Case No.

225

Application, Transcript,
Small Exhibits, Etc.

Potash-Oil Area, Lea & Eddy Co. N.M.

AREA WEST OF USI MINE

Well No.	Date Completed	Ore Status Bed 2	Bed 2A	Bed 4
U-50	9-20-49	M	M	B
U-6	2-6-41	M	M	B
U-Bl.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

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
EXHIBIT No. 3
CASE 278

AREA EAST OF IMCC MINE

Well No.	Date Completed	Ore Status Bed 2	Bed 2A	Bed 4
U-22	2-19-46	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

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

COPY

September 4, 1959

Mr. James W. Stagner
105½ South Canyon Street
Carlsbad, New Mexico

Dear Mr. Stagner:

On behalf of your client, United States Borax & Chemical Corporation, we enclose two copies of Order No. R-111-D issued by the Oil Conservation Commission on September 3, 1959, in case No. 278.

Very truly yours,

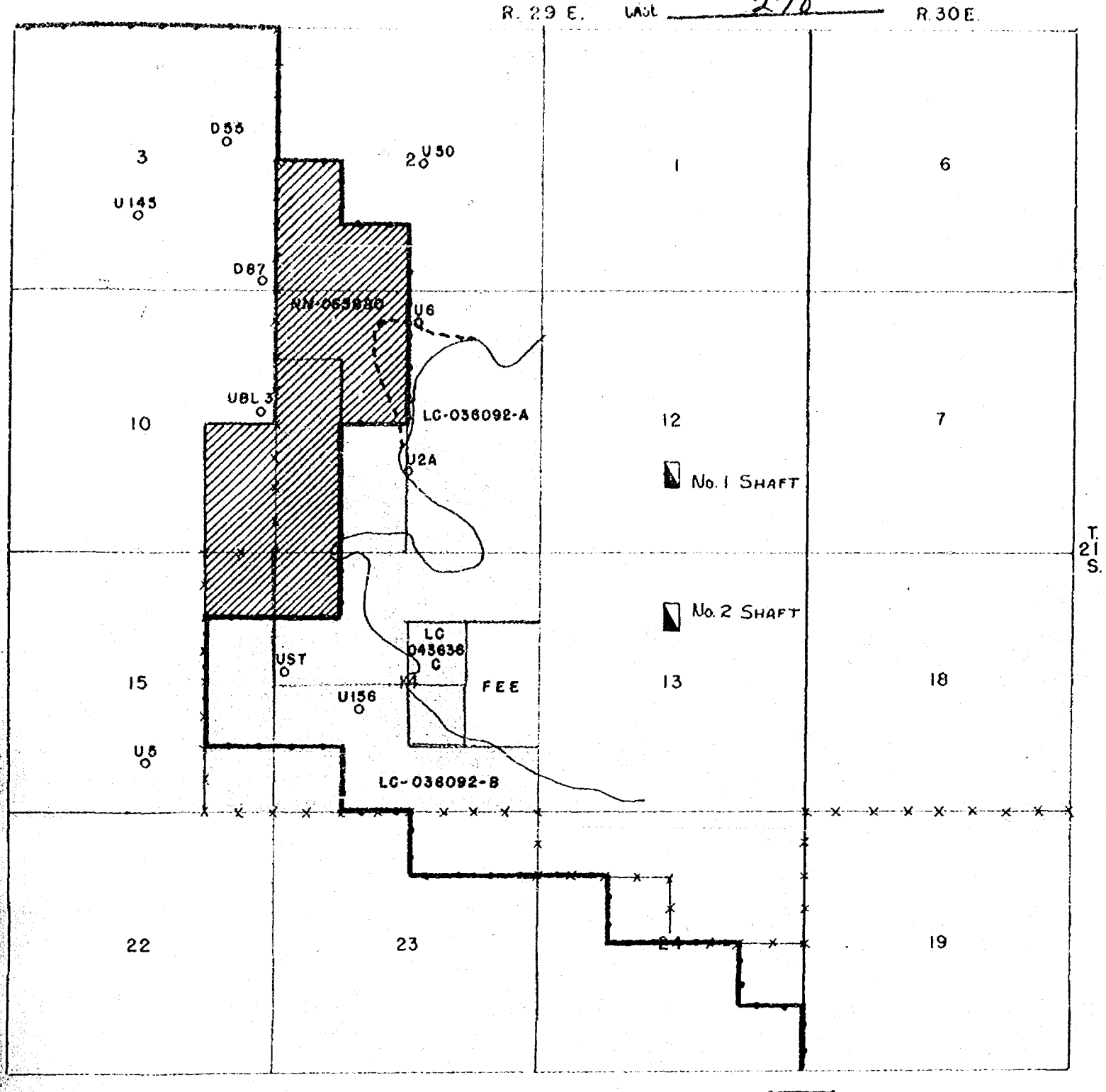
A. L. PORTER, Jr.
Secretary-Director

ir/

Enclosures

Copy to
Hinkle + Watson
9-4-59

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
Case EXHIBIT No. 2
CASE 278



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

POTASH - OIL LINE (R-111-A)

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

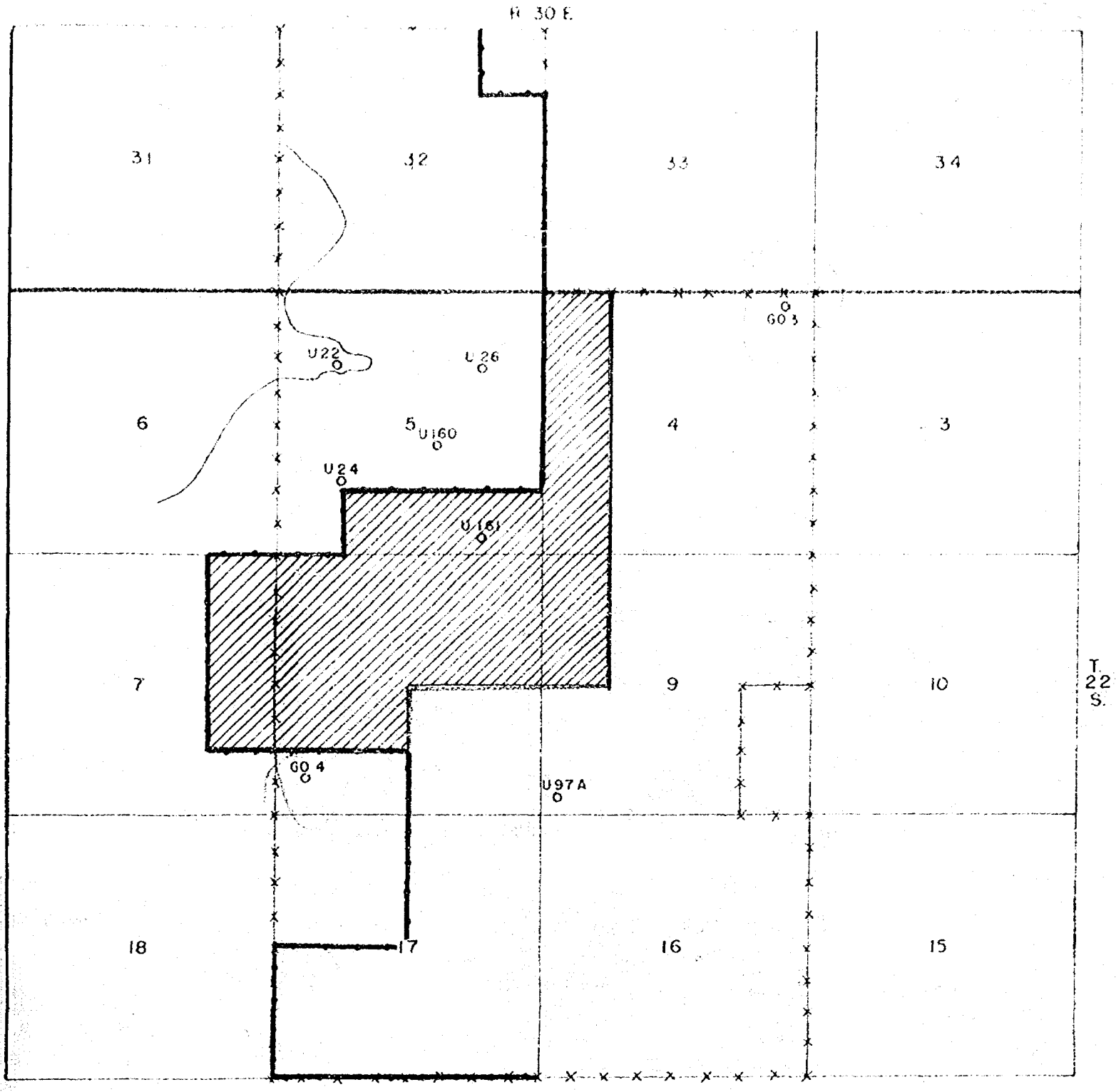
APPROX. PRESENT LIMIT OF OPEN MINE WORKINGS

PROPOSED MINE EXTENSION

M-651 STATE LEASE

FEDERAL LEASE

U87 CORE TEST



PROPOSED EXTENSION TO (R-111-A)

PRESENT (R-111-A) BOUNDRY

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

M-651 STATE LEASE

APPROX PRESENT LIMIT OF OPEN MINE

U26 CORE TEST

NEAL, NEUMANN AND NEAL
ATTORNEYS AT LAW
601 NORTH CANAL STREET - POST OFFICE BOX 709
CARLSBAD, NEW MEXICO

CASWELL S. NEAL
E. K. NEUMANN
CASWELL F. NEAL

TELEPHONES
TUxedo 5-2445
TUxedo 5-3513

12 August 1959

Oil Conservation Commission
State of New Mexico
Santa Fe, New Mexico

Gentlemen:

I have been authorized by International Minerals and Chemical Corporation of Carlsbad, New Mexico to join in the request of the United States Potash Company for an extension of the boundaries of commissioners Order R-11A to include within the area, excluded from oil and gas drilling,

> The east half of the northeast quarter of Section 7, Township 22 South, Range 30 East, and the northeast quarter of the southeast quarter of Section 7, Township 22 South, Range 30 East.

Yours very truly,

NEAL, NEUMANN and NEAL

By Caswell S. Neal
Attorneys for International Minerals & Chemical Corporation.

CFN:bc

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
EXHIBIT No. 4
228

Order
R-111-B
and all
Potash Companies

6-10-59

NEAL & NEAL
LAWYERS
NEAL BUILDING
HOBBS, NEW MEXICO

C. MELVIN NEAL
J. W. NEAL

TELEPHONE:
EXPRESS 3-5171
P. O. BOX 278

April 10, 1959

Oil Conservation Commission,
Santa Fe, New Mexico.

Gentlemen:

I enclose in triplicate Application of National Potash Company for extension of Potash-Oil Area defined in Commission Order No. R-111-A.

You will note we have applied in the Application for a hearing before the Commission, and have requested that this case be consolidated for the purpose of hearing with a similar Application filed by Farm Chemical Resources Development Company.

I will appreciate your advice as soon as possible as to when you anticipate the hearing will be set.

Please advise us of any additional information you require in connection with this application.

Very truly yours,

C. M. NEAL

N/ls
Encls.

BEFORE THE OIL CONSERVATION COMMISSION OF THE

STATE OF NEW MEXICO.

IN THE MATTER OF THE APPLICATION)
OF NATIONAL POTASH COMPANY FOR)
THE INCLUSION OF ADDITIONAL)
ACREAGE IN THE POTASH-OIL AREA)
DEFINED IN ORDER NO. R-111-A.)

A P P L I C A T I O N

COMES NOW National Potash Company, Box 731, Carlsbad, New Mexico, by its attorneys, Neal & Neal, Box 278, Hobbs, New Mexico, and makes application to the Oil Conservation Commission of the State of New Mexico, for the inclusion of the acreage hereinafter described in the Potash-Oil Area as defined and covered by the Commission's Order No. R-111-A, and in support of said Application states:

1. Applicant is the owner of Federal Potassium Leases and State Potash Leases covering the lands hereinafter described and covering other lands contiguous to the lands hereinafter described.

2. Applicant presently is operating a potash mine and refinery at a location in Section 18, Township 20 South, Range 32 East upon potash leases which are adjacent to the lands hereinafter described located in Townships 19 South, Ranges 31 and 32 East and in Township 20 South, Ranges 31 and 32 East. Applicant has core tested the lands hereinafter described in said townships and ranges, the inclusion of which is sought by this Application in the Potash-Oil Area as defined by Commission's Order No. R-111-A, and has ascertained by such core tests that such area is productive of potash and proposes to engage in the mining and

W.N.M.C.E. MICROGRAPHICS

refining of said potash from such lands.

3. That applicant is presently engaged in the construction of potash mining facilities in Section 25, Township 20 South, Range 29 East, upon potash leases owned by applicant adjacent to the lands hereinafter described in Township 20 South, Range 29 East, the inclusion of which in the Potash-Oil Area as defined and covered by Commission's Order No. R-111-A, is sought by this applicant in this application. Applicant has core tested the lands in said township and range, the inclusion of which in the Potash-Oil Area is sought by this Application, and has determined that said lands are productive of potash, and proposes to mine the potash therefrom.

4. That in order to prevent waste, protect correlative rights, and assure the maximum conservation and production of the oil, gas and potash resources of New Mexico, and in order to permit the economic recovery of such oil, gas and potash minerals in the lands hereinafter described, it is necessary, advisable and to the best interest of the state and all parties involved that the lands hereinafter described be included within the exterior boundaries of the Potash-Oil Area defined in Commission's Order No. R-111-A and subjected to the rules and regulations provided for such area. Provision for the inclusion of such acreage is made in Paragraph II (2) of the above described Order.

5. That applicant applies for the inclusion in the Potash-Oil Area as defined and covered by Commission's Order No. R-111-A, of the following described lands, to-wit:

W.N.M.C.F. MICROGRAPHICS

TOWNSHIP 19 SOUTH - RANGE 31 EAST
SECTION 36 - N½, SW¼;

TOWNSHIP 20 SOUTH - RANGE 31 EAST
Section 1 - W½ W½
Section 2 - All
Section 3 - All
Section 11 - N½, W½ SW¼
Section 14 - W½ NW¼

TOWNSHIP 19 SOUTH, RANGE 32 EAST
Section 33 - N½, W½ SW¼
Section 34 - N½

TOWNSHIP 20 SOUTH - RANGE 32 EAST
Section 4 - W½ NW¼
Section 5 - N½, SW¼, N½SE¼
Section 6 - NE¼, N½SE¼, SE¼ SE¼

TOWNSHIP 20 SOUTH, RANGE 29 EAST
Section 25 - S½ S½.

6. That a list of the persons and corporations who own existing oil and gas leases involved in the lands hereinabove described, application for the inclusion of which in the Potash-Oil Area is hereby made, so far as the same can be ascertained by applicant and so far as is known to applicant are shown in Exhibit "A" hereto attached and made a part hereof, the same as if set out in full herein, and such persons so far as known to applicant are the only parties interested in this Application other than the State of New Mexico and the United States of America.

7. That application has been made by Farm Chemical Resources Development Corporation, of Carlsbad, New Mexico, for inclusion in the area defined as the Potash-Oil Area by Commission Order No. R-111-A of certain lands located in Township 21 South, Range 31 East, N.M.P.M., Eddy County, New Mexico, and applicant requests that the application of National Potash Company and Farm Chemical Resources Development Corporation

be consolidated for hearing before the Commission, and that applicant be granted a hearing before the Commission upon this Application after due notice thereof, as provided by the rules and regulations of the Oil Conservation Commission.

WHEREFORE, applicant prays that the Commission set this matter for hearing before the Commission, and that the Commission give appropriate notice of such hearing as provided by its rules and regulations, and that upon a hearing hereof, the lands herein described be included in the Potash-Oil Area as defined and covered by Commission's Order No. R-111-A and subjected to the rules and regulations made applicable to the Potash-Oil Area by said Order.

NATIONAL POTASH COMPANY,

BY _____

C. M. Neal, 6f
NEAL & NEAL,
BOX 278,
HOBBS, NEW MEXICO.

(Attorneys for Applican).

N/1s

EXHIBIT "A"

NAME AND ADDRESS OF OIL AND GAS OWNERS AND LESSEES OF LANDS SOUGHT TO BE INCLUDED IN THE POTASH-OIL AREA DEFINED BY ORDER NO. R-111-A OF THE NEW MEXICO OIL CONSERVATION COMMISSION:

FEE OWNERS:

State of New Mexico:
Section 2, Township 20 South, Range 31 East;
W½, NE¼ of Section 36, Township 19 South, Range 31 East.

United States of America:

All lands described in the Application except those belonging to the State of New Mexico, supra.

OIL AND GAS LESSEES:

Howard W. Jennings,
Box 450, Roswell, New Mexico:

W½NW¼, Section 4, Township 20 South, Range 32 East.

Merrill L. Conally,
Route 3, Floreville, Texas:

W½NE¼, NW¼SE¼, Section 6, Township 20 South, Range 32 East.

BERTIE NOLAND Price,
Stratford, Texas:

N½SW¼ of Section 5; E½E½ of Section 6, Township 20 South, Range 32 East.

Argo Oil Corporation,
1700 Broadway, Denver, Colorado:

N½SE¼, NE¼SW¼, Section 5, Township 20 South, Range 32 East.

Leonard Oil Company,
Roswell, New Mexico:

N½, W½SW¼ of Section 33; N½ Section 34, Township 19 South, Range 32 East.

Malco Refineries, Inc.,
Box 1071, Midland, Texas:

NW¼ of Section 11; SE¼ of Section 3, Township 20 South, Range 31 East.

OIL AND GAS LESSEES:

Culbertson & Irwin,
Midland, Texas:

W½NE¼ of Section 3; NE¼, W½SW¼ of Section 11; S½SW¼ of Section 2, Township 20 South, Range 31 East.

Southern California Petroleum Corporation,
612 South Flower Street,
Los Angeles, California:

W½W½ of Section 30, Township 20 South, Range 31 East.

Richardson & Bass,
C/O Hervey, Dow & Hinkle,
Roswell, New Mexico,
and/or: Sid W. Richardson and Perry R. Bass,
Fort Worth National Bank Building,
Fort Worth, Texas:

W½W½ of Section 3; W½ NW¼ of Section 14; NW¼, W½NE¼, S½SE¼ of Section 2, Township 20 South, Range 31 East; N½, NE¼ SW¼ of Section 36, Township 19 South, Range 31 East.

Charles B. Gonzales,
Box 993, Santa Fe, New Mexico:

W½W½ of Section 1, Township 20 South, Range 31 East.

United States Smelting,Refining & Mining Company,
Midland, Texas:

S½SW¼, NW¼SW¼ of Section 36, Township 19 South, Range 31 East.

Skelly Oil Company,
Tulsa, Oklahoma:

N½S½ of Section 2, Township 20 South, Range 31 East.

Pan American Petroleum Company,
Hobbs, New Mexico:

W½NE¼ of Section 2, Township 20 South, Range 31 East.

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-B

APPLICATION OF FARM CHEMICAL
RESOURCES DEVELOPMENT CORPORATION
AND NATIONAL POTASH COMPANY FOR AN
AMENDMENT OF ORDER R-111-A TO
INCLUDE ADDITIONAL ACREAGE IN THE
POTASH-OIL AREA OF LEA AND EDDY
COUNTIES, NEW MEXICO

ORDER OF THE COMMISSION

BY THE COMMISSION:

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

NOW, on this 5th day of June, 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 applicants, Farm Chemical Resources Development Corporation and National Potash Company, are the owners of certain Federal and State potash leases in Townships 19, 20, and 21 South, Ranges 29, 31, and 32 East, NMPM, Lea and Eddy Counties, New Mexico.

(3) That the applicants seek an amendment of Order No. R-111-A to extend the Potash-Oil Area as set forth in said Order to include the following-described acreage:

TOWNSHIP 19 SOUTH, RANGE 31 EAST	
Section 36:	N/2 and SW/4
TOWNSHIP 19 SOUTH, RANGE 32 EAST	
Section 33:	N/2 and W/2 SW/4
Section 34:	N/2
TOWNSHIP 20 SOUTH, RANGE 29 EAST	
Section 25:	S/2 S/2

W.N.M.C.F. MICROGRAPHICS

TOWNSHIP 20 SOUTH, RANGE 31 EAST

Section 1:	W/2 W/2
Section 2:	All
Section 3:	All
Section 11:	N/2 and W/2 SW/4
Section 14:	W/2 NW/4

TOWNSHIP 20 SOUTH, RANGE 32 EAST

Section 4:	W/2 NW/4
Section 5:	N/2, SW/4 and N/2 SE/4
Section 6:	NE/4, N/2 SE/4, and SE/4 SE/4

TOWNSHIP 21 SOUTH, RANGE 31 EAST

Section 10:	E/2
Section 11:	All
Section 12:	SW/4 SW/4
Section 13:	W/2
Section 14:	All
Section 15:	E/2
Section 16:	W/2 SW/4
Section 17:	All
Section 18:	SE/4 NE/4, SE/4, and SE/4 SW/4
Section 19:	All
Section 20:	All
Section 21:	NW/4 NW/4, S/2 NW/4, and SW/4
Section 22:	E/2
Section 23:	N/2
Section 24:	NW/4
Section 27:	E/2 E/2 and NW/4 NE/4
Section 34:	E/2 NE/4 and SW/4 NE/4

(4) That the evidence presented indicates that the above-described acreage contains potash deposits in commercial quantities.

(5) That to promote orderly development of the natural resources in the area, Order No. R-111-A should be amended to include the above-described acreage in the Potash-Oil Area.

IT IS THEREFORE ORDERED:

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

TOWNSHIP 19 SOUTH, RANGE 31 EAST

Section 36:	N/2 and SW/4

TOWNSHIP 19 SOUTH, RANGE 32 EAST

Section 33:	N/2 and W/2 SW/4
Section 34:	N/2

U. N. M. O. E. MICROGRAPHICS

TOWNSHIP 20 SOUTH, RANGE 29 EAST

Section 25:	S/2 S/2

TOWNSHIP 20 SOUTH, RANGE 31 EAST

Section 1:	W/2 W/2
Section 2:	All
Section 3:	All
Section 11:	N/2 and W/2 SW/4
Section 14:	W/2 NW/4

TOWNSHIP 20 SOUTH, RANGE 32 EAST

Section 4:	W/2 NW/4
Section 5:	N/2, SW/4, and N/2 SE/4
Section 6:	NE/4, N/2 SE/4, and SE/4 SE/4

TOWNSHIP 21 SOUTH, RANGE 31 EAST

Section 10:	E/2
Section 11:	All
Section 12:	SW/4 SW/4
Section 13:	W/2
Section 14:	All
Section 15:	E/2
Section 16:	W/2 SW/4
Section 17:	All
Section 18:	SE/4 NE/4, SE/4, and SE/4 SW/4
Section 19:	All
Section 20:	All
Section 21:	NW/4 NW/4, S/2 NW/4, and SW/4
Section 22:	E/2
Section 23:	N/2
Section 24:	NW/4
Section 27:	E/2 E/2 and NW/4 NE/4
Section 34:	E/2 NE/4 and SW/4 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

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

COPY

June 5, 1959

Mr. Melvin Neal
Neal & Neal
P. O. Box 278
Hobbs, New Mexico

Dear Mr. Neal:

On behalf of your client, National Potash Company, we enclose a copy of Order No. R-111-B, issued June 5, 1959, by the Oil Conservation Commission in Case No. 273.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ir/

Enclosure

Copy sent to Mr. Seay

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

COPY

June 5, 1959

Mr. George L. Reese, Jr.
Bujac Building
Carlsbad, New Mexico

Dear Mr. Reese:

On behalf of your client, Farm Chemical Resources Development Corporation, we enclose a copy of Order No. R-111-B issued June 5, 1959, by the Oil Conservation Commission in Case 278.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Enclosure

Hole No.	Date Completed	Total Depth	Ore Beds								
			12th	10th	8th	7th	5th	4th	3rd	2nd	1st
F-43	1-18-54	1667'6"	X	M	M	M	X	X	X	M	X
F-52	9-13-54	1623'5"	X	C	M	X	M	M	M	M	X
FC-59	6-8-55	1757'9"	X	C	X	X					
63	10-9-55	1484'0"	X	M	M	M	X	M			
65	9-14-55	1669'0"	X	M	M	X	M	M	M*	M	X
66	10-24-55	1549'2"	X	C	M	M	M	M*	M	M	X
67	8-23-56	1848'6"	M	M	X	X	X	M	M	M	X
68	9-24-56	1644'0"	X	M	M	X	M	M	M	M	X
69	9-8-56	1562'6"	X	M	M	X	M	M	M	M	X
71	11-27-56	1910'0"	M	M	M	X	X	M	X	X	X
72	11-3-56	1972'6"	M	C	M	M	X	M	C	X	
73	12-17-56	2021'6"	M	C	M	M	X	C	C	M	X
76	8-20-57	1550'0"	X	M	M	M	X	M	M*	X	X
77	9-12-57	1270'0"	X	M	M	X	X	X	X	X	X
78	8-31-57	1240'0"	X	C	M	C	M	X	M*	M	
79	9-30-57	1173'6"	X	C	X	M	C	M	M	M	X

x Penetrated - Barren

C Penetrated and Commercial

M Penetrated and Mineralized

* Vanthoffite 66" 19% ($3Na_2SO_4 \cdot MgSO_4$)

* May be commercial mixed sulphates.

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
EXHIBIT No. 1
CASE 228

Exhibit 1

Hole No.	Ore Horizon	Height	Grade
F-52	10th	4'	15.4% K_2O as Sylvite
FC-59	10th	4'	13.9% K_2O (total)
FC-65	3rd	5.5'	19% Vanthoffite ($3Na_2SO_4MgSO_4$)
FC-66	10th	4.25'	15.2% K_2O as Sylvite
	4th	3'7"	8.11% K_2O as Langbeinite
FC-72	10th	4'0"	14.91% K_2O (total)
	3rd	4'0"	12.54% K_2O as Langbeinite
FC-73	10th	4'1"	14.64% K_2O as Sylvite
	4th	4'0"	8.73% K_2O as Langbeinite
	3rd	7'2"	13.16% K_2O as Langbeinite
FC-78	10th	4'0"	15.16% K_2O as Sylvite
	7th	4'0"	15.5% K_2O as Sylvite
FC-79	10th	4'3"	16.8% K_2O as Sylvite
	5th	5'8"	25.8% K_2O as Sylvite

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
EXHIBIT No. 2
CASE 975

Exhibit 2

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

OIL & GAS LESSEE ON ACREAGE TO BE REQUESTED
BY FCRDC FOR INCLUSION WITHIN R-111-A DESIGNATED AREA

T21S, R31E

Section 10:	$E\frac{1}{2}$	NM 04835	Elizabeth Ann Elliott, P. O. Box 1681 Santa Fe, N. Mex.
11:	$N\frac{1}{2}$	LC 070876)	Sid W. Richardson - Perry R. Bass
11:	$S\frac{1}{2}$	NM 03183(B))	404 West Illinois, Midland, Texas
12:	SWSW	NM 02189	Dorothy B. Perry, 3817 Crestwood Terrace Ft. Worth 7, Texas
13:	$NW\frac{1}{4}$	NM 066446	Hudson & Hudson, 1007 W. Dallas, Artesia, New Mexico
13:	$SW\frac{1}{4}$	NM 04225	Eugene H. Perry, 3817 Crestwood Terrace Ft. Worth 7, Texas
14:	$N\frac{1}{2}N\frac{1}{2}$)		
15:	$N\frac{1}{2}NE\frac{1}{4}$)	LC 071771(A)	Sid W. Richardson - Perry R. Bass
14:	$S\frac{1}{2}$, $S\frac{1}{2}N\frac{1}{2}$)		
15:	$S\frac{1}{2}NE\frac{1}{4}$, $SE\frac{1}{4}$)	NM 04383(B)	" " " " " "
16:	$W\frac{1}{2}SW\frac{1}{4}$	State E 7814	Gulf Oil Corporation, Wilkinson-Foster Bldg. Midland, Texas
17:	$SW\frac{1}{4}NE\frac{1}{4}$)		
	$N\frac{1}{2}SW\frac{1}{4}$)	State E 9339	Sunray Mid-Continent Oil Co., Wilco Bldg. Midland, Texas
	$SE\frac{1}{4}SW\frac{1}{4}$)		
17:	$SW\frac{1}{4}SW\frac{1}{4}$	State	Open
17:	$E\frac{1}{2}NE\frac{1}{4}$, $SE\frac{1}{4}$	NM 04383	Merrill L. Connally, Rt. 1, Floresville, Tex
17:	$W\frac{1}{2}NW\frac{1}{4}$	LC 062793(A)	Eugene H. Perry
17:	$NW\frac{1}{4}NE\frac{1}{4}$	LC 067852(A)	" " "
17:	$E\frac{1}{2}NW\frac{1}{4}$)		
20:	$SW\frac{1}{4}$)	LC 062793	Merrill L. Connally
18:	$SE\frac{1}{4}NE\frac{1}{4}$, $SE\frac{1}{4}$	State B-732	McRae Oil & Gas Co., 611 W. Texas, Midland
18:	$SE\frac{1}{4}SW\frac{1}{4}$)		Sun Oil Company, Midland Tower,
19:	$NE\frac{1}{4}$)	State E-9269	Midland, Texas
19:	$SE\frac{1}{4}$, $NW\frac{1}{4}$	LC 062727	Wayne W. Connally, P. O. Box 91 Floresville, Texas
19:	$SW\frac{1}{4}$	LC 062727(B)	Eugene H. Perry
20:	$N\frac{1}{2}NW\frac{1}{4}$, $SW\frac{1}{4}NW\frac{1}{4}$	State E-6293	Honolulu Oil Corporation, 204 West Illinois Midland, Texas
20:	$SE\frac{1}{4}NW\frac{1}{4}$	State	Open
20:	$N\frac{1}{2}NE\frac{1}{4}$	LC 067602	Eugene H. Perry
20:	$SE\frac{1}{4}NE\frac{1}{4}$, $SE\frac{1}{4}$)		Ewell H. Muse, Jr., 415 Perry Brooks Bldg.
21:	$SE\frac{1}{4}NW\frac{1}{4}$, $NE\frac{1}{4}SW\frac{1}{4}$)	NM 04382	Austin, Texas
20:	$SW\frac{1}{4}NE\frac{1}{4}$	NM 022999	Leonard Oil Co., P. O. Box 708 Roswell, New Mexico
21:	$NW\frac{1}{4}NW\frac{1}{4}$	LC 071771	H. H. Anderson, c/o Texas Hotel, Ft. Worth, Texas
21:	$S\frac{1}{2}SW\frac{1}{4}$	LC 070792	Eugene H. Perry
21:	$SW\frac{1}{4}NW\frac{1}{4}$, $NW\frac{1}{4}SW\frac{1}{4}$	NM 03497	Suniland Oil Corp. (33-1/3%) 1522 Oil & Gas Bldg., Ft. Worth, Texas) Wilshire Oil Co. of Texas (66-2/3%) 310 Leggett Bldg., Midland, Texas
22:	$NE\frac{1}{4}$, $S\frac{1}{2}SE\frac{1}{4}$	NM 04382(A)	Sid W. Richardson & Perry R. Bass
22:	$N\frac{1}{2}SE\frac{1}{4}$	LC 070792(A)	Sid W. Richardson & Perry R. Bass

EXHIBIT A

Section 23: $NW\frac{1}{4}$	LC 061640	Sid W. Richardson & Perry R. Bass
23: $NE\frac{1}{4}$)	LC 061640(A)	Wilshire Oil Co. of Texas - 66 2/3%
24: $NW\frac{1}{4}$)		Sunland Oil Corp. - 33 1/3%
27: $N\frac{1}{2}NE\frac{1}{4}$)		
34: $S\frac{1}{2}NE\frac{1}{4}$, $NE\frac{1}{4}NE\frac{1}{4}$)	LC 067052	Sid W. Richardson & Perry R. Bass
27: $SE\frac{1}{4}NE\frac{1}{4}$, $E\frac{1}{2}SE\frac{1}{4}$	NM 051517	Applications -*C. E. Stout, Jr. drew #1 F. J. Danglade drew #2 Lovington, New Mexico

*Stout's address believed to be Milam Building, San Antonio, Texas

EXHIBIT A

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

APPLICATION OF FARM CHEMICAL
RESOURCES DEVELOPMENT CORPORATION
FOR THE INCLUSION OF CERTAIN
ACREAGE IN THE POTASH-OIL AREA
AS DEFINED IN ORDER NO. R-111-A

CASE NO._____

A P P L I C A T I O N

Farm Chemical Resources Development Corporation of Box 870, Carlsbad, New Mexico, by its attorneys, Reese, McCormick, Lusk and Paine of Bujac Building, Carlsbad, New Mexico, makes application to the above named Commission for the inclusion of certain acreage hereinafter described in the potash-oil area as defined and covered by the Commission's Order No. R-111-A and in support of its application states:

1. Applicant is the owner of Federal potassium leases and State potash leases covering portions of the lands hereinafter described and covering lands lying contiguous to other portions of the lands hereinafter described and core tests drilled on or adjacent to the lands hereinafter described indicate that all of said lands contain commercial potash reserves.

2. Applicant is engaged in construction work, experimental work and other activities on its potash leases preparatory to engaging in the mining and refining of potassium and related minerals and in order to prevent waste, protect correlative rights and assure maximum conservation of the oil, gas and potash resources of New Mexico and in order to permit the economic recovery of oil, gas and potash minerals in the lands hereinafter described it is necessary and advisable that said hereinafter described lands be included within the exterior boundaries of the area described as the potash-oil area in the above numbered order. Provision for the inclusion of such acreage is made in paragraph II(2) of the above numbered order.

3. The description of the lands which applicant desires to have included in said potash-oil area is as follows:

T 21 S, R 31 E N.M.P.M. Eddy County

Section	10:	$E\frac{1}{2}$	320 acres
"	11:	All	640 acres
"	12:	$SW\frac{1}{4}$ $SW\frac{1}{4}$	40 acres
"	13:	$W\frac{1}{2}$	320 acres
"	14:	All	640 acres
"	15:	$E\frac{1}{2}$	320 acres
"	16:	$W\frac{1}{2}$ $SW\frac{1}{4}$	80 acres
"	17:	All	640 acres
"	18:	$SE\frac{1}{4}NE\frac{1}{4}$, $SE\frac{1}{4}$, $SE\frac{1}{4}SW\frac{1}{4}$	240 acres
"	19:	All	640 acres
"	20:	All	640 acres
"	21:	$NW\frac{1}{4}NW\frac{1}{4}$, $S\frac{1}{2}NW\frac{1}{4}$, $SW\frac{1}{4}$	280 acres
"	22:	$E\frac{1}{2}$	320 acres
"	23:	$N\frac{1}{2}$	320 acres
"	24:	$NW\frac{1}{4}$	180 acres
"	27:	$E\frac{1}{2}E\frac{1}{2}$, $NW\frac{1}{4}NE\frac{1}{4}$	200 acres
"	34:	$E\frac{1}{2}NE\frac{1}{4}$, $SW\frac{1}{4}NE\frac{1}{4}$	120 acres
			5940 acres

4. A list of the persons and corporations who own existing oil and gas leases covering portions of the lands last above described as set opposite their names and the addresses of such persons or corporations so far as the same are known to the applicant is attached to this application marked Exhibit A. Said list includes the names and addresses of all parties known to applicant who are interested in this application.

5. There is attached to this application and marked Exhibit B a plat showing the present boundaries of the potash-oil area which will be affected by this application. Said plat shows the Federal and State potassium and potash leases owned by applicant, the location of core tests drilled on or in the vicinity of the described lands which applicant desires to have included in the potash-oil area and the lands sought to be included are designated by appropriate legend.

6. Applicant is informed and believes that other potash companies in Eddy and Lea Counties, New Mexico, contemplate the filing of applications similar to this application concerning other lands which the respective companies may desire to have included in the potash-oil area and if this be done applicant requests that all of said applications be consolidated for hearing before the

Commission and in any event applicant desires a hearing before the Commission.

WHEREFORE APPLICANT PRAYS that the Commission set this matter for hearing before the Commission and that the Commission give appropriate notice of such hearing as provided by its rules and regulations.

REESE, McCORMICK, LUSK and PAINE

BY Geo. L. Reese Jr.
Geo. L. Reese, Jr.
Attorneys for Applicant
Bujac Building
Carlsbad, New Mexico

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE 278

TRANSCRIPT OF HEARING

MAY 13, 1959

DEARNLEY - MEIER & ASSOCIATES
GENERAL LAW REPORTERS
ALBUQUERQUE NEW MEXICO
Phone CHapel 3-6691

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

IN THE MATTER OF:

CASE 278 Application of Farm Chemical Resources Development Corporation and National Potash Company for an extension of the Potash-Oil Area as set forth in Order R-111-A. Applicants, in the above-styled cause, seek an order extending the Potash-Oil Area as defined in Order R-111-A to include additional acreage in Townships 19, 20, and 21 South, Ranges 29, 31, and 32 East, Lea and Eddy Counties, New Mexico.

BEFORE:

Mr. Murray Morgan
Gov. John Burroughs
Mr. A. L. Porter

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: We will proceed next to Case 278.

MR. PAYNE: Case 278. Application of Farm Chemical Resources Development Corporation and National Potash Company for an extension of the Potash-Oil Area as set forth in Order R-111-A.

MR. PORTER: Before we call for appearances in Case 278, I would like to announce that this is the last case that the Commission will start this afternoon. Other cases will be heard tomorrow at the Highway Commission Building.

At this time I would like to have appearances in Case 278.

MR. LUSK: T. E. Lusk of Reese, McCormick, Lusk &

Payne, appearing for Farm Chemical Resources Development Corporation.

MR. NEAL: C. M. Neal of Neal & Neal, appearing for National Potash Company.

MR. PAYNE: Mr. Lusk and Mr. Neal, how would you like to proceed here? As I understand it, each of the applicants has different acreage that they want included, so one of you will go first, and then the other one, is that how you are going to do it?

MR. LUSK: Yes. Mr. Hicks will be a witness for the applicant, Farm Chemical Resources Development Corporation.

(Witness sworn)

CHARLES HICKS

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

DIRECT EXAMINATION

BY: MR. LUSK:

MR. LUSK: May it please the Commission, the application which has been filed seeks no amendment or modification of Order No. R-111-A of this Commission with the exception of the inclusion of the additional acreage which is contained in the application, and which will be identified on the blown-up map which is a blow-up of the Exhibit attached to the application filed in connection with this case.

MR. PORTER: In other words, if the area is extended as the applicant requests, then the rules -- special rules included

in R-111-A would apply to this extended area?

MR. NEAL: That is true as to the Potash Company too.

Q (By Mr. Lusk) You are Charles Hicks, Carlsbad, New Mexico?

A Yes, sir.

Q An employee of Farm Chemical Resources Development Corporation, is that correct?

A Right.

Q That is a New Mexico corporation?

A Delaware corporation.

Q It is presently engaged in the preparation of or getting ready to produce potash from the leases that it has obtained in the area --

A Yes, sir.

Q -- shown here?

A Yes, sir.

Q We have tacked up a map there, Mr. Hicks, on the board. Would you show to the Commission the acreage -- first show the area that is included in the present potash oil lease area -- potash oil area.

A The red outlined area is the presently designated potash-oil area, according to Oil Conservation Commission Order R-111-A.

Q Now, the area which is in the pink represents what?

A That's our Federal lease.

Q Those are Federal leases that are held by your cor-

poration as lessee?

A That's right.

Q What is represented by the area which is shown in yellow?

A The yellow are State leases.

Q I see. Now, would you point out to the Commission the area which is sought to be included in the potash oil area?

A The dashed area here is what we are attempting to have included.

Q All of that area is contiguous to the present potash oil area?

A Yes, sir.

Q And is all of that land leased by your corporation?

A No, sir. Here, this area that isn't shaded but it is crosshatched is State land; belongs to United States Potash Company.

Q Leased by the United States Potash Corporation?

A Yes, sir. And on this side, this is Federal land that is not leased.

Q Why is it that you are asking that to be included in the area if it is not in your lease?

A We have offset holes or adjacent holes here that show commercial, and also on this side that show commercial ore.

Q So it is your intention, if it can be done, to produce potash from that area, is that correct?

A Yes, sir.

Q Now, in connection with the application that you filed, you have taken certain core tests, have you not?

A Yes, sir.

Q Those core tests, would you point them out, those that are pertinent to this area, and identify them by number, please?

A No. 59, 71, 72, 73, 67, 43, 52, 69, 66, 76, 77, 78, and 79.

Q Those have been -- core tests have been made between 1954 and 1957, is that correct? Date of completion?

A Yes, sir.

Q All right. Now, of those holes, were there some that did not show the presence of commercial potash?

A We had some holes that only showed mineralization, such as -- 71, 43, 76, 69, and 77 showed mineralization, but did not show commercial ore.

Q Now, would you point out to the Commission the location of the holes that core tests did reflect to have commercial ores?

A That had commercial ore, in 59, 72, 73, [illegible], 66, 78, and 79.

Q And those are intended to be mined by your company in connection with an orderly program?

A Yes, sir.

Q Your company has not yet begun production of potash

from any of its leases, has it?

A No, we haven't.

Q And -- however, it is your intention to begin that within a reasonable period of time?

A Yes, sir. We have one shaft down, and we plan to have a large scale pilot plant in construction this year.

Q It is in connection with the orderly development of your mining program that you seek to have these lands included and be afforded the protection that is given by Order R-111-A, is that correct?

A Yes.

Q The tests that were made, were they all under your supervision, Mr. Hicks?

A Yes, sir.

Q And the analysis of the ores by which you determined whether or not there was commercial potash, was that done under your supervision or at your request?

A At my request by competent chemists.

Q Some in the employ of others, and some in the employ of your company, is that correct?

A That is right.

Q They did disclose -- those reports did disclose the presence of commercial potash all the way?

A Yes, sir.

Q And you have prepared here, as Exhibit No. 1, a history

of the shot holes from which the core tests were taken which relate to this particular application, marked Exhibit 1, is that correct?

A Yes, sir.

Q And marked Exhibit 2, you have shown the results from the holes which you have mentioned as showing commercial potash, commercial ore as being present. You have marked that and shown what the chemical result -- chemical analysis result?

A That's true.

Q And that was compiled by you from information which you had and which you obtained from chemists, is that true?

A That's true.

MR. LUSK: We ask to introduce Exhibits 1 and 2, sir.

MR. PORTER: Are these all the Exhibits that you will offer?

MR. LUSK: They are all the Exhibits beyond the Exhibit which is attached to the application, Mr. Porter.

MR. PORTER: Is there objection to the admission of these Exhibits?

MR. NEAL: No objection.

MR. PORTER: It will be admitted in the record.

Q (By Mr. Lusk) The numbers of the holes which appear on Exhibits 1 and 2, which have just been introduced, also appear upon the Exhibit attached to the application, which is a small map showing the information which is on this larger map from which

you have been testifying, is that correct?

A That's true.

Q And you can find the hole numbers and the hole locations on the map, which is attached to the application?

A Yes, sir.

MR. LUSK: I would like to ask at this time, Mr. Porter, if it would be required to introduce the map again since it is attached to the application?

MR. PORTER: Since it is attached to the application and filed with the Commission, it will not be necessary for you to do so.

MR. LUSK: All right, sir.

Q (By Mr. Lusk) The lands which are sought to be included -- again, I would like to ask a question of the Commission's procedure for the purpose of saving time. The map to which was attached the application, shows the exact description of the acreage sought to be included. Would you wish to have these witnesses have that read into the record, or will it be satisfactory just to have it on the application?

MR. PAYNE: Are you sure that the acreage listed in the application, Mr. Lusk, is the entire acreage that you wish to be included?

MR. LUSK: Yes, sir.

MR. PORTER: Mr. Payne, off the record.

(Discussion off the record)

Q The description of the lands which by virtue of these tests you made you seek to be brought into the potash area, include the following: I will read them off, and I wish you would answer if that is correct or incorrect.

All of this is lying in Township 21 South, Range 31 East in Eddy County, New Mexico. Section 10: the E/2, consisting of 320 acres; Section 11: All, consisting of 640 acres; Section 12: SW/4 of the SW/4, 40 acres; Section 13: the W/2, consisting of 320 acres; Section 14: All, 640 acres; Section 15: the E/2, 320 acres; Section 16: W/2 SW/4, 80 acres; Section 17: All, 640 acres; Section 18, SE/4 NE/4, SE/4 SE/4 SW/4, 240 acres; Section 19, All; Section 20: All, both consisting of 640 acres. Section 21: NW/4 NW/4, S/2 NW/4 and SW/4, consisting of 280 acres; Section 22: the E/2, consisting of 320 acres; Section 23: the N/2, consisting of 320 acres; Section 24: the NW/4, consisting of 180 acres; Section 27: E/2, E/2 and the NW/4 NE/4, consisting of 200 acres, and Section 34: E/2 NE/4 and SW/4 NE/4, consisting of 120 acres, for a total acreage sought of 5,940 acres.

Is that the area which you seek to have included within the order?

A Yes, sir, it is.

Q You prepared and submitted to -- in accordance with the rules of the Commission -- to the Commission a list of all persons holding State and Federal leases, on the land sought to be included, is that correct?

A Yes, sir.

Q And that is from the information obtained from the State Land office, from the Federal Land office, is that correct?

A Yes, sir.

Q All of this land is State or Federal, is that correct?

A That is true.

Q You have read the application which has been filed?

A Yes, sir.

Q And I would ask you if allegations contained therein -- the statements contained therein, whether covered by this examination or not, are true and correct to the best of your knowledge?

A They are.

Q All right, sir.

MR. LUSK: That's all of this witness.

MR. PORTER: Any questions of the witness?

MR. PAYNE: Yes, sir.

CROSS EXAMINATION

BY MR. FISCHER:

Q I would like to ask on this acreage that you want included into R-111-A. Do you have knowledge of any oil wells that are now in existence on that acreage, on any of that acreage?

A There are none.

Q There are none?

A That is in operation. There are two abandoned holes there.

W.N.M.C.F. MICROGRAPHICS



MR. FISCHER: Thank you very much.

MR. PORTER: Mr. Payne?

QUESTIONS BY MR. PAYNE:

Q Mr. Hicks, I believe you testified that the potash in all of this acreage is, in your opinion, of commercial quantity, is that right, but that there is commercial quantity potash in this entire acreage?

A There are areas in there that are barren, probably, and some that have below commercial mineralization.

Q Would you hazard an estimate as to the average depth or average thickness of the potash bearing area?

A Four and a half feet, probably.

Q How much was that, sir?

A Four and a half feet.

MR. PAYNE: Thank you. That's all.

QUESTIONS BY MR. PORTER:

Q You testified that there might be barren areas or areas of non-commercial ore, but apparently, you believe that it will be necessary to take in all of the acreage requested here in order to get all of the commercial ore in the area?

A Yes, sir, true.

QUESTIONS BY MR. MORGAN:

Q This potasn lease then is not in conflict with the area sought to be included, other than that which you indicated, and which is not to be leased for potash?

not be leased for potash?

A There may be some State land that is not leased in there. I am not sure, but I believe so.

Q You determined the extent of the oil and gas leases in the State sections or the Federal sections from the Federal books?

MR. LUSK: Mr. Chairman, the information is contained on the Exhibit attached to the application, which he did not have.

A There are -- there is some open land. The SW/4 SW/4 of Section 17 is opened; it is State land.

Q (By Mr. Morgan) It is what kind of a lease?

A That's oil and gas, and also the SE of the NW, Section 20. I believe that's all, just those two.

MR. PORTER: Anyone else have a question of the witness?

QUESTIONS BY MR. NUTTER:

Q Mr. Hicks, it lingers in my memory that when the potash oil area was originally established and defined by the Commission that a certain cutoff point of so many feet of thickness and a certain percentage of solenoid or other ores was the cutoff point, and that was the defined cutoff area. This area that you ask as an extension today conforms with that previous criteria?

A That's the same feet we use, forty-four feet of eight percent K_2O.

Q And this extension today is the same cutoff point

that was previously established?

A Yes, sir, it is the same.

MR. PORTER: Any further questions? The witness may be excused.

MR. LUSK: Can I ask one question?

MR. PORTER: Yes. sir.

REDIRECT EXAMINATION

BY MR. LUSK:

Q With reference to the questions that have been asked about the areas that are barren in potash, it is not unusual to hit a barren area, but you have to go through it to get to a pay lode?

A That's true.

Q And the area that you have developed on the fringes demonstrated on the map and Exhibit do contain commercial ores, in your opinion, conforming to the standards set up at the time of this previous hearing?

A Yes, sir.

MR. LUSK: That's all.

MR. PORTER: If there are no further questions, the witness may be excused.

(Witness excused)

MR. NEAL: Mr. Billman, will you be sworn, please, sir?

(Witness sworn)

R. E. BILLMAN,

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

DIRECT EXAMINATION

BY MR. NEAL:

Q State your name, please.

A My name is R. E. Billman.

Q What do you do, Mr. Billman?

A I am a mining engineer for National Potash Company.

Q Are you registered in New Mexico?

A No, sir.

Q What college did you graduate from?

A I graduated from the University of Idaho.

Q National Potash has made an application for the inclusion in the Potash Area, as defined by R-111-A, of land in Township 19 South, Range 31 East; Section 36, N/2 and the SW/4. Township 20 South, Range 31 East, Section 1, W/2, W/2. Section 2, All. Section 3, All. Section 11, N/2 and W/2 SW/4. Section 14, W/2 and W/2 NW/4. Township 19 South, Range 32 East; Section 33 N/2 and W/2, SE/4. Section 34, N/2; Township 20 South, Range 32 East, W/2 NW/4; Section 5, N/2, SW/4, N/2, SE/4; Section 6, NE/4 N/2 SE/4 and SE/4 SE/4; Township 20 South, Range 29 East, Section 5, S/2 S/2.

Are you familiar with that application, and does that correctly describe the land that you desire to have included in --

W.N.M.C.F. MICROGRAPHICS



National Potash desires to have included in the Potash-Oil Area?

A Yes, sir.

(Whereupon, Exhibit No. 1 was marked for identification.)

Q I direct your attention to the map which has been identified as Exhibit 1, and ask you, first, in relation to the small area which appears on the right-hand side of the map. Is that in what you call the reserve area?

A Yes, sir, that's in what was established as the Government Potash reserve.

Q I believe, in order to explain the map -- the outline -- the lines marked red on the map are the lines for which an application for extension has been made?

A Yes, sir.

Q And they are the lands that we are seeking to have included in the Potash-Oil Area?

A Yes, sir.

Q Now, with respect to oil and gas leases on that land, has that been withdrawn by the Federal Government?

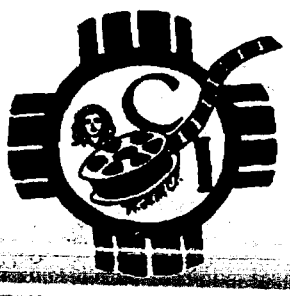
A Yes, sir, it has.

Q There are no leases on it?

A No, sir.

Q Has National Potash Company made core tests to determine whether or not the presence of commercial quantities of Potash exist on that area?

W.N.M.C.F. MICROGRAPHICS



A Yes, sir. We drilled twelve holes.

Q Now, the holes are marked on the map, I believe, and those pertinent to the examination have the footage and Potash content, as shown by your tests, is that right?

A Right.

Q Were most of those run under your supervision?

A Yes, sir. In this Eddy County reserve area, they were all done under my supervision.

Q And who made the company mechanical tests on them?

A They were done by a chemist in our own company and by a chemist of our -- with which National Potash was involved.

Q Is the chemist for National Potash to be available as a witness, if necessary?

A Yes, sir.

Q Do those show the presence of commerical quantities of K_2O there?

A Yes, sir. The holes in question, some of them show commercial quantities, and the others are, show mineralized beds not quite commerical.

Q In your opinion, is the extension necessary to properly and orderly mine?

A Yes, sir.

Q Does National Potash have a lease?

A Yes, sir, it does.

Q I believe theyare presently engaged in sinking a

W.N.M.C.F. MICROGRAPHICS



shaft, an additional shaft in this same section, is that right?

A Actually, sinking hasn't started yet, but they are in the process of --

Q The contract has been signed?

A The contract has been signed, yes.

Q Now, on the other area, National Potash is in production, right?

A Yes, it is.

Q How long have they been in production?

A They have been in production since February, 1957.

Q And the square on the map is the site of the shaft from which you are producing ore?

A This patterned area here is the plat site area.

Q That is in Section --

A Section 18, --

Q Section 18, --

A -- 20, 32.

Q Now, the test holes that have been drilled in the areas for which extension is sought on this other part of the map, indicate the presence of Potash in commercial quantities in those areas?

A Yes, sir.

Q Those are limited on the map and show where commercial quantities exist?

A Yes.

Q What is the measuring stick you use for commercial quantity?

A We use the standard set forth for the -- we use four feet of fourteen percent K_2O.

Q In your opinion, all of this area from the examination that you made, have commercial quantities of Potash and minerals?

A The entire area, I can't say that it does contain commercial quantities of ore. However, the core tests which we have drilled and which have proven to include quantities of commercial ore, outline and delineate an area which we have taken under lease and maintained leases, and intend to mine in such a manner that these areas that would not be commercial you would have to have accessibility to the entire section in order to get all the commercial ore.

Q In your opinion, is it necessary for the safe and orderly mining of this area for the Potash mining oil area to be extended to include it?

A Yes, sir.

Q Does National Potash hold potash leases on the entire area?

A Yes, sir, they hold Federal and State leases.

Q And have they provided the Commission with a list of the owners of oil and gas leases?

A Yes, sir.

Q Do you know of any oil production now existing in that area?

A I know of two wells that are drilled in that area. I don't know whether or not they are producing at the present time.

MR. NEAL: That's all. We desire to introduce in evidence Exhibit 1.

MR. PORTER: Without objection, Exhibit 1, National Potash Company, will be admitted.

(Whereupon, National Potash Company's Exhibit 1 was received in evidence.)

MR. PORTER: Does anyone have a question of Mr. Billman?

CROSS EXAMINATION

BY MR. PAYNE:

Q Could you give us the location of those two oil wells in the area, sir?

A I cannot give you the exact location. I can point them out on the map to you.

Q All right, sir. Could you draw a circle in there with a pencil wherever they are, approximately?

A To the best of my knowledge, a well was drilled by the Leonard Oil Company in Section 34 of 19, 32, in the southern half of the Section, which was on the Potash lease. And another well was drilled by Texas Oil Company in, to the best of my knowledge, Section 25, which is outside of our lease area but within one mile of the area. However, I don't know whether or not either

of these wells are producing.

MR. NEAL: They were drilled some time ago, were they not?

A Yes, sir.

MR. PORTER: Does anyone else have a question? The witness may be excused.

(Witness excused)

MR. NEAL: That's all, unless the Commission desires us to put the chemist on.

MR. LUSK: A moment ago I failed to, in my search for speed, failed to qualify Mr. Hicks for the testimony which he gave. I would like to at this time.

MR. PORTER: Suppose you recall Mr. -- we will excuse this witness and call Mr. Hicks.

CHARLES HICKS

recalled as a witness, having been previously duly sworn, on oath, testified as follows:

DIRECT EXAMINATION (Continued)

By MR. LUSK:

Q Mr. Hicks, you previously stated that you were a geologist employed by the Farm Resources Development Corporation, is that correct? A Yes, sir.

Q Would you state to the Commission what your background as a geologist is and your training and so on?

A Yes, sir. I graduated from Texas Technological College

in Lubbock in 1940 with a B. S. degree in geology. The same year I went to work for the International Minerals and Chemical Company, worked with them until 1952. I worked as junior engineer and geologist. While working as a geologist, I conducted explorations and calculations on ore reserves. At that time I went to work for this project that we are talking about now, which at that time was being operated by National Farmers Union. I conducted exploration and ore reserve calculations, worked for them until March of '55. Kerr McGee Oil Industries at that time became independent and took over as operators. I worked for them as a geologist until May of '56 doing the same type of work, and then Farm Chemical Resources Development Corporation was formed, and I was handed down to them as geologist. We continued our drilling and explorations and we are still in that process.

MR. LUSK: All right, sir. You have been connected with this development, in effect, since 1952, then, is that correct?

A That's right.

Q And you have conducted tests of this type both for International Minerals and Chemicals Corporation and for the other employers which you have detailed?

A That is true.

MR. LUSK: Any questions?

MR. PORTER: No, we have no questions. The witness' qualifications are acceptable to the Commission. Although Mr. Neal didn't request acceptance of his witness' qualifications, they are

noted in the record and are acceptable.

Anyone have any further statements to make in this case, any statements or comments? 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 26th day of May, 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

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

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

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-D

& APPLICATION OF UNITED STATES BORAX
AND CHEMICAL CORPORATION 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:

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on August ~~19~~ 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,

~~This cause came on for hearing at ____ o'clock a.m. on ____, 1959, at Santa Fe, New Mexico, before ____, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.~~

~~NOW, on this ____ day of ____, 1959, the Commission, a quorum being present, having considered the application the evidence adduced, and the recommendations of the Examiner, ____, and being fully advised in the premises,~~

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

W.N.M.C.E. MICROGRAPHICS

BEFORE THE

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

- - - -

TRANSCRIPTION OF HEARING

CASE NO. 278

10 July, 1951
(Date)

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

Case 278: (Continued from the June 21, 1951, hearing.)

BEFORE: Hon. Ed. L. Mechem, Chairman
Hon. R. R. Spurrier, Member

R E G I S T E R:

Dwight H. Blackard, New Mexico Miners Association, Albuquerque, N. M.

G. R. Griswold, Mining Engineer, Albuquerque, N. M.

Homer Dailey, Continental Oil Co., Midland, Texas.

M. A. Sherwood, Shell Oil Co., Midland, Texas.

G. E. Cameron, Humble Oil & Refining Co., Houston, Texas.

J. W. House, do. do. , Midland, Texas.

Emery Carper, Carper Drilling Co., Artesia, N. M.

W. M. Jones, Stanolind Oil & Gas Co., Lubbock, Texas.

Ralph L. Gray, Buffalo Oil Co., Artesia, N. M.

Harvey E. Yates, do. do. do. do.

H. S. Cave, Phillips Petroleum Co., Roswell, N. M.

S. B. Christy, Sun Oil Co., Roswell, N. M.

E. L. Shafer, Continental Oil Co., Hobbs, N. M.

Charles C. Lawless, Jr., New Mexico Oil & Gas Association, Roswell, N. M.

F. O. Davis, Potash Company of America, Carlsbad, N. M.

T. M. Cramer, U. S. Potash Co., Carlsbad, N. M.

Oliver Seth, U. S. Potash Co., Santa Fe, N. M.

G. C. Weaver, Duval Sulphur & Potash Co., Carlsbad, N.M.

W. R. Morris, do. do. do.

H. L. Gardner, International Minerals & Chemical Corp., Carlsbad, N. M.

J. E. Hill, Richardson and Bass, Fort Worth, Texas.

R. M. Steinart, Southwest Potash Corporation, Carlsbad, N. M.

Claude E. Upchurch, Gulf Oil Corporation, Fort Worth, Texas.

Foster Morrell, U.S.G.S., Roswell, N. M.

R. S. Fulton, U.S.G.S., Carlsbad, N. M.

R. H. Allport, U.S.G.S., Carlsbad, N. M.

R. L. Boss, Gulf Oil Corporation, Roswell, N. M.

P. D. Grommon, Jr., The Texas Co., Fort Worth, Texas.

G.R. Brown, The Texas Co., Midland, Texas.

Harve H. Mayfield, Magnolia Petroleum Co., Midland, Texas.

E. E. Kinney, New Mexico Bureau of Mines, Artesia, N. M.

Glenn Staley, New Mexico Oil and Gas Engineering Committee, Hobbs, N. M.

Justin Newman, O.C.C., Artesia, N. M.

George W. Selinger, Skelly Oil Co., Tulsa, Okla.

Jack M. Campbell, Richardson and Bass, Roswell, N.M.

L. C. White, O.C.C., Santa Fe, N. M.

George Graham, O.C.C., Santa Fe, N. M.

MR. SPURRIER: The meeting will come to order, gentlemen. This is a continuation from the last hearing of this case. And I believe that Judge Seth, or an attorney representing the potash people, were to put their case on at this time.

MR. CAMPBELL: Mr. Commissioner, it might be a little more orderly -- we have a few suggested changes in the casing program that was submitted the last time. And in order to complete our presentation, it might be proper for us to make those suggested changes at this time so that the potash people know what we have in mind. If we could just put Mr. Hill back on again, and have him get into the record those changes, and then go ahead with the potash presentation.

MR. SPURRIER: Is that agreeable with the potash people?

A VOICE: Yes.

J. E. HILL, having been sworn at the prior hearing on June 21, 1951, testified as follows:

DIRECT EXAMINATION BY MR. CAMPBELL:

MR. SPURRIER: You are reminded you have been sworn, Mr. Hill.

MR. HILL: Yes, sir.

Q (By Mr. Campbell) You are Mr. J. E. Hill? ---A. Yes, sir.

Q Employed by Richardson and Bass, Fort Worth, Texas? ---A. Yes, sir.

Q You previously testified in this hearing? ---A. Yes, sir.

Q At the time you testified previously, Mr. Hill, I believe you put into the record Exhibit A, which was a casing program suggested by a subcommittee of the New Mexico Oil and Gas Engineering Committee, is that correct? ---A. That is correct, sir.

Q And since that hearing do you have any suggestions to make as to proposed changes in that suggested casing and cementing program shown as Exhibit A in the record here? ---A. We have, sir.

Q Would you state to the Commission for the record what those changes are? ---A. In Exhibit A, par. 4 of the No. 1 section, title "Subsurface Casing String", we propose the following change to be made, and that par. 4 begin with the following sentence: "This casing string shall be tested with a hydraulic pressure of 600 lbs psi. If a drop of 100 lbs psi or more should occur within 30 minutes, corrective measures should be applied." That is our recommended 4th paragraph under Section 1. And in doing that we have deleted any reference to cable tools and the testing of a string under a cable-tool method.

Under Section 2, title "Salt Protection String", we propose that the first word of par. 1 be changed to "a", to read, "A salt protection string shall be set at least 100 ft. and not more than 200 ft. below the base of the salt section. This string may consist of new, secondhand, or reconditioned pipe. New pipe shallhave received a mill test of not less than 1,000 lbs psi; secondhand and reconditioned pipe shall be retested to 1,000 lbs psi before being run." We also propose that par. 2, which is a single sentence, be changed to read as follows: "Centralizers shall be used on at least every 150 ft. of casing below the surface casing." This change was made at the instance of a telegram that was received at the last hearing which called for a definite distance between centralizers on the salt protection string. Par. 3 of Section 2 will be the same for the first sentence. The parentheses sentence and the third sentence. We propose to change the fourth sentence of that paragraph to read as follows: "If the cement fails to reach the surface, the top of the cement shall be located by a temperature or gamma ray survey; and additional cement jobs done until cement is brought to the surface."

Q Will you state the reason for that? ---A. The reason for that change was that if we did have full circulation under the previous written rule there would be no reason to run a gamma ray or temperature survey, and this just clarifies the responsibility if the cement does fail to reach the surface.

Q Isn't it true it gives the operator some option as to the method he shall use in seeing it does reach the surface? ---A. That's right.

We propose the fifth sentence be deleted from the original third paragraph to read as follows -- be deleted and this

sentence inserted, "The Oil Conservation Commission shall be furnished with proof that the salt string is cemented to the surface; either by having a Commission representative witness the job or by affidavits or logs filed with the Commission."

In par. 4 of Section 2 we propose to eliminate the first two sentences and substitute this sentence, "This casing string shall be tested with a hydraulic pressure of 1,000 lbs psi." The third sentence shall remain as written; which is, "If a drop of 100 lbs psi or more should occur within thirty minutes, corrective measures shall be applied." We propose to delete the next sentence, which begins with, "If cable tools are used ....."

Section 3, "Intermediate String." We propose to introduce the first paragraph with this portion of a sentence, "If the operator runs an intermediate string, this string may be a drilling protection string for deep drilling objectives or may be an oil string for testing medium depth zones."

This sub "a" under par. 3, the first sentence is to be left as written and the next sentence deleted, and this substitute sentence added, "The operator shall furnish proof to the Oil Conservation Commission that this cementing requirement has been fulfilled, either by having a representative of the Commission witness the job or by affidavits or logs filed with the Oil Conservation Commission." And this sentence shall be added -- these two sentences are to be added under subsection "a" of this Section 3 -- "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. Casing shall be tested with a hydraulic pressure of 1,000 lbs. psi. If a drop of 100 lbs psi or more should occur within 30 minutes, corrective measures shall be applied."

Sub-paragraph "b" under Section 3. The first sentence of "b" shall read the same; with the addition at the end of the sentence of this statement, "... and the Oil Conservation Commission satisfied that this requirement has been fulfilled either by a representative of the Commission witnessing the job or by affidavits or logs filed with the Commission. Cement time and testing rules shall apply similarly in the case of this string as is written for the above string." The last sentence of sub-par. "b" under 3 is deleted.

Sec. 4, " Oil and Production Strings (deep wells)" There

is no change in this section with the exception that the following sentence is recommended to be added: "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."

Section 5, "Drilling Fluid for Salt Section," remains the same.

Q Mr. Hill, are these suggested changes concurred in by the members of the subcommittee who formed the original suggestions? ---A. Yes, sir.

Q And in your opinion does this proposed program with the changes that you have suggested give adequate protection to the salt section, which we are seeking here to protect? ---A. We believe it does, yes, sir.

Q This recommendation remains that of the individual members of this sub-committee, is that correct? ---A. That is true; and also as the recommendation of Richardson and Bass as an individual operator.

Q As far as your company is concerned, you are willing to comply with this particular casing and cementing program in a critical potash area, is that correct? ---A. Yes, sir.

Q Mr. Hill, I believe you testified in the previous hearing that your company owned leases in this area, and you were prepared to drill deep tests in the general area. Can you state whether your company, whether there are any areas, which your company would not consider drilling oil wells in? ---A. We do not anticipate drilling on any of the lands presently being worked by the potash companies; specifically, in or on their mine workings areas, or in any of the areas in which they plan to explore in the future. And as a normal distance, we believe that one-half mile outside of the known or contemplated workings should be restricted.

Q And in that regard, would you be willing to give consideration to the fact that there are two new companies in that area now drilling shafts? ---A. Yes, sir.

Q And be willing to give consideration to the fact that they have not as yet undertaken any mine workings in determining

the area in which you would not drill? ---A. That is true.

MR. CAMPBELL: I believe that is all.

MR. SPURRIER: Does anyone have any question of this witness? Mr. Morrell.

MR. MORRELL. Mr. Spurrier, I would like to ask Mr. Hill one question with the thought of clarifying the record for the Commission. Section No. 3 refers to testing medium depth or medium depth zones. I think probably that should be defined by a depth or formation so that there will be a distinction between that and the reference to the cable tool Exhibit B to shallow.

MR. CAMPBELL: Mr. Hill, did the committee consider that at the time Section 3 was prepared? ---A. This section, of course, refers to either a drilling protection string for deep drilling objectives, or maybe an oil string for testing medium-depth zones. I would say that a medium depth zone as far as depth is concerned would be approximately a 5,000 ft. depth, or it could be 4,000 ft.

MR. MORRELL: I was merely noting that Exhibit B spoke of shallow wells above 5,000 ft.

MR. HILL: I think 5,000 ft. could be a critical depth point to clarify both jobs.

MR. MORRELL: Your medium depth zone would be below 5,000?

MR. HILL: Above 5,000.

MR. MORRELL: So, it would be synonymous to shallow?

MR. HILL: Yes, sir.

MR. MORRELL: That is all.

MR. SPURRIER: Thank you. Anyone else?

MR. SETH: May I ask one question? About the rule for plugging. Will that be considered separately or does this cover that?

MR. HILL: The Engineering Committee did not write up

any rules for plugging or abandonment of wells. But I think they can be set up and agreed to mutually very easily. And I would suggest, as your potash companies have certain rules for abandonment, they be presented, and they statements can be made and suggestions or criticism. I would suggest that be entered into the record as part of this thing, as to the rules, or a discussion can be had on it.

MR. SETH: That is part of the picture, isn't it?

MR. HILL: Definitely, but we haven't --

MR. SETH: Have you prepared any recommendations for plugging or abandonment? ---A. No, sir, but I am prepared to approve any you might submit with reasonable good operating practice. And I would be willing to approve them or discuss them as they are presented.

MR. SETH: May we have a copy of these proposed changes? Do you have any, Jack?

MR. CAMPBELL: We have, unfortunately, only one which has been interlined. You may have it to make a copy. We do not have a full set of the changes. Mr. Hill, in connection with the plugging and abandonment matter, could you state generally insofar as your company is concerned what procedure you follow normally in the salt areas in the plugging or abandonment of wells? ---A. Under the conditions of these casing rules, there would be no effort made to recover any of the strings now; surface, salt protection string, or intermediate string or drilling protection string. Because they will have been cemented to the surface, and the drilling protection string will have been cemented from 1,000 ft. below the bottom of the salt protection string to the surface. Any known or discovered shows below a protection string would normally be cemented off by cement placed at least 100 ft below to a point at least 100 ft. above; and the normal practice would be to set a plug from 500 ft. below the protection string on up into the protection string some 2 to 300 ft. That would preclude any possible migration. And with your casing remaining intact, an upper plug of some 1,000 ft. could be set in the upper part of the hole, or it wouldn't be impractical to even put a column of cement equal to your salt section in the last, or your smallest string, left in the well.

MR. SPURRIER: The Commission would like to remind

those present that Mr. Hill is available at this time for cross-examination, and I presume he will be later.

MR. CAMPBELL: Yes. He will be here throughout the hearing for questions he can answer.

MR. SPURRIER: If you desire to cross-examine, now is the time to do it; before the potash people put on their testimony. Are there any more questions? If not, the witness may be excused.

(Witness excused.)

MR. CAMPBELL: Mr. Commissioner, that is all at this time. It may be we may want to call additional witnesses following presentation of some information by the potash industry.

MR. SPURRIER: Well, it occurs to me that the changes you have made here -- you and Mr. Hill have read into the record -- may be quite difficult to follow, and some of these people may have either comment or questions after they have been able to see exactly what those changes are.

MR. CAMPBELL: Mr. Hill will be available all day, and if they can go over the changes sometime during the course of the day, he will be available for the discussion of them.

MR. HILL: The changes are actually of no material moment. Just more for clarification and for testing some of the strings presented in the original rules. For example, one of the changes just directly places the centralizer rather than leaves it at the free joints.

MR. YATES: Mr. Commissioner, I would like to know in advance if it is clearly understood this program he is presenting is for rotary only, for deep-well zones.

MR. SPURRIER: Mr. Hill, can you answer that?

MR. HILL: That is the way that the -- I think the rules that were first introduced were for -- may I have that copy just a second? Oil and gas casing and cementing programs for oil and gas test wells in the defined areas in Eddy County, N. M. And the point brought up by Mr. Yates referring to cable tools. We purposely deleted any reference to cable-tool

methods and testing, and as a consequence the entire set of rules refers only to rotary drilling.

MR. SPURRIER: Does that answer the question?

MR. YATES: That's right.

A VOICE: Pardon me, Mr. Hill. Does that say only Eddy County? The area shown on the map goes into Lea County.

MR. HILL: It should be applied to Lea County then.

A VOICE: You removed all reference to cable-tool drilling. Why was that?

MR. HILL: It was suggested by cable-tool drillers and shallow operators, inasmuch as we were attempting to describe rules for deeper drilling, particularly on the rotary drilling, and they preferred it should be confined to that under this particular program.

A VOICE: Is it contemplated there be a separate set of regulations for cable-tool drilling?

MR. HILL: There were separate rules presented at the last meeting, marked Exhibit B and Exhibit C, which covered as I believe medium depth tests -- well, by rotary or cable tool-- and then one exclusively cable tools. And we didn't feel we could speak for every operator in the state, and we didn't feel the responsibility of attempting to secure casing and cementing programs for deeper test wells in this general area, and as a consequence we couldn't see how we, as individual operators, could force every body to drill different type wells to follow the same set of rules.

MR. MORRELL: In that connection, the heading as now printed says, "Casing and Cementing Programs for Oil and Gas Test Wells." Following your expression just now, would it clarify it to insert "rotary-drilled" before "test Wells"?

MR. HILL: That would be all right, sir.

MR. MORRELL: In the defined areas of Eddy and Lea Counties.

MR. CAMPBELL: I would like to have the record show that Exhibit A, B, and C were offered in evidence, and that the

suggested amendments were -- to Exhibit A -- were also offered in evidence.

MR. SPURRIER: Did everyone hear that? These exhibits A, B, C, and D have been offered in evidence, and without objection they will be accepted.

MR. CAMPBELL: Exhibit A is amended.

MR. SPURRIER: That includes the Exhibit A as amended this morning. Does anyone have any further question or comment before the potash people put their testimony on? If not, Mr. Seth, will you proceed?

MR. SETH: Well, Mr. Commissioner, I am here not as a spokesman for all the industry. I came for U. S. Potash. And as far as they are concerned these proposed regulations are acceptable to them for all wells drilled. This Exhibit A, as amended by the testimony of Mr. Hill this morning. I think the other companies would like to make a comment on it.

MR. DAVIS: We will concur in that, and we have no objections to the amendments to Exhibit A. And Southwestern Potash, and Potash Company of America, and the International Minerals and Chemical Corporation, and Duvall Sulphur and Potash all concur in the fact that we have no objections to the amendments proposed in Exhibit A.

MR. SPURRIER: Now, is there another company? Are there any more potash companies?

MR. DAVIS: We both represent them all. Mr. Seth spoke for U.S. Potash Co. And that represents the five companies who are involved. Mr. Cramer raises the point, Mr. Commissioner, that there are other companies who have been or are drilling in the area, and we, of course, do not speak for them. Exploratory work that may be going on or carried on by independents or others. But they are not present at this hearing.

MR. SETH: We represent all the established operators.

MR. SPURRIER: One more question. To make the record clear now; does any potash company have any testimony to present at this time on this case?

MR. SETH: As I understand the procedural situation at

this time, we will consider Exhibit A, as modified, which is limited to rotary drilling. And we stand ready to hear any proposals that may be presented for cable-tool drilling. The testimony Mr. Hill has presented this morning has split the thing into two questions now. We have the rotary regulations and we have the cable regulations. That was done by these amendments. And we stand ready to hear the proposals on the cable tools.

(Off the record discussion.)

MR. CAMPBELL: Mr. Commissioner, I believe at the last hearing a proposal was presented -- I do not represent the people that presented it -- but there is in the record a proposal for cable-tool-medium-depth well protection which was submitted at the last hearing. I presume that is the recommendation of the cable-tool operators.

MR. SETH: Are they standing on that proposal?

MR. CAMPBELL: That I don't know. I presume they have representatives here.

MR. YATES: We have submitted the program. If there is any objection -- we submitted that program at the last hearing -- and if the potash companies have objections to it, we would like to hear them.

