, showing the strata [illegible] through by the drill, which log, or copy thereof, shall [illegible] demand.

(h) Diligence--Prevention of waste--Health and safety [illegible] reasonable diligence in drilling and operating wells for the [illegible] leased hereby, while such products can be secured in paying quantities, unless consent [illegible] suspend operations temporarily is granted by the Secretary of the Interior, [illegible] operations hereunder in a good and workmanlike manner in accordance with approved methods [illegible] practice, having due regard for the prevention of waste of oil or gas [illegible] the entrance of water through wells drilled by the lessee to the oil sands [illegible] to the destruction or injury of the oil deposits, the preservation and [illegible] property for future productive operations, and to the health and safety of [illegible] employees; to plug securely any well before abandoning the same so as [illegible] all water from the oil or gas bearing strata; not to drill any well within

ILLEGIBLE

200 feet of any of the outer boundaries of the lands covered [illegible] lands have been patented or the title thereto otherwise vested in [illegible] duct all mining, drilling, and related productive operations subject [illegible] the lessor; to carry out at expense of the lessee all reasonable [illegible] of lessor relative to prevention of waste, and preservation of the prop[illegible] and safety of workmen, and on failure so to do the lessor shall have the [illegible] the property to repair damage or prevent waste at the lessee's cost; to abide [illegible] form to regulations in force at the time the lease is granted covering the [illegible] to in this paragraph: Provided, That the lessee shall not be held responsible [illegible] or casualties occasioned by causes beyond lessee's control.

(i) Taxes and wages--Freedom of purchase. To pay when due, all taxes [illegible] assessed and levied under the laws of the State upon improvements, oil, and gas [illegible] from the lands hereunder, or other rights, property, or assets of the lessee; to [illegible] all workmen and employees complete freedom of purchase, and to pay all wages due [illegible] and employees at least twice each month in the lawful money of the United States.

(j) Reserved deposits. To comply with all statutory requirements and regul[illegible] thereunder, if the lands embraced herein have been or shall hereafter be disposed of [illegible] under the laws reserving to the United States the deposits of oil and gas therein, subject [illegible] to such conditions as are or may hereafter be provided by the laws reserving such oil [illegible] gas.

(k) Assignment of lease. Not to assign this lease or any interest therein, [illegible] sublet any portion of the leased premises, except with the consent in writing of the [illegible] Secretary of the Interior first had and obtained.

(l) Deliver premises in cases of forfeiture. To deliver up the premises [illegible] with all permanent improvements thereon, in good order and condition in case of [illegible] of this lease; but this shall not be construed to prevent the removal, alteration, [illegible] renewal of equipment and improvements in the ordinary course of operations.

(m) Reserved or segregated lands. If any of the land included in this lease [illegible] embraced in a reservation or segregated for any particular purpose, the lessee shall [illegible] duct operations thereunder in conformity with such requirements as may be made by the [illegible] Secretary of the Interior for the protection and use of the land for the purpose [illegible] it was reserved or segregated, so far as may be consistent with the use of the land [illegible] purposes of this lease, which latter shall be regarded as the dominant use unless [illegible] provided herein or separately stipulated.

"A" Lease

SEC. 3. The lessor expressly reserves:

(a) Rights reserved—Easements and rights of way. The right to permit [illegible] or several use easements or rights of way, including easements in tunnels upon, [illegible] in the lands leased, occupied, or used as may be necessary or appropriate to the [illegible] of the same or of other lands containing the deposits described in said act, [illegible] treatment and shipment of products thereof by or under authority of the [illegible] lessees or permittees, and for other public purposes.

(b) Disposition of surface. The right to lease, sell, or otherwise [illegible] the surface of the lands embraced within this lease under existing laws or [illegible] enacted, in so far as said surface is not necessary for the use of the [illegible] traction and removal of the oil and gas therein, provided this [illegible] to any lands herein described, title to which has passed from the [illegible]

ILLEGIBLE

(c) Pipe lines to convey at reasonable rates. The right to require the [illegible] assignee or beneficiary, if owner or operator of, or owner of a controlling [illegible] any pipe line, or any company operating the same which may be operated access- [illegible] the oil derived from lands under such lease, to accept and convey at reasonable [illegible] and without discrimination the oil of the Government or of any citizen or company, [illegible] any pipe line, operating a lease or purchasing oil or gas under the pro- [illegible] act.

(d) Monopoly and fair prices. Full power and authority to carry out and en- [illegible] the provisions of section 30 of the act to insure the sale of the production of [illegible] leased lands to the United States and to the public at reasonable prices, to prevent [illegible], and to safeguard the public welfare.

(e) Helium. Pursuant to section 1 of the act, and section 1 of the act of [illegible] approved March 3, 1927 (44 Stat. 1387), as amended, the lessor reserves the owner- [illegible] and the right to extract, under such rules and regulations as shall be prescribed by the Secretary of the Interior, helium from all gas produced under this lease, but the lessee shall not be required to extract and save the helium for the lessor; in case the lessor elects to take the helium the lessee shall deliver all gas containing same, or portion thereof desired, to the lessor at any point on the leased premises in the manner required by the lessor, for the extraction of the helium in such plant or reduction works for that purpose as the lessor may provide, whereupon the residue shall be returned to the lessee with no substantial delay in the delivery of gas produced from the well to the pur- [illegible] thereof: Provided, That the lessee shall not, as a result of the operation in this paragraph provided for, suffer a diminution of value of the gas from which the helium has been extracted, or loss otherwise, for which the lessee is not reasonably compensated, save for the value of the helium extracted; the lessor further reserves the right to erect, maintain, and operate any and all reduction works and other equipment necessary for the ex- traction of helium on the premises leased.

SEC. 4. Surrender and termination of lease. The lessee may, on consent of the Secretary of the Interior first had and obtained in writing, surrender and terminate this lease upon payment of all rents, royalties, and other obligations due and payable to the lessor, and upon payment of all wages and moneys due and payable to the workmen employed by the lessee, and upon a satisfactory showing to the Secretary that the public interest will not be impaired; but in no case shall such termination be effective until the lessee shall have made full provision for conservation and protection of the property; upon like consent had and obtained the lessee may surrender any legal subdivisions of the area included herein.

SEC. 5. Purchase of materials, etc., on termination of lease. Upon the [illegible] of this lease, or the earlier termination thereof pursuant to the last preceding section, the lessor or another lessee may, if the lessor shall so elect within six months [illegible] the termination of the lease purchase all materials, tools, machinery, appliances, st- [illegible], and equipment placed in or upon the land by the lessee, and in use thereon as a [illegible] or useful part of an operating or producing plant, on the payment to the lessee [illegible] sum as may be fixed as a reasonable price therefor by a board of three appraisers, [illegible] shall be chosen by the lessor, one by the lessee, and the other by the [illegible] [illegible] such election all equipment shall remain in normal position. If the lessor, [illegible] lessee, shall not, within six months, elect to purchase all or any part of such [illegible], machinery, appliances, structures, and equipment, the lessee shall have [illegible] time, within ninety days, to remove from the premises all the materials [illegible]

ILLEGIBLE

tools, machinery, appliances, structures, and equipment which the lessee [illegible] elected to purchase, save and except casing in wells and other equipment [illegible] necessary for the preservation of the well or wells.

"A" Lease

SEC. 6. Judicial proceedings in case of default. If the lessee [illegible] comply with the provisions of the act, or make default in the performance of [illegible] any of the terms, covenants, and stipulations hereof, or of the general regulations promulgated and in force at the date hereof, and such default shall continue [illegible] of written notice thereof by the lessor, then the lessor may institute appropriate proceedings for the forfeiture and cancellation of this lease in accordance with the provisions of section 31 of said act; but this provision shall not be construed to prevent the exercise by the lessor of any legal or equitable remedy which the lessor might otherwise have. A waiver of any particular cause of forfeiture shall not prevent the cancellation and forfeiture of this lease for any other cause of forfeiture, or for the same cause occurring at any other time.

SEC. 7. Heirs and successors in interest. It is further covenanted and agreed that each obligation hereunder shall extend to and be binding upon, and every benefit hereof shall inure to, the heirs, executors, administrators, successors of, or assigns of the respective parties hereto.

SEC. 8. Unlawful interest. It is also further agreed that no Member of or Delegate to Congress, or Resident Commissioner, after his election or appointment, or either before or after he has qualified, and during his continuance in office, and that no officer, agent, or employee of the Department of the Interior, shall be admitted to any share or part in this lease or derive any benefit that may arise therefrom; and the provisions of section 3741 of the Revised Statutes of the United States, and sections 114, 115 and 116 of the Codification of the Penal Laws of the United States approved March 4, 1919 (35 Stat., 1109), relating to contracts, enter into and form a part of this lease so far as the same may be applicable.

IN WITNESS WHEREOF

Witnesses to signature of all Lessees:

Frances Fitzsimmons

Suelene Lazenty

Lois Morgan

THE UNITED STATES OF AMERICA,

By Oscar L. Chapman

Assistant (Secretary of the Interior.)

Rich R. Carter

Leo R. Manning

Will Ed Carter

George L. Reese, Jr.

James W. Stagner

Gordon Wells

FILED FOR RECORD ON THE 24th day of August, A. D. 1949, at 10:20 o'clock A. M.

Mrs R. A. Winston

Deputy

County Clerk.