MR. SPURRIER: The way the Commission understands it, now is the time for the potash people, or anyone else, to object to the cable-tool proposal. This is the one which was signed by several operators.

MR. SETH: I believe there are two of them in the record.

MR. SPURRIER: Yes. This one was signed by the representatives of several companies.

MR. CRAMER: Weren't there two proposals submitted at the last meeting by the cable-tool operators?

MR. SPURRIER: Yes, sir, there were. I am merely trying to take one at a time. I have another one which I will bring up when we see what is going to happen to this one. We have one here that is in effect signed by Stanley Jones. But I am talking about the one that is signed by American Republics, Buffalo, and on down the list.

MR. SETH: That is Exhibit B?

MR. SPURRIER: That is Exhibit B.

MR. CRAIER: I believe the potash companies are of the opinion there was to be one set of casing and regulatory rules having to do with drilling. At this time, this division having been made, it puts the potash companies where they would have to do some talking among themselves to see where the second group would fit. It didn't occur to us there would be two sets of rules.

(Off the record discussion.)

MR. SETH: May we have a short recess and talk this over among ourselves? This was split up by the testimony of Mr. Hill.

MR. SPURRIER: You may have that time I think. Before you take that time, I would like to say these exhibits have been on file, one as long as the other. And the Commission is bound to consider all of them. And the Commission will consider all of them. What we are trying to get is the objections of the potash people to any of them.

MR. SETH: Of course, the matter started originally with recommendations of the committee, which presumably covered all casing programs, no matter how drilled and to what depth.

MR. SPURRIER: Yes.

MR. SETH: And we have devoted our attention to that. That has been amended this morning by Mr. Hill, and the situation is quite different this morning. We would like to talk it over. Maybe we can arrive at a satisfactory conclusion.

MR. CAMPBELL: When this Exhibit A was presented Mr. Hill definitely testified it was to apply to deep-test wells in a defined area. And I think that was made somewhat clear, although there were some references previously to cable tools in that Exhibit A. It is definitely in the record it was to apply only to deep-test wells.

MR. SPURRIER: Well, let's say for clarification from the Commission's point of view that we will have to issue one set of rules or regulations for drilling in this area, which will necessarily include both types of drilling, rotary or cable.

MR. CRAMER: Mr. Commissioner, speaking as a member of the committee, the casing and cementing program as it was worked out by a sub-committee made up of engineers of the oil industry was considered by the appointed committee and approved by it. Now these various things that are being done modifies the approved committee action. So that it is somewhat of a change. We had thought, in the first place, that one set of rules could cover all types of drilling. And the committee, as such, has not made recommendations on any of the modifications.

MR. SETH: To clarify the record, I believe on behalf of U.S. Potash we accepted Exhibit A, as amended, for all drilling, no matter what type or what depth. Now if I can, to review the situation a little bit, at the end of the last hearing, the potash companies were confronted by this division also in the oil industry. There are three separate and distinct proposals, and which, as originally presented, are not consistent with one another. The testimony of Mr. Hill has taken one group out of it. For that reason we are put at a little disadvantage in meeting this exhibit which was put forward as a minority report more or less.

(Off the record discussion.)

MR. SETH. There is one question involved in here. Some of these regulations as far as we are concerned are applicable to certain areas and others are not. We have that additional fact to consider. We would like before very long to read into the record a written proposal which includes the variations in methods in different areas. That might clarify the procedural situation.

(Off the record discussion.)

MR. CRAMER: Mr. Commissioner, speaking as a member of the committee and also as a representative of the Potash Company of America, there would be one very pronounced objection to Exhibit B which would have to be clarified, I am sure, before we could get together on the thing. That is what is designated as par."b"of Exhibit B, reading as follows: That the casing and cementing program herein suggested apply only to the areas embraced in proven commercial deposits of potash. The remainder are designated potash areas to be drilled in accordance with standard existing practices. That is the end of the quotation. Up to this time all the discussion before the committee, before your Commission, and before the Land

Office has been to the effect that there would be certain acreage within a broad defined area in which drilling would be completely barred, and that the intent of any drilling regulations within that defined area is to protect the state and the potash operators in the event of any future finds of deposits of potash minerals in the delineated area. And it would appear that Exhibit B, as proposed here, would throw wide open the actual presently operating area.

(Off the record discussion.)

MR. CAMPBELL: Mr. Commissioner, in connection with this area, may I state we would be delighted to have the potash industry present whatever suggestions they have as to the areas in whatever rules the Commission promulgates will apply. Insofar as this division of rotary and cable tools, may I state our position on that? The Commission has power under the statute to issue rules and regulations for the drilling of any oil wells in any area in New Mexico, dependent upon particular conditions. There are now three suggestions; one of which applies solely to deeptest rotary wells, and two of which apply to cable-tool shallow wells. I take it that the potash industry feels Exhibit A should apply to all wells, whether cable tool or rotary, deep or shallow. Of course, that is a position they are entitled to take. There is in the record, however, two suggestions by people who drill shallow wells. And if the Commission, in its order, wishes to follow the potash industry suggestion and apply Exhibit A to all wells, they can do so; but if they desire to differentiate, they can do so. It seems to me objections to Exhibit A shouldn't be offered on shallow wells. Since they were offered at the last hearing. It may be the proper thing to do would be to present the data as to areas, which would clarify some of the matters objected to in Exhibit B. I don't represent those people, but in order to keep the matter straight, there is certainly no intention to mislead as to what they have to offer based on the presentation of these two programs because they were both presented at the last hearing. And I thought it was made clear this proposal in Exhibit B was the proposal of the shallow-well people, to be incorporated in whatever the Commission puts out insofar as those particular wells are concerned.

MR. SPURRIER: Well, you have asked for a recess. Do you still want the recess ?

MR. SETH: Yes. Let us discuss it among ourselves for a few minutes, and we will also present our proposal which includes

the plugging.

MR. SPURRIER: The Commission is just about prepared to give you until 1:30 or 2 o'clock to get your discussion over and be prepared to present -- to outline the area when you come back. Is there an objection to that time?

MR. SETH: One thirty would be fine.

MR. SPURRIER: Mr. Morrell?

MR. MORRELL: Mr. Commissioner, I think it might be appropriate at this point to read into the record an attempted definition of shallow and deep, since that is the procedure that is appearing to be worked out this morning. For the benefit of the Commission, I would like to read into the record an interpretation that is now currently being used by the Geological Survey. We have been called on to define what is shallow and what is deep. And we find that a depth figure alone is not entirely satisfactory, because of the differences in depths within the designated area. Possibly the potash companies would like to consider this in connection with the matters they want to take up under advisement during recess. A Survey report reads as -- to Washington from Roswell -- reads as follows:

> "Definitions of shallow and deep zones are essential to the present discussion. The area is complex stratigraphically inasmuch as it extends from north to south from the shelf or back-reef area across the Capitan Reef into the Delaware Basin. The permian Tansill, Yates, Seven Rivers, Queen, and Grayburg formations, comprising the White Horse group of the back reef are transitional into and equivalent in age to the Capitan limestone of the reef. The Capitan limestone is in turn transitional into the Bell Canyon formation of the Delaware Basin. The base of the shallow zone and top of the deep zone is, for practical purposes, defined as the base of the Grayburg, Capitan, or Bell Canyon formation, depending on the location. The shallow zone production includes that of the Tansill, Yates, Seven Rivers, Queen and Grayburg formations of the back reef area. And the so-called Delaware sand near the top of the Bell Canyon formation of the Delaware Basin. The Capitan limestone is untested in this area, and has so far yielded no production. The maximum depth of the shallow zone in the northern

part of the area is from 1,600 to 3,500 feet. The shallow zone in the Delaware portion of the area has not yet been found productive, and few wells have been drilled to it. The base of the shallow zone is here estimated at from 4 to 5000 feet. The deep zone so defined includes the older permian formations below those of the shallow zone and the Capitan-permian formations down to the granitic basement."

I thought it might be helpful to have that in your record.

MR. SPURRIER: Thank you, Mr. Morrell. As a matter for the record, these exhibits A and B were offered in evidence at the last hearing by Mr. Campbell and were accepted at that time. The Commission, as I said before, is bound to consider them when it promulgates the casing rules. So if the potash people find objections to Exhibit B, I suggest you offer them as such. Although I understand that by saying you accept the conditions of Exhibit A that you automatically register a protest against B.

MR. SETH: We will prepare our comments on B and C also. They were presented as alternatives. There were three alternatives presented.

MR. SPURRIER: All right, gentlemen, we will recess until 1:30.

(Noon recess.)

(Note: Full Commission present for the afternoon session.)

MR. SPURRIER: The meeting will come to order, please. Mr. Seth.

MR. SETH: We appreciate the opportunity of having the recess and we have modified our written proposal in accordance with the matters developed by Mr. Hill, and set up two separate categories. Mr. Davis will read the modified proposal into the record. And as soon as possible we will prepare complete copies, and have 25 or 30 in the hands of the Commission for distribution. The modifications were necessary by reason of the situation which developed this morning. If Mr. Davis may come forward, he will read it into the record. If the Com-

mission please, this is a statement to be read into the record. Mr. Davis, if there are questions to be asked, will be sworn and we will provide also Mr. Weaver, a geologist and engineer, to answer questions.

MR. DAVIS: In that connection, in order not to confuse the record, because this jumps around, I think it would be clearer if notes could be made and the questions not asked while the statement is being read.

This is a statement captioned, "PROPOSED REGULATIONS TO GOVERN EXPLORATION FOR AND EXTRACTION OF OIL AND GAS AND POTASH MINERALS ON NEW MEXICO STATE LANDS INCLUDED IN PROVEN OR POTENTIAL POTASH PRODUCTION AREAS." The objective of these regulations is to assure maximum conservation and economic recovery of oil, gas and potash minerals.

"I. These regulations are applicable to the area shown on the accompanying map." (Off the record.)

At the moment, we have only one copy of the map. Additional copies will be supplied at the time copies of the text is given to you.

MR. SETH: We offer that as an exhibit, if the Commission please.

MR. SPURRIER: Without objection, this may will be accepted as Exhibit A.

MR. DAVIS: " .... hereinafter referred to as the 'defined area.' The lands within this area presently fall within one of the following classifications:

"AREA A. Areas which are underlain by proven commercial potash deposits.

"AREA B. Areas under which commercial potash deposits are indicated but not delineated.

"II. The following procedures shall apply to oil and gas exploration and extraction within the defined area:

"AREA A. Drilling for oil and gas shall not be permitted within this area except upon leases where there is presently production in commercial quantities. Upon such leases, further drilling shall only be conducted pursuant to the provisions of

paragraph 2,AREA B herein, covering deep wells.

"Further leases may issue upon lands within the A area, but such leases shall contain the proviso that no drilling may be conducted thereon; however, the acreage included in such leases may be committed to unit agreements. Where oil and gas wells are in production within this area, no mine opening shall be driven to within less than 100 ft. of such wells so that pillar protection will be afforded.

"AREA B. Spacing of oil and gas wells in this area shall be limited to one per quarter-section. All such wells shall be located in the center of the quarter-section unless relocated by mutual agreement of the oil and gas lessee, the potash lessee, and the State Land Commissioner. All wells drilled within this area in exploration for and production of oil or gas shall be drilled, cased, and cemented according to the following procedure:

"Deep Drilling." At this point we would like to incorporate by reference the provisions covering drilling as read into the record this morning by Mr. Hill, or as amended by him, from a previous filing. This morning we agreed to Mr. Hill's setup, but it should be subject to plugging requirements, which will be brought in at a later time.

"Shallow Drilling. The suggested casing and cementing program is as follows:

"(1) Surface Casing String. In order to protect against intrusion of water, the surface casing string shall be set in the 'red bed' section of the basal Rustler formation immediately above the top of the salt section; and shall be cemented back to the ground surface or to the bottom of the cellar.

"The surface string shall consist of new, secondhand, or reconditioned pipe. New pipe shall have received a mill test of not less than 600 lbs psi; secondhand or reconditioned pipe shall be retested to 600 lbs psi before being run.

"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.

"Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution, and a hydraulic pressure of 600 lbs psi shall be applied. If a drop of 100 lbs psi

or more shall 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 doesn't remain dry for a period of one hour, corrective measures shall be applied.

"(2) Salt Protection String. The salt protection string shall be set at least 100 ft. and not more than 200 ft. below the base of the salt section. This string may consist of new, secondhand or reconditioned pipe capable of meeting the manufacturer's test specifications.

"The string may be cemented with a normal cement volume for testing purposes only; and if commercially productive, the string must be recemented with not less than 150 per cent of the 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 proper amounts of calcium chloride.

"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 jobs done until cement is brought to that point. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

"Tests of casing shall vary with the drilling method. If rotary is used, the mud shall be displaced with water and a hydraulic pressure of 1,000 lbs psi shall be applied. If a drop of 100 lbs psi 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.

"(3) Oil or Production String. This string may 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 salt protection casing shall have been run and commercial production obtained, that string shall be cemented to the surface as provided by (2) above or as provided by 3, a, in the deep well program.

"(4) 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. Off the record for just a moment. (Off the record.)

"All holes drilled either under the deep or shallow-well programs which are abandoned shall be plugged in accordance with the following procedure:

"(a) 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 plug through the salt section and prevent liquids or gases from entering the hole above or below the salt section. Details of the plugging procedure shall be approved in advance by the Oil-Potash Committee.

"(b) 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.

"(c) 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 (a) above."

To digress for a moment here. What has just been read covers the specific casing and cementing requirements for both the deep and shallow drilling. In the main, the proposed regulations for shallow drilling are the same as those proposed by the group of operators and submitted to the Commission as Exhibit B. The balance of the material which will now be read would apply to the area restrictions and would be applicable to both deep and shallow drilling.

"III. Before drilling for oil and gas on lands within the "defined area" a map showing the location of the proposed well shall be prepared by the well operator and copies shall be sent to the State Land Commissioner and the potash lessee involved. If no objections to the location of the proposed well are made by the potash lessee in ten days, a drilling permit may be issued and the work may proceed. However, if 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 with the State Land Commissioner. If the well operator and the potash lessee cannot agree on a suitable location for the proposed well, or on any other questions which may arise in connection with the application of these regulations, then either party may demand a hearing before the State Land Commissioner, who will decide the issues in dispute. Nothing herein shall prevent either party -- strike that.

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

"A representative of the oil and gas lessee may inspect mine workings on his lease to observe conformance with these regulations.

"Each oil and gas lessee shall furnish to the State Land Commissioner and to the potash lessee involved certified directional surveys from the surface to a point below the lowest potash-bearing horizon for each oil and gas well drilled during the year. Each potash lessee shall advise the oil and gas lessee who is conducting drilling operations of the location of underground workings in the area adjacent to drilling locations.

"A bond of not less than $10,000, payable to the State of New Mexico, shall be posted by the well operator, to be forfeited by him for any infraction of these regulations.

"The State Land Commissioner shall add to the "defined area" any lands which subsequently are shown to be within a new potash area or an extension of the presently classified "defined area". Lands within the "defined area" shall be reclassified by the State Land Commissioner upon proper showing by the potash lessee that further commercial ore has been proven. If any lands are transferred to the AREA A classification, the AREA A regulations, contained herein, shall automatically apply to such lands."

That, Mr. Commissioner, is the end of our proposal. In our consideration of the drilling and casing regulations, it having been stated this morning that there were three proposals before the Commission, it was our belief that the Exhibit B more probably reflected the feeling of the majority of the small operators, or those who are interested in shallow drilling. And we slightly modified that exhibit, and are suggesting it as

being proper to cover shallow drilling. That, in our opinion, would automatically bar Exhibit C as it was filed at the previous hearing.

MR. SELINGER: Mr. Davis, are you through with your statement?

MR. DAVIS: Yes.

MR. SELINGER: Back up in AREA A in which you stated no drilling in AREA A unless the lease is now on production, and then you said something about further leases may be issued. Would you mind repeating that one sentence? I didn't get it.

MR. DAVIS: "Further leases may issue upon the lands within the AREA A, but such leases shall contain the proviso that no drilling may be conducted thereon; however, the acreage embraced in such leases may be committed to unit agreements." The purpose of that is to permit any operator who is now gathering acreage together to include in such acreage the lands within the AREA A. So that any oil or gas lying thereunder may be extracted, or at least the area will be protected to the operator who is undertaking the drilling operation at that point.

MR. CAMPBELL: I have a few questions I would like to ask Mr. Davis.

MR. SETH: I believe that is all of the statement. Mr. Davis will be sworn if he is going to be a witness. That presents our proposal.

MR. DAVIS: I would like to say one more thing, Mr. Spurrier, before I go on with that. It had been the intention of the potash members of the Oil-Potash Committee that this general statement and the provisions therein be submitted as a recommendation of the full committee. Because of the way the thing came around today, it was hardly possible to do that; and this really represents the feeling or the consensus of the potash group. It is my intention following this meeting to bring this up before our complete Oil-Potash Committee for its study.

MR. SPURRIER: You have no more direct?

MR. SETH: No.

MR. P. O. DAVIS, having been first duly sworn, testified as follows:

CROSS-EXAMINATION BY MR. CAMPBELL:

Q. Mr. Davis, would you state for the record approximately the size of AREA A? ---A. May I digress just a moment again there, Mr. Campbell? I just thought of something. AREA A, as it is shaded in on this map presented to the Commission, is slightly different from the legal description which was presented to the Commission at the last hearing. At that time, you may recall, we put that in by metes and bounds. When we started putting in the actual land holdings of each company which they considered AREA A, it extended slightly outside that metes and bounds description to the northwest.

Q I don't believe you put it in in the hearing before this Commission. There may have been some evidence submitted to the Land Commissioner hearing, but to my knowledge it wasn't here. I believe this is the first presentation of an area to the Oil and Gas Conservation Commission. ---A. Then there may be no question of a conflict. The heavily bordered area on the map presented as an exhibit should govern and not the metes and bounds description, which may be kicking around the territory somewhere.

Q Is that smaller than this particular area? ---A. Only by a few hundred acres. It is just a matter of straightening out some corners. To answer the question, Mr. Campbell, the area within the AREA A, as shaded on the map, is something in the neighborhood of 80,000 acres.

Q Does that correspond generally, Mr. Davis, with the external boundaries of the area which has previously been withdrawn from oil and gas leasing on federal lands plus the leases of the two new companies that are coming into the area? ---A. Yes. Plus certain state lands which have not previously been withdrawn.

Q And how large is AREA B? ---A. I was told this morning by someone who had scaled off the entire map that it was 300,000 acres -- within the outline. So that would leave AREA B approximately 220,000 acres.

Q Now, how did you arrive at the size of AREA A generally? ---A. Generally, it represents areas of each of the companies where extensive core testing has been done and the presence of

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a commercial body of potash ore determined.

Q And it includes all of the present mine workings, of course, of the various companies? ---A. It represents the present mine workings plus the proposed workings of the two new companies who are presently contemplating entry into the field.

Q Did you undertake to or did you project your future plans on any yearly basis or anything of that kind in arriving at this area A? ---A. Broadly, I would say it probably takes in our known plans for the next 6 or 8 years. It does not take in any highly speculative territory whatsoever. It is what we consider commercially proven territory.

Q And you have extensively cored all of AREA A to your knowledge? ---A. Yes, sir.

Q How dense, normally, are your cores in those areas? ---A. When we get into an area where we find what appears to be commercial ore, we will drill several core tests to a section.

Q By several do you mean one every 160 acres or one to every 30 acres? ---A. There is no general rule on it. It could be as many as 6 or 8 to a section. But the probability is it is more likely to be in the neighborhood of 3 or 4.

Q How did you arrive at AREA B? ---A. The AREA B outlinewas prepared by representatives of the U.S. Geological Survey in a meeting of the Oil-Potash Committee in Carlsbad a few weeks ago. And it was based upon information in the hands of Mr. Allport of the U.S.G.S.; which incorporates material received from all sources and from all companies over the years. The area, therefore, represents what I believe he called the area of great promise insofar as possible potash possibilities are concerned.

Q But you have not cored that AREA B extensively? ---A. Not extensively. It has been cored. At least four companies to my knowledge, including my own company, have put down a number of holes, and the result of those holes has been attractive enough that some of us are continuing with rather expensive programs there to see if we can delineate another body of ore in connection with AREA B.

Q It is my understanding your proposal is: any oil operator desiring to drill anywhere within that 220,000 acres must file

a map with the Land Commissioner, and potash lessee, indicating the proposed location? --- A. Yes.

Q And if the potash lessee doesn't agree or if they cannot come to terms, then it will have to be heard in hearing, and then at that time you will undertake to establish there should be no oil or gas well in that particular spot. Is that correct? ---A. Roughly, Mr. Campbell, but not exactly.

Q Wherein am I wrong? That is a very important point and I would like to know what it is. ---A. The proposed regulation there states, "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 ... " Now, if through an error in the records of the Commission or through an error in surveying or something of that sort, it would be determined that the location of the well was placed in an area that is not in accordance with the regulations, we could then object. We could only object, the way this is worded, on that basis.

Q You could only object, assuming the Commission's order complying with your suggestion that there be one well in the center of each 160-acre tract. If it was elsewhere, you could object? ---A. Yes.

Q Or any other provision of the Commission's order? ---A. That's right.

Q You couldn't object just because there was potash below? ---A. That, or we couldn't object just captiously.

Q The only purpose of the provision is to satisfy you there hasn't been an erroneous survey or an improper location under the Commission's order, whatever it may be? --- A. That is correct. It is assumed if we in our future work find other areas of potash, we will apply to the Commissioner to reclassify that as A, which would undoubtedly involve rather comprehensive examination by the Commissioner before he would recognize it. The mere fact we thought there was some potash underlying a B area would not give us the right to such.

Q So far as oil and gas operators are concerned, under your suggestion, provided he complies with casing and cementing programs, suggested as Exhibit A, there will be no restriction on hil drilling in AREA B except non-compliance with the Commission's order? --- A. That's right.

Q In other words, you are not asking the potash (?) lessee be called upon to prove the drilling of a well in AREA B? --- A. Not at all.

Q Now, there is one point I want to get straight about AREA A. Am I correct in my understanding that your suggestion is that the potash industry doesn't object to the leasing for oil and gas in that area, provided there is no drilling and provided it is committed to a unit plan? ---A. That was our thought in suggesting that provision.

Q May I ask if that just applies to federal as well as state lands in AREA A? ---A. I should think so. But we gave that no consideration, of course. We were here in a state hearing.

Q I realize that, but, of course, in the over-all problem we have got to consider they are contiguous. But that would be your general position as to AREA A? ---A. I should think so. As far as I could personally state. I haven't talked to the other members.

Q Then you are not in a position to state as part of your report? ---A. No, not the report.

Q That it would apply to federal areas. What was the reason, Mr. Davis, for attempting to establish a spacing program at this stage of the game, that 160-acres, one well in the center of each 160 acres? ---A. That is a follow-up on a discussion that has been carried on in every meeting held to date; whether it was the first meeting called by the Land Commissioner or the meeting held in his office subsequently or the meeting of the Oil-Potash Committee. The matter of spacing has been brought up on each occasion. And it was the consensus that the spacing should probably be a wide one. It would seem that the time to set it up is in the initial stages rather than later.

Q You don't feel, once you obtain production if you do, is the proper time, depending upon pool conditions, to determine what spacing should be? Wouldn't you be satisfied with such an arrangement as that if you had an opportunity to be heard on the spacing program? ---A. Well, we would certainly not like to contemplate the fact that we would look forward in future years to potash mining under some of the very close spacing that has been permitted in certain oil fields in the past. Not necessarily in New Mexico, but in many oil fields.

Q But you don't feel you would be satisfied with a hearing on that question at the time a discovery is made? ---A. Offhand I wouldn't like to answer the question without discussing it with the rest of the industry members.

Q You can see, can you not, that as far as the oil and gas operator is concerned that is a considerable commitment insofar as doesn't know at this time what reservoir conditions may be in a particular pool discovered. It may result in waste since he doesn't know what the condition will be until it arrives. There is a problem that bears consideration by the potash industry. ---A. Yes.

Q It is my understanding, from listening to your recommendations, that you suggest that this casing and cementing program as to the deeper wells and to the shallow wells, which you have read into the record here, shall apply both to test wells and producing wells? ---A. In the matter of the deep wells, what we have done consistently is to accept the recommendation of the oil industry itself. In the previous filing of a few weeks ago we said that was acceptable. This morning we said that the recommended program for deep drilling was as proposed by the industry itself, the oil industry itself, was acceptable.

Q I appreciate that fact, Mr. Davis, what I am asking you -- I don't believe you understand -- the casing program suggested today and one suggested previously was labeled "Test Wells and Exploratory Wells in the Area." ---A. Yes.

Q And your reading led me to believe that you intended to apply that to all wells? In other words, there would be no modification within this B area on a field rule basis once a discovery was made by an exploratory well? ---A. That's right.

Q You take the position it should apply to all wells within AREA B, exploratory or producing, is that right? ---A. Actually, the proposed program for shallow wells differentiates between a non-producer and a producer.

Q I am not referring to a non-producer or a producer. ---A. Or exploratory.

Q I am referring to a wildcat well, a test well. Exhibit A was originally intended to apply to that well with the possibility if production was obtained and a field discovered, then as is the customary procedure, field rules could be developed.

It could be the rules would need to be more stringent, perhaps less. But I would like to understand clearly what your position is on that particular phase of the matter. ---A. It is our belief that the need for the stringent casing regulations would occur if a deposit of oil or gas was found at any depth. And that the regulations that are proposed here are the minimum that should apply under any conditions.

Q To an exploratory or any other well in the area? ---A. Yes, sir.

Q Now, for just a moment on your abandonment program. I believe you stated you have drilled a considerable number of core holes in this A and some in the B area? ---A. Yes.

Q Is it your feeling that the abandoned core holes should be treated in the same manner by way of plugging regulations as an abandoned oil well, Mr. Davis? ---A. Mr. Weaver, who I think will follow me here, has had personal contact with the plugging of dozens or perhaps hundreds of our core tests, and I think he is much more competent to pass on matters there than I am.

Q Now, one other question, Mr. Davis. In connection with this request for a bond, are you acquainted with the bonds that are presently required under state leases in New Mexico? ---A. Not particularly, no.

Q Was your recommendation on the assumption that there is none, or do you feel there should be additional bond? As a matter of fact, I believe there is a $5,000 per well and a $10,000 blanket bond on state leases already. ---A. It was my understanding there was a plugging bond.

Q What is your recommendation? ---A. This would be a separate and distinct bond requiring compliance with the regulations and which would be forfeitable --

Q If it were true that the bond presently required in the amount of $5,000 per well and $10,000 for the -- $10,000 statewide blanket bond --- applied to all violations of any regulation of the State of New Mexico, would that change your views in connection with the bond? ---A. That would suffice, in our opinion, although we think possibly the penalty should be greater than $5,000. In that connection I would like to state it isn't our thought that there should be anything punitive here insofar as the potash companies are concerned. To us

MR. YATES: I wonder if I could have Mr. Davis read that back about drilling on presently existing oil and gas leases in A area.

MR. DAVIS: Drilling for oil and gas shall not be permitted within this area -- the A AREA -- except upon leases where there is presently production in commercial quantities. Upon such leases further drilling shall only be conducted pursuant to the provisions of paragraph 2, AREA B, contained herein, for deep wells. The thought there is that wheredrilling is continued in AREA A under existing leases, that the casing requirements for deep drilling should be required for shallow holes also in the A AREA.

MR. YATES: That doesn't sound like what you read. Will you read it again.

(Whereupon Mr. Davis read the language again.)

MR. YATES: What is your proposal on existing oil and gas leases on which there isn't commercial drilling?

MR. DAVIS: There is no provision for drilling them.

MR. YATES: Don't you think that is kind of in conflict with the existing oil and gas leases? Wherein the operator is given a specific right there?

MR. DAVIS: I will let you answer that, Mr. Seth.

MR. SETH: That is really a legal question for the Land Commissioner to decide. I don't know the answer myself.

A VOICE: Mr. Davis, did I understand correctly A AREA is about 800,000 acres?

MR. DAVIS: I didn't get your question.

A VOICE: Did I understand correctly that A AREA is about 800,000 acres?

MR. DAVIS: No, about 80,000 acres.

A VOICE: About 80,000 acres?

MR. DAVIS: Yes. I haven't scaled that off. I just roughly counted the sections here at noon. But it is in that

neighborhood.

A VOICE: And you also stated, I believe, that your company and others involved there would probably mine that area in 6 to 8 years?

MR. DAVIS: No, I didn't say that. Mr. Campbell's question in that connection was as to what determined our selection of that area. And I stated that it covered the area that we reasonably expect to get into within the next 6 to 8 years. We certainly hope we don't have it all mined out in 6 or 8 years because we will be disappointed in our reserves.

BY MR. MARTIN YATES III:

Q (By Mr. Yates) You say there is 80,000 acres in this AREA A. How long do you think it will take you to mine out the 80,000 acres? ---A. That is a rather difficult question to answer. But it will be several decades.

Q That is what I thought. Well, I for one would like to go on record protesting your proposal whereby you do not permit any drilling in the A AREA, whether it is under an existing oil and gas lease that has production or is without production. I think that that is confiscation. I certainly object. ---A. I would like to make a little explanation, it having been brought up once before when Mr. Campbell tried to show 500 years around here. When you say it takes several decades to completely deplete a mining property, that doesn't mean that you may not be in every section of your mine within 5 or 6 years. Your natural program of mining is to drift out, very often to the extreme outline of your deposits, and to do your working from there; so that this is an area we reasonably expect we will be operating in to some degree within this coming decade.

Q Here is the difference between your lease and ours. Once you establish commercial production, you can perpetrate your lease, but our lease, where we don't have production, is only for 5 years; and so long thereafter as oil and gas is produced. If we are not permitted to drill on our leases in the A AREA, we will lose those leases. We don't have a chance to ever perpetrate by production. ---A. That same requirement is in the potash lease. That only perpetrates in the event you continue operating in commercial production.

Q But under your proposal we are not permitted to operate ours.

I don't believe that is right. I think that the potash company has a right, and I think the oil company has a right. Both are sale leases, and I don't believe one should be precluded from operating their oil and gas lease while the other is permitted to operate potash.

MR. HARVEY YATES: I would like to register my disapproval. I am opposed to confiscation whether in the United States or Russia.

MR. WHITE: What proportion does your present mine operation bear to the total 80,000 acres?

MR. DAVIS: I can speak only for my own company, Mr. White. I would say that presently we have an area that extends approximately 4 miles north and south by something in the neighborhood of 3 miles east and west; which, if you squared it off, is 12 square miles, or 12 sections. Our immediate plans for the next two years contemplate the entry into about 4 more sections to the south. Our total holdings under both state and federal leases within this area that is covered here is something in the neighborhood of 20,000 acres on the part of our company. So that our present workings would be roughly in the neighborhood of one-half of the A AREA set down on the map by our company.

MR. CAMPBELL: You include in your description of areas you now mine or contemplate mining areas that might be -- where you might be having to drift out to a new mining area?

MR. DAVIS: That is correct.

MR. CAMPBELL: And you include those within those 80,000 acres?

MR. DAVIS: Yes.

MR. CAMPBELL: Where there is a possibility it drifts out to take in a deposit?

MR. DAVIS: Yes.

MR. YATES: I wonder if we could see that may, please, Exhibit A?

MR. SPURRIER: Does anyone have a question of this witness?

BY MR. HORRELL:

Q Mr. Davis, I would like to ask one or two questions for clarification of the presentation you have made on the proposed regulations. Following them, Mr. Davis, they appear to be based on the ones previously prepared by the potash operators. ---A. Primarily so; modified slightly in the light of the discussion this morning.

Q As I recall your presentation, you refer to the water to be mixed with the cement, that it shall be saturated with salts common to the zone penetrated with proper amounts of calcium chloride added. I have heard it informally discussed and I was wondering if it wouldn't be informative to ask of the other parties present at this hearing if they have any suggestions as to what the proper amount of calcium chloride additive should be? ---A. A bit earlier I suggested anything having to do with plugging could be better covered by Mr. Weaver.

Q It merely referred to proper amounts, and I wanted to get your idea. ---A. I believe in the neighborhood of three per cent, but Mr. Weaver can tell you definitely.

Q He will enlarge on that. That is three per cent of the volume and weight of cement? ---A. Yes.

Q We would like to have that clarified. The next point I have; you referred to a map to be prepared by the well operator. I was wondering if you would be willing to have a slight modification of that to provide for a map or plat of survey of the well location? ---A. I would think that would be all we meant by that.

Q The oil operators are now furnishing that to the Commission. ---A. That is all we require, is the location.

Q Is a survey of the location? ---A. Yes.

Q With respect to the point Mr. Campbell raised on your suggestion that exploratory wells be drilled in the center of each quarter-section, I would like to raise a little objection to that specific wording, inasmuch as within your defined area there are state lands that do not comprise an entire quarter-section. I gathered that your intention is you would like to limit exploratory development to rate or number of one per quarter-section? ---A. Yes. And for the reason the location

is, if you will notice, isn't inflexible in here. So that future plans of development could be worked out by the potash operators in the event that additional potash ore was found in that area and they wouldn't have to corkscrew around a bunch of holes placed hit or miss over an entire district.

Q That same result could be accomplished by merely stating exploratory wells would be limited to one well per quarter-section without specifying the location. I mention that because we do not approve wells in the center of a quarter-section on federal acreage, and present regulations of the Oil Conservation Commission do not. ---A. As a non-operating official, I wouldn't think it would occasion any difficulty as long as we reasonably in advance knew where it was. We can skirt any known hole if we know it far enough in advance, which we would do.

Q My thought was to take out the specific reference to a particular location to avoid that complication. ---A. I don't think it would cause any difficulty at all.

BY MR. CAMPBELL:

Q Did I understand you before as to this well in the center of 160 acres, that it applies only to exploratory wells? I didn't understand it that way. ---A. I don't think it stated that. I believe Mr. Morrell --

Q That is a considerable difference, of course. The original exploratory well, the spacing and location, is all different than it is in a developing well. ---A. That really isn't our proposal.

Q You thought it should apply to all wells? ---A. Yes.

Q That is the basis on which I questioned you. ---A. Yes, sir.

MR. SPURRIER: Do you also intend that this applies only to state land?

MR. DAVIS: In connection with the original purpose of the hearings and the establishment of a group to study this, it was our thought that very probably this would continue on to cover both federal and state lands. And as you know, there have been representatives of the federal government here at all discussions.

Q (By Mr. Campbell) You understand, don't you, Mr. Davis, that the Oil Conservation Commission issues rules and regulations which govern both state and federal lands within New Mexico? ---A. That is my understanding, regardless of the ownership --

Q They have the right to issue operating rules? ---A. Yes.

BY MR. GROMMON:

Q Mr. Davis, I believe you stated that in AREA A you recommended no development whatsoever. ---A. Yes.

Q In this 220,000 acres, AREA B, the proposal A that was submitted by the committee, engineer committee, was for test wells, exploratory wells, and it was my thought, as a representative of the operators, that that casing program was very rigid and should be reviewed if a discovery was found, and the field rules set up for the new field. I think that should apply to the spacing rule as well. In other words, this casing program presented today, which you and the other potash people presented thismorning, should apply to exploratory wells and new wells; and if an oil field is discovered, the Commission should hold a hearing to consider proper spacing for the development of the field and a proper casing program. In all probability, in my opinion, the proper casing program would include the two strings of pipe above and below the salt. But for proper development of an oil field, it might be advisable to alternate any casing program below that. It should be considered in view of the information and knowledge of the oil field at that time. ---A. Well, that is the first time I have heard any distinction made between exploratory wells and subsequently developing wells, let us say. Again, to reiterate, the casing and drilling program as stated to be acceptable to us was developed by the oil industry itself. I believe that, without change, the potash industry at the last hearing stated that the sub-committee's recommendation for a drilling and casing program was acceptable to the potash companies. This morning, as you know, we stated that the modifications as proposed by Mr. Hill were acceptable. So we have felt that right along it was the oil industry's own idea of what it took to properly protect its own wells and the potash deposits. And until Mr. Campbell started asking questions about exploratory wells, I didn't know there was any distinction.

MR. SETH: May I make a comment on that point? I think a hearing of this nature is all we can do now. Is do the best we can, knowing the circumstances. The Commission is always

open to anyone to come in at a later date and seek a modification of orders. We can't anticipate everything at this point. All we can do is to do the best we can on what we know of the situation. If something develops during the program, and might at a later date, any person that has sufficient interest can come in and seek a modification upon the basis of the facts as they are then known. That would certainly be true in this case, wouldn't it, Mr. Spurrier?

MR. SPURRIER: Certainly.

MR. GROMMON: I believe it would be impossible for the Commission at this time to write proper regulations for oil development in a field that they wouldn't know whether it was 5, 7 or 10 thousand feet deep and about a spacing and casing program below a salt development.

MR. SETH: To think of spacing in connection with reservoir conditions and drainage. But you have here an agency in between those wells that has to guard its underground workings and has to leave pillars or a certain size. You have to take into consideration this new and additional factor in spacing. It isn't spacing only for drainage of the oil, it is spacing to conserve the potash reserve also there. If you get oil wells too close together in the section, there won't be any room for anybody else to work underground. You have to consider someone else in there.

MR. GROMMON: Of course, we have never had what we consider real close spacing in New Mexico. 40 acres. You would have no objection to a rehearing if a discovery was made to consider proper regulations for the field?

MR. SETH: I don't think there is any question about it.

MR. GROMMON: Very well, that is all I have.

(Recess.)

MR. SPURRIER: Does anyone have any further question of Mr. Davis?

BY MR. YATES:

Q Mr. Chairman, I would like to ask Mr. Davis about this 80,000 acres in the A district. Just how many acres have you mined by the various potash companies in the last 25 years?

Can you answer that? ---A. I don't believe you could answer the question directly, Mr. Yates. It has very little bearing on what determines the outline of the 80,000 acres. As I stated previously, the amount of acreage that you have actually mined out doesn't determine the area of your mine workings. You may have mine workings under 10 square miles and have mined out only one square mile completely.

Q Wasn't it previously testified at one of these hearings there has been approximately 10,000 acres mined in the last 25 years by the various potash companies? ---A. I don't recall that. But for one thing your American potash industry today is about 10 times as big as it was 12 or 14 years ago. The first potash operation I think got into -- got going commercially -- in 1929. The second operation didn't get in there until 1935. The third operation didn't get started until 1940; and each one of them started on a fraction of the basis it now operates under. So, anything that occurred in the past would be no criteria as to what might come in the future. Past performance on the removal of ore has nothing really to do with the case.

Q I kind of think it might have something to do with it. It looks to me, just from a layman's viewpoint, to that 80,000 acres I believe it will take anywhere from 150 to 200 years to mine out the rest of the potash ore. I think that is an unreasonable length of time. ---A. Unfortunately, Mr. Yates, you are not familiar with the potash properties or potash authorities or potash reserves. I can state unequivocally right now insofar as any known potash reserves occur down there there is nothing like 150 years of ore. Or insofar as I know today no one can positively state that at the present rate of production there is 50 years of ore supply.

Q All right. Now, isn't it likely -- as I understand it, the potash companies are continuing to core and they are prospecting from time to time -- isn't it likely they will make more discoveries? ---A. We certainly hope so.

Q Then I think in view, in the light of that, it is unreasonable for the potash companies to try and set aside an area that large and expect the oilman not to drill wells in those areas. This thing will keep growing and growing. ---A. Relatively, the area is infinitesimal, as I think you will agree when you spot it down on a map of the state or county, as the case may be. And it is the only place known in New Mexico where potash occurs, and it is something of vital importance to the state and to the nation.

Q I agree it is vital to the state and the nation, and I think the potash companies should be permitted to mine; but at the same time, I think the oil companies could protect the potash beds, and I think both could work in cooperation in the same areas at the same time. ---A. In the event now you speak of the entire defined area, in the event you should find oil deposits in the B AREA and develop the B AREA, it wouldn't make any difference what the potash companies found in the next 10 to 20 years. It would still be concurrent production of oil and potash.

Q But you set one area aside and don't permit any drilling, and permit drilling in B. Suppose a man has a lease in the B and A AREAS, which we have. All right. Then we have some neighbors that have offset leases that offset our lease in the A AREA. We couldn't protect ourselves from drainage where a man drills an offset to our 80 acres. We would have to wait, if your proposal went through, and have the oil go out from under us even though we could perpetrate our lease in the A and B AREA through production on the B AREA. That would certainly be an unjust case. (No response from the witness.)

MR. YATES: Mr. Chairman, I would like to register a complaint against the proposal made here just a minute ago, and that is on the spacing of 160 acres. As I understand it, their proposal is on the B AREA. It has been established by precedent, generally speaking, that the spacing in New Mexico has been one well to 40 acres. And I don't think one to 160 acres is just and right. I don't believe it is to the interest of the state or the federal government either.

MR. SPURRIER: Does anyone have a question of Mr. Davis? Or a comment? If not, the witness may be excused.

(Witness excused.)

MR. SPURRIER: Do you have another witness?

G. C. WEAVER, having been first duly sworn, testified as follows:

DIRECT EXAMINATION BY MR. SETH:

Q Will you state your name, please? ---A. G. C. Weaver.

Q With which company are you associated, Mr. Weaver, and in what capacity? ---A. I am a consultant for Duval Sulphur and

Potash.

Q Would you state briefly your qualifications? ---A. I graduated from Colorado School of Mines in 1926. I have been in the mining game ever since. I have had eight years with the Potash Company of America, four with International Minerals and Chemical, and I have done consulting work for the last five years.

Q Have you examined and considered the proposed regulations as presented to the Commission by Mr. Davis? ---A. I have.

Q Would you wish to make any comments on them, generally, or anything specific for the benefit of the Commission? ---A. I think the major point to be considered in any approach that we take to this problem is conservation; conservation of both oil and gas and potash.

Q As far as the casing requirements are concerned, both for the deep wells and shallow wells, what comments do you have to make on those?---A. Well, these regulations that are set forth now I don't believe should be construed as final. If there is an oil and gas discovery made, the casing program will have to be worked out after the pool has been discovered. These regulations that we have here are a starting point. But it is provided for in these regulations to alternate the programs after due consideration has been given by the Commission and others concerned.

Q Now, as far as specific questions are concerned, I believe Mr. Foster Morrell asked about the fluid to be mixed with the cement, as to the proportion of calcium chloride. What do you recommend? ---A. The normal practice is to use three per cent clacium chloride, three per cent of the weight of the cement used.

Q You believe that would be a reasonable requirement in this connection? ---A. Yes. There has been considerable research work done on that.

Q The question was also asked as to the method of plugging core holes drilled by the potash companies in their exploratory work. What recommendation for closing core holes do you have? ---A. The practice followed in plugging core holes is to cement through the salt section with Portland cement and three per cent calcium chloride and mixed with saturated sodium chloride and potassium chloride brine. It is a continuous plug all

through the salt section.

Q That would be comparable to the plugging requirement recommended in this proposal? ---A. Yes.

Q There has been some discussion about the spacing as proposed in these recommendations? What comments would you have to make on the spacing as an initial proposal, knowing what we know about reservoir conditions at the present time? ---A. I don't think it was the purpose or intent to insist that wells be drilled in the center of each quarter. The thing in mind there was to limit the number of holes per section so that too many pillars wouldn't have to be left upon the extraction of potash.

Q These proposals contemplate that no workings will be driven to within a distance of less than 100 ft. from any such wells. That would mean you would have to leave a pillar with a radius of 100 ft. around each well? ---A. That, or adequate support, yes.

Q As the density of the wells increased in the section, it would mean substantial reduction in the recoverable potash in the area? ---A. Yes, that's right.

Q In your opinion, is that a reasonable requirement as recommended for a starting place, at least? ---A. Yes. There again, I believe it takes into consideration and is set up in this proposal where that spacing can be changed.

Q Is there anything else of general comment on technical matters you would like to bring out? ---A. I may say this. I can appreciate the position of the operator in wanting to recover all casing possible. And it would be my opinion that the potash companies would not object to recovering all that casing in case of a dry hole.

Q These regulations, do they not contemplate on the shallow wells that the salt protection string be recovered if the well isn't a producing well? ---A. That's right.

Q Is there anything else you would like to comment on? ---A. No, I believe not.

MR. SETH: That is all the direct questioning.

CROSS-EXAMINATION BY MR. CAMPBELL:

Q Mr. Weaver, I believe you stated that you felt the primary consideration of everybody in this matter was conservation. I presume by that you mean the production of these resources under proper conservation practices? ---A. Yes, sir.

Q We are all concerned with producing both oil and gas and potash? ---A. That is correct.

Q And making it available. I have one question to ask you about the spacing matter. Do you have a particular objection to presenting your views with regard to spacing of these wells before this Commission at such time as a discovery is made? And your advice would be the same then, and the Commission's consideration of those views be better balanced at that time than it would be at this time? ---A. Yes, I think you are correct. No one knows where a discovery is going to be made.

Q That's right. ---A. And I don't think there is anyone here that can foresee where alarge salt horse would enter in. And I think that if that could be handled on its own merits, it would be very satisfactory that way.

Q There is one other thing that has come up in our discussions with reference to your proposal about the use of the various brines in the plug. ---A. Yes.

Q I believe your porposal, which I think is taken from the one suggested by the sub-committee of the engineering committee of the oil and gas operators ... ? ---A. Yes.

Q Uses the terms "salts common to the area." ---A. Yes, sir.

Q Would the suggestion you made with reference to your three per cent solution there plus the other ingredients eliminate the necessity of that provision? In other words, some of the operators raise the question as to whether you might in all cases be able to determine with accuracy the salt common to that particular area. Would that be a particular problem so far as you are concerned? ---A. No. I am sure in plugging any of those wells that the potash companies would cooperate fully in furnishing a saturated brine for the mixing.

Q It would be to their advantage to do it? ---A. Yes, certainly.

Q If they had it available? ---A. Yes, certainly.

MR. CAMPBELL: That is all.

MR. SPURRIER: Does anyone have a question of this witness? If not, the witness may be excused.

(Witness excused.)

MR. CAMPBELL: If the Commission please, I would like to call one witness for a very brief presentation, and I would like to explain the reason for the presentation of this evidence. It isn't to minimize the understanding of most of the oil operators. The necessity of using every effort to have a proper program of casing and cementing in this area, but to make clear to the Commission the background of oil and gas drilling in this area so that they may evaluate the problem involved in connection with this casing and cementing. And I would like to call for that purpose Mr. H. S. Cave.

H. S. CAVE, having been first duly sworn, testified as follows:

DIRECT EXAMINATION BY MR. CAMPBELL:

Q State your name, please. ---A. H. S. Cave.

Q By whom are you employed? ---A. Phillips Petroleum Co.

Q Where are you stationed? ---A. Roswell, N. M.

Q In what capacity are you employed? ---A. Well, just senior geologist.

Q Will you state for the Commission very briefly your professional background? ---A. I did undergraduate work in geology at the University of Missouri; one year of postgraduate work in geology at the University of Missouri; and two years postgraduate work at Harvard University; two field seasons with the U.S. Geological Survey; a year and a half with the Geological Survey of Georgia; subsequent to that time, with the exception of time in the service, I have been engaged in geological work for oil companies and industries.

Q Mr. Cave, when did you first become acquainted with the geological situation in the area that is here under discussion? ---A. That was very late in 1926 or early in 1927, at which time I was employed by the Bisbee Oil Co., at which time said company acquired state leases for potash exploration in

the amount of approximately 49,000 acres.

Q What was your connection with that -- in exploratory work? ---A. Subsequent to that, in order to validate those leases and to see what we might have gotten, we drilled four core holes, and at that time it was my duty to check such cores and describe them, and that was done in conjunction with Walter Lang of the U. S. Geological Survey, who was in charge of potash investigation for the Survey and hence for the Department of the Interior in New Mexico.

Q You, yourself, assisted in the analysis of those cores? ---A. Yes, sir.

Q Mr. Cave, through the course of the years since that time have you had occasion to obtain records concerning the drilling of oil wells in this particular area? ---A. Yes, sir, I have.

Q And have you recently made a study of wells which were drilled and have been drilled in that area since the initial discovery of oil? ---A. I have made a compilation of the date pertaining to those wells.

Q What area does the compilation cover? ---A. It primarily covers Township 19S, Range 29 and 30E; Township 20S, Range 29 and 30E; Township 21S, Range 29 and 30E; and Township 22S, Range 29E.

Q That is six townships, is that correct? ---A. Yes, sir. Seven townships.

Q Seven townships in the immediate area under consideration here? ---A. Yes, sir.

Q And what did your compilation show as to the number of oil and gas wells which have already been drilled in that area? ---A. These records were taken from the status sheets of the Geological Survey and set forth in T. 19S, 29E to have been a total of 45 test holes drilled. In total depths these ranged from 503 ft. to 3,096 ft. Through their range in years for this drilling they range from 1925 into the year 1951. In T. 19S, R. 30E, as of approximately one month ago, 22 tests had been drilled, with a range in total depth with a minimum of 1,722 ft. to a maximum of 4,022 ft. In years, range from 1929 up until a period of about one month ago in the current year 1951. In T. 20S, R. 29E during the same dates there have been drilled a total of 30 wells that range in total depth

from a minimum of 505 ft. to a maximum of 6,683 ft. In years, they range from 1925 to 1948. In T. 20S, R. 30E, a total of 47 wells, with ranges in total depth from 1,250ft. to 3,500 ft. In years, the range covers from 1925 to 1948. That gave in those four townships, for which we were supposedly reaching, a total of 144 tests. In T. 21S, R. 29E there have been drilled 2 tests, one to 430 ft. in the year '41 and one to a total depth of 3,334 ft. in the year 1950. In T. 21S, R. 30E there have been a total of 5 holes drilled. They range in total depth from 503 ft. to a maximum depth of 1,934 ft. They were drilled between the years 1925 to 1934. In T. 22S, R. 29E 2 tests have been drilled. One to a total depth of 3,322 ft. The other to a total depth of 3,260 ft. The former was drilled in 1937 and the latter in the year 1926. It gives within the general area under discussion a total of 153 tests of one class or another that have been drilled.

Q And these records you obtained from the reports of the U.S. Geological Survey? ---A. Yes.

Q And those are available, as to location, and all the information is available at that source? ---A. Yes, they are. I might add, on this current gological survey the accurate location is shown, and I merely tabulated this to give more concrete figures.

Q To your knowledge, within that area where those 153 wells between 1925 to date have been drilled, do you know of any instances in that particular area where there have been complaints as to leakage and so forth? ---A. Personally, I do not. But I have no record what damage the potash people might have suffered, if any.

Q But this area we are referring to isn't virgin country so far as oil and gas holes are concerned? ---A. By no means. It is one of the oldest areas for prospecting in the state as far as southeastern New Mexico is concerned.

MR. CAMPBELL: That is all.

MR. SPURRIER: Does anyone have a question of this witness?

MR. SETH: We have no questions.

MR. CAMPBELL: That is all we have.

MR. SPURRIER: Do you have any other witnesses, Mr. Seth?

W.N.M.C.F. MICROGRAPHICS

MR. SETH: We, we have no further testimony.

MR. SPURRIER: Do you have anything further, Mr. Campbell?

MR. CAMPBELL: Mr. Commissioner, just this. I think this hearing today has brought the problem here into focus more than any we have previously had, and so far as Richardson and Bass, whom I represent,are concerned, we wish to state we appreciate the information furnished by the potash companies and we feel, based on the information that has been furnished and their recommendations and our recommendations that, speaking for that company, we feel that the matter can definitely be worked out to our satisfaction, and we hope to the satisfaction of the potash companies.

MR. SETH: On behalf of the potash companies, I would just like to express our appreciation for this additional hearing that was had after the recess this noon. We feel that the matter is one of some substantial importance to the state and it should be decided on the basis of the interest of the state itself. The potash deposits, as has been testified several times during these previous hearings, are probably the only ones in the western hemisphere. The state should look at the proposition with a long-range view. The potash beds can be developed in the immediate future, and they should be. It is just a matter of time. The oil will be there when the potash is mined out. And I believe the matter, as the witness has stated, is one of conservation. It not only means production and realization of these resources, but it means protection of the adjoining ones. If the oil can be produced in a manner to protect the potash beds, that is all we are interested in. The state, in the potash, has a unique resource that is in need of protection and is in considerable danger of damage, and I think the matter as presented during the several hearings has brought that out much better than I can state it. It transcends any interest of any individual or any individual company. In a situation of this nature, just as in these condemnation cases on the bombing range and other things that have happened in the state, someone is bound to get hurt. It happens when the state takes into consideration an action like this. A decision has to be made which will insure to the state the best realization of this resource. We will be very happy to furnish any additional maps or information that the Commission may wish at any time.

MR. SPURRIER: Thank you. The meeting is adjourned, gentlemen.

W.N.M.C.F. MICROGRAPHICS

STATE OF NEW MEXICO

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COUNTY OF BERNALILLO

I HEREBY CERTIFY That the foregoing transcript of hearing before the Oil Conservation Commission in Santa Fe on July 10, 1951, is a true record of the same to the best of my knowledge, skill, and ability.

DONE at Albuquerque, N. M., this_____day of July, 1951.

E. E. Greeson
Notary Public - Court Reporter

My Commission Expires: 3-4-52

Mailed:
July 20, 1951

COMMISSIONER OF PUBLIC LANDS

STATE OF NEW MEXICO

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TRANSCRIPT OF RECORD

OIL-POTASH MEETING

Held at Santa Fe, New Mexico

Thursday, March 29, 1951

COMMISSIONER OF PUBLIC LANDS

STATE OF NEW MEXICO

- - - -

OIL-POTASH MEETING

Held at Santa Fe, New Mexico, March 29, 1951

BEFORE: Hon. Guy Shepard, State Commissioner of Public Lands, Chairman

Hon. R. R. Spurrier, Secretary and Director of Oil Conservation Commission

Hon. George A. Graham, Attorney

REGISTER:

F. H. Stewart
Southwest Potash Corporation
Carlsbad, New Mexico

Thomas G. Moore
Southwest Potash Corporation
61 Broadway
New York, New York

T. M. Cramer
United States Potash Company
Carlsbad, New Mexico

Oliver Seth
United States Potash Company
Santa Fe, New Mexico

L. H. Freedman
United States Potash Company
C/o James H. Snowden
Fort Worth, Texas

Joe P. Smith
United States Potash Company
Carlsbad, New Mexico

R. G. Haworth
Potash Company of America
Carlsbad, New Mexico

D. E. Protz
Potash Company of America
Carlsbad, New Mexico

F. O. Davis
Potash Company of America
Carlsbad, New Mexico

G. C. Weaver
Duval Sulphur and Potash Company
Carlsbad, New Mexico

U. N. M. C. E. MICROGRAPHICS

R. A. Shepherd
Duval Sulphur and Potash Company
Carlsbad, New Mexico

Eugene German
Duval Sulphur and Potash Company
Houston, Texas

W. P. Morris
Duval Sulphur and Potash Company
Carlsbad, New Mexico

Caswell Neal
International Minerals & Chemical Corporation
Carlsbad, New Mexico

Ralph Nix
Artesia, New Mexico

Jerry Curtis
Artesia, New Mexico

John M. Kelly
Roswell, New Mexico

S. B. Christy
Sun Oil Company
Roswell, New Mexico

Frank O. Elliott
L. E. Elliott
Roswell, New Mexico

William M. Taylor
Sinclair Oil & Gas Company
Tulsa, Oklahoma

James K. Smith
Stanolind Oil & Gas Company
Fort Worth, Texas

W. M. Jones
Stanolind Oil & Gas Company
Lubbock, Texas

H. S. Cave
Phillips Petroleum Company
Midland, Texas

R. F. Rood
Phillips Petroleum Company
Midland, Texas

Emmett D. White
Leonard Oil Company
Roswell, New Mexico

T. L. Dean
Richardson & Bass
Midland, Texas

Howard W. Jennings
Roswell, New Mexico

J. E. Hill
Richardson & Bass
Fort Worth, Texas

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Raymond Lamb
Wilson Oil Company
Santa Fe, New Mexico

J. S. Griffith
Humble Oil & Refining Company

Sid Richardson
Richardson & Bass
Fort Worth, Texas

Ora R. Hall, Jr.
Santa Fe, New Mexico

H. E. Harrington
Malco Refineries, Inc.
Roswell, New Mexico

Harve H. Mayfield
Magnolia Petroleum Company
Midland, Texas

E. S. Grear
Gulf Oil Corporation
Roswell, New Mexico

E. E. Merkt, Jr.
Gulf Oil Corporation
Fort Worth, Texas

John H. Bevan
Gulf Oil Corporation
Fort Worth, Texas

R. E. L. Batts
Gulf Oil Corporation
Fort Worth, Texas

R. L. Hughston
Shell Oil Company
Midland, Texas

M. A. Sherwood
Shell Oil Company
Midland, Texas

G. R. Carter
Texas-Pacific Coal & Oil Co.
Midland, Texas

R. G. Schuehle
Texas-Pacific Coal & Oil Co.
Midland, Texas

Jack N. Campbell
Atwood, Malone & Campbell
Roswell, New Mexico

Charles G. Loveless, Jr.
New Mexico Oil & Gas Association
Santa Fe, New Mexico

R. J. Mullins
New Mexico Education Association
Santa Fe, New Mexico

Hon. John E. Miles
Santa Fe, New Mexico

Foster Morrell
United States Geological Survey
Roswell, New Mexico

R. E. Canfield
United States Geological Survey
Roswell, New Mexico

R. H. Aliport
United States Geological Survey

D. C. Abernethy
United States Geological Survey
Washington, D. C.

W. H. Burnett
Bureau of Land Management
Albuquerque, New Mexico

E. E. Kinney
New Mexico Bureau of Mines
Artesia, New Mexico

Frank C. Barnes
State Oil Conservation Commission
Santa Fe, New Mexico

Henry H. Bruhn
United States Potash Company
Carlsbad, New Mexico

Paul J. Weaver
Houston, Texas

CHAIRMAN SHEPARD: The meeting will please come to order. This meeting is a continuation of the meeting of February 27th, held for the purpose of determining whether or not certain lands should be withdrawn from oil and gas drilling; and at that time the potash people asked for a continuation of time to allow them to assemble additional material for presentation. The time for this meeting was then set for March 9th, and later set for this date to give every one enough time to prepare for it. The potash people will proceed. Mr. Seth.

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do you wish to open the questioning for the potash industry?

MR. SETH: I would like to ask if the testimony at the other hearing held February 27th is to be considered as a part of that to be given today?

CHAIRMAN: Yes, it is a continuation of the other meeting.

MR. SETH: I may then refer to my testimony given at the beginning of that hearing. We come desirous of working out with the Commissioner some procedure which will permit the solution of the technical and mechanical aspects of the problem. We appreciate the action of the Commissioner in having given us time to consult people having experience in this matter. Consultation with engineers and geologists leads us to the conclusion that the matter is of such importance and has ramifications so serious that we appreciate, much more than at the other hearing, the importance of the problem. I believe Mr. Caswell Neal would like to make a statement.

MR. NEAL: My name is Caswell Neal, of Carlsbad, New Mexico, representing the International Minerals & Chemical Corporation. Do I understand that the Commissioner would like to have some proof of what would happen if drilling for oil and gas were permitted in the potash area?

COMMISSIONER: Yes, we want to hear any witnesses you would like to present.

MR. NEAL: I would like to make a preliminary statement. I believe the Commissioner has a copy of the letter dated March 16, 1951, submitted by each of the five potash companies operating in the area under consideration, which generally states the position of the industry in connection with the matter before the Commissioner. We feel that both the federal and

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state lands in the area should be withdrawn from the development of oil and gas because of the extreme danger of damage we feel can occur to the potash beds. This is from the danger of overhead water and also from the possibility of oil and gas escaping into the formation. This is a danger not only to the potash formation but also creates a great hazard to the men working in the mines. It is the thought of the potash industry that this matter should be given thorough study, to be made by a board appointed by the Commissioner consisting of representatives from the potash industry and from the oil and gas industry, and also of experts from both the United States Geological Survey and the State organizations; and after such study has been made, to formulate rules and regulations applicable to the lands in the area. Would the Commissioner like to have witnesses sworn?

COMMISSIONER: No, it is unnecessary.

MR. SETH: Some of the witnesses are representatives of certain companies, and think they would like to speak for their own companies. There are others who will give testimony of a general nature.

MR. NEAL calls Mr. Cramer to the stand.

Q Please state your name.

A T. M. Cramer.

Q Where do you reside?

A Carlsbad, New Mexico.

Q What company are you with?

A The United States Potash Company.

Q How long have you been familiar with the potash mines in the Carlsbad Area?

A Nineteen years.

Q Will you describe the formation in which potash deposits are

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found in southeastern New Mexico?

A The potash lies in the form of soluble salt in beds 750 to 1500 feet below the surface. The beds are in layers of common salt or sodium chloride. All of the potash is recovered by mining. We go down to the beds with a shaft and then, by means of tunnels, we go out into the area where the potash is extracted. The extraction runs on the first mining from 40% to 75%. A certain amount of the potash is allowed to remain in place to support the roof above the mine. It is planned to eventually extract the greater part of the potash salt which is at the present time allowed to remain in place in the form of pillars or supports.

Q How much of the potash is extracted?

A From 40% to 75% is removed in the first mining. The quantity varies with different conditions within the mine. In some cases as low as 40% is removed, on up to 75%.

Q What remains is left in pillars?

A Yes, sir.

Q These pillar supports are left to hold up the overburden?

A Yes.

Q Will you describe in connection with your mining operations what the conditions of the overlying strata are, the danger of intrusion of water in the mine?

A In general we go down to what is known as consolidated ground. We encounter one brine formation at the surface and deposits of various sorts as we go on down. At several hundred feet we arrive at a dolomite stratum which contains water.

Q Is that what is known as the Rustler formation?

A Yes.

Q Is that general throughout the area?

A Yes.

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Q What methods are used for shutting off the water?

A Sometimes we arrange to pump it out if it is found in small volumes, and sometimes we shut it off with solid concrete, and in some places drainage is provided to take care of the water.

Q Have other methods been used that you know of?

A In one recent case they have employed freezing methods, and have gone down through the frozen ground.

Q Are you familiar with the quicksand encountered in the water bearing formation?

A Yes, sir.

Q Will you state the position of your company and the industry, as best you can, relative to the possibility of water getting into the potash formation, and describe the effect of water on the deposits?

A First water would start to work on the salt and dissolve it and if there is no outlet for the water it will remain as stagnant brine; if there were fractures in the salt which would permit that water to come on through in the area in which we are mining, more and more brine would find its way through until we had water in the mine.

Q If the situation developed to where the salt beds above became soluble, or became wet, what would be the effect on your operations?

A It could be very serious. In some of the European operations they have lost mines entirely through this cause.

Q I believe these are not the only deposits found in salt beds.

A Yes sir.

Q Are there beds similar to these in Germany and Russia?

A Yes, sir, with the difference that in America they lie

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almost flat, whereas in Europe they almost stand on end in places.

Q You stated that mines have been lost in Europe through the intrusion of water?

A Yes, sir.

Q Will you also describe the feeling of the industry with regard to the production of oil and gas from underlying strata?

A Speaking for our own company, we feel that both the oil and potash industries are custodians of natural resources, that our duty is the conservation of these resources, and we would feel very derelict if we did anything which would cause or contribute to the loss of the mines. We feel the approach to this problem should be open minded and that the best knowledge of producers of both industries should be brought into the efforts toward solution of the question.

Q Have you had any difficulty with gas, explosive or otherwise?

A I can only speak from our experience. We have encountered some gas but that encountered within the mine itself has been so small that our mine is considered non-gaseous. We have had what we call high pressure ore from seams in the mines.

Q What would be the effect if oil and gas operations were undertaken in the area and proper precautions not taken to protect the potash mines?

A The result of escaping gas is incalculable. We might have to abandon the mine if much of such gas were encountered.

Q It is your feeling, I believe, that experts should give their thought to the question and submit the results of their study before action is taken by the Commissioner in this highly important matter?

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A Yes sir.

Q Is there any further statement you care to make?

A I believe the state and federal governments have experts who can act in this matter and we are very anxious to have uniform regulations in respect to this problem more particularly because we are operating on both state and federal land between which there are no existing barriers. It would be almost fatal to our operations if we were obliged to carry on under two sets of rules. So that one thing we urge is a uniform policy of state and federal governments, and another thing is that both oil and potash companies be heard before the Commission reaches a decision.

Q I believe the federal government has withdrawn from all oil and gas development certain lands in this area and that is the policy with regard to federal lands in this area?

A Yes, sir.

Q The area contains how many townships?

A I would guess somewhere around 75,000 acres.

Q Which would be something like three townships?

A Yes sir.

Q Of course a very substantial investment is necessary to open a potash mine?

A Yes sir.

Q Can you approximate a figure?

A I would say somewhere between 8 and 10 million dollars.

Q In the event drilling is permitted in any part of the area what is your feeling with reference to requiring a very substantial bond to protect the potash mines from damage which might occur?

A I believe a person who came close to a mining operation should be in position to protect the mine and provide proper

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indemnity.

Q I believe there are a few outstanding leases in the area; is it your feeling that in order to protect the industry drilling for oil should not be permitted there?

A With reference to our particular problem, I would say Yes.

Q Mr. Davis, have you any questions?

MR. CAMPBELL: Q Do your statements in regard to the position of your company include everything in the letter to the Commissioner submitted by the other potash companies?

A No, I would say that all representatives of the five potash companies are here and can make their own statements.

Q When were the operations for your company started?

A In 1931.

Q You actually started in 1931?

A Yes sir.

Q Do you know how much ore has been mined?

A I am very sure it is more than 10 million tons.

Q That is crude ore?

A Yes sir.

Q Do you know how much is being mined in a year?

A I would say a million tons a year.

Q How far from your shaft do your tunnels generally extend?

A Some of them from a mile to a mile and a half; others not so great a distance.

Q Like spokes on a wheel?

A They extend out in eliptical form.

Q You say they extend no more than a mile or a mile and a half in the workings?

A Yes.

Q And you have been in continuous operation since 1931?

A Yes.

Q Do you have any estimate as to what has been set aside by the federal government as potash land?

A There is the one general potash area and, I believe an oil reserve.

Q Where is it?

A Northeast of our mine and southeast of the Potash Company of America.

Q Do you know how many sections?

A Four, I believe.

Q Do you know whether the state has withdrawn any land in that area?

A The policy of the state has been pretty well understood to this time, and it was that potash and oil be not taken from any place under the same area. Once in a while we have picked up an oil lease, both state and federal, and we have turned them back. At the January sale an 800 acre tract was placed for lease which lay directly over our mines.

Q You have purchased leases?

A Yes.

Q You now have some?

A Yes, I would say we have purchased them for the general good of the potash industry.

Q Could you tell how much your company has in potash land?

A About 35,000 acres.

Q How much of that is federal land?

A That is fixed by law at 15,000 acres.

Q Is it the intention of your company or what you intend to

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mine out -- that entire acreage?

A Yes, we ultimately intend to mine all of it.

Q At your present rate of production that would take considerable time, wouldn't it?

A It would be.

Q I think you have stated in your mining operations that some of the potash remains in the mine in the form of pillars?

A Yes, sir.

Q Which bed is your company mining now?

A The lower bed.

Q Where are the lower beds situated?

A Relatively two hundred feet below the upper.

Q What is the comparison in thickness of those now being mined? Comparison to the upper beds?

A They vary from thicker to thinner.

Q Are they as extensive as the upper beds?

A They are less extensive.

Q You intend to mine out the upper beds after the lower beds?

A Yes, sir.

Q You feel you could not safely subside the upper level before the lower beds are mined out?

A That is right.

Q How far has this method actually progressed -- the technique of it?

A It is a very well known and established practice, not only in potash but in coal and metal mining.

Q How is subsidence avoided?

A I don't say the room and pillar method avoids subsidence altogether. Say a 10 foot subsidence would not necessarily

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reach the surface. In the European mines a 200 foot subsidence filled the stopes.

Q Your mines, being flat, present no such problem?

A That is right. We can expect a 10 foot maximum.

Q Has the Bureau of Mines approved any definite plan?

A In 1933-34 a cooperative plan was approved but was never carried through because further investigation seemed desirable.

Q What is the danger of fractures allowing water to come into the mines, regardless of oil and gas drilling?

A We think at the present time it will be possible to bring a roof down in a very substantial area without cracking the area above.

Q You don't think existing fractures have given cause for alarm?

A Up to the present time we have not encountered any substantial amount of water in our mine.

Q Where do you obtain your water for use in your operations?

A From our shaft and by other means.

Q How much of it do you obtain from the shaft?

A I would say a third or a fourth.

Q You just pump it out?

A Yes sir.

Q I would like to ask about your core drilling operations generally.

A We drill down to the surface of the salt with cable tools and then take the core on down.

Q What do you do about water infiltration?

A The common practice is the use of cement. In some instances a certain amount of mud is used.

Q Coming back to the matter of removal of the pillars:

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You leave, I presume, a larger pillar in some areas?

A Yes, that is correct.

Q And you would eventually remove them right up to the shaft?

A No, not to the shaft. The work would be done so as not to endanger life underground.

Q Is it your thought there would be any extensive movement when this is in process?

A We don't have a complete answer. We do know there is lateral movement. We have movement in two directions, that is vertical as well as lateral. We also know we have encountered so-called heavy ground.

Q You speak of lateral movement -- Does that extend into the areas now reserved and not actually mined?

A I am not competent to say how far you might have migration of air or gas. Some one else here can testify as to the lateral movement of hydro carbons.

Q You do feel that the danger is remote?

A I would say there is a calculated risk within a certain distance of an open oil well.

Q With regard to the bond mentioned in connection with drilling operations: How much would it be?

A It would have to be shown that the person undertaking the work was financially responsible but I don't think any one would know what amount should be set up.

COMMISSIONER: Are there any more questions? Mr. Protz, Mr. Morrell?

Q (Cont.) Are you actually doing any subsidence work?

A In limited areas we are actually removing parts of the pillars. As we remove the pillars there is a certain amount of what is called convergence and as we go on with the extraction we can determine what convergence takes place and when.

From the work done by the Bureau of Mines, we feel that we can safely make these tests as we work on the pillars, and learn what to expect.

Q What is your subsidence procedure? Do you work toward the shaft?

A We go out to commence, and work toward the center.

Q Suppose the ground gave way?

A If the ground below gave way and broke there might be but very little subsidence at the top.

COMMISSIONER: Are there any further questions?

MR. NEAL: I have some further questions.

Q How much of a pillar do you leave around your core test wells?

A Certainly up to 100 feet.

Q On all sides?

A Yes, in diameter.

Q That is 100 feet in all directions?

A Yes, sir.

Q In the event of oil and gas well drilling operations, what is your feeling as to the necessary area to be left for proper protection of the mine?

A I don't feel competent to estimate on that. Of course the pressure in an oil well would be a factor to be considered.

Q Would it be a dangerous operation?

A I would say so.

Q Do you know of any way to protect the mine in case of lateral movement?

A No.

Q What would occur if the casings were sheared or broken?

A The result would be intrusion of oil or gas into the mine or into the beds.

Q Do you leave the pillars where core tests have been drilled?

A Yes, sir.

Q How many of those are there?

A I believe there are ten in the coring area.

TESTIMONY OF MR. G. C. WEAVER

MR. NEAL: Q State your name, please.

A G. C. Weaver.

Q What is your business and profession?

A Consulting engineer, mining and petroleum.

Q Your education?

A I am a graduate of the Colorado School of Mines.

Q What has been your experience?

A I have had sixteen years experience; eight with one company, the Potash Company of America and four with International Minerals & Chemical Corporation and four as an independent.

Q Are you familiar with the Carlsbad potash area?

A Yes, sir.

Q In connection with your experience in potash mining, are you familiar with all of the known beds in the Carlsbad area?

A Yes, sir.

Q Please state what the beds consist of and the approximate area they cover?

A We generally think of four mineralized beds. Number four is the sylvanite bed.

Q What is the bed being worked by International Minerals & Chemical Corporation?

A That is the No. Two bed, the langanite bed.

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Q Mr. Weaver, I believe you have seen the letter addressed to the Commissioner of Public Lands, dated March 16, 1951, in which the views of the potash industry are set out in regard to oil and gas drilling in the potash area?

A Yes, sir.

Q Is it your feeling that oil and gas drilling operations can be carried on without danger to the potash mines?

A I think there is great danger in such operations.

Q Will you please state to the Commissioner your feeling as to the danger from a geological and mining standpoint?

A Well, the thing that worried me more than any other factor is subsidence. I don't know of any way in the world to control that in the event of a drilling operation in that area. Subsidence is not a controllable factor, and it is unpredictable. There is a certain condition known as bumping and if it happened to shear the casing it would cause the loss of the mine.

Q What is your feeling as to endangering the mine by water encroachment if drilling operations were started?

A I think you would have a better chance of controlling that, but it still would be a very serious hazard. It would be a problem which would take a long time to solve, and great expense.

Q Is it your feeling that no matter what precautions were taken in drilling for oil and gas in the potash area, there is no manner in which positive assurance can be had that the wells will not cause destructive subsidence?

A I do not think any oil and gas wells could be drilled and be absolutely certain that there would not be some escape

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of gas or oil either through corrosion or faulty threads in the pipe, or some other cause. These things happen every day in drilling wells, and strange and unforeseen things have already happened, and will continue from now on.

Q Do you know of the existence of any oil or gas wells in any part of the area being mined for potash?

A Yes.

Q Where?

A In the holdings of the Potash Company of America. It is within their projected area.

Q Has any oil or gas been encountered in the area?

A The Potash Company of America did encounter some oil and gas.

Q Fugitive?

A Yes.

Q Where did it come from?

A I would rather have some one else answer that question.

MR. CAMPBELL:

Q I gather your primary concern in the matter of oil well drilling in this area is subsidence?

A That is right.

Q You speak from an operational point of view?

A Yes.

Q How many levels are there in the International Minerals & Chemical mines?

A Three.

Q How extensive are the workings in the lower bed?

A

Q That is away from the shaft?

A That is right.

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Q What is the general movement from the shaft?

A They have worked on all sides of the shaft.

Q Can you state the length of the various beds?

A No, sir, I could not answer that. They have done a great deal of exploration work, but what the findings are I could not tell you.

Q The pillars in any lower bed could not be removed safely until those in the upper beds have been removed; is that correct?

A The general practice is to work down.

Q It hasn't been there, has it?

A They don't overlie there.

Q From the time element point of view, what is your estimate of the time when these pillars could be removed?

A I will say we are working under the directions of the geological survey and we submit all plans to them for approval, and it would be difficult to estimate the time.

Q Does the Bureau of Mines have to approve any subsidence program?

A A gentleman by the name of George Rice carried on some sort of study, but it was not in the nature of a long range program.

Q In other words, there is no definite program?

A All of the companies are thinking about it.

Q Are you acquainted with European block tailing (?) ?

A I think you are probably thinking of stope mining.

Q Is there a way you can back fill to avoid subsidence?

A Yes, it is possible to do that but it is not practicable.