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IN REPLY REFER TO:
LC 028978(a)
NM 033775
Oil and Gas
4.10b

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Land Office
P. O. Box 1251
Santa Fe, New Mexico

June 26, 1959

Texaco, Inc.
P. O. Box 3109
Midland, Texas

Gentlemen:

This responds to your letters of June 23 regarding the expiration dates of the above captioned oil and gas leases.

No drilling relief has been in effect on lease LC 028978(a) and the lease will expire on December 29, 1959.

Lease NM 033775 was created out of lease LC 028978(a) which contained the Sec. 2(b) restrictive drilling clause. The drilling restrictions were terminated November 29, 1941 and NM 033775 will therefore expire November 29, 1961.

Sincerely yours,

For the Land Office Manager

Howard M. Grotberg
Howard M. Grotberg
Chief, Minerals Adjudication Unit

163970

163971

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Land Office
P. O. Box No. 1251
Santa Fe, New Mexico

In Reply Refer To:
LC 028978-(b)
NM 033775

MAY 6 1957

163971

DECISION

Oil and Gas
Lease dated:
December 29, 1939

Assignor: Leo R. Manning, James W. Stagner, Gordor Wells, George L. Reese, Jr., Rich R. Carter, Will Ed Carter.

Assignment
Filed: July 15, 1955

Assignee: The Texas Company

Assignment approved.
Effective as of:
August 1, 1955

Partial Assignment Approved

The above-captioned partial assignment of noncompetitive oil and gas lease is hereby approved, effective on the first day of the lease month following the date of its filing.

Acceptable evidence of the qualifications and holdings of the assignee under the Mineral Leasing Act, as amended, has been filed. The showing as to overriding royalties and payments out of production conforms to the regulations. The partial assignment, the approved counterpart of which is herewith transmitted to the assignee, is identified by the above serial number. The number of the original lease is LC 028978-(b), dated December 29, 1939.

Land assigned, now NM 033775
T. 18 S., R. 30 E., NMPM
Sec. 21: SW¼
27: W½
28: E½NW¼, S½NE¼, S½
34: E½SW¼

Containing 1040 acres.

Land remaining under LC 028978-(b)
T. 18 S., R. 30 E., NMPM
Sec. 33: All
34: NW¼, W½SW¼

Containing 880 acres.

3.125% overriding royalty reserved as to E½SW¼ Sec. 21, W½ Sec. 27, E½NW¼, S½NE¼, S½ Sec. 28, E½SW¼ Sec. 34, Subject to the limitations contained in 43 CFR 192.83.

The Texas Company has a nation-wide bond on file.

Douglas E. Henriques
Manager

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UNITED STATES

DEPARTMENT OF THE INTERIOR

GENERAL LAND OFFICE

(Sec. 14-13)

SERIAL Las Cruces 028978 (b)

[illegible] Oil and Gas Lands Under the Act of February 26, 1920,

[illegible] in triplicate, on or before [illegible]

[illegible]

of Coal, Phosphate, Oil, Oil Shale, Gas, and Sodium on the Public Domain," [illegible] to as the act, which is made a part hereof, WITNESSETH:

SEC. 1. PURPOSES.--That the lessor in consideration of rents and [illegible] and the covenants to be observed as herein set forth, does hereby grant and [illegible] lessee the exclusive right and privilege to drill for, mine, extract, remove, [illegible] all the oil and gas deposits in or under the following-described tract of land [illegible] Loco Hills Area, New Mexico, and more particularly described as follows:

SW¼ Sec. 21, E½ NW¼, S½ NE¼, S½ Sec. 28, W½ Sec. 21, all Sec. [illegible] W½ Sec. 34, T. 18 S., R. 30 E., N.M.P.M., containing 1920 acres,

together with the right to construct and maintain thereupon all works, buildings, [illegible] waterways, roads, telegraph or telephone lines, pipe lines, reservoirs, tanks, [illegible] or other structures necessary to the full enjoyment thereof, for a period of [illegible] with the preferential right in the lessee to renew this lease for successive periods of [illegible] (10) years, upon such reasonable terms and conditions as may be prescribed by the [illegible] less otherwise provided by law at the time of the expiration of such periods. [illegible]

"B" Lease

(b) The lessee agrees to enter into and abide by any unit agreement for the development and operation of the pool, field, or area embracing the lands included herein which may be acceptable to or prescribed by the Secretary of the Interior, and to be bound by the stipulations prescribed in the regulations of April 4, 1932.

SEC. 2. In consideration of the foregoing, the lessee hereby agrees:

(a) BOND.--To furnish a bond with approved corporate surety in the penal sum of $5,000, conditioned upon compliance with the terms of the lease.

(b) WELLS.-- To drill and produce only such wells on the leased land as are necessary to offset drainage from the leasehold through wells on adjoining lands unless and until authorized in writing by the Secretary of the Interior to drill or produce additional wells [illegible] unless directed by said Secretary to drill and produce wells in number not greater than the number of 40-acre tracts or lots embraced in the lease; provided that, for each month during which loss of royalty occurs by reason of drainage from the leasehold through producing wells on adjoining lands or deposits not the property of the United States or leased by the United States at lesser royalty rates, and until the drainage causing such loss shall have been fully offset by producing wells on the leasehold, the lessee shall pay a sum estimated to reimburse the United States for current loss of royalty through drainage.

(c) ROYALTY AND RENTS.--To pay the lessor in advance, beginning with the date of the execution of this lease, a rental of one dollar per acre per annum during the continuance hereof, the rental so paid for any one year to be credited on the royalty for that year, together with a royalty on all oil and gas produced from the land leased herein (except oil or gas used for production purposes on said land or unavoidably lost), as follows:

(1) For all oil produced of 30° Baume or over:

On that portion of the average production per well not exceeding 20 barrels per day for the calendar month----------

On that portion of the average production per well of more than 20 barrels and not more than 50 barrels per day for the calendar month----------

On that portion of the average production per well of more than 50 barrels and not more than 100 barrels per day for the calendar month----------

On that portion of the average production per well of more than 100 barrels and not more than 200 barrels per day for the calendar month----------

On that portion of the average production per well [illegible] 200 barrels per day for the calendar month----------

ILLEGIBLE

(2) For all oil produced of less than 30° Baume:

On that portion of the average production per well not exceeding 20 barrels per day for the calendar month---------- 12 1/2 per cent.

On that portion of the average production per well of more than 20 barrels and not more than 50 barrels per day for the calendar month---------- 14 2/7 per cent.

On that portion of the average production per well of more than 50 barrels and not more than 100 barrels per day for the calendar month---------- 16 2/3 per cent.

On that portion of the average production per well of more than 100 barrels and not more than 200 barrels per day for the calendar month---------- [illegible] per cent.

On that portion of the average [illegible] per well of more than 200 barrels per day for the calendar [illegible] per cent.

Only wells which have a commercial [illegible] month shall be considered in ascertaining the average [illegible] the Interior shall determine what are [illegible]

"B" Lease

(3) On gas and [illegible]

[illegible] extracted [illegible] duced where the [illegible] leased [illegible] daily [illegible] gasoline [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

When paid in [illegible] calendar month [illegible] district in which the [illegible] ed in tanks provided [illegible] to by the parties [illegible] lessee shall not be [illegible] after the end of [illegible] That the [illegible] lessee [illegible] tion of any [illegible] shall [illegible] whether in value [illegible] of any oil well shall [illegible] the wells can not be successfully [illegible]

(d) SALE CONTRACTS. [illegible] contracts for the disposition of [illegible] on the land leased, [illegible] money instead of in oil [illegible] leased except in accordance with [illegible] Secretary of the Interior.

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(e) MONTHLY STATEMENTS.--To furnish monthly statements in detail in such form as prescribed by the lessor, showing the amount, quality, and value of all oil and gas produced and saved during the preceding calendar month as the basis for computing the royalty due lessor. The leased premises and all wells, improvements, machinery, and fixtures thereon or connected therewith and all books and accounts of the lessee shall be open at all times for the inspection of any duly authorized officer of the department.

(f) PLATS AND REPORTS.--To furnish annually and at such times as the Secretary shall require, in the manner and form prescribed by the Secretary of the Interior, a plat showing all development work and improvements on the leased lands, and other related information; and a report as to all buildings, structures, or other works placed in or upon said leased lands, accompanied by a report in detail as to the stockholders, investment, depreciation, and costs of operation, together with a statement as to the amount and grade of oil and gas produced and sold, and the amount received therefor by operations hereunder.

(g) LOG OF WELLS.--To keep a log in the form prescribed by the Secretary of all the wells drilled by the lessee, showing the strata and character of the ground passed through by the drill, which log, or copy thereof, shall be furnished to said lessor on demand.

(h) DILIGENCE--PREVENTION OF WASTE--HEALTH AND SAFETY OF WORKMEN.--To exercise reasonable diligence in drilling and operating wells for the oil and gas on the lands covered hereby, while such products can be secured in paying quantities, unless consent to suspend operations temporarily is granted by the Secretary of the Interior; to carry on all operations hereunder in a good and workmanlike manner in accordance with approved methods and practice, having due regard for the prevention of waste of oil or gas developed on the land, or the entrance of water through wells drilled by the lessee to the oil sands or oil-bearing strata to the destruction or injury of the oil deposits, the preservation and conservation of the property for future productive operations, and to the health and safety of workmen and employees; to plug securely any well before abandoning the

"B" Lease

same so as to effectually shut off all water from the oil or gas bearing strata; not to drill any well within 200 feet of any of the outer boundaries of the lands covered hereby, unless the adjoining lands have been patented or the title thereto otherwise vested in private owners; to conduct all mining, drilling, and related productive operations subject to the inspection of the lessor; to carry out at expense of the lessee all reasonable orders and requirements of lessor relative to prevention of waste, and preservation of the property and the health and safety of workmen, and on failure so to do the lessor shall have the right to enter on the property to repair damage or prevent waste at the lessee's cost; to abide by and conform to regulations in force at the time the lease is granted covering the matters referred to in this paragraph: PROVIDED, that the lessee shall not be held responsible for delays or casualties occasioned by causes beyond lessee's control.