Q But as a matter of engineering, it can be done?

A Yes, sir.

Q Are you acquainted with the location of the shaft of the

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Southwest Potash Company?

A Yes, sir.

Q Where is that?

A In Section 9.

Q The shaft is being put in there, isn't it?

A Yes.

Q Have they located the shaft?

A Yes.

Q Are there abandoned oil wells in that area?

A Yes.

COMMISSIONER: Are there any further questions? If not, you are excused, Mr. Weaver.

MR. NEAL: I believe Mr. Thomas G. Moore of Southwest Potash Corporation would like to make a statement.

MR. MOORE: Our position in New Mexico is unique in that we are not now in operation and, therefore, have the opportunity to develop a mining system on a proven ore body from the outset. It is also true that our position is somewhat different from the operating mine owners in that our land is covered by oil and gas leases. I have here a prepared written statement which I would like to have made a part of the record:

"STATEMENT OF SOUTHWEST POTASH CORPORATION"

Southwest Potash Corporation has 13,082 acres under lease for potash from the State of New Mexico. On November 10, 1950, the company made application to the state to withdraw and exclude 320 acres of this land, not now held under oil or gas leases, from leasing and, to provide that the non-producing oil and gas leases on 1,440 acres of the above lands not be renewed or extended. No application was made,

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nor is one intended to be made, on the remaining 11,322 acres still held under State lease. Copy of the application of November 10, 1950, was read into the record of the hearing held before the Commissioner of Public Lands on February 27, 1951. The Company also holds 7,678 acres under three Federal Potassium Leases and on November 10, 1950, made application to the Bureau of Land Management, Department of the Interior, not to renew or extend the oil and gas leases which now cover all of this acreage. Southwest Potash Corporation has therefore made application for a total of 9,438 acres to be excluded from further oil or gas leasing.

The above total acreage covers proven commercial potash ore with only a reasonable margin at the edges of this ore to provide for irregularities in its outline.

Southwest Potash Corporation contemplates the early extraction of pillars with a mining system designed to work toward a complete extraction of the ore body. The removal of pillars or a high initial extraction of the ore will cause subsidence of the overlying formations. A study of the longwall mining methods and consequent subsidence of overlying formations at various potash mines in France and Germany, which practice has been carried out in these countries for many years, has been made by Southwest Potash Corporation in connection with the designing of its mining system. Strong horizontal movement as well as vertical is inevitable in such subsidence and

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precludes the maintenance of operating oil wells in areas subject to subsidence.

The success of these mining systems, as practiced abroad and as contemplated by Southern Potash Corporation, is based on virtually complete extraction of the potash ore. Even and unbroken subsidence of the overlying formations is necessary to prevent the influx of overlying water. Pillars around producing oil wells would prevent such unbroken and uniform subsidence and cause rupture of the overlying formations allowing water to flood the mine. Therefore, the choice is between total extraction and complete subsidence or the maintenance of full pillar support and the prevention of any subsidence whatsoever. Adequate pillars to support the overlying formations and prevent subsidence, would necessitate leaving up to 40% of the Southwest Potash ore body in the form of pillars. Consequently, the existence of even a few producing oil wells within the limits of the known potash ore body could prevent the extraction of the above large percentage of the ore.

The major part of the 9,438 acres stated above are covered by either State or Federal oil and gas leases. However, they have not yet been drilled and are non-productive, whereas the Southwest Potash Corporation has diligently developed the State and Federal potash leases granted to it and are committed and entitled, under such leases, to extract the proven ore to its fullest extent in accordance with good mining practice.

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It is therefore reasonable to ask for protection of this ore body and the large capital investment required to bring it into production by withdrawal of the aforesaid 9,438 acres from further oil or gas leasing.

Southwest Potash Corporation submits that:

1) The mining of potash ores and the production of oil or gas from identical acreage is wholly incompatible.

2) It is not to the best interests of conservation of natural resources to prevent the extraction of up to 40% of the proven Southwest Potash ore body by allowing oil well drilling within it.

3) The exclusion of 1,760 acres of State land and 7,678 acres of Federal land containing proven potash ore from further oil and gas leasing is not only reasonable, as no productive oil or gas structures are known within this area, but essential in the best interests of conservation, the State and the general public.

Southwest Potash Corporation therefore respectfully requests that its application to the State, submitted November 10, 1950, be acted upon favorably.

Southwest Potash Corporation recognizes that any policy decision with respect to oil and potash in this area will have far-reaching effects and that for the good of all, the policy to be followed by the State and Federal Government ~~Government~~ should be coordinated. It hopes that this question will be given complete and detailed study by a joint commission of the appropriate State and Federal authorities and a policy developed only after thorough consideration.

Southwest Potash Corporation will be glad to submit

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to the Commissioner of Public Lands or to a joint commission such information, in regard to subsidence and in regard to the effect of subsidence on producing wells, as it now has or may be able to obtain.

March 29, 1951."

(MR. MOORE, CONT.) Mr. Campbell has brought up the matter of the production of oil in Section 16, which is adjacent to our present shaft. The production in that area is on the edge of our commercial ore body. Furthermore, if you will trace the production of that field you will find it has been decreasing rapidly for the last few years. Apparently, from the oil records, within a reasonable time, the wells in that field will be non-productive. Only three are now producing.

MR. NEAL: Q From your statement do I understand that you expect to employ different mining practices from the other potash companies operating in the area?

A The only difference would be that the other companies have left their pillars and are now working toward their removal. We expect to initiate a different pillar extraction program.

Q As I understand it you expect to develop the mine from the outside in.

A Yes.

Q And in your operations you would expect to go from the edge of the ore body toward the center?

A Yes, and subsidence would begin at the edge.

MR. CAMPBELL:

Q What effect do you think your operations would have on the adjoining potash areas?

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A There are none adjoining.

Q Isn't there a reserve in 19 - 30?

A Not so far as potash is concerned.

Q Wouldn't the effect be adverse?

A Frankly, I don't believe so. We would not expect subsidence to have any great effect other than as stated.

Q It would have an effect on oil and gas wells?

A Yes.

Q Do you say you would commence potash mining operations in Section 16?

A The first potash mined would not come out of Section 16.

Q The danger to oil wells is true whether the well is producing or abandoned, isn't it?

A The abandoned well can be plugged.

Q You plan to plug these wells?

A There is a well which we would expect to plug.

Q How do you plan to plug it?

A I think Mr. Stewart can tell you.

MR. STEWART: We have talked to several oil people and the procedure would probably be to pull the casing and plug.

Q You will rely on the opinion of a good oil man in that respect?

A We would. We hope when we have to mine Section 16 we can obtain the right to go in and plug these wells. If water has got through to the outside of the casing, we would want to be sure it was plugged off.

Q There is an abandoned well in Section 10, isn't there?

A Yes, and we have tried to get the log of that well.

Q Do you plug your core test holes?

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A Yes, our core tests are plugged from the bottom to the top.

Q How many beds of potash do you encounter?

A One main bed.

Q How extensive are your core drilling operations?

A We have drilled 66 holes.

Q What is the thickness of the beds?

A It varies from 9 to 4 feet.

Q How much of an area have you tested?

A Nine thousand acres.

Q Do you plan to mine all this out immediately?

A Depending on conditions.

Q You figure the wells in this area are wearing out fast?

A The records so indicate.

Q What will be the effect of subsidence in this area upon the surface?

A You have asked that question, and I say again subsidence doesn't break up the surface when it is evenly distributed.

Q What would be the effect of a general subsidence?

A The whole question of mining method and extracting is one of development to meet conditions as the work progresses. Mining has not yet been done in the Carlsbad area by the method we propose to follow although it has been done in Europe successfully. Different methods have been developed for particular areas.

Q Your method has been approved by the United States Geological Survey?

A It has been discussed.

Q You do not know that it will be approved?

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A Yes, sir, but you don't make a blueprint until you have developed a method to meet the conditions encountered. We are not yet underground in our operations.

COMMISSIONER: Are there any further questions? If not, we are in recess until 1:15 P. M.

TESTIMONY OF MR. R. G. HAWORTH

MR. NEAL: Q Will you please state your name?

A R. G. Haworth.

Q Where do you live?

A Carlsbad, New Mexico.

Q What is your business?

A Potash mining.

Q What company are you connected with?

A The Potash Company of America.

Q What position do you hold with the Company?

A Assistant resident manager.

Q How long have you been familiar with the potash operations in that area?

A Since 1942 when I started work there.

Q How long has the Potash Company of America been in operation?

A Since 1934.

Q Can you give us an estimate of the approximate underground miles you have worked through your tunnels?

A The lineal extent is about 200 miles.

Q What area does it cover?

A Our operation is in approximately four sections.

Q Are you able to tell how many sections of state land there are in your lease?

A We have approximately six sections in that area.

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Q Have you been operating some of the state lands?

A Yes, we have.

Q In connection with your operation of the mine have you encountered any difficulty with running into fugitive oil or gas of some sort?

A Yes, we did encounter some oil and gas, I believe, in 1947.

Q Where was it encountered?

A In what we call the main south tunnel.

Q As a result of encountering this oil and gas did you make any changes in your operation of the mine?

A We abandoned part of the entries we had driven and offset our main entry about 300 feet.

Q Are you able to say how much production of potash had to be abandoned on account of the situation encountered?

A I cannot say because the oil and gas we encountered was not in contact with the potash formation; it was some distance above it. We were driving this tunnel in about 9,000 feet and about this distance we found a sinclinal fold and above that fold there was a zone of broken material and some clay beds which showed evidence of movement, and that was where we encountered the oil and gas.

Q Did you form an opinion as to the source of it?

A The only source we could agree upon was an abandoned oil well about 1200 feet from this tunnel, because we had not come across any in any other place.

Q: Is it your opinion that the presence of oil and gas within the area of your operations creates a hazard?

A It creates a hazard and each oil well is a hazard. Each oil well means more potash we will have to leave in pillars, as well as the precautions we will have to take in avoiding

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a major disaster of some kind.

Q You say in this tunnel you found some evidence of shifting in these formations?

A Yes, the beds were folded down this way, and across, and when the tunnel encountered this particular clay bed we came across the oil and gas. There was no evidence of a fissure; it came in along that particular trough. I think the circumstance does indicate that oil and gas can migrate laterally.

Q You have heard the statements of Mr. Weaver and other gentlemen as to the danger not only from seeping oil and gas into the mine itself, but the danger of water, or flooding the mine. Are you in agreement with them?

A Certainly if the drilling operations were done the way most of them do it, I would not want to have any drilling done through our mine, because there would be a good possibility of getting water in.

Q Do you have any other statement you would like to make?

A I do not believe that our company problems are identical with those of other potash companies. I think there is such variation in conditions that come up, and probably in the operations of the oil people as well, that the only solution would be to settle each one as it comes up, more or less, and perhaps arrange for regulations which would be agreeable to every one.

Q Is it your opinion, with reference to the oil and gas leases within the potash area, that some sort of regulations should be made with relation to the potash mining?

A Yes, I do not think they should drill in any of the proven potash reserves.

MR. NEAL: I believe Mr. Davis has some questions.

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MR. F. O. DAVIS : Q Isn't it a fact that because we ran into this migratory oil and gas that we found it necessary to do our exploratory work all over, and had to back off and move our entry several hundred feet, all at a cost of $40,000 to $50,000?

A Yes, it cost us approximately that. We had to plug off any seeps that continued; we managed to back away from it before we broke into it completely.

MR. NEAL: Q How many shafts have you sunk?

A We have started and abandoned two on account of quicksand and we are now sinking another by means of freezing the ground.

Q Is there a very heavy stratum of water there?

A Yes.

Q If it should go into the potash beds it could do an extreme amount of damage, couldn't it?

A It would be very difficult to shut it off. One fracture or one leaky casing would allow water to come down and make a larger opening all the time. It is not quite the same situation in a metal or coal mine. If they have water in a mine they can pump it out. We have to seal out all the water because potash beds are soluble.

COMMISSIONER: Mr. Campbell, do you have any questions?

MR. CAMPBELL: Q What did you state your position is with the company?

A Assistant resident manager.

Q Are you familiar with the production history of the company?

A Yes sir.

Q You started operations in 1934?

A Yes, sir.

Q What has been your total production, approximately?

A About 15 million tons, or better.

Q What is your present operation per year?

A It will exceed one million, quite a little -- maybe 1½ million.

Q What do you consider is your acre ton production?

A The recovery in the first mining will average somewhere in the neighborhood of 60%.

Q Do you have any estimate how much you recover per acre?

A That depends on the thickness of the ore.

Q Can you give me an average?

A I never worried about acre tonnage.

Q Couldn't you approximate a figure?

A Possibly 10,000 an acre, gross. That is very thin ore.

Q That is about a hundred acres a year?

A I think that would be about the figure.

Q Do you know the extent of your potash state leases?

A Somewhere in excess of 50,000 acres.

Q Do you know what the amount is on federal land?

A The maximum allowable -- 15,000 acres.

Q Then you would have at least 65,000 acres of these leases?

A Yes.

Q Then it would take you 650 years to develop the area you have under lease?

A That would depend on how much of it was productive and on increased production.

MR. NEAL: Q There is a great deal of your acreage that is not productive, isn't there?

A We have some which we are prospecting. Most of that is wildcat.

Q You spoke of having to take extra precautions in that area.

Are you familiar with the precautions that would have to be taken if any oil well drilling was done there?

A We know we would have to take the precaution that the driller knows what to do.

Q Are you acquainted with this core test drilling operation?

A Yes.

Q Do you drill your core holes on a pattern?

A Normally, yes.

Q How frequent would they be?

A It depends on what the problem is. Sometimes we might drill on every 40 acres. In other cases we might drill on section corners.

Q You use cable tools to drill down to the salt?

A Sometimes cable tools are used and sometimes rotary.

Q What do you do then?

A They case and cement in the top of the salt.

Q After you have taken your core what do you do?

A We have the drillers run the rods in the hole and pump in the cement.

Q That is in the salt section?

A Yes.

Q What do you do in plugging a core test hole?

A We are required by the United States Geological Survey to seal off the water with cement and then use mud in between.

Q How about casing?

A Well, we don't have any casing for one thing. Casing might tend to pull away, if it were used, and possibly break through at the water zone.

Q I understand your view was that each case should be decided on its merits. Is that your idea?

A I should think so. There might be areas in which oil men would not think of drilling and there would be no conflict; and there might be cases of state and federal land which would have to be regulated by officials.

Q That would pretty well eliminate the drilling of a large acreage?

A That would depend on the fact of such acreage being withdrawn. I do think where potash is found no wells should be drilled.

MR. CAMPBELL: I don't have any questions but I believe Mr. Weaver has.

MR. PAUL J. WEAVER: Q You mentioned, I believe that at the point where you found this oil there was clay?

A Yes, sir.

Q You also stated that this oil was migratory.

A Yes sir, that was a question and I answered yes.

Q Do you have evidence that this oil was under pressure? When you say "migratory" that indicates it was moving.

A When we found this seepage we drilled a small hole about 1½" in diameter, and we had a man there with an axe and he drove a plug in. It was not pressure such as is found in our mine. We found gas somewhere else under pressure.

Q Where was that?

A I believe one of our cores did show some oil, but it was very difficult to determine the source.

Q Was that in the area of abandoned oil wells?

A I believe it was.

Q Now about subsidence: I don't believe anybody has decided about how subsidence in an area corresponds with the cavity underneath. Isn't it true that practically all the evidence is that when you have an area letting down onto a cavity that

the break takes place at about a 45° angle. Wasn't this established in an issue of the Independent Engineer -- that subsidence does not affect an area more than about the distance out?

A I may not have read that article. I have had some experience with subsidence. I know if you have an area that is moving, it can affect something not directly over it.

Q But isn't the distance to which it goes at an angle of about 45°?

A I should think it could be much greater.

Q Isn't it a fact that the removal of areas in this mining area should not be expected to move installations laterally?

A That would depend on the mine.

COMMISSIONER: If there are no further questions you may be excused.

TESTIMONY OF MR. F. O. DAVIS

MR. NEAL: Q Will you state your name?

A F. O. Davis.

Q What is your business?

A I am Vice President and Treasurer of Potash Company of America, residing at Carlsbad, New Mexico.

Q How long have you been with that company?

A About fifteen years.

Q Are you familiar with its operations?

A In a general way; of course I am not an engineer, but as a director of the company reports of our activities come to me.

Q There has been some discussion regarding cave-ins and back filling? Will you please tell us your ideas?

A We have made extensive studies in regard to back filling

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and pumping back any foreign product which may be used. Our estimates are so far that it cannot be done within our margin of profit. In connection with the margin of profit, in New Mexico our competition is with several foreign companies. They can lay down here at our market cost and they are doing it, and we would have to absorb any back filling expense incurred. Another problem in back filling is the replacement of material and consequent double handling of it.

Q Is there anything further?

A One thing is the area under lease by the potash companies. Reference has been made to holdings of 65,000 acres. Actually the majority of that acreage is held for exploration. We do not anticipate that all of it is going to be underlaid with potash.

Q Are you familiar with the holdings of International Minerals & Chemical Corporation?

A I understand they also have approximately 15,000 acres under federal lease, which is the maximum. A further point in regard to acreage held for exploratory purposes is that if you have not developed it within a certain time it reverts to the state.

MR. CAMPBELL: Q Will you make a restatement regarding exploratory holdings?

A In addition to your federal lease you have the possibility of holding lands under prospecting permits. If no ore has been developed, the lands revert. Under the state leases you have a ten year period to carry on your initial exploratory work; a certain minimum amount of work is required and if no commercial quantities of potash are found, it reverts to the state after ten years.

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Q Do you know of any exploratory lands having been withdrawn?

A Only supplementary withdrawals would have been made since 1939. When we took our leases the withdrawal order of 1939 had already been issued.

MR. NEAL: Mr. Cramer would like to have a correction recorded of a statement he made this morning.

MR. CRAMER: Our company has very close to 30,000 acres in state potash leases, a little over 15,000 acres in federal leases and about 45,000 acres in so-called reserve, which were withdrawn for oil and gas leases. That 45,000 acres cover three potash companies.

Q You do not mean proven potash lands?

A No, sir.

Q Does that mean you automatically seek withdrawal when oil and gas leases are issued?

A No sir, not that I ever heard of.

Q You said the leases and withdrawals were about the same time?

A Our leases were issued in 1932. The federal withdrawal order was in 1939. I don't know about the International leases. There were four sections withdrawn subsequent to 1939 for all leases. The government prospected it and found potash.

MR. CAMPBELL: One phase of this matter we did not get to on that prior hearing, and that is in relation to the migratory possibilities of oil and gas. Mr. Hill, you have previously testified in that prior hearing that you have had considerable experience in oil fields in Texas?

A Yes, sir.

Q Have you had any experience in the Texas fields where wells have been drilled close to each other and were producing from different horizons?

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A We have some in the Keystone formation in Winkler County which were drilled five wells to forty-acre spacing. The deepest well is 660 feet location in the centre, and the other wells vary in distance from 110 ft. to 220 ft. from this centrally located well. The deepest well produces from the Ellenberger, which is 10,000 feet, and came in originally with a pressure of 4250 pounds to the square inch. At no time has there been any migratory evidence due to any faulty cementing or channeling that would have allowed such migration to occur.

Q You drilled through a salt section?

A Some 1200 or 1300 ft. of salt.

Q And you drilled subsequent wells in the immediate vicinity?

A Yes, sir.

Q What is the result if there is any migration?

A You have a blowout, and in no case did we encounter one.

Q In other words, you are convinced there is no migration of oil or gas between wells drilled 100 to 200 feet of each other?

A Yes, sir.

MR. NEAL: Q It is true, isn't it, that in drilling in salt areas you do hit areas of gas, either natural or nitrogen?

A We have had some of these instances, but we believe they are accumulations and not migratory from adjoining wells.

Q They blow out all around the well?

A There is no way to control that.

Q But they do occur, however, and if something of that kind occurred over a potash bed there would be extreme damage to the mine, wouldn't there?

A I don't think so.

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Q Why?

A I don't think if you ran into this sort of accumulation of gas, unless it was a migratory condition, which I doubt that it would be, that it would have sufficient force to damage anything.

Q I have in mind a well immediately south of Lovington which blew out. Do you remember that?

A No, sir.

Q It blew out a large area around the well.

A I am not very familiar with the Lovington area.

Q But you have seen that occur?

A But not petroleum gases.

Q Whatever damage it did do over a potash bed could be serious?

A You could have the same condition in core drilling.

Q But it would be more likely to occur in drilling for oil, wouldn't it?

A There is no casing used in core holes and we would not have that hazard.

Q The well near Lovington was some 4,000 feet deep.

A You have not stated whether they were drilling with cable tools or rotary?

Q Well, whatever they are, if a well blows out and gets away from you it could be extremely damaging if it were over a potash mine.

A I don't believe an operator would allow himself to get in that position.

COMMISSIONER: Are there any further questions? Mr. Seth, do you have a witness?

TESTIMONY OF JOSEPH P. SMITH

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MR. SETH Q Please state your name?

A Joseph P. Smith.

Q And what is your business?

A I am employed by the United States Potash Company as geologist.

Q How long have you been so employed?

A Almost twenty-two years.

Q Were you so employed when the potash development was started in the Carlsbad area?

A Just before the operation was started.

Q What is your training?

A I am a graduate of Louisiana State University and have done graduate work at Stanford.

Q You have been at Carlsbad since 1929?

A Yes, sir.

Q Are you generally familiar with the geology of this particular area?

A Yes, sir.

Q You have had an opportunity to observe underground conditions,,formations and potash deposits by way of core tests and other means?

A Yes, sir.

Q Are there layers within the United States Potash leases where the water bearing beds are in direct contact with the salt?

A Yes.

Q Is the amount of water in these beds of large magnitude?

A It is a little difficult to tell. We have never made an attempt to bail or run pumping tests, but I would say there is considerable.

Q Do you know whether there are water bearing beds under

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the salt?

A:No, I don't know, but recently a well near Malaga found considerable water underneath the salt section.

Q Do you have available some cores from the various core drilling tests in this area? Do you have some with you that you would like to show the Commissioner?

(Mr. Smith produces a section of core test material)

A This core is from the salt section. Not at the top, but at 100 foot depth. This is a core that goes all the way through. You can see it is extremely fragile, and only by chance is it preserved as well as it is. That proves that the salt is porous . . . . This is not a core but a piece of mudstone . . . . The interesting thing about this are the curves, which indicate a lateral movement. It underlies the salt, and the slope is something like 2 degrees. The direction of these curves is this way -- and if turned over another set of curves is different. Not only one lateral movement, but two.

Q Can you say this is fairly representative of conditions throughout the salt section?

A Certainly much more so than most of us have realized. An open crevice was found in one of the International levels.

Q How would you describe it?

A It certainly is a very positive bit of evidence.

Q When they speak of salt beds aside from the salt, are they comparable in porosity?

A By salt we don't mean homogeneous. We have salt of this character and some extremely tight, and others in which streaks of clay, anhydrite, etc., occur. I have a core in which the clay seams have been invaded by the salt. These are occasional occurrences, but this, by and large, is

characteristic of salt. Although I would not say these zones of porosity are found uniformly, it is odd chances that you will get this.

Q Is there anything else, Mr. Smith?

A I would like to say that in our processes, when we get through coring we fill our hole with cuttings, granular salt and sand and then put in a wooden plug and then a cement plug on top of that.

Q What is the effect of fresh water in these beds?

A It would take it up very rapidly until satisfied.

Q Are they readily soluble in water?

A Yes.

MR. CAMPBELL: Q Are you acquainted with the procedures in drilling oil and gas wells to protect against water encroachment?

A A well operator in Artesia approached us about drilling a well and after considerable negotiation we found he was intending to drill, at least in part, without benefit of casing.

Q I take it you didn't allow him to drill the well?

A No, sir.

Q In connection with your coring operations, have you found the salt is not a very uniform formation?

A I would say not. It is interrupted by clays, anhydrites, etc.

Q How does that affect your views of subsidence?

A I know very little about subsidence. If you are dealing with a homogeneous salt it would behave uniformly. The salt will not bond with clay or anhydrite. In my very limited point of view you would get subsidence clear to the top.

Q You have heard Mr. Weaver's comments on subsidence?

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A If you want me to express an opinion, I think it depends on the character of the section and the mine.

MR. NEAL Q It is true that you have encountered areas where the potash has been eroded away, isn't it?

A The surface of the salt going from west to east is something like this (illustrating). The salt has been eroded and removed.

MR. CAMPBELL: Q Isn't it true there are areas where they have endeavored to induce secondary recovery by the use of back filling methods?

A Yes, back filling was used as an additional prop but not in entirety.

Q Isn't it true that the cost of back filling is greater than would justify its use?

A I rather think that is true. We have made some experiments with bulldozers and found settling takes place to the extent of twenty per cent very quickly.

COMMISSIONER: Are there any further questions? If not, you are excused.

TESTIMONY OF MR. HENRY H. BRUHN

MR. SETH: Q Please state your name and occupation.

A Henry H. Bruhn, resident manager of the United States Potash Company at Carlsbad.

Q Are you a mining engineer?

A Yes, I graduated from the University of Arizona, where I majored in mining and geology.

Q You have heard the testimony already given. Will you please discuss the matter of subsidence, whether or not it entails the fracturing of the beds or whether means and devices used can prevent the fracturing of the overlying beds?

A So far complete tests in the removal of pillars have not

been carried out. We have tried some back filling to find out what the results would be. It is my own opinion that even with packed in material there would be a foot of space. The back filling material would also have a tendency to close down and you would get possibly three feet of when you robbed the pillars in between. Some experiments have been tried in what I call pin or spindle pillars, and if a large enough area is robbed the area would tend to spring down and close up. One thing I think has not been brought out is that any time you take out masses of material under a 1000 ft. overburden you have a terrific load. We also find places where the back is very heavy and has to be supported until we get out of the area. When the supports are removed it will drop. With that type of movement I would be very nervous if we had an oil well casing even through a thick pillar, and I would be concerned about gas getting into the workings.

Q Then there is movement resulting from your own operations?

A We have heavy ground in our No. 1 shaft and sometimes we notice as much as 6" movement.

Q Isn't it a fairly common occurrence to have a shifting of two or three inches?

A I have seen much greater.

Q And these result from the mining operation?

A We have all of this weight above, and it is hard to say just where it occurs or why in some cases.

Q Have you encountered any gases which have injured lives or interfered with the operation of the mine?

A We do find pockets of air or nitrogen both above and below and sometimes within the potash beds. We have found cracking

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at the back and have drilled up to release the gas and stop the cracking.

Q What would be the effect if natural gas were permitted to enter the workings?

A It would be a terrible hazard. We have men at six or seven thousand feet, and if any amount of gas got in there it would certainly create a serious condition.

Q How many men work on an ordinary shift?

A I would say 90 or 100 men.

Q What would be the effect of the introduction of crude oil or gas into the workings?

A It is mainly a fire hazard. You don't have to have very much fire to fill an underground cavity with smoke, and the results are very dangerous.

Q Is there any way of controlling water in a mine?

A It would depend on the water. I would state you cannot bulkhead it. It just cuts and channels its way into the salt. If you attempted to pump it out, and it was saturated with brine, I don't know where we could put the brine without damaging the surface lands.

Q Is there anything else?

A I have seen a great deal of caving in mining in Arizona and I think your break is about 45°. But I seriously question whether the results in metal mining would be comparable in salt beds such as ours. Our experience with that plastic formation was that it would spring down or pinch right at the top. Our problem is to take down enough of the area so it would spring down. However, some of the geological survey men might be able to give some better information. In the case of the United States Potash company we are very hesitant about putting bail holes through the workings. We

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have considered them for power, but have given it up because we are fearful that one of these movements might cause shearing of the casing, and we have large quantities of water which we don't want in the mine.

MR. CAMPBELL: Q I understood Mr. Cramer to say that you will not remove the pillars around the core holes in the mine?

A Yes, sir.

Q And if you did, as I understand, you run the risk of vertical movement?

A Yes.

Q You saw the core shown here. Have you come across similar indications of fracturing underground?

A I have definitely encountered them in cores, but I have never found any underground.

Q Your comment that there is risk of shearing pipe is based on the assumption that it is a single pipe, isn't it?

A Yes.

Q Suppose there were four strings of pipe?

A I have never seen a horizontal movement that would not shear a pipe.

Q Your principal concern is oil wells in an actual mining area, isn't it?

A Yes.

MR. SETH: Q This horizontal movement -- you assume it would have sufficient force to shear a number of strings of pipe?

A It would be quite possible to shear four or five strings. I have seen movement in metal mines where it was as much as forty or fifty feet.

MR. WEAVER: Are you familiar with the subsidence

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that takes place when sulphur is removed from a mine? There are extensive records of these operations. This is perhaps analagous to that situation. There are areas where there are as many as 100 wells in close proximity to mines having such deposits, the surface is subsiding and the wells producing.

A I am familiar with those operations in only a general way. Are you absolutely sure that there is never any fracturing due to that subsidence?

Q What I would really like to have you express is the diatance out from the area to which you think the movement would reach rocks. Do they move a mile -- about the same distance out as is the depth?

A There is some limit there. I think it is probable we can only go on supposition.

MR. NEAL Q Of course in your sulphur mines you have no men.

A That is always in my mind.

COMMISSIONER: Any questions? If not you are excused.

TESTIMONY OF MR. L. H. FREEDMAN

MR. SETH Q Please state your name?

A L. H. Freedman.

Q What is your business?

A We have our own producing company: James H. Snowden, Fort Worth, Texas.

Q Have you had considerable experience in drilling for oil and gas?

A Yes, sir.

Q Approximately how long?

A I have been around oil wells since about 1918.

Q Were you connected with some drilling operations at the

place where the potash deposits were discovered?

A Yes, sir. It was our wildcat well, drilled by Snowden & McSweeney, that resulted in the finding of this potash.

Q Have you more or less kept in touch with the development there?

A Yes. I have been in touch with all the coring and various phases of the operations prior to the actual mining.

Q Have you also had experience with cementing techniques?

A Quite a great deal.

Q In your opinion, in using commonly accepted methods of cementing, are there still substantial possibilities of error or failure?

A Yes, I consider the handling of cement as one of the uncertain factors in completing an oil well.

Q The results are erratic then?

A Yes, sir.

Q As I understand it there is no way of telling whether you have been successful until a test is made?

A No, you don't know whether you have accomplished your purpose until you test.

Q What pressure would you expect to encounter in an 8,000 to 12,000 ft. well?

A It would vary with the amount of gas, I would expect around 5,000 or 6,000 pounds.

Q Do you have any experience in this particular area?

A No, not in this area. We have drilled some shallow wells there, but no deep wells.

Q What means must be taken to prevent the intrusion of water and gas in drilling in the potash area?

A I would think it would be very dangerous to drill through a mine where men are working in shafts and tunnels because

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you are disturbing the rock underneath; you have water above and below; you have no assurance that you can always shut that water off after drilling because that rock is salt, and it crumbles and a cement job is not as good as where it has something solid to stick to; furthermore, you don't always get a shutoff.

Q If drilling by ordinary methods, what would be the procedure in the initial stages?

A If you were drilling with a rotary system, the weight would have to be balanced to any pressure underneath.

Q And that would mean several thousand pounds to counterbalance the pressure while drilling over this salt bed?

A It would be a very substantial pressure, besides the weight of the fluid.

Q Are there chemical difficulties encountered in cementing?

A Yes, there are a lot of things to be encountered.

Q Are there occasions when you find a cementing job unsatisfactory?

A Yes, sir.

Q Is there anything further you would like to say?

A No, except that it is not a certain thing at all.

MR. CAMPBELL: Q Your company is also in the potash business, isn't it?

A They own part of it, but have nothing to do with the operation.

COMMISSIONER: Are there any further statements or questions? If not, the witness will be excused.

MR. NEAL: We do feel that the Commissioner should give consideration to the appointment of a committee from both industries, federal and state agencies and the Commission itself to get together and work out something in the way of

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regulations to best serve the requirements of all concerned.

We request that the letter of March 16th addressed to the Commissioner be read into the record of this meeting and be made a part thereof.

COMMISSIONER: It is so ordered.

The letter follows:

Carlsbad, New Mexico
March 16, 1951

Honorable Guy Shepard
Commissioner of Public Lands
State Land Office
Santa Fe, New Mexico

Dear Mr. Shepard:

On February 27, 1951 a meeting was held in the office of the State Land Commissioner with a view to reconciling the proposition that potash and oil can be produced from the same land. Witnesses from both the potash and oil industries appeared and gave evidence which left matters in such an uncertain status that the Commissioner of Public Lands proposed a further hearing, the date for which was set for March 29th. In the notice of March 2nd, advising of this meeting, the Commissioner stated that it was his desire to make a ruling and dispose of the matter promptly.

This situation is of such vital importance and the final decision may be so serious that it is respectfully proposed by the potash companies that no final decision be made until a full study has been made of the harmful conditions which could occur by reason of dual operations on the same land. In the hearing of February 27th a large number of competent experts, representing the potash industry, voiced their fears with regard to any drilling in or immediately adjacent to the present potash workings. It is assumed that both the Commissioner and the other interested parties

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will want to take advantage of the best technical advice available from all sources before any decision is announced.

Production of potash in the United States is of relatively recent origin and it has been conslusively demonstrated in the last two world wars that the mineral is of the utmost importance to the economy and the war efforts of the United States. In both wars the importation of any potash was effectively barred by the fact either that the foreign producing country was an enemy or shipment was made impossible by submarine warfare, etc. The nation was made dependent solely on the production from within the United States. Of the domestic production between 85% and 90% of all of the product is produced in the Carlsbad, New Mexico area. About 10% of the national production comes from brine lakes in California and a very small production is secured from brine lakes in Utah. For all practical purposes, therefore, it can be stated that the nation is completely dependent upon the potash produced in the Carlsbad, New Mexico area and anything which might be done to endanger this production could create serious consequences.

It can be granted that the production of oil is also important to the national economy but the points at which oil can be produced are wide-spread throughout the nation and the small area involved in the potash district would in no sense endanger the nation's oil position. Furthermore, the fact that there might be some restriction placed on the production of oil in the potash area would not hurt the position of either the state, the nation or any interested oil producers. The oil would remain available in the ground until such time as production could be secured without danger to the potash reserves.

During the past several decades it has become increasingly evident that the major factor to be considered in mineral production of any type is the conservation of such minerals

so that they may be produced in an orderly manner and in the best interests of the nation or the state where the minerals are located. If, as a result of comprehensive study, it should be decided that the best interests of conservation could be served by not permitting production of oil from known potash lands, this would not serve as a barrier to oil production but would merely represent a deferment of such production. Such action would permit orderly development of and production from the relatively small acreage of known potash lands, the product of which is so important to the agricultural and general economy of the United States.

Danger exists in more ways than one if unrestricted development of oil in the potash area should be permitted. The first bedded deposit of potash found in the world is located in the Permian Basin in Germany, in similar conditions to those which exist in the Permian Basin in New Mexico. Early in the 20th Century haphazard development of the German deposits was permitted with the result that a number of mines in that country were lost because of improper protection against overhead water. All of the currently producing New Mexico potash mines have a tremendous amount of water contained in the strata above the salt bed and it is necessary to maintain constant vigilance so that no breakthrough will occur in the area of the potash deposits. It is not at all far-fetched to assume that a potash operating area could be destroyed by a breakthrough of water and even with the most stringent type of regulations it is still possible that a breakthrough could occur in the event of subsidence or convergence due to mining which could, in a moment, result in the rupture of casings and the destruction of any protective devices which had been undertaken. Coincidentally, the oil well would be destroyed with consequent heavy capital loss.

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Second, a real point of danger exists through the possible migration of gases or oil into the potash working areas. This condition could arise either through the failure of casing from subsidence or other causes, the corrosion of casing penetrating the potash beds, or through natural fracturing of the salt beds and underlying strata. The hazard in this instance is not solely restricted to the proposition that a mine could be irremediably damaged but an extremely important factor of safety is involved. To date, the potash mines of New Mexico have been relatively free from any dangerous gases but if any condition should permit the entrance of such gases into the working areas it would result in hazardous conditions, perhaps leading to either explosions or poisonous effects on the workmen. Therefore, a serious condition of personal safety is involved as well as safety to the operation.

The importance of arranging proper conservation of the potash deposits was recognized by the Federal government in 1939, when the Department of the Interior issued an Order withdrawing certain of the known potash lands from oil or gas development. The suspension of the granting of oil and gas leases on these lands was in the following form:

> For the purposes of protecting and conserving the potash deposits belonging to the United States, it is hereby ordered that, until further notice, no lease under the oil and gas provisions of the Act . . . will be issued for the following described lands, and no application for oil and gas lease will be accepted . . .

Informally, Department of Interior Officials have advised various potash company representatives that certain proposals for removal of the restrictions have been made, and that the Department considers the situation of great importance and proposes to undertake a complete study to ascertain what the future course will be. It is felt by the potash producers that similar study should be undertaken by the state authorities and that the important decision as to permitting concurrent production of oil and potash from the same lands

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should not be made until it is determined what the overall effect would or could be.

At the hearing of February 27th, in the State Land Office, representatives of the oil industry gave as their opinion that the concurrent production of the two minerals was not incompatible but none of the oil representatives could state what would happen, despite the most stringent regulations, if any failure should occur in the oil or gas casings by reason of subsidence in the potash properties. The whole question of safe mining, both from the standpoint of working personnel and conservation of the potash deposits has been a matter of study by engineers at the potash companies for many years. Without exception, all of these engineers advise that there is a grave danger if oil exploration and development should be permitted on the potash lands. With such a wide divergence of stated opinion by the two interested groups, the need for complete and unbiased study is further pointed up. Expert advice is available to both the state and federal departments which are charged with conservation and supervision of production of minerals and every effort should be made to make use of such expert advice.

It is important that not only the potash deposits be protected but that if any oil or gas drilling is undertaken in the Permian Basin this should be done under regulations which would protect any possible future deposits of potash which might be found. The intermingling of state and federal lands in the potash district make it important that uniform regulations, insofar as possible, be adopted by both the state and federal authorities and a joint study by the two bodies would be most desirable. Discussions with Department of Interior officials have been carried on recently and these officials indicated that a joint study would be agreeable so that a full measure of conservation and protection could be afforded to all.

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The Carlsbad potash companies have met together in this situation in order to give serious consideration to the problems involved. It is urgently recommended by these companies that the State Land Office proceed most cautiously in making its determination and that no endeavor be made to immediately render a decision following the hearing of March 29th. A great responsibility devolves upon the Department official charged with making the decision as to the propriety of concurrent production of oil and potash inasmuch as not only the interests of the state are involved but also the interests of all citizens of the United States who must look to continued production from and development of the New Mexico potash deposits as an insurance for their continued well being.

The potash industry will be glad to join in any study which might be undertaken and will furnish members for any deliberative or consultative body which might be formed to review the situation. It is recommended that an advisory board be set up to make not only an initial study and recommendations but to act as a continuing board to formulate policy and protective measures to the end that the interests of both the oil and gas and the potash industries will be recognized and protected. Also, we are of the firm belief that the problem should be considered jointly by Federal and State authorities and any regulations found necessary should apply uniformly to both Federal and State lands. This procedure would result in the formulation of the best possible policy for the conservation and protection of the mineral resources of the State of New Mexico.

Yours very truly,

UNITED STATES POTASH COMPANY

President

POTASH COMPANY OF AMERICA

Vice President

DUVAL SULPHUR & POTASH COMPANY

INTERNATIONAL MINERALS & CHEMICAL CORP.

President

SOUTHWEST POTASH CORP.

General Superintendent

MR. CAMPBELL: I would just like to say a word for the forgotten man -- Mr. Ralph Nix, whose application started all this. I realize that the matter is one of wide importance and that it will have to be worked out from an operational point of view. I also feel that nothing has been brought out at these hearings to indicate that the State of New Mexico should not lease available lands. Mr. Nix requests that his application be granted.

MR. NEAL: To which we certainly object, because we have endeavored to bring out at this hearing that additional lands in the potash area should not be leased for oil and gas exploration and production. There are some leases in effect which nothing can be done about, but we still feel that the state has benefited very greatly by this potash and that all potash deposits now known or to be discovered should be reserved for potash development.

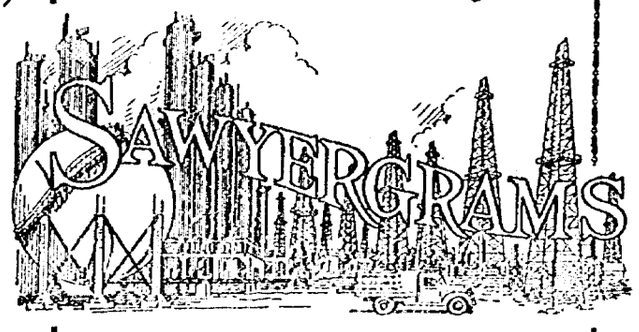
COMMISSIONER: Is there anything further? At this time I believe that both oil and potash can live together there but I cannot render a decision right now because there will have to be some special provisions in these leases. I am going to appoint a committee of both potash and oil representatives for this area. This committee will be appointed tomorrow. The federal government will sit in and will appoint their men. This will be done immediately as I don't have any desire to have the matter drag on indefinitely. We hope to arrive at a decision as quickly as possible. If there is nothing further, the meeting will stand adjourned.

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W N M C E MICROGRAPHICS

RRS

Petroleum Promotes Progress



Vol. 13 No. 4

JUNE, 1951

IN THIS ISSUE

Oil - Potash

San Juan Basin

By
Charles C. Loveless, Jr.,
Executive Secretary
New Mexico Oil & Gas Association
Roswell, New Mexico

W.N.M.C.F. MICROGRAPHICS

SAWYERGRAMS

Oil - Potash

The potash industry apparently had not been formally notified of the hearing by the Conservation Commission in Santa Fe on June 21 relative to rules and regulations for simultaneous operation for oil and gas and potash in Eddy County. Thus, they had made no preparations. Mr. J. O. Seth, Santa Fe attorney, representing United States Potash Company, moved that Case No. 278 be continued to a later date in order that representatives of the potash industry might prepare for the hearing. The Commission agreed with Mr. Jack Campbell, attorney for Richardson & Bass, that testimony of oil industry witnesses be accepted for the record on June 21st, and the hearing continued to July 10, when additional testimony would be received from both industries.

Mr. Campbell then made a preliminary statement for the record to the effect that the various casing programs to be submitted were simply suggested methods for use in deep-well rotary drilling and for shallow cable tool holes; that all operators had not had opportunity to study the proposed program and that changes probably will be suggested at the next hearing, after other operators have reviewed them.

Mr. John Kelly, independent operator, a member of the Land Commissioner's Committee on rules and regulations, gave a brief history of the Committee's functions thus far. In summary, he testified that potash representatives on the Committee had not commented on the casing program submitted to them, nor had they given to oil industry representatives on the Committee, a suggested "restricted area" in which operations for oil and gas may not be permitted. Mr. Kelly then introduced into the record, the proposed deep-exploratory rotary well casing and cementing program.

Mr. Seth on behalf of the potash industry, asked Mr. Kelly if it is not true that the federal government should be more concerned with promulgation of rules and regulations in the potash area than the State of New Mexico, since about 80% of the acreage is under jurisdiction of the Department of the Interior.

Mr. Ed Hill of Richardson & Bass, a member of the oil industry casing program sub-committee, then testified that the program Mr. Kelly submitted as a member of the Land Commissioner's Committee, was intended to apply to deep rotary exploratory wells. Mr. S. P. Yates submitted a program worked out by several operators in the Artesia area for shallow cable tool exploratory wells. Mr. Stanley Jones of Artesia, also submitted a program for shallow cable tool wells.

After the hearing the various oil operators agreed to hold a meeting in Santa Fe on July 9 prior to the hearing on July 10, to hear from other interested operators who may wish to recommend changes in casing programs submitted to the Conservation Commission of June 21. This meeting will be held at the La Fonda Hotel at 4 P. M., July 9. All interested operators are urged to attend.

San Juan Basin

As previously reported in the SAWYERGRAMS, an effort is now being made to draft a voluntary code of ethics for operations in the San Juan Basin with a view of minimizing annoyance to livestock growers and damage to the surface of federal lands.

On June 11, various members of the San Juan Basin Operators Committee gathered in Farmington, and Mr. Dudley Cornell, President, appointed the following oil men as a committee to draft a tentative voluntary code of ethics:

O. H. Armstrong, Magnolia Petr. Co.
J. L. Posey, Magnolia Petr. Co.
P. T. McGrath, U. S. G. S.
D. I. Bailey, Bureau of Land Management
V. W. Bates, Southern Union Oil Co.
R. L. Maddox, Independent
J. B. Howell, Delhi Oil Corp.

On June 12, the foregoing committeemen, Glenn Staney and C. C. Loveless, Jr., met in Farmington to draft the code. It was agreed that the purpose of the code will be to educate ranchers operating on Taylor Grazing Lands and a very small area of fee lands, as to the limits of their rights to surface damages, if any, and to make recommendations to oil and

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gas operators relative to installation of gates, cattleguards and building roads, etc.

Mr. J. B. Howell, chairman of the drafting committee, appointed sub-committees to handle the various phases of the code. Mr. Loveless will draft the introduction and legal phases. Mr. O. H. Armstrong will write the section on geophysical operation. Mr. V. W. Bates and Mr. J. B. Howell will cover pipe line and production operations, and Mr. Donald I. Bailey will write the section on surface erosion.

A second meeting of the Committee will be held on July 2 in Farmington to edit and integrate the various sections of the code. The draft will be submitted to grazing advisory boards in the area for their approval. If approved, the draft then will be submitted to the Executive Committee of the San Juan Basin Operators Committee on July 23, and if approved by them, will be circulated to various operators for their comments and recommendations.

If a majority of operators agree, the code will be printed in pamphlet form and circulated to cattlegrowers and oil operators with recommendations to operators that copies be included by reference in their contracts with drilling contractors, truckers, etc.

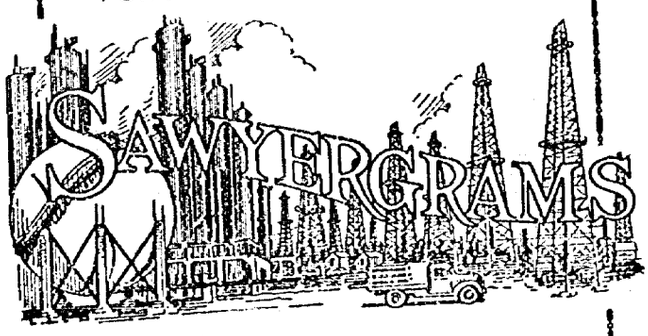
There was some discussion relative to arriving at a standard rate of damages on various lands, Federal, fee, etc., but it was the consensus of opinion that damages might best be handled by the individual operaters.

Conceivably, the code could become a model for use in other areas where lands are owned predominantly by the Federal Government and leased for both grazing and oil operations. Several operators have suggested its possible application in the Southeastern corner of New Mexico, where livestock men have extracted large sums for damages to which they were not entitled.

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Case 278

Petroleum Promotes Progress



Vol. 13 No. 3

MAY, 1951

IN THIS ISSUE

Ad Valorem Taxation

Potash-Oil Operators, Eddy County

San Juan Basin

New Location

By
Charles C. Loveless, Jr.,
Executive Secretary
New Mexico Oil & Gas Association
Roswell, New Mexico

SAWYERGRAMS

Ad Valorem Taxation:

A meeting of the Ad Valorem Tax Committee was held at the Adolphus Hotel in Dallas on Thursday, April 16. Twenty members attended. The discussion pertained to:

1. A reported statement by Mr. Fred M. Moxey, Chief Tax Commissioner of the New Mexico Tax Commission that he plans to revise the schedule of equipment valuations.

2. A renewal of the effort by the Hobbs school district to annex the Monument School District.

Potash-Oil Operators, Eddy County:

The Land Commissioner's committee to promulgate rules and regulations for simultaneous operations for oil and gas and potash on state lands has met twice. At these meetings an effort has been made to determine the scope and limits of rules and regulations. Broadly, the discussions have resulted in consideration of two main issues:

1. Area to be affected by the rules and regulations.

2. A casing program calculated to protect potash mines and potash deposits.

Oil Industry representatives on the Commissioner's Committee adopted a recommendation by the N. M. Oil & Gas Engineering committee that a technical committee be appointed from its membership to draft a tentative casing program for a "defined area" pursuant to (2) above. The technical committee is as follows:

Mr. R. L. Boss.....Gulf Oil Corporation
Mr. George Gray.....Sinclair Oil & Gas Co.
Mr. Harve Mayfield.....Magnolia Petroleum Co.
Mr. Raymond Lamb.....Wilson Oil Company
Mr. Gil Griswold .....Consulting Mining Engineer
Mr. M. A. Sherwood.....Shell Oil Company
Mr. George Cannon.....Humble Oil & Rfg. Co.
Mr. J. E. Hill.....Richardson and Bass

The technical committee has met twice. On May 16th, the second meeting was held in Midland in the offices of Magnolia Petroleum Company. The committee completed its recommendations and forwarded them to the oil industry representatives on the Land Commissioner's committee for their consideration. If the technical committee's recommendations are adopted, they will in turn be submitted to the Land Commissioner who has announced that a public meeting will be held in Santa Fe on June 22nd for consideration of the recommended casing program as well as the other issues involved in the potash-oil problem.

Copies of the technical committee's recommended casing program and the USGS "defined area" underlain by potash deposits may be obtained from Mr. Glenn Staley, New Mexico Oil and Gas Engineering Committee, Hobbs, New Mexico.

San Juan Basin:

On Tuesday, May 8, a mass meeting called by the Bureau of Land Management, was held in Farmington, New Mexico attended by representatives of the livestock industry, oil and gas operators, BLM and USGS. The purpose of the meeting was to discuss a voluntary code of operations for the oil industry to avoid unreasonable annoyances to cattle grazers and to prevent erosion and surface damage to federal lands. After hearing several instances of damage to fences and livestock from the ranchers, representatives of three oil companies, the San Juan Operators Committee and the New Mexico Oil & Gas Association (subject to approval by the Executive Committee), expressed a willingness to cooperate in the effort to promulgate such a code.

Tentatively, June 12 has been set as the date for a meeting to be held in Farmington for this purpose. It was suggested that the meeting be attended by field production men, exploration men, and claims men of operators in the Basin, as well as representatives from the Advisory Committee of the Grazing District, to discuss the nature of the cattlemen's problems and the practicability of the code. Consideration also may be given to establishing a local grievances

committee whose purpose would be to encourage co-operation between operators and livestock growers.

The Executive Committee of the Association has been sent details of the proposal and will make a decision in the near future whether or not the Association will participate in the effort.

Association's New Location:

Offices of the Association have been moved from the Second to the Fifth Floor of the J. P. White Building. Room No. 508.

BEFORE THE OIL COMMISSION
STATE OF NEW MEXICO, SANTA FE, NEW MEXICO

IN RE: APPLICATION OF GUY SHEPARD, COMMISSIONER OF PUBLIC LANDS, FOR AN ORDER ESTABLISHING AND SETTING UP A CASING PROGRAM AND OTHER PROCEDURAL REQUIREMENTS FOR THE DRILLING OF OIL WELLS IN THE POTASH AREA IN EDDY COUNTY COMPRISING STATE OWNED LANDS IN TRACTS O-2, O-3, O-4, O-5 and O-6 AS SET FORTH IN THE MAY 10, 1951 NOTICE OF PUBLIC SALE, COPY OF WHICH IS HERETO ATTACHED.

CASE NO. 278

ORDER NO. _____

APPLICATION

Comes now Guy Shepard as Commissioner of Public Lands for the State of New Mexico and makes application for the establishment of a casing program for oil wells within the heretofore established potash area in Eddy County, New Mexico and for other special procedural regulations in such area as may be proper for the development of said area, both for potash and oil.

That the applicant herein requests the Oil Commission to set a date for a hearing and after such testimony as may be adduced, issue its proper order as aforesaid.

Guy Shepard

GUY SHEPARD
Commissioner of Public Lands
State of New Mexico

W.N.M.C.F. MICROGRAPHICS

	Sec.	Twp.	Rge.	Acres
Tract No. 35				
S½NE¼	16	29N	8W	80.00
N½, N½SW¼, SE¼SW¼, E½SE¼	32	29N	8W	520.00
N½NE¼, SE¼NE¼, N½SW¼	36	29N	8W	200.00

Total Acreage 800.00
Minimum Rental 25c per acre
Filing fee $5.00

	Sec.	Twp.	Rge.	Acres
Tract No. 36				
NW¼SW¼	2	22S	35E	40.00

Total Acreage 40.00
Minimum rental 25c per acre
Filing fee $5.00

FURTHER PUBLIC NOTICE is hereby given that, pursuant to the rules and regulations of the State Land Office, the Commissioner of Public Lands of the State of New Mexico will hold a sale at PUBLIC AUCTION of oil and gas leases as described hereinbelow, at his office in the Capitol Building, Santa Fe, New Mexico, immediately at the conclusion of the sale of Tracts offered at sealed bid.

This sale will be governed by the provisions of Chapter 8-1110, New Mexico Statutes, Compilation of 1931, being an Act of the Legislature of New Mexico, approved March 10, 1931, and the rules and regulations of the State Land Office, pertaining to sale of oil and gas leases upon State Lands.

No sealed bids will be received, accepted or considered in the disposition of the hereinbelow described tracts. The Commissioner of Public Lands reserve the right to reject any and all bids.

	Sec.	Twp.	Rge.	Acres
Tract 0-1				
SW¼SW¼	3	14S	33E	40.00
W½W½	11	14S	33E	160.00

Total Acreage 200.00
Minimum Rental 25c per acre
Filing fee $5.00

Tract 0-2				
All	36	22S	30E	640.00
Lots 1, 2, 3, 4, S½N½, N½SE¼, S½SW¼, NW¼SW¼	2	23S	30E	520.56
All	16	23S	30E	640.00
Lots 1, 2, 3, 4, SE¼NW¼, E½SW¼	19	23S	30E	280.80
NE¼NE¼, E½NW¼, NE¼SW¼	21	23S	30E	160.00
S½, NW¼, S½NE¼, NW¼NE¼	22	23S	30E	600.00
NE¼NE¼	28	23S	30E	40.00
Lots 1, 2, 3, 4, E½W½	30	23S	30E	321.36
Lots 1, 2, 3, 4, E½W½	31	23S	30E	322.72
All	32	23S	30E	640.00
All	36	23S	30E	640.00
All	2	24S	30E	640.66

Total Acreage 5,446.10
Minimum Rental 25c per acre
Filing fee $5.00

Tract 0-3				
NW¼, W½NE¼, S½SE¼	2	20S	31E	315.66
SW¼, W½NW¼	16	20S	31E	240.00
W½NE¼, SE¼NE¼, N½SE¼	32	20S	31E	200.00
S½, W½NW¼, NE¼	36	20S	31E	560.00
NW¼, E½NE¼	16	20S	32E	240.00
All	32	20S	32E	640.00
E½NW¼	36	20S	30E	80.00
Lot 2	2	21S	30E	35.97
SE¼NE¼, SE¼, S½SW¼	14	21S	30E	280.00
N½, SW¼, N½SE¼	16	21S	30E	560.00
NE¼SE¼	20	21S	30E	40.00
E½	21	21S	30E	320.00
All	22	21S	30E	640.00
N½	23	21S	30E	320.00
NW¼	24	21S	30E	160.00
N½	27	21S	30E	320.00
NE¼, NW¼NW¼, S½NW¼, SW¼, S½SE¼, NE¼ SE¼	28	21S	30E	560.00
N½, SE¼, NE¼SW¼	36	19S	31E	520.00

Total Acreage 6,031.63
Minimum Rental 25c per acre
Filing fee $5.00

Tract 0-4				
Lots 1, 4, SW¼NW¼, N½SW¼	2	20S	32E	199.80
NE¼	13	20S	32E	160.00
E½NE¼, N½SE¼, SE¼SE¼, SW¼	36	20S	32E	360.00
Lots 3, 4, S½NW¼, SW¼NE¼, SW¼, N½SE¼	4	20S	33E	400.92
Lots 1, 2, 3, 4, E½W½, S½SE¼	18	20S	33E	399.88
W½NE¼	19	20S	33E	80.00
Lot 1, NE¼NW¼, N½NE¼, SE¼NE¼, NE¼SE¼	31	20S	33E	240.26
S½	2	21S	31E	320.00
N½, E½SE¼, E½SW¼	32	21S	31E	480.00

Total Acreage 2,640.86
Minimum Rental 25c per acre
Filing fee $5.00

Tract 0-5				
SW¼SW¼, S½NE¼, NW¼NE¼	16	21S	28E	160.00
SW¼NW¼	18	21S	28E	39.67
S½NE¼, SE¼NW¼, S½SE¼, SE¼SW¼	32	21S	28E	240.00
All	36	21S	28E	640.00
N½, N½SE¼	32	21S	29E	400.00
All	36	21S	29E	637.12
E½, NW¼, N½SW¼, SW¼SW¼	2	22S	29E	600.24
S½NW¼, N½SW¼	11	22S	29E	160.00
All	16	22S	29E	640.00
NW¼NW¼	25	22S	29E	40.00
NE¼, E½NW¼	26	22S	29E	240.00
All	32	22S	29E	640.00
All	36	22S	29E	640.00
All	2	23S	29E	638.78

Total Acreage 5,715.81
Minimum Rental 25c per acre
Filing Fee $5.00

Tract 0-6				
Lots 9, 10, SE¼	2	21S	29E	240.00
SE¼NE¼, SW¼NW¼, SW¼	11	21S	29E	240.00
N½NW¼, SE¼NW¼, NE¼SW¼	13	21S	29E	160.00
NW¼, N½NE¼, NW¼SE¼	14	21S	29E	280.00
SW¼NE¼, SW¼SE¼	16	21S	29E	80.00
NW¼NW¼	8	21S	30E	40.00

Total Acreage 1,040.00
Minimum Rental 25c per acre
Filing fee $5.00

Roswell, New Mexico
September 4, 1951

Mr. Guy Shepard
Commissioner of Public Lands
State of New Mexico
Santa Fe, New Mexico

Dear Mr. Shepard:

Your Oil-Potash Committee which is studying ways and means for concurrent production of oil and potash from the basin area of Lea and Eddy County, met on August 13, 1951. At this meeting there was full agreement by committee members on drilling and casing rules and regulations; however, the members could not agree as to acreage restrictions. It was the thought of your oil members that another meeting be held to further discuss acreage limitations. We have been furnished, however, with a report mailed to you by the potash members in which they outline their views of the entire problem. In order to complete your committee's work the oil members respectfully submit this letter which outlines their views:

1. We submit a proposed casing and drilling program (attached) which is to cover and protect the potash area during the drilling of exploratory test wells.

2. If and when discoveries of oil and/or gas are made then the Oil Conservation Commission should call an open hearing within 45 days to set up drilling, casing and spacing rules and regulations in the area or areas immediately around the discovery. These rules and regulations may or may not follow the proposed rules covering exploratory wells but they should be tailored to fit the case of field development and full protection of potash deposits.

3. We recommend that no drilling be allowed over the open or active mine workings and for ½ mile around such workings, with all areas set out to nearest 40 acre subdivisions as per U.S.G.S. surveys. We suggest that you obtain from the potash companies an outline of their active mine workings and then project the area as suggested above. For new mines that are in the shaft sinking stage then an area ½ miles in radius from the shafts. These restricted areas should be reviewed annually and enlarged or subtracted according to the advance of potash mining.

SEP 6 - 1951

4. These restricted drilling areas however are to be held open to leasing for oil and gas as well as potash and are to be available to join unit plan agreements in order to protect the interests of the State.

5. All lands in the potash area are to be open for leasing as to oil and gas as well as to potash. No restricted areas are to be set up and if at present there are such restricted areas then they should be abolished and the lands made available to potash and oil leasing and development.

6. We request that you confer with the United States Government representatives in order that the regulations when set up will be the same for operations on either state and federal lands. This will avoid needless duplication from both the oil and potash operational standpoint on regulations.

It is the opinion of your oil members that oil and potash development may take place concurrently in the potash basin area of Eddy and Lea Counties. We call to your attention that proper conservation of natural resources means development of these resources as needed and to prevent needless waste. Certainly both oil and potash are needed at this time to aid our National defense effort and they both should be developed and produced to the maximum consistant with proper conservation safeguards.

Should you need further information the oil members and I feel sure the potash members of your committee would be pleased to meet with you and to try to supply you with the desired material.

Respectfully submitted

EMERY CARPER

JOHN M. KELLY

By John M. Kelly

SEP 6 1951

I. DRILLING AND CASING PROGRAM:

(1) For the purpose of the regulations and the drilling of oil and gas exploratory test wells, shallow and deep zones are defined as follows:

(a) The shallow zone shall include all formations above the base of the Delaware sand or above a depth of 5000 feet, whichever is the lesser.

(b) The deep zone shall include all formations below the base of the Delaware sand or below a depth of 5000 feet, whichever is the lesser.

(2) Surface Casing String:

(a) A surface casing string of new, second-hand or reconditioned pipe shall be set in the "Red Bed" section of the basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section, as determined necessary by the regulatory representative approving the drilling operations, and shall be cemented with not less than one hundred and fifty percent (150%) of calculated volume necessary to circulate cement to the ground surface.

(b) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(c) Casing and water shut-off tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measure shall be applied.

(ii) 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.

(d) The above requirements for the surface casing string shall be applicable to both the shallow and deep zones.

(3) Salt Protection String:

(a) A salt protection string of new, second-hand or reconditioned pipe shall be set not less than one hundred (100) feet nor more than two hundred (200) feet below the base of the salt section.

(b) The salt protection string shall be cemented as follows:

(i) For wells drilled to the shallow zone, the string may be cemented with a nominal volume of cement for testing purposes only. If the exploratory test well is completed as a productive well, the string must be recemented with sufficient cement to fill the annular space back of the pipe from the top of the first cementing to the surface or to the bottom of the cellar, or (*)

(ii) For wells drilled to the deep zone, the string must be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(c) If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or gamma ray survey and additional cementing shall be done until the cement is brought to the point required.

(d) The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with three percent (3%) of calcium Chloride by weight of cement.

(e) Centralizers shall be spaced on at least every one hundred fifty (150) feet of the salt protection string below the surface casing string.

(*) may be cut and pulled if the production string is cemented to the surface as provided in sub-section (5), (a), (i).

W.N.M.C.F. MICROGRAPHICS

(f) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(g) Casing tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of one thousand (1000) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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.

(h) The above requirements for the salt protection string shall be applicable to both the shallow and deep zones except for sub-section (3) (b) (i) and (ii) above.

(4) Intermediate String:

(a) In the drilling of oil and gas exploratory test wells to the deep zone an intermediate string shall be set at sufficient depth to case-off all formations in the shallow zone and shall be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(b) Cementing procedures and casing tests for the intermediate string shall be the same as provided under sub-sections (3), (c), (f), and (g) for the salt protection string.

(5) Production String:

(a) A production string shall be set on top or through the oil or gas pay zone and shall be cemented as follows:

(i) For wells drilled to the shallow zone the production string shall be cemented to the suface if the salt protection string was cemented only with a nominal volume for testing purposes, in which case the salt protection string can be cut and pulled before the production string is cemented; provided, that

If the salt protection string was cemented to the surface, the production string may be cemented with a volume adequate to protect the pay zone and the casing above such zone.

(ii) For wells drilled to the deep zone the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided that if no intermediate string shall have been run and cemented to the surface, the production string shall be cemented to the surface.

(b) Cementing procedures and casing tests for the production string shall be the same as provided under sub-sections (3), (c), (f), and (g) for the salt protection string.

II. DRILLING FLUID FOR SALT SECTION:

The fluid used while drilling the salt section 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 fluid by the operator in overcoming any specific problem. This requirement is specifically to prevent enlarged drill holes.

III. PLUGGING AND ABANDONMENT OF WELLS:

All wells heretofore and hereafter drilled within the potash area 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.

W.N.M.C.F. MICROGRAPHICS

RECEIVED
STATE LAND OFFICE
AUG 27 1 27 PM '51
SANTA FE, N. M.

Carlsbad, New Mexico
August 24, 1951

Mr. Guy Shepard,
Commissioner of Public Lands
State of New Mexico
Santa Fe, New Mexico

Dear Mr. Shepard:

On August 13, 1951 your committee, appointed to make a study of concurrent exploration for potash and oil and gas on lands underlaid by potash deposits or thought to be susceptible of future potash development,, met in Artesia, New Mexico. It was hoped that this meeting would be the final one necessary for the committee members to make a joint recommendation to you covering future rules and regulations to govern leasing and drilling for oil or gas in this area.

A meeting had previously been held in Santa Fe, before the Oil Conservation Commission, on July 10, 1951, where recommendations had been made by both the potash and the oil and gas interests. It was, naturally, the desire of your committee to arrive at some agreement, based on information presented at the July 10th and previous meetings; however, in the meeting of your committee in Artesia on August 13th there was a divergence of opinion with reference to the matter of restricting certain acreage and the only point on which accord was reached was on the proposed drilling and casing regulations, both for deep and shallow drilling. It is, therefore, the desire of the potash representatives on your committee to express concurrence in the drilling and casing program (which was prepared by the oil members of the committee, together with representatives of the United States Geological Survey), a copy of which is attached hereto, but to also advise you of the opinion of the potash industry with reference to the need for restricting development completely in portions of the known or potential potash area in Eddy and Lea Counties, New Mexico.

In the hearing in Santa Fe on July 10th a map of the known and potential potash area was submitted. This map, showing an outline of the probable potash area, was prepared from information compiled by the United States Geological Survey. The outline on the map delineated the district which the United States Geological Survey representative advised was the zone of known or probable potash minerals. The United States Geological Survey has access to the core drilling records of anyone ex-

ploring in the district and the map represents a correlation of all information received from all exploratory drilling since the inception of operations in the Carlsbad potash district.

In the hearing on July 10th the recommendation of the potash industry was that the mineralized district shown on the map be broken down as follows:

AREA "A" - Areas which are underlain by proven commercial potash deposits.

AREA "B" - Areas under which commercial potash deposits are indicated but not delineated.

Representatives of the potash industry, at the hearing, recommended that:

> Future leases may issue upon the lands within "Area A" but such leases shall contain the proviso that no drilling may be conducted thereon; however, the acreage embraced in such leases may be committed to unit agreements.

It is realized that valid existing lease rights of the oil lessees must be considered in Area A but every possible protection to potash reserves in that area should be afforded. The district comprising Area A was arrived at by having each company show on the map the lands comprising its ore body. A very fair appraisal was made by each company and any lands which were not felt to contain proven commercial potash ore, even though such lands were held under lease, were eliminated from the A Area.

In the course of various discussions, both in committee meetings, and in public hearings in Santa Fe, the representatives of the oil industry advised that it was not their desire to drill in an "active mine area." The definition of what comprises a proven deposit has been about the only point of difference in the presentation by representatives of both industries. Naturally, what is an active mine working today is no indication of where the mining operation will be in progress two or three years hence. Consequently, it is necessary to protect against encroachment on the proven ore bodies of the potash companies, which will be the source of potash in future years. It is felt that this has been accomplished by designating

the A Area and it is believed by the potash representatives of your committee that any rules or regulations promulgated by either the State Land Office or the Oil Conservation Commission should give every protection to the ore bodies of the potash operators without regard to the present mine area.

The acreage comprised in Area A is extremely small in relation to what is considered the potential oil producing district of southeastern New Mexico. In light of the fact that the Carlsbad district represents the only point in the United States where potash is mined and in view of the fact that approximately 90% of all potash produced in the United States now comes from the Carlsbad district, it is extremely important to the State and the Nation, as well as to the potash operators, that every protection be provided and that no action be taken which might in any way endanger these deposits. It is, therefore, the opinion of the potash members of your committee that any action taken by you should incorporate provisions that future oil leases may not issue upon the lands within Area A unless issued under conditions which bar any drilling thereon. This would permit the Area A acreage to be committed to unit agreements while at the same time protecting against any possible damage to the potash deposits.

Respectfully submitted,

F. C. Davis

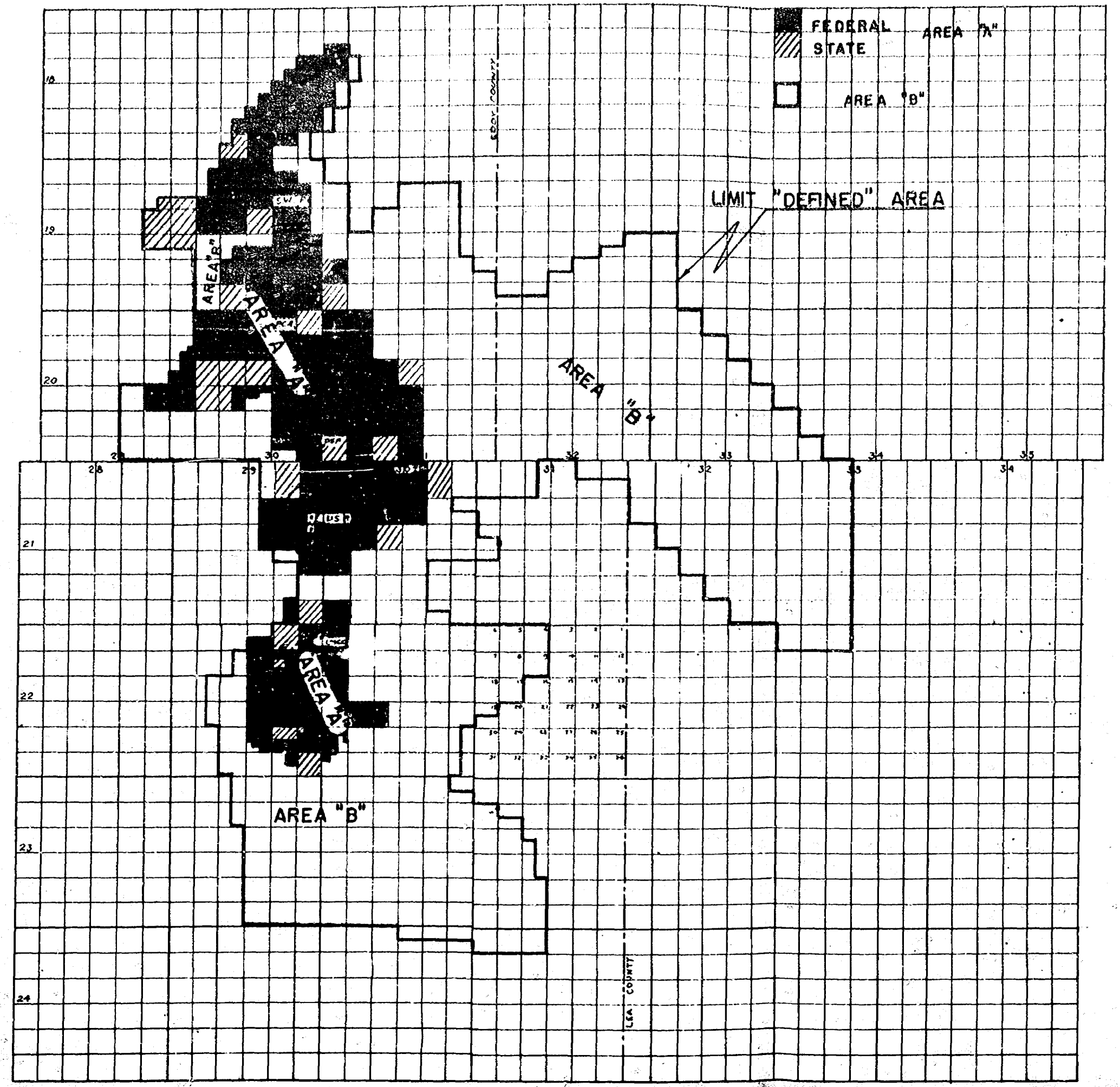
T. M. Cramer

P.S.

As was stated several times for the record, by the potash representatives, it is our belief that procedure should be set up whereby a periodic review (perhaps each five or ten years) will be made of the acreage embodied in Area "A". If it is determined that any lands of the potash operators are barren of potash such lands can be transferred to the "B" Area; conversely, if any acreage in the "B" area is found to contain commercial potash ores such acreage can be transferred to the "A" Area, subject to the then valid existing oil rights.

1/4.

PLAT SHOWING AREA ON WHICH PROPOSED REGULATIONS
FOR OIL AND CASINGHEAD GASES WILL APPLY



I. DRILLING AND CASING PROGRAM:

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(b) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

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BEFORE THE

Oil Conservation Commission

SANTA FE, NEW MEXICO

September 15, 1955

IN THE MATTER OF:

CASE NO. 278

TRANSCRIPT OF PROCEEDINGS

ADA DEARNLEY AND ASSOCIATES
COURT REPORTERS
605 SIMMS BUILDING
TELEPHONE 3-6691
ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
September 15, 1955

IN THE MATTER OF: Application of the Commission upon its own motion for an order revising the existing provisions of Order R-111, issued in Case 278.	Case 278

BEFORE:

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

TRANSCRIPT OF HEARING

MR. MACEY: The next case on the docket is Case 278. In connection with Case 278, the committee which the Commission appointed has revised the set of suggested rules which were distributed approximately thirty days ago. If there was anyone who desires me to go through the revision and point out where the changes were made, I will do so.

MR. SELINGER: Are there very many?

MR. MACEY: There are a number of them, but they are relatively small changes.

MR. GURLEY: If it please the Commission, there is a misprint on page 8. I think it should be corrected at this time. On Section (b) entitled "Mine Surveys" of this section: "On or before January 31st of each year, each potash operator shall furnish two copies of a plat --". Down in (c) it says: "Within 30 days after the adoption of this order and thereafter, on or before January 31st --". I think we should have in Section (b) "Within 30 days, or on or before."

MR. MACEY: Section (b) on page 8 should read: "Within 30 days after the adoption of this order and thereafter, on or before January 31st of each year ---".

MR. GURLEY: One other correction, in Section (c) of the same page, that word "five-year", I believe, should be deleted in the third line, because regarding the projection of the development of the plans, because down in the last sentence it says the projection shall not cover less than 3 nor more than a 5-year development program.

MR. MACEY: Section (c) should read: "Within 30 days after the adoption of this order and thereafter, on or before January 31st of each year, each potash operator shall furnish two copies of a projection of development plans in the form of a plat, which plat shall be for the confidential use of the Commission and for inspection by any affected oil or gas operator. The projection shall cover not less than 3 nor more than a 5 year development program."

Does anyone have any questions concerning these rules?

MR. WHITE: Mr. Charles White, representing the Texas Company. Under Article VII, the location for the wells, before the commencing of any drilling operations for oil or gas within the potash area, the well operator must first furnish a plat or map of the proposed well to all potash operators within a radius of one mile of the proposed location. If the potash operator objects, the matter is referred to the Secretary-Director of the Commission for the purpose of arbitration. If they cannot reach a satisfactory arbitration settlement, then the matter is referred to the Commission for hearing after due notice. This procedure is set forth in the last paragraph of that particular Section, and it appears to the Texas Company that

there is an undue and unnecessary burden being placed upon the oil operator. After written notice of intention to drill is given to all operators within a radius of one mile of the proposed well, any such potash operator could, without cause, object and unduly delay such drilling operation and possibly bring about a forfeiture of the drilling lease, although such potash operator may not intend to open mine his holdings for as long, possibly, as twenty years.