(i) TEXAS AND WAGES--FREEDOM OF PURCHASE.--To pay when due, all taxes lawfully assessed and levied under the laws of the State upon improvements, oil, and gas produced from the lands hereunder, or other rights, property, or assets of the lessee; to accord all workmen and employees complete freedom of purchase, and to pay all wages due workmen and employees at least twice each month in the lawful money of the United States.

(j) RESERVED DEPOSITS.--To comply with all statutory requirements and regulations under, if the lands embraced herein have been or shall hereafter be disposed of under the reserving to the United States the deposits of oil and gas therein, subject to such conditions as are or may hereafter be provided by the laws reserving such oil or gas.

(k) ASSIGNMENT OF LEASE.--Not to assign this lease or any interest therein

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[illegible] of the leased premises, except with the consent in writing of the Secretary of [illegible] right had and obtained.

[illegible] DELIVER PREMISES in cases of forfeiture.--To deliver up the premises leased, with [illegible] improvements thereon, in good order and condition in case of forfeiture of [illegible] lease; but this shall not be construed to prevent the removal, alteration, or renewal [illegible] equipment and improvements in the ordinary course of operations.

(m) RESERVED OR SEGREGATED LANDS.--If any of the land included in this lease is embraced [illegible] conservation or segregated for any particular purpose, the lessee shall conduct operations thereunder in conformity with such requirements as may be made by the Secretary of the Interior for the protection and use of the land for the purpose for which it was reserved or segregated, so far as may be consistent with the use of the land for the purposes of this lease, which latter shall be regarded as the dominant use unless otherwise provided herein or separately stipulated.

SEC. 3, The lessor expressly reserves:

(a) RIGHTS RESERVED--EASEMENTS AND RIGHTS OF WAY.--The right to permit for joint or several use easements or rights of way, including easements in tunnels upon, through, or in the lands leased, occupied, or used as may be necessary or appropriate to the working of the same or of other lands containing the deposits described in said act, and the treatment and shipment of products thereof by or under authority of the Government, its lessees or permittees, and for other public purposes.

(b) DISPOSITION OF SURFACE.--The right to lease, sell, or otherwise dispose of the surface of the lands embraced within this lease under existing law or laws hereafter enacted in so far as said surface is not necessary for the use of the lessee in the extraction and removal of the oil and gas therein, provided this reservation shall not apply to any lands herein described, title to which has passed from the United States.

(c) PIPE LINES TO CONVEY AT REASONABLE RATES.--The right to require the lessee, his assignees or beneficiary, if owner or operator of, or owner of a controlling interest in, any pipe line, or any company operating the same which may be operated accessible to the oil derived from lands under such lease, to accept and convey at reasonable rates and without discrimination the oil of the Government or of any citizen or company, not the owner of any pipe line, operating a lease or purchasing oil or gas under the provisions of this act.

(d) MONOPOLY AND FAIR PRICES.--Full power and authority to carry out and enforce all the provisions of section 30 of the act to insure the sale of the production of such leased lands to the United States and to the public at reasonable prices, to prevent monopoly, and to safeguard the public welfare.

(e) HELIUM.--Pursuant to section 1 of the act, and section 1 of the act of Congress approved March 3, 1927 (44 Stat. 1387), as amended, the lessor reserves the ownership and the right to extract, under such rules and regulations as shall be prescribed by the Secretary of the Interior, helium from all gas produced under this lease, but the lessee shall not be required to extract and save the helium from the lessor; in case the lessor elects to take the helium the lessee shall deliver all gas containing same, or portion thereof desired, to the lessor at any point on the leased premises in the manner required by the lessor, for the extraction of the helium in such plant or reduction works for that purpose as the lessor may [illegible] thereupon the residue shall be returned to the lessee with no substantial delay in [illegible] gas produced from the well to the purchaser thereof: PROVIDED, That the [illegible] as a result of the operation in this paragraph

[illegible] of value of the gas from which the helium has been extracted

163971-A

ILLEGIBLE

or loss otherwise, for which the lessee is not reasonably compensated, save for the [illegible] of the helium extracted; the lessor further reserves the right to erect, maintain, [illegible] operate any and all reduction works and other equipment necessary for the extraction [illegible] helium on the premises leased.