We believe that the potash operator within the area who has an open mine or contemplates such operations within a reasonable time should have and be given the right to voice his objections to such proposed well, but not one who merely holds a potash lease, and who has no intention of developing the same.

In order to avoid this injustice upon the oil operators, we respectfully submit to the Commission the following amendment for its consideration. This amendment would be added at the end of the first paragraph contained in Section VII. We would strike the period and insert a comma, and add the following: " --- and only a potash operator who has open mine workings or contemplates such operation within a radius of one mile of the proposed well, as evidenced by their development plan, shall have the right to object to such intention to drill."

By this amendment, notice of intention to drill shall be given to all potash operators, but only those operators who have open mine operations and intend to develop the property can enter an objection. We respectfully submit that amendment.

MR. MACEY: Does anyone have any objections of Mr. White? Does anyone have anything further in this case?

MR. MALONE: Ross Malone for Gulf Oil Corporation. Gulf

feels that the proposal that has been submitted by the Texas Company is a reasonable restriction upon the right to protest, and would contribute to the fairness of the operation of the rules; and therefore recommends to the Commission that it be adopted.

MR. MACEY: Anyone else? If nothing further, I would like to incorporate the revised rules as amended by Mr. Gurley's suggestion into the record in this case. We will take the case under advisement.

* * * * * *

C E R T I F I C A T E

STATE OF NEW MEXICO)
: SS.
COUNTY OF BERNALILLO)

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

IN WITNESS WHEREOF, I have affixed my hand and notarial seal this 20th day of September, 1955.

Ada Dearnley
Notary Public - Court Reporter

My Commission Expires:
June 19, 1959.

BEFORE THE

Oil Conservation Commission

SANTA FE, NEW MEXICO

August 17, 1955

IN THE MATTER OF:

CASE NO. ~~891~~ 935, 278, 889, 890, 926, 927 Consolidated

TRANSCRIPT OF PROCEEDINGS

ADA DEARNLEY AND ASSOCIATES
COURT REPORTERS
605 SIMMS BUILDING
TELEPHONE 3-6691
ALBUQUERQUE, NEW MEXICO

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

TRANSCRIPT OF HEARING

MR. MACEY: The next case on the docket is Case 935. We will consolidate Case 935, in the absence of any objection, with Cases 889, 890, 891, 926, 927 and Case 278. All the cases pertain to the oil area in Eddy and Lea Counties. The applicants in each case have requested a continuance in the case to the September hearing, but I would like to call your attention to the proposed rules which the Committee and the Commission Staff have devised for the area.

It was deemed advisable to have a 30-day waiting period for everyone to examine the proposed rules and to attempt to dispense with the matter in September.

Does anyone have any comments they wish to make on any of these cases at this time, or any questions they might want to ask about the proposed rules? If not we will continue all those cases until September.

STATE OF NEW MEXICO)
: SS.
COUNTY OF BERNALILLO)

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

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 18th day of August, 1955.

Ada Dearnley
Notary Public, Court Reporter

My Commission Expires:
June 19, 1959

BEFORE THE

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

TRANSCRIPTION OF HEARING

CASE NO. 278

June 21, 1951

(DATE)

E. E. GREESON
COURT REPORTER
UNITED STATES COURT HOUSE
TELEPHONE 2-0872
ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

Case 278: Called upon the application of Land Commissioner Guy Shepard, this case is concerned with the establishment of a casing program and other special procedural regulations in the potash areas of Lea and Eddy counties.

MR. SPURRIER: The next case is 278.

(Mr. Graham reads the notice of publication.)

MR. SETH: If the Commission please, the committee that the Land Commissioner appointed to consider this matter for his office has never had a final meeting and never had a chance to consider the casing program recommended. After all, the matter is primarily one for the Land Commissioner rather than this Commission. And I suggest the case be postponed until that committee can get together and make its recommendation to the Land Commissioner. I find no evidence as to the casing program to be submitted here today. But there is so many things involved to be determined by this Commission. And after all, this Commission's authority in the premises is rather limited in my judgment.

MR. SPURRIER: Thank you, Judge. Do you have a definite date to suggest to which it can be continued?

MR. SETH: I don't know. Who is the chairman of the committee?

A VOICE: Mr. Shepard is chairman of the committee.

MR. SETH: Is he in town?

MR. SPURRIER: No, he isn't.

MR. SETH: I think it should be continued not very long. I think regulations should be gotten out by the first of july.

W.N.M.C.F. MICROGRAPHICS

(Off the record discussion.)

MR. SETH: I move to recess this matter after hearing whatever evidence you want. When will Guy be back, George?

MR. GRAHAM: I understood Monday.

MR. SETH: Why not recess until next Tuesday?

MR. CAMPBELL: May I say a word? I represent Richardson and Bass of Fort Worth, Texas. This matter was called up by the Commission, and the ordinary notice was given that is given in hearings before this Commission. While we recognize that apparently the potash people do not have personal information as to the meeting and have -- we have -- no intention of trying to get the Commission to act at this time, we have present here a considerable number of people who have come up for the purpose of attending this meeting and testifying and listening to what is presented. We feel there should be no objection -- with the understanding that any witness that testifys today will be available for cross-examination at a future date -- for us to present to the Commission some background as to this particular proposal, and also to make our suggestions; which, even as far as the oil operators are concerned, are not in final form by any means. But we believe it is of sufficient important to the state and the Commission and the oil operators to begin to get the ball rolling on this matter and offer some background to the Commission at this time. It is quite true this committee isn't ready to report, but at the same time, I can't see any objection to presenting some suggestions at this time, which will be subject to comment by the oil operators as well as the potash companies in the future, and leaves the matter open to continue at a future date additional testimony, objections to the casing program by potash and oil people and any other matters that should be brought before the Commission. I would like to request we be allowed to put these things in the record for whatever they may be worth, subject to leaving the matter open for the future.

MR. SETH: We haven't the slightest objection.

MR. SPURRIER: Mr. Campbell, do you have a date in mind to which we could continue this?

MR. CAMPBELL: Not a set date. I think it is incum-

bent upon all of us to do it as expeditiously as possible. It has dragged on for about five months. It is of interest to the oil operators and to the State of New Mexico that the thing be resolved in one way or another as soon as possible in order if there can be joint development it can be undertaken if the people are ready to spend the money to do it. And I think any reasonable time to give the potash people and the oil operators who are not all acquainted with the suggestions to be made today an opportunity to examine them carefully and submit comments to the Commission -- I think it should be at least ten days before we undertake to have another meeting. Any date is satisfactory to us as long as it isn't unreasonably delayed.

MR. SPURRIER: Well, gentlemen, suppose we consider two dates; June 28 or July 10. The Commission would like to have an indication of which date is more suitable to all of your concerned.

MR. CAMPBELL: I believe that the July date would be more satisfactory as far as we are concerned. It is as I indicated to the Commission, some of the suggestions to be made today haven't been subjected to close examination by the oil operators, and they want a sufficient length of time to examine them and make their comments. We prefer the July 10 date.

A VOICE: We agree to that.

MR. SPURRIER: All right. Without objection, we will continue the case, or we will hear more testimony on that July 10 date. In the meantime, you may proceed, Mr. Campbell, to put on your testimony.

MR. SETH: Before we forget it, there were two hearings before the Commissioner of Public Lands, which have been transcribed, and I think they are in the Commission's files. And Mr. Campbell was present at both of them. We offer them in evidence as a part of this hearing at this time.

MR. SPURRIER: Without objection, they will be received.

MR. CAMPBELL: Yes, I think they should be before this Commission. If the Commission please, I would like to make

a brief preliminary statement to supplement what I have already said about the presentation of this evidence today. We intend to present to the Commission evidence relative first to the background of this particular problem as it affects the decision that this Commission may be ultimately called upon to make relative to any special regulations in this area within its jurisdiction. And we also are going to present two suggested casing and cementing programs. I want to emphasize to the Commission and to those present who are interested that these two programs, one of which involves deep drilling using a rotary method, and the other involves cable-tool drilling of shallow wells, are entirely in the way of suggestions and to place something in the record for further action by the Commission, of comment by oil and potash people in the area. They do not represent the recommendation of the oil operators nor do they amount to a recommendation of the oil industry. They are suggestions, and the matter should be left open for comments and testimony, if needed, by oil operators as well as by people in the potash industry. So, these should be taken into the record and considered solely as suggestions by particular individuals or companies in connection with operations in this area. In order to provide the Commission with some background, in addition to the transcript of testimony of the previous hearings before the Land Commissioner which are already offered in evidence, I would like to call as a witness John H. Kelly of Roswell.

JOHN H. KELLY, having been first duly sworn, testified as follows:

Direct Examination by MR. CAMPBELL:

(Off the record discussion.)

Q Will you state your name, please?

A John H. Kelly.

Q Where do you live?

A Roswell, N. M.

Q What is your business, Mr. Kelly?

A Independent oil operator.

Q And how long have you been in the oil business?

A Since '37.

Q Will you briefly state for the record here your background in the oil business?

A From '37 to '41 I was connected with the proration office, then known as the Lea County Operators Committee, in Hobbs, N. M., as an engineer. From '41 to 1945 I was state geologist of the State of New Mexico, and during that time I was director of the Bureau of Mines and Mineral Resources of the State of New Mexico. In 1945 I was superintendent of production for Geo. P. Livermore, independent operator. And since September 1945 I have been in business for myself as an independent operator.

Q Mr. Kelly, have you been appointed as a member of the committee of the Commissioner of Public Lands to investigate the possibility of special rules and regulations in the area involved in this hearing?

A I was.

Q Can you state for the benefit of the Commission and the record before this Commission the background of this particular problem as it relates to the Oil Conservation Commission?

A In order to present to this Commission an historical background, I would like to go back to January 10 when I believe the problem first came to the attention of the Commissioner of Public Lands. At that time he, in his monthly notice of sale, advertised several tracts of land in southern Eddy County for oil and gas lease bid. It is my understanding that representatives of the potash industry protested this advertisement and requested he withdraw these tracts from this sale. And also I understand that they requested that he not put the tracts up at any time in the future. Representatives of the oil industry asked the Commissioner for a hearing on this matter. And a hearing was held in the La Fonda Hotel on February 27, 1951. At that time, members of both the oil and potash people presented some testimony, which will show in the transcript of that hearing and which I understand has been introduced in the record, and in which the oil companies stated they thought

development of oil and gas could be carried on simultaneously with the development of potash in the area. At that time the potash people requested a continuance in order to prepare additional testimony. And the Commissioner of Public Lands continued the hearing until March 29, 1951. On this date the Commissioner took additional testimony from the potash people and from some oil people, and that record will be made available to this Commission, the complete record. And at the end of that hearing the Commissioner announced he would appoint a committee composed of oil members, potash members, and governmental authorities to study the entire problem and to make recommendations to him. His letter is as follows:

(Letterhead of the State Land Office)

March 30, 1951

Following the hearing March 29, 1951, I, as Commissioner of Public Lands, announced that I would appoint a Committee to recommend regulations for the proper exploration and development of the State lands within the Delaware basin, Eddy County, New Mexico simultaneously by both the Potash and Oil Industries. In keeping with this announcement, I have appointed:

Mr. Fred O. Davis, a Director of Potash Company of America, Carlsbad, New Mexico,

Mr. Emory Carper, President, New Mexico Oil and Gas Association, Artesia, New Mexico,

Mr. Tom Cramer, Vice-President, United States Potash Company, Carlsbad, New Mexico,

Mr. John M. Kelly, Independent Oil Operator, Roswell, New Mexico, and

Mr. R. R. Spurrier, Director, New Mexico Oil Conservation Commission, Santa Fe, New Mexico.

May I ask that each of you advise me at your earliest convenience of your willingness to serve on this Committee. It is my intention that such Committee meet at the earliest possible time and submit its recommendations to me.

W.N.M.C.F. MICROGRAPHICS

I would be grateful, because of the considerable Federal Acreage in the area, if Messrs. Foster Morrell and R. H. Allport of the United States Geological Survey would sit in an advisory or unofficial capacity with the Committee if they may do so under regulations.

I sincerely trust that each of you will accept and make reasonable recommendations to me in order that I may the sooner promulgate and publish regulations as required by law.

Very truly yours,
/s/ Guy Shepard
GUY SHEPARD
Commissioner of Public Lands

Q What was the date of that letter, Mr. Kelly?

A That letter is dated March 30, 1951. So, following receipt of this letter and the acknowledgement by all members so named, the first meeting was called in Santa Fe on April 16, 1951; at which time the Commissioner of Public Lands, Mr. Shepard, presided. Discussions were carried out during that meeting concerning the simultaneous developm ent of operations. And the oil people stated that in their opinion they thought operations could be carried out with the potash people provided certain safeguards were given the potash industry, certain protections to the potash deposits. This meeting was just a general meeting, and nothing specific came out of the meeting due to the fact that it was really an introductory meeting. At the conclusion of the meeting, Mr. Shepard requested the committee meet again as soon as possible in order that they might present to him something specific in the way of recommendations. After that date and before May 1, he published in his monthly notice of sale for May 10 six tracts to be sold that were in the Delaware basin potash area. And members of his committee -- the potash members of his committee -- requested he call a meeting of the committee before he held a sale in order that recommendations be made to him as to the method of sale. On May 4, 1951, the committee met in Carlsbad, N. M., with Mr. Tom Cramer, Mr. Fred O. Davis, and myself present -- and Mr. R.R. Spurrier -- as members of the committee. And Mr. Allport and Mr. Morrell of the U.S.G.S. present as observers. We discussed the subject matter, and the oil people told the potash people at that time they were prepared -- they were

not prepared -- to present a casing program, that their engineering committee had not prepared one to that date. The potash people were perturbed about the leases going up for sale without any regulation or regulations; and the following came out of that meeting. This, incidentally, is the only report made to the Commissioner of Public Lands by the oil-potash committee, and I will read this letter.

May 4, 1951

Honorable Guy Shepard
Commissioner of Public Lands
Santa Fe, New Mexico

Dear Mr. Shepard :

Your Oil-Potash Committee, following a meeting in Carlsbad on May 4, wishes to recommend that prior to the sale on May 10, 1951, of oil and gas leases for Tracts O-2, O-3, O-4, O-5 and O-6 listed in your advertisement, the following announcement be made:

(1) The leases will be subject to special rules and regulations to be adopted by the Commissioner and the Oil Conservation Commission, governing the drilling for oil and gas within the designated known potash area, including, among other pertinent provisions:

(a) No wells for oil and gas shall be drilled through mine workings or in such additional areas as designated hereafter by the Commissioner.

(b) Special rules will hereafter be adopted for the spacing, casing and cementing of wells drilled for oil and gas within the designated potash areas.

(2) There shall be no drilling for oil and gas on Tract O-6. However, the acreage may be committed to any unit plan that may be approved in the future. On Tracts O-2, O-3, O-4, and O-5 the special rules and regulations will govern and certain acreage therein may be restricted as to drilling.

W.N.M.C.F. MICROGRAPHICS

(3) The special rules and regulations are being worked out by the Land Office in connection with a study under way by a special Oil-Potash Committee and the regulations which will govern in these lease areas will be made available for adoption by July 1, 1951.

(4) The issuance of leases sold at the sale of May 10 will be delayed until the special rules and regulations are adopted by the Commissioner and the Oil and Gas Commission. A successful bidder has the right of refund of the amount of the bid if he does not desire to execute the lease after announcement of the special rules and regulations.

It is further recommended that the Commissioner prepare this announcement in mimeographed form available for distribution to the bidders at the sale, and that such notice advise the bidders that subject to these conditions state oil and gas leases will be granted to the successful bidder following the May 10 sale.

/s/ F. O. Davis /s/ John M. Kelly

/s/ T. M. Cramer

Q Mr. Kelly, you state that is the only report that has been made to date by this committee?

A That is the only report made to date to the Commissioner.

Q And at that time it was your estimate these regulations could be available by July first?

A That is what we so stated in this report.

Q And there was likewise a suggestion there be no drilling within actual mine workings or within a new area ?

A That is one of the conditions stated in the report.

Q Have you had information available since that time of the set-up of the actual mine workings now there?

A No, sir.

Q. Have you sought that information?

A Yes, sir.

Q Will you go ahead and state what has taken place?

A At that meeting it was simply agreed between the parties concerned that the oil people would furnish the potash people with a proposed casing program for their study, and that in turn they would furnish the oil people what critical area; that is, in actual mine working area and the area they wished to have complete protection on. On May 23, 1951, I submitted to the two potash members of the committee the following letter and enclosure.

(Undated)

Mr. T. M. Cramer
Mr. Fred O. Davis
Carlsbad, New Mexico

Gentlemen:

As per our agreement made at the last meeting of the Oil-Potash Committee, I am enclosing herewith the "Casing and Cementing Programs for Oil and Gas Test wells in the Defined Areas in Eddy County, New Mexico." Please distribute these programs to the operating potash companies for their study and comments.

To date I have not received from you an outline of the areas that the Potash Companies consider as critical and in which area the Potash Companies will request that drilling for oil and gas be prohibited.

It is my suggestion that the next meeting of the Oil-Potash Committee be held 10 days after you submit for study by the oil representatives the above described area map. In no case should the next meeting be later than June 10, 1951.

I will appreciate receiving your comments on both the above casing program and my suggestions as to the

time of the next meeting.

Kindest personal regards,
/s/ John M. Kelly
John M. Kelly

cc. Mr. Guy Shepard
Mr. R. R. Spurrier
Mr. Emery Carper
Mr. Foster Morrell
Mr. R. H. Allport

Q Mr. Kelly, in connection with that letter you submitted a suggestion as to casing and cementing programs in that area. Is that correct?

A That is correct.

Q Have you received any comments relative to that to date?

A From the potash people, no, sir.

Q Have you received any information as to what they consider to be critical areas where they recommend there be no drilling for oil and gas?

A No, sir. We have not had a meeting since that date.

Q Mr. Kelly, I hand you what has been identified as Exhibit A in Case 278, and ask you to state what that is?

A It is an exhibit entitled "Casing and Cementing Programs for Oil and Gas Test Wells in the 'Defined Areas' in Eddy County, New Mexico."

Q Is that a copy of the document which you sent with that letter of May 23?

A It appears to be

Q Now, that is not a recommendation of the oil operators, is it?

A As a whole, no, sir. It is just a program to be submitted for study.

Q And have all of the oil operators in the area as yet had an opportunity to study and make comments upon this particular program?

A To my knowledge they haven't had that opportunity.

Q You submitted that as a basis for the discussion of this problem?

A It was submitted as a basis for the discussion of the problem, and also with regard to our verbal agreement to get this ball rolling by both the potash people and the oil people.

Q And who made this suggestion to you? Who prepared this? This exhibit I .....

A It was prepared by a sub committee of the New Mexico Oil and Gas Engineering Committee of Hobbs, N. M.

Q And it is being circulated to all oil operators and is subject to their comment and suggestions to the Commission with reference to this program?

A That is my knowledge. To my knowledge, yes, sir.

Q In other words, you, as an oil representative of this committee, are not recommending to the Commission this be the program?

A No, sir. It is only submitted for study.

Q And this particular suggestion covers only the deep-test wells in the area, doesn't it?

A No. I believe this recommendation covers wells in the area. I don't believe it differentiates between deep and shallow.

Q With your knowledge of the oil business and your knowledge of this particular suggestion, is it your opinion it would apply to deep rotary wells?

A I would say it is too stringent for shallow wells. It would apply more to rotary wells than to shallow cable-tool wells.

MR. CAMPBELL: I believe that is all. Do you have any other statement you want to make?

A That finishes my historical summary. I would be glad to answer any questions of the Commission and also any recommendations Mr. Cramer or Mr. Carper might have.

CROSS-EXAMINATION BY MR. SETH:

Q. Do you know the federal land, in area, is about ten times more extensive than the state land?

A Do I know?

Q Yes.

A I assume it is.

Q And the state land is rather small and disconnected tracts?

A With the exception of the school sections.

Q I mean by that there is scarcely a location where there is more than a section of state land in one body?

A I don't know, Judge. I haven't studied the map in detail, but the state has the minority interest in lands in the area.

Q Really the federal government has much more at stake drilled in the potash than the state does?

A Not necessarily because the state receives quite a bit of royalty back from the government.

Q I mean as far as area is concerned. The federal government is much more interested than the state in the potash area down there?

A In an area extent, but not a money extent.

RE-DIRECT EXAMINATION BY MR. CAMPBELL:

Q Isn't it a fact that federal representatives have been present and discussed these matters with the committee?

A They have been present at both meetings of the committee. Both representatives of the oil and gas branch of the U.S. G.S.

Q And isn't it correct since the submission of this matter to this committee on the state level that no additional action has been taken by federal authorities?

A No additional action has been taken to date, no, sir.

Q In other words, the matter so far as you know up to date has been held in abeyance pending the state committee's report?

A It is my understanding the federal government will hold in abeyance any action on federal land until the state has a chance to act on this matter, and a final report made by the committee.

MR. CAMPBELL: Mr. Seth, Mr. Kelly will not be available on July 10. Do you think you will find it necessary to cross-examine him further on July 10?

MR. SETH: Not at all.

MR. CAMPBELL: It will not be necessary to continue at a future time.

(Witness excused.)

(Recess.)

J. E. HILL, having been first duly sworn, testified as follows :

DIRECT EXAMINATION BY MR. CAMPBELL:

Q Will you state your name?

A J. E. Hill.

Q Where do you live?

A Fort Worth.

Q By whom are you employed?

A Richardson and Bass.

Q In what capacity?

A Superintendent of production and drilling.

Q And how long have you been so employed?

A It will be 12 years the first of July.

Q And you were in the oil business prior to that time?

A Yes, sir.

Q For how many years?

A Eleven years.

Q Were you engaged in the same type of work?

A Yes, sir.

Q Mr. Hill, you have testified before the Commissioner of Public Lands at a hearing on February 27 and at a hearing in March in connection with this matter, have you not?

A Yes, sir.

Q And you have heard the testimony here relative to a suggestion as to casing and cementing programs for deep-test wells in areas later to be determined in Eddy County, N. M., have you not?

A Yes, sir.

Q Were you a member of the committee which discussed and drew up these suggestions?

A I was.

Q Can you state for the Commission the understanding among the members of the committee as to what type of wells these particular rules could be more properly applied?

A They were definitely drawn up for deep-test wells in the defined area. There was some mention made of the use of

cable tools down to the shallow depths of their various capacities, and then setting probably the first two strings. And the method of testing the casing after those strings are set. Actually, that was the only reference made to cable tool usage.

Q Based upon discussions which you had, the committee made this suggestion as a basis for any special rules that might be promulgated by this Commission.

A We felt that would not only safeguard the potash operators but the oil operator who had wanted to drill deep test wells in the area.

Q It is your understanding that isn't a final recommendation but only a suggested .....

A It is only a recommendation of the committee for serving to promulgate this suggested set of rules.

Q To your knowledge, is it now to be circulated to all oil operators for any comments or recommendations they may have before the Commission issues any rules based on this suggestion?

A That is my understanding.

Q Is your company interested in this area financially?

A Yes, sir.

Q Isn't it correct they are the owner of state oil and gas leases sold in a state sale recently in this area?

A I think we were successful on all but one.

Q And isn't it correct the public records will show the investment for these state leases is in the approximate amount of $300,000 to $350,000?

A Yes, sir.

Q Is your company interested in exploratory activity in this area, if it can be reasonably done, in conjunction with the potash industry?

A We definitely are.

Q And your company is prepared to drill deep-test wells in this area when these rules are promulgated?

A Yes, sir.

Q So far as your company is concerned with the particular suggestions in this casing and cementing program, are those satisfactory to your company? So far as your company only is concerned?

A Yes, sir.

MR. CAMPBELL: I think that is all.

MR. SPURRIER: Does anyone have a question of this witness?

MR. CAMPBELL: Mr. Hill, will you be available on July 10?

MR. HILL: Yes, sir.

(Witness excused.)

S. P. YATES, having been first duly sworn, testified as follows:

DIRECT EXAMINATION BY MR. CAMPBELL:

Q Will you state your name?

A S. P. Yates.

Q Where do you reside?

A In Artesia.

Q What is your business?

A I am in the oil business; oil producing.

Q How long have you been in that business?

A About 12 years.

Q Are you with a company?

A No.

Q Individually?

A Individually, yes, sir.

Q Are you interested in this area which is involved in this hearing?

A Yes.

Q Are you now producing oil from some of these areas?

A Yes. We have production -- well, of course, when you say areas, I am not quite sure .....

Q Where generally is your production?

A We have production in 19-30 that I believe is involved. We have the Benson Pool. That is only half a mile from where Southwest is now digging shaft.

Q Mr. Yates, has your company been engaged primarily in drilling wells with cable tools?

A Yes, sir.

Q Have you read the suggested program introduced as Exhibit A?

A Yes, sir, I have.

Q Is it your understanding that is intended to apply primarily to deep-test wells drilled with rotary tools?

A That is my understanding, yes, sir.

Q Do you have any suggestions to make to the Commission at this time with reference to possible rules and regulations affecting shallow wells in whatever area may subsequently be defined with cable tools?

A Yes, sir. We have a proposal here to submit.

Q I hand you what has been identified as Exhibit B, and ask you to state what that is, if you know?

A This is a suggested casing and cementing program for shallow oil and gas test wells in the known potash area.

Q And state to the Commission the background of the preparation of this suggestion here with reference to the operation your are suggesting.

A About three days ago I got ahold of one of these suggested casing programs. And we thought that if we carried such a casing program out on a shallow well it would make the drilling of shallow wells in that area prohibitive in cost. Particularly in view of the shorage of casing. So, we have here submitted an alternative program for shallow wells.

Q Will you state briefly to the Commission how this differs in any essential respect from the suggestions as to deep wells in the area?

A The only major difference is in the salt protection string, referred to in this Exhibit A. We have made a provision that we may set a salt protection string depending, of course, upon whether -- and cement it from top to bottom if we want to. If we don't -- we often cement production anywhere from 200 feet to maybe 1,000 feet below the salt zone. And we could see no reason to cement two strings of pipe so close together. You might have them right on top of one another.

Q Shallow wells usually are not large potentially producing wells in that area?

A That's right.

Q You are undertaking to save some pipe in the cost of drilling your wells?

A That is correct.

Q Is it your opinion this casing and cementing program which you recommend as to shallow cable-tool wells in that area will adequately protect the potash deposits?

A That is my opinion, yes.

Q You have already drilled wells in the northern part of

this area, have you not?

A Oh, yes, we have drilled wells, yes, in the northern part.

Q Have you received any complaints from potash operators that your wells are giving them any difficulty?

A No, sir.

Q Is this suggestion your own, or is it agreed to by other people?

A It was made up by a group of operators, and then circulated among most of the operators in Eddy County, and submitted for their approval. And with the exception of one or two everyone signed it. Those that didn't sign it thought this was too stringent.

Q Thought this recommendation you suggest here was too stringent?

A Yes.

MR. CAMPBELL: I believe that is all.

CROSS-EXAMINATION BY MR. SETH:

Q Mr. Yates, how deep is a shallow well?

A Anywhere from -- well, you mean the ones we have?

Q Yes, the ones you are talking about.

A About 1,800 or 2,000 feet.

Q All the shallow wells down there go through the potash-producing strata?

A Yes, sir.

Q And go through just as effectively as the deep wells?

A That's right.

MR. SPURRIER: Are there any other questions of this

witness?

MR. CAMPBELL: (To the witness.) Do you have anything?

A I might say the production we get down there is of low potential. It produces practically no gas. We have to buy butane to produce it. And there is practically no pressure exerted against the casing whatsoever.

MR. CAMPBELL: In other words, based upon your producing experience you feel these suggestions you have made will amply protect the potash on the cable-tool wells in that area?

A Yes, sir.

MR. CAMPBELL: I think that is all. Will you be available on July 10 in the event it is necessary to ask you more questions?

Mr. YATES: As far as I know.

MR. CAMPBELL: Mr. Commissioner, at this time that is all we have to offer. I would like to make a closing remark here. As I understand these two suggestions; one as to deep wells and one as to cable-tool wells; are offered to the Commission at this time as suggestions and as a basis for further comments by the oil industry and the potash industry in the hearing on July 10. And we feel that since we have made these suggestions, at least as a basis for discussion, that we should at the July 10 hearing, in addition to any objections that the potash industry may have to these particular programs, we should like to have some information from them as to the approximate area in which it would apply, and the present areas they are now mining for potash or intend to mine within a reasonably foreseeable future; in order that we can determine, or the Commission can determine, just exactly what our problem is. It is difficult to evaluate this situation in the absence of information as to what the generally projected arrangements are for the mining of potash in this area. And we assume at the July 10 hearing that some information will be available in order that we may properly determine where we stand in this matter, and the state may have the information it requires. I also want to repeat once more these suggestions are to be circulated to the oil operators, and they may sub-

mit comment to the Commission either by letter or by evidence at the hearing on July 10. In other words, it is held open for the potash members as well as the oil industry. It provides for some basis on which to proceed to get the matter resolved in the near future, if it is possible to resolve it. And we would like to ask the Commission to ask from the potash people the areas in which this problem will apply. We have no information as to where those areas are, and the Commission has none. And we think we are entitled to have that information at the earliest possible time in order that we can evaluate whether this type of program, being more expensive than the normal drilling program, is justified in this particular area.

MR. SPURRIER: Do you have facilities for distributing this casing program to all operators?

MR. CAMPBELL: I understand that there are copies available. And our first one, the one proposed for deep wells is ready. The one proposed for shallow wells will have to be prepared by someone and distributed to the potash people as well as the oil operators for their comment prior to July 10. We can undoubtedly find some facilities if the Commission wants us to do it.

MR. SPURRIER: The Commission will be glad to do it. All we want to know is if we might do it or not.

MR. CAMPBELL: I feel in fairness to everyone the one suggested by Mr. Yates on the shallow wells should be prepared. And if the Commission will undertake to do it, I feel confident Mr. Yates will leave a copy of it here. If you will circulate it to the oil operators and representatives of the potash industry as soon as possible so that we can have some reaction by July 10?

MR. SPURRIER: All right. I have one more thing, for the record here. It is a telegram from the Phillips Petroleum Co. received in the Commission office this morning. I will read it in order to introduce it into the record.

(Reporter's note: This exhibit, as well as other exhibits introduced in this case, are not reproduced in this record as copies have been furnished to the operators by the Commission.)

MR. SPURRIER: Is that memorandum Exhibit A?

MR. CAMPBELL: I presume it is. It isn't denominated as a memorandum but I think that is what they are referring to. Incidentally, I would like to have the record show Exhibit A and B offered in evidence. And I would like to ask at this time if the announcement here of the July 10 meeting is sufficient so far as the potash representatives are concerned, or if they want someone to correspond with the other companies and notify them personally of this meeting.

A VOICE: We will take care of that.

MR. SPURRIER: Is that all? The exhibits will be accepted. Judge Seth?

MR. SETH. Nothing at this time.

MR. CAMPBELL: There may be someone else that has comments to make.

MR. SPURRIER: Does anyone else have a comment to make in this case?

MR. PRESSLER: I represent the Humble Oil and Refining Co. We would like to endorse these rules proposed by Mr. Hill as a basis for the formulation of a program that would give adequate protection to the potash operators. It is our feeling that these proposed rules are very stringent and rather burdensome on the oil operators. But we believe we are going to have to accept rules of that kind in order to provide adequate protection to the potash operators. It is our feeling that both of these natural resources are most important to the welfare of the country, and that it is incumbent upon both potash operators and oil operators to assist governmental agencies in working out a program where the area can be developed simultaneously for oil and potash. And we think that can be done without any undue interference one with the other.

MR. SPURRIER: Does anyone else have a comment?

MR. STANLEY JONES: I am drilling out in the Turkey Track area of 19-29, of which the west side -- some of the wells which we have drilled in the area have a certain amount of water, and have quite a bit of salt section while others don't have. I have a prospective pipe program outlined which I would like to introduce at this time on what we

would call the edge of the potash basin. And as the areas have different problems, and geological problems, which we need to discuss at the next meeting, I would like to present this proposed program as an exhibit to be studied by the committee, if possible.

MR. CAMPBELL: Mr. Jones, have you defined the area in there in which this would apply?

MR. JONES: Not particularly.

MR. CAMPBELL. You feel these rules proposed by Mr. Yates are too stringent insofar as these areas are concerned?

A. That's right.

MR. CAMPBELL: Your objection is they are too rigid?

A. They are sofar as my district is concerned and other districts on the edge of the basin. You see in this district we have very little potash, and we drilled our wells with cable tools and they are shallow. Only about 2,200 feet. Some 1,700 and some 2,200 feet. And they have no gas pressure to speak of, and they are all pumping wells. Therefore, I feel that the program Mr. Yates has introduced is somewhat strenuous for us, and because of the scarcity of pipe and so forth.

MR. CAMPBELL: May I ask if the Commission is willing to circularize this particular proposal too ?

MR. SPURRIER: Yes, we will.

A VOICE: I would like to ask also that the telegram from Phillips Petroleum be circularized.

MR. SPURRIER: Yes, it can. It will be part of the record, Mr. Hill.

(Off record discussion.)

MR. CAMPBELL: I think it is of advantage to the Commission that all this be made available as soon as possible and as much as possible. The transcript may not be available for sometime, and if it possible to circularize these suggestions and the telegram I think it will be of benefit to the other operators in arriving at their conclusions about the proposed operations.

MR. SPURRIER: We can do that, Mr. Campbell; and we will do it just as soon as we can get it out. We will mail this to our general mailing list, and also to the members of the Potash-Oil Committee.

MR. CAMPBELL: Mail them sufficient copies so that they can circularize the potash companies?

MR. SPURRIER: Yes.

MR. CAMPBELL: Unless someone else has something, that is all we have at this time. There are a few copies of the deep-well suggestions here now if some want to take them rather than wait their arrival in the mail. Probably not enough for everyone, but there are some here.

MR. SPURRIER: Is there anyone else to be heard in this case at this time?

(No response.)

STATE OF NEW MEXICO

ss

COUNTY OF BERNALILLO

I HEREBY CERTIFY That the foregoing transcript of hearing in Case 278 is a true record of the same to the best of my knowledge, skill, and ability.

DONE at Albuquerque, N. M., July 3, 1951.

E. E. Greeson

E. E. Greeson
Notary Public

My Commission Expires: Aug. 4, 1952.

BEFORE THE

Oil Conservation Commission

SANTA FE, NEW MEXICO

July 14, 1955

IN THE MATTER OF:

CASE NO. 278

TRANSCRIPT OF PROCEEDINGS

ADA DEARNLEY AND ASSOCIATES
COURT REPORTERS
605 SIMMS BUILDING
TELEPHONE 3-6691
ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
July 14, 1955

IN THE MATTER OF:

(Readvertisement) Application of the Commission upon its own motion for an Order revising the existing provisions of Order R-111, issued in Case 278.

Case 278

BEFORE:

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

TRANSCRIPT OF PROCEEDINGS

MR. MACEY: Case 278, which is a companion case to the other oil-potash cases, will likewise be continued to August 17th, without objection.

* * * * * *

STATE OF NEW MEXICO)
: ss.
COUNTY OF BERNALILLO)

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

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 19th day of July, 1955.

Ada Dearnley
Notary Public, Court Reporter

My Commission expires:

June 19, 1959.

ADA DEARNLEY & ASSOCIATES
STENOTYPE REPORTING
ALBUQUERQUE, NEW MEXICO
TELEPHONE 3-6691

(2) That the applicant, United States Borax and Chemical Corporation, is the owner of certain potash leases in Townships 21 and 22 South, Ranges 29 and 30 East, NMPM, Eddy County, New Mexico.

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

Township 21 South, Range 29 East, NMPM

Section 2:	S/2 SW/4, NW/4 SW/4
Section 10:	E/2 SE/4
Section 11:	NW/4, W/2 SW/4
Section 14:	NW/4 NW/4
Section 15:	NE/4 NE/4

Township 22 South, Range 30 East, NMPM

Section 4:	W/2 W/2
Section 5:	S/2 SE/4, SE/4 SW/4
Section 7:	E/2 NE/4, NE/4 SE/4
Section 8:	N/2, N/2 SW/4
Section 9:	W/2 NW/4

(4) That the evidence presented indicates that the above-described acreage contains potash deposits in commercial quantities.

(5) That to promote orderly development of the natural resources in the area, Order No. R-111-A should be amended to include the above-described acreage in the Potash-oil Area.

IT IS THEREFORE ORDERED: as amended by Orders Nos. R-111-B and R-111-C,

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

W.N.M.C.F. MICROGRAPHICS

Township 21 South, Range 29 East, NMPM

Section 2:	S/2 SW/4, NW/4 SW/4
Section 10:	E/2 SE/4
Section 11:	NW/4, W/2 SW/4
Section 14:	NW/4 NW/4
Section 15:	NE/4 NE/4

Township 22 South, Range 30 East, NMPM

Section 4:	W/2 W/2
Section 5:	S/2 SE/4, SE/4 SW/4
Section 7:	E/2 NE/4, NE/4 SE/4
Section 8:	N/2, N/2 SW/4
Section 9:	W/2 NW/4

DONE at .....

W.N.M.C.F. MICROGRAPHICS

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-D

APPLICATION OF UNITED STATES
BORAX & CHEMICAL CORPORATION
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, United States Borax & Chemical Corporation, is the owner of certain potash leases in Townships 21 and 22 South, Ranges 29 and 30 East, NMPM, Eddy County, New Mexico.

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

Township 21 South, Range 29 East, NMPM	
Section 2:	S/2 SW/4, NW/4 SW/4
Section 10:	E/2 SE/4
Section 11:	NW/4, W/2 SW/4
Section 14:	NW/4 NW/4
Section 15:	NE/4 NE/4

W.N.M.C.F. MICROGRAPHICS

Township 22 South, Range 30 East, NMPM	
Section 4:	W/2 W/2
Section 5:	S/2 SE/4, SE/4 SW/4
Section 7:	E/2 NE/4, NE/4 SE/4
Section 8:	N/2, N/2 SW/4
Section 9:	W/2 NW/4

(4) That the evidence presented indicates that the above-described acreage contains potash deposits in commercial quantities.

(5) That to promote orderly development of the natural resources in the area, Order No. R-111-A should be amended to include the above-described acreage in the Potash-Oil Area.

IT IS THEREFORE ORDERED:

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

Township 21 South, Range 29 East, NMPM	
Section 2:	S/2 SW/4, NW/4 SW/4
Section 10:	E/2 SE/4
Section 11:	NW/4, W/2 SW/4
Section 14:	NW/4 NW/4
Section 15:	NE/4 NE/4

Township 22 South, Range 30 East, NMPM	
Section 4:	W/2 W/2
Section 5:	S/2 SE/4, SE/4 SW/4
Section 7:	E/2 NE/4, NE/4 SE/4
Section 8:	N/2, N/2 SW/4
Section 9:	W/2 NW/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, Member & Secretary

lcr/

(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.

pj/

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

COPY

July 24, 1959

United States Borax
and Chemical Corporation
101 North Halagueno Street
Carlsbad, New Mexico

Gentlemen:

In processing your application for the extension of the potash-oil area as defined in Commission Order No. R-111-A, our records indicate that you have not filed the information as required in paragraphs 2 and 3 of Section IX of that order.

Please be reminded that this information is absolutely essential in the enforcement of the order and we will expect you to file the required information at once.

If your records indicate that you have complied with the abovementioned rules, please notify us immediately.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Enclosure

STAGNER, SAGE AND WALKER
ATTORNEYS AT LAW
CARLSBAD, NEW MEXICO

JAMES W. STAGNER
RAY O. SAGE
JOHN B. WALKER

July 22, 1959

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

Dear Sir:

Herewith enclosed please find the Application of United States Borax & Chemical Corporation for the inclusion of certain acreage in the potash-oil area defined in Order No. R-111-A. It is desired that a hearing before the Commission be had on this application. Attached to the application is a list of names and addresses of persons known to United States Borax & Chemical Corporation whose interests might be affected by the granting of the Order.

The enclosure is in triplicate. If there is anything further we should do in connection with the application preliminary to hearing thereon, we would appreciate it if you would advise us.

Yours very truly,

STAGNER, SAGE AND WALKER

By: James W. Stagner

JWS/m
Encl.

cc: Mr. Paul Speer
Mr. Earl H. Miller

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

APPLICATION OF UNITED STATES
BORAX & CHEMICAL CORPORATION
FOR THE INCLUSION OF CERTAIN
ACREAGE IN THE POTASH-OIL
AREA DEFINED IN ORDER NO. R-111-A.

Case NO. 275

A P P L I C A T I O N

UNITED STATES BORAX & CHEMICAL CORPORATION of 101 North Halagueno Street, Carlsbad, New Mexico, makes application to the Oil Conservation Commission of the State of New Mexico, for the inclusion of certain acreage described in this application in the potash-oil area as defined and covered by the Commission's Order No. R-111-A, and in support of its application states:

1. Applicant is the owner of Federal potash leases and State potash leases covering portions of the land hereinafter described and covering lands lying contiguous to lands hereinafter described. Core tests drilled on the said lands and mining work done upon a portion of said lands disclose that a substantial part of said lands contain commercial potash reserves.

2. Applicant is engaged in the mining and refining of potash on leases held by it in Eddy County, New Mexico, and the lands sought to be included within the potash-oil area are situated adjacent to or covered by present mine workings of the applicant. In order to prevent waste, protect correlative rights and assure maximum conservation of the oil, gas and potash resources of New Mexico, and in order to permit the economic recovery of oil, gas and potash minerals in the lands hereafter described, it is necessary and advisable that such lands be included within the exterior boundaries of the area described as the potash-oil area in the above numbered order. Provision for the inclusion of such acreage is made in paragraph II (2) of the above numbered order.

3. The description of lands which applicant desires to

W.N.M.C.F. MICROGRAPHICS

have included in the potash-oil area is as follows:

T. 21 S., R. 29 E., N.M.P.M.

Sec. 2,	W½ SW¼ and SE¼ SW¼	120 acres
Sec. 10,	E½ SE¼	40 acres
Sec. 11,	NW¼ and W½ SW¼	240 acres
Sec. 14,	NW¼ NW¼	40 acres
Sec. 15,	NE¼ NE¼	40 acres

T. 22 S., R. 30 E., N.M.P.M.

Sec. 4,	W½ W½	160 acres
Sec. 5,	S½ SE¼ and SE¼ SW¼	120 acres
Sec. 7,	NE¼ NE¼	40 acres
Sec. 8,	N½ and N½ SW¼	400 acres
Sec. 9,	W½ NW¼	80 acres
	Total acres:	1,280

4. There is attached hereto, marked Exhibit "A" and made a part of this application, a list showing the names of the persons and corporations who own existing oil and gas leases covering portions of the lands last above described as set opposite their names and the addresses of such persons or corporations, so far as the same are known to the applicant. Said list includes the names and addresses of all parties known to applicant who are interested in this application.

5. There is attached to this application and marked Exhibit "B" and made a part hereof, a plat showing the present boundaries of the potash-oil area which will be affected by this application. Said plat shows the Federal and State potassium and potash leases owned by applicant in said area, the location of core tests drilled on the lands above described, the location of present workings of the applicant on lands above described and the lands which applicant seeks to have included within the boundaries of the potash-oil area are designated upon said plat by appropriate legend.

6. A hearing upon this application is desired by the applicant before the Commission.

WHEREFORE APPLICANT PRAYS that the Commission set this matter for hearing before the Commission and that the Commission

W.N.M.C.F. MICROGRAPHICS

give appropriate notice of such hearing as provided by its rules and regulations.

UNITED STATES BORAX & CHEMICAL CORPORATION

By _____
Resident Manager

STAGNER, SAGE AND WALKER

By _____
Attorneys for Applicant
105½ South Canyon Street
Carlsbad, New Mexico

W.N.M.C.F. MICROGRAPHICS

EXHIBIT "A"

LIST OF NAMES AND ADDRESSES OF PERSONS
AFFECTED BY APPLICATION

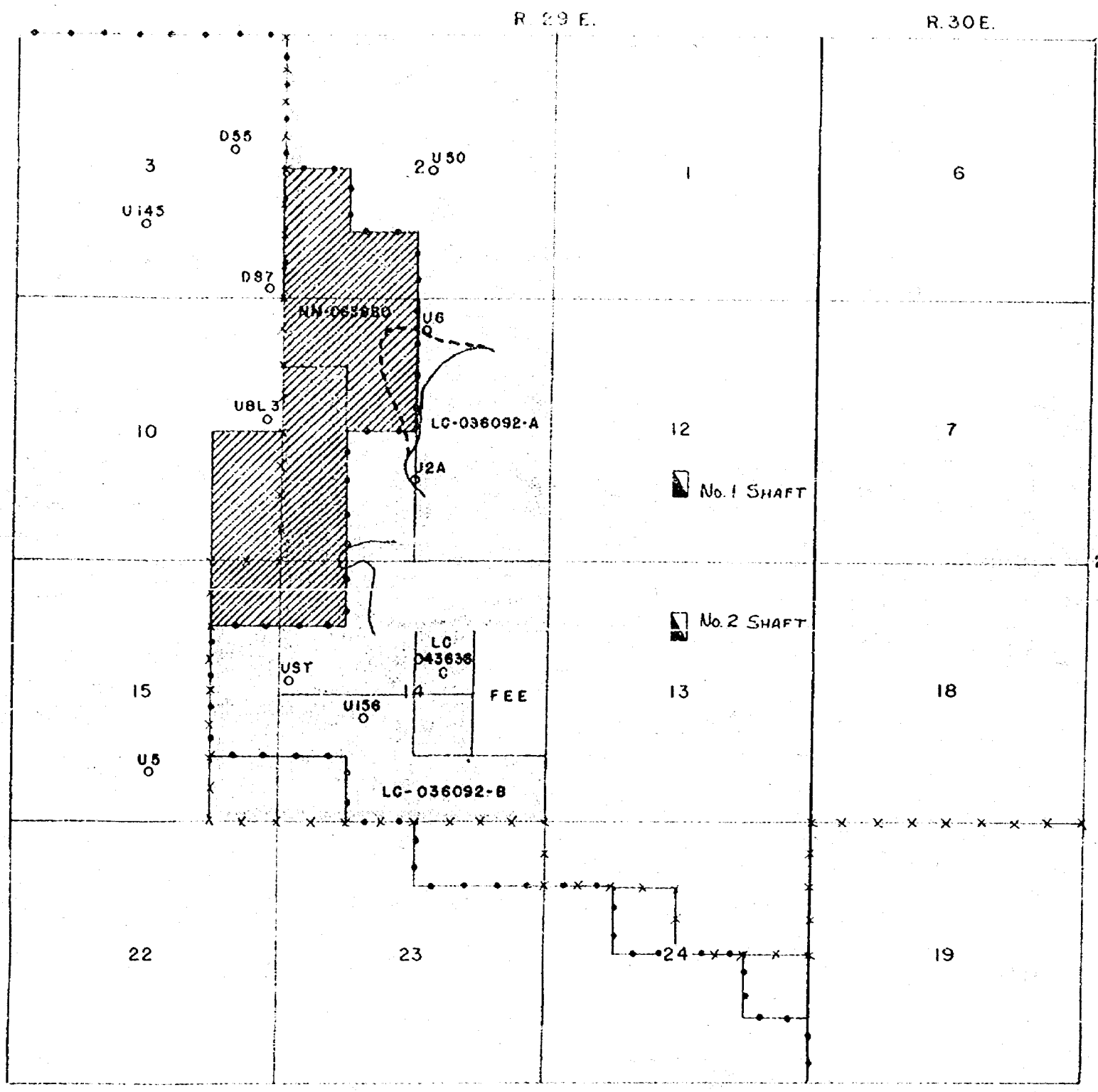
T-21-S, R-29-E

$S\frac{1}{2}$ & $NW\frac{1}{4}$ of $SW\frac{1}{4}$, Sec. 2	United States Borax & Chemical Corporation Carlsbad, New Mexico
$E\frac{1}{2}SE\frac{1}{4}$, Sec. 10	Mrs. Marian O. Harris 601 NW 38th Street Oklahoma City, Oklahoma
$E\frac{1}{2}NW\frac{1}{4}$, $NW\frac{1}{4}NW\frac{1}{4}$, Sec. 11	R. L. Burrow Roswell, New Mexico
$SW\frac{1}{4}NW\frac{1}{4}$, $W\frac{1}{2}SW\frac{1}{4}$, Sec. 11	United States Borax & Chemical Corporation Carlsbad, New Mexico
$NW\frac{1}{4}NW\frac{1}{4}$, Sec. 14	United States Borax & Chemical Corporation Carlsbad, New Mexico
$NE\frac{1}{4}NE\frac{1}{4}$, Sec. 15	Paul Blake Washington, D. C.

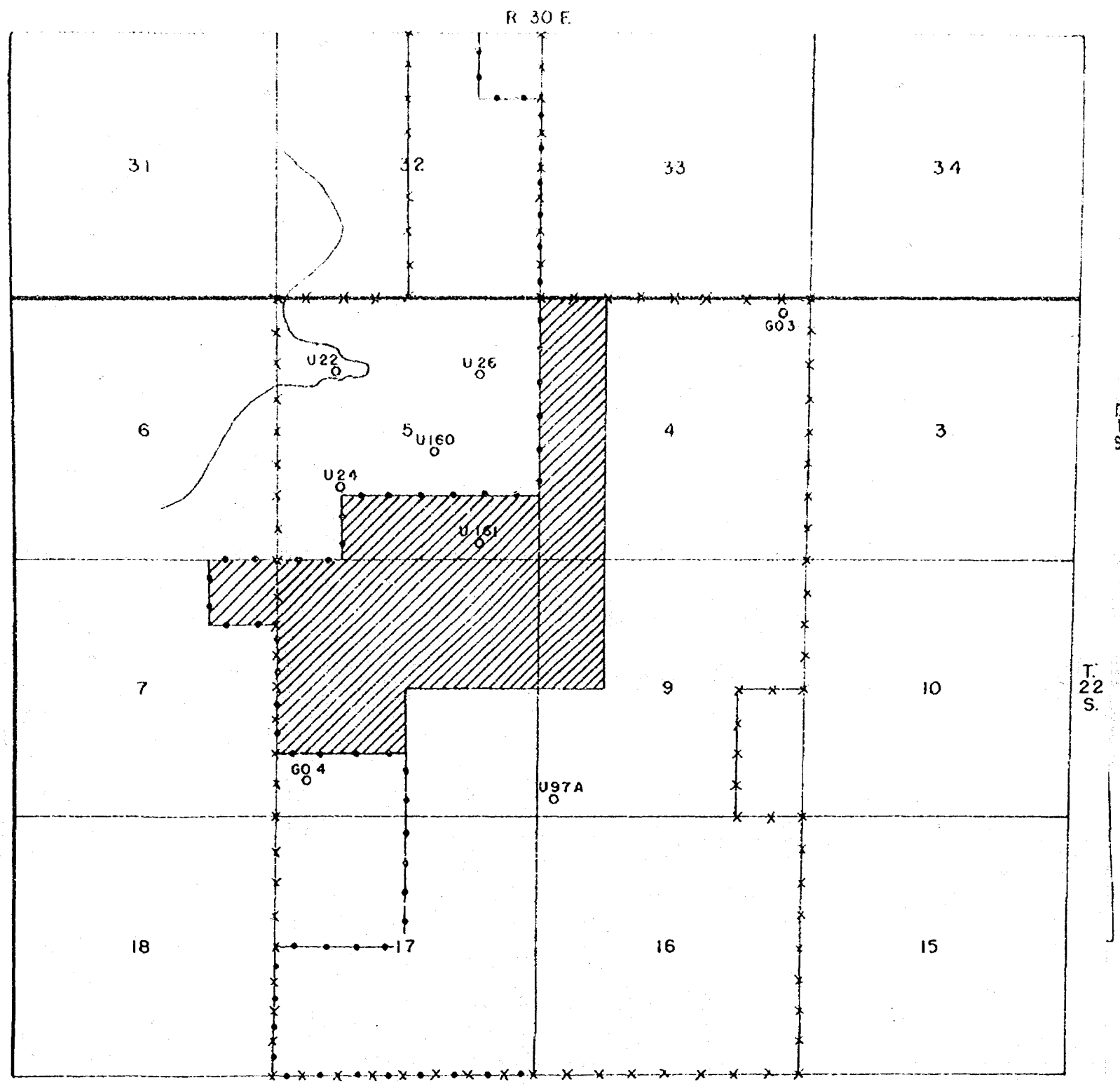
T-22-S, R-30-E

$W\frac{1}{2}W\frac{1}{2}$, Sec. 4 $S\frac{1}{2}SE\frac{1}{4}$, $SE\frac{1}{4}SW\frac{1}{4}$, Sec. 5 $NE\frac{1}{4}NE\frac{1}{4}$, Sec. 7 $N\frac{1}{2}$, $N\frac{1}{2}SW\frac{1}{4}$, Sec. 8 $W\frac{1}{2}NW\frac{1}{4}$, Sec. 9	Gulf Oil Corporation Petroleum Building Roswell, New Mexico

EXHIBIT "B"



W.N.M.C.F. MICROGRAPHICS



PROPOSED EXTENSION TO (R-111-A)

PRESENT (R-111-A) BOUNDRY

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

M-651 STATE LEASE

APPROX. PRESENT LIMIT OF OPEN MINE

U26 CORE TEST

Yours very truly,

UNITED STATES POTASH CO.

_____
President

POTASH COMPANY OF AMERICA

_____
Vice President

DUVAL SULPHUR & POTASH COMPANY

_____
President

INTERNATIONAL MINERALS & CHEMICAL CORP.

_____

SOUTHWEST POTASH CORP.

_____
General Superintendent

MR. CAMPBELL: I would just like to say a word for the forgotten man --- Mr. Ralph Nix, whose application started all this. I realize that the matter is one of wide importance and that it will have to be worked out from an operational point of view. I also feel that nothing has been brought out at these hearings to indicate that the State of New Mexico should not lease available lands. Mr. Nix still requests that his application be granted.

MR. NEAL: To which we certainly object, because we have endeavored to bring out at this hearing that additional lands in the potash area should not be leased for oil and gas exploration and production. There are some leases in effect which nothing can be done about, but we still feel that the state has benefited very greatly by this potash and that all potash deposits now known or to be discovered should be reserved for potash development.

COMMISSIONER: Is there anything further? At this time I believe that both oil and potash can live there together but I cannot render a decision right now because there will have to be some special provisions in these leases. I am going to appoint a committee of both potash and oil representatives for this area. This committee will be appointed tomorrow. The federal government will sit in and will appoint their men. This will be done immediately as I don't have any desire to have the matter drag on indefinitely. We hope to arrive at a decision as quickly as possible. If there is nothing further, the meeting will stand adjourned.

- - - - - - - - -

Read 2/7

PROPOSED

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

The objective of these rules and regulations is to assure maximum conservation and economic recovery of oil, gas and potash minerals.

1. These regulations are applicable to the potash areas as herein defined as "Area A" and "Area B".

Area "A" is hereby defined as follows:

19S-30E - Sections S 1/2 3, all 4, 5, S 1/2 and S 1/2 SW 1/4 6, all 7, 8, 9, 10, W 1/2 and W 1/2 E 1/2 11, W 1/2 and W 1/2 E 1/2 14, all 15 to 18 incl. SE 1/4 20, S 1/2 21, all 22, 23, all 25 to 29 incl. all 32 to 36 incl.

20S-29E - Sections E 1/2 SE 1/4 12,

20S-30E - Sections - all sec. 1 to 27 incl., all 34, 35, 36

20S-31E - Sections all 19, 20, 29, 30, 31, 32.

21S-29E - Sections All 1, 2, E 1/2 10, all 11, 12, 13, 14 E 1/2 15, all 24, E 1/2 25, all 36.

21S-30E - Sections all 4 to 9 incl. all 16 to 19 incl., all 31

22S-29E - Sections all 1, 2, E 1/2 3, all 10 to 15 incl., all 22, 23, 24.

22S-30E - Sections all 6, 7, 18 19

Area "B" is hereby defined as follows:

18S-30E Sections S 1/2 12, all 13, 14, S 1/4 15, S 1/4 21, all 22, 23, 24, W 1/2 25, all 26, 27, 28, S 1/2 29, S 1/2 and NE 1/4 32, all 33, 34, W 1/2 35.

18S-31E Sections W 1/2 18.

19S-29E Sections SW 1/4 11, S 1/2 12, all 13, 14, N 1/2 23, N 1/2 24.

19S-30E Sections all 2, N 1/2 3, S 1/2 NE 1/4 and S 1/2 SE 1/4 11, all 12, 13, S 1/2 NE 1/4 and S 1/2 SE 1/4 14, all 24.

19S-31E Sections all 9, 10, W 1/2 11, W 1/2 14, all 15, 16, 17, all 19, 20, 21, 22, W 1/2 23, S 1/2 25, all 26 to 36 incl.

19S-32E Sections S 1/2 25, all 24 to 27 incl., S 1/2 of 28, S 1/2 31, S 1/2 32, all 33 to 36 incl.

19S-33E Sections all 19, 30, 31

20S-29E Sections NE 1/4 and S 1/2 13, all 22 to 27 incl., all 34, 35, 36.

20S-30E Sections all 28 to 33 incl.

20S-31E Sections all 1 to 18 incl., all 21 to 28 incl., all 33 to 36 incl.

20S-32E Sections all 1 to 36 incl.

20S-33E Sections all 5 to 9 incl., all 15 to 23 incl. all 25 to 36 incl.

20S-34E Sections all 31.

21S-29E Sections E 1/2 3, all 25.

21S-30E Sections all 1, 2, 3, all 10, 11, S 1/2 12, all 13, 14, 15, all 20, 21, 22, N 1/2 23, N 1/2 24, all 27 to 30 incl., 32 to 34 incl., S 1/2 35.

21S-31E Sections N 1/2 1, N 1/2 2, N 1/2 3, NE 1/4 and W 1/2 4, all 5, 6, 18.

21 -32E Sections all 1 to 17 incl., all 21 to 27 incl., all 35, 36.

21 -33E Sections all 4 to 9 incl., all 16 to 21 incl., all 28 to 33 incl.,

22 -29E Sections W 1/2 9, all 16, W 1/2 17, W 1/2 20, all 21, all 28 to 33 incl., all 35 to 36 incl.

22 -30E Sections all 1 to 5 incl., all 8 to 17 incl., all 20 to 24 incl., W 1/2 25, all 26 to 35 incl., W 1/2 36.

22 -31E Sections all 4 to 9 incl., all 17, 18, N 1/2 19.

22 -33E Sections all 4, 5, 6.

23 -29E Sections all 1 to 3 incl., E 1/2 4, W 1/2 9, all 10 to 15 incl., all 22 to 27 incl., all 34 to 36 incl.,

23 -30E Sections E 1/2 1, all 2 to 36 incl.

23 -31E Sections all 7, E 1/2 8, SW 1/4 16, all 17 to 20 incl., W 1/2 21, all 28 to 33 incl.

24 -30E Sections N 1/2 1, N 1/2 2, N 1/2 3.

24 -31E Sections all 4, 5, 6.

Each of the above described areas may be contracted or expanded by the Oil Conservation Commission after due notice and hearing.

II. Exploration of Areas: - Area "A" - Drilling of oil and gas test wells shall not be permitted in Area "A" except upon leases outstanding as of the effective date of these regulations. Any oil or gas leases hereafter issued for lands within area "A" shall be subject to these regulations and no drilling shall be permitted thereon unless the expressed permission of the Oil Conservation Commission is first had and obtained after due notice and hearing.

If future drilling in Area [illegible] shall be further subject to the rules and regulations pertaining to deep wells contained in paragraph [illegible] as hereinafter set forth. Where oil and gas wells are in production within said area no mine opening shall be driven to within less than 100' of such wells so that protection can be afforded.

Area B. Area B is herein defined as the area in which oil and gas test wells may be drilled in accordance with the rules and regulations as hereinafter set forth. Nothing herein shall be construed to prevent unitization agreements.

Upon the discovery of oil or gas the Oil Conservation Commission shall, after due notice and hearing promulgate field or pool rules for the affected areas.

III. Drilling, Casing and Cementing Program For Potash Areas "A" and "B":

1. For Shallow Zone Oil and Gas Exploratory Test Wells:

(a) Surface Casing String: The shallow zone shall be defined as less than 5000 feet from the surface of the ground. In order 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 and shall be cemented back to the ground surface or to the bottom of the cellar.

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 per square inch; second-hand and re-conditioned pipe shall be re-tested to 600 pounds per square inch before being run.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

(b) Salt Protection String: A salt protection string shall be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturer's test specifications.

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 surface. The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with proper amounts of calcium chloride.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (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 jobs done until cement is brought to that point. One or more temperature

or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

Test of casing shall vary with the drilling method. If rotary is used, the mud shall be displaced with water and a hydraulic pressure of 100 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.

(c) Oil or Production String: This string may 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 salt protection casing shall have been run and commercial production obtained, that string shall be cemented to the surface as provided by above or as provided by for drilling wells to the deep zone.

2. For the purpose of these regulations the deep zones shall be defined as more or less 5000' from the surface of the ground. The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and to which has been added proper amounts of calcium chloride (3% by weight).

(a) Oil or Production String: This string may 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 salt protection casing shall have been run and commercial production obtained, that string shall be cemented to the surface as provided by above or as provided by for drilling wells to the deep zone.

(b) Surface Casing String: In order to prevent the intrusion of water, the surface casing string shall be set in the "red bed" beneath the surface of the ground section of the Rustler formation immediately above the top of the salt section and shall be cemented back to the ground surface or to the bottom of the cellar.

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 per square inch; second-hand and re-conditioned pipe shall be re-tested to 600 pounds per square inch before being run.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

This casing string shall be tested with a hydraulic pressure of six hundred (600) pounds per square inch. If a drop of one hundred (100) pounds per square inch or more should occur within 30 minutes, corrective measures shall be applied.

(c) Salt Protection String: A salt protection string shall be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe. New pipe shall have received a mill test of not less than 1000 pounds per square inch; second-hand and re-conditioned pipe shall be re-tested to 1000 pounds per square inch before being run.

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Centralizers shall be used on at least every 100 feet of casing below surface casing.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and to which has been added proper amounts of calcium chloride (4% by weight). Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests. If the cement fails to reach the surface, the top of the cement shall be located by a temperature or gamma ray survey, and additional cement jobs done until cement is brought to the surface.

This casing string shall be tested with a hydraulic pressure of 1000 pounds per square inch. If a drop of 100 pounds per square inch or more should occur within 30 minutes, corrective measures shall be applied.

(d) 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 one thousand (1000) feet below the salt string back to the surface.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four hours before drilling the plugs or initiating tests. Casing shall be tested with a hydraulic pressure of 1000 pounds per square inch. If a drop of one hundred (100) pounds per square inch or more should occur within 30 minutes corrective measures shall be applied.

(e) Size of Production String: This string shall be set on top of 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 (c-1) above. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests. Hydraulic pressure tests shall be applied to this string as above.

(f) 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.

IV. 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 and 3% calcium chloride by weight of cement. 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.

V. Plugging and Abandonment of Wells: All oil and gas wells which are abandoned shall be plugged in accordance with the following procedure.

1. (a) 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 plug through the salt section and prevent liquids or gases from entering the hole above or below the salt section.

(b) 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.

(c) 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 (1-a) above.

VI. Locations 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 with the Oil Conservation Commission.

VII. Inspection of Drilling and Mining Operation: 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.

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

VIII. 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 potash-bearing horizon for each oil and gas well drilled during the year. 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: 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 are herewith applicable to the areas described herein.

SUGGESTED REVISED ORDER NO. R-111

I.

OBJECTIVE

The objective of these Rules and Regulations is to prevent waste, protect correlative rights, assure maximum conservation of the oil, gas and potash resources of New Mexico and permit the economic recovery of oil, gas and potash minerals in the area hereinafter defined.

II.

THE POTASH - OIL AREA

(1) The Potash - Oil Area, as outlined in Exhibit A attached hereto and made a part hereof, represents the area in various parts of which potash mining operations are now in progress, or in which core tests indicate commercial potash reserves.

(2) The Potash - Oil Area, as outlined herein, may be revised by the Commission after due notice and hearing.

III.

DRILLING IN THE POTASH AREA

(1) All drilling of oil and gas wells in the POTASH AREA shall be subject to these rules and regulations.

(2) No wells will be drilled for oil or gas at a location, which in the opinion of the Commission or its duly authorized representative, would result in undue waste of potash deposits or constitute a hazard to or interfere unduly with potash deposits.

No mining operations will be conducted in the POTASH AREA that would, in the opinion of the Commission or its duly authorized representative, constitute a hazard to oil or gas production, or that would unreasonably interfere with the orderly development and production from any oil or gas pool,

(3) Upon discovery of oil or gas in the POTASH AREA, the Oil Conservation Commission shall promulgate pool rules for the affected area after due notice and hearing.

IV.

DRILLING AND CASING PROGRAM

(1) For the purpose of the regulations and the drilling of oil and gas exploratory test wells, shallow and deep zones are defined, as follows:

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(a) The 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) The 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) Surface Casing String:

(a) A surface casing string of new or used oil field casing in good condition shall be set in the "Red Bed" section of the basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section, as determined necessary by the regulatory representative approving the drilling operations and shall be cemented with not less than one hundred and fifty percent (150) percent of calculated volume necessary to circulate cement to the ground surface.

(b) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(c) Casing and water-shut-off tests shall be made both before and after drilling the plug and below the casing seat as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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.

(d) The above requirements for the surface casing string shall be applicable to both the shallow and deep zones.

(3) Salt Protection String:

(a) A salt protection string of new or used oil field casing in good condition shall be set not less than one hundred (100) feet nor more than six hundred (600) feet below the base of the salt section; provided that such string shall not be set below the top of the highest known oil or gas zone.

(b) The salt protection string shall be cemented, as follows:

(i) For wells drilled to the shallow zone, the string may be cemented with a nominal volume of cement for testing purposes only. If the exploratory test well is completed as a productive well, the string shall be re-cemented with sufficient cement to fill the annular space back of the pipe from the top of the first cementing to the surface or to the bottom of the cellar, or may be cut and pulled if the production string is cemented to the surface as provided in sub-section IV (5), (a), (i) below.

(ii) For wells drilled to the deep zone, the string must be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar. However, where the base of the Delaware sand is definable the casing rules in (IV) (3b) (i) shall apply even if the depth of the bottom of the Delaware Sand is greater than 5000'.

(c) If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or gamma ray survey and additional cementing shall be done until the cement is brought to the point required.

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(d) The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with suitable proportions but not less than 1% of calcium chloride by weight of cement.

(e) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(f) Casing tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of one thousand (1000) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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) The Commission, or its duly authorized representative, may require the use of centralizers on the salt protection string when in their judgment the use of such centralizers would offer further protection to the salt section.

(h) The above requirements for the salt protection string shall be applicable to both the shallow and deep zones except for sub-section IV (3), (b), (i) and (ii) above.

(4) Intermediate String:

(a) In the drilling of oil and gas exploratory test wells to the deep zone, the operator shall have the option of running an intermediate string of pipe,

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unless the Commission requires an intermediate string.

(b) Cementing procedures and casing tests for the intermediate string shall be the same as provided under sub-sections IV (3), (c), (e) and (f) for the salt protection string.

(5) Production String:

(a) A production string shall be set on top or through the oil or gas pay zone and shall be cemented as follows:

(i) For wells drilled to the shallow zone the production string shall be cemented to the surface if the salt protection string was cemented only with a nominal volume for testing purposes, in which case the salt protection string can be cut and pulled before the production string is cemented; provided, that if the salt protection string was cemented to the surface, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone.

(ii) For wells drilled to the deep zone, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided, that if no intermediate string shall have been run and cemented to the surface, the production string shall be cemented to the surface.

(b) Cementing procedures and casing tests for the production string shall be the same as provided under sub-section IV (3), (c), (e) and (f) for the salt

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protection string, however if high pressure oil or gas production is discovered in any area the Commission shall promulgate the necessary rules to prevent the charging of the salt section.

V.

DRILLING FLUID FOR SALT SECTION

The fluid used while drilling the salt section 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 fluid by the operator in overcoming any specific problem. This requirement is specifically intended to prevent enlarged drill holes.

VI.

PLUGGING AND ABANDONMENT OF WELLS

(a) All wells heretofore and hereafter drilled within the Potash Area shall be plugged in a manner and in accordance with field rules established by the Commission that will provide a solid cement plug through the salt section and any water bearing horizon and prevent liquids or gases from entering the hole above or below the salt section.

(b) The fluid used to mix the cement shall be saturated with the salts common to the salt section penetrated and with suitable proportions but not more than three (3) percent of calcium chloride by weight of cement being considered the desired mixture whenever possible

VII.

LOCATION FOR WELLS

Before commencing drilling operations for oil or gas on any lands within the POTASH AREA, the well operator shall prepare a map or plat showing the

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location of the proposed well, said map or plat to accompany each copy of the Notice of Intention to Drill. In addition to the number of copies required by the Commission, the well operator shall send one copy by registered mail to all potash operators holding potash leases within a radius of one mile of the proposed well, as reflected by the plats submitted under paragraph IX (b).

The well operator shall furnish proof of the fact that said potash operators were notified by registered mail of his intent by attaching return receipts to the copies of the Notice of Intention to Drill and plats furnished the Commission.

The Commission, or its authorized representative, may approve such Notice of Intention to Drill if no objection to the location of the proposed well is made by a potash operator within ten days after receipt. If the location of the proposed well is objected to by the potash operator, the matter shall be referred to the Secretary-Director of the Commission for arbitration. If a satisfactory settlement cannot be reached, the Secretary - Director of the Commission shall refer the matter to a hearing before the Commission after due notice and a decision either approving or denying the operator's plans to drill shall be entered by the Commission.

VIII.

INSPECTION OF DRILLING AND MINING OPERATIONS

A representative of the potash operator may be present during drilling, cementing, casing, and plugging of all oil or gas wells within 1320 feet of his lease to observe conformance with these regulations. Likewise, a representative of the oil and gas lessee may inspect mine workings on his lease to observe conformance with these regulations.

IX.

FILING OF WELL SURVEYS, MINE SURVEYS AND POTASH DEVELOPMENT PLANS

(a) Directional Surveys:

The Commission may require an operator to file a certified directional survey from the surface to a point below the lowest known potash

bearing horizon on all wells drilled within the POTASH AREA. These surveys may be required where, in the Commission's judgment, the exact location of the wellbore must be determined in order to aid mining operations.

(b) Mine Surveys:

On or before January 31st of each year, each potash operator shall furnish two copies of a plat of a survey of the location of his leaseholdings and all of his open mine workings, which plat shall be available for public inspection.

(c) Potash Development Plan

Within 30 days after the adoption of this order and thereafter, on or before January 31st of each year, each potash operator shall furnish two copies of a five-year projection of development plans in the form of a plat, which plat shall be for the confidential use of the Commission and for inspection by any affected oil or gas operator. The projection shall cover not less than 3 nor more than a 5 year development program.

X.

APPLICABILITY OF STATEWIDE RULES AND REGULATIONS

All general statewide rules and regulations of the Oil Conservation Commission governing the development, operation, and production of oil and gas in the State of New Mexico not inconsistent or in conflict herewith, are hereby adopted and made applicable to the areas described herein.

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CASING AND CEMENTING PROGRAMS FOR OIL AND GAS TEST WELLS IN THE "DEFINED AREAS" IN EDDY COUNTY, NEW MEXICO

CASE NO. 278
EXHIBIT A

1. Surface Casing String

In order to protect the fresh water supply, the surface casing string shall be set in the "Red Bed" section of the basal Rustler formation immediately above the top of the salt section and shall be cemented back to the ground surface or to the bottom of the cellar.

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 per square inch, second-hand and re-conditioned pipe shall be re-tested to 600 pounds per square inch before being run.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string shall be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe. New pipe shall have received a mill test of not less than 1000 pounds per square inch; second-hand and re-conditioned pipe shall be re-tested to 1000 pounds per square inch before being run.

Centralizers shall be used on at least every third joint below surface casing.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. (The water used to mix with the cement shall be saturated with the salts common to the zones penetrated.) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests. If the cement fails to reach the surface, the salt protection casing shall be perforated just above the top of the cement and additional cement jobs done until cement is brought to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

CASE NO. 278
EXHIBIT A

Tests of casing shall vary with the drilling method. 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.

3. Intermediate String

This string may be a drilling protection string for deep drilling objectives or may be an oil string for testing medium depth zones.

a. If a drilling protection string, the casing shall be cemented with a sufficient volume of cement amply to protect this casing and all shallow pay zones above the casing shoe, and in every instance the string shall be cemented from a point one thousand (1000) feet below the salt string back to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

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.

CASING AND CEMENTING PROGRAM FOR SHALLOW OIL AND GAS TEST WELLS IN KNOWN POTASH AREAS

CASE NO. 278
EXHIBIT B

The following is a suggested casing program for wells above 5,000 feet and is, of necessity, only general rules for the whole designated potash area, whether designated as Area A, Area B or otherwise. Geological sections change so rapidly in this large, scattered area that individual portions of the area will present individual problems. It is therefore suggested as follows:

A. That the Oil Conservation Commission retain authority to vary this general casing and cementing program to meet a specific condition, without an open hearing before the Commission.

B. That the casing and cementing program herein suggested apply only to the areas embraced in proven commercial deposits of potash, the remainder of the designated potash area to be drilled in accordance with standard, existing practices.

C. The suggested casing and cementing program is as follows:

1. Surface Casing String

In order to protect the fresh water supply, if present, the surface casing string shall be set through the fresh water bearing horizons and cemented with a volume adequate to protect the fresh water and keep it from entering the salt formation.

The surface string may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturers test specifications.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string may be set at lease one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string

may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturer's test specifications.

The string may be cemented with a nominal cement volume for testing purposes only, and if commercially productive, the string must be re-cemented with not less than 150% of calculated volume necessary to circulate cement to surface.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (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 jobs done until cement is brought to that point. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

Test of casing shall vary with the drilling method. 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.

3. Oil or Production String

This string may 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 salt protection casing shall have been run and commercial production obtained, that string shall be cemented to the surface as provided by 2 above or as provided by 3a in Deep Well program.

D. The undersigned operators, of Eddy County, New Mexico, approve the above and foregoing proposals and recommend its adoption by the Commission.

Respectfully submitted,

American Republics Corp. by William B. Macey; Boyd-Plemons Drilling Company by Tom Boyd; Buffalo Oil Company by Ralph L. Gray; Guy Stevenson; J. Grady Wright; E. N. Brock; G. Kelley Stout; (Illegible;) Paton Bros. by H. R. Paton; R. D. Collier; J. W. Berry; Ross Sears; Joe Nunn; J. E. Bedingfield; Burnham Oil Company by E. Jeffers; Malco Refineries, Inc. by Donald E. Anderson; Bassatt & Birney by Martin Yates III; Dixon & Yates by Martin Yates III; S. P. Yates; Yates Brothers by S. P. Yates; Resler Oil Company by S. P. Yates; J. R. Lund for Robert E. McKee.

CASING AND CEMENTING PROGRAM FOR SHALLOW OIL AND GAS TEST WELLS IN PROSPECTIVE POTASH AREAS

CASE No. 278
EXHIBIT C

The following program is a suggestive program for the cementing of pipe and the protecting of the prospective potash horizon from water, oil and gas contamination. This program shall pertain to oil and gas test or wells drilled for the purpose of securing oil and gas down to a depth of 6000 feet. There should be rules set up for particular areas, naturally based on the amount of surface water and the amount of potash in the salt section, which will be penetrated during the drilling of the proposed oil test. The geological features on the oil structures will call for different programs from time to time. Especially in the districts where potash is present. The commercial potash districts according to geological features and subsurface information that has been secured from old oil test that have been drilled in the past. Also addition information has been secured from districts from recent wells drilled in the various districts. There has also been a considerable amount of coring done by the various companies. All of this information should supply sufficient knowledge to derive at a pipe program satisfactory for all concerned. It is therefore suggested as follows:

1. That the Oil and Gas Conservation Commission retain authorization to issue a pipe program according to the area and district A program that is sufficient to protect the potash strates at the present and future.

2. A suggestive pipe program for the general area should be as follows:

A. Surface Casing

The surface casing should be set at the top of the salt section. The size should be determined by the operator. The number one suggestion is that the pipe be mudded to the surface by pumping mud around the shoe and behind the pipe to the surface. Allow pipe to set eight hours. Then bale hole dry and test for at least two hours. If water is completely shut off, then the operator shall continue his drilling until he has reached the anhydrite formation. Then the operator should run either number one used pipe or new pipe through the potash and salt section. The operator should then be allowed to pull the surface pipe from the hole. The operator should then be permitted to cement the pipe from the bottom of the salt section to the surface, by circulating cement behind the pipe to the surface, or in such quantities recommended by the cementing concerns and the Oil Conservation Commission. The operator should then be allowed to drill his well and set his production string as he sees fit. He should be allowed to set the size of casing and at a depth he recommends, so long as he uses number one used pipe or new pipe. The amount of cement run behind the production string should be sufficient to come up at least 500 feet above the shoe. This will be adequate cement to protect the oil and gas zones and the formations behind the production string.

B. The next pipe program is recommended as follows:

The surface pipe should be set through the surface water, and cemented by circulating cement behind the pipe to the surface, or else there should be sufficient amount of cement pumped in and around the pipe to come to the surface, under ordinarly conditions. The cement should be allowed to set under pressure not less than 48 hours before drilling same and testing for water. The operator must test for water at least 2 hours. In case there is no water present, he shall then be allowed to carry on drilling operations until he reaches the casing point necessary to set the production string. At this time the potash and salt is protected from all water hazards. The only hazards existing at this time is the possibility of contaminating the potash with oil and gas. Therefore, the operator should run nothing but A-1 used pipe or new pipe, tonging each joint up as tight as possible to prevent leakage. He shall then be allowed, to pump heavy acquagel mud behind the pipe sufficient to reach and come above the salt and potash section. Then the operator should pump enough cement behind the pipe to come up at least 500 feet behind it, which would be sufficient to seal off any possible chances of oil and gas working its way up behind it. The production string shall be allowed to be set threw or above the oil producing sections as the operator may see fit. The reason for this is that the different known producing zones are treated differently.

Most of the wells are drilled through-out Eddy County by the cable tool method. Which has the advantages of being able to identify the formations immediately upon topping them and the exact thickness. We are also able to detect immediately the different changes in the formations that takes place. We are also able to test our water zones as to the amount of water and the thickness of the zones. Therefore it is necessary to have a different type of pipe program for this type of drilling than for rotary drilling. The above recommendation are based on cable tool drilling.

These recommendations or suggestions are based on past experience and present drilling operations being carried on in one or more districts. The oil and gas producers of New Mexico are fortunate enough to have the Oil and Gas Conservation Commission to assist us in our problems. They have accumulated information sufficient to guide them in any section of Eddy County, New Mexico. They are known to work and cooperate with the United States Geological Department at all times.

The undersigned operator or operators of Eddy County, New Mexico approve wholeheartedly the above and foregoing proposals and do hereby recommend these adoptions by the State Land Commission as well as the United States Land Commission.

Respectfully submitted,

/s/ Jones & Watkins Oil Company, Artesia, New Mexico, by Stanley L. Jones, Inc.

/s/ Miller & Miller, Artesia, New Mexico, by Stanley L. Jones,

/s/ Stanley L. Jones, Inc.

Telegram -
Bartlesville, Oklahoma
June 21, 1951 - - - - -

CASE NO. 278
EXHIBIT D

R. R. SPURRIER, SECY.
NEW MEXICO OIL CONSERVATION COMMISSION - SANTA FE, NEW MEXICO

RE CASE 278 FOR AN ORDER ESTABLISHING A CASING PROGRAM WITHIN THE SO CALLED POTASH AREA OF EDDY AND LEA COUNTIES. PHILLIPS PETROLEUM COMPANY HAS STUDIED PROPOSALS OF VARIOUS OPERATORS WHICH WOULD REQUIRE TEMPERATURE SURVEYS WHERE SALT STRING IS CEMENTED TO SURFACE. IN OUR OPINION CIRCULATION SHOULD BE SUFFICIENT EVIDENCE AND WE OBJECT TO THE REQUIREMENT OF TEMPERATURE SURVEYS BECAUSE SUCH SURVEYS WILL NOT REVEAL ADDITIONAL INFORMATION. ALSO IN OUR OPINION, ON SHALLOW WELLS, IF NO INTERMEDIATE STRING IS RUN THE OIL STRING SHOULD BE REQUIRED TO BE CEMENTED SOLID TO THE SURFACE TO AVOID POSSIBLE LEAKS AND IN THIS CASE WE ALSO OBJECT TO REQUIREMENT OF GAMMA RAY OR TEMPERATURE LOGS FOR SAME REASON THAT THEY SHOW NO MORE THAN IS INDICATED BY OBTAINING CIRCULATION OF CEMENT.

OPERATORS SUGGESTION THAT CENTERALIZERS BE PLACED ON EVERY THIRD JOINT OF SALT STRING SHOULD BE AMENDED TO PROVIDE LENGTH OF SUCH JOINTS OR CENTRALIZERS SHOULD BE SPACED CERTAIN DISTANCE APART. OTHERWISE PHILLIPS PETROLEUM COMPANY CONCURS WITH PROPOSALS OF OTHER OPERATORS AS SET FORTH IN RECENT MEMORANDUM OF NEW MEXICO OIL AND GAS ENGINEERING COMMITTEE.

C. P. DIMIT

PHILLIPS PETROLEUM COMPANY

CASING AND CEMENTING PROGRAMS FOR OIL AND GAS TEST WELLS IN THE "DEFINED AREAS" IN EDDY COUNTY, NEW MEXICO

CASE NO. 278
EXHIBIT A

1. Surface Casing String

In order to protect the fresh water supply, the surface casing string shall be set in the "Red Bed" section of the basal Rustler formation immediately above the top of the salt section and shall be cemented back to the ground surface or to the bottom of the cellar.

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 per square inch; second-hand and re-conditioned pipe shall be re-tested to 600 pounds per square inch before being run.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string shall be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe. New pipe shall have received a mill test of not less than 1000 pounds per square inch; second-hand and re-conditioned pipe shall be re-tested to 1000 pounds per square inch before being run.

Centralizers shall be used on at least every third joint below surface casing.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. (The water used to mix with the cement shall be saturated with the salts common to the zones penetrated.) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests. If the cement fails to reach the surface, the salt protection casing shall be perforated just above the top of the cement and additional cement jobs done until cement is brought to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

CASE NO. 278
EXHIBIT A

Tests of casing shall vary with the drilling method. 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.

3. Intermediate String

This string may be a drilling protection string for deep drilling objectives or may be an oil string for testing medium depth zones.

a. If a drilling protection string, the casing shall be cemented with a sufficient volume of cement amply to protect this casing and all shallow pay zones above the casing shoe, and in every instance the string shall be cemented from a point one thousand (1000) feet below the salt string back to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

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.

CASING AND CEMENTING PROGRAM FOR SHALLOW OIL AND GAS TEST WELLS IN KNOWN POTASH AREAS

CASE NO. 278
EXHIBIT B

The following is a suggested casing program for wells above 5,000 feet and is, of necessity, only general rules for the whole designated potash area, whether designated as Area A, Area B or otherwise. Geological sections change so rapidly in this large, scattered area that individual portions of the area will present individual problems. It is therefore suggested as follows:

A. That the Oil Conservation Commission retain authority to vary this general casing and cementing program to meet a specific condition, without an open hearing before the Commission.

B. That the casing and cementing program herein suggested apply only to the areas embraced in proven commercial deposits of potash, the remainder of the designated potash area to be drilled in accordance with standard, existing practices.

C. The suggested casing and cementing program is as follows:

1. Surface Casing String

In order to protect the fresh water supply, if present, the surface casing string shall be set through the fresh water bearing horizons and cemented with a volume adequate to protect the fresh water and keep it from entering the salt formation.

The surface string may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturers test specifications.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string may be set at lease one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string

may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturer's test specifications.

The string may be cemented with a nominal cement volume for testing purposes only, and if commercially productive, the string must be re-cemented with not less than 150% of calculated volume necessary to circulate cement to surface.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (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 jobs done until cement is brought to that point. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

Test of casing shall vary with the drilling method. 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.

3. Oil or Production String

This string may 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 salt protection casing shall have been run and commercial production obtained, that string shall be cemented to the surface as provided by 2 above or as provided by 3a in Deep Well program.

D. The undersigned operators, of Eddy County, New Mexico, approve the above and foregoing proposals and recommend its adoption by the Commission.

Respectfully submitted,

American Republics Corp. by William B. Macey; Boyd-Plemons Drilling Company by Tom Boyd; Buffalo Oil Company by Ralph L. Gray; Guy Stevenson; J. Grady Wright; E. N. Brock; G. Kelley Stout; (Illegible) Paton Bros. by H. R. Paton; R. D. Collier; J. W. Berry; Ross Sears; Joe Nunn; J. E. Bedingfield; Burnham Oil Company by E. Jeffers; Malco Refineries, Inc. by Donald E. Anderson; Bassatt & Birney by Martin Yates III; Dixon & Yates by Martin Yates III; S. P. Yates; Yates Brothers by S. P. Yates; Resler Oil Company by S. P. Yates; J. R. Lund for Robert E. McKee.

CASING AND CEMENTING PROGRAM FOR SHALLOW OIL AND GAS TEST WELLS IN PROSPECTIVE POTASH AREAS

CASE No. 278
EXHIBIT C

The following program is a suggestive program for the cementing of pipe and the protecting of the prospective potash horizon from water, oil and gas contamination. This program shall pertain to oil and gas test or wells drilled for the purpose of securing oil and gas, down to a depth of 6000 feet. There should be rules set up for particular areas, naturally based on the amount of surface water and the amount of potash in the salt section, which will be penetrated during the drilling of the proposed oil test. The geological features on the oil structures will call for different programs from time to time. Especially in the districts where potash is present. The commercial potash districts according to geological features and subsurface information that has been secured from old oil test that have been drilled in the past. Also addition information has been secured from districts from recent wells drilled in the various districts. There has also been a considerable amount of coring done by the various companies. All of this information should supply sufficient knowledge to derive at a pipe program satisfactory for all concerned. It is therefore suggested as follows:

1. That the Oil and Gas Conservation Commission retain authorization to issue a pipe program according to the area and district. A program that is sufficient to protect the potash strates at the present and future.

2. A suggestive pipe program for the general area should be as follows:

A. Surface Casing

The surface casing should be set at the top of the salt section. The size should be determined by the operator. The number one suggestion is that the pipe be mudded to the surface by pumping mud around the shoe and behind the pipe to the surface. Allow pipe to set eight hours. Then bale hole dry and test for at least two hours. If water is completely shut off, then the operator shall continue his drilling until he has reached the anhydrite formation. Then the operator should run either number one used pipe or new pipe through the potash and salt section. The operator should then be allowed to pull the surface pipe from the hole. The operator should then be permitted to cement the pipe from the bottom of the salt section to the surface, by circulating cement behind the pipe to the surface, or in such quantities recommended by the cementing concerns and the Oil Conservation Commission. The operator should then be allowed to drill his well and set his production string as he sees fit. He should be allowed to set the size of casing and at a depth he recommends, so long as he uses number one used pipe or new pipe. The amount of cement run behind the production string should be sufficient to come up at least 500 feet above the shoe. This will be adequate cement to protect the oil and gas zones and the formations behind the production string.

B. The next pipe program is recommended as follows:

The surface pipe should be set through the surface water, and cemented by circulating cement behind the pipe to the surface, or else there should be sufficient amount of cement pumped in and around the pipe to come to the surface, under ordinarly conditions. The cement should be allowed to set under pressure not less than 48 hours before drilling same and testing for water. The operator must test for water at least 2 hours. In case there is no water present, he shall then be allowed to carry on drilling operations until he reaches the casing point necessary to set the production string. At this time the potash and salt is protected from all water hazards. The only hazards existing at this time is the possibility of contaminating the potash with oil and gas. Therefore, the operator should run nothing but A-1 used pipe or new pipe, tonging each joint up as tight as possible to prevent leakage. He shall then be allowed, to pump heavy acquagel mud behind the pipe sufficient to reach and come above the salt and potash section. Then the operator should pump enough cement behind the pipe to come up at least 500 feet behind it, which would be sufficient to seal off any possible chances of oil and gas working its way up behind it. The production string shall be allowed to be set threw or above the oil producing sections as the operator may see fit. The reason for this is that the different known producing zones are treated differently.

Most of the wells are drilled through-out Eddy County by the cable tool method. Which has the advantages of being able to identify the formations immediately upon topping them and the exact thickness. We are also able to detect immediately the different changes in the formations that takes place. We are also able to test our water zones as to the amount of water and the thickness of the zones. Therefore it is necessary to have a different type of pipe program for this type of drilling than for rotary drilling. The above recommendation are based on cable tool drilling.

These recommendations or suggestions are based on past experience and present drilling operations being carried on in one or more districts. The oil and gas producers of New Mexico are fortunate enough to have the Oil and Gas Conservation Commission to assist us in our problems. They have accumulated information sufficient to guide them in any section of Eddy County, New Mexico. They are known to work and cooperate with the United States Geological Department at all times.

The undersigned operator or operators of Eddy County, New Mexico approve wholeheartedly the above and foregoing proposals and do hereby recommend these adoptions by the State Land Commission as well as the United States Land Commission.

Respectfully submitted,

/s/ Jones & Watkins Oil Company, Artesia, New Mexico, by Stanley L. Jones, Inc.

/s/ Miller & Miller, Artesia, New Mexico, by Stanley L. Jones,

/s/ Stanley L. Jones, Inc.

Telegram -
Bartlesville, Oklahoma
June 21, 1951 - - - - - -

CASE NO. 278
EXHIBIT D

R. R. SPURRIER, SECY.
NEW MEXICO OIL CONSERVATION COMMISSION - SANTA FE, NEW MEXICO

RE CASE 278 FOR AN ORDER ESTABLISHING A CASING PROGRAM WITHIN THE SO CALLED POTASH AREA OF EDDY AND LEA COUNTIES. PHILLIPS PETROLEUM COMPANY HAS STUDIED PROPOSALS OF VARIOUS OPERATORS WHICH WOULD REQUIRE TEMPERATURE SURVEYS WHERE SALT STRING IS CEMENTED TO SURFACE. IN OUR OPINION CIRCULATION SHOULD BE SUFFICIENT EVIDENCE AND WE OBJECT TO THE REQUIREMENT OF TEMPERATURE SURVEYS BECAUSE SUCH SURVEYS WILL NOT REVEAL ADDITIONAL INFORMATION. ALSO IN OUR OPINION, ON SHALLOW WELLS, IF NO INTERMEDIATE STRING IS RUN THE OIL STRING SHOULD BE REQUIRED TO BE CEMENTED SOLID TO THE SURFACE TO AVOID POSSIBLE LEAKS AND IN THIS CASE WE ALSO OBJECT TO REQUIREMENT OF GAMMA RAY OR TEMPERATURE LOGS FOR SAME REASON THAT THEY SHOW NO MORE THAN IS INDICATED BY OBTAINING CIRCULATION OF CEMENT.

OPERATORS SUGGESTION THAT CENTERALIZERS BE PLACED ON EVERY THIRD JOINT OF SALT STRING SHOULD BE AMENDED TO PROVIDE LENGTH OF SUCH JOINTS OR CENTRALIZERS SHOULD BE SPACED CERTAIN DISTANCE APART. OTHERWISE PHILLIPS PETROLEUM COMPANY CONCURS WITH PROPOSALS OF OTHER OPERATORS AS SET FORTH IN RECENT MEMORANDUM OF NEW MEXICO OIL AND GAS ENGINEERING COMMITTEE.

C. P. DIMIT

PHILLIPS PETROLEUM COMPANY

CASING AND CEMENTING PROGRAMS FOR OIL AND GAS TEST WELLS IN THE "DEFINED AREAS" IN EDDY COUNTY NEW MEXICO

CASE NO. 278
EXHIBIT A

1. Surface Casing String

In order to protect the fresh water supply, the surface casing string shall be set in the "Red Bed" section of the basal Rustler formation immediately above the top of the salt section and shall be cemented back to the ground surface or to the bottom of the cellar.

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 per square inch, second-hand and re-conditioned pipe shall be re-tested to 600 pounds per square inch before being run.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string shall be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe. New pipe shall have received a mill test of not less than 1000 pounds per square inch; second-hand and re-conditioned pipe shall be re-tested to 1000 pounds per square inch before being run.

Centralizers shall be used on at least every third joint below surface casing.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. (The water used to mix with the cement shall be saturated with the salts common to the zones penetrated.) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests. If the cement fails to reach the surface, the salt protection casing shall be perforated just above the top of the cement and additional cement jobs done until cement is brought to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

CASE NO. 278
EXHIBIT A

Tests of casing shall vary with the drilling method. 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.

3. Intermediate String

This string may be a drilling protection string for deep drilling objectives or may be an oil string for testing medium depth zones.

a. If a drilling protection string, the casing shall be cemented with a sufficient volume of cement amply to protect this casing and all shallow pay zones above the casing shoe, and in every instance the string shall be cemented from a point one thousand (1000) feet below the salt string back to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

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.

CASING AND CEMENTING PROGRAM FOR SHALLOW OIL AND GAS TEST WELLS IN KNOWN POTASH AREAS

CASE NO. 278
EXHIBIT B

The following is a suggested casing program for wells above 5,000 feet and is, of necessity, only general rules for the whole designated potash area, whether designated as Area A, Area B or otherwise. Geological sections change so rapidly in this large, scattered area that individual portions of the area will present individual problems. It is therefore suggested as follows:

A. That the Oil Conservation Commission retain authority to vary this general casing and cementing program to meet a specific condition, without an open hearing before the Commission.

B. That the casing and cementing program herein suggested apply only to the areas embraced in proven commercial deposits of potash, the remainder of the designated potash area to be drilled in accordance with standard, existing practices.

C. The suggested casing and cementing program is as follows:

1. Surface Casing String

In order to protect the fresh water supply, if present, the surface casing string shall be set through the fresh water bearing horizons and cemented with a volume adequate to protect the fresh water and keep it from entering the salt formation.

The surface string may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturers test specifications.

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This string may 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 salt protection casing shall have been run and commercial production obtained, that string shall be cemented to the surface as provided by 2 above or as provided by 3a in Deep Well program.

D. The undersigned operators, of Eddy County, New Mexico, approve the above and foregoing proposals and recommend its adoption by the Commission.

Respectfully submitted,

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CASING AND CEMENTING PROGRAM FOR SHALLOW OIL AND GAS TEST WELLS IN PROSPECTIVE POTASH AREAS

CASE No. 278
EXHIBIT C

The following program is a suggestive program for the cementing of pipe and the protecting of the prospective potash horizon from water, oil and gas contamination. This program shall pertain to oil and gas test or wells drilled for the purpose of securing oil and gas, down to a depth of 6000 feet. There should be rules set up for particular areas, naturally based on the amount of surface water and the amount of potash in the salt section, which will be penetrated during the drilling of the proposed oil test. The geological features on the oil structures will call for different programs from time to time. Especially in the districts where potash is present. The commercial potash districts according to geological features and subsurface information that has been secured from old oil test that have been drilled in the past. Also addition information has been secured from districts from recent wells drilled in the various districts. There has also been a considerable amount of coring done by the various companies. All of this information should supply sufficient knowledge to derive at a pipe program satisfactory for all concerned. It is therefore suggested as follows:

1. That the Oil and Gas Conservation Commission retain authorization to issue a pipe program according to the area and district. A program that is sufficient to protect the potash strates at the present and future.

2. A suggestive pipe program for the general area should be as follows:

A. Surface Casing

The surface casing should be set at the top of the salt section. The size should be determined by the operator. The number one suggestion is that the pipe be mudded to the surface by pumping mud around the shoe and behind the pipe to the surface. Allow pipe to set eight hours. Then bale hole dry and test for at least two hours. If water is completely shut off, then the operator shall continue his drilling until he has reached the anhydrite formation. Then the operator should run either number one used pipe or new pipe through the potash and salt section. The operator should then be allowed to pull the surface pipe from the hole. The operator should then be permitted to cement the pipe from the bottom of the salt section to the surface, by circulating cement behind the pipe to the surface, or in such quantities recommended by the cementing concerns and the Oil Conservation Commission. The operator should then be allowed to drill his well and set his production string as he sees fit. He should be allowed to set the size of casing and at a depth he recommends, so long as he uses number one used pipe or new pipe. The amount of cement run behind the production string should be sufficient to come up at least 500 feet above the shoe. This will be adequate cement to protect the oil and gas zones and the formations behind the production string.

B. The next pipe program is recommended as follows:

The surface pipe should be set through the surface water, and cemented by circulating cement behind the pipe to the surface, or else there should be sufficient amount of cement pumped in and around the pipe to come to the surface, under ordinarly conditions. The cement should be allowed to set under pressure not less than 48 hours before drilling same and testing for water. The operator must test for water at least 2 hours. In case there is no water present, he shall then be allowed to carry on drilling operations until he reaches the casing point necessary to set the production string. At this time the potash and salt is protected from all water hazards. The only hazards existing at this time is the possibility of contaminating the potash with oil and gas. Therefore, the operator should run nothing but A-1 used pipe or new pipe, tonging each joint up as tight as possible to prevent leakage. He shall then be allowed, to pump heavy acquagel mud behind the pipe sufficient to reach and come above the salt and potash section. Then the operator should pump enough cement behind the pipe to come up at least 500 feet behind it, which would be sufficient to seal off any possible chances of oil and gas working its way up behind it. The production string shall be allowed to be set threw or above the oil producing sections as the operator may see fit. The reason for this is that the different known producing zones are treated differently.

Most of the wells are drilled through-out Eddy County by the cable tool method. Which has the advantages of being able to identify the formations immediately upon topping them and the exact thickness. We are also able to detect immediately the different changes in the formations that takes place. We are also able to test our water zones as to the amount of water and the thickness of the zones. Therefore it is necessary to have a different type of pipe program for this type of drilling than for rotary drilling. The above recommendation are based on cable tool drilling.

These recommendations or suggestions are based on past experience and present drilling operations being carried on in one or more districts. The oil and gas producers of New Mexico are fortunate enough to have the Oil and Gas Conservation Commission to assist us in our problems. They have accumulated information sufficient to guide them in any section of Eddy County, New Mexico. They are known to work and cooperate with the United States Geological Department at all times.

The undersigned operator or operators of Eddy County, New Mexico approve wholeheartedly the above and foregoing proposals and do hereby recommend these adoptions by the State Land Commission as well as the United States Land Commission.

Respectfully submitted,

/s/ Jones & Watkins Oil Company, Artesia, New Mexico, by Stanley L. Jones, Inc.

/s/ Miller & Miller, Artesia, New Mexico, by Stanley L. Jones,

/s/ Stanley L. Jones, Inc.

Telegram -
Bartlesville, Oklahoma
June 21, 1951 - - - - -

CASE NO. 278
EXHIBIT D

R. R. SPURRIER, SECY.
NEW MEXICO OIL CONSERVATION COMMISSION - SANTA FE, NEW MEXICO

RE CASE 278 FOR AN ORDER ESTABLISHING A CASING PROGRAM WITHIN THE SO CALLED POTASH AREA OF EDDY AND LEA COUNTIES. PHILLIPS PETROLEUM COMPANY HAS STUDIED PROPOSALS OF VARIOUS OPERATORS WHICH WOULD REQUIRE TEMPERATURE SURVEYS WHERE SALT STRING IS CEMENTED TO SURFACE. IN OUR OPINION CIRCULATION SHOULD BE SUFFICIENT EVIDENCE AND WE OBJECT TO THE REQUIREMENT OF TEMPERATURE SURVEYS BECAUSE SUCH SURVEYS WILL NOT REVEAL ADDITIONAL INFORMATION. ALSO IN OUR OPINION, ON SHALLOW WELLS, IF NO INTERMEDIATE STRING IS RUN THE OIL STRING SHOULD BE REQUIRED TO BE CEMENTED SOLID TO THE SURFACE TO AVOID POSSIBLE LEAKS AND IN THIS CASE WE ALSO OBJECT TO REQUIREMENT OF GAMMA RAY OR TEMPERATURE LOGS FOR SAME REASON THAT THEY SHOW NO MORE THAN IS INDICATED BY OBTAINING CIRCULATION OF CEMENT.

OPERATORS SUGGESTION THAT CENTERALIZERS BE PLACED ON EVERY THIRD JOINT OF SALT STRING SHOULD BE AMENDED TO PROVIDE LENGTH OF SUCH JOINTS OR CENTRALIZERS SHOULD BE SPACED CERTAIN DISTANCE APART. OTHERWISE PHILLIPS PETROLEUM COMPANY CONCURS WITH PROPOSALS OF OTHER OPERATORS AS SET FORTH IN RECENT MEMORANDUM OF NEW MEXICO OIL AND GAS ENGINEERING COMMITTEE.

C. P. DIMIT

PHILLIPS PETROLEUM COMPANY

CASING AND CEMENTING PROGRAMS FOR

OIL AND GAS TEST WELLS IN THE "DEFINED AREAS" IN EDDY COUNTY, NEW MEXICO

1. Surface Casing String

In order to protect the fresh water supply, 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 and shall be cemented back to the ground surface or to the bottom of the cellar.

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 per square inch; second-hand and re-conditioned pipe shall be re-tested to 600 pounds per square inch before being run.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string shall be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe. New pipe shall have received a mill test of not less than 1000 pounds per square inch; second-hand and re-conditioned pipe shall be re-tested to 1000 pounds per square inch before being run.

Centralizers shall be used on at least every third joint below surface casing.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. (The water used to mix with the cement shall be saturated with the salts common to the zones penetrated.) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests. If the cement fails to reach the surface, the salt protection casing shall be perforated just above the top of the cement and additional cement jobs done until cement is brought to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

Tests of casing shall vary with the drilling method. 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.

3. Intermediate String

This string may be a drilling protection string for deep drilling objectives or may be an oil string for testing medium depth zones.

a. If a drilling protection string, the casing shall be cemented with a sufficient volume of cement amply to protect this casing and all shallow pay zones above the casing shoe, and in every instance this string shall be cemented from a point one thousand (1000) feet below the salt string back to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

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.

CASING AND CEMENTING PROGRAMS FOR OIL AND GAS TEST WELLS IN THE "DEFINED AREAS" IN EDDY COUNTY, NEW MEXICO

CASE NO. 278
EXHIBIT A

1. Surface Casing String

In order to protect the fresh water supply, 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 and shall be cemented back to the ground surface or to the bottom of the cellar.

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 per square inch; second-hand and re-conditioned pipe shall be re-tested to 600 pounds per square inch before being run.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string shall be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe. New pipe shall have received a mill test of not less than 1000 pounds per square inch; second-hand and re-conditioned pipe shall be re-tested to 1000 pounds per square inch before being run.

Centralizers shall be used on at least every third joint below surface casing.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. (The water used to mix with the cement shall be saturated with the salts common to the zones penetrated.) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests. If the cement fails to reach the surface, the salt protection casing shall be perforated just above the top of the cement and additional cement jobs done until cement is brought to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

CASE NO. 278
EXHIBIT A

Tests of casing shall vary with the drilling method. 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.

3. Intermediate String

This string may be a drilling protection string for deep drilling objectives or may be an oil string for testing medium depth zones.

a. If a drilling protection string, the casing shall be cemented with a sufficient volume of cement amply to protect this casing and all shallow pay zones above the casing shoe, and in every instance the string shall be cemented from a point one thousand (1000) feet below the salt string back to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

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.

CASING AND CEMENTING PROGRAM FOR SHALLOW OIL AND GAS TEST WELLS IN KNOWN POTASH AREAS

CASE NO. 278
EXHIBIT B

The following is a suggested casing program for wells above 5,000 feet and is, of necessity, only general rules for the whole designated potash area, whether designated as Area A, Area B or otherwise. Geological sections change so rapidly in this large, scattered area that individual portions of the area will present individual problems. It is therefore suggested as follows:

A. That the Oil Conservation Commission retain authority to vary this general casing and cementing program to meet a specific condition, without an open hearing before the Commission.

B. That the casing and cementing program herein suggested apply only to the areas embraced in proven commercial deposits of potash, the remainder of the designated potash area to be drilled in accordance with standard, existing practices.

C. The suggested casing and cementing program is as follows:

1. Surface Casing String

In order to protect the fresh water supply, if present, the surface casing string shall be set through the fresh water bearing horizons and cemented with a volume adequate to protect the fresh water and keep it from entering the salt formation.

The surface string may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturers test specifications.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string may be set at lease one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string

may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturi . test specifications.

The string may be cemented with a nominal cement volume for testing purposes only, and if commercially productive, the string must be re-cemented with not less than 150% of calculated volume necessary to circulate cement to surface.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (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 jobs done until cement is brought to that point. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

Test of casing shall vary with the drilling method. 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.

3. Oil or Production String

This string may 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 salt protection casing shall have been run and commercial production obtained, that string shall be cemented to the surface as provided by 2 above or as provided by 3a in Deep Well program.

D. The undersigned operators, of Eddy County, New Mexico, approve the above and foregoing proposals and recommend its adoption by the Commission.

Respectfully submitted,

American Republics Corp. by William B. Macey; Boyd-Plemons Drilling Company by Tom Boyd; Buffalo Oil Company by Ralph L. Gray; Guy Stevenson; J. Grady Wright; E. N. Brock; G. Kelley Stout; (Illegible) Paton Bros. by H. R. Paton; R. D. Collier; J. W. Berry; Ross Sears; Joe Nunn; J. E. Bedingfield; Burnham Oil Company by E. Jeffers; Malco Refineries, Inc. by Donald E. Anderson; Bassatt & Birney by Martin Yates III; Dixon & Yates by Martin Yates III; S. P. Yates; Yates Brothers by S. P. Yates; Resler Oil Company by S. P. Yates; J. R. Lund for Robert E. McKee.

CASING AND CEMENTING PROGRAM FOR SHALLOW OIL AND GAS TEST WELLS IN PROSPECTIVE POTASH AREAS

CASE No. 278
EXHIBIT C

The following program is a suggestive program for the cementing of pipe and the protecting of the prospective potash horizon from water, oil and gas contamination. This program shall pertain to oil and gas test or wells drilled for the purpose of securing oil and gas, down to a depth of 6000 feet. There should be rules set up for particular areas, naturally based on the amount of surface water and the amount of potash in the salt section, which will be penetrated during the drilling of the proposed oil test. The geological features on the oil structures will call for different programs from time to time. Especially in the districts where potash is present. The commercial potash districts according to geological features and subsurface information that has been secured from old oil test that have been drilled in the past. Also addition information has been secured from districts from recent wells drilled in the various districts. There has also been a considerable amount of coring done by the various companies. All of this information should supply sufficient knowledge to derive at a pipe program satisfactory for all concerned. It is therefore suggested as follows:

1. That the Oil and Gas Conservation Commission retain authorization to issue a pipe program according to the area and district. A program that is sufficient to protect the potash strates at the present and future.

2. A suggestive pipe program for the general area should be as follows:

A. Surface Casing

The surface casing should be set at the top of the salt section. The size should be determined by the operator. The number one suggestion is that the pipe be mudded to the surface by pumping mud around the shoe and behind the pipe to the surface. Allow pipe to set eight hours. Then bale hole dry and test for at least two hours. If water is completely shut off, then the operator shall continue his drilling until he has reached the anhydrite formation. Then the operator should run either number one used pipe or new pipe through the potash and salt section. The operator should then be allowed to pull the surface pipe from the hole. The operator should then be permitted to cement the pipe from the bottom of the salt section to the surface, by circulating cement behind the pipe to the surface, or in such quantities recommended by the cementing concerns and the Oil Conservation Commission. The operator should then be allowed to drill his well and set his production string as he sees fit. He should be allowed to set the size of casing and at a depth he recommends, so long as he uses number one used pipe or new pipe. The amount of cement run behind the production string should be sufficient to come up at least 500 feet above the shoe. This will be adequate cement to protect the oil and gas zones and the formations behind the production string.

B. The next pipe program is recommended as follows:

The surface pipe should be set through the surface water, and cemented by circulating cement behind the pipe to the surface or else there should be sufficient amount of cement pumped in and around the pipe to come to the surface, under ordinarly conditions. The cement should be allowed to set under pressure not less than 48 hours before drilling same and testing for water. The operator must test for water at least 2 hours. In case there is no water present, he shall then be allowed to carry on drilling operations until he reaches the casing point necessary to set the production string. At this time the potash and salt is protected from all water hazards. The only hazards existing at this time is the possibility of contaminating the potash with oil and gas. Therefore, the operator should run nothing but A-1 used pipe or new pipe, tonging each joint up as tight as possible to prevent leakage. He shall then be allowed, to pump heavy acquagel mud behind the pipe sufficient to reach and come above the salt and potash section. Then the operator should pump enough cement behind the pipe to come up at least 500 feet behind it, which would be sufficient to seal off any possible chances of oil and gas working its way up behind it. The production string shall be allowed to be set threw or above the oil producing sections as the operator may see fit. The reason for this is that the different known producing zones are treated differently.

Most of the wells are drilled through-out Eddy County by the cable tool method. Which has the advantages of being able to identify the formations immediately upon topping them and the exact thickness. We are also able to detect immediately the different changes in the formations that takes place. We are also able to test our water zones as to the amount of water and the thickness of the zones. Therefore it is necessary to have a different type of pipe program for this type of drilling than for rotary drilling. The above recommendation are based on cable tool drilling.

These recommendations or suggestions are based on past experience and present drilling operations being carried on in one or more districts. The oil and gas producers of New Mexico are fortunate enough to have the Oil and Gas Conservation Commission to assist us in our problems. They have accumulated information sufficient to guide them in any section of Eddy County, New Mexico. They are known to work and cooperate with the United States Geological Department at all times.

The undersigned operator or operators of Eddy County, New Mexico approve wholeheartedly the above and foregoing proposals and do hereby recommend these adoptions by the State Land Commission as well as the United States Land Commission.

Respectfully submitted,

/s/ Jones & Watkins Oil Company, Artesia, New Mexico, by Stanley L. Jones, Inc.

/s/ Miller & Miller, Artesia, New Mexico, by Stanley L. Jones,

/s/ Stanley L. Jones, Inc.

Telegram -
Bartlesville, Oklahoma
June 21, 1951 - - - - - -

CASE NO. 278
EXHIBIT D

R. R. SPURRIER, SECY.
NEW MEXICO OIL CONSERVATION COMMISSION - SANTA FE, NEW MEXICO

RE CASE 278 FOR AN ORDER ESTABLISHING A CASING PROGRAM WITHIN THE SO CALLED POTASH AREA OF EDDY AND LEA COUNTIES. PHILLIPS PETROLEUM COMPANY HAS STUDIED PROPOSALS OF VARIOUS OPERATORS WHICH WOULD REQUIRE TEMPERATURE SURVEYS WHERE SALT STRING IS CEMENTED TO SURFACE. IN OUR OPINION CIRCULATION SHOULD BE SUFFICIENT EVIDENCE AND WE OBJECT TO THE REQUIREMENT OF TEMPERATURE SURVEYS BECAUSE SUCH SURVEYS WILL NOT REVEAL ADDITIONAL INFORMATION. ALSO IN OUR OPINION, ON SHALLOW WELLS, IF NO INTERMEDIATE STRING IS RUN THE OIL STRING SHOULD BE REQUIRED TO BE CEMENTED SOLID TO THE SURFACE TO AVOID POSSIBLE LEAKS AND IN THIS CASE WE ALSO OBJECT TO REQUIREMENT OF GAMMA RAY OR TEMPERATURE LOGS FOR SAME REASON THAT THEY SHOW NO MORE THAN IS INDICATED BY OBTAINING CIRCULATION OF CEMENT.

OPERATORS SUGGESTION THAT CENTERALIZERS BE PLACED ON EVERY THIRD JOINT OF SALT STRING SHOULD BE AMENDED TO PROVIDE LENGTH OF SUCH JOINTS OR CENTRALIZERS SHOULD BE SPACED CERTAIN DISTANCE APART. OTHERWISE PHILLIPS PETROLEUM COMPANY CONCURS WITH PROPOSALS OF OTHER OPERATORS AS SET FORTH IN RECENT MEMORANDUM OF NEW MEXICO OIL AND GAS ENGINEERING COMMITTEE.

C. P. DIMIT

PHILLIPS PETROLEUM COMPANY

CASING AND CEMENTING PROGRAMS FOR OIL AND GAS TEST WELLS IN THE "DEFINED AREAS" IN EDDY COUNTY, NEW MEXICO

CASE NO. 278
EXHIBIT A

1. Surface Casing String

In order to protect the fresh water supply, the surface casing string shall be set in the "Red Bed" section of the basal Rustler formation immediately above the top of the salt section and shall be cemented back to the ground surface or to the bottom of the cellar.

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 per square inch; second-hand and re-conditioned pipe shall be re-tested to 600 pounds per square inch before being run.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string shall be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe. New pipe shall have received a mill test of not less than 1000 pounds per square inch; second-hand and re-conditioned pipe shall be re-tested to 1000 pounds per square inch before being run.

Centralizers shall be used on at least every third joint below surface casing.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. (The water used to mix with the cement shall be saturated with the salts common to the zones penetrated.) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests. If the cement fails to reach the surface, the salt protection casing shall be perforated just above the top of the cement and additional cement jobs done until cement is brought to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

CASE NO. 278
EXHIBIT A

Tests of casing shall vary with the drilling method. 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.

3. Intermediate String

This string may be a drilling protection string for deep drilling objectives or may be an oil string for testing medium depth zones.

a. If a drilling protection string, the casing shall be cemented with a sufficient volume of cement amply to protect this casing and all shallow pay zones above the casing shoe, and in every instance the string shall be cemented from a point one thousand (1000) feet below the salt string back to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

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.

CASING AND CEMENTING PROGRAM FOR SHALLOW OIL AND GAS TEST WELLS IN KNOWN POTASH AREAS

CASE NO. 278
EXHIBIT B

The following is a suggested casing program for wells above 5,000 feet and is, of necessity, only general rules for the whole designated potash area, whether designated as Area A, Area B or otherwise. Geological sections change so rapidly in this large, scattered area that individual portions of the area will present individual problems. It is therefore suggested as follows:

A. That the Oil Conservation Commission retain authority to vary this general casing and cementing program to meet a specific condition, without an open hearing before the Commission.

B. That the casing and cementing program herein suggested apply only to the areas embraced in proven commercial deposits of potash, the remainder of the designated potash area to be drilled in accordance with standard, existing practices.

C. The suggested casing and cementing program is as follows:

1. Surface Casing String

In order to protect the fresh water supply, if present, the surface casing string shall be set through the fresh water bearing horizons and cemented with a volume adequate to protect the fresh water and keep it from entering the salt formation.

The surface string may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturers test specifications.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string may be set at lease one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string

may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturer's test specifications.

The string may be cemented with a nominal cement volume for testing purposes only, and if commercially productive, the string must be re-cemented with not less than 150% of calculated volume necessary to circulate cement to surface.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (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 jobs done until cement is brought to that point. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

Test of casing shall vary with the drilling method. 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.

3. Oil or Production String

This string may 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 salt protection casing shall have been run and commercial production obtained, that string shall be cemented to the surface as provided by 2 above or as provided by 3a in Deep Well program.

D. The undersigned operators, of Eddy County, New Mexico, approve the above and foregoing proposals and recommend its adoption by the Commission.

Respectfully submitted,

American Republics Corp. by William B. Macey; Boyd-Plemons Drilling Company by Tom Boyd; Buffalo Oil Company by Ralph L. Gray; Guy Stevenson; J. Grady Wright; E. N. Brock; G. Kelley Stout; (Illegible) Paton Bros. by H. R. Paton; R. D. Collier; J. W. Berry; Ross Sears; Joe Nunn; J. E. Bedingfield; Burnham Oil Company by E. Jeffers; Malco Refineries, Inc. by Donald E. Anderson; Bassatt & Birney by Martin Yates III; Dixon & Yates by Martin Yates III; S. P. Yates; Yates Brothers by S. P. Yates; Resler Oil Company by S. P. Yates; J. R. Lund for Robert E. McKee.

CASING AND CEMENTING PROGRAM FOR SHALLOW OIL AND GAS TEST WELLS IN PROSPECTIVE POTASH AREAS

CASE No. 278
EXHIBIT C

The following program is a suggestive program for the cementing of pipe and the protecting of the prospective potash horizon from water, oil and gas contamination. This program shall pertain to oil and gas test or wells drilled for the purpose of securing oil and gas, down to a depth of 6000 feet. There should be rules set up for particular areas, naturally based on the amount of surface water and the amount of potash in the salt section, which will be penetrated during the drilling of the proposed oil test. The geological features on the oil structures will call for different programs from time to time. Especially in the districts where potash is present. The commercial potash districts according to geological features and subsurface information that has been secured from old oil test that have been drilled in the past. Also addition information has been secured from districts from recent wells drilled in the various districts. There has also been a considerable amount of coring done by the various companies. All of this information should supply sufficient knowledge to derive at a pipe program satisfactory for all concerned. It is therefore suggested as follows:

1. That the Oil and Gas Conservation Commission retain authorization to issue a pipe program according to the area and district. A program that is sufficient to protect the potash strates at the present and future.

2. A suggestive pipe program for the general area should be as follows:

A. Surface Casing

The surface casing should be set at the top of the salt section. The size should be determined by the operator. The number one suggestion is that the pipe be mudded to the surface by pumping mud around the shoe and behind the pipe to the surface. Allow pipe to set eight hours. Then bale hole dry and test for at least two hours. If water is completely shut off, then the operator shall continue his drilling until he has reached the anhydrite formation. Then the operator should run either number one used pipe or new pipe through the potash and salt section. The operator should then be allowed to pull the surface pipe from the hole. The operator should then be permitted to cement the pipe from the bottom of the salt section to the surface, by circulating cement behind the pipe to the surface, or in such quantities recommended by the cementing concerns and the Oil Conservation Commission. The operator should then be allowed to drill his well and set his production string as he sees fit. He should be allowed to set the size of casing and at a depth he recommends, so long as he uses number one used pipe or new pipe. The amount of cement run behind the production string should be sufficient to come up at least 500 feet above the shoe. This will be adequate cement to protect the oil and gas zones and the formations behind the production string.

(Con't. Case No. 278
Exhibit C)

B. The next pipe program is recommended as follows:

The surface pipe should be set through the surface water, and cemented by circulating cement behind the pipe to the surface, or else there should be sufficient amount of cement pumped in and around the pipe to come to the surface, under ordinarly conditions. The cement should be allowed to set under pressure not less than 48 hours before drilling same and testing for water. The operator must test for water at least 2 hours. In case there is no water present, he shall then be allowed to carry on drilling operations until he reaches the casing point necessary to set the production string. At this time the potash and salt is protected from all water hazards. The only hazards existing at this time is the possibility of contaminating the potash with oil and gas. Therefore, the operator should run nothing but A-1 used pipe or new pipe, tonging each joint up as tight as possible to prevent leakage. He shall then be allowed, to pump heavy acquagel mud behind the pipe sufficient to reach and come above the salt and potash section. Then the operator should pump enough cement behind the pipe to come up at least 500 feet behind it, which would be sufficient to seal off any possible chances of oil and gas working its way up behind it. The production string shall be allowed to be set threw or above the oil producing sections as the operator may see fit. The reason for this is that the different known producing zones are treated differently.

Most of the wells are drilled through-out Eddy County by the cable tool method. Which has the advantages of being able to identify the formations immediately upon topping them and the exact thickness. We are also able to detect immediately the different changes in the formations that takes place. We are also able to test our water zones as to the amount of water and the thickness of the zones. Therefore it is necessary to have a different type of pipe program for this type of drilling than for rotary drilling. The above recommendation are based on cable tool drilling.

These recommendations or suggestions are based on past experience and present drilling operations being carried on in one or more districts. The oil and gas producers of New Mexico are fortunate enough to have the Oil and Gas Conservation Commission to assist us in our problems. They have accumulated information sufficient to guide them in any section of Eddy County, New Mexico. They are known to work and cooperate with the United States Geological Department at all times.

The undersigned operator or operators of Eddy County, New Mexico approve wholeheartedly the above and foregoing proposals and do hereby recommend these adoptions by the State Land Commission as well as the United States Land Commission.

Respectfully submitted,

/s/ Jones & Watkins Oil Company, Artesia, New Mexico, by Stanley L. Jones, Inc.

/s/ Miller & Miller, Artesia, New Mexico, by Stanley L. Jones,

/s/ Stanley L. Jones, Inc.

Telegram -
Bartlesville, Oklahoma
June 21, 1951 - - - - - -

CASE NO. 278
EXHIBIT D

R. R. SPURRIER, SECY.
NEW MEXICO OIL CONSERVATION COMMISSION - SANTA FE, NEW MEXICO

RE CASE 278 FOR AN ORDER ESTABLISHING A CASING PROGRAM WITHIN THE SO CALLED POTASH AREA OF EDDY AND LEA COUNTIES. PHILLIPS PETROLEUM COMPANY HAS STUDIED PROPOSALS OF VARIOUS OPERATORS WHICH WOULD REQUIRE TEMPERATURE SURVEYS WHERE SALT STRING IS CEMENTED TO SURFACE. IN OUR OPINION CIRCULATION SHOULD BE SUFFICIENT EVIDENCE AND WE OBJECT TO THE REQUIREMENT OF TEMPERATURE SURVEYS BECAUSE SUCH SURVEYS WILL NOT REVEAL ADDITIONAL INFORMATION. ALSO IN OUR OPINION, ON SHALLOW WELLS, IF NO INTERMEDIATE STRING IS RUN THE OIL STRING SHOULD BE REQUIRED TO BE CEMENTED SOLID TO THE SURFACE TO AVOID POSSIBLE LEAKS AND IN THIS CASE WE ALSO OBJECT TO REQUIREMENT OF GAMMA RAY OR TEMPERATURE LOGS FOR SAME REASON THAT THEY SHOW NO MORE THAN IS INDICATED BY OBTAINING CIRCULATION OF CEMENT.

OPERATORS SUGGESTION THAT CENTERALIZERS BE PLACED ON EVERY THIRD JOINT OF SALT STRING SHOULD BE AMENDED TO PROVIDE LENGTH OF SUCH JOINTS OR CENTRALIZERS SHOULD BE SPACED CERTAIN DISTANCE APART. OTHERWISE PHILLIPS PETROLEUM COMPANY CONCURS WITH PROPOSALS OF OTHER OPERATORS AS SET FORTH IN RECENT MEMORANDUM OF NEW MEXICO OIL AND GAS ENGINEERING COMMITTEE.

C. P. DIMIT

PHILLIPS PETROLEUM COMPANY

CASING AND CEMENTING PROGRAMS FOR OIL AND GAS TEST WELLS IN THE "DEFINED AREAS" IN EDDY COUNTY, NEW MEXICO

CASE NO. 278
EXHIBIT A

1. Surface Casing String

In order to protect the fresh water supply, the surface casing string shall be set in the "Red Bed" section of the basal Rustler formation immediately above the top of the salt section and shall be cemented back to the ground surface or to the bottom of the cellar.

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 per square inch; second-hand and re-conditioned pipe shall be re-tested to 600 pounds per square inch before being run.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string shall be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe. New pipe shall have received a mill test of not less than 1000 pounds per square inch; second-hand and re-conditioned pipe shall be re-tested to 1000 pounds per square inch before being run.

Centralizers shall be used on at least every third joint below surface casing.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. (The water used to mix with the cement shall be saturated with the salts common to the zones penetrated.) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests. If the cement fails to reach the surface, the salt protection casing shall be perforated just above the top of the cement and additional cement jobs done until cement is brought to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

CASE NO. 278
EXHIBIT A

Tests of casing shall vary with the drilling method. 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.

3. Intermediate String

This string may be a drilling protection string for deep drilling objectives or may be an oil string for testing medium depth zones.

a. If a drilling protection string, the casing shall be cemented with a sufficient volume of cement amply to protect this casing and all shallow pay zones above the casing shoe, and in every instance the string shall be cemented from a point one thousand (1000) feet below the salt string back to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

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.

CASING AND CEMENTING PROGRAM FOR SHALLOW OIL AND GAS TEST WELLS IN KNOWN POTASH AREAS

CASE NO. 278
EXHIBIT B

The following is a suggested casing program for wells above 5,000 feet and is, of necessity, only general rules for the whole designated potash area, whether designated as Area A, Area B or otherwise. Geological sections change so rapidly in this large, scattered area that individual portions of the area will present individual problems. It is therefore suggested as follows:

A. That the Oil Conservation Commission retain authority to vary this general casing and cementing program to meet a specific condition, without an open hearing before the Commission.

B. That the casing and cementing program herein suggested apply only to the areas embraced in proven commercial deposits of potash, the remainder of the designated potash area to be drilled in accordance with standard, existing practices.

C. The suggested casing and cementing program is as follows:

1. Surface Casing String

In order to protect the fresh water supply, if present, the surface casing string shall be set through the fresh water bearing horizons and cemented with a volume adequate to protect the fresh water and keep it from entering the salt formation.

The surface string may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturers test specifications.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string may be set at lease one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string

may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturer's test specifications.

The string may be cemented with a nominal cement volume for testing purposes only, and if commercially productive, the string must be re-cemented with not less than 150% of calculated volume necessary to circulate cement to surface.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (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 jobs done until cement is brought to that point. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

Test of casing shall vary with the drilling method. 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.

3. Oil or Production String

This string may 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 salt protection casing shall have been run and commercial production obtained, that string shall be cemented to the surface as provided by 2 above or as provided by 3a in Deep Well program.

D. The undersigned operators, of Eddy County, New Mexico, approve the above and foregoing proposals and recommend its adoption by the Commission.

Respectfully submitted,

American Republics Corp. by William B. Macey; Boyd-Plemons Drilling Company by Tom Boyd; Buffalo Oil Company by Ralph L. Gray; Guy Stevenson; J. Grady Wright; E. N. Brock; G. Kelley Stout; (Illegible) Paton Bros. by H. R. Paton; R. D. Collier; J. W. Berry; Ross Sears; Joe Nunn; J. E. Bedingfield; Burnham Oil Company by E. Jeffers; Malco Refineries, Inc. by Donald E. Anderson; Bassatt & Birney by Martin Yates III; Dixon & Yates by Martin Yates III; S. P. Yates; Yates Brothers by S. P. Yates; Resler Oil Company by S. P. Yates; J. R. Lund for Robert E. McKee.

CASING AND CEMENTING PROGRAM FOR SHALLOW OIL AND GAS TEST WELLS IN PROSPECTIVE POTASH AREAS

CASE No. 278
EXHIBIT C

The following program is a suggestive program for the cementing of pipe and the protecting of the prospective potash horizon from water, oil and gas contamination. This program shall pertain to oil and gas test or wells drilled for the purpose of securing oil and gas, down to a depth of 6000 feet. There should be rules set up for particular areas, naturally based on the amount of surface water and the amount of potash in the salt section, which will be penetrated during the drilling of the proposed oil test. The geological features on the oil structures will call for different programs from time to time. Especially in the districts where potash is present. The commercial potash districts according to geological features and subsurface information that has been secured from old oil test that have been drilled in the past. Also addition information has been secured from districts from recent wells drilled in the various districts. There has also been a considerable amount of coring done by the various companies. All of this information should supply sufficient knowledge to derive at a pipe program satisfactory for all concerned. It is therefore suggested as follows:

1. That the Oil and Gas Conservation Commission retain authorization to issue a pipe program according to the area and district. A program that is sufficient to protect the potash strates at the present and future.

2. A suggestive pipe program for the general area should be as follows:

A. Surface Casing

The surface casing should be set at the top of the salt section. The size should be determined by the operator. The number one suggestion is that the pipe be mudded to the surface by pumping mud around the shoe and behind the pipe to the surface. Allow pipe to set eight hours. Then bale hole dry and test for at least two hours. If water is completely shut off, then the operator shall continue his drilling until he has reached the anhydrite formation. Then the operator should run either number one used pipe or new pipe through the potash and salt section. The operator should then be allowed to pull the surface pipe from the hole. The operator should then be permitted to cement the pipe from the bottom of the salt section to the surface, by circulating cement behind the pipe to the surface, or in such quantities recommended by the cementing concerns and the Oil Conservation Commission. The operator should then be allowed to drill his well and set his production string as he sees fit. He should be allowed to set the size of casing and at a depth he recommends, so long as he uses number one used pipe or new pipe. The amount of cement run behind the production string should be sufficient to come up at least 500 feet above the shoe. This will be adequate cement to protect the oil and gas zones and the formations behind the production string.

(Con't. Case No. 278
Exhibit C)

B. The next pipe program is recommended as follows:

The surface pipe should be set through the surface water, and cemented by circulating cement behind the pipe to the surface, or else there should be sufficient amount of cement pumped in and around the pipe to come to the surface, under ordinarly conditions. The cement should be allowed to set under pressure not less than 48 hours before drilling same and testing for water. The operator must test for water at least 2 hours. In case there is no water present, he shall then be allowed to carry on drilling operations until he reaches the casing point necessary to set the production string. At this time the potash and salt is protected from all water hazards. The only hazards existing at this time is the possibility of contaminating the potash with oil and gas. Therefore, the operator should run nothing but A-1 used pipe or new pipe, tonging each joint up as tight as possible to prevent leakage. He shall then be allowed, to pump heavy acquagel mud behind the pipe sufficient to reach and come above the salt and potash section. Then the operator should pump enough cement behind the pipe to come up at least 500 feet behind it, which would be sufficient to seal off any possible chances of oil and gas working its way up behind it. The production string shall be allowed to be set threw or above the oil producing sections as the operator may see fit. The reason for this is that the different known producing zones are treated differently.

Most of the wells are drilled through-out Eddy County by the cable tool method. Which has the advantages of being able to identify the formations immediately upon topping them and the exact thickness. We are also able to detect immediately the different changes in the formations that takes place. We are also able to test our water zones as to the amount of water and the thickness of the zones. Therefore it is necessary to have a different type of pipe program for this type of drilling than for rotary drilling. The above recommendation are based on cable tool drilling.

These recommendations or suggestions are based on past experience and present drilling operations being carried on in one or more districts. The oil and gas producers of New Mexico are fortunate enough to have the Oil and Gas Conservation Commission to assist us in our problems. They have accumulated information sufficient to guide them in any section of Eddy County, New Mexico. They are known to work and cooperate with the United States Geological Department at all times.

The undersigned operator or operators of Eddy County, New Mexico approve wholeheartedly the above and foregoing proposals and do hereby recommend these adoptions by the State Land Commission as well as the United States Land Commission.

Respectfully submitted,

/s/ Jones & Watkins Oil Company, Artesia, New Mexico, by Stanley L. Jones, Inc.

/s/ Miller & Miller, Artesia, New Mexico, by Stanley L. Jones,

/s/ Stanley L. Jones, Inc.

Telegram -
Bartlesville, Oklahoma
June 21, 1951 - - - - -

CASE NO. 278
EXHIBIT D

R. R. SPURRIER, SECY.
NEW MEXICO OIL CONSERVATION COMMISSION - SANTA FE, NEW MEXICO

RE CASE 278 FOR AN ORDER ESTABLISHING A CASING PROGRAM WITHIN THE SO CALLED POTASH AREA OF EDDY AND LEA COUNTIES, PHILLIPS PETROLEUM COMPANY HAS STUDIED PROPOSALS OF VARIOUS OPERATORS WHICH WOULD REQUIRE TEMPERATURE SURVEYS WHERE SALT STRING IS CEMENTED TO SURFACE. IN OUR OPINION CIRCULATION SHOULD BE SUFFICIENT EVIDENCE AND WE OBJECT TO THE REQUIREMENT OF TEMPERATURE SURVEYS BECAUSE SUCH SURVEYS WILL NOT REVEAL ADDITIONAL INFORMATION. ALSO IN OUR OPINION, ON SHALLOW WELLS, IF NO INTERMEDIATE STRING IS RUN THE OIL STRING SHOULD BE REQUIRED TO BE CEMENTED SOLID TO THE SURFACE TO AVOID POSSIBLE LEAKS AND IN THIS CASE WE ALSO OBJECT TO REQUIREMENT OF GAMMA RAY OR TEMPERATURE LOGS FOR SAME REASON THAT THEY SHOW NO MORE THAN IS INDICATED BY OBTAINING CIRCULATION OF CEMENT.

OPERATORS SUGGESTION THAT CENTERALIZERS BE PLACED ON EVERY THIRD JOINT OF SALT STRING SHOULD BE AMENDED TO PROVIDE LENGTH OF SUCH JOINTS OR CENTRALIZERS SHOULD BE SPACED CERTAIN DISTANCE APART. OTHERWISE PHILLIPS PETROLEUM COMPANY CONCURS WITH PROPOSALS OF OTHER OPERATORS AS SET FORTH IN RECENT MEMORANDUM OF NEW MEXICO OIL AND GAS ENGINEERING COMMITTEE.

C. P. DIMIT

PHILLIPS PETROLEUM COMPANY

CASING AND CEMENTING PROGRAMS FOR OIL AND GAS TEST WELLS IN THE "DEFINED AREAS" IN EDDY COUNTY, NEW MEXICO

CASE NO. 278
EXHIBIT A

1. Surface Casing String

In order to protect the fresh water supply, 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 and shall be cemented back to the ground surface or to the bottom of the cellar.

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 per square inch, second-hand and re-conditioned pipe shall be re-tested to 600 pounds per square inch before being run.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string shall be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe. New pipe shall have received a mill test of not less than 1000 pounds per square inch; second-hand and re-conditioned pipe shall be re-tested to 1000 pounds per square inch before being run.

Centralizers shall be used on at least every third joint below surface casing.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. (The water used to mix with the cement shall be saturated with the salts common to the zones penetrated.) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests. If the cement fails to reach the surface, the salt protection casing shall be perforated just above the top of the cement and additional cement jobs done until cement is brought to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

CASE NO. 278
EXHIBIT A

Tests of casing shall vary with the drilling method. 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.

3. Intermediate String

This string may be a drilling protection string for deep drilling objectives or may be an oil string for testing medium depth zones.

a. If a drilling protection string, the casing shall be cemented with a sufficient volume of cement amply to protect this casing and all shallow pay zones above the casing shoe, and in every instance the string shall be cemented from a point one thousand (1000) feet below the salt string back to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

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.

CASING AND CEMENTING PROGRAM FOR SHALLOW OIL AND GAS TEST WELLS IN KNOWN POTASH AREAS

CASE NO. 278
EXHIBIT B

The following is a suggested casing program for wells above 5,000 feet and is, of necessity, only general rules for the whole designated potash area, whether designated as Area A, Area B or otherwise. Geological sections change so rapidly in this large, scattered area that individual portions of the area will present individual problems. It is therefore suggested as follows:

A. That the Oil Conservation Commission retain authority to vary this general casing and cementing program to meet a specific condition, without an open hearing before the Commission.

B. That the casing and cementing program herein suggested apply only to the areas embraced in proven commercial deposits of potash, the remainder of the designated potash area to be drilled in accordance with standard, existing practices.

C. The suggested casing and cementing program is as follows:

1. Surface Casing String

In order to protect the fresh water supply, if present, the surface casing string shall be set through the fresh water bearing horizons and cemented with a volume adequate to protect the fresh water and keep it from entering the salt formation.

The surface string may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturers test specifications.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string may be set at lease one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string

may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturer's test specifications.

The string may be cemented with a nominal cement volume for testing purposes only, and if commercially productive, the string must be re-cemented with not less than 150% of calculated volume necessary to circulate cement to surface.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (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 jobs done until cement is brought to that point. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

Test of casing shall vary with the drilling method. 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.

3. Oil or Production String

This string may 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 salt protection casing shall have been run and commercial production obtained, that string shall be cemented to the surface as provided by 2 above or as provided by 3a in Deep Well program.

D. The undersigned operators, of Eddy County, New Mexico, approve the above and foregoing proposals and recommend its adoption by the Commission.

Respectfully submitted,

American Republics Corp. by William B. Macey; Boyd-Plemons Drilling Company by Tom Boyd; Buffalo Oil Company by Ralph L. Gray; Guy Stevenson; J. Grady Wright; E. N. Brock; G. Kelley Stout; (Illegible;) Paton Bros. by H. R. Paton; R. D. Collier; J. W. Berry; Ross Sears; Joe Nunn; J. E. Bedingfield; Burnham Oil Company by E. Jeffers; Malco Refineries, Inc. by Donald E. Anderson; Bassatt & Birney by Martin Yates III; Dixon & Yates by Martin Yates III; S. P. Yates; Yates Brothers by S. P. Yates; Resler Oil Company by S. P. Yates; J. R. Lund for Robert E. McKee.

CASING AND CEMENTING PROGRAM FOR SHALLOW OIL AND GAS TEST WELLS IN PROSPECTIVE POTASH AREAS

CASE No. 278
EXHIBIT C

The following program is a suggestive program for the cementing of pipe and the protecting of the prospective potash horizon from water, oil and gas contamination. This program shall pertain to oil and gas test or wells drilled for the purpose of securing oil and gas, down to a depth of 6000 feet. There should be rules set up for particular areas, naturally based on the amount of surface water and the amount of potash in the salt section, which will be penetrated during the drilling of the proposed oil test. The geological features on the oil structures will call for different programs from time to time. Especially in the districts where potash is present. The commercial potash districts according to geological features and subsurface information that has been secured from old oil test that have been drilled in the past. Also addition information has been secured from districts from recent wells drilled in the various districts. There has also been a considerable amount of coring done by the various companies. All of this information should supply sufficient knowledge to derive at a pipe program satisfactory for all concerned. It is therefore suggested as follows:

1. That the Oil and Gas Conservation Commission retain authorization to issue a pipe program according to the area and district. A program that is sufficient to protect the potash strates at the present and future.

2. A suggestive pipe program for the general area should be as follows:

A. Surface Casing

The surface casing should be set at the top of the salt section. The size should be determined by the operator. The number one suggestion is that the pipe be mudded to the surface by pumping mud around the shoe and behind the pipe to the surface. Allow pipe to set eight hours. Then bale hole dry and test for at least two hours. If water is completely shut off, then the operator shall continue his drilling until he has reached the anhydrite formation. Then the operator should run either number one used pipe or new pipe through the potash and salt section. The operator should then be allowed to pull the surface pipe from the hole. The operator should then be permitted to cement the pipe from the bottom of the salt section to the surface, by circulating cement behind the pipe to the surface, or in such quantities recommended by the cementing concerns and the Oil Conservation Commission. The operator should then be allowed to drill his well and set his production string as he sees fit. He should be allowed to set the size of casing and at a depth he recommends, so long as he uses number one used pipe or new pipe. The amount of cement run behind the production string should be sufficient to come up at least 500 feet above the shoe. This will be adequate cement to protect the oil and gas zones and the formations behind the production string.

B. The next pipe program is recommended as follows:

The surface pipe should be set through the surface water, and cemented by circulating cement behind the pipe to the surface, or else there should be sufficient amount of cement pumped in and around the pipe to come to the surface, under ordinarly conditions. The cement should be allowed to set under pressure not less than 48 hours before drilling same and testing for water. The operator must test for water at least 2 hours. In case there is no water present, he shall then be allowed to carry on drilling operations until he reaches the casing point necessary to set the production string. At this time the potash and salt is protected from all water hazards. The only hazards existing at this time is the possibility of contaminating the potash with oil and gas. Therefore, the operator should run nothing but A-1 used pipe or new pipe, tonging each joint up as tight as possible to prevent leakage. He shall then be allowed, to pump heavy acquagel mud behind the pipe sufficient to reach and come above the salt and potash section. Then the operator should pump enough cement behind the pipe to come up at least 500 feet behind it, which would be sufficient to seal off any possible chances of oil and gas working its way up behind it. The production string shall be allowed to be set threw or above the oil producing sections as the operator may see fit. The reason for this is that the different known producing zones are treated differently.

Most of the wells are drilled through-out Eddy County by the cable tool method. Which has the advantages of being able to identify the formations immediately upon topping them and the exact thickness. We are also able to detect immediately the different changes in the formations that takes place. We are also able to test our water zones as to the amount of water and the thickness of the zones. Therefore it is necessary to have a different type of pipe program for this type of drilling than for rotary drilling. The above recommendation are based on cable tool drilling.

These recommendations or suggestions are based on past experience and present drilling operations being carried on in one or more districts. The oil and gas producers of New Mexico are fortunate enough to have the Oil and Gas Conservation Commission to assist us in our problems. They have accumulated information sufficient to guide them in any section of Eddy County, New Mexico. They are known to work and cooperate with the United States Geological Department at all times.

The undersigned operator or operators of Eddy County, New Mexico approve wholeheartedly the above and foregoing proposals and do hereby recommend these adoptions by the State Land Commission as well as the United States Land Commission.

Respectfully submitted,

/s/ Jones & Watkins Oil Company, Artesia, New Mexico, by Stanley L. Jones, Inc.

/s/ Miller & Miller, Artesia, New Mexico, by Stanley L. Jones,

/s/ Stanley L. Jones, Inc.

Telegram -
Bartlesville, Oklahoma
June 21, 1951 - - - - -

CASE NO. 278
EXHIBIT D

R. R. SPURRIER, SECY.
NEW MEXICO OIL CONSERVATION COMMISSION - SANTA FE, NEW MEXICO

RE CASE 278 FOR AN ORDER ESTABLISHING A CASING PROGRAM WITHIN THE SO CALLED POTASH AREA OF EDDY AND LEA COUNTIES. PHILLIPS PETROLEUM COMPANY HAS STUDIED PROPOSALS OF VARIOUS OPERATORS WHICH WOULD REQUIRE TEMPERATURE SURVEYS WHERE SALT STRING IS CEMENTED TO SURFACE. IN OUR OPINION CIRCULATION SHOULD BE SUFFICIENT EVIDENCE AND WE OBJECT TO THE REQUIREMENT OF TEMPERATURE SURVEYS BECAUSE SUCH SURVEYS WILL NOT REVEAL ADDITIONAL INFORMATION. ALSO IN OUR OPINION, ON SHALLOW WELLS, IF NO INTERMEDIATE STRING IS RUN THE OIL STRING SHOULD BE REQUIRED TO BE CEMENTED SOLID TO THE SURFACE TO AVOID POSSIBLE LEAKS AND IN THIS CASE WE ALSO OBJECT TO REQUIREMENT OF GAMMA RAY OR TEMPERATURE LOGS FOR SAME REASON THAT THEY SHOW NO MORE THAN IS INDICATED BY OBTAINING CIRCULATION OF CEMENT.

OPERATORS SUGGESTION THAT CENTERALIZERS BE PLACED ON EVERY THIRD JOINT OF SALT STRING SHOULD BE AMENDED TO PROVIDE LENGTH OF SUCH JOINTS OR CENTRALIZERS SHOULD BE SPACED CERTAIN DISTANCE APART. OTHERWISE PHILLIPS PETROLEUM COMPANY CONCURS WITH PROPOSALS OF OTHER OPERATORS AS SET FORTH IN RECENT MEMORANDUM OF NEW MEXICO OIL AND GAS ENGINEERING COMMITTEE.

C. P. DIMIT

PHILLIPS PETROLEUM COMPANY

CASING AND CEMENTING PROGRAMS FOR OIL AND GAS TEST WELLS IN THE "DEFINED AREAS" IN EDDY COUNTY, NEW MEXICO

CASE NO. 278
EXHIBIT A

1. Surface Casing String

In order to protect the fresh water supply, the surface casing string shall be set in the "Red Bed" section of the basal Rustler formation immediately above the top of the salt section and shall be cemented back to the ground surface or to the bottom of the cellar.

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 per square inch; second-hand and re-conditioned pipe shall be re-tested to 600 pounds per square inch before being run.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string shall be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe. New pipe shall have received a mill test of not less than 1000 pounds per square inch; second-hand and re-conditioned pipe shall be re-tested to 1000 pounds per square inch before being run.

Centralizers shall be used on at least every third joint below surface casing.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. (The water used to mix with the cement shall be saturated with the salts common to the zones penetrated.) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests. If the cement fails to reach the surface, the salt protection casing shall be perforated just above the top of the cement and additional cement jobs done until cement is brought to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

CASE NO. 278
EXHIBIT A

Tests of casing shall vary with the drilling method. 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.

3. Intermediate String

This string may be a drilling protection string for deep drilling objectives or may be an oil string for testing medium depth zones.

a. If a drilling protection string, the casing shall be cemented with a sufficient volume of cement amply to protect this casing and all shallow pay zones above the casing shoe, and in every instance the string shall be cemented from a point one thousand (1000) feet below the salt string back to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

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.

CASING AND CEMENTING PROGRAM FOR SHALLOW OIL AND GAS TEST WELLS IN KNOWN POTASH AREAS

CASE NO. 278
EXHIBIT B

The following is a suggested casing program for wells above 5,000 feet and is, of necessity, only general rules for the whole designated potash area, whether designated as Area A, Area B or otherwise. Geological sections change so rapidly in this large, scattered area that individual portions of the area will present individual problems. It is therefore suggested as follows:

A. That the Oil Conservation Commission retain authority to vary this general casing and cementing program to meet a specific condition, without an open hearing before the Commission.

B. That the casing and cementing program herein suggested apply only to the areas embraced in proven commercial deposits of potash, the remainder of the designated potash area to be drilled in accordance with standard, existing practices.

C. The suggested casing and cementing program is as follows:

1. Surface Casing String

In order to protect the fresh water supply, if present, the surface casing string shall be set through the fresh water bearing horizons and cemented with a volume adequate to protect the fresh water and keep it from entering the salt formation.

The surface string may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturers test specifications.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string may be set at lease one hundred (100) feet and not more than two hundred (200)feet below the base of the salt section. This string

W.N.M.C.F. MICROGRAPHICS

may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturer's test specifications.

The string may be cemented with a nominal cement volume for testing purposes only, and if commercially productive, the string must be re-cemented with not less than 150% of calculated volume necessary to circulate cement to surface.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (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 jobs done until cement is brought to that point. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

Test of casing shall vary with the drilling method. 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.

3. Oil or Production String

This string may 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 salt protection casing shall have been run and commercial production obtained, that string shall be cemented to the surface as provided by 2 above or as provided by 3a in Deep Well program.

D. The undersigned operators, of Eddy County, New Mexico, approve the above and foregoing proposals and recommend its adoption by the Commission.

Respectfully submitted,

American Republics Corp. by William B. Macey; Boyd-Plemons Drilling Company by Tom Boyd; Buffalo Oil Company by Ralph L. Gray; Guy Stevenson; J. Grady Wright; E. N. Brock; G. Kelley Stout; (Illegible) Paton Bros. by H. R. Paton; R. D. Collier; J. W. Berry; Ross Sears; Joe Nunn; J. E. Bedingfield; Burnham Oil Company by E. Jeffers; Malco Refineries, Inc. by Donald E. Anderson; Bassatt & Birney by Martin Yates III; Dixon & Yates by Martin Yates III; S. P. Yates; Yates Brothers by S. P. Yates; Resler Oil Company by S. P. Yates; J. R. Lund for Robert E. McKee.

CASING AND CEMENTING PROGRAM FOR SHALLOW OIL AND GAS TEST WELLS IN PROSPECTIVE POTASH AREAS

CASE No. 278
EXHIBIT C

The following program is a suggestive program for the cementing of pipe and the protecting of the prospective potash horizon from water, oil and gas contamination. This program shall pertain to oil and gas test or wells drilled for the purpose of securing oil and gas, down to a depth of 6000 feet. There should be rules set up for particular areas, naturally based on the amount of surface water and the amount of potash in the salt section, which will be penetrated during the drilling of the proposed oil test. The geological features on the oil structures will call for different programs from time to time. Especially in the districts where potash is present. The commercial potash districts according to geological features and subsurface information that has been secured from old oil test that have been drilled in the past. Also addition information has been secured from districts from recent wells drilled in the various districts. There has also been a considerable amount of coring done by the various companies. All of this information should supply sufficient knowledge to derive at a pipe program satisfactory for all concerned. It is therefore suggested as follows:

1. That the Oil and Gas Conservation Commission retain authorization to issue a pipe program according to the area and district. A program that is sufficient to protect the potash strates at the present and future.

2. A suggestive pipe program for the general area should be as follows:

A. Surface Casing

The surface casing should be set at the top of the salt section. The size should be determined by the operator. The number one suggestion is that the pipe be mudded to the surface by pumping mud around the shoe and behind the pipe to the surface. Allow pipe to set eight hours. Then bale hole dry and test for at least two hours. If water is completely shut off, then the operator shall continue his drilling until he has reached the anhydrite formation. Then the operator should run either number one used pipe or new pipe through the potash and salt section. The operator should then be allowed to pull the surface pipe from the hole. The operator should then be permitted to cement the pipe from the bottom of the salt section to the surface, by circulating cement behind the pipe to the surface, or in such quantities recommended by the cementing concerns and the Oil Conservation Commission. The operator should then be allowed to drill his well and set his production string as he sees fit. He should be allowed to set the size of casing and at a depth he recommends, so long as he uses number one used pipe or new pipe. The amount of cement run behind the production string should be sufficient to come up at least 500 feet above the shoe. This will be adequate cement to protect the oil and gas zones and the formations behind the production string.