SEC. [illegible] SURRENDER [illegible] TERMINATION [illegible] LEASE.--The lessee may, on consent of the Secretary of the Interior first had and obtained in writing, surrender and terminate this lease upon payment of all rents, royalties [illegible] other obligations due and payable to the lessor, and upon payment of all wages [illegible] due and payable to the workmen employed by the lessee, and upon a satisfactory [illegible] public interest will not be impaired, but [illegible] until the lessee shall have made full [illegible] such like consent had and obtained [illegible] included herein.

[illegible] SEC. [illegible] Upon the expiration of [illegible] last preceding section, the [illegible] within six months from the termination [illegible] buildings, structures, and [illegible] as a necessary or useful [illegible] lessee [illegible] such sum as [illegible] appraisers, one of whom shall [illegible] such [illegible] lessee, [illegible] tools, [illegible] machinery, [illegible] equipment, [illegible] from [illegible] lessor [illegible] and [illegible] practice [illegible] lessor [illegible] lessee. [illegible] thereof shall [illegible] respective [illegible] member [illegible] delegate to [illegible] either before or [illegible] office, and [illegible] no officer, agent, or [illegible] share or part in this [illegible] provisions of section 3741 of [illegible] 4 [illegible] 115 of the Codification [illegible] March [illegible] 35 Stat., 1109), relating [illegible]

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contracts, enter into and form a part of t is lease so far as the same may be applicable.

IN WITNESS WHEREOF

THE UNITED STATES OF AMERICA,

By Oscar L. Chapman
Assistant Secretary of the Interior.

Witnesses

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No. 29-59

DOCKET: REGULAR HEARING AUGUST 13, 1959

Oil Conservation Commission 9 a.m., Mabry Hall, State Capitol, Santa Fe, New Mexico

Allowable: (1) Consideration of the oil allowable for September, 1959.

(2) Consideration of the allowable production of gas for September, 1959, from six prorated pools in Lea County, New Mexico, also consideration of the allowable production of gas from seven prorated pools in San Juan, Rio Arriba and Sandoval Counties, New Mexico.

CASE 1668: (Rehearing)
In the matter of the rehearing requested by Phillips Petroleum Company for reconsideration by the Commission of Case No. 1668 which was an application for an order promulgating temporary special rules and regulations for the Ranger Lake-Pennsylvanian Pool and certain adjacent acreage in Lea County, New Mexico, to provide for 80-acre proration units. The rehearing will be limited to a brief and argument on the legal propositions raised in the petition for rehearing and their application to the facts heretofore presented in said case.

NEW CASES

CASE 278: Application of Duval Sulphur and Potash Company for an extension of the Potash-Oil Area as set forth in Order R-111-A. Applicant, in the above-styled cause, seeks an order extending the Potash-Oil Area as defined in Order R-111-A, to incluse additional acreage in Townships 18, 22 and 23 South, Range 30 East, Eddy County, New Mexico.

CASE 278: Application of United States Borax & Chemical Corporation for an extension of the potash-oil area as defined in Order No. R-111-A. Applicant, in the above-styled cause, seeks an extension of the potash-oil area as defined in Order No. R-111-A to include additional acreage in Townships 21 and 22 South, Ranges 29 and 30 East, NMPM, Eddy County, New Mexico.

CASE 1735: Application of The Ohio Oil Company for an order promulgating special rules and regulations for the Bluitt-Pennsylvanian Pool in Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks an order promulgating special rules and regulations governing the drilling, spacing and production of wells in the Bluitt-Pennsylvanian Pool in Roosevelt County, New Mexico, including the establishment of 80-acre spacing for wells in said pool. Applicant further seeks an exception from the proposed spacing requirements for a well to be drilled in the NE/4 of Section 20, Township 8 South, Range 37 East.

CASE 1736: Application of Texas Crude Oil Company for 80-acre spacing for its State H N Well No. 1, producing from an undesignated Atoka pool and located 660 feet from the South line and 1982 feet from the West line of Section 16, Township 11 South, Range 33 East, Lea County, New Mexico.

CASE 1737: Southeastern New Mexico nomenclature case calling for an order creating and extending existing pools in Eddy and Lea Counties, New Mexico.