(Con't. Case No. 278
Exhibit C)

B. The next pipe program is recommended as follows:

The surface pipe should be set through the surface water, and cemented by circulating cement behind the pipe to the surface, or else there should be sufficient amount of cement pumped in and around the pipe to come to the surface, under ordinarly conditions. The cement should be allowed to set under pressure not less than 48 hours before drilling same and testing for water. The operator must test for water at least 2 hours. In case there is no water present, he shall then be allowed to carry on drilling operations until he reaches the casing point necessary to set the production string. At this time the potash and salt is protected from all water hazards. The only hazards existing at this time is the possibility of contaminating the potash with oil and gas. Therefore, the operator should run nothing but A-1 used pipe or new pipe, tonging each joint up as tight as possible to prevent leakage. He shall then be allowed, to pump heavy acquagel mud behind the pipe sufficient to reach and come above the salt and potash section. Then the operator should pump enough cement behind the pipe to come up at least 500 feet behind it, which would be sufficient to seal off any possible chances of oil and gas working its way up behind it. The production string shall be allowed to be set threw or above the oil producing sections as the operator may see fit. The reason for this is that the different known producing zones are treated differently.

Most of the wells are drilled through-out Eddy County by the cable tool method. Which has the advantages of being able to identify the formations immediately upon topping them and the exact thickness. We are also able to detect immediately the different changes in the formations that takes place. We are also able to test our water zones as to the amount of water and the thickness of the zones. Therefore it is necessary to have a different type of pipe program for this type of drilling than for rotary drilling. The above recommendation are based on cable tool drilling.

These recommendations or suggestions are based on past experience and present drilling operations being carried on in one or more districts. The oil and gas producers of New Mexico are fortunate enough to have the Oil and Gas Conservation Commission to assist us in our problems. They have accumulated information sufficient to guide them in any section of Eddy County, New Mexico. They are known to work and cooperate with the United States Geological Department at all times.

The undersigned operator or operators of Eddy County, New Mexico approve wholeheartedly the above and foregoing proposals and do hereby recommend these adoptions by the State Land Commission as well as the United States Land Commission.

Respectfully submitted,

/s/ Jones & Watkins Oil Company, Artesia, New Mexico, by Stanley L. Jones, Inc.

/s/ Miller & Miller, Artesia, New Mexico, by Stanley L. Jones,

/s/ Stanley L. Jones, Inc.

Telegram -
Bartlesville, Oklahoma
June 21, 1951 - - - - -

CASE NO. 278
EXHIBIT D

R. R. SPURRIER, SECY.
NEW MEXICO OIL CONSERVATION COMMISSION - SANTA FE, NEW MEXICO

RE CASE 278 FOR AN ORDER ESTABLISHING A CASING PROGRAM WITHIN THE SO CALLED POTASH AREA OF EDDY AND LEA COUNTIES. PHILLIPS PETROLEUM COMPANY HAS STUDIED PROPOSALS OF VARIOUS OPERATORS WHICH WOULD REQUIRE TEMPERATURE SURVEYS WHERE SALT STRING IS CEMENTED TO SURFACE. IN OUR OPINION CIRCULATION SHOULD BE SUFFICIENT EVIDENCE AND WE OBJECT TO THE REQUIREMENT OF TEMPERATURE SURVEYS BECAUSE SUCH SURVEYS WILL NOT REVEAL ADDITIONAL INFORMATION. ALSO IN OUR OPINION, ON SHALLOW WELLS, IF NO INTERMEDIATE STRING IS RUN THE OIL STRING SHOULD BE REQUIRED TO BE CEMENTED SOLID TO THE SURFACE TO AVOID POSSIBLE LEAKS AND IN THIS CASE WE ALSO OBJECT TO REQUIREMENT OF GAMMA RAY OR TEMPERATURE LOGS FOR SAME REASON THAT THEY SHOW NO MORE THAN IS INDICATED BY OBTAINING CIRCULATION OF CEMENT.

OPERATORS SUGGESTION THAT CENTERALIZERS BE PLACED ON EVERY THIRD JOINT OF SALT STRING SHOULD BE AMENDED TO PROVIDE LENGTH OF SUCH JOINTS OR CENTRALIZERS SHOULD BE SPACED CERTAIN DISTANCE APART. OTHERWISE PHILLIPS PETROLEUM COMPANY CONCURS WITH PROPOSALS OF OTHER OPERATORS AS SET FORTH IN RECENT MEMORANDUM OF NEW MEXICO OIL AND GAS ENGINEERING COMMITTEE.

C. P. DIMIT

PHILLIPS PETROLEUM COMPANY

CASING AND CEMENTING PROGRAMS FOR OIL AND GAS TEST WELLS IN THE "DEFINED AREAS" IN EDDY COUNTY, NEW MEXICO

CASE NO. 278
EXHIBIT A

1. Surface Casing String

In order to protect the fresh water supply, the surface casing string shall be set in the "Red Bed" section of the basal Rustler formation immediately above the top of the salt section and shall be cemented back to the ground surface or to the bottom of the cellar.

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 per square inch; second-hand and re-conditioned pipe shall be re-tested to 600 pounds per square inch before being run.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string shall be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe. New pipe shall have received a mill test of not less than 1000 pounds per square inch; second-hand and re-conditioned pipe shall be re-tested to 1000 pounds per square inch before being run.

Centralizers shall be used on at least every third joint below surface casing.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. (The water used to mix with the cement shall be saturated with the salts common to the zones penetrated.) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests. If the cement fails to reach the surface, the salt protection casing shall be perforated just above the top of the cement and additional cement jobs done until cement is brought to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

CASE NO. 278
EXHIBIT A

Tests of casing shall vary with the drilling method. 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.

3. Intermediate String

This string may be a drilling protection string for deep drilling objectives or may be an oil string for testing medium depth zones.

a. If a drilling protection string, the casing shall be cemented with a sufficient volume of cement amply to protect this casing and all shallow pay zones above the casing shoe, and in every instance the string shall be cemented from a point one thousand (1000) feet below the salt string back to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

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.

CASING AND CEMENTING PROGRAM FOR SHALLOW OIL AND GAS TEST WELLS IN KNOWN POTASH AREAS

CASE NO. 278
EXHIBIT B

The following is a suggested casing program for wells above 5,000 feet and is, of necessity, only general rules for the whole designated potash area, whether designated as Area A, Area B or otherwise. Geological sections change so rapidly in this large, scattered area that individual portions of the area will present individual problems. It is therefore suggested as follows:

A. That the Oil Conservation Commission retain authority to vary this general casing and cementing program to meet a specific condition, without an open hearing before the Commission.

B. That the casing and cementing program herein suggested apply only to the areas embraced in proven commercial deposits of potash, the remainder of the designated potash area to be drilled in accordance with standard, existing practices.

C. The suggested casing and cementing program is as follows:

1. Surface Casing String

In order to protect the fresh water supply, if present, the surface casing string shall be set through the fresh water bearing horizons and cemented with a volume adequate to protect the fresh water and keep it from entering the salt formation.

The surface string may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturers test specifications.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

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The salt protection string may be set at lease one hundred (100) feet and not more than two hundred (200)feet below the base of the salt section. This string

may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturer's test specifications.

The string may be cemented with a nominal cement volume for testing purposes only, and if commercially productive, the string must be re-cemented with not less than 150% of calculated volume necessary to circulate cement to surface.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (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 jobs done until cement is brought to that point. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

Test of casing shall vary with the drilling method. 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.

3. Oil or Production String

This string may 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 salt protection casing shall have been run and commercial production obtained, that string shall be cemented to the surface as provided by 2 above or as provided by 3a in Deep Well program.

D. The undersigned operators, of Eddy County, New Mexico, approve the above and foregoing proposals and recommend its adoption by the Commission.

Respectfully submitted,

American Republics Corp. by William B. Macey; Boyd-Plemons Drilling Company by Tom Boyd; Buffalo Oil Company by Ralph L. Gray; Guy Stevenson; J. Grady Wright; E. N. Brock; G. Kelley Stout; (Illegible); Paton Bros. by H. R. Paton; R. D. Collier; J. W. Berry; Ross Sears; Joe Nunn; J. E. Bedingfield; Burnham Oil Company by E. Jeffers; Malco Refineries, Inc. by Donald E. Anderson; Bassatt & Birney by Martin Yates III; Dixon & Yates by Martin Yates III; S. P. Yates; Yates Brothers by S. P. Yates; Resler Oil Company by S. P. Yates; J. R. Lund for Robert E. McKee.

CASING AND CEMENTING

PROGRAM FOR SHALLOW

OIL AND GAS TEST WELLS IN

PROSPECTIVE POTASH AREAS

CASE No. 278
EXHIBIT C

The following program is a suggestive program for the cementing of pipe and the protecting of the prospective potash horizon from water, oil and gas contamination. This program shall pertain to oil and gas test or wells drilled for the purpose of securing oil and gas, down to a depth of 6000 feet. There should be rules set up for particular areas, naturally based on the amount of surface water and the amount of potash in the salt section, which will be penetrated during the drilling of the proposed oil test. The geological features on the oil structures will call for different programs from time to time. Especially in the districts where potash is present. The commercial potash districts according to geological features and subsurface information that has been secured from old oil test that have been drilled in the past. Also addition information has been secured from districts from recent wells drilled in the various districts. There has also been a considerable amount of coring done by the various companies. All of this information should supply sufficient knowledge to derive at a pipe program satisfactory for all concerned. It is therefore suggested as follows:

1. That the Oil and Gas Conservation Commission retain authorization to issue a pipe program according to the area and district. A program that is sufficient to protect the potash strates at the present and future.

2. A suggestive pipe program for the general area should be as follows:

A. Surface Casing

The surface casing should be set at the top of the salt section. The size should be determined by the operator. The number one suggestion is that the pipe be mudded to the surface by pumping mud around the shoe and behind the pipe to the surface. Allow pipe to set eight hours. Then bale hole dry and test for at least two hours. If water is completely shut off, then the operator shall continue his drilling until he has reached the anhydrite formation. Then the operator should run either number one used pipe or new pipe through the potash and salt section. The operator should then be allowed to pull the surface pipe from the hole. The operator should then be permitted to cement the pipe from the bottom of the salt section to the surface, by circulating cement behind the pipe to the surface, or in such quantities recommended by the cementing concerns and the Oil Conservation Commission. The operator should then be allowed to drill his well and set his production string as he sees fit. He should be allowed to set the size of casing and at a depth he recommends, so long as he uses number one used pipe or new pipe. The amount of cement run behind the production string should be sufficient to come up at least 500 feet above the shoe. This will be adequate cement to protect the oil and gas zones and the formations behind the production string.

W.N.M.C.F. MICROGRAPHICS

B. The next pipe program is recommended as follows:

The surface pipe should be set through the surface water, and cemented by circulating cement behind the pipe to the surface, or else there should be sufficient amount of cement pumped in and around the pipe to come to the surface, under ordinarly conditions. The cement should be allowed to set under pressure not less than 48 hours before drilling same and testing for water. The operator must test for water at least 2 hours. In case there is no water present, he shall then be allowed to carry on drilling operations until he reaches the casing point necessary to set the production string. At this time the potash and salt is protected from all water hazards. The only hazards existing at this time is the possibility of contaminating the potash with oil and gas. Therefore, the operator should run nothing but A-1 used pipe or new pipe, tonging each joint up as tight as possible to prevent leakage. He shall then be allowed, to pump heavy acquagel mud behind the pipe sufficient to reach and come above the salt and potash section. Then the operator should pump enough cement behind the pipe to come up at least 500 feet behind it, which would be sufficient to seal off any possible chances of oil and gas working its way up behind it. The production string shall be allowed to be set threw or above the oil producing sections as the operator may see fit. The reason for this is that the different known producing zones are treated differently.

Most of the wells are drilled through-out Eddy County by the cable tool method. Which has the advantages of being able to identify the formations immediately upon topping them and the exact thickness. We are also able to detect immediately the different changes in the formations that takes place. We are also able to test our water zones as to the amount of water and the thickness of the zones. Therefore it is necessary to have a different type of pipe program for this type of drilling than for rotary drilling. The above recommendation are based on cable tool drilling.

These recommendations or suggestions are based on past experience and present drilling operations being carried on in one or more districts. The oil and gas producers of New Mexico are fortunate enough to have the Oil and Gas Conservation Commission to assist us in our problems. They have accumulated information sufficient to guide them in any section of Eddy County, New Mexico. They are known to work and cooperate with the United States Geological Department at all times.

The undersigned operator or operators of Eddy County, New Mexico approve wholeheartedly the above and foregoing proposals and do hereby recommend these adoptions by the State Land Commission as well as the United States Land Commission.

Respectfully submitted,

/s/ Jones & Watkins Oil Company, Artesia, New Mexico, by Stanley L. Jones, Inc.

/s/ Miller & Miller, Artesia, New Mexico, by Stanley L. Jones,

/s/ Stanley L. Jones, Inc.

Telegram -
Bartlesville, Oklahoma
June 21, 1951 - - - - - -

CASE NO. 278
EXHIBIT D

R. R. SPURRIER, SECY.
NEW MEXICO OIL CONSERVATION COMMISSION - SANTA FE, NEW MEXICO

RE CASE 278 FOR AN ORDER ESTABLISHING A CASING PROGRAM WITHIN THE SO CALLED POTASH AREA OF EDDY AND LEA COUNTIES. PHILLIPS PETROLEUM COMPANY HAS STUDIED PROPOSALS OF VARIOUS OPERATORS WHICH WOULD REQUIRE TEMPERATURE SURVEYS WHERE SALT STRING IS CEMENTED TO SURFACE. IN OUR OPINION CIRCULATION SHOULD BE SUFFICIENT EVIDENCE AND WE OBJECT TO THE REQUIREMENT OF TEMPERATURE SURVEYS BECAUSE SUCH SURVEYS WILL NOT REVEAL ADDITIONAL INFORMATION. ALSO IN OUR OPINION, ON SHALLOW WELLS, IF NO INTERMEDIATE STRING IS RUN THE OIL STRING SHOULD BE REQUIRED TO BE CEMENTED SOLID TO THE SURFACE TO AVOID POSSIBLE LEAKS AND IN THIS CASE WE ALSO OBJECT TO REQUIREMENT OF GAMMA RAY OR TEMPERATURE LOGS FOR SAME REASON THAT THEY SHOW NO MORE THAN IS INDICATED BY OBTAINING CIRCULATION OF CEMENT.

OPERATORS SUGGESTION THAT CENTERALIZERS BE PLACED ON EVERY THIRD JOINT OF SALT STRING SHOULD BE AMENDED TO PROVIDE LENGTH OF SUCH JOINTS OR CENTRALIZERS SHOULD BE SPACED CERTAIN DISTANCE APART. OTHERWISE PHILLIPS PETROLEUM COMPANY CONCURS WITH PROPOSALS OF OTHER OPERATORS AS SET FORTH IN RECENT MEMORANDUM OF NEW MEXICO OIL AND GAS ENGINEERING COMMITTEE.

C. P. DIMIT

PHILLIPS PETROLEUM COMPANY

CASING AND CEMENTING PROGRAMS FOR OIL AND GAS TEST WELLS IN THE "DEFINED AREAS" IN EDDY COUNTY, NEW MEXICO

CASE NO. 278
EXHIBIT A

1. Surface Casing String

In order to protect the fresh water supply, the surface casing string shall be set in the "Red Bed" section of the basal Rustler formation immediately above the top of the salt section and shall be cemented back to the ground surface or to the bottom of the cellar.

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 per square inch, second-hand and re-conditioned pipe shall be re-tested to 600 pounds per square inch before being run.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string shall be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe. New pipe shall have received a mill test of not less than 1000 pounds per square inch; second-hand and re-conditioned pipe shall be re-tested to 1000 pounds per square inch before being run.

Centralizers shall be used on at least every third joint below surface casing.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. (The water used to mix with the cement shall be saturated with the salts common to the zones penetrated.) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests. If the cement fails to reach the surface, the salt protection casing shall be perforated just above the top of the cement and additional cement jobs done until cement is brought to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

CASE NO. 278
EXHIBIT A

Tests of casing shall vary with the drilling method. 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.

3. Intermediate String

This string may be a drilling protection string for deep drilling objectives or may be an oil string for testing medium depth zones.

a. If a drilling protection string, the casing shall be cemented with a sufficient volume of cement amply to protect this casing and all shallow pay zones above the casing shoe, and in every instance the string shall be cemented from a point one thousand (1000) feet below the salt string back to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

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.

CASING AND CEMENTING PROGRAM FOR SHALLOW OIL AND GAS TEST WELLS IN KNOWN POTASH AREAS

CASE NO. 278
EXHIBIT B

The following is a suggested casing program for wells above 5,000 feet and is, of necessity, only general rules for the whole designated potash area, whether designated as Area A, Area B or otherwise. Geological sections change so rapidly in this large, scattered area that individual portions of the area will present individual problems. It is therefore suggested as follows:

A. That the Oil Conservation Commission retain authority to vary this general casing and cementing program to meet a specific condition, without an open hearing before the Commission.

B. That the casing and cementing program herein suggested apply only to the areas embraced in proven commercial deposits of potash, the remainder of the designated potash area to be drilled in accordance with standard, existing practices.

C. The suggested casing and cementing program is as follows:

1. Surface Casing String

In order to protect the fresh water supply, if present, the surface casing string shall be set through the fresh water bearing horizons and cemented with a volume adequate to protect the fresh water and keep it from entering the salt formation.

The surface string may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturers test specifications.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string may be set at lease one hundred (100) feet and not more than two hundred (200)feet below the base of the salt section. This string

may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturer's test specifications.

The string may be cemented with a nominal cement volume for testing purposes only, and if commercially productive, the string must be re-cemented with not less than 150% of calculated volume necessary to circulate cement to surface.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (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 jobs done until cement is brought to that point. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

Test of casing shall vary with the drilling method. 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.

3. Oil or Production String

This string may 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 salt protection casing shall have been run and commercial production obtained, that string shall be cemented to the surface as provided by 2 above or as provided by 3a in Deep Well program.

D. The undersigned operators, of Eddy County, New Mexico, approve the above and foregoing proposals and recommend its adoption by the Commission.

Respectfully submitted,

American Republics Corp. by William B. Macey; Boyd-Plemons Drilling Company by Tom Boyd; Buffalo Oil Company by Ralph L. Gray; Guy Stevenson; J. Grady Wright; E. N. Brock; G. Kelley Stout; (Illegible) Paton Bros. by H. R. Paton; R. D. Collier; J. W. Berry; Ross Sears; Joe Nunn; J. E. Bedingfield; Burnham Oil Company by E. Jeffers; Malco Refineries, Inc. by Donald E. Anderson; Bassatt & Birney by Martin Yates III; Dixon & Yates by Martin Yates III; S. P. Yates; Yates Brothers by S. P. Yates; Resler Oil Company by S. P. Yates; J. R. Lund for Robert E. McKee.

CASING AND CEMENTING PROGRAM FOR SHALLOW OIL AND GAS TEST WELLS IN PROSPECTIVE POTASH AREAS

CASE No. 278
EXHIBIT C

The following program is a suggestive program for the cementing of pipe and the protecting of the prospective potash horizon from water, oil and gas contamination. This program shall pertain to oil and gas test or wells drilled for the purpose of securing oil and gas, down to a depth of 6000 feet. There should be rules set up for particular areas, naturally based on the amount of surface water and the amount of potash in the salt section, which will be penetrated during the drilling of the proposed oil test. The geological features on the oil structures will call for different programs from time to time. Especially in the districts where potash is present. The commercial potash districts according to geological features and subsurface information that has been secured from old oil test that have been drilled in the past. Also addition information has been secured from districts from recent wells drilled in the various districts. There has also been a considerable amount of coring done by the various companies. All of this information should supply sufficient knowledge to derive at a pipe program satisfactory for all concerned. It is therefore suggested as follows:

1. That the Oil and Gas Conservation Commission retain authorization to issue a pipe program according to the area and district. A program that is sufficient to protect the potash strates at the present and future.

2. A suggestive pipe program for the general area should be as follows:

A. Surface Casing

The surface casing should be set at the top of the salt section. The size should be determined by the operator. The number one suggestion is that the pipe be mudded to the surface by pumping mud around the shoe and behind the pipe to the surface. Allow pipe to set eight hours. Then bale hole dry and test for at least two hours. If water is completely shut off, then the operator shall continue his drilling until he has reached the anhydrite formation. Then the operator should run either number one used pipe or new pipe through the potash and salt section. The operator should then be allowed to pull the surface pipe from the hole. The operator should then be permitted to cement the pipe from the bottom of the salt section to the surface, by circulating cement behind the pipe to the surface, or in such quantities recommended by the cementing concerns and the Oil Conservation Commission. The operator should then be allowed to drill his well and set his production string as he sees fit. He should be allowed to set the size of casing and at a depth he recommends, so long as he uses number one used pipe or new pipe. The amount of cement run behind the production string should be sufficient to come up at least 500 feet above the shoe. This will be adequate cement to protect the oil and gas zones and the formations behind the production string.

B. The next pipe program is recommended as follows:

The surface pipe should be set through the surface water, and cemented by circulating cement behind the pipe to the surface, or else there should be sufficient amount of cement pumped in and around the pipe to come to the surface, under ordinarly conditions. The cement should be allowed to set under pressure not less than 48 hours before drilling same and testing for water. The operator must test for water at least 2 hours. In case there is no water present, he shall then be allowed to carry on drilling operations until he reaches the casing point necessary to set the production string. At this time the potash and salt is protected from all water hazards. The only hazards existing at this time is the possibility of contaminating the potash with oil and gas. Therefore, the operator should run nothing but A-1 used pipe or new pipe, tonging each joint up as tight as possible to prevent leakage. He shall then be allowed, to pump heavy acquagel mud behind the pipe sufficient to reach and come above the salt and potash section. Then the operator should pump enough cement behind the pipe to come up at least 500 feet behind it, which would be sufficient to seal off any possible chances of oil and gas working its way up behind it. The production string shall be allowed to be set threw or above the oil producing sections as the operator may see fit. The reason for this is that the different known producing zones are treated differently.

Most of the wells are drilled through-out Eddy County by the cable tool method. Which has the advantages of being able to identify the formations immediately upon topping them and the exact thickness. We are also able to detect immediately the different changes in the formations that takes place. We are also able to test our water zones as to the amount of water and the thickness of the zones. Therefore it is necessary to have a different type of pipe program for this type of drilling than for rotary drilling. The above recommendation are based on cable tool drilling.

These recommendations or suggestions are based on past experience and present drilling operations being carried on in one or more districts. The oil and gas producers of New Mexico are fortunate enough to have the Oil and Gas Conservation Commission to assist us in our problems. They have accumulated information sufficient to guide them in any section of Eddy County, New Mexico. They are known to work and cooperate with the United States Geological Department at all times.

The undersigned operator or operators of Eddy County, New Mexico approve wholeheartedly the above and foregoing proposals and do hereby recommend these adoptions by the State Land Commission as well as the United States Land Commission.

Respectfully submitted,

/s/ Jones & Watkins Oil Company, Artesia, New Mexico, by Stanley L. Jones, Inc.

/s/ Miller & Miller, Artesia, New Mexico, by Stanley L. Jones,

/s/ Stanley L. Jones, Inc.

Telegram -
Bartlesville, Oklahoma
June 21, 1951 - - - - - -

CASE NO. 278
EXHIBIT D

R. R. SPURRIER, SECY.
NEW MEXICO OIL CONSERVATION COMMISSION - SANTA FE, NEW MEXICO

RE CASE 278 FOR AN ORDER ESTABLISHING A CASING PROGRAM WITHIN THE SO CALLED POTASH AREA OF EDDY AND LEA COUNTIES. PHILLIPS PETROLEUM COMPANY HAS STUDIED PROPOSALS OF VARIOUS OPERATORS WHICH WOULD REQUIRE TEMPERATURE SURVEYS WHERE SALT STRING IS CEMENTED TO SURFACE. IN OUR OPINION CIRCULATION SHOULD BE SUFFICIENT EVIDENCE AND WE OBJECT TO THE REQUIREMENT OF TEMPERATURE SURVEYS BECAUSE SUCH SURVEYS WILL NOT REVEAL ADDITIONAL INFORMATION. ALSO IN OUR OPINION, ON SHALLOW WELLS, IF NO INTERMEDIATE STRING IS RUN THE OIL STRING SHOULD BE REQUIRED TO BE CEMENTED SOLID TO THE SURFACE TO AVOID POSSIBLE LEAKS AND IN THIS CASE WE ALSO OBJECT TO REQUIREMENT OF GAMMA RAY OR TEMPERATURE LOGS FOR SAME REASON THAT THEY SHOW NO MORE THAN IS INDICATED BY OBTAINING CIRCULATION OF CEMENT.

OPERATORS SUGGESTION THAT CENTERALIZERS BE PLACED ON EVERY THIRD JOINT OF SALT STRING SHOULD BE AMENDED TO PROVIDE LENGTH OF SUCH JOINTS OR CENTRALIZERS SHOULD BE SPACED CERTAIN DISTANCE APART. OTHERWISE PHILLIPS PETROLEUM COMPANY CONCURS WITH PROPOSALS OF OTHER OPERATORS AS SET FORTH IN RECENT MEMORANDUM OF NEW MEXICO OIL AND GAS ENGINEERING COMMITTEE.

C. P. DIMIT

PHILLIPS PETROLEUM COMPANY

CASING AND CEMENTING PROGRAMS FOR OIL AND GAS TEST WELLS IN THE "DEFINED AREAS" IN EDDY COUNTY, NEW MEXICO

CASE NO. 278
EXHIBIT A

1. Surface Casing String

In order to protect the fresh water supply, the surface casing string shall be set in the "Red Bed" section of the basal Rustler formation immediately above the top of the salt section and shall be cemented back to the ground surface or to the bottom of the cellar.

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 per square inch; second-hand and re-conditioned pipe shall be re-tested to 600 pounds per square inch before being run.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string shall be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe. New pipe shall have received a mill test of not less than 1000 pounds per square inch; second-hand and re-conditioned pipe shall be re-tested to 1000 pounds per square inch before being run.

Centralizers shall be used on at least every third joint below surface casing.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. (The water used to mix with the cement shall be saturated with the salts common to the zones penetrated.) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests. If the cement fails to reach the surface, the salt protection casing shall be perforated just above the top of the cement and additional cement jobs done until cement is brought to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

CASE NO. 278
EXHIBIT A

Tests of casing shall vary with the drilling method. 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.

3. Intermediate String

This string may be a drilling protection string for deep drilling objectives or may be an oil string for testing medium depth zones.

a. If a drilling protection string, the casing shall be cemented with a sufficient volume of cement amply to protect this casing and all shallow pay zones above the casing shoe, and in every instance the string shall be cemented from a point one thousand (1000) feet below the salt string back to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

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.

CASING AND CEMENTING PROGRAM FOR SHALLOW OIL AND GAS TEST WELLS IN KNOWN POTASH AREAS

CASE NO. 278
EXHIBIT B

The following is a suggested casing program for wells above 5,000 feet and is, of necessity, only general rules for the whole designated potash area, whether designated as Area A, Area B or otherwise. Geological sections change so rapidly in this large, scattered area that individual portions of the area will present individual problems. It is therefore suggested as follows:

A. That the Oil Conservation Commission retain authority to vary this general casing and cementing program to meet a specific condition, without an open hearing before the Commission.

B. That the casing and cementing program herein suggested apply only to the areas embraced in proven commercial deposits of potash, the remainder of the designated potash area to be drilled in accordance with standard, existing practices.

C. The suggested casing and cementing program is as follows:

1. Surface Casing String

In order to protect the fresh water supply, if present, the surface casing string shall be set through the fresh water bearing horizons and cemented with a volume adequate to protect the fresh water and keep it from entering the salt formation.

The surface string may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturers test specifications.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string may be set at lease one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string

may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturi[illegible] test specifications.

The string may be cemented with a nominal cement volume for testing purposes only, and if commercially productive, the string must be re-cemented with not less than 150% of calculated volume necessary to circulate cement to surface.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (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 jobs done until cement is brought to that point. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

Test of casing shall vary with the drilling method. 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.

3. Oil or Production String

This string may 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 salt protection casing shall have been run and commercial production obtained, that string shall be cemented to the surface as provided by 2 above or as provided by 3a in Deep Well program.

D. The undersigned operators, of Eddy County, New Mexico, approve the above and foregoing proposals and recommend its adoption by the Commission.

Respectfully submitted,

American Republics Corp. by William B. Macey; Boyd-Plemons Drilling Company by Tom Boyd; Buffalo Oil Company by Ralph L. Gray; Guy Stevenson; J. Grady Wright; E. N. Brock; G. Kelley Stout; (Illegible) Paton Bros. by H. R. Paton; R. D. Collier; J. W. Berry; Ross Sears; Joe Nunn; J. E. Bedingfield; Burnham Oil Company by E. Jeffers; Malco Refineries, Inc. by Donald E. Anderson; Bassatt & Birney by Martin Yates III; Dixon & Yates by Martin Yates III; S. P. Yates; Yates Brothers by S. P. Yates; Resler Oil Company by S. P. Yates; J. R. Lund for Robert E. McKee.

CASING AND CEMENTING PROGRAM FOR SHALLOW OIL AND GAS TEST WELLS IN PROSPECTIVE POTASH AREAS

CASE No. 278
EXHIBIT C

The following program is a suggestive program for the cementing of pipe and the protecting of the prospective potash horizon from water, oil and gas contamination. This program shall pertain to oil and gas test or wells drilled for the purpose of securing oil and gas, down to a depth of 6000 feet. There should be rules set up for particular areas, naturally based on the amount of surface water and the amount of potash in the salt section, which will be penetrated during the drilling of the proposed oil test. The geological features on the oil structures will call for different programs from time to time. Especially in the districts where potash is present. The commercial potash districts according to geological features and subsurface information that has been secured from old oil test that have been drilled in the past. Also addition information has been secured from districts from recent wells drilled in the various districts. There has also been a considerable amount of coring done by the various companies. All of this information should supply sufficient knowledge to derive at a pipe program satisfactory for all concerned. It is therefore suggested as follows:

1. That the Oil and Gas Conservation Commission retain authorization to issue a pipe program according to the area and district. A program that is sufficient to protect the potash strates at the present and future.

2. A suggestive pipe program for the general area should be as follows:

A. Surface Casing

The surface casing should be set at the top of the salt section. The size should be determined by the operator. The number one suggestion is that the pipe be mudded to the surface by pumping mud around the shoe and behind the pipe to the surface. Allow pipe to set eight hours. Then bale hole dry and test for at least two hours. If water is completely shut off, then the operator shall continue his drilling until he has reached the anhydrite formation. Then the operator should run either number one used pipe or new pipe through the potash and salt section. The operator should then be allowed to pull the surface pipe from the hole. The operator should then be permitted to cement the pipe from the bottom of the salt section to the surface, by circulating cement behind the pipe to the surface, or in such quantities recommended by the cementing concerns and the Oil Conservation Commission. The operator should then be allowed to drill his well and set his production string as he sees fit. He should be allowed to set the size of casing and at a depth he recommends, so long as he uses number one used pipe or new pipe. The amount of cement run behind the production string should be sufficient to come up at least 500 feet above the shoe. This will be adequate cement to protect the oil and gas zones and the formations behind the production string.

(Con't. Case No. 278
Exhibit C)

B. The next pipe program is recommended as follows:

The surface pipe should be set through the surface water, and cemented by circulating cement behind the pipe to the surface, or else there should be sufficient amount of cement pumped in and around the pipe to come to the surface, under ordinarly conditions. The cement should be allowed to set under pressure not less than 48 hours before drilling same and testing for water. The operator must test for water at least 2 hours. In case there is no water present, he shall then be allowed to carry on drilling operations until he reaches the casing point necessary to set the production string. At this time the potash and salt is protected from all water hazards. The only hazards existing at this time is the possibility of contaminating the potash with oil and gas. Therefore, the operator should run nothing but A-1 used pipe or new pipe, tonging each joint up as tight as possible to prevent leakage. He shall then be allowed, to pump heavy acquagel mud behind the pipe sufficient to reach and come above the salt and potash section. Then the operator should pump enough cement behind the pipe to come up at least 500 feet behind it, which would be sufficient to seal off any possible chances of oil and gas working its way up behind it. The production string shall be allowed to be set threw or above the oil producing sections as the operator may see fit. The reason for this is that the different known producing zones are treated differently.

Most of the wells are drilled through-out Eddy County by the cable tool method. Which has the advantages of being able to identify the formations immediately upon topping them and the exact thickness. We are also able to detect immediately the different changes in the formations that takes place. We are also able to test our water zones as to the amount of water and the thickness of the zones. Therefore it is necessary to have a different type of pipe program for this type of drilling than for rotary drilling. The above recommendation are based on cable tool drilling.

These recommendations or suggestions are based on past experience and present drilling operations being carried on in one or more districts. The oil and gas producers of New Mexico are fortunate enough to have the Oil and Gas Conservation Commission to assist us in our problems. They have accumulated information sufficient to guide them in any section of Eddy County, New Mexico. They are known to work and cooperate with the United States Geological Department at all times.

The undersigned operator or operators of Eddy County, New Mexico approve wholeheartedly the above and foregoing proposals and do hereby recommend these adoptions by the State Land Commission as well as the United States Land Commission.

Respectfully submitted,

/s/ Jones & Watkins Oil Company, Artesia, New Mexico, by Stanley L. Jones, Inc.

/s/ Miller & Miller, Artesia, New Mexico, by Stanley L. Jones,

/s/ Stanley L. Jones, Inc.

Telegram -
Bartlesville, Oklahoma
June 21, 1951 - - - - - -

CASE NO. 278
EXHIBIT D

R. R. SPURRIER, SECY.
NEW MEXICO OIL CONSERVATION COMMISSION - SANTA FE, NEW MEXICO

RE CASE 278 FOR AN ORDER ESTABLISHING A CASING PROGRAM WITHIN THE SO CALLED POTASH AREA OF EDDY AND LEA COUNTIES. PHILLIPS PETROLEUM COMPANY HAS STUDIED PROPOSALS OF VARIOUS OPERATORS WHICH WOULD REQUIRE TEMPERATURE SURVEYS WHERE SALT STRING IS CEMENTED TO SURFACE. IN OUR OPINION CIRCULATION SHOULD BE SUFFICIENT EVIDENCE AND WE OBJECT TO THE REQUIREMENT OF TEMPERATURE SURVEYS BECAUSE SUCH SURVEYS WILL NOT REVEAL ADDITIONAL INFORMATION. ALSO IN OUR OPINION, ON SHALLOW WELLS, IF NO INTERMEDIATE STRING IS RUN THE OIL STRING SHOULD BE REQUIRED TO BE CEMENTED SOLID TO THE SURFACE TO AVOID POSSIBLE LEAKS AND IN THIS CASE WE ALSO OBJECT TO REQUIREMENT OF GAMMA RAY OR TEMPERATURE LOGS FOR SAME REASON THAT THEY SHOW NO MORE THAN IS INDICATED BY OBTAINING CIRCULATION OF CEMENT.

OPERATORS SUGGESTION THAT CENTERALIZERS BE PLACED ON EVERY THIRD JOINT OF SALT STRING SHOULD BE AMENDED TO PROVIDE LENGTH OF SUCH JOINTS OR CENTRALIZERS SHOULD BE SPACED CERTAIN DISTANCE APART. OTHERWISE PHILLIPS PETROLEUM COMPANY CONCURS WITH PROPOSALS OF OTHER OPERATORS AS SET FORTH IN RECENT MEMORANDUM OF NEW MEXICO OIL AND GAS ENGINEERING COMMITTEE.

C. P. DIMIT

PHILLIPS PETROLEUM COMPANY

I. DRILLING AND CASING PROGRAM:

(1) For the purpose of the regulations and the drilling of oil and gas exploratory test wells, shallow and deep zones are defined as follows:

(a) The shallow zone shall include all formations above the base of the Delaware sand or above a depth of 5000 feet, whichever is the lesser.

(b) The deep zone shall include all formations below the base of the Delaware sand or below a depth of 5000 feet, whichever is the lesser.

(2) Surface Casing String:

(a) A surface casing string of new, second-hand or reconditioned pipe shall be set in the "Red Bed" section of the basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section, as determined necessary by the regulatory representative approving the drilling operations, and shall be cemented with not less than one hundred and fifty percent (150%) of calculated volume necessary to circulate cement to the ground surface.

(b) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(c) Casing and water shut-off tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measure shall be applied.

(ii) 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.

(d) The above requirements for the surface casing string shall be applicable to both the shallow and deep zones.

(3) Salt Protection String:

(a) A salt protection string of new, second-hand or reconditioned pipe shall be set not less than one hundred (100) feet nor more than two hundred (200) feet below the base of the salt section.

(b) The salt protection string shall be cemented as follows:

(i) For wells drilled to the shallow zone, the string may be cemented with a nominal volume of cement for testing purposes only. If the exploratory test well is completed as a productive well, the string must be recemented with sufficient cement to fill the annular space back of the pipe from the top of the first cementing to the surface or to the bottom of the cellar, or (*)

(ii) For wells drilled to the deep zone, the string must be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(c) If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or gamma ray survey and additional cementing shall be done until the cement is brought to the point required.

(d) The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with three percent (3%) of calcium Chloride by weight of cement.

(e) Centralizers shall be spaced on at least every one hundred fifty (150) feet of the salt protection string below the surface casing string.

(*) may be cut and pulled if the production string is cemented to the surface as provided in sub-section (5), (a), (i).

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(f) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(g) Casing tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of one thousand (1000) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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.

(h) The above requirements for the salt protection string shall be applicable to both the shallow and deep zones except for sub-section (3) (b) (i) and (ii) above.

(4) Intermediate String:

(a) In the drilling of oil and gas exploratory test wells to the deep zone an intermediate string shall be set at sufficient depth to case-off all formations in the shallow zone and shall be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(b) Cementing procedures and casing tests for the intermediate string shall be the same as provided under sub-sections (3), (c), (f), and (g) for the salt protection string.

(5) Production String:

(a) A production string shall be set on top or through the oil or gas pay zone and shall be cemented as follows:

(i) For wells drilled to the shallow zone the production string shall be cemented to the suface if the salt protection string was cemented only with a nominal volume for testing purposes, in which case the salt protection string can be cut and pulled before the production string is cemented; provided, that

If the salt protection string was cemented to the surface, the production string may be cemented with a volume adequate to protect the pay zone and the casing above such zone.

(ii) For wells drilled to the deep zone the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided that if no intermediate string shall have been run and cemented to the surface, the production string shall be cemented to the surface.

(b) Cementing procedures and casing tests for the production string shall be the same as provided under sub-sections (3), (c), (f), and (g) for the salt protection string.

II. DRILLING FLUID FOR SALT SECTION:

The fluid used while drilling the salt section 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 fluid by the operator in overcoming any specific problem. This requirement is specifically to prevent enlarged drill holes.

III. PLUGGING AND ABANDONMENT OF WELLS:

All wells heretofore and hereafter drilled within the potash area 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.

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I. DRILLING AND CASING PROGRAM:

(1) For the purpose of the regulations and the drilling of oil and gas exploratory test wells, shallow and deep zones are defined as follows:

(a) The shallow zone shall include all formations above the base of the Delaware sand or above a depth of 5000 feet, whichever is the lesser.

(b) The deep zone shall include all formations below the base of the Delaware sand or below a depth of 5000 feet, whichever is the lesser.

(2) Surface Casing String:

(a) A surface casing string of new, second-hand or reconditioned pipe shall be set in the "Red Bed" section of the basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section, as determined necessary by the regulatory representative approving the drilling operations, and shall be cemented with not less than one hundred and fifty percent (150%) of calculated volume necessary to circulate cement to the ground surface.

(b) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(c) Casing and water shut-off tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measure shall be applied.

(ii) 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.

(d) The above requirements for the surface casing string shall be applicable to both the shallow and deep zones.

(3) Salt Protection String:

(a) A salt protection string of new, second-hand or reconditioned pipe shall be set not less than one hundred (100) feet nor more than two hundred (200) feet below the base of the salt section.

(b) The salt protection string shall be cemented as follows:

(i) For wells drilled to the shallow zone, the string may be cemented with a nominal volume of cement for testing purposes only. If the exploratory test well is completed as a productive well, the string must be recemented with sufficient cement to fill the annular space back of the pipe from the top of the first cementing to the surface or to the bottom of the cellar, or (*)

(ii) For wells drilled to the deep zone, the string must be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(c) If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or gamma ray survey and additional cementing shall be done until the cement is brought to the point required.

(d) The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with three percent (3%) of calcium Chloride by weight of cement.

(e) Centralizers shall be spaced on at least every one hundred fifty (150) feet of the salt protection string below the surface casing string.

(*) may be cut and pulled if the production string is cemented to the surface as provided in sub-section (5), (a), (i).

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(f) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(g) Casing tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of one thousand (1000) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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.

(h) The above requirements for the salt protection string shall be applicable to both the shallow and deep zones except for sub-section (3) (b) (i) and (ii) above.

(4) Intermediate String:

(a) In the drilling of oil and gas exploratory test wells to the deep zone an intermediate string shall be set at sufficient depth to case-off all formations in the shallow zone and shall be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(b) Cementing procedures and casing tests for the intermediate string shall be the same as provided under sub-sections (3), (c), (f), and (g) for the salt protection string.

(5) Production String:

(a) A production string shall be set on top or through the oil or gas pay zone and shall be cemented as follows:

(i) For wells drilled to the shallow zone the production string shall be cemented to the suface if the salt protection string was cemented only with a nominal volume for testing purposes, in which case the salt protection string can be cut and pulled before the production string is cemented; provided, that

If the salt protection string was cemented to the surface, the production string may be cemented with a volume adequate to protect the pay zone and the casing above such zone.

(ii) For wells drilled to the deep zone the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided that if no intermediate string shall have been run and cemented to the surface, the production string shall be cemented to the surface.

(b) Cementing procedures and casing tests for the production string shall be the same as provided under sub-sections (3), (c), (f), and (g) for the salt protection string.

II. DRILLING FLUID FOR SALT SECTION:

The fluid used while drilling the salt section 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 fluid by the operator in overcoming any specific problem. This requirement is specifically to prevent enlarged drill holes.

III. PLUGGING AND ABANDONMENT OF WELLS:

All wells heretofore and hereafter drilled within the potash area 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.

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PROPOSED RULES AND REGULATIONS FOR ISSUANCE

BY THE NEW MEXICO OIL CONSERVATION COMMISSION

[illegible]

I. [illegible]

[illegible]

II. POTASH AREAS:

(1) These rules and regulations are applicable to the known and potential potash areas hereinafter defined as Area "A" and Area "B", as follows:

(a) Area "A":

T. 19 S., R. 30 E.,	Secs.	3, S½
	Secs.	4 and 5, all
	Sec.	6, SE¼
	Sec.	7, NE¼, S½
	Secs.	8, 9, and 10, all
	Sec.	11, W½
	Sec.	14, W½
	Secs.	15 to 18 incl., all
	Sec.	20, SE¼
	Sec.	21, S½
	Secs.	22 and 23, all
	Secs.	25 to 29 incl., all
	Secs.	32 to 36 incl., all
T. 20 S., R. 30 E.,	Secs.	1 to 27 incl., all
	Secs.	34, 35 and 36, all
T. 20 S., R. 31 E.,	Secs.	17 to 20 incl., all
	Secs.	29 to 32 incl., all
T. 21 S., R. 29 E.,	Secs.	1 and 2, all
	Sec.	10, E½
	Secs.	11 to 14 incl., all
	Sec.	15, E½
	Sec.	24, all
	Sec.	25, E½
	Sec.	36, all

Draft - August 15, 1951
2 copies forwarded to Mr. Spurrier
C/O Mayflower Hotel
Washington, D. C.

[illegible]

T. [illegible], R. 29 E., Secs. [illegible]
Sec. [illegible]
Secs. 21 to 23 incl., all
Secs. 27, 33 and 35, all

T. 22 S., R. 30 E., Secs. 6 and 7, all
Secs. 13 and 18, all

(b) Area "B"

T. 18 S., R. 29 E., Sec. 13, $S\frac{1}{2}$
Secs. 14 and 14, all
Sec. 15, $SE\frac{1}{4}$
Sec. 22, $SE\frac{1}{4}$
Secs. 23, 25 and 24, all
Sec. 25, $W\frac{1}{2}$
Secs. 26, 27 and 28, all
Sec. 29, $NE\frac{1}{4}$
Sec. 32, $NE\frac{1}{4}$, $S\frac{1}{2}$
Secs. 33 and 34, all
Sec. 35, $W\frac{1}{2}$

T. 19 S., R. 21 E., Sec. 13, $W\frac{1}{2}$

T. 19 S., R. 29 E., Sec. 11, $SE\frac{1}{4}$
Sec. 12, $S\frac{1}{2}$
Secs. 13 and 14, all
Sec. 23, $W\frac{1}{2}$
Sec. 24, $W\frac{1}{2}$

T. 19 S., R. 30 E., Sec. 2, all
Sec. 3, $W\frac{1}{2}$
Sec. 11, $W\frac{1}{2}$
Secs. 12 and 13, all
Sec. 14, $E\frac{1}{2}$
Sec. 19, all
Sec. 20, $W\frac{1}{2}$, $SE\frac{1}{4}$
Sec. 21, $W\frac{1}{2}$
Sec. 24, all
Secs. 29 and 30, all

Area "B" (cont.)

T. 19 S., R. 29 E., Secs. 5 to 8 incl., all
Sec. 11, all
Sec. 14, all
Secs. 15, 16 and 17, all
Secs. 19 to 22 incl., all
Sec. 23, all
Sec. 26, all
Secs. 28 to 30 incl., all

T. 19 S., R. 32 E., Sec. 30, all
Secs. 28 to 32 incl., all
Sec. 28, all
Sec. 31, all
Sec. 32, all
Secs. 33 to 35 incl., all

T. 19 S., R. 33 E., Secs. 19, 30 and 31, all

T. 20 S., R. 29 E., Sec. 12, $NE\frac{1}{4}NW\frac{1}{4}$, $S\frac{1}{2}SW\frac{1}{4}$
Sec. 13, $NE\frac{1}{4}$, $E\frac{1}{2}$
Secs. 22 to 27 incl., all
Secs. 34, 35 and 36, all

T. 20 S., R. 30 E., Secs. 25 to 36 incl., all

T. 20 S., R. 31 E., Secs. 1 to 16 incl., all
Secs. 21 to 28 incl., all
Secs. 33 to 36 incl., all

T. 20 S., R. 32 E., Secs. 1 to 36 incl., all

T. 20 S., R. 33 E., Secs. 5 to 9 incl., all
Secs. 15 to 23 incl., all
Secs. 25 to 36 incl., all

T. 20 S., R. 34 E., Sec. 31, all

T. 21 S., R. 29 E., Sec. 3, $E\frac{1}{2}$
Sec. 23, $N\frac{1}{2}$
Sec. 25, all

T. 21 S., R. 30 E., Secs. 1, 2 and 3, all
Secs. 10 and 11, all
Sec. 12, $S\frac{1}{2}$
Secs. 13, 14 and 15, all
Secs. 20, 21 and 22, all
Sec. 23, $N\frac{1}{2}$
Sec. 24, $N\frac{1}{2}$
Secs. 27 to 30 incl., all
Secs. 32 to 34 incl., all
Sec. 35, $S\frac{1}{2}$

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(Cont'd.)

T. [illegible] S., R. [illegible] E., Sec. 2, [illegible]
Sec. 3, N½
Sec. 4, [illegible]
Secs. 5 and 6, all
Sec. 16, S½
Sec. 19, N½

T. 21 S., R. 32 E., Secs. 1 to 17 incl., all
Secs. 21 to 27 incl., all
Secs. 35 and 36, all

T. 21 S., R. 33 E., Secs. 4 to 9 incl., all
Secs. 13 to 21 incl., all
Secs. 28 to 33 incl., all

T. 24 S., R. 29 E., Sec. 9, N½
Sec. 16, all
Sec. 17, N½
Sec. 20, N½
Sec. 21, all
Secs. 25 to 28 incl., all
Secs. 33 to 36 incl., all

T. 22 S., R. 30 E., Secs. 1 to 5 incl., all
Secs. 8 to 17 incl., all
Secs. 20 to 24 incl., all
Sec. 26, N½
Secs. 26 to 35 incl., all
Sec. 36, N½

T. 22 S., R. 31 E., Secs. 4 to 9 incl., all
Secs. 17 and 18, all
Sec. 19, N½

T. 22 S., R. 33 E., Secs. 4, 5 and 8, all

T. 23 S., R. 29 E., Secs. 1, 2 and 3, all
Sec. 4, E½
Sec. 9, N½
Secs. 10 to 15 incl., all
Secs. 22 to 27 incl., all
Secs. 34 to 36 incl., all

T. 23 S., R. 30 E., Sec. 1, S½
Secs. 2 to 36 incl., all

Area "B" (Cont.)

T. 20 S., R. 33 E., Sec. 7, all
Sec. 8, S½
Sec. 18, S½
Secs. 17 to 20 incl., all
Sec. 21, W½
Secs. 28 to 33 incl., all

T. 21 S., R. 30 E., Sec. 1, W½
Sec. 2, S½
Sec. 3, S½

T. 24 S., R. 31 E., Secs. 4, 5 and 6, all

(2) Areas "A" or "B" 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, that oil and gas exploratory test wells shall not be drilled through any open potash mines or within 500 feet thereof unless agreed to in writing by the potash lessee involved.

(b) Any oil or gas leases hereafter issued for lands within Area "A" shall be subject to these regulations and no drilling shall be permitted 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 exploratory test wells in Area "A" shall be further subject to these rules and regulations.

(d) Where oil and gas wells are in production in Area "A", no potash mine opening shall be driven to within less than 100 feet of such wells so that protection of both can be afforded.

(2) Area "B"

(a) Oil and gas exploratory test wells may be drilled in Area "B" in accordance with these rules and regulations.

(c) [illegible] the discovery horizons of oil and gas in Areas "A" or "B", the Oil Conservation Commission shall investigate claims or cost rules for the affected area after due notice and hearing.

(d) Nothing herein shall be construed to prevent unitization agreements involving lands in Areas "A" or "B".

IV DRILLING AND CASING PROGRAM:

(1) For the purpose of the regulations and the drilling of oil and gas exploratory test wells, shallow and deep zones are defined as follows:

(a) The shallow zone shall include all formations above the base of the Delaware sand or above a depth of 5000 feet, whichever is the lesser.

(b) The deep zone shall include all formations below the base of the Delaware sand or below a depth of 5000 feet, whichever is the lesser.

(2) Surface Casing String:

(a) A surface casing string of new, second-hand or reconditioned pipe shall be set in the "Red Bed" section of the basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section, as determined necessary by the regulatory representative approving the drilling operations, and shall be cemented with not less than one hundred and fifty percent (150%) of calculated volume necessary to circulate cement to the ground surface.

(b) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(c) Casing and water shut-off tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(1) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measure shall be applied.

(ii) 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.

(d) The above requirements for the surface casing string shall be applicable to both the shallow and deep zones.

(3) Salt Protection String:

(a) A salt protection string of new, second-hand or reconditioned pipe shall be set not less than one hundred (100) feet nor more than two hundred (200) feet below the base of the salt section.

(b) The salt protection string shall be cemented as follows:

(i) For wells drilled to the shallow zone, the string may be cemented with a nominal volume of cement for testing purposes only. If the exploratory test well is completed as a productive well, the string shall be recemented with sufficient cement to fill the annular space back of the pipe from the top of the first cementing to the surface or to the bottom of the cellar, or may be cut and pulled if the production string is cemented to the surface as provided in sub-section IV (b), (a), (i) below.

(ii) For wells drilled to the deep zone, the string must be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(c) If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or gamma ray survey and additional cementing shall be done until the cement is brought to the point required.

(d) The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with three percent (3%) of calcium Chloride by weight of cement.

(c) Centralizers shall be placed on the bottom one hundred fifty (150) feet of the main production string below the surface casing string.

(d) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(e) Casing tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of one thousand (1000) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measure shall be applied.

(ii) 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.

(h) The above requirements for the salt protection string shall be applicable to both the shallow and deep zones except for sub-section IV (3), (b), (i) and (ii) above.

(4) Intermediate String:

(a) In the drilling of oil and gas exploratory test wells to the deep zone an intermediate string shall be set at sufficient depth to case-off all formations in the shallow zone and shall be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(b) Cementing procedures and casing tests for the intermediate string shall be the same as provided under sub-sections IV (3) (c), (f), and (g) for the salt protection string.

(5) Production String:

(a) A production string shall be set on top or

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[illegible] as follows:

(i) For wells drilled to the depth of the production string, which is required to be cemented by the salt protection string and is cemented only with a sufficient volume for cementing purposes, in which case the salt protection string may be cut and pulled before the production string is to be set; provided, that if the salt protection string was cemented to the surface, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided that if no intermediate string shall have been run and cemented to the surface, the production string shall be cemented to the surface.

(ii) For wells drilled to the deep zone the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided that if no intermediate string shall have been run and cemented to the surface, the production string shall be cemented to the surface.

(b) Cementing procedures and casing tests for the production string shall be the same as provided under sub-sections IV (3) (e), (f), and (g) for the salt protection string.

V DRILLING FLUID FOR SALT SECTION

The fluid used while drilling the salt section 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 fluid by the operator in overcoming any specific problem. This requirement is specifically to prevent enlarged drill holes.

VI PLUGGING AND ABANDONMENT OF WELLS:

All wells heretofor and hereafter drilled within Areas "A" and "B" 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.

VII [illegible]

Before drilling for oil or gas on lands in Area "A" or "B", a map or plat showing the location of the proposed well shall be prepared by the well operator and sent to the potash lessee involved. If no objection to the location of the proposed well is 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.

VIII INSPECTION OF OIL AND GAS AND MINING OPERATIONS:

A representative of the potash lessee may be present during drilling, cementing, casing and plugging of all oil or gas wells on his lease to observe conformance with these regulations. Likewise, a representative of the oil and gas lessee may inspect mine workings on his lease to observe conformance with these regulations.

IX FILING OF WELL AND MINE SURVEYS:

Each oil and gas lessee shall furnish not later than January 31st of each year 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 or gas well drilled in Area "A" during the preceding calendar year. Each potash lessee shall furnish not later than January 31st of each year to the Oil Conservation Commission and to each oil and gas lessee involved, certified plat of survey of the location of open mine workings underlying outstanding oil and gas leases.

X APPLICABILITY OF STATEWIDE RULES AND REGULATIONS:

All general statewide rules and regulations of the Oil Conservation Commission governing the development, operation and production of oil and gas in the State of New Mexico not inconsistent or in conflict herewith, are hereby adopted and made applicable to the areas described herein.

CLASS OF SERVICE

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WESTERN UNION

W. P. MARSHALL, PRESIDENT

SYMBOLS

DL Day Letter

NL Night Letter

LT International Letter Telegram

NLT International Night Letter

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LA48 KA110

K. BRA030 LONG DL PD=BARTLESVILLE OKLA 21 908A=

R R SPURRIER SECY=

=NEW MEXICO OIL CONSERVATION COMMISSION SANTA FE NMEX

=RE CASE 28 FOR AN ORDER ESTABLISHING A CASING PROBRAM WITHIN THE SO CALLED POTASH AREA OF EDDY AND LEA COUNTIES. PHILLIPS PETROLEUM COMPANY HAS STUDIED PROPOSALS OF VARIOUS OPERATORS WHICH WOULD REQUIRE TEMPERATURE SURVEYS WHERE SALT STRING IS CEMENTED TO SURFACE. IN OUR OPINION, CIRCULATION SHOULD BE SUFFICIENT EVIDENCE AND WE OBJECT TO THE REQUIREMENT OF TEMPERATURE SURVEYS BECAUSE SUCH SURVEYS WILL NOT REVEAL ADDITIONAL INFORMATION. ALSO IN OUR OPINION, ON SHALLOW WELLS, IF NO INTERMEDIATE STRING IS RUN THE OIL STRING SHOULD BE REQUIRED TO BE CEMENTED SOLID TO THE SURFACE TO AVOID POSSIBLE LEAKS AND IN THIS CASE WE ALSO OBJECT TO REQUIREMENT OF GAMMA RAY OR TEMPERATURE LOGS FOR SAME REASON THAT THEY SHOW NO MORE THAN IS INDICATED BY OBTAINING CIRCULATION OF CEMENT.=

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO.
RECEIVED
JUN 21 1951

CLASS OF SERVICE

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WESTERN UNION

1930

W. P. MARSHALL, PRESIDENT

SYMBOLS

DL Day Letter
NL Night Letter
LT International Letter Telegram
VLT International Vessel Letter

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END ONE K. BRA030/2

OPERATORS SUGGESTION THAT CENTERALIZERS BE PLACED ON EVERY THIRD JOINT OF SALT STRING SHOULD BE AMENDED TO PROVIDE LENGTH OF SUCH JOINTS OR CENTRALIZERS SHOULD BE SPACED CERTAIN DISTANCE APART. OTHERWISE PHILLIPS PETROLEUM COMPANY CONCURS WITH PROPOSALS OF OTHER OPERATORS AS SET FORTH IN RECENT MEMORANDUM OF NEW MEXICO OIL AND GAS ENGINEERING COMMITTEE=

=C P DIMIT PHILLIPS PET CO=

STATE OF NEW MEXICO
OFFICE OF STATE GEOLOGIST
SANTA FE, NEW MEXICO

July 19, 1951

COPY

Mr. R. F. Windfohr
Nash, Windfohr and Brown
1107 Fort Worth National Building
Fort Worth - Texas

Dear Mr. Windfohr:

This will acknowledge your letter of June 29 relative to the Oil Conservation Commission Case No. 278.

Your comments will be included in the file of Case 278, and we appreciate your opinions.

Very truly yours,

R. R. Spurrier
Secretary - Director

RRS:nr

Case 278

NASH, WINDFOHR & BROWN
OIL PRODUCERS
1107 FORT WORTH NATIONAL BUILDING
FORT WORTH, TEXAS

June 27, 1951.

Mr. R. R. Spurrier, Secretary
New Mexico Oil Conservation Commission
Santa Fe, New Mexico.

Dear Dick:

I have studied carefully the proposals in Case No. 278 for an order establishing a casing program within the so-called potash area of Eddy and Lea Counties, and I am in accord with all of the recommendations except the requirement that temperature surveys or gamma ray surveys be run to confirm the fact that the pipe has been cemented to the surface.

It seems to me that this is a useless, unnecessary and expensive requirement. Circulation should be sufficient evidence that the pipe is cemented to the top of the ground.

Yours truly,

NASH, WINDFOHR & BROWN

R. F. Windfohr.

RFW:ard

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO.
RECEIVED
JUL 2 1951

FORM 470 1-38

STANOLIND OIL AND GAS COMPANY

Lubbock, Texas
August 10, 1951

File
mailed 8-28-51

File: WMJ-1075

Subject: Case No. 278, July 10, 1951, Hearing

New Mexico Oil & Gas Conservation Commission
Santa Fe,
New Mexico

Gentlemen:

At the July 10, 1951, hearing on Case No. 278, the potash industries submitted as Exhibit "A" a map showing the 'Defined Potash Areas' in southeastern New Mexico.

Inasmuch as this Exhibit "A" was not included in the transcript of the hearing, we would like to obtain two copies of this exhibit at your convenience. If you do not handle the distribution of these exhibits, please advise where we may obtain them.

Yours very truly,

M. M. Montgomery

M. M. Montgomery
District Superintendent

WMJ:pl

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
AUG 13 1951

PROPOSED RULES AND REGULATIONS FOR ISSUANCE

BY THE NEW MEXICO OIL CONSERVATION COMMISSION

[illegible]

I. [illegible]:

[illegible]

II. [illegible]:

(1) [illegible] to the [illegible] and [illegible] as Area "A" and Area "B", as follows:

(a) Area "A":

T. 19 S., R. 29 E.,	Sec.	3, [illegible]
	Secs.	4 and 5, all
	Sec.	6, [illegible]
	Sec.	7, [illegible], [illegible]
	Secs.	8, 9, and 10, all
	Sec.	11, [illegible]
	Sec.	14, [illegible]
	Secs.	15 to 18 incl., all
	Sec.	20, [illegible]
	Sec.	21, [illegible]
	Secs.	22 and 23, all
	Secs.	25 to 29 incl., all
	Secs.	32 to 36 incl., all
T. 20 S., R. 29 E.,	Secs.	1 to 27 incl., all
	Secs.	34, 35 and 36, all
T. 20 S., R. 31 E.,	Secs.	17 to 20 incl., all
	Secs.	29 to 32 incl., all
T. 21 S., R. 29 E.,	Secs.	1 and 2, all
	Sec.	10, [illegible]
	Secs.	11 to 14 incl., all
	Sec.	15, [illegible]
	Sec.	24, all
	Sec.	25, [illegible]
	Sec.	36, all

T. 19 S., R. 36 E., Secs. 19, 30 and 31, all

T. 20 S., R. 32 E., Secs. 19, [illegible]
Secs. 30, 31, [illegible]
Secs. 27 to 34 incl., all
Secs. 34, 35 and 36, all

T. 20 S., R. 33 E., Secs. 26 to 35 incl., all

T. 20 S., R. 34 E., Secs. 1 to 26 incl., all
Secs. 31 to 36 incl., all
Secs. 33 to 36 incl., all

T. 20 S., R. 35 E., Secs. 1 to 36 incl., all

T. 20 S., R. 38 E., Secs. 6 to 9 incl., all
Secs. 16 to 35 incl., all
Secs. 25 to 36 incl., all

T. 20 S., R. 39 E., Sec. 31, all

T. 21 S., R. 29 E., Sec. 5, N½
Sec. 26, N½
Sec. 25, all

T. 21 S., R. 30 E., Secs. 1, 2 and 3, all
Secs. 10 and 11, all
Sec. 12, S½
Secs. 13, 14 and 15, all
Secs. 20, 21 and 22, all
Sec. 23, W½
Sec. 24, N½
Secs. 27 to 30 incl., all
Secs. 32 to 34 incl., all
Sec. 35, S½

T. [illegible] S., R. [illegible] E., Secs. [illegible]

T. 21 S., R. 32 E., Secs. 1 to 17 incl., all
Secs. 21 to 24 incl., all
Secs. 25 and 26, all

T. 21 S., R. 33 E., Secs. 4 to 9 incl., all
Secs. 16 to 21 incl., all
Secs. 28 to 33 incl., all

T. 22 S., R. 29 E., Sec. 2, S½
Sec. 10, all
Sec. 17, S½
Sec. 20, W½
Sec. 21, all
Secs. 25 to 36 incl., all
Secs. 33 to 36 incl., all

T. 22 S., R. 30 E., Secs. 1 to 4 incl., all
Secs. 8 to 17 incl., all
Secs. 20 to 24 incl., all
Sec. 25, W½
Secs. 28 to 33 incl., all
Sec. 35, W½

T. 22 S., R. 31 E., Secs. 4 to 9 incl., all
Secs. 17 and 18, all
Sec. 19, N½

T. 22 S., R. 32 E., Secs. 4, 8 and 9, all

T. 23 S., R. 29 E., Secs. 1, 2 and 3, all
Sec. 4, E½
Sec. 9, E½
Secs. 10 to 16 incl., all
Secs. 22 to 27 incl., all
Secs. 34 to 36 incl., all

T. 23 S., R. 30 E., Sec. 1, E½
Secs. 2 to 36 incl., all

Area "A" (Cont.)

N. Rg. W., N. M. P., Sec. 1, all
Sec. 11, all
Sec. 13, all
Sec. 23 to 26 incl., all
Sec. 35, all
Sec. 36 to 38 incl., all

N. Rg. E., N. M. P., Sec. 1, all
Sec. 5, all
Sec. 6, all

T. 24 S., R. 31 E., Secs. 4, 5 and 6, all

(3) Areas "A" or "B" 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, that oil and gas exploratory test wells shall not be drilled through any open potash mines or within 500 feet thereof unless agreed to in writing by the potash lessee involved.

(b) Any oil or gas leases hereafter issued for lands within Area "A" shall be subject to these regulations and no drilling shall be permitted 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 exploratory test wells in Area "A" shall be further subject to these rules and regulations.

(d) Where oil and gas wells are in production in Area "A", no potash mine opening shall be driven to within less than 100 feet of such wells so that protection of both can be afforded.

(2) Area "B"

(a) Oil and gas exploratory test wells may be drilled in Area "B" in accordance with these rules and regulations.

(3) Upon the discovery here of oil and gas in Areas "A" or "B", the Oil Conservation Commission shall promulgate field or pool rules for the affected area after due notice and hearings.

(4) Nothing herein shall be construed to prevent unitization agreements involving lands in Areas "A" or "B".

XV DRILLING AND CASING PROGRAM:

(1) For the purpose of the regulations and the drilling of oil and gas exploratory test wells, shallow and deep zones are defined as follows:

(a) The shallow zone shall include all formations above the base of the Delaware sand or above a depth of 6000 feet, whichever is the lesser.

(b) The deep zone shall include all formations below the base of the Delaware sand or below a depth of 6000 feet, whichever is the lesser.

(2) Surface Casing String:

(a) A surface casing string of new, second-hand or reconditioned pipe shall be set in the "Red Bed" section of the basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section, as determined necessary by the regulatory representative approving the drilling operations, and shall be cemented with not less than one hundred and fifty percent (150%) of calculated volume necessary to circulate cement to the ground surface.

(b) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(c) Casing and water shut-off tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(1) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measure shall be applied.

(ii) If cable tools are used, the end of the hole shall be bailed free of the hole fluid and not drilled for a period of one hour, corrective measures shall be applied.

(6) The above requirements for the surface casing, casing shall be applicable to both the shallow and deep zones.

(7) Salt Protection String:

(a) A salt protection string of new, second-hand or reconditioned pipe shall be set not less than one hundred (100) feet nor more than two hundred (200) feet below the base of the salt section.

(b) The salt protection string shall be cemented as follows:

(i) For wells drilled to the shallow zone, the string may be cemented with a nominal volume of cement for testing purposes only. If the exploratory test well is completed as a productive well, the string shall be recemented with sufficient cement to fill the annular space back of the pipe from the top of the first cementing to the surface or to the bottom of the cellar, or may be cut and pulled if the production string is cemented to the surface as provided in sub-section IV (5), (a), (i) below.

(ii) For wells drilled to the deep zone, the string must be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(c) If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or gamma ray survey and additional cementing shall be done until the cement is brought to the point required.

(d) The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with three percent (3%) of calcium Chloride by weight of cement.

(c) Such closure shall be proved as at least twice the hydrostatic pressure to which the casing will be subjected during the completion phase of the drilling operations.

(2) Records shall be obtained to show a total of twelve (12) hours rig operating time and a total of forty-eight (48) hours before drilling the plug or initiating tests.

(3) Casing tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(a) If rotary tools are used, the end shall be closed with rubber and a hydraulic pressure of one thousand (1000) pounds per square inch shall be applied. If a loss of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measure shall be applied.

(ii) If cable tools are used, the end 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.

(b) The above requirements for the salt protection string shall be applicable to both the shallow and deep zones except for sub-section IV (3), (b), (i) and (ii) above.

(4) Intermediate String:

(a) In the drilling of oil and gas exploratory test wells to the deep zone an intermediate string shall be set at sufficient depth to case-off all formations in the shallow zone and shall be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(b) Cementing procedures and casing tests for the intermediate string shall be the same as provided under sub-sections IV (3) (e), (f), and (g) for the salt protection string.

(5) Production String:

(a) A production string shall be set on top or

W.N.M.C.F. MICROGRAPHICS

[illegible]

(i) [illegible]

(ii) For wells drilled in the [illegible] production casing shall be cemented with a volume adequate to protect the gas zone and the casing shoe shall be tested such that if no intermediate casing shall have been run and cemented to the surface, the production casing shall be cemented to the surface.

(b) Cementing procedures and casing tests for the production casing shall be the same as provided under sub-sections IV (5) (a), (f), and (g) for the salt protection string.

V DRILLING FLUID FOR SALT SECTION

The fluid used while drilling the salt section shall consist of water to which has been added sufficient salts of a chemical common to the zone penetrated to completely saturate the mixture. Other admixtures may be added to the fluid by the operator in overcoming any specific problem. This requirement is specifically to prevent enlarged drill holes.

VI PLUGGING AND ABANDONMENT OF WELLS:

All wells heretofor and hereafter drilled within Areas "A" and "B" 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.

VII [illegible]

[illegible] drilling for oil or gas on lands in Area "A", prior to [illegible] location of the proposed well shall be [illegible] to the [illegible] Commission and copy sent to the potash lessee of record, if any, in the area. If no objection to the location of the proposed well is received by the Commission within [illegible] days, it will [illegible] and the well may proceed. If, however, the potash lessee objects to the location of the well, the Commission will [illegible] the proposed location of the well in conformance with the foregoing regulations, the potash lessee may file a written objection with the Commission and designate why the oil conservation Commission

VIII INSPECTION OF OIL AND POTASH OPERATIONS:

A representative of the potash lessee may be present during drilling, operating, testing and plugging of oil and gas wells on his lease to observe performance with these regulations. Likewise, a representative of the oil and gas lessee may inspect mine workings on his lease to observe conformance with these regulations.

IX FILING OF WELL AND MINE SURVEYS:

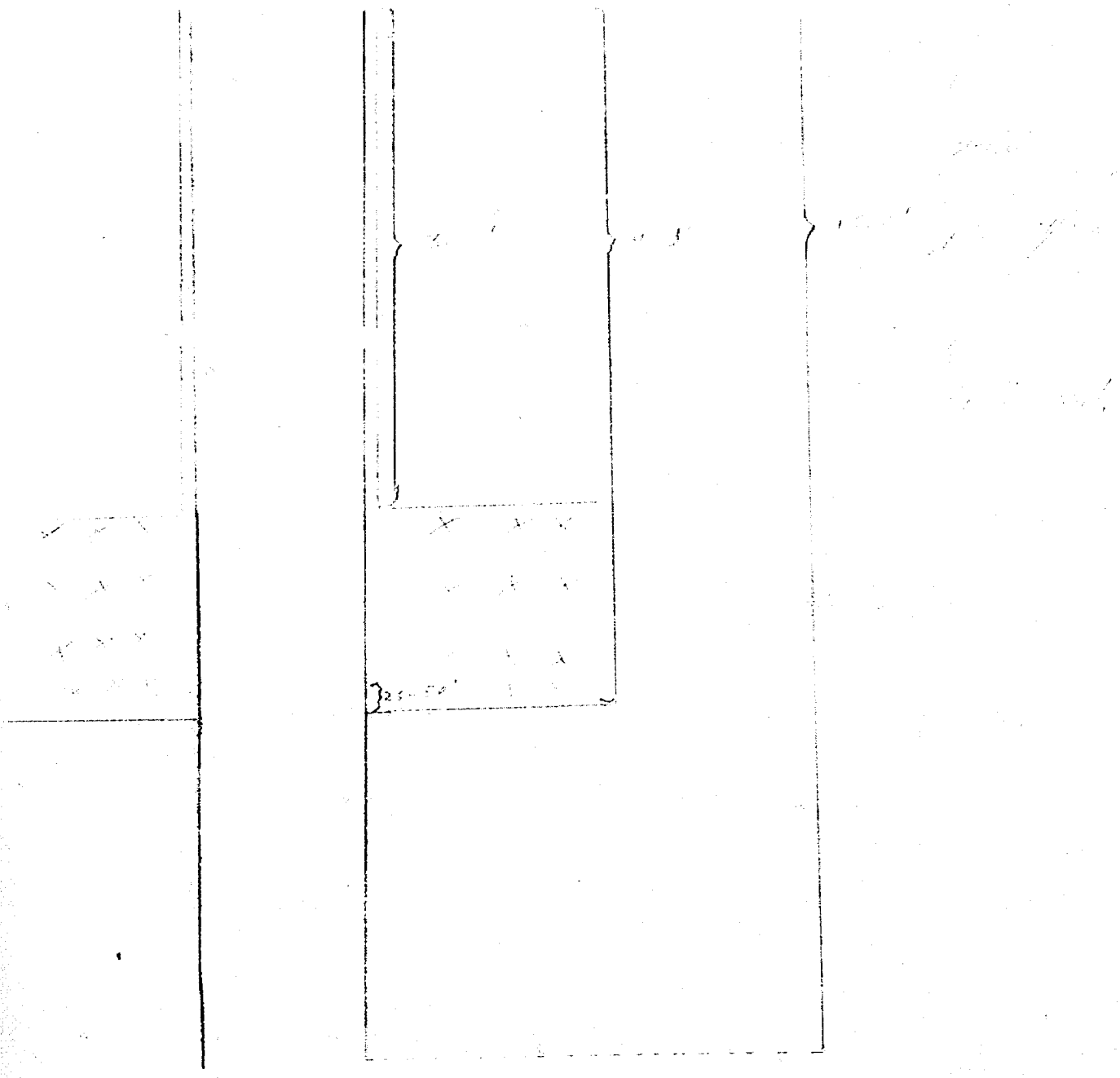
Each oil and gas lessee shall furnish not later than January 31st of each year to the Oil Conservation Commission and to the potash lessees involved, certified directional surveys from the surface to a point below the lowest mine potash-bearing horizon for each oil or gas well drilled in Area "A" during the preceding calendar year. Each potash lessee shall furnish not later than January 31st of each year to the Oil Conservation Commission and to each oil and gas lessee involved, certified plat of survey of the location of open mine workings underlying established oil and gas leases.

X APPLICABILITY OF STATEWIDE RULES AND REGULATIONS:

All general statewide rules and regulations of the Oil Conservation Commission governing the development, operation and production of oil and gas in the State of New Mexico not inconsistent or in conflict herewith, are hereby adopted and made applicable to the area described herein.

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Artesia, New Mexico



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Dept publication

Thrifty Drug

Introduce & distribute
to mailing list
& Press for comments

Ex C
Case # 78

Immediately

CASING AND SETTING OF
POTASH PROTECTION
OIL AND GAS TEST WELLS
IN POTASH AREAS

The following program is a suggestive program for the cementing of pipe and the protecting of the prospective potash horizon from water, oil and gas contamination. This program shall pertain to oil and gas test or wells drilled for the purpose of securing oil and gas, down to a depth of 4000 feet. There should be rules set up for particular areas, naturally based on the amount of surface water and the amount of potash in the salt section, which will be contrated during the drilling of the proposed oil test. The geological features on the oil structures will call for different programs from time to time. Especially in the districts where potash is present. The commerical potash districts according to geological features and subsurface information that has been secured from old oil test that have been drilled in the past. Also addition information has been secured from districts from recent wells drilled in the various districts. There has also been a considerable amount of coring done by the various companys. All of this information should supply sufficient knowledge to derive at a pipe program satisfactory for all concerned. It is therefore suggested as follows:

1. That the Oil and Gas Conversation Commission retain authorization to issue a pipe program according to the area and district. A program that is sufficient to protect the potash strates at the present and future.

2. A suggestive pipe program for the general area should be as follows:

A. Surface Casing

The surface casing should be set at the top of the salt section. The size should be determined by the operator. The number one suggestion is that the pipe be mudded to the surface by pumping mud around the shoe and behind the pipe to the surface. Allow pipe to set eight hours. Then bale hole dry and test for at least two hours. If water is completely shut-off, then the operator shall continue his drilling until he has reached the anhydrite formation. Then the operator

W.N.M.C.F. MICROGRAPHICS

should run either number one used pipe or new pipe through the potash and salt section. The operator should then be allowed to pull the surface pipe from the hole. The operator should then be permitted to cement the pipe from the bottom of the salt section to the surface, by circulating cement behind the pipe to the surface, or in such conditions recommended by the cementing concerns and the Oil Conservation Commission. The operator should then be allowed to drill his well in and set his production string as he sees fit. He should be allowed to set the size of casing and at a depth he recommends, so long as he uses number one used pipe or new pipe. The amount of cement run behind the production string should be sufficient to come up at least 500 feet above the shoe. This will be adequate cement to protect the oil and gas zones and the formations behind the production string.

B. The next pipe program is recommended as follows:

The surface pipe should be set through the surface water, and cemented by circulating cement behind the pipe to the surface, or else there should be sufficient amount of cement pumped in and around the pipe to come to the surface, under ordinary conditions. The cement should be allowed to set under pressure not less than 48 hours before drilling same and testing for water. The operator must test for water at least 2 hours. In case there is no water present, he shall then be allowed to carry on drilling operations until he reaches the casing point necessary to set the production string. At this time the potash and salt is protected from all water hazards. The only hazards existing at this time is the possibility of contaminating the potash with oil and gas. Therefore, the operator should run nothing but A-1 used pipe or new pipe, toning each joint up as tight as possible to prevent leakage. He shall then be allowed, to pump heavy aequagel mud behind the pipe sufficient to reach and come above the salt and potash section. Then the operator should pump enough cement behind the pipe to come up at least 500 feet behind it, which would be sufficient to seal off any possible chances of oil and gas working its way up behind it. The production string shall be allowed to be set threw or above the oil producing sections as the operator may see fit. The reason for this is that the different known producing zones are treated differently.

W.N.M.C.F. MICROGRAPHICS

Most of the wells are drilled through out Eddy County by the cable tool method. Which has the advantages of being able to identify the formations immediately upon topping them and the exact thickness. We are also able to detect immediately the different changes in the formations that takes place. We are also able to test our water zones as to the amount of water and the thickness of the zones. Therefore it is necessary to have a different type of pipe program for this type of drilling than for rotary drilling. The above recommendation are based on cable tool drilling.

These recommendation or suggestion are based on past experience and present drilling operations being carried on in one or more districts. The oil and gas producers of New Mexico are fortunate enough to have the Oil and Gas Conservation Commission to assist us in our problems. They have accumulated information sufficient to guide them in any section of Eddy County, New Mexico. They are known to work and cooperate with the United States Geological Department at all times.

The undersigned operator or operators of Eddy County, New Mexico approve whole heartedly the above and foregoing proposals and do hereby recommend these adoption by the State Land Commission as well as the United States Land Commission.

Respectfully Submitted,

Jones & Watkins Oil Co.	Artesia, New Mexico
Loyd Stanley L. Jones	" " "
Stanley L. Jones Inc.	" " "
Miller & Kelly	" " "
Loyd Stanley L. Jones	" " "

USGS - Duncan - Wash. D.C. - Aug. 17, 1951

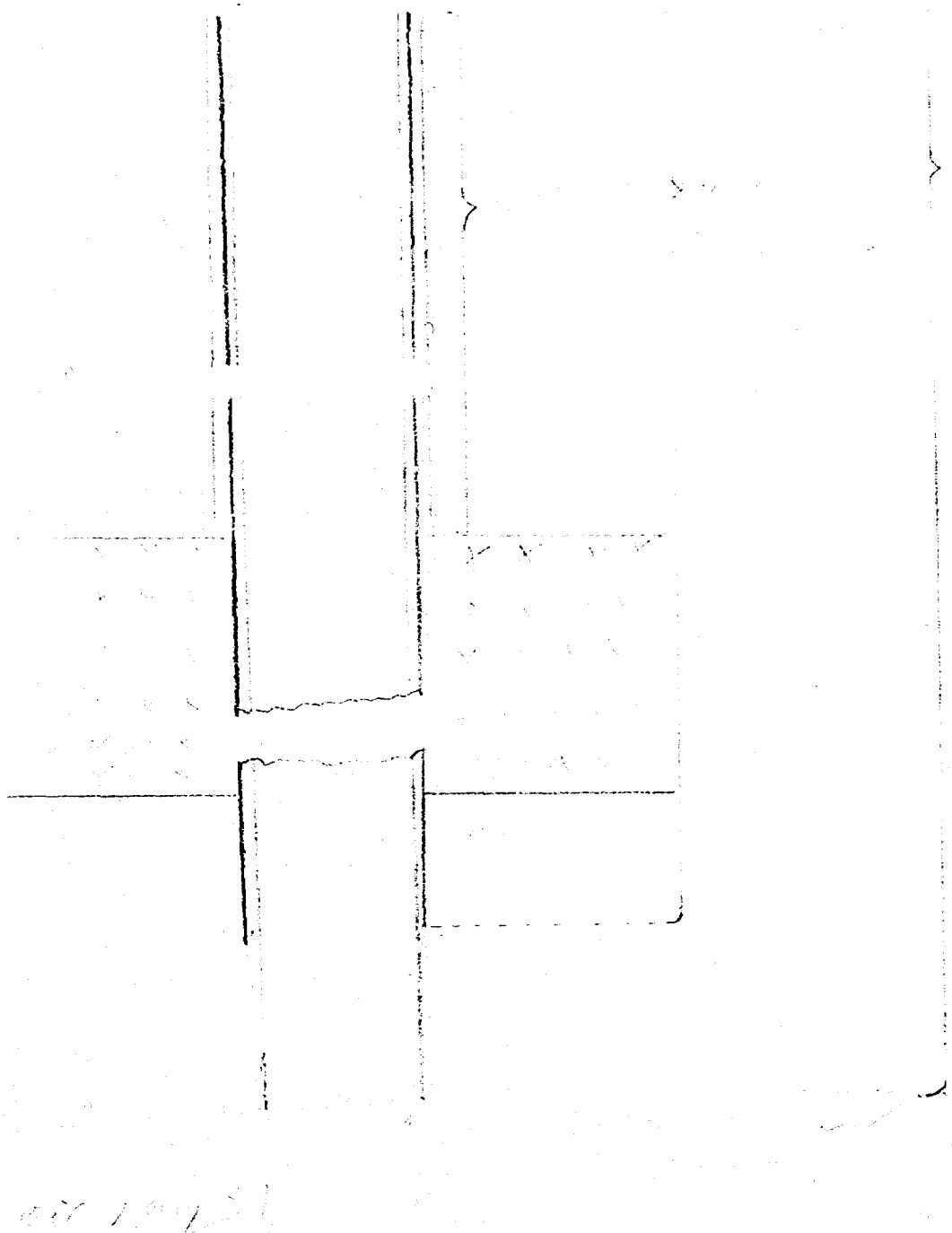
(i) No wells will be drilled for oil or gas in formations above the base of the Delaware sand, or above a depth of 5,000 feet, whichever is the lesser, except upon approval of the Director of the Geological Survey, it being understood that drilling for production to these formations will be permitted only in the event that it is satisfactorily established that such drilling would not interfere with the mining and recovery of potash deposits or the interest of the United States would best be subserved thereby.

(ii) No wells will be drilled for oil and gas in formations below the base of the Delaware sand, or below a depth of 5,000 feet, whichever is the lesser, except pursuant to a unit plan approved by the Director of the Geological Survey, unless drilling is otherwise required or approved to protect the lease from drainage.

(iii) No wells will be drilled for oil and gas at a location which, in the opinion of the Oil and Gas Supervisor, of the Geological Survey, would cause undue waste of potash deposits or constitute a hazard to or unduly interfere with mining operations being conducted for the extraction of potash deposits.

(iiii) That the drilling or the abandonment of any well on said lease shall be done in accordance with such requirements as the Oil and Gas Supervisor of the Geological Survey may prescribe as necessary to prevent the infiltration of oil, gas, or water into formations containing potash deposits or into mines or workings being utilized in the extraction of such deposits.

ROOM 205, BOOKER BUILDING
Artesia, New Mexico



Lorsque j'ai attendu mon Maître
le changeur Jésus Victoire
Gaudeau mes bons amis.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P. O. Box 237
Roswell, New Mexico

July 13, 1951

Mr. A. L. Spurrier, Secretary
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Mr. Spurrier:

Reference is made to Case 278 concerning establishment of a casing program and other special procedural operations in the potash areas in Lea and Eddy County. Testimony on this case was heard by the Oil Conservation Commission on June 21, 1951.

During this hearing I introduced into the record information as to the geology of the area as interpreted by this office and furnished our interpretation of a definition of the shallow and deep zones.

Attached for inclusion in the record of the hearing on Case 278 is a copy of a cross section compiled by Mr. P. F. Stipp, Regional Geologist, Geological Survey, Roswell, graphically showing our interpretation of the shallow and deep zones as presented at the hearing on June 21.

Very truly yours,

Foster Morrell

FOSTER MORRELL
Oil and Gas Supervisor
Southwestern Region

PROPOSED REGULATIONS TO GOVERN EXPLORATION FOR AND EXTRACTION OF OIL, GAS AND POTASH MINERALS ON NEW MEXICO STATE LANDS INCLUDED IN PROVEN OR POTENTIAL POTASH PRODUCTION AREAS

The objective of these regulations is to assure maximum conservation and economic recovery of oil, gas and potash minerals.

I. These regulations are applicable to the area shown on the accompanying map, hereinafter referred to as the "Defined Area." The lands within this area presently fall within one of the following classifications:

AREA "A" - Areas which are underlain by proven commercial potash deposits.

AREA "B" - Areas under which commercial potash deposits are indicated but not delineated.

II. The following procedures shall apply to oil and gas exploration and extraction within the "Defined Area."

AREA "A"

Drilling for oil and gas shall not be permitted within this area, except upon leases where there is presently production in commercial quantities. Upon such leases future drilling shall only be conducted pursuant to the provisions of Paragraph 2, "Area B" herein, pertaining to deep wells.

Future leases may issue upon the lands within "Area A" but such leases shall contain the proviso that no drilling may be conducted thereon; however, the average embraced in such leases may be committed to unit agreements.

Where oil and gas wells are in production within this area, no mine opening shall be driven to within less than one hundred (100) feet of such wells so that pillar protection will be afforded.

AREA "B"

Spacing of oil and gas wells in this area shall be limited to one per quarter section. All such wells shall be located in the center of the quarter section unless relocated by mutual agreement of the oil and gas lessee, the potash lessee, and the State Land Commissioner.

All wells drilled within this area in exploration for and production of oil or gas shall be drilled, cased and cemented according to the following procedure:

Casing and cementing programs for rotary drilled oil and gas test wells in the "defined areas" in Eddy and Lea Counties, New Mexico

(a) Surface Casing String

In order 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 and shall be cemented back to the ground surface or to the bottom of the cellar.

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 per square inch; second-hand and re-conditioned pipe shall be re-tested to 600 pounds per square inch before being run.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. Cement shall be allowed to stand a minimum of twelve (12) hours under

pressure and a total of twenty-four (24) hours before drilling the plug orinitiating tests.

This casing string shall be tested with a hydraulic pressure of six hundred (600) pounds per square inch. If a drop of one hundred (100) pounds per square inch or more should occur within 30 minutes, corrective measures shall be applied.

(b) Salt Protection String

A salt protection string shall be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe. New pipe shall have received a mill test of not less than 1000 pounds per square inch; second-hand and re-conditioned pipe shall be re-tested to 1000 pounds per square inch before being run.

Centralizers shall be used on at least every 150 feet below surface casing.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. (The water used to mix with the cement shall be saturated with the salts common to the zones penetrated.) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests. If the cement fails to reach the surface, the top of the cement shall be located by a temperature or gamma ray survey, and additional cement jobs done until cement is brought to the surface. The Oil Conservation Commission shall be furnished with proof that the salt string is cemented to the surface either by having a commission repre-

sentative witness the job or by affidavits or logs filed with the Commission.

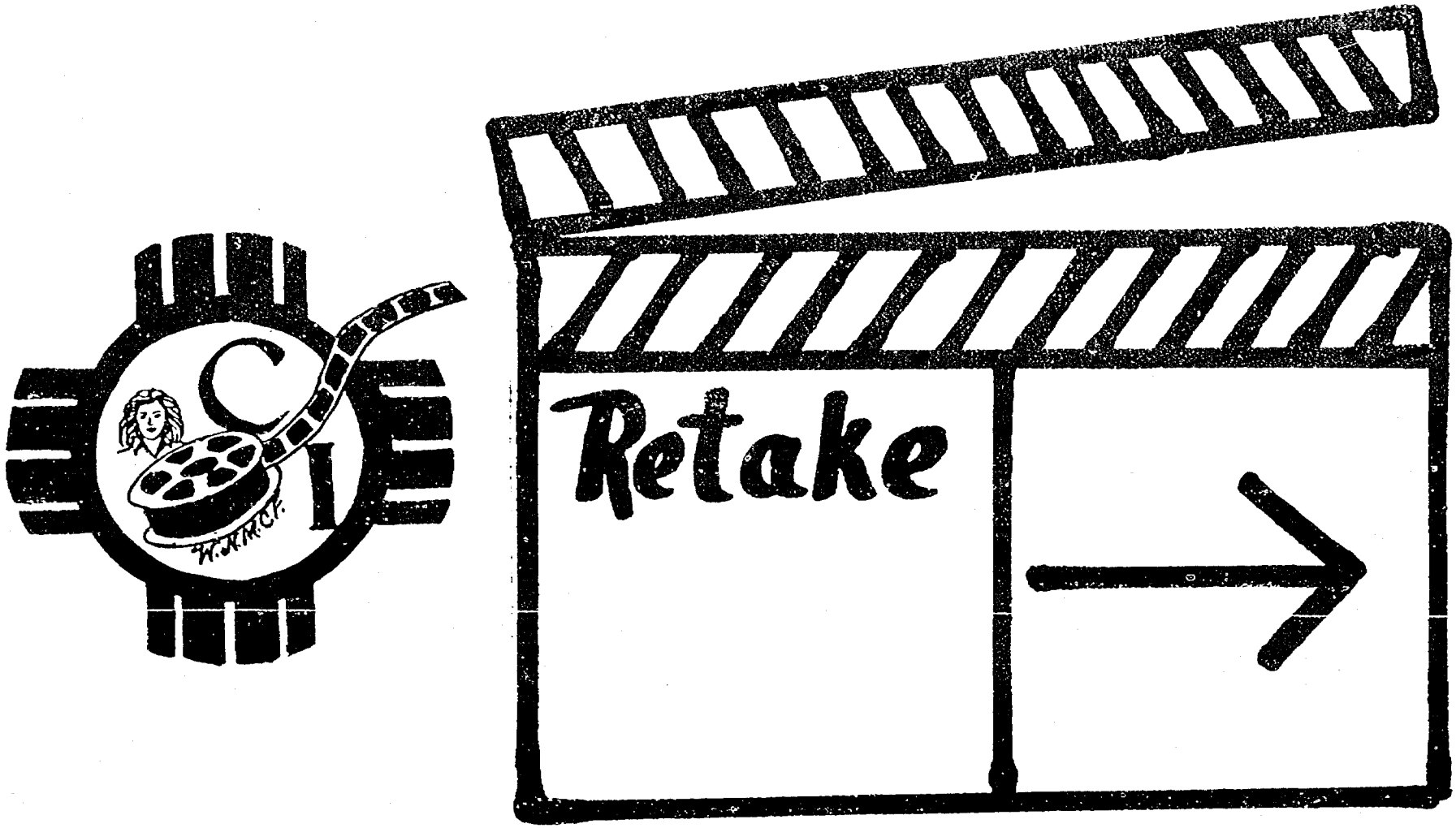
This casing string shall be tested with a hydraulic pressure of 1000 pounds per square inch. If a drop of 100 pounds per square inch or more should occur within 30 minutes, corrective measures shall be applied.

(c) Intermediate String

If the operator runs an intermediate string, this string may be a drilling protection string for deep drilling objectives or may be an oil string for testing medium depth zones.

1. If a drilling protection string, the casing shall be cemented with a sufficient volume of cement amply to protect this casing and all shallow pay zones above the casing shoe, and in every instance this string shall be cemented from a point one thousand (1000) feet below the salt string back to the surface. The operator shall furnish proof to the Oil Conservation Commission that this cementing requirement has been fulfilled either by having a representative of the Commission witness the job or by affidavits or logs filed with the Oil Conservation Commission. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four hours before drilling the plugs or initiating tests. Casing shall be tested with a hydraulic pressure of 1000 pounds per square inch. If a drop of one hundred (100) pounds per square inch or more should occur within 30 minutes corrective measures shall be applied.

2. 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


Retake

sentative witness the job or by affidavits or logs filed with the Commission.

This casing string shall be tested with a hydraulic pressure of 1000 pounds per square inch. If a drop of 100 pounds per square inch or more should occur within 30 minutes, corrective measures shall be applied.

(c) Intermediate String

If the operator runs an intermediate string, this string may be a drilling protection string for deep drilling objectives or may be an oil string for testing medium depth zones.

1. If a drilling protection string, the casing shall be cemented with a sufficient volume of cement amply to protect this casing and all shallow pay zones above the casing shoe, and in every instance this string shall be cemented from a point one thousand (1000) feet below the salt string back to the surface. The operator shall furnish proof to the Oil Conservation Commission that this cementing requirement has been fulfilled either by having a representative of the Commission witness the job or by affidavits or logs filed with the Oil Conservation Commission. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four hours before drilling the plugs or initiating tests. Casing shall be tested with a hydraulic pressure of 1000 pounds per square inch. If a drop of one hundred (100) pounds per square inch or more should occur within 30 minutes corrective measures shall be applied.

2. 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 and the Oil Conservation Commission satisfied that this requirement has been fulfilled either by a representative of the Commission witnessing the job or by affidavits or logs filed with the Commission. Cement time and testing rules shall apply similarly in the case of this string as is written for the above string.

(d) 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 (c-1) above. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests. Hydraulic pressure tests shall be applied to this string as above.

(e) 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.

Casing and cementing program for shallow oil and gas test wells in known potash areas

(a) Surface Casing String

In order 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 and shall be cemented back to the ground surface or to the bottom of the cellar.

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 per square inch; second-hand and re-conditioned pipe shall be re-tested to 600 pounds per square inch before being run.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

(b) Salt Protection String

A salt protection string shall be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturer's test specifications.

The string may be cemented with a nominal cement volume for testing purposes only, and if commercially productive, the string must be re-

cemented with not less than 150% of calculated volume necessary to circulate cement to surface. The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with proper amounts of calcium chloride.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (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 jobs done until cement is brought to that point. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

Test of casing shall vary with the drilling method. 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.

(c) Oil or Production String

This string may 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 salt protection casing shall have been run and commercial production obtained, that string shall be cemented to the surface as provided by (b) above or as provided by (c-1) in Deep Well program.

(d) 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.

III. All holes which are abandoned shall be plugged in accordance with the following procedure:

1. Plugging of Holes Upon Abandonment

(a) 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 plug through the salt section and prevent liquids or gases from entering the hole above or below the salt section. Details of the plugging procedure shall be approved in advance by the Oil-Potash Committee.

(b) 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.

(c) 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 (1 a) above.

IV. Before drilling for oil and gas on lands within the "Defined Area" a map showing the location of the proposed well shall be prepared by the well

operator and copies shall be sent to the State Land Commissioner and the potash lessee involved. If no objections to the location of the proposed well are made by the potash lessee in 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 with the State land Commissioner.

If the well operator and the potash lessee cannot agree on a suitable location for the proposed well, or on any other questions which may arise in connection with the application of these regulations, then either party may demand a hearing before the State Land Commissioner who will decide the issues in dispute. Nothing herein shall prevent either party, if dissatisfied with the decision of the State Land Commissioner, from appealing through applicable legal action.

V. 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.

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

VI. Each oil and gas lessee shall furnish to the State Land Commissioner and to the potash lessees involved, certified directional surveys from the surface to a point below the lowest potash-bearing horizon for each oil and gas well drilled during the year. Each potash lessee shall advise the oil and gas lessee who is conducting drilling operations of the location of underground workings in the area adjacent to drilling locations.

VII. A bond of not less than ten thousand dollars ($10,000.00) payable to the State of New Mexico, shall be posted by the well operator, to be forfeited by him for any infraction of these regulations.

VIII. The State Land Commission shall add to the "Defined Area" any lands which subsequently are shown to be within a new potash area or an extension of the "Defined Area." Lands within the "Defined Area" shall be reclassified by the State Land Commissioner upon proper showing by the potash lessees that further commercial ore has been proven. If any lands are transferred to the "Area A" Classification, the "Area A" regulations shall automatically apply to such lands.

July 10, 1951

Potash Areas "A" and "B" combined:

T. 19 S, R. 29 E
Sec. 11, SE/4
Sec. 12 S/2
Sec. 14, all
Sec. 13, all
Sec. 23, N/2,
Sec. 24, N/2

T. 20 S, R. 29 E
Sec. 12, NE/4 SE/4 and S/2 SE/4
Sec. 13, NE/4 and S/2
Sec. 22, all
Sec. 23, all
Sec. 24, all
Sec. 25, all
Sec. 26, all
Sec. 27, all
Sec. 34, all
Sec. 35, all
Sec. 36, all

T. 21 S, R. 29 E
Sec. 1, all
Sec. 2, all
Sec. 3, E/2
Sec. 10, E/2
Sec. 11, all
Sec. 12, all
Sec. 13, all
Sec. 14, all
Sec. 15, E/2
Sec. 23, N/2
Sec. 24, all
Sec. 25, all
Sec. 35, E/2
Sec. 36, all

T. 22 S, R. 29 E
Sec. 1, all
Sec. 2, all
Sec. 3, S/2
Sec. 9, E/2
Sec. 10, all
Sec. 11, all
Sec. 12, all
Sec. 13, all
Sec. 14, all
Sec. 15, all
Sec. 16, all
Sec. 17, E/2
Sec. 20, E/2
Sec. 21, all
Sec. 22, all
Sec. 23, all
Sec. 24, all
Sec. 25, all
Sec. 26, all
Sec. 27, all
Sec. 28, all
Sec. 33, all
Sec. 34, all
Sec. 35, all
Sec. 36, all

T. 23 S, R. 29 E
Sec. 1, all
Sec. 2, all
Sec. 3, all
Sec. 4, E/2
Sec. 9, E/2
Sec. 10, all
Sec. 11, all
Sec. 12, all
Sec. 13, all
Sec. 14, all
Sec. 15, all
Sec. 22, all
Sec. 23, all
Sec. 24, all
Sec. 25, all
Sec. 26, all
Sec. 27, all
Sec. 34, all
Sec. 35, all
Sec. 36, all

T. 18 S. R. 30 E
Sec. 12, S/2
Sec. 13, all
Sec. 14, all
Sec. 15, SE/4
Sec. 21, SE/4
Sec. 22, all
Sec. 23, all
Sec. 24, all
Sec. 25, W/2
Sec. 26, all
Sec. 27, all
Sec. 28, all
Sec. 29, SE/4
Sec. 32, SW/4 and E/2
Sec. 33, all
Sec. 34, all
Sec. 35, E/2

T. 19 S, R. 30 E
Sec. 2, all
Sec. 3, all
Sec. 4, all
Sec. 5, all
Sec. 6, SE/4
Sec. 7, NE/4 and S/2
Sec. 8, all
Sec. 9, all Sec. 10 to 18, incl.
Sec. 10, all
Sec. 11, all
Sec. 12, all
Sec. 13, all
Sec. 14, all
Sec. 15, all
Sec. 16, all
Sec. 17, all
Sec. 18, all
Sec. 19 to 30, incl.
Sec. 32 to 36, incl.

W.N.M.C.F. MICROGRAPHICS

T. 20 S, R. 30 E
Sec. 1 to 36, incl.

T. 21 S, R. 30 E
Sec. 1 to 11, incl.
Sec. 12, S/2
Sec. 13 to 22, incl.
Sec. 23, N/2
Sec. 24, N/2
Sec. 27 to 30, incl.
Sec. 32 to 34, incl.
Sec. 35, S/2

T. 22 S, R. 30 E
Sec. 1 to 24, incl.
Sec. 25, W/2
Sec. 26 to 35, incl.
Sec. 36, W/2

T. 23 S, R. 30 E
Sec. 1, S/2
Sec. 2 to 36, incl.

T. 24 S, R. 30 E
Sec. 1, N/2
Sec. 2, N/2
Sec. 3, N/2

T. 19 S, R. 32 E
Sec. 23, S/2
Sec. 24 to 27, incl.
Sec. 28, S/2
Sec. 31, S/2
Sec. 32, S/2
Sec. 33 to 36, incl.

T. 20 S, R. 32 E
Sec. 1 to 36, incl.

T. 21 S, R. 32 E
Sec. 1 to 17, incl.
Sec. 21 to 27, incl.
Sec. 35 and 36

T. 18 S. R. 31 E
Sec. 18, W/2

T. 19 S, R. 31 E
Sec. 9 and 10
Sec. 11, W/2
Sec. 14, W/2
Sec. 15 to 17, incl.
Sec. 19 to 22, incl.
Sec. 23, W/2
Sec. 25, S/2
Sec. 26 to 36, incl.

W.N.M.C.F. MICROGRAPHICS

T. 20 S, R. 31 E
Sec. 1 to 36, incl.

T. 21 S, R. 31 E
Sec. 1, N/2
Sec. 2, N/2
Sec. 4, W/2
Sec. 5 and 6
Sec. 18, S/2
Sec. 19, N/2

T. 22 S, R. 31 E
Sec. 4 to 9, inl
Sec. 17 and 18
Sec. 19, N/2

T. 23 S, R. 31 E
Sec. 7, all
Sec. 8, S/2
Sec. 16, SW/4
Sec. 17 to 20, incl.
Sec. 21, W/2
Sec. 28 to 33, incl.

T. 24 S, R. 31 E
Sec. 4 to 6, incl.

T. 19 S, R. 33 E
Sec. 19, all
Sec. 30 and 31

T. 20 S, R. 33 E
Sec. 5 to 9, incl.
Sec. 15 to 23, incl.
Sec. 25 to 36, incl.

T. 21 S, R. 33 E
Sec. 4 to 9, incl.
Sec. 16 to 21, incl.
Sec. 28 to 33, incl.

T. 22 S, R. 33 E
Sec. 4 to 6, incl.

T. 20 S, R. 34 E
Sec. 31, all

W.N.M.C.F. MICROGRAPHICS

HUMBLE OIL & REFINING COMPANY

MIDLAND, TEXAS

J. W. HOUSE

January 8, 1952

File: 6-1 New Mexico

Mr. R. R. Spurrier, Secretary
State of New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Dear Sir:

We call to your attention on Page 10, Case No. 278, Order No. R-111, the last line of (d) "and with three (3 percent) percent of calcium chloride by weight of cement".

In our opinion, the above quotation should be deleted from the order. It was the custom in the early days of cementing practice to use calcium chloride to accelerate the setting time of cement. It is now an obsolete practice. Where the fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated, the predominantly potassium salts will have an accelerating effect on the setting time of the cement. Nothing can be gained by the use of the calcium chloride. Without some experimentation with the brines to be used, it is unknown whether there might be a deleterious effect in the cement. As the setting time of the cements currently used by the oil industry is satisfactory, the cost and trouble to operators to use calcium chloride serves no purpose.

Yours very truly,

J. W. HOUSE

R S Dewey

BY: R. S. DEWEY

RSD/rs

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO.
JAN 10 1952

COPY

HUMBLE OIL & REFINING COMPANY
HOUSTON 1, TEXAS

January 8, 1952

File: 6-1 New Mexico

Mr. R. R. Spurrier, Secretary
State of New Mexico Oil Conservation Commission
Santa Fe, New Mexico

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Yours very truly,

J. W. HOUSE

BY: R. S. DEWEY

RSD/rs

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

February 2, 1954

COPY

Mr. Clarence E. Hinkle
Attorney at Law
Roswell, New Mexico

Dear Mr. Hinkle:

This is in reply to your letter of January 28th in which you refer to Order No. R-111, Case 278.

We have discussed this with Mr. Hanson at our Artesia office, within whose district this problem lies and with our Chief Engineer, Bill Macey. The Commission has no objection to your proposed manner of completion provided you get an OK or a Waiver from the Potash Company which has the Potash lease on the locations you plan to drill.

Very truly yours,

R. R. Spurrier
Secretary and Director

RRS:vc

cc: Mr. L. A. Hanson
Oil Conservation Commission
205 Carper Building
Artesia, New Mexico

J. M. HERVEY
HIRAM M. DOW
CLARENCE E. HINKLE
W. E. BONDURANT, JR.
GEORGE H. HUNKER, JR.

WILLIAM C. SCHAUER
HOWARD C. BRATTON
S. B. CHRISTY IV

LAW OFFICES
HERVEY, DOW & HINKLE
ROSWELL, NEW MEXICO

January 28, 1954

Mr. R. R. Spurrier
Executive Secretary
New Mexico Oil & Gas Association
Santa Fe, New Mexico

Dear Dick:

We have a letter from Richardson & Bass relative to the interpretation of Order No. R-111 issued in Case No. 278 which provides for rules and regulations covering the exploration and production of oil and gas in the Potash Area.

As you know, Richardson & Bass have a small well at approximately 7000 feet in the Permian sands on the Big Eddy unit. At the present time, it looks as if it may be doubtful that this horizon can be developed profitably unless methods can be devised to cut the drilling costs. Under Section IV (1) (a), it is provided that "the shallow zone shall include all formations above the base of the Delaware sand or above a depth of 5000 feet, whichever is the lesser". (b) of the same section provides that the deep zone shall include all formations below the base of the Delaware sand or below a depth of 5000 feet, whichever is the lesser. Section IV (3) provides for the cementing of a salt protection string of casing and under Section IV (4) (a), an intermediate string of casing is required "in the drilling of oil and gas exploratory test wells to the deep zone...". If the salt beds are effectively sealed off by the cementing of the salt protection string, it is Mr. Bass' thought that the cementing of the intermediate string could serve no useful purpose in developing the 7000-foot horizon and is, in reality, a useless added cost. We thought perhaps that the 5000-foot intermediate string could be eliminated in the drilling of subsequent wells by interpreting Section IV (4) (a) to mean that it only applies to "exploratory" test wells and would not necessarily apply to subsequent wells drilled after a discovery is made where it is obvious that the 5000-foot string is not necessary and serves no useful purpose. It is Mr. Bass' opinion that the intermediate string was really intended for the exploration of the deep zones in anticipation of production from Pre-Permian formations and that the elimination of the intermediate string in the development of the 7000-foot horizon would not violate the purpose or spirit of the rule. As stated, use of the intermediate string for the development of the Permian sands would not add to the protection of the potash or salt stratum. I would appreciate your giving this matter your prompt consideration and calling me collect.

Yours sincerely,
HERVEY, DOW & HINKLE

By _____

CEH:mp
cc - Richardson & Bass

I. DRILLING AND CASING PROGRAM:

(1) For the purpose of the regulations and the drilling of oil and gas exploratory test wells, shallow and deep zones are defined as follows:

(a) The shallow zone shall include all formations above the base of the Delaware sand or above a depth of 5000 feet, whichever is the lesser.

(b) The deep zone shall include all formations below the base of the Delaware sand or below a depth of 5000 feet, whichever is the lesser.

(2) Surface Casing String:

(a) A surface casing string of new, second-hand or reconditioned pipe shall be set in the "Red Bed" section of the basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section, as determined necessary by the regulatory representative approving the drilling operations, and shall be cemented with not less than one hundred and fifty percent (150%) of calculated volume necessary to circulate cement to the ground surface.

(b) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(c) Casing and water shut-off tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measure shall be applied.

(ii) 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.

(d) The above requirements for the surface casing string shall be applicable to both the shallow and deep zones.

(3) Salt Protection String:

(a) A salt protection string of new, second-hand or reconditioned pipe shall be set not less than one hundred (100) feet nor more than two hundred (200) feet below the base of the salt section.

(b) The salt protection string shall be cemented as follows:

(i) For wells drilled to the shallow zone, the string may be cemented with a nominal volume of cement for testing purposes only. If the exploratory test well is completed as a productive well, the string must be recemented with sufficient cement to fill the annular space back of the pipe from the top of the first cementing to the surface or to the bottom of the cellar, or (*)

(ii) For wells drilled to the deep zone, the string must be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(c) If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or gamma ray survey and additional cementing shall be done until the cement is brought to the point required.

(d) The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with three percent (3%) of calcium Chloride by weight of cement.

(e) Centralizers shall be spaced on at least every one hundred fifty (150) feet of the salt protection string below the surface casing string.

(*) may be cut and pulled if the production string is cemented to the surface as provided in sub-section (5), (a), (i).

W.N.M.C.F. MICROGRAPHICS

(f) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(g) Casing tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of one thousand (1000) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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.

(h) The above requirements for the salt protection string shall be applicable to both the shallow and deep zones except for sub-section (3) (b) (i) and (ii) above.

(4) Intermediate String:

(a) In the drilling of oil and gas exploratory test wells to the deep zone an intermediate string shall be set at sufficient depth to case-off all formations in the shallow zone and shall be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(b) Cementing procedures and casing tests for the intermediate string shall be the same as provided under sub-sections (3), (c), (f), and (g) for the salt protection string.

(5) Production String:

(a) A production string shall be set on top or through the oil or gas pay zone and shall be cemented as follows:

(i) For wells drilled to the shallow zone the production string shall be cemented to the suface if the salt protection string was cemented only with a nominal volume for testing purposes, in which case the salt protection string can be cut and pulled before the production string is cemented; provided, that

If the salt protection string was cemented to the surface, the production string may be cemented with a volume adequate to protect the pay zone and the casing above such zone.

(ii) For wells drilled to the deep zone the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided that if no intermediate string shall have been run and cemented to the surface, the production string shall be cemented to the surface.

(b) Cementing procedures and casing tests for the production string shall be the same as provided under sub-sections (3), (c), (f), and (g) for the salt protection string.

II. DRILLING FLUID FOR SALT SECTION:

The fluid used while drilling the salt section 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 fluid by the operator in overcoming any specific problem. This requirement is specifically to prevent enlarged drill holes.

III. PLUGGING AND ABANDONMENT OF WELLS:

All wells heretofore and hereafter drilled within the potash area 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.

September 4, 1951

Mr. Guy Shepard
Commissioner of Public Lands
State of New Mexico
Santa Fe, New Mexico

Dear Guy:

Enclosed please find the report of the oil members of your Oil-Potash Committee.

We hope that this report combined with the one submitted by the Potash Members will give you sufficient information and will allow you to issue rules and regulations covering development in the potash area. We hope that these rules and regulations will be issued as soon as convenient.

Kindest personal regards

John M. Kelly

cc: R. R. Spurrier

SEP

PROPOSED RULES AND REGULATIONS FOR ISSUANCE

BY THE NEW MEXICO OIL CONSERVATION COMMISSION

RULES AND REGULATIONS GOVERNING LAND AREAS [illegible] OF OIL, GAS AND POTASH DEPOSITS OF NEW MEXICO STATE LANDS [illegible] PRIVATELY OWNED LANDS [illegible] PROVEN AND POTENTIAL POTASH PRODUCING AREAS, IN FOUR (4) LEA COUNTIES, NEW MEXICO.

I OBJECTIVE:

The objective of these rules and regulations is to secure maximum conservation and economic recovery of oil, gas and potash minerals.

II POTASH AREAS:

(1) These rules and regulations are applicable to the proven and potential potash areas herein defined as Area "A" and Area "B", as follows:

(a) Area "A":

T. 19 S., R. 30 E., Sec. 3, $S\frac{1}{2}$
Secs. 4 and 5, all
Sec. 6, $SE\frac{1}{4}$
Sec. 7, $NE\frac{1}{4}$, $S\frac{1}{2}$
Secs. 8, 9, and 10, all
Sec. 11, $W\frac{1}{2}$
Sec. 14, $W\frac{1}{2}$
Secs. 15 to 16 incl., all
Sec. 20, $SE\frac{1}{4}$
Sec. 21, $S\frac{1}{2}$
Secs. 22 and 23, all
Secs. 25 to 29 incl., all
Secs. 32 to 36 incl., all

T. 20 S., R. 30 E., Secs. 1 to 27 incl., all
Secs. 34, 35 and 36, all

T. 20 S., R. 31 E., Secs. 17 to 20 incl., all
Secs. 29 to 32 incl., all

T. 23 S., R. 29 E., Secs. 1 and 2, all
Sec. 10, $E\frac{1}{2}$
Secs. 11 to 14 incl., all
Sec. 15, $E\frac{1}{2}$
Sec. 24, all
Sec. 35, $E\frac{1}{2}$
Sec. 36, all

[illegible] Sec. [illegible], all
Sec. 31, all

[illegible], R. [illegible] E., Secs. 1 and 2, all
Sec. 5, $S\frac{1}{2}$
Secs. 10 to 15 incl., all
Secs. 22, 23 and 24, all

[illegible], R. 30 E., Secs. 6 and 7, all
Secs. 13 and 18, all

(b) Area "B"

T. 14 S., R. 30 E., Sec. 12, $S\frac{1}{2}$
Secs. 13 and 14, all
Sec. 15, $SE\frac{1}{4}$
Sec. 21, $SE\frac{1}{4}$
Secs. 22, 23 and 24, all
Sec. 25, $W\frac{1}{2}$
Secs. 26, 27 and 28, all
Sec. 29, $SE\frac{1}{4}$
Sec. 32, $NE\frac{1}{4}$, $S\frac{1}{2}$
Secs. 33 and 34, all
Sec. 36, $N\frac{1}{2}$

T. 13 S., R. 21 E., Sec. 18, $W\frac{1}{2}$

T. 13 S., R. 29 E., Sec. 11, $SE\frac{1}{4}$
Sec. 12, $S\frac{1}{2}$
Secs. 13 and 14, all
Sec. 23, $N\frac{1}{2}$
Sec. 24, $N\frac{1}{2}$

T. 13 S., R. 30 E., Sec. 2, all
Sec. 3, $N\frac{1}{2}$
Sec. 11, $N\frac{1}{2}$
Secs. 12 and 13, all
Sec. 14, $E\frac{1}{2}$
Sec. 19, all
Sec. 20, $N\frac{1}{2}$, $SW\frac{1}{4}$
Sec. 21, $N\frac{1}{2}$
Sec. 24, all
Secs. 29 and 30, all

Area "B" (cont.)-

T. 19 S., R. 31 E., Secs. 9 and 10, all
Sec. 11, $W\frac{1}{2}$
Sec. 14, $W\frac{1}{2}$
Secs. 15, 16 and 17, all
Secs. 19 to 22 incl., all
Sec. 23, $W\frac{1}{2}$
Sec. 26, $S\frac{1}{2}$
Secs. 28 to 36 incl., all

T. 19 S., R. 32 E., Sec. 23, $S\frac{1}{2}$
Secs. 24 to 27 incl., all
Sec. 28, $S\frac{1}{2}$
Sec. 31, $S\frac{1}{2}$
Sec. 32, $S\frac{1}{2}$
Secs. 33 to 36 incl., all

T. 19 S., R. 33 E., Secs. 19, 30 and 31, all

T. 20 S., R. 29 E., Sec. 12, $NE\frac{1}{4}SW\frac{1}{4}$, $S\frac{1}{2}SE\frac{1}{4}$
Sec. 13, $NE\frac{1}{4}$, $S\frac{1}{2}$
Secs. 22 to 27 incl., all
Secs. 34, 35 and 36, all

T. 20 S., R. 30 E., Secs. 28 to 33 incl., all

T. 20 S., R. 31 E., Secs. 1 to 16 incl., all
Secs. 21 to 28 incl., all
Secs. 33 to 36 incl., all

T. 20 S., R. 32 E., Secs. 1 to 36 incl., all

T. 20 S., R. 33 E., Secs. 5 to 9 incl., all
Secs. 15 to 23 incl., all
Secs. 25 to 36 incl., all

T. 20 S., R. 34 E., Sec. 31, all

T. 21 S., R. 29 E., Sec. 3, $E\frac{1}{2}$
Sec. 23, $NE\frac{1}{4}$
Sec. 25, all

T. 21 S., R. 30 E., Secs. 1, 2 and 3, all
Secs. 10 and 11, all
Sec. 12, $S\frac{1}{2}$
Secs. 13, 14 and 15, all
Secs. 20, 21 and 22, all
Sec. 23, $N\frac{1}{2}$
Sec. 24, $N\frac{1}{2}$
Secs. 27 to 30 incl., all
Secs. 32 to 34 incl., all
Sec. 35, $S\frac{1}{2}$

Area "B" (Cont.)

T. 21 S., R. 32 E.,	Sec.	1, $S\frac{1}{2}$
	Sec.	2, $E\frac{1}{2}$
	Sec.	4, $W\frac{1}{2}$
	Secs.	5 and 6, all
	Sec.	10, $S\frac{1}{2}$
	Sec.	30, $N\frac{1}{2}$
T. 21 S., R. 32 E.,	Secs.	1 to 17 incl., all
	Secs.	23 to 27 incl., all
	Secs.	34 and 35, all
T. 21 S., R. 33 E.,	Secs.	4 to 9 incl., all
	Secs.	16 to 21 incl., all
	Secs.	28 to 33 incl., all
T. 22 S., R. 29 E.,	Sec.	9, $E\frac{1}{2}$
	Sec.	16, all
	Sec.	17, $E\frac{1}{2}$
	Sec.	20, $E\frac{1}{2}$
	Sec.	21, all
	Secs.	25 to 28 incl., all
	Secs.	33 to 36 incl., all
T. 22 S., R. 30 E.,	Secs.	1 to 5 incl., all
	Secs.	8 to 17 incl., all
	Secs.	20 to 24 incl., all
	Sec.	25, $W\frac{1}{2}$
	Secs.	26 to 35 incl., all
	Sec.	36, $W\frac{1}{2}$
T. 22 S., R. 31 E.,	Secs.	4 to 9 incl., all
	Secs.	17 and 18, all
	Sec.	19, $N\frac{1}{2}$
T. 22 S., R. 33 E.,	Secs.	4, 5 and 8, all
T. 23 S., R. 29 E.,	Secs.	1, 2 and 3, all
	Sec.	4, $E\frac{1}{2}$
	Sec.	9, $E\frac{1}{2}$
	Secs.	10 to 15 incl., all
	Secs.	22 to 27 incl., all
	Secs.	34 to 36 incl., all
T. 23 S., R. 30 E.,	Sec.	1, $S\frac{1}{2}$
	Secs.	2 to 36 incl., all

Area "B" (cont.)

T. 25 S., R. 30 E., Secs. 7, all
Secs. 8, S½
Secs. 16, S½
Secs. 17 to 20 incl., all
Secs. 21, W½
Secs. 28 to 33 incl., all

T. 26 S., R. 30 E., Secs. 4, E½
Secs. 2, W½
Secs. 3, W½

T. 26 S., R. 31 E., Secs. 4, 5 and 6, all

(2) Areas "A" or "B" 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, that oil and gas exploratory test wells shall not be drilled through any open potash mines or within 500 feet thereof unless agreed to in writing by the potash lessee involved.

(b) Any oil or gas leases hereafter issued for lands within Area "A" shall be subject to these regulations and no drilling shall be permitted 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 exploratory test wells in Area "A" shall be further subject to these rules and regulations.

(d) Where oil and gas wells are in production in Area "A", no potash mine opening shall be driven to within less than 100 feet of such wells so that protection of both can be afforded.

(2) Area "B"

(a) Oil and gas exploratory test wells may be drilled in Area "B" in accordance with these rules and regulations.

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

(4) Nothing herein shall be construed to prevent unitization agreements involving lands in Areas "A" or "B".

IV DRILLING AND CASING PROGRAM:

(1) For the purpose of the regulations and the drilling of oil and gas exploratory test wells, shallow and deep zones are defined as follows:

(a) The shallow zone shall include all formations above the base of the Delaware sand or above a depth of 5000 feet, whichever is the lesser.

(b) The deep zone shall include all formations below the base of the Delaware sand or below a depth of 5000 feet, whichever is the lesser.

(2) Surface Casing String:

(a) A surface casing string of new, second-hand or reconditioned pipe shall be set in the "Red Bed" section of the basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section, as determined necessary by the regulatory representative approving the drilling operations, and shall be cemented with not less than one hundred and fifty percent (150%) of calculated volume necessary to circulate cement to the ground surface.

(b) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(c) Casing and water shut-off tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(1) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measure shall be applied.

(ii) If cable tools are used, the pipe 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.

(d) The above requirements for the surface casing string shall be applicable to both the shallow and deep zones.

(3) Salt Protection String:

(a) A salt protection string of new, second-hand or reconditioned pipe shall be set not less than one hundred (100) feet nor more than two hundred (200) feet below the base of the salt section.

(b) The salt protection string shall be cemented as follows:

(i) For wells drilled to the shallow zone, the string may be cemented with a nominal volume of cement for testing purposes only. If the exploratory test well is completed as a productive well, the string shall be recemented with sufficient cement to fill the annular space back of the pipe from the top of the first cementing to the surface or to the bottom of the cellar, or may be cut and pulled if the production string is cemented to the surface as provided in sub-section IV (6), (a), (i) below.

(ii) For wells drilled to the deep zone, the string must be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(c) If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or gamma ray survey and additional cementing shall be done until the cement is brought to the point required.

(d) The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with three percent (3%) of calcium Chloride by weight of cement.

(c) Centralizers shall be placed on the bottom [illegible] one hundred (100) feet of the salt protection string below the lowest salt stringer.

(d) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(e) Casing tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the pipe shall be displaced with water and a hydraulic pressure of one thousand (1000) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) If cable tools are used, the pipe 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.

(f) The above requirements for the salt protection string shall be applicable to both the shallow and deep zones except for sub-section IV (3), (b), (i) and (ii) above.

(4) Intermediate String:

(a) In the drilling of oil and gas exploratory test wells to the deep zone an intermediate string shall be set at sufficient depth to case-off all formations in the shallow zone and shall be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(b) Cementing procedures and casing tests for the intermediate string shall be the same as provided under sub-sections IV (3) (e), (f), and (g) for the salt protection string.

(5) Production String:

(a) A production string shall be set on top or

through the oil or gas pay zone and shall be cemented as follows:

(i) For wells drilled to the shallow zone the production string shall be cemented to the surface if the salt protection string was cemented only with a sufficient volume for testing purposes, in which case the salt protection string can be cut and pulled before the production string is cemented; provided, that if the salt protection string was cemented to the surface, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone.

(ii) For wells drilled to the deep zone the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided that if no intermediate string shall have been run and cemented to the surface, the production string shall be cemented to the surface.

(b) Cementing procedures and casing tests for the production string shall be the same as provided under sub-sections IV (3) (e), (f), and (g) for the salt protection string.

V DRILLING FLUID FOR SALT SECTION

The fluid used while drilling the salt section 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 fluid by the operator in overcoming any specific problem. This requirement is specifically to prevent enlarged drill holes.

VI PLUGGING AND ABANDONMENT OF WELLS:

All wells heretofor and hereafter drilled within Areas "A" and "B" 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.

VII NOTICE FOR WELL SITES:

Before drilling for oil or gas on lands in Area "A" or "B", a map or plat showing the location of the proposed well shall be prepared by the well operator and copy mailed to the potash lessee involved, if any. If no objection to the location of the proposed well is 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.

VIII INSPECTION OF DRILLING AND MINING OPERATIONS:

A representative of the potash lessee may be present during drilling, cementing, casing and plugging of all oil or gas wells on his lease to observe conformance with these regulations. Likewise, a representative of the oil and gas lessee may inspect mine workings on his lease to observe conformance with these regulations.

IX FILING OF WELL AND MINE SURVEYS:

Each oil and gas lessee shall furnish not later than January 31st of each year 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 or gas well drilled in Area "A" during the preceding calendar year. Each potash lessee shall furnish not later than January 31st of each year to the Oil Conservation Commission and to each oil and gas lessee involved, certified plat of survey of the location of open mine workings underlying outstanding oil and gas leases.

X APPLICABILITY OF STATEWIDE RULES AND REGULATIONS:

All general statewide rules and regulations of the Oil Conservation Commission governing the development, operation and production of oil and gas in the State of New Mexico not inconsistent or in conflict herewith, are hereby adopted and made applicable to the areas described herein.

Case No. 278

Order No.

Order of the Commission

By the Commission

The above cause coming on for hearing before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission" on June 21, 1950, and for further hearing on July 10, 1950, and the Commission, a quorum being present, having considered the testimony adduced and the exhibits introduced and arguments presented, and being fully advised in the premises,

Finds (1) That due notice having been given as required by law, and all interested parties having appeared, the Commission has jurisdiction of this cause and of the subject matter thereof.

(2) That the evidence establishes that Potash deposits are encountered in the Delaware sand at approximately 1,000 feet in the vicinity of Potash Mines in Eddy and Lea Counties, New Mexico, and that drilling and producing operations for oil and gas in the vicinity of Potash Mines may result in the loss of large quantities of Potash if adequate measures are not taken to prevent such loss, and that the Commission has jurisdiction of this cause and the subject matter thereof.

(3) That the Commission has heretofore established certain rules and regulations governing the drilling of oil and gas wells in the Potash area in Eddy and Lea Counties, New Mexico, and prescribing certain requirements for the drilling of oil and gas wells in the proved and potential Potash area therein

Drilling & Producing Practices P 5 of draft copy

(2) (3) - ... with 150% of calculated volume necessary to circulate out to the gas & water sufficiently depleted?

Locations for test wells - P 8 of draft copy

VII - Should we require a waiver of objection or some proof that notice has been served on the potash lessee as a condition precedent to issuance of a drilling permit? otherwise how are we to know if this section has been complied with by the oil & gas lessee?

Inspection of drilling & mining operations - P 8 of draft -

How about including provision as to representative can inspect potash mine workings? I believe commission authority under 1949 law is broad enough to do this anyway but suggest we might want to include such a provision here to clarify it.

Sec. 3 Field work.

Set forth the required number of pocket mine
[illegible]

III - Explosives.

Prepare to be tested with regard to test entitled
"A" as shown described will be shown on the mate.

[illegible] rights [illegible]
[illegible] prevention of waste.

It is therefore ordered

(1) That this order shall be known as the Rules and Regulations Governing the Exploration and Production of Oil and Gas ~~in Eddy and Lea Counties~~ herein defined and applicable to the Potash and proposed Potash areas on School and Institutional Lands of the State of New Mexico and upon Privately Owned Lands included in the area and the areas hereinafter set out.

~~(2)~~

I

Objective

The objective of these Rules & Regulations is to ~~assure~~ prevent waste, protect correlative rights, assure maximum conservation of the oil and gas reserves of New Mexico and permit the ~~non-interruption of production~~ continuous economic recovery of Potash minerals in the area hereinafter defined, and

II

The Potash-Oil areas

(1) These Rules and Regulations are applicable to oil and gas operations and to exploration for and production of oil and gas in proven or potential Potash-Oil areas herein defined as "Area A" and "Area B."

(A) Area "A", ~~in accordance with the testimony adduced before the Commission~~, represents the area ~~in which the undersigned finds that at the hearing~~ in general to the Potash, ~~to which actually exploration~~ mining operations are now in progress, and is described as follows:

W.N.M.C.F. MICROGRAPHICS

B. Area "B" is defined as that area in which, ~~[illegible]~~ core tests indicate potential potash reserves, and is described as follows:

(2) Area "A" and "B" as hereinabove defined, may be contracted or expanded from time to time as development may warrant, by the O C C, after due notice and hearing.

III

Exploration of area

(See Copy)

IV

Drilling and Casing Program

(See Copy)

V VI VII VIII IX.

W.N.M.C.F. MICROGRAPHICS

X

Adoption

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

Done at Santa Fe, New Mexico, this ___ day of September, 1951.

State of N.M.
O.C.C.

Commission of Public Lands.

W.N.M.C.F. MICROGRAPHICS

DESCRIPTION OF POTASH MINE WORKINGS, IRRESPECTIVE OF LAND STATUS
9/23/51

Workings of PCA

T. 19 S, R. 30 E
SE/4 section 27
SW/4 section 26
SE/4 33
All 34
NW/4 35

T. 20 S, R. 30 E
NE/4 and W/2 section 3
E/2 and SW/4 section 4
E/2 section 8
W/2 and NE/4 section 9
NW/4 section 10
W/2 section 17

T. 21 S, R. 29 E US Potash
SE/4 section 1
SE/4 section 11
All section 12
N/2 and SE/4 section 13
NE/4 section 14

T. 21 S, R. 30 E
SW/4 section 7
NW/4 section 18

Workings of IM&CC

T. 21 S, R. 29 E
E/2 section 36

T. 21 S, R. 30 E
All section 31

T. 22 S, R. 29 E
E/2 and SW/4 section 1
N/2 section 12

T. 22 S, R. 30 E
N/2 and SW/4 section 6

Shaft of SW Potash

T. 19 S, R. 30 E
SE/4 section 9

Shaft of Duval Sulphur & Potash

T. 20 S, R. 30 E
NE/4 section 35

W.N.M.C.F. MICROGRAPHICS

June 25, 1951

TO ALL MEMBERS OF THE NEW MEXICO OIL AND GAS ENGINEERING COMMITTEE:

Gentlemen:

Attached, hereto, you will find four Exhibits that were presented at the Hearing of the Oil Conservation Commission in Santa Fe, New Mexico, June 21, 1951 and pertain to Case 278 and relate to the drilling for oil in the vicinity of the potash mines in Eddy County, New Mexico.

These Exhibits are as follows:

Exhibit "A" - Casing Program proposed by Committee of the New Mexico Oil and Gas Engineering Committee.

Exhibit "B" - Casing Program for shallow wells above 5000', proposed by American Republics Corporation, Boyd-Plemons Drilling Company, Buffalo Oil Company, Burnham Oil Company, Malco Refineries, Inc., Yates, Robert E. McKee and others.

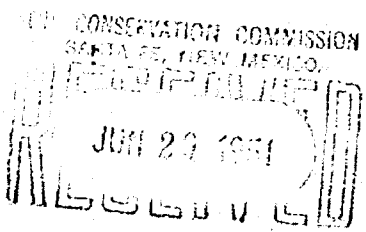
Exhibit "C" - Casing Program for shallow wells down to 6000', proposed by Jones and Watkins Oil Company, Miller and Miller, and Stanley L. Jones.

Exhibit "D" - Telegram from Phillips Petroleum Company protesting temperature surveys on salt string where cement is circulated. Specify centralizers should be spaced certain distance apart instead of saying every third joint.

In order that the operators may have a clear understanding of each others views pertaining to the above Exhibits and any changes or additions that any operator feels should be presented to the Commission, a meeting of all members of this organization and such others as wish to attend will be held in Santa Fe, New Mexico at 4:00 o'clock P. M., La Fonda Hotel on July 9, 1951.

Respectfully submitted,

Glenn Staley
Director



N.M. Oil & Gas Engineering Committee
Hobbs, New Mexico
June 25, 1951

CASING AND CEMENTING PROGRAMS FOR

OIL AND GAS TEST WELLS IN THE "DEFINED AREAS" IN EDDY COUNTY, NEW MEXICO

1. Surface Casing String

In order to protect the fresh water supply, 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 and shall be cemented back to the ground surface or to the bottom of the cellar.

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 per square inch; second-hand and re-conditioned pipe shall be re-tested to 600 pounds per square inch before being run.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string shall be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe. New pipe shall have received a mill test of now less than 1000 pounds per square inch; second-hand and re-conditioned pipe shall be re-tested to 1000 pounds per square inch before being run.

Centralizers shall be used on at least every third joint below surface casing.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. (The water used to mix with the cement shall be saturated with the salts common to the zones penetrated.) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests. If the cement fails to reach the surface, the salt protection casing shall be perforated just above the top of the cement and additional cement jobs done until cement is brought to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

Tests of casing shall vary with the drilling method. 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.

3. Intermediate String

This string may be a drilling protection string for deep drilling objectives or may be an oil string for testing medium depth zones.

a. If a drilling protection string, the casing shall be cemented with a sufficient volume of cement amply to protect this casing and all shall pay zones above the casing shoe, and in every instance this string shall be cemented from a point one thousand (1000) feet below the salt string back to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

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.

CASING AND CEMENTING
PROGRAM FOR SHALLOW
OIL AND GAS TEST WELLS IN
KNOWN POTASH AREAS

CASE NO. 278
EXHIBIT B

The following is a suggested casing program for wells above 5,000 feet and is, of necessity, only general rules for the whole designated potash area, whether designated as Area A, Area B or otherwise. Geological sections change so rapidly in this large, scattered area that individual portions of the area will present individual problems. It is therefore suggested as follows:

A. That the Oil Conservation Commission retain authority to vary this general casing and cementing program to meet a specific condition, without an open hearing before the Commission.

B. That the casing and cementing program herein suggested apply only to the areas embraced in proven commercial deposits of potash, the remainder of the designated potash area to be drilled in accordance with standard, existing practices.

C. The suggested casing and cementing program is as follows:

1. Surface Casing String

In order to protect the fresh water supply, if present, the surface casing string shall be set through the fresh water bearing horizons and cemented with a volume adequate to protect the fresh water and keep it from entering the salt formation.

The surface string may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturers test specifications.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiatin tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string may be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturers test spefifications.

The string may be cemented with a nominal cement volume for testing purposes only, and if commercially productive, the string must be re-cemented with not less than 150% of calculated volume necessary to circulate cement to surface.

W.N.M.C.F. MICROGRAPHICS

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (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 jobs done until cement is brought to that point. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

Test of casing shall vary with the drilling method. 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.

3. Oil Or Production String

This string may 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 salt protection casing shall have been run and commercial production obtained, that string shall be cemented to the surface as provided by 2 above or as provided by 3a in Deep Well program.

D. The undersigned operators, of Eddy County, New Mexico, approve the above and foregoing proposals and recommend its adoption by the Commission.

Respectfully submitted

American Republics Corp. by William B. Macey; Boyd-Plemons Drilling Company by Tom Boyd; Buffalo Oil Company by Ralph L. Gray; Guy Stevenson; J. Grady Wright; E. N. Brock; G. Kelley Stout; (Illegible;) Paton Bros. by H. R. Paton; R. D. Collier; J. W. Berry; Ross Sears; Joe Nunn; J. E. Bedingfield; Burnham Oil Company By E. Jeffers; Malco Refineries, Inc. by Donald E. Anderson; Bassett & Birney by Martin Yates III; Dixon & Yates by Martin Yates III; S. P. Yates; Yates Brothers by S. P. Yates; Resler Oil Company by S. P. Yates; J. R. Lund for Robert E. McKee.

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NEW MEXICO OIL AND GAS ENGINEERING COMMITTEE
DRAWER "EYE"
HOBBS, NEW MEXICO
JUNE 25, 1951

CASING AND CEMENTING
PROGRAM FOR SHALLOW
OIL AND GAS TEST WELLS IN
PROSPECTIVE POTASH AREAS

CASE NO. 278
EXHIBIT C

The following program is a suggestive program for the cementing of pipe and the protecting of the prospective potash horizon from water, oil and gas contamination. This program shall pertain to oil and gas test or wells drilled for the purpose of securing oil and gas, down to a depth of 6000 feet. There should be rules set up for particular areas, naturally based on the amount of surface water and the amount of potash in the salt section, which will be penetrated during the drilling of the proposed oil test. The geological features on the oil structures will call for different programs from time to time. Especially in the districts where potash is present. The commercial potash districts according to geological features and subsurface information that has been secured from old oil test that have been drilled in the past. Also addition information has been secured from districts from recent wells drilled in the various districts. There has also been a considerable amount of coring done by the various companies. All of this information should supply sufficient knowledge to derive at a pipe program satisfactory for all concerned. It is therefore suggested as follows:

1. That the Oil and Gas Conservation Commission retain authorization to issue a pipe program according to the area and district. A program that is sufficient to protect the potash strates at the present and future.

2. A suggestive pipe program for the general area should be as follows:

A. Surface Casing

The surface casing should be set at the top of the salt section. The size should be determined by the operator. The number one suggestion is that the pipe be mudded to the surface by pumping mud around the shoe and behind the pipe to the surface. Allow pipe to set eight hours. Then bale hole dry and test for at least two hours. If water is completely shut off, then the operator shall continue his drilling until he has reached the anhydrite formation. Then the operator should run either number one used pipe or new pipe through the potash and salt section. The operator should then be allowed to pull the surface pipe from the hole. The operator should then be permitted to cement the pipe from the bottom of the salt section to the surface, by circulating cement behind the pipe to the surface, or in such quantities recommended by the cementing concerns and the Oil Conservation Commission. The operator should then be allowed to drill his well and set his production string as he sees fit. He should be allowed to set the size of casing and at a depth he recommends, so long as he uses number one used pipe or new pipe. The amount of cement run behind the production string should be sufficient to come up at least 500 feet above the shoe. This will be adequate cement to protect the oil and gas zones and the formations behind the production string.

B. The next pipe program is recommended as follows:

The surface pipe should be set through the surface water, and cemented by circulating cement behind the pipe to the surface, or else there should be sufficient amount of cement pumped in and around the pipe to come to the surface, under ordinarily conditions. The cement should be allowed to set under pressure not less than 48 hours before drilling same and testing for water. The operator must test for water at least 2 hours. In case there is no water present, he shall then be allowed to carry on drilling operations until he reaches the casing point necessary to set the production string. At this time the potash and salt is protected from

all water hazards. The only hazards existing at this time is the possibility of contaminating the potash with oil and gas. Therefore, the operator should run nothing but A-1 used pipe or new pipe, tonging each joint up as tight as possible to prevent leakage. He shall then be allowed, to pump heavy acquagel mud behind the pipe sufficient to reach and come above the salt and potash section. Then the operator should pump enough cement behind the pipe to come up at least 500 feet behind it, which would be sufficient to seal off any possible chances of oil and gas working its way up behind it. The production string shall be allowed to be set threw or above the oil producing sections as the operator may see fit. The reason for this is that the diffcrent known producing zones are treated differently.

Most of the wells are drilled through-out Eddy County by the cable tool method. Which has the advantages of being able to identify the formations immediately upon topping them and the exact thickness. We are also able to detect immediately the different changes in the formations that takes place. We are also able to test our water zones as to the amount of water and the thickness of the zones. Therefore it is necessary to have a different type of pipe program for this type of drilling than for rotary drilling. The above recommendation are based on cable tool drilling.

These recommendations or suggestions are based on past experience and present drilling operations being carried on in one or more districts. The oil and gas producers of New Mexico are fortunate enough to have the Oil and Gas Conservation Commission to assist us in our problems. They have accumulated information sufficient to guide them in any section of Eddy County, New Mexico. They are known to work and cooperate with the United States Geological Department all times.

The undersigned operator or operators of Eddy County, New Mexico approve whole heartedly the above and foregoing proposals and do hereby recommend these adoptions by the State Land Commission as well as the United States Land Commission.

Respectfully submitted,

/s/ Jones & Watkins Oil Company, Artesia, New Mexico, by Stanley L. Jones; Inc.

/s/ Miller & Miller, Artesia, New Mexico, by Stanley L. Jones,

/s/ Stanley L. Jones, Inc.

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HOBBS, NEW MEXICO.
JUNE 25, 1951

TELEGRAM
BARTLESVILLE, OKLAHOMA
JUNE 21, 1951

CASE NO. 278
EXHIBIT D.

R. R. SPURRIER, SECY.
NEW MEXICO OIL CONSERVATION COMMISSION - SANTA FE, NEW MEXICO.

RE CASE 278 FOR AN ORDER ESTABLISHING A CASING PROGRAM WITHIN THE SO CALLED POTASH AREA OF EDDY AND LEA COUNTIES. PHILLIPS PETROLEUM COMPANY HAS STUDIED PROPOSALS OF VARIOUS OPERATORS WHICH WOULD REQUIRE TEMPERATURE SURVEYS WHERE SALT STRING IS CEMENTED TO SURFACE. IN OUR OPINION CURCULATION SHOULD BE SUFFICIENT EVIDENCE AND WE OBJECT TO THE REQUIREMENT OF TEMPERATURE SURVEYS BECAUSE SUCH SURVEYS WILL NOT REVEAL ADDITIONAL INFORMATION. ALSO IN OUR OPINION, ON SHALLOW WELLS, IF NO INTERMEDIATE STRING, IS RUN THE OIL STRING SHOULD BE REQUIRED TO BE CEMENTED SOLID TO THE SURFACE TO AVOID POSSIBLE LEAKS AND IN THIS CASE WE ALSO OBJECT TO REQUIREMENT OF GAMMA RAY OR TEMPERATURE LOGS FOR SAME REASON THAT THEY SHOW NO MORE THAN IS INDICATED BY OBTAINING CIRCULATION OF CEMENT.

OPERATORS SUGGESTION THAT CENTRALIZERS BE PLACED ON EVERY THIRD JOINT OF SALT STRING SHOULD BE AMENDED TO PROVIDE LENGTH OF SUCH JOINTS OR CENTRALIZERS SHOULD BE SPACED CERTAIN DISTANCE APART. OTHERWISE PHILLIPS PETROLEUM COMPANY CONCURS WITH PROPOSALS OF OTHER OPERATORS AS SET FORTH IN RECENT MEMORANDUM OF NEW MEXICO OIL AND GAS ENGINEERING COMMITTEE.

C. P. DIMIT

PHILLIPS PETROLEUM COMPANY

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HOBBS, NEW MEXICO.
JUNE 25, 1951

Potash Cy A Case 278

153 wells

All Leases within Heavy Line
Area B Area except
Shaded Portion which
is A Area

EDDY COUNTY

LEA COUNTY

SW PC

USA

USA

Outlined Area B

AREA "A"

B Area

LEGEND

"A" Area — Federal — STATE

Outline Defined Area.

B Area

THE NATIONAL ARCHIVES
LITTERA SCRIPTA MANET
1934
OF THE UNITED STATES

FEDERAL REGISTER

VOLUME 16 NUMBER 203

Washington, Thursday, October 18, 1951

TITLE 7—AGRICULTURE

Chapter IX—Production and Marketing Administration (Marketing Agreements and Orders), Department of Agriculture

[Grapefruit Reg. 79]

PART 955—GRAPEFRUIT GROWN IN ARIZONA; IN IMPERIAL COUNTY, CALIF.; AND IN THAT PART OF RIVERSIDE COUNTY, CALIF., SITUATED SOUTH AND EAST OF THE SAN GORGONIO PASS

LIMITATION OF SHIPMENTS

§ 955.340 *Grapefruit Regulation 79*—(a) *Findings.* (1) Pursuant to the marketing agreement, as amended, and Order No. 55, as amended (7 CFR Part 955), regulating the handling of grapefruit grown in the State of Arizona; in Imperial County, California; and in that part of Riverside County, California, situated south and east of the San Gorgonio Pass, effective under the applicable provisions of the Agricultural Marketing Agreement Act of 1937, as amended, and upon the basis of the recommendations of the Administrative Committee (established under the aforesaid amended marketing agreement and order), and upon other available information, it is hereby found that the limitation of shipments of grapefruit, as hereinafter provided, will tend to effectuate the declared policy of the act.

(2) It is hereby further found that it is impracticable and contrary to the public interest to give preliminary notice, engage in public rule making procedure, and postpone the effective date of this section until 30 days after publication thereof in the FEDERAL REGISTER (60 Stat. 237; 5 U. S. C. 1001 et seq.) because the time intervening between the date when information upon which this section is based became available and the time when this section must become effective in order to effectuate the declared policy of the act is insufficient, and a reasonable time is permitted, under the circumstances, for preparation for such effective date. The Administrative Committee held an open meeting on October 4, 1951, to consider recommendations for a regulation, after giving due notice of such meeting, and interested persons were afforded an opportunity to submit their views at this meeting; information regarding the provisions of the regulation recommended by the committee has been disseminated to shippers of grapefruit, grown as aforesaid, and this section, including the effective time thereof, is identical with the recommendation of the committee; it is necessary, in order to effectuate the declared policy of the act, to make this section effective on the date hereinafter set forth so as to provide for the regulation of the handling of the grapefruit at the start of this marketing season; and compliance with this section will not require any special preparation on the part of persons subject thereto which cannot be completed on or before the effective date hereof.

(b) *Order.* (1) During the period beginning at 12:01 a. m., P. s. t., October 21, 1951, and ending at 12:01 a. m., P. s. t., December 16, 1951, no handler shall ship:

(i) Any grapefruit of any variety grown in the State of Arizona; in Imperial County, California; or in that part of Riverside County, California, situated south and east of the San Gorgonio Pass unless such grapefruit are at least fairly well colored, and otherwise grade at least U. S. No. 2; or

(ii) From the State of California or the State of Arizona (*a*) to any point outside thereof in the United States, any grapefruit, grown as aforesaid, which are of a size smaller than 3 1/16 inches in diameter, or (*b*) to any point in Canada, any grapefruit, grown as aforesaid, which are of a size smaller than 3 1/16 inches in diameter ("diameter" in each case to be measured midway at a right angle to a straight line running from the stem to the blossom end of the fruit), except that a tolerance of 5 percent, by count, of grapefruit smaller than the foregoing minimum sizes shall be permitted which tolerance shall be applied in accordance with the provisions for the application of tolerance, specified in the revised United States Standards for Grapefruit (California and Arizona), 7 CFR 51.241: *Provided*, That, in determining the percentage of grapefruit in any lot which are smaller than 3 1/16 inches in diameter, such percentage shall be based only on the grapefruit in such lot which are of a size 4 7/16 inches in diameter and smaller; and in determining the percentage of grapefruit in any

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Published daily, except Sundays, Mondays, and days following official Federal holidays, by the Federal Register Division, National Archives and Records Service, General Services Administration, pursuant to the authority contained in the Federal Register Act, approved July 26, 1935 (49 Stat. 500, as amended; 44 U. S. C., ch. 8B), under regulations prescribed by the Administrative Committee of the Federal Register, approved by the President. Distribution is made only by the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

The regulatory material appearing herein is keyed to the Code of Federal Regulations, which is published, under 50 titles, pursuant to section 11 of the Federal Register Act, as amended June 19, 1937.

The FEDERAL REGISTER will be furnished by mail to subscribers, free of postage, for $1.50 per month or $15.00 per year, payable in advance. The charge for individual copies (minimum 15¢) varies in proportion to the size of the issue. Remit check or money order, made payable to the Superintendent of Documents, directly to the Government Printing Office, Washington 25, D. C.

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lot which are smaller than 3 3/16 inches in diameter, such percentage shall be based only on the grapefruit in such lot which are of a size 3 3/16 inches in diameter and smaller.

(2) As used in this section, "handler," "variety," "grapefruit," and "ship" shall have the same meaning as when used in said amended marketing agreement and order; and the terms "U. S. No. 2" and "fairly well colored" shall each have the same meaning as when used in the revised United States Standards for Grapefruit (California and Arizona), 7 CFR 51.241.

(Sec. 5, 49 Stat. 753, as amended; 7 U. S. C. and Sup. 608c)

Done at Washington, D. C., this 15th day of October 1951.

[SEAL] S. R. SMITH,
Director, Fruit and Vegetable Branch, Production and Marketing Administration.

[F. R. Doc. 51-12537; Filed, Oct. 17, 1951; 9:03 a. m.]

PART 984—WALNUTS GROWN IN CALIFORNIA, OREGON AND WASHINGTON

SALABLE, SURPLUS, AND WITHHOLDING PERCENTAGES

Notice of proposed rule making with respect to the fixing of salable, surplus, and withholding percentages of walnuts for the 1951–52 marketing year was published in the FEDERAL REGISTER of September 12, 1951 (16 F. R. 9268), pursuant to the provisions of Marketing Agreement No. 105 and Order No. 84 regulating the handling of walnuts grown in California, Oregon, and Washington (7 CFR Part 984), effective under the Agricultural Marketing Agreement Act of 1937, as amended (7 U. S. C. 601 et seq.). In said notice, in which it was proposed to fix the salable percentage of merchantable walnuts for the 1951–52 marketing year at 80 percent, the surplus percentage at 20 percent, and the withholding percentage at 25 percent, opportunity was afforded interested parties to submit to the Department written data, views, or arguments for consideration prior to the issuance of the final rule. No such documents were received during the period specified in the notice.

It is hereby found and determined that good cause exists for making this document effective five days after publication in the FEDERAL REGISTER, instead of waiting thirty days after publication, for the reasons that (1) it is desirable that the percentages be fixed prior to any handling of the 1951 crop of walnuts, (2) operations of handlers under the marketing agreement and order program will not require preparation with respect to the application of the percentages fixed herein which cannot be made within five days after publication of this rule in the FEDERAL REGISTER, and (3) the handling of 1951 crop walnuts will be imminent thereafter.

After consideration of all relevant matters, the percentages are fixed as follows:

§ 984.203 *Salable, surplus, and withholding percentages for merchantable walnuts during the 1951–52 marketing year.* For merchantable walnuts, during the 1951–52 marketing year, the salable percentage shall be 80 percent, the surplus percentage shall be 20 percent, and the withholding percentage shall be 25 percent.

(Sec. 5, 49 Stat. 753, as amended; 7 U. S. C. and Sup. 608c)

Issued at Washington, D. C., this 15th day of October 1951, to become effective at 12:01 a. m., P. s. t., on the fifth day after publication of this document in the FEDERAL REGISTER.

[SEAL] S. R. SMITH,
Director, Fruit and Vegetable Branch.

[F. R. Doc. 51-12535; Filed, Oct. 17, 1951; 9:02 a. m.]

PART 993—DRIED PRUNES PRODUCED IN CALIFORNIA

AMENDMENTS OF AMENDED ADMINISTRATIVE RULES AND PROCEDURES

Pursuant to the applicable provisions of the marketing agreement, as amended, and order, as amended (16 F. R. 8437), regulating the handling of dried prunes produced in California (hereinafter referred to as the "order"), effective under the Agricultural Marketing Agreement Act of 1937, as amended (48 Stat. 31, as amended; 7 U. S. C. 601 et seq.), the Prune Administrative Committee (the administrative agency for operations under the order) has submitted, for the approval of the Secretary of Agriculture,

amendments of the amended administrative rules and procedures governing its operations, which are set forth hereinafter. After consideration of all pertinent available information, it is concluded that said amendments of the amended administrative rules and procedures should be approved.

Therefore, it is hereby ordered, That the aforesaid amended administrative rules and procedures (16 F. R. 9367) be further amended as hereinafter set forth.

It is hereby found that it is impracticable, unnecessary, and contrary to the public interest to give preliminary notice, engage in public rule making procedure, and postpone the effective date of said amendments of the amended administrative rules and procedures more than two days after the date of publication in the FEDERAL REGISTER (see section 4 of the Administrative Procedure Act; 5 U. S. C. 1001 et seq.) in that: (1) The marketing of the current crop of prunes has already begun, and said amendments are needed promptly for use in connection with regulations under this part; (2) handlers generally are familiar with the contents of said amendments, and their representatives on the committee participated in their formulation; and (3) the circumstances are such that handlers do not need more than two days' advance notice after the date of publication in the FEDERAL REGISTER to prepare for compliance with the provisions of said amendments of the amended administrative rules and procedures.