(a) Create a new oil pool for San Andres production, designated as the Eagle Creek-San Andres Pool, and described as:

TOWNSHIP 17 SOUTH, RANGE 25 EAST, NMPM
Section 14: SE/4

(b) Create a new oil pool for San Andres production, designated as the Jenkins-San Andres Pool, and described as:

TOWNSHIP 9 SOUTH, RANGE 35 EAST, NMPM
Section 30: SE/4

(c) Create a new oil pool for Yates production, designated as the Maljamar-Yates Pool, and described as:

TOWNSHIP 18 SOUTH, RANGE 32 EAST, NMPM
Section 5: NE/4

(d) Create a new oil pool for Paddock production, designated as the North Paddock Pool, and described as:

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM
Section 2: Lots 1-2-7-8

(e) Create a new oil pool for Tansill production, designated as the Parallel-Tansill Pool, and described as:

TOWNSHIP 20 SOUTH, RANGE 31 EAST, NMPM
Section 25: NW/4

(f) Extend the Crosby-Devonian Gas Pool to include therein:

TOWNSHIP 26 SOUTH, RANGE 37 EAST, NMPM
Section 4: NW/4

(g) Extend the Empire-Abo Pool to include therein:

TOWNSHIP 18 SOUTH, RANGE 27 EAST, NMPM
Section 3: NW/4

(h) Extend the West Henshaw-Grayburg Pool to include therein:

TOWNSHIP 16 SOUTH, RANGE 30 EAST, NMPM
Section 2: Lots 11-12-13-14

(i) Extend the High Lonesome Pool to include therein:

TOWNSHIP 16 SOUTH, RANGE 29 EAST, NMPM
Section 13: NE/4 & SW/4
Section 14: SE/4
Section 15: SE/4

(j) Extend the Justis Blinebry Pool to include therein:

TOWNSHIP 25 SOUTH, RANGE 37 EAST, NMPM
Section 24: SW/4

(l) Extend the Justis McKee Pool to include therein:

TOWNSHIP 25 SOUTH, RANGE 38 EAST, NMPM
Section 30: NW/4

(m) Extend the Langlie Mattix Pool to include therein:

TOWNSHIP 23 SOUTH, RANGE 37 EAST, NMPM
Section 22: SW/4

(n) Extend the East Millman-Queen-Grayburg Pool to include therein:

TOWNSHIP 19 SOUTH, RANGE 28 EAST, NMPM
Section 11: SE/4
Section 15: SE/4

(o) Extend the Pearl-Queen Pool to include therein:

TOWNSHIP 19 SOUTH, RANGE 35 EAST, NMPM
Section 34: NW/4

(p) Extend the North Red Lake Queen Pool to include therein:

TOWNSHIP 16 SOUTH, RANGE 28 EAST, NMPM
Section 34: NW/4

(q) Extend the Shugart Pool to include therein:

TOWNSHIP 18 SOUTH, RANGE 31 EAST, NMPM
Section 34: NW/4

(r) Extend the Sawyer-San Andres Pool to include:

TOWNSHIP 9 SOUTH, RANGE 38 EAST
Sections 20, 21, 28, and 29: All

Contract the South Sawyer-San Andres Pool to delete:

TOWNSHIP 9 SOUTH, RANGE 38 EAST
Section 28: SW/4 SW/4

CASE 1738: Northwestern New Mexico nomenclature case calling for an order extending existing pools in San Juan and Rio Arriba Counties, New Mexico.

(a) Extend the West Kutz-Fruitland Pool to include therein:

TOWNSHIP 29 NORTH, RANGE 12 WEST, NMPM
Section 18: SW/4

(b) Extend the Aztec-Pictured Cliffs Pool to include therein:

TOWNSHIP 28 NORTH, RANGE 10 WEST, NMPM
Section 13: SW/4
Section 24: N/2

(c) Extend the South Blanco-Pictured Cliffs Pool to include therein:

TOWNSHIP 24 NORTH, RANGE 2 WEST, NMPM
Section 28: N/2

TOWNSHIP 25 NORTH, RANGE 5 WEST, NMPM
Section 29: S/2

TOWNSHIP 27 NORTH, RANGE 6 WEST, NMPM
Section 2: N/2

(d) Extend the Tapacito-Pictured Cliffs Pool to include therein:

TOWNSHIP 25 NORTH, RANGE 3 WEST, NMPM
Section 15: SW/4

(e) Extend the Otero-Chacra Pool to include therein:

TOWNSHIP 25 NORTH, RANGE 5 WEST, NMPM
Section 29: E/2

(f) Extend the Bisti-Lower Gallup Oil Pool to include therein:

TOWNSHIP 24 NORTH, RANGE 9 WEST, NMPM
Section 6: S/2

TOWNSHIP 24 NORTH, RANGE 10 WEST, NMPM
Section 1: SE/4

(g) Extend the Escrito-Gallup Oil Pool to include therein:

TOWNSHIP 24 NORTH, RANGE 7 WEST, NMPM
Section 19: NE/4 NE/4
Section 20: N/2
Section 21: N/2 & SE/4

(h) Extend the Gallegos-Gallup Oil Pool to include therein:

TOWNSHIP 26 NORTH, RANGE 11 WEST, NMPM
Section 14: All
Section 15: All
Section 16: E/2
Section 22: N/2
Section 23: N/2 & SE/4
Section 26: NE/4

(i) Extend the Horseshoe-Gallup Oil Pool to include therein:

TOWNSHIP 30 NORTH, RANGE 16 WEST, NMPM
Section 5: W/2 & SE/4
Section 9: E/2 SE/4
Section 11: N/2 SE/4 & SE/4 SE/4
Section 13: W/2 NW/4 & NW/4 SW/4

TOWNSHIP 31 NORTH, RANGE 16 WEST, NMPM
Section 20: SW/4 SE/4
Section 34: NW/4 NW/4

TOWNSHIP 31 NORTH, RANGE 17 WEST, NMPM
Section 25: NE/4 NW/4 & N/2 SE/4

(j) Extend the Otero-Gallup Oil Pool to include therein:

TOWNSHIP 24 NORTH, RANGE 6 WEST, NMPM
Section 2: NE/4

TOWNSHIP 25 NORTH, RANGE 5 WEST, NMPM
Section 27: NW/4 & N/2 SW/4

TOWNSHIP 25 NORTH, RANGE 6 WEST, NMPM
Section 35: E/2
Section 36: All

CASE 1749:

In the matter concerning purchaser prorationing by Indiana Oil Purchasing Company in certain oil pools in Lea County, New Mexico, which prorationing is necessitated by refinery strikes.

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

Supplement to Docket No. 29-59

CASE 1737: (k) Extend the Justis-Ellenburger Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 25 SOUTH, RANGE 38 EAST, NMPM
Section 30: NW/4

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

COPY

July 13, 1959

Reese, McCormick, Lusk and Paine
Attorneys-at-Law
Bujac Building
Carlsbad, New Mexico

Gentlemen:

This is to acknowledge receipt of your application for an extension of the Potash-Oil Area as set forth in Order No. R-111-A. This matter will be set for hearing before the Commission at the regular monthly hearing August 13, 1959.

Very truly yours,

OLIVER E. PAYNE
General Counsel

OEP/ir

REESE, MCCORMICK, LUSK AND PAINE
ATTORNEYS AT LAW
PUJAC BUILDING
CARLSBAD, NEW MEXICO

GEORGE L. REESE, JR.
DON G. McCORMICK
THOMAS E. LUSK
EUGENE C. PAINE

TELEPHONES
TUxedo 5-3144
TUxedo 5-3145

11 July 1959

OK for Contest Hearings

New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Re: Case No. 278

Gentlemen:

Enclosed in triplicate is Application of Duval Sulphur and Potash Company for an Order enlarging the potash-oil area as defined in Order No. R-111-A of the above numbered case. Will you kindly acknowledge receipt of this Application and advise when the matter will be set for hearing?

Very truly yours,

REESE, McCORMICK, LUSK & PAINE

BY Don G. McCormick
Don G. McCormick

DGM:sf

cc. Duval Sulphur and Potash Company

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

APPLICATION OF DUVAL SULPHUR & POTASH COMPANY FOR THE INCLUSION OF ADDITIONAL ACREAGE IN THE POTASH-OIL AREA AS DEFINED IN ORDER NO. R-111-A.

CASE NO. 278

APPLICATION

Comes now Duval Sulphur & Potash Company, Carlsbad, New Mexico, and states:

1. On October 13 1955, this Commission entered its Order No. R-111-A in this case, establishing the Potash-Oil Area. Thereafter and on 5 June 1959, this Commission issued its Order No. R-111-B in this case, enlarging said Potash-Oil Area.

2. Applicant desires to have certain lands in Eddy County, New Mexico added to said Potash-Oil Area as follows:

Township 18 South, Range 30 East, N.M.P.M., Eddy County, N.M.

Section 22	$W\frac{1}{2}W\frac{1}{2}$	160 acres
Section 27	$N\frac{1}{2}NW\frac{1}{4}$	80 acres

Township 22 South, Range 30 East, N.M.P.M.

Section 13	$SE\frac{1}{4}SW\frac{1}{4}$	40 acres
Section 23	$SE\frac{1}{4}$; $SE\frac{1}{4}NE\frac{1}{4}$	200 acres
Section 24	$W\frac{1}{2}$	320 acres
Section 25	$W\frac{1}{2}$	320 acres
Section 26	$E\frac{1}{2}$; $E\frac{1}{2}W\frac{1}{2}$	480 acres
Section 35	$E\frac{1}{2}$	320 acres

Township 23 South, Range 30 East, N.M.P.M.

Section 2	$E\frac{1}{2}$; $SW\frac{1}{4}$	480 acres
Total acreage		2,400 acres

3. Applicant is the owner of Federal and State potash leases and also Federal potash prospecting permits covering portions of the above described lands and also covering lands contiguous to the above described lands. Since the order issued herein on 13 October 1955, applicant has had core tests drilled on or adjacent to the above described lands which indicate that all, or a substantial portion of said lands, contain commercial potash reserves.