The amendments of the amended administrative rules and procedures are as follows:

1. Insert at the end of § 993.103 two new sections numbered § 993.104 and § 993.105, and which read as follows:

§ 993.104 *Tender.* "Tender" as used in § 993.148 and § 993.150 (a) means any quantity of prunes which is tendered to a handler by a producer or dehydrator in any one day in one or more containers or on one or more conveyances and which is treated as a single unit of delivery by the handler.

§ 993.105 *Lot.* "Lot" as used in § 993.148 and § 993.150 (a) means (a) any number of tenders accepted by a handler from one producer or from one dehydrator, the net weight of which does not exceed 50,000 pounds in the aggregate, or (b) in the event a single tender has a net weight in excess of 50,000 pounds, any portion of such tender, the net weight of which does not exceed 50,000 pounds: *Provided,* That no lot shall include prunes of any tender that is not tentatively accepted by the handler on the same day as other tenders included in such lot, except that this time limitation shall not apply to prunes tendered exclusively in "ton box" containers: *And provided further,* That each lot of prunes shall be reasonably uniform in quality and condition, and shall not include any container of prunes which obviously is inferior in quality or condition to the quality and condition of the prunes in the rest of the containers in such lot.

2. Amend the provisions of § 993.148 (b) and (c) (1) and (2) to read as follows:

(b) *Incoming inspection—(1) General.* For each tender of prunes made to a handler by a producer or dehydrator, the handler shall, immediately upon tentative acceptance thereof, issue to the producer or dehydrator a door receipt or weight certificate showing the name and address of such producer or dehydrator, the weight of the tender, and any other information necessary to identify the tender. Any prunes so tendered to a handler must, prior to their acceptance, be inspected at an inspection station, and in order to be received as standard prunes must be certified as standard prunes. The handler shall identify each tender tentatively accepted by him pending inspection with its corresponding door receipt or weight certificate until the prunes in such tender have been inspected and accepted by him or returned to the producer or dehydrator tendering the prunes. A separate inspection shall be made of each lot and an inspection certificate shall be limited to the prunes included in one lot. Certification of any lot shall be made and computed on the basis of the net weight of prunes included in such lot, and the handler shall supply such information to the inspector. At the time of inspection of any lot, the handler shall provide the inspector with any assistance necessary in drawing samples. When necessary, in order to perform proper inspection, the inspector may require the handler to dump containers to permit proper sampling. Each lot shall be inspected immediately following tentative acceptance by a handler of all of the prunes to be included in such lot, except that any lot of prunes tendered to a handler by a producer or dehydrator in "ton box" containers which cannot be dumped for sampling at the time of such acceptance, because of inadequate handling equipment, may be held for later inspection: *Provided,* That each lot of prunes so held is identified by the handler to the satisfaction of the inspector until the lot is inspected. After inspection, each lot of prunes shall be promptly accepted by the handler or returned to the producer or dehydrator. When a lot of prunes is inspected at other than a handler's plant, the inspector shall forward with such lot to the handler, the handler's copies of the certificate.

(2) *Certification.* Following inspection of a lot, the inspector shall issue, in quintuplicate, a signed certificate containing the following information: (i) The date and place of inspection; (ii) the names and addresses of the producer or dehydrator, the handler, and the inspection agency; (iii) the variety of the prunes, the county in which such prunes were produced, the number and type of the containers thereof, and the net weight of the prunes as shown on the applicable door receipt(s) or weight certificate(s), together with the number of such receipt(s) or certificate(s); (iv) whether the prunes are standard, substandard to be held for the account of the committee, or substandard accepted on an appraisal basis; (v) the inspector's computations of the percentage of each group or combination of groups of defects for which a maximum tolerance has been established under the order, and which is then in effect; and (vi) if tendered as substandard to be held for the account of the committee, the average size count of the prunes in the lot, or, if accepted on an appraisal basis, the percentage of off-grade prunes of each group or combination of groups of defects necessary to be removed therefrom for the remainder to be standard prunes, and the size count of the off-grade prunes in the lot.

(c) *Conditional provisions—(1) Wet or slack-dry prunes.* Any prunes tendered to a handler by a producer or dehydrator which an inspector determines have not been properly dried and cured in original natural condition, or which show evidence of the addition thereto of water, may be accepted by the handler for the account of the producer or dehydrator for conditioning by further drying or dehydration: *Provided,* That such lot of prunes shall be identified and kept separate and apart from any other prunes in the handler's possession until resubmitted for inspection and certificated, or returned to the producer or dehydrator. At the time of the original determination by the inspector, he shall assign to such lot of wet or slack-dry prunes an inspection certificate number, and he shall make record of the following information: (i) The place and date the inspection was commenced; (ii) the names and addresses of the producer or dehydrator and handler; and (iii) the variety of the prunes, the county in which such prunes were produced, the number and type of containers thereof, and the net weight of the prunes as shown on the applicable door receipt(s) or weight certificate(s), together with the number of such receipt(s) or certificate(s). Following conditioning of such wet or slack-dry prunes by the handler to the satisfaction of the inspector, the inspector shall, unless the prunes are to be returned to the producer or dehydrator, complete the inspection thereof and issue the certificate assigned to such lot in accordance with his findings, indicating thereon the net weight after conditioning and indicating thereon that such lot was inspected following proper conditioning thereof by the handler, and showing the place and date the inspection was completed.

(2) *Prunes with active insect infestation.* Any prunes tendered to a handler by a producer or dehydrator, which an inspector determines are not free from active insect infestation, may be accepted by the handler for the account of the producer or dehydrator for conditioning by fumigation: *Provided,* That such lot shall be identified and kept separate and apart from any other prunes in the handler's possession until resubmitted for inspection and certificated, or returned to the producer or dehydrator. At the time of such original determination by the inspector, he shall assign to such lot of infested prunes an inspection certifi-

cate number, and he shall make record of the following information: (i) The place and date the inspection was commenced; (ii) the names and addresses of the producer or dehydrator and the handler; and (iii) the variety of the prunes, the county in which such prunes were produced, the number and type of containers thereof, and the net weight of the prunes as shown on the door receipt(s) or weight certificate(s), together with the number of such receipt(s) or certificate(s). Following fumigation of such infested prunes to the satisfaction of the inspector, the inspector shall, unless the prunes are to be returned to the producer or dehydrator, complete the inspection thereof and issue the certificate assigned to such lot in accordance with his findings, indicating thereon that such lot was inspected following fumigation thereof by the handler and showing the place and date inspection was completed.

3. Amend the provisions of § 993.150 (a) (3) to read as follows:

(3) The variety of the prunes, the county in which such prunes were produced, the number and type of containers thereof, and the net weight of the prunes as shown on the door receipt(s) or weight certificate(s), together with the number of such receipt(s) or certificate(s);

(Sec. 5, 49 Stat. 753, as amended; 7 U. S. C. and Sup. 608c)

Issued at Washington, D. C., this 15th day of October 1951, to become effective on the third day after publication in the FEDERAL REGISTER.

[SEAL] CHARLES F. BRANNAN, *Secretary of Agriculture.*

[F. R. Doc. 51-12539; Filed, Oct. 17, 1951; 9:04 a. m.]

TITLE 16—COMMERCIAL PRACTICES

Chapter I—Federal Trade Commission

[Docket 5484]

PART 3—DIGEST OF CEASE AND DESIST ORDERS

CLAY SEWER PIPE ASSOCIATION, INC., ET AL.

Subpart—*Aiding, assisting and abetting unfair or unlawful act or practice:* § 3.290 *Aiding, assisting and abetting unfair or unlawful act or practice.* Subpart—*Combining or conspiring:* § 3.400 *To discriminate or stabilize prices through basing point or delivered price systems;* § 3.405 *To discriminate unfairly or restrictively in general;* § 3.430 *To enhance, maintain or unify prices.* Subpart—*Selling and quoting on systematic price matching bases:* § 3.2193 *Zone, freight equalization and other delivered price systems.* I. In connection with the offering for sale, sale, or distribution in commerce, of vitrified clay sewer pipe, or fittings, and on the part of seventeen corporate manufacturers of such products, and their respective officers, entering into, continuing, cooperating in, or carrying out, any planned common course of action, understanding, agreement, combination or conspiracy between or among any two or more of said respondents, or between any one or more of said respondents and others not parties hereto, to (1) fix or maintain prices for vitrified clay sewer pipe or fittings; (2) compose or announce prices for vitrified clay sewer pipe or fittings, for any destination at which the respondents quote prices or sell their products, through the use of or in accordance with a basic price list, or percentage discounts therefrom; (3) use in common any freight rate compilation as a factor in fixing or announcing prices of vitrified clay sewer pipe or fittings; (4) use in common a zoning method of computing or formulating delivered price quotations for any such products; (5) discriminate in price between or among their respective customers by systematically charging and accepting prices which differ by the amounts necessary to produce delivered costs to purchasers identical with delivered costs available to such purchasers through purchases from other respondents; (6) establish or maintain uniform terms or conditions of sale to dealers, or allocate sales between and among the respondents or dealers; or, (7) establish or maintain a list of jobbers, the terms and conditions of sales to jobbers, or allocate sales between and among the respondents or jobbers; and, II, collectively, concertedly, or by combination of two or more of twelve of the aforesaid respondents (members of respondent association), using said association as a medium for promoting, aiding, or rendering more effective any cooperative or concerted efforts to suppress or eliminate competition in any of the respects hereinbefore set forth in clauses (1) to (7), inclusive; on the part of the aforesaid twelve respondents, their officers, etc., and, III, knowingly contributing to the accomplishment of any of the acts, practices, or things thus prohibited, on the part of respondent association, and the seventeen other corporate manufacturers joined in the case, and on the part of their respective officers, etc.; prohibited, subject to the provision, however, that wherever and whenever the terms "continuing" and "planned common course of action" are used, the Federal Trade Commission interprets the said terms as set forth in the decision of the Supreme Court of the United States in the case entitled Federal Trade Commission v. Cement Institute, and reported in 333 United States Reports 683, at pp. 727 and 728, and in the decision of the United States Circuit Court of Appeals, Fourth Circuit, in the case entitled American Chain & Cable Co. v. Federal Trade Commission, and reported in 139 Federal Reporter, Second Series, 622, and in including said terms in the order, uses them, and each of them, in the meaning set forth in said decisions; and to the provision that nothing contained in the order shall be construed as prohibiting the establishment or maintenance of any lawful bona fide agreements, discussions or other action solely between any corporate respondent and its directors, officers and employees, or between any corporate respondent and any of its subsidiaries or affiliates, and relating solely to the carrying on of the business of such corporation and its subsidiaries or affiliates, when not for the purpose or with the effect of restricting competition; and to the further provision that nothing contained in the order or in the understanding in connection therewith shall be construed to affect the duty, authority or power of the Federal Trade Commission to reopen the proceeding and alter, modify or set aside in whole or in part any provision of the order whenever in the opinion of the Federal Trade Commission conditions of fact or of law have so changed as to require such action, nor to prevent representatives of either the Federal Trade Commission or of the respondents, or any of them, from moving to so alter, modify or set aside in whole or in part any provision of the order.

(Sec. 6, 38 Stat. 722; 15 U. S. C. 46, Interprets or applies sec. 5, 38 Stat. 719, as amended; 15 U. S. C. 45) [Cease and desist order, Clay Sewer Pipe Association, Inc., et al., Docket 5484, August 20, 1951]

In the Matter of Clay Sewer Pipe Association, Inc., American Vitrified Products Company, The Brockway Clay Company, The Clay City Pipe Company, Dennison Sewer Pipe Corporation, The Evans Pipe Company (the Estate of T. T. Evans and the Estate of Eugene Evans, Copartners), Graff-Kittaning Clay Products Company, Grand Ledge Clay Product Company, The Junction City Clay Company, The Kaul Clay Manufacturing Company, Patton Clay Manufacturing Company, The Peerless Clay Manufacturing Company, The Robinson Clay Product Company, The Ross Clay Products Company, St. Mary's Sewer Pipe Company, Stillwater Clay Products Company, The Stratton Fire Clay Company, Superior Clay Corporation, The Union Clay Manufacturing Company, Universal Sewer Pipe Corporation

This proceeding was first heard by W. W. Sheppard, trial examiner theretofore duly designated by the Commission, upon the complaint of the Commission, and the filing of respondent's answers thereto, in which the allegations of the complaint were denied in substantial part, and following which, offers of settlement were made and agreed to by all counsel for submission to the Commission at a hearing at Columbus, Ohio, on December 9, 1947.

Thereafter, following the Commission's due consideration of said offers, and further negotiation between all counsel, its rejection of the settlement tendered and direction that hearing be held for trial of the issues, and the retirement from the Government service of said W. W. Sheppard, a hearing was held at Columbus on June 12, 1951, before Frank Hier, designated as substitute trial examiner, at which testimony was received in support of the allegations of the complaint, pursuant to arrangement between counsel in support of the complaint and counsel for respondents, looking toward an agreed settlement.

At said hearing respondents by their counsel tendered waivers which were incorporated into the record by which they waived the right to offer any testimony in opposition to the charges in the complaint, the right to submit any findings and conclusions, the right of oral argu-

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ment and any challenge or contest to the validity of the record herein or to the findings of fact or conclusion of the trial examiner and the Commission if such findings of fact and conclusion shall be the same as those agreed upon by counsel, on the ground that such findings do not have substantial support in the record or that they do not support the order of the trial examiner or the Commission.

Thereafter the proceeding regularly came on for final consideration upon the complaint, the answers, evidence, waivers, proposed findings as to the facts and conclusion and the proposed order agreed to and submitted by all counsel, and said trial examiner, having duly considered the matter and having found that the proceeding was in the interest of the public, made his initial decision, comprising certain findings as to the facts, conclusion drawn therefrom and order, including order to cease and desist, and order of dismissal as to certain respondents.

No appeal having been filed from said initial decision of said trial examiner as provided for in Rule XXII, nor any other action taken as thereby provided to prevent said initial decision becoming the decision of the Commission thirty days from service thereof upon the parties, said initial decision, including said order to cease and desist, accordingly, under the provisions of said Rule XXII became the decision of the Commission on August 20, 1951.

Said order reads as follows:

It is ordered, That the respondents, American Vitrified Products Company, The Brockway Clay Company, Clay City Pipe Company, Dennison Sewer Pipe Corporation, Graff-Kittaning Clay Products Company, Grand Ledge Clay Product Company, The Junction City Clay Company, The Kaul Clay Manufacturing Company, The Logan Clay Products Company, Patton Clay Manufacturing Company, Robinson Clay Product Company, The Ross Clay Products Company, St. Marys Sewer Pipe Company, The Stillwater Clay Products Company, The Stratton Fire Clay Company, Superior Clay Corporation and Universal Sewer Pipe Corporation, and their respective officers, agents, representatives and employees, in or in connection with the offering for sale, sale or distribution in commerce between and among the several States of the United States and in the District of Columbia of vitrified clay sewer pipe, or fittings, do forthwith cease and desist from entering into, continuing, cooperating in, or carrying out, any planned common course of action, understanding, agreement, combination or conspiracy between or among any two or more of said respondents, or between any one or more of said respondents and others not parties hereto, to do or perform any of the following acts, practices or things:

1. Fixing or maintaining prices for vitrified clay sewer pipe or fittings.

2. Composing or announcing prices for vitrified clay sewer pipe or fittings, for any destination at which the respondents quote prices or sell their products, through the use of or in accordance with a basic price list, or percentage discounts therefrom.

3. Using in common any freight rate compilation as a factor in fixing or announcing prices of vitrified clay sewer pipe or fittings.

4. Using in common a zoning method of computing or formulating delivered price quotations for any such products.

5. Discriminating in price between or among their respective customers by systematically charging and accepting prices which differ by the amounts necessary to produce delivered costs to purchasers identical with delivered costs available to such purchasers through purchases from other respondents.

6. Establishing or maintaining uniform terms or conditions of sale to dealers, or allocating sales between and among the respondents or dealers.

7. Establishing or maintaining a list of jobbers, the terms and conditions of sales to jobbers, or allocating sales between and among the respondents or jobbers.

Provided, however, That wherever and whenever the terms "continuing" and "planned common course of action" are used herein, the Federal Trade Commission interprets the said terms as set forth in the decision of the Supreme Court of the United States in the case entitled Federal Trade Commission v. Cement Institute, and reported in 333 United States Reports 683, at pp. 727 and 728, and in the decision of the United States Circuit Court of Appeals, Fourth Circuit, in the case entitled American Chain & Cable Co. v. Federal Trade Commission, and reported in 139 Federal Reporter, Second Series, 622, and in including said terms in this order, uses them, and each of them, in the meaning set forth in said decisions.

It is further ordered, That the respondents, American Vitrified Products Company, Clay City Pipe Company, Dennison Sewer Pipe Corporation, Graff-Kittaning Clay Products Company, Grand Ledge Clay Product Company, The Junction City Clay Company, The Kaul Clay Manufacturing Company, The Logan Clay Products Company, Robinson Clay Product Company, The Ross Clay Products Company, The Stillwater Clay Products Company and Superior Clay Corporation, and their respective officers, agents, representatives and employees, do forthwith cease and desist from collectively, concertedly, or by combination of two or more of said respondents, using or maintaining the Clay Sewer Pipe Association, Inc., as a medium for promoting, aiding, or rendering more effective any cooperative or concerted efforts to suppress or eliminate competition in any of the respects set forth in the immediately preceding paragraphs 1 to 7, inclusive, of this order.

It is further ordered, That each of the respondents, Clay Sewer Pipe Association, Inc., American Vitrified Products Company, The Brockway Clay Company, Clay City Pipe Company, Dennison Sewer Pipe Corporation, Graff-Kittaning Clay Products Company, Grand Ledge Clay Products Company, The Junction City Clay Company, The Kaul Clay Manufacturing Company, The Logan Clay Products Company, Patton Clay Manufacturing Company, Robinson Clay Products Company, The Ross Clay Products Company, St. Marys Sewer Pipe Company, The Stillwater Clay Products Company, The Stratton Fire Clay Company, Superior Clay Corporation and Universal Sewer Pipe Corporation, and their respective officers, agents, representatives and employees, do forthwith cease and desist from knowingly contributing to the accomplishment of any of the acts, practices, or things prohibited in paragraphs 1 to 7, inclusive, of this order.

It is further ordered, That nothing contained in this order shall be construed as prohibiting the establishment or maintenance of any lawful bona fide agreements, discussions or other action solely between any corporate respondent and its directors, officers and employees, or between any corporate respondent and any of its subsidiaries or affiliates, and relating solely to the carrying on of the business of such corporation and its subsidiaries or affiliates, when not for the purpose or with the effect of restricting competition.

Provided, however, That nothing contained in this order or the understandings in connection herewith shall be construed to affect the duty, authority or power of the Federal Trade Commission to reopen this proceeding and alter, modify or set aside in whole or in part any provision of this order whenever in the opinion of the Federal Trade Commission conditions of fact or of law have so changed as to require such action, nor to prevent representatives of either the Federal Trade Commission or of the respondents, or any of them, from moving to so alter, modify or set aside in whole or in part any provision of this order.

It is further ordered, For reasons appearing in the Commission's findings as to the facts in this proceeding, that the allegations of Count I of the Complaint herein be, and they hereby are, dismissed as to The Evans Pipe Company (the estate of T. T. Evans and the estate of Eugene Evans, copartners), The Peerless Clay Manufacturing Company, and The Union Clay Manufacturing Company, and that the allegations of Count II of the complaint be, and they hereby are, dismissed as to all of the respondents.

It is further ordered, That the respondents (except The Evans Pipe Company (the estate of T. T. Evans and the estate of Eugene Evans, copartners), The Peerless Clay Manufacturing Company, and The Union Clay Manufacturing Company) shall, within sixty (60) days after service upon them of this order, file with the Commission a report in writing setting forth in detail the manner and form in which they have complied with this order.

By "Decision of the Commission and order to file report of compliance", Docket 5484, August 20, 1951, which announced and decreed fruition of said initial decision, report of compliance with the said order was required as follows:

It is ordered, That the respondents herein shall, within sixty (60) days after service upon them of this order, file with

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the Commission a report in writing setting forth in detail the manner and form in which they have complied with the order to cease and desist.

Issued: August 20, 1951.

By the Commission.

[SEAL] D. C. DANIEL, *Secretary.*

[F. R. Doc. 51-12502; Filed, Oct. 17, 1951; 8:52 a. m.]

TITLE 19—CUSTOMS DUTIES

Chapter I—Bureau of Customs, Department of the Treasury

[T. D. 52842]

PART 8—LIABILITY FOR DUTIES, ENTRY OF IMPORTED MERCHANDISE

EXTRACTS FROM INVOICES

To authorize collectors to deliver extracts of certified invoices to importers who request them upon the payment of the fee provided for in § 24.12 (b), Customs Regulations of 1943 (19 CFR 24.12 (b)), in lieu of the present practice of the collector at the port of certification of the extract transmitting such extracts to the collector at the port where it is to be used, § 8.11 (b), Customs Regulations of 1943 (19 CFR 8.11 (b)), is amended by deleting the second sentence and substituting the following: "The certified extract shall be delivered to the importer by the collector after the official seal is affixed thereto."

The said section is further amended by changing the period at the end of the last sentence to a comma and adding the following: "or to the last prior extract."

(Sec. 624, 46 Stat. 759; 19 U. S. C. 1624)

FRANK DOW, *Commissioner of Customs.*

Approved: October 11, 1951.

E. H. FOLEY, *Acting Secretary of the Treasury.*

[F. R. Doc. 51-12503; Filed, Oct. 17, 1951; 8:56 a. m.]

Chapter II—United States Tariff Commission

PART 201—RULES OF GENERAL APPLICATION

PART 206—INVESTIGATIONS REGARDING PRODUCTS ON WHICH POSSIBLE TARIFF CONCESSIONS WILL BE CONSIDERED IN TRADE-AGREEMENT NEGOTIATIONS

PART 207—INVESTIGATIONS OF INJURY TO DOMESTIC PRODUCERS ON ACCOUNT OF IMPORTS OF PRODUCTS ON WHICH TRADE-AGREEMENT CONCESSIONS HAVE BEEN GRANTED

AMENDMENT OF RULES OF PRACTICE AND PROCEDURE

Under the authority of sections 333, 336, and 337 of the Tariff Act of 1930 (secs. 332, 336, 337, 46 Stat. 698, 701, 703; 19 U. S. C. 1332, 1336, 1337), section 504 of the Philippine Trade Act (60 Stat. 156; 22 U. S. C. 1354), and section 22 of the Agricultural Adjustment Act, as amended (Pub. Law 579, 81st Cong., and Pub. Law 50, 82d Cong.), and in accordance with sections 3 and 7 of the Trade Agreements Extension Act of 1951 (Pub. Law 50, 82d Cong.), the rules of practice and procedure of the United States Tariff Commission (14 F. R. 7289 et seq.; 19 CFR Ch. II) are hereby amended as follows:

1. Section 201.1 is amended to read as follows:

§ 201.1 *Applicability of general rules.* The Tariff Commission rules of general application apply to investigations under the provisions of section 332 of the Tariff Act of 1930, and, so far as pertinent, to investigations under the provisions of sections 336 and 337 of the Tariff Act of 1930 (46 Stat. 698, 701, 703; 19 U. S. C. 1332, 1336, 1337); to investigations under section 22 of the Agricultural Adjustment Act, as amended (sec. 3, Pub. Law 579, 81st Cong.; Pub. Law 50, 82d Cong.); to investigations under section 504 of the Philippine Trade Act of 1946 (60 Stat. 156; 22 U. S. C. 1354); and to investigations under sections 3 and 7 of the Trade Agreements Extension Act of 1951 (Pub. Law 50, 82d Cong.). Rules having specific application to investigations under sections 336 and 337 of the Tariff Act of 1930, under section 22 of the Agricultural Adjustment Act, as amended, under section 504 of the Philippine Trade Act, and under sections 3 and 7 of the Trade Agreements Extension Act of 1951, respectively, appear separately in Parts 202 to 207, inclusive, of this chapter. In case of inconsistency between a rule of general application and a rule having specific application, the latter is controlling. No rules governing investigations under section 338 of the Tariff Act of 1930 (46 Stat. 704; 19 U. S. C. 1338) are issued because such investigations, which concern questions of possible discrimination by foreign countries against the commerce of the United States, are of a nature requiring their conduct under cover of secrecy.

2. Paragraph (d) of § 201.5 is amended to read as follows:

(d) Reports to the President the release of which has been authorized.

3. Subparagraph (1) of paragraph (a) of § 201.6 is amended to read as follows:

(1) Reports to the President the release of which has not been authorized.

4. Paragraph (b) of § 201.7 is amended to read as follows:

(b) *Informal conferences.* Informal conferences regarding any matter relating to the Commission's functions may be arranged by addressing a request to the Secretary, United States Tariff Commission, Tariff Commission Building, Washington 25, D. C.

5. The heading of § 201.8 and paragraphs (a), (b), and (d) of § 201.8 are amended to read as follows:

§ 201.8 *Applications for investigation under section 336 of the Tariff Act of 1930, under section 504 of the Philippine Trade Act of 1946, and under section 7 of the Trade Agreements Extension Act of 1951, and complaints under section 337 of the Tariff Act of 1930.* (a) All applications for investigations under section 336 of the Tariff Act of 1930, under section 504 of the Philippine Trade Act of 1946, or under section 7 of the Trade Agreement Extension Act of 1951, and complaints under section 337 of the Tariff Act of 1930, must be filed with the Secretary, United States Tariff Commission, Washington 25, D. C.[1] All copies of applications, complaints, and other papers filed with the Commission in any such investigation must be identified on the first page thereof with the name of the person or firm on whose behalf they are filed.

(b) Receipt by the Commission of an application for investigation or of a complaint properly filed will be acknowledged by the Secretary of the Commission, and public notice of such receipt will be given in the manner prescribed in § 201.10. In the case of applications under section 7 of the Trade Agreements Extension Act of 1951, notice of receipt thereof may be included in the notice of institution of investigation.

* * * * *

(d) Applications and complaints may be withdrawn at any time before an investigation pursuant thereto has been instituted or completed by the Commission, but, even if an application or complaint shall have been withdrawn, the Commission may institute or continue an investigation if in its judgment there is good and sufficient reason therefor.

6. Sections 201.10 and 201.11 are amended to read as follows:

§ 201.10 *Public notices.* Public notice of receipt of applications or complaints properly filed, of the institution of investigations, of public hearings, of dismissal of applications or investigations, and of other formal actions of the Commission, under sections 336 and 337 of the Tariff Act of 1930, under section 22 of the Agricultural Adjustment Act as amended, under section 504 of the Philippine Trade Act of 1946, and under sections 3 and 7 of the Trade Agreements Extension Act of 1951, will be given by posting a copy of the notice at the principal office of the Commission at Washington, D. C., and at its office in New York City; and by publishing a copy of the notice in the FEDERAL REGISTER and in Treasury Decisions. Copies of such notices will also be sent to press associations, trade and similar organizations of producers, and to importers and others (including all persons named in the application or complaint concerned) known to the Commission to have an interest in the subject matter of the investigation.

§ 201.11 *Public hearings.* (a) Hearings are required by law in the case of investigations under sections 336 and 337 of the Tariff Act of 1930, under section 22 of the Agricultural Adjustment Act,

[1] Under Executive Order 7233 of November 23, 1935, applications for investigations under section 22 of the Agricultural Adjustment Act, as amended, must be filed with the Secretary of Agriculture. For procedure governing such applications see 16 F. R. 9343.

as amended, under section 504 of the Philippine Trade Act of 1946, under section 3 of the Trade Agreements Extension Act of 1951, and under certain conditions under section 7 of the Trade Agreements Extension Act of 1951. No public hearing is required in general investigations under section 332 of the Tariff Act of 1930; however, when determined by the Commission to be appropriate and feasible, hearings will be held in such investigations.

(b) Public notice will be given of the time and place set for all hearings, in the manner prescribed in § 201.10. Announcement of a hearing will ordinarily be made 30 days in advance of the date set.

(c) Hearings will be conducted in accordance with the rules set forth in § 201.14.

(Sec. 3, Pub. Law 50, 82d Cong.)

7. A Part 206 is added, to read as follows:

PART 206—INVESTIGATIONS REGARDING PRODUCTS ON WHICH POSSIBLE TARIFF CONCESSIONS WILL BE CONSIDERED IN TRADE-AGREEMENT NEGOTIATIONS

Sec.
206.1 Applicability of rules under section 3, Trade Agreements Extension Act of 1951.
206.2 Purpose of investigation.
206.3 Public notice of investigation.
206.4 Public hearings.
206.5 Briefs.
206.6 Reports.

AUTHORITY: §§ 206.1 to 206.6 issued under sec. 3, Pub. Law 50, 82d Cong.

§ 206.1 *Applicability of rules under section 3, Trade Agreements Extension Act of 1951.* The rules under this part are specifically applicable to investigations for the purposes of section 3 of the Trade Agreements Extension Act of 1951 and apply in addition to the pertinent rules of general application set forth in Part 201 of this chapter.

§ 206.2 *Purpose of investigation.* The purpose of an investigation under section 3 of the Trade Agreements Extension Act of 1951 is to determine, with respect to each import article included in a list of products submitted to the Commission by the President which are to be considered in trade-agreement negotiations for possible modification of duties and other import restrictions, imposition of additional import restrictions, or continuance of existing customs or excise treatment, (a) the limit to which such modification, imposition, or continuance may be extended in order to carry out the purpose of the Trade Agreements Act of 1934, as amended, without causing or threatening serious injury to the domestic industry producing like or directly competitive articles, and (b) the minimum increases in duties or additional import restrictions required in cases where increases in duties or additional import restrictions are required to avoid serious injury to the domestic industry producing like or directly competitive articles.

§ 206.3 *Public notice of investigation.* Public notice of an investigation for the purpose of section 3 of the Trade Agreements Extension Act of 1951 will be given in the manner prescribed in § 201.10 of this chapter. Copies of the notice and of the list of products to be covered by the investigation will be mailed on request to parties interested.

§ 206.4 *Public hearings*—(a) *Public notice.* In the course of an investigation pursuant to section 3 of the Trade Agreements Extension Act of 1951, the Commission will hold public hearings. Notice wil be given of the time and place set for such hearings in the manner prescribed in § 201.10 of this chapter.

(b) *Appearances at hearings.* Parties interested may appear at public hearings, either in person or by representative, and produce, under oath, oral or written evidence relevant and material to the subject matter of the investigation.

(c) *Written statements.* Since public hearings are only a part of the investigation, and the Commission's findings are based on the information obtained at public hearings as well as other information which it may obtain in the course of the investigation, persons who cannot appear at public hearings but who desire to supply written information relevant and material to the subject matter of the investigation may do so by submitting fifteen clear copies of the written statement, typed, printed, or duplicated, one of which shall be sworn to. No special form for presentation of written views is prescribed. Written statements so submitted will be given the same consideration as testimony presented at the hearing, and, except for confidential material, will be open to public inspection. Because the Commission's report to the President must be completed within 120 days after the receipt of the list of products from the President, written statements not submitted at the hearing can be assured consideration only if received by the Commission before the close of the public hearing.

(d) *Official notice of Government publications.* Publications of the United States Government, especially reports of the Tariff Commission, need not be offered in evidence because the Commission will take notice of them as public documents. Extensive excerpts from such publications, particularly data regarding United States production, exports, or imports, should not be included in statements to the Commission either at the hearing or otherwise, but should be referred to by citing the title and page number of the pertinent publication.

CROSS REFERENCES: For rule regarding conduct of public hearings, see § 201.14 of this chapter. For rule regarding official notice by Commission of public documents, see § 201.14 of this chapter.

(e) *Confidential information.* All information submitted in confidence should be submitted on separate pages clearly marked "Confidential". The Commission may refuse to accept in confidence any particular information which it determines is not entitled to confidential treatment.

CROSS REFERENCE: For general rule regarding confidential information, see § 201.6 of this chapter.

(f) *Type of information to be developed at hearing or in written statements.* Without excluding other pertinent information, but with a view to assisting parties interested to present information useful in formulating findings required by the statute, testimony at hearings and written statements should give emphasis to the following matters:

(1) Trends of domestic production, sales, and imports in respect of the articles in question, including data on recent developments.

(2) The competitive strength of the foreign article and the like or directly competitive domestic article in the markets of the United States during a period which is representative of conditions of competition between such articles.

(3) Geographic areas of greatest competition between the domestic and the imported product and the principal market or markets for these products in the United States.

(4) Costs of production and delivery of the foreign and the domestic article during the period specified under subparagraph (2) of this paragraph.

(5) Additional information of a factual character bearing on the position of the domestic industry in competition with the imported article.

§ 206.5 *Briefs.* Briefs of the evidence produced at the hearing and arguments thereon may be presented to the Commission by parties interested who have entered an appearance. Unless otherwise ordered, fifteen clear copies, typed, printed, or duplicated, shall be filed with the Secretary of the Commission within ten days after the close of the hearing.

§ 206.6 *Reports.* The Commission will report to the President its findings in the investigation not later than 120 days after the receipt by the Commission from the President of the list of products to be covered by the investigation.

Section 4 of the Trade Agreements Extension Act of 1951 provides that, within thirty days after a trade agreement has been entered into which does not comply with the limits or minimum requirements specified in the findings reported to the President by the Tariff Commission, the President shall transmit a copy of such agreement to the Congress, whereupon the Tariff Commission must deposit with the Committee on Ways and Means of the House of Representatives and the Committee on Finance of the Senate a copy of the portions of its report to the President dealing with the articles with respect to which such limits or minimum requirements are not complied with.

8. Part 207 is amended to read as follows:

PART 207—INVESTIGATIONS OF INJURY TO DOMESTIC PRODUCERS ON ACCOUNT OF IMPORTS OF PRODUCTS ON WHICH TRADE AGREEMENT CONCESSIONS HAVE BEEN GRANTED

Sec.
207.1 Applicability of rules regarding investigations under section 7, Trade Agreements Extension Act of 1951.
207.2 Purpose of investigation.
207.3 Applications.
207.4 Confidential information.
207.5 Investigations; hearings.

Sec.
207.6 Briefs.
207.7 Reports.

AUTHORITY: §§ 207.1 to 207.7 issued under sec. 7, Pub. Law 50, 82d Cong.

§ 207.1 *Applicability of rules regarding investigations under section 7, Trade Agreements Extension Act of 1951.* The rules under this part are specifically applicable to investigations for the purposes of section 7 of the Trade Agreements Extension Act of 1951 (Pub. Law 50, 82d Cong.) and apply in addition to the pertinent rules of general application set forth in Part 201 of this chapter.

§ 207.2 *Purpose of investigation.* The purpose of an investigation under section 7 of the Trade Agreements Extension Act of 1951 is to determine whether an article on which a trade-agreement concession has been granted is, as a result, in whole or in part, of the duty or other customs treatment reflecting such concession, being imported in such increased quantities, actual or relative, as to cause or threaten serious injury to the domestic industry producing like or directly competitive articles.

§ 207.3 *Applications.* (a) Application for investigation for the purposes of section 7 of the Trade Agreements Extension Act of 1951 may be made by any interested person, partnership, association, or corporation having reason to believe that a product upon which a concession has been granted under a trade agreement is, as a result, in whole or in part, of the duty or other customs treatment reflecting such concession, being imported into the United States in such increased quantities, either actual or relative, as to cause or threaten serious injury to a domestic industry producing like or directly competitive products. Such applications shall be filed with the Secretary, United States Tariff Commission, Washington 25, D. C.

(b) Applications for such investigations shall be typewritten, duplicated, or printed, and fifteen clear copies must be submitted. They need not be under oath, but must be signed by the applicant or in his behalf by any authorized person, and should state the name, address, and nature of the interest of the applicant.

(c) An application must clearly state that it is for an investigation under section 7 of the Trade Agreements Extension Act of 1951. It must name or describe precisely the product concerning which investigation is being sought; specify the tariff provision which covers the product; and indicate the duty or other customs treatment which it is claimed is resulting in the importation of the product in question in such increased quantities, actual or relative, as to cause or threaten the alleged serious injury to the domestic industry.

(d) An application must include a statement of the reasons why applicant believes that the product concerning which investigation is requested is, as a result, in whole or in part, of the duty or other customs treatment reflecting a trade agreement concession, being imported into the United States in such increased quantities, either actual or relative, as to cause or threaten serious injury to the domestic industry producing like or directly competitive commodities. In particular, applicant must describe the nature and extent of the injury which he considers is being caused or threatened the domestic industry by reason of the importation of the product in question.

(e) Information of the following character should also be furnished with an application, to the extent that it is readily available to the applicant, and where confidential should be submitted as indicated in § 207.4 of this chapter:

(1) Imports, production, sales, and exports of the commodity for representative periods, including the latest available data. In greater detail, this information would include:

(i) Imports (quantity and value).

(ii) Production (quantity): (*a*) by the applicant, (*b*) by the domestic industry.

(iii) Sales (quantity and value): (*a*) by the applicant, (*b*) by the domestic industry.

(iv) Exports (quantity and value): (*a*) by the applicant, (*b*) by the domestic industry.

(2) Direct labor engaged in the domestic production of the commodity, (i) by the applicant and (ii) by the industry as a whole, indicating the number of persons employed during a normal period of operation in representative years, including the latest available data.

(3) Relation of the receipts of the applicant from the sales of the commodity covered by the application to his total receipts from all commodities or services produced by him, for representative years.

(4) Comparability of the domestic and the foreign article and the degree of competition between them, indicating the geographical areas or markets in which the competition is most intensive.

(5) Additional information of factual character, relating to the applicant and to the domestic industry, regarding such matters as: Profits and losses; prices; taxes; wages and other costs of production; subsidies and price-support programs; inventories, and similar data bearing on the position of the applicant and of the domestic industry in competition with the imported article.

(f) In general, statistical data supporting an application should be on an annual calendar-year basis, but should include data for months or quarters following the latest complete year; however, where seasonal and short-term factors and developments are important, quarterly or monthly data should also be furnished.

§ 207.4 *Confidential information.* All information submitted in confidence should be submitted on separate pages clearly marked "Confidential". The Commission may refuse to accept in confidence any particular information which it determines is not entitled to confidential treatment. Information called for in § 207.3 which would disclose individual business data or operations will be accorded confidential treatment by the Commission if submitted in confidence.

CROSS REFERENCE: For general rule regarding confidential information, see § 201.6 of this chapter.

§ 207.5 *Investigation; hearings.*—(a) *Institution of investigation.* After receipt by the Commission of an application under section 7 of the Trade Agreements Extension Act of 1951, properly filed, an investigation will be promptly instituted. The application, except for confidential material, will then be available for public inspection at the office of the Commission in Washington, D. C., or in the New York office of the Tariff Commission, Custom House, New York 4, N. Y., where it may be read and copied by persons interested. Notice of such investigation will be given in the manner prescribed in § 201.10 of this chapter.

(b) *Public hearings.* Hearings are required by law in investigations under section 7 of the Trade Agreements Extension Act of 1951 whenever the Commission finds evidence of serious injury or threat of serious injury or whenever so directed by resolution of either the Committee on Finance of the Senate or the Committee on Ways and Means of the House of Representatives. No recommendations to the President for action under section 7 of the Trade Agreements Extension Act of 1951 may be made unless a hearing has been held. The Commission will order a public hearing whenever a hearing is required by law or in any other case when in its judgment there is good and sufficient reason therefor. Public notice of hearings ordered will be given in the manner prescribed in § 201.10 of this chapter.

§ 207.6 *Briefs.* Briefs of the evidence produced at the hearings and arguments thereon may be presented to the Commission by parties interested who have entered an appearance. Unless otherwise ordered, fifteen clear copies, typewritten, duplicated, or printed, shall be filed with the Secretary of the Commission within ten days after the close of the hearing.

CROSS REFERENCE: For rules regarding briefs of evidence given by deposition, see § 201.17 (b) of this chapter.

§ 207.7 *Reports.*—(a) *Findings and recommendations to the President.* If, as a result of an investigation and hearing under section 7 of the Trade Agreements Extension Act of 1951, the Commission finds that an article on which a trade-agreement concession has been granted is, as a result, in whole or in part, of the duty or other customs treatment reflecting such concession, being imported in such increased quantities, actual or relative, as to cause or threaten serious injury to the domestic industry producing like or directly competitive articles, it will report its findings to the President with appropriate recommendations for the withdrawal or modification of the concession, its suspension in whole or in part, or the establishment of import quotas, to the extent and for the time necessary to prevent or remedy such injury.

(b) *Findings and conclusions in absence of recommendation to the President.* If after investigation, either with or without hearing, the Commission de-

termines that no sufficient reason exists for a recommendation to the President for action of any kind specified in paragraph (a) of this section, it will make and publish a report stating its findings and conclusions.

OSCAR B. RYDER,
Chairman,
United States Tariff Commission.

[F. R. Doc. 51-12464; Filed, Oct. 17, 1951; 8:54 a. m.]

TITLE 24—HOUSING AND HOUSING CREDIT

Chapter I—Home Loan Bank Board, Housing and Home Finance Agency

Subchapter C—Federal Savings and Loan System

[No. 4616]

PART 145—OPERATIONS

CONSTRUING AND CLARIFYING PROVISIONS GOVERNING THE CHARGING OF PENALTIES ON PREPAYMENT UPON LOANS

OCTOBER 12, 1951.

Whereas, there apparently exists some misunderstanding with respect to the meaning of the provisions of § 145.6–12 of the rules and regulations for the Federal Savings and Loan System (24 CFR 145.6–12) relating to the penalties that may be imposed upon a borrower who prepays his loan, and

Whereas, the Home Loan Bank Board intended and hereby construes that the last sentence of § 145.6–12 means that the only penalty which a Federal savings and loan association can impose on a borrower who prepays a loan is a penalty equal to not more than six months advance interest on the amount prepaid in any one year in excess of such amount as would equal 20 percent of the original principal amount of the loan, and

Whereas, it is deemed desirable, for purposes of clarity and in order that the provision of the regulation shall more definitely reflect the interpretation by this Board of the present meaning thereof,

Resolved, that pursuant to Part 108 of the general regulations of the Home Loan Bank Board (24 CFR Part 108) and § 142.1 of the rules and regulations for the Federal Savings and Loan System (24 CFR 142.1), the last sentence of § 145.6–12 of the rules and regulations for the Federal Savings and Loan System (24 CFR 145.6–12) is hereby amended, effective October 18, 1951 to read as follows: "Borrowers from Federal associations shall have the right to prepay their loans without penalty except that the Board hereby approves for use by any Federal association, other than Federal associations that have Charter E, a loan plan wherein the association may require payment of not more than six months' advance interest on that part of the aggregate amount of all prepayments made on a loan in any one year which exceeds 20 percent of the original principal amount of the loan; *Provided,* That the loan contract makes express provision therefor." so that the section, in its entirety, will read as follows:

§ 145.6–12 *Loan payments.* Payments on the principal indebtedness of all loans on real estate security shall be applied direct to the reduction of such indebtedness. Payments on all monthly installment loans, other than construction loans, insured loans, and guaranteed loans, shall begin not later than sixty days after the advance of the loan; insured loans and guaranteed loans may be repayable upon terms acceptable to the insuring or guaranteeing agency and the Board hereby approves for use by any Federal association a loan plan wherein payments on any construction loans that such association may otherwise make under §§ 145.6 to 145.6–13 shall begin not later than 12 months after the date of the first advance. Borrowers from Federal associations shall have the right to prepay their loans without penalty except that the Board hereby approves for use by any Federal association, other than Federal associations that have Charter E, a loan plan wherein the association may require payment of not more than six months' advance interest on that part of the aggregate amount of all prepayments made on a loan in any one year which exceeds 20 percent of the original principal amount of the loan; *Provided,* That the loan contract makes express provision therefor.

Resolved further, that the purpose of this amendment being merely to clarify certain provisions in existing regulations and not restrictive in effect, it is found that it is not necessary to issue this regulation with notice and public procedure thereon under section 4 (a) of the Administrative Procedure Act, or subject to the effective date limitation of section 4 (c) of said act.

(Sec. 7, 43 Stat. 132, as amended; 12 U. S. C. and Supp. 1464)

By the Home Loan Bank Board.

[SEAL] J. FRANCIS MOORE,
Secretary.

[F. R. Doc. 51-12469; Filed, Oct. 17, 1951; 8:52 a. m.]

Chapter VIII—Office of Rent Stabilization, Economic Stabilization Agency

[Controlled Housing Rent Reg., Amdt. 403]

[Controlled Rooms in Rooming Houses and Other Establishments, Rent Reg., Amdt. 403]

PART 825—RENT REGULATIONS UNDER THE HOUSING AND RENT ACT OF 1947, AS AMENDED

KENTUCKY AND ILLINOIS

Amendment 403 to the Controlled Housing Rent Regulation (§§ 825.1 to 825.12) and Amendment 403 to the Rent Regulation for Controlled Rooms in Rooming Houses and Other Establishments (§§ 825.81 to 825.92). Said regulations are amended in the following respect:

In Schedule A, Item 127, is amended to read as follows:

State and name of defense-rental area	Class	County or counties in defense-rental areas under regulation	Maximum rent date	Effective date of regulation
Kentucky				
(127) Paducah	B	McCracken	Mar. 1, 1942	Nov. 1, 1942
	C	do	Jan. 1, 1951	Oct. 17, 1951
	A	Ballard	do	Do.
	A	Massac County, Illinois; and in Johnson County, Illinois, the township of Vienna, including the city of Vienna.	do	Do.

(Sec. 204, 61 Stat. 197, as amended; 50 U. S. C. App. Sup. 1894)

This amendment shall be effective October 17, 1951.

Issued this 15th day of October 1951.

JOHN J. MADIGAN,
Acting Director of Rent Stabilization.

[F. R. Doc. 51-12510; Filed, Oct. 17, 1951; 8:57 a. m.]

TITLE 32—NATIONAL DEFENSE

Chapter V—Department of the Army

Subchapter B—Claims and Accounts

PART 533—GRATUITY UPON DEATH

MISCELLANEOUS AMENDMENTS

Sections 533.1, 533.3, and 533.8 are rescinded and the following substituted therefor:

§ 533.1 *Computation of amount of death gratuity.* The amount of the death gratuity due the beneficiary of a service member includes the compensation of every kind and character received by such member at the date of his death but does not include allowances. See 14 Comp. Dec. 857; 24 id. 287.

§ 533.3 *Payment*—(a) *Beneficiaries.* (1) Payments of the 6 months' gratuity pay may be made to beneficiaries in the order indicated.

(i) If there be a widow (widower), payment will be made to such person only. (Marriage by proxy of individuals domiciled in the United States may be held to be valid if performed in a jurisdiction which recognizes common law marriage unless such marriage is prohibited by statute or has been held to be invalid by judicial decision.) See MS. Comp. Gen. B–103120, July 30, 1951.

(ii) If there be no widow (widower), payment will be made to the child or children, if there are any entitled to payment. An adopted child is considered to be a "child" within the meaning of the term as used in this part.

(iii) If there be no widow (widower) or child, payment will be made to the dependent relative previously designated by the deceased as his beneficiary to whom the gratuity is to be paid.

(iv) If there be no widow (widower), child, or dependent relative previously

designated by the deceased, payment will be made to undesignated grandchildren, parents, brothers, sisters, and grandparents shown to have been dependent upon such deceased member (subparagraph (4) of this paragraph); the eligible members of each group having an insurable interest in the life of the deceased sharing equally.

NOTE: In the event of the death of any beneficiary before payment to and collection by such beneficiary of the amount authorized, payment will be made to the next living beneficiary in the order of succession above stated.

(2) Payment of 6 months' gratuity pay may not be made to:

(i) Any married child or unmarried child over 21 years of age of a deceased officer or enlisted member who is not actually a dependent of such deceased officer or enlisted member. Payment may not be made to any married child, notwithstanding the allegation of dependency on the deceased officer or enlisted member. See 4 Comp. Gen. 730; 18 id. 567; and 22 id. 797.

(ii) A person who takes the life of the deceased, on whose account death gratuity would otherwise be payable to such beneficiary. See MS. Comp. Gen. A-60953, June 12, 1935.

(iii) Stepparents not designated and persons, other than dependent relatives, standing in *loco parentis* to decedent whether or not designated. See 26 Comp. Gen. 723.

(iv) The natural father of a service member who had been legally adopted. The fact that the service member returned to reside with the natural parent before induction into the service and designated the natural parent as a beneficiary to receive the payment does not change the foregoing statement. See 24 Comp. Gen. 479.

(3) If the deceased person had designated two beneficiaries to receive the 6 months' death gratuity payment, and the claim of the first designated beneficiary has been disapproved because the evidence submitted did not clearly establish dependency upon him for support, or otherwise and insurable interest in him, the claim of the second designated beneficiary may not be considered unless the first beneficiary, who may desire to submit additional evidence tending to show dependency, has relinquished the right to claim the gratuity payment. See 22 Comp. Gen. 676.

(4) If there be no widow (widower), child, or previously designated beneficiary, the Commanding General, Army Finance Center, will determine dependency in accordance with approved policies and regulations of the Department of the Army. The disbursing officer will forward any case of this type to the Commanding General, Army Finance Center, accompanied by all available information or evidence that will assist in making a determination as to the proper beneficiary or beneficiaries.

(b) *Evidence.* (1) The evidence required to establish the right under law, of any person to receive payment of the 6 months' gratuity is set forth for the different classes of beneficiaries in figure 1.

(2) No affirmative showing of dependency is required in making payments of 6 months' death gratuity pay authorized by the act of December 17, 1919, as amended, to fathers, mothers, brothers, or sisters designated as beneficiaries of deceased military personnel, since relationship alone establishes the insurable interest; but as to more distant relatives, evidence of insurable interest other than mere relationship is required. See 4 Comp. Gen. 554, modified; 22 id. 85.

FIGURE 1

Class of beneficiary	Evidence required of—					
	Nonexistence of widow (widower)	Relationship	Age	Conjugal condition	Actual dependency	Designation as beneficiaries
Widow or widower:[1]						
Previously designated.	No	No	No	No	No	Yes.[3]
Not previously designated.	No	Yes	No	No	No	No.[3]
Unmarried child or children under 21 years of age:						
Previously designated.	Yes	No	Yes	Yes	No	Yes.[4]
Not previously designated.	Yes	Yes	Yes	Yes	No	No.[4]
Unmarried child or children over 21 years of age:						
Previously designated.	Yes	Yes	Yes	Yes	Yes	Yes.[4]
Not previously designated.	Yes	Yes	Yes	Yes	Yes	No.[4]
Other beneficiaries:						
Previously designated.	Yes. Also evidence that there is no child (children), and evidence of insurable interest in deceased except for mother, father, brother, or sister.	Yes	No	No	See § 533.3 (b) (2)	Yes.
Not previously designated.	Yes. Also evidence that there is no child (children) or previously designated beneficiary, and evidence of insurable interest in deceased except for mother, father, brother, or sister.	Yes	No	No	See § 533.3 (a) (9) and SR 600-103-1.	No.

[1] A waiver by the lawful widow (widower) of a deceased person of her (his) statutory right to the six months' death gratuity pay authorized by the act of Dec. 17, 1919, as amended, is without force or effect, and does not operate to entitle the mother of the deceased, his designated beneficiary, to payment of the gratuity. 22 Comp. Gen. 676, amplified, 24 Comp. Gen. 46.

[2] The fact, if it be a fact, that the widow (widower) or child (children), as the case may be, was designated as beneficiary, will in itself be regarded ordinarily as sufficient to establish the identity of the payee.

[3] Where a payment is to be made to a widow (widower) not previously designated as beneficiary, affidavits from two disinterested persons, not related by blood, attesting to the following facts will be obtained and filed with the voucher: length of time they have known the widow (widower), that they have known her (him) to be the lawful wife (husband) of the deceased person at the time of his (her) death, and that to the best of their knowledge and belief no divorce has been granted.

[4] Where payment is to be made to a child (children) not previously designated, affidavits from two disinterested persons, not related by blood, attesting to the following facts will be obtained and filed with the vouchers: that they know the deceased person, know the mother (father), and know that the deceased person was not survived by a lawful widow (widower) at the time of his (her) death and that the child (children) is (are) the only living child (children) of the deceased person. In the case of an illegitimate child (children), evidence of relationship must be established, that is, the service members written acknowledgment that the child (children) is (are) his child (children).

[5] Any case concerning payment of death gratuity benefits to the individual or individuals who adopted the child when such child died in the military service will be considered doubtful and will be submitted to the Comptroller General of the United States for advance decision, through the Chief of Finance, prior to payment.

NOTE: The office administering the act of Dec. 17, 1919, as amended, may require any additional evidence, other than that set forth above, when considered necessary.

(c) *Method of payment.* Payment will be made on DD Form 397 (Public Voucher for Six Months' Gratuity Pay). Upon receipt of an official report of death, DD Form 397 and instructions for its accomplishment will be furnished the proper beneficiary by the appropriate disbursing officer designated in subparagraphs (1) through (4) of this paragraph. The disbursing officer who furnishes the beneficiary with Form 397 will also make payment of the 6 months' gratuity pay to such beneficiary only after the completed form has been carefully checked, and there is no doubt as to the proper beneficiary.

(1) Where the beneficiary resides within the continental limits of the United States, exclusive of Alaska, the forms will be furnished the beneficiary, and payment made by the Chief, Military Pay Division, Army Finance Center, Building 204, St. Louis 20, Missouri.

(2) Where the beneficiary resides in Alaska or outside the continental limits of the United States, the forms will be furnished the beneficiary and payment made by a disbursing officer designated in each case by the major Army commander of the area concerned, provided:

(i) The beneficiary resides in the same oversea area in which the deceased service member was assigned.

(ii) There is no question as to the proper beneficiary.

(iii) There is no question as to misconduct.

If a line of duty investigation is being or has been made, payment of the death gratuity will not be made by the designated disbursing officer, and the case

will be forwarded to the Military Pay Division, Army Finance Center, where it will be held until receipt of determination from the Adjutant General relative to the service member's status. The major Army commander will notify the Chief of Finance of any designations made under the provisions of this section by furnishing the name of the disbursing officer designated to make payment with the locality and area which he serves. Such disbursing officer upon making payment of the gratuity, immediately will notify the Chief, Military Pay Division, Army Finance Center, by letter, of the fact that such payment has been made, the amount thereof, and proper voucher reference.

(3) If the beneficiary resides in Alaska or outside the continental limits of the United States, and the deceased service member at date of death was not assigned in such area, forms will be furnished the beneficiary and payment made by the Chief, Military Pay Division, Army Finance Center.

(4) Under circumstances where there is doubt as to the proper disbursing officer to make payment, the major commander will request the Chief of Finance, Department of the Army, to designate a disbursing officer to make payment of the 6 months' gratuity pay.

§ 533.8 *Special determination*—(a) *Absent without leave.* (1) During periods of absence without leave, service members shall continue in a pay status, but shall forfeit all pay and allowances during such absence unless such absence is excused as unavoidable. The 6 months' death gratuity is not a part of a member's "pay and allowances," therefore, if a member dies during an absence without leave, whether or not such absence is excused as unavoidable, payment of the 6 months' death gratuity at the rate of pay accruing to such member at the date of death is authorized if otherwise payable. This determination applies to all cases where absence without leave and death occurred subsequent to August 31, 1946. See sec. 4 (b) act August 9, 1946 (60 Stat. 964); act August 4, 1947 (61 Stat. 748; 37 U. S. C. 33); and 29 Comp. Gen. 294.

(2) When absence without leave does not exceed 3 months, payment of the 6 months' gratuity pay will be made by the Chief, Military Pay Division, Army Finance Center. When absence is in excess of 3 months, an advance decision will be requested from the Comptroller General in each case.

(b) *Flying requirements not met when on flying status.* If a person dies while assigned to flying duty and has not made any flights during the 3 months succeeding the quarter in which he last met the flight requirements, his rate of pay for the payment of the 6 months' gratuity includes the increased pay for flying, although no flying pay had accrued to him on the date of his death. See 7 Comp. Gen. 476.

(c) *Advanced grade after date of death.* Section 2 of the act of March 7, 1942, as amended, which entitles any person in active service officially reported as missing, missing in action, interned in a neutral country, captured by an enemy, beleaguered or besieged, to continue to receive, or have credited to his account, the pay and allowances to which he was then or thereafter became entitled, does not authorize computation of the 6 months' gratuity payment on the basis of pay for a grade to which a person was advanced after being officially reported missing where it was later determined that the person had died prior to such advancement in grade. See 22 Comp. Gen. 395.

(d) *Declared dead after missing.* In the case of a person who was officially carried in a missing status and subsequently declared dead as of a certain date, the death gratuity should be computed on the pay rate to which the person was entitled on the date as of which he was declared dead, rather than on the rate he was receiving at the beginning of the missing status. See 22 Comp. Gen. 1053.

[AR 35-1370, Sept. 28, 1951] (R. S. 161; 5 U. S. C. 22. Interpret or apply secs. 1, 2, 41 Stat. 367, as amended, sec. 5, 53 Stat. 557, as amended, secs. 3, 4, 5, 63 Stat. 202, sec. 514, 63 Stat. 831; 10 U. S. C. and Sup. 456-456-2, 903, 37 U. S. C. Sup. 314)

[SEAL] WM. E. BERGIN,
Major General, U. S. Army,
The Adjutant General.

[F. R. Doc. 51-12489; Filed, Oct. 17, 1951; 8:52 a. m.]

Subchapter F—Personnel

PART 572—CONTRACT SURGEONS AND CIVILIAN VETERINARIANS

PAY AND ALLOWANCES OF CONTRACT SURGEONS

Section 572.3 is rescinded and the following substituted therefor:

§ 572.3 *Pay and allowances*—(a) *Full-time contract surgeons.* Contract surgeons serving full time with any of the uniformed services are entitled to be paid the minimum basic pay, the basic allowances, and such other allowances as are authorized by the act of October 12, 1949 to be paid to commissioned officers in pay grade O-2.

(b) *Part-time contract surgeons.* (1) Contract surgeons who are serving part time with any of the uniformed services receive only the pay specifically stipulated in their contracts (not to exceed $150 per month) and are not entitled to basic subsistence allowance or basic quarters allowance.

(2) Contract surgeons who are serving part time with any of the uniformed services are entitled to receive the allowances for travel and transportation prescribed for commissioned officers under the same conditions and in the same amounts.

(3) Part time contract surgeons are not authorized to make allotments of pay.

(c) *Prior service not creditable for pay purposes.* Contract surgeons serving full time are entitled to receive only the minimum basic pay and basic allowances authorized for commissioned officers in pay grade O-2 and therefore may not count prior service in any of the uniformed services as creditable service for computing basic pay. See 23 Comp. Gen. 889.

(d) *Uniform allowance.* Contract surgeons serving with the Army of the United States render services as civilian physicians and do not serve in any of the grades specified in the act of December 4, 1942 (56 Stat. 1039; 10 U. S. C. 904b), which authorizes the payment of a uniform allowance to certain personnel in the Army of the United States or any component thereof on active duty in the grades specified therein and, therefore, payment of the said allowance to such contract surgeons is not authorized. See 22 Comp. Gen. 1070.

(e) *Pay while on leave.* (1) When contracts so provide, contract surgeons will be entitled to full pay and allowances while on sick or ordinary leave, under the same rules as apply to commissioned officers. See MS Comp. Dec., October 12, 1898.

(2) (i) Full time contract surgeons will accrue leave on the same basis as commissioned officers. Where the service is continuous, leave accrued under one contract will be carried forward to the new contract.

(ii) Part time contract surgeons are not entitled to leave unless specifically set forth in their contract.

[AR 35-1630, Oct. 2, 1951] (R. S. 161; 5 U. S. C. 22. Interprets or applies sec. 18, 31 Stat. 752, sec. 504, 63 Stat. 827; 10 U. S. C. 107, 37 U. S. C. Sup. 304)

[SEAL] WM. E. BERGIN,
Major General, U. S. Army,
The Adjutant General.

[F. R. Doc. 51-12488; Filed, Oct. 17, 1951; 8:52 a. m.]

TITLE 32A—NATIONAL DEFENSE, APPENDIX

Chapter III—Office of Price Stabilization, Economic Stabilization Agency

[Ceiling Price Regulation 84]

CPR 84—CERTAIN CONVERTED PAPERBOARD PRODUCTS

Pursuant to the Defense Production Act of 1950, as amended, Pub. Law 774, 81st Cong., Pub. Law 96, 82nd Cong., Executive Order 10161 (15 F. R. 6105), and Economic Stabilization Agency General Order No. 2 (16 F. R. 738), this Ceiling Price Regulation 84 is hereby issued.

STATEMENT OF CONSIDERATIONS

Both the General Ceiling Price Regulation and the General Manufacturer's Ceiling Price Regulation 22 were issued as interim regulations, with the intention that tailored regulations would be prepared later to deal with specific problems of individual industries.

The historical methods of operation in the converted paperboard products industry are such that the provisions of over-all ceiling price regulations similar to those referred to above cannot readily be applied. This is due to the fact that most converted paperboard products are made-to-order according to the specifications of the individual purchaser in regard to size, style, weight, design, ma-

terials, number of printing colors, and other variables. Therefore, this regulation is issued and provides a method under which ceiling prices are determined by using either an established price list or a pricing formula which follows the practices ordinarily used in the industry to arrive at ceiling prices.

The converted paperboard products industry, according to the United States Census of Manufacturers, consisted of nearly 1,900 individual establishments, produced commodities valued at 1.7 billion dollars and provided employment for 128,000 persons in 1947, the latest Census year. Paperboard products are the most widely used type of packaging material in which American industry delivers its goods to the user, and since packaging is an important element in cost of production and distribution, it is necessary that price controls be maintained. The products covered by, and those excluded from, this regulation are listed in detail in the regulation.

Ceiling prices for converted paperboard products are determined by use of the pricing formula set forth in this regulation. However, if a converter used an established price list during the base period of January 25, 1951 to February 24, 1951, ceiling prices may be based on this price list which must be filed with OPS. The formula provides for arriving at the sum of the following cost factors: raw materials, conversion, margin, and delivery. Each of these factors is determined in the same way as it would have been determined during the base period.

Margins must be computed by using one of the following methods: (1) a percentage basis, (2) a rate per unit of material, (3) a factor in the machine hour rate, or (4) a combination of (1), (2), and (3). The margin for a commodity or service sold to a purchaser cannot exceed the margin applied in selling the same commodity to that same purchaser during the base period. The margin for a commodity neither sold nor produced during the base period must not exceed the margin used in selling the most comparable commodity produced during the base period. The margin for a commodity not sold to the same purchaser during the base period must not exceed the margin used in selling the commodity to the most similar purchaser during the base period.

The raw material factor cannot exceed the ceiling prices of the raw materials as established by OPS regulations in effect on February 24, 1951 until dollar and cent ceiling prices are established by tailored regulations issued subsequent to that date covering the raw materials. The first of such dollar and cent ceiling prices must be maintained, with the converter absorbing increases, if any, allowed his supplier in later regulations.

The ceiling prices for converted paperboard products as established by this regulation will be approximately the same as the prices in effect during the GCPR period of December 19, 1950 to January 25, 1951. These prices are below those that would result from the application of the provisions of CPR 22, but well above those in the pre-Korea period.

FINDINGS OF THE DIRECTOR OF PRICE STABILIZATION

In the judgment of the Director of Price Stabilization, the ceiling prices established by this regulation are generally fair and equitable and are necessary to effectuate the purposes of Title IV of the Defense Production Act of 1950, as amended.

So far as practicable, the Director of Price Stabilization has given due consideration to the national effort to achieve maximum production in furtherance of the objective of the Defense Production Act of 1950, as amended; to prices prevailing during the period from January 1 to June 24, 1950, inclusive; to prices prevailing January 25, 1951, to February 24, 1951, and just before the issuance of this regulation; and to relevant factors of general applicability.

In formulating this regulation, the Director has consulted with representatives of the industry, including trade association representatives and has given consideration to their recommendations. Every effort has been made to conform this regulation to existing business practices, cost practices or methods, or means or aids to distribution. Insofar as any provisions of this regulation may operate to compel changes in the business practices, cost practices or methods, or means or aids to distribution, such provisions are found by the Director of Price Stabilization to be necessary to prevent circumvention or evasion of this regulation.

REGULATORY PROVISIONS

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1. What this regulation does.
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11. Transfers of business or stock in trade.
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14. Petitions for amendment.
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AUTHORITY: Sections 1 to 15 issued under Sec. 704, 64 Stat. 816, as amended; 50 U. S. C. App. Sup. 2154. Interpret or apply Title IV, 64 Stat. 803, as amended; 50 U. S. C. App. Sup. 2101-2110; E. O. 10161, Sept. 9, 1950, 15 F. R. 6105; 3 CFR, 1950 Supp.

SECTION 1. *What this regulation does.* (a) This regulation supersedes the General Ceiling Price Regulation, Ceiling Price Regulation 22, and Ceiling Price Regulation 34, with respect to certain converted paperboard products. It applies to you if you are a converter of paperboard who manufactures, partially or completely, or renders a service in the manufacture of any of the following described commodities:

(1) Folding paper boxes, corrugated fibre sheets, corrugated boxes, solid fibre boxes, solid fibre sheets, set-up paper boxes, pads, partitions, and other paperboard products manufactured on the same converting equipment, and wedge shaped pails formed on a Brightwood or similar type machine, but excluding paperboard food containers and closures for moist, liquid and oily food, and book matches.

(2) Bobbins, cans, canisters, cones, cores, ribbon blocks, roving cans, spindles, spools, tubes, cylindrical paperboard casings and cans, related hollow paperboard and paper commodities partially or completely manufactured on an open-end rotating mandrel, of whatever size, shape, grade and specifications and having one or two open ends or one or two plugged or closed ends, and regardless of end-use.

(3) Fibre drums and fibre pails of cylindrical or conical shape made on an open-end rotating or stationary mandrel or any other means, with a body of fibre board and ends of fibre board, steel, wood, or any other material, or any combination thereof.

(b) This regulation establishes ceiling prices by the application of the formula used by you during the base period. If you had a price list during the base period, you may use it to establish your ceiling prices. Limitations upon the use of these pricing methods are contained in section 3 of this regulation. Lower prices than those established by this regulation may be charged, demanded, paid, or offered.

SEC. 2. *Applicability.* The provisions of this regulation shall apply within the forty-eight States of the United States and the District of Columbia.

SEC. 3. *Ceiling prices.* You shall determine your ceiling prices for the converted paperboard products and services covered by this regulation by your formula or price list in effect during the period January 25, 1951 to February 24, 1951, inclusive, hereafter called the "base period." Whenever in this regulation the word "commodity" or "commodities" is used, it shall mean "commodity or service, or both" or "commodities or services, or both."

(a) *Formula pricing.* Your formula shall be filed as required by section 9 and shall contain the following factors: Raw material, conversion, margin and delivery. To establish a ceiling price for your commodity, you compute the sum of these factors just as you would have done during the base period. However, in determining each factor, you shall comply with the following limitations:

(1) *Raw material factor.* (i) If you are a converter not fully or partly owned or controlled by or financially connected with your raw material supplier, your raw material factor shall be based upon actual or estimated actual costs (calculated in your base period manner) but not to exceed the ceiling price of your raw materials in effect on February 24, 1951, until such time as a regulation is issued which establishes dollar and cent ceiling prices for any of your raw materials. Thereafter, for such raw materials, the raw material factor shall not exceed the dollar and cent ceiling price as initially established by such new regulation. If you had employed the practice of averaging your raw material costs during the base period, you shall continue such practice in the same manner.

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(ii) If you are a converter who is fully or partly owned or controlled by or financially connected with your raw material supplier, your raw material factor shall be based upon a cost not to exceed the transfer price of such raw material computed upon the same accounting methods, classifications, and quantity variations which you used during the base period. In no event shall the transfer price so computed exceed the ceiling price of such material in effect on February 24, 1951, until such time as a regulation is issued which establishes dollar and cent ceiling prices for such materials. Thereafter, the transfer price shall not exceed the dollar and cent ceiling price initially established by such new regulation.

(iii) If you included amounts for waste or spoilage in computing your raw material factor during the base period, you may continue to do so in your base period manner. However, you may not add more than the same percentage allowed for waste or spoilage during the base period, and you must subtract credits received from the sale or other disposition of waste material in the same manner in which such credits were subtracted during the base period.

(2) *Conversion factor.* (i) Conversion charges for any hand or machine operations, or both, incident to the manufacture of the commodity, including the make-ready, fabrication, assembly, marking, and packing of the commodity shall be computed in accordance with the hourly or piece rates, or both, and standards of production, which you used for the same commodity during the base period.

(ii) Conversion charges for a commodity which was not offered or sold by you during the base period, but which may be made on the same equipment or by the same methods, or both, which you used during the base period, shall be your charges for your most comparable commodity sold or contracted to be sold during the base period.

(iii) You shall not substitute hand operations for machine operations as a means of increasing your ceiling prices.

(iv) Conversion charges for a commodity which was not offered by you during the base period and which involve equipment or methods, or both, which you did not use during the base period, shall not be greater than the conversion charges established by application under section 10 of this regulation.

(3) *Margin factor.* Your margin factor is the difference between your selling price f. o. b. shipping point and the sum of your raw material and conversion factors as applied during the base period. You shall figure your margin factor on a percentage basis, or on a rate per unit of material basis, or include it in the machine hour rate. A combination of any or all of these methods may be used.

You shall continue to figure your margin by the same accounting and costing practices used by you during the base period, or you may change such practices provided a higher price does not result than that which would have resulted by the use of your base period practices. However, in no event shall your percentage or rate of margin exceed the following limitations:

(i) Where the commodity to be priced had been sold or contracted to be sold by you to the same purchaser during the base period, your margin shall not exceed the margin employed in pricing the commodity sold or contracted to be sold to the same purchaser during the base period. A change in color of ink or a change in printing copy shall not affect the sameness of the commodity. Differentials for quantity or number of colors of ink in effect during the base period shall apply.

(ii) Where the commodity had not been sold or contracted to be sold by you to the same purchaser during the base period, the margin shall not exceed the margin employed in pricing the most comparable commodity sold or contracted to be sold to the same purchaser during the base period.

The "most comparable commodity" is the commodity furnished by you and made on the same converting equipment, which differs the least from the commodity to be priced as determined by the use of the following tests:

(*a*) Style;
(*b*) Shape;
(*c*) Type of material;
(*d*) Size; and
(*e*) Addition or subtraction of parts or partitions.

These tests must be applied successively and each is to be applied to the commodity or group of commodities determined by the application of the preceding test. A change in color of ink or a change in printing copy shall not affect the comparability of the commodity. Differentials for quantities or numbers of colors of ink in effect during the base period shall apply.

(iii) Where a commodity had not been sold or contracted to be sold by you to a purchaser during the base period, the margin shall not exceed the margin employed in pricing the "most comparable commodity" (as defined in the preceding paragraph) sold or contracted to be sold during the base period to the purchaser most closely resembling the prospective purchaser from the standpoint of quantity, credit classification and location.

(iv) Where you were not engaged in the manufacture or sale of a commodity covered by this regulation during the base period, your proposed margin shall not be greater than the margin established by application under section 10 of this regulation.

(4) *Delivery factor.* You shall continue to sell on a delivered price basis to such purchasers, zones, or areas, to which you customarily made shipments on a delivered price basis during the base period.

(i) In the case of shipments to points within a free delivery zone or area within which no charge for delivery was added or would have been added by you during the base period, you shall not add to the ceiling prices as established by your raw material, conversion, and margin factors, any charge for delivery.

(ii) In the case of shipments to points or purchasers, other than those mentioned in the preceding subdivision for which you customarily added a charge for delivery during the base period, you may add to the ceiling prices established pursuant to the provisions of this regulation, your customary and established delivery charge: Provided, however, that in no instance may the amount of your delivery charge so added exceed the highest charge for delivery actually obtained or which would have been obtained for an identical shipment to the same purchaser, zone or area during the base period, by the means of transportation customarily employed for shipments to such purchasers, zones or areas during such period.

(iii) In cases where special shipments are required by a purchaser in order to fulfill, partly or completely, any government contract or subcontract, and the cost of such shipment exceeds the charges for delivery allowed by the preceding subdivisions (i) and (ii) of this subparagraph, and the purchaser agrees to such extra charge, the actual additional cost of such special shipments may be added to your ceiling price.

(b) *Price list.* If you used a price list for the sale of your products during the base period, you may elect to use as your ceiling prices the prices contained in that list, subject to the discounts and allowances then in effect. Such price lish may be used, however, only if (1) it was published or circulated to the trade or your salesman during the base period; (2) you use it in its entirety for all commodities and services listed on such price list; and (3) a duplicate copy of such price list has been filed with the Office of Price Stabilization, Pulp, Paper and Paperboard Branch, Washington 25, D. C., within thirty days after the effective date of this regulation. The ceiling prices established by such a price list shall be subject to nonretroactive disapproval or adjustment, at any time, by the Director of Price Stabilization to bring said prices into line with the general level of prices established by this regulation.

SEC. 4. *Ceiling prices for new converters.* (a) If you are a converter who started business after February 24, 1951, and before the date of issuance of this regulation, your ceiling prices shall be determined under the provisions of this regulation except that, insofar as you are concerned, the term "base period" wherever used in this regulation shall refer to the thirty day period immediately preceding the issuance of this regulation: Your formula shall be filed under section 9 and shall be subject to nonretroactive adjustment by the Director of Price Stabilization.

(b) If you are a converter who starts business after the effective date of this regulation, you shall file a proposed formula with the Office of Price Stabilization, Pulp, Paper and Paperboard Branch, Washington 25, D. C., including such items as, but not limited to, hourly rates or piece rates for hand or machine operations, or rates per thousand units or per thousand square feet of base material, and standards of production applicable thereto as defined in section 15 of this regulation, make-ready charges, delivery charges, and a complete range of

margins to be employed by you in determining the selling price of every commodity or service, as well as three sample estimates showing the application of such formula. You may not sell the commodity or service until the Director of Price Stabilization, in writing, approves your formula. If the Director does not approve your formula within thirty days from the date your formula is filed, your formula may be deemed to be approved subject to nonretroactive disapproval or adjustment at any later time by the Director of Price Stabilization.

SEC. 5. *Adjustable pricing.* Nothing in this regulation shall be construed to prohibit your making a contract or offer to sell a commodity covered by this regulation at (a) the ceiling price in effect at the time of delivery, or (b) the lower of a fixed price or the ceiling price in effect at the time of delivery. You may not, however, deliver or agree to deliver a commodity covered by this regulation at a price to be adjusted upward in accordance with any increase in a ceiling price after delivery.

SEC. 6. *Imports.* The ceiling price for imports of converted paperboard products covered by this regulation shall be determined in accordance with the provisions of Ceiling Price Regulation 31 issued by the Office of Price Stabilization.

SEC. 7. *Exports.* The ceiling price for exports of converted paperboard products covered by this regulation shall be determined in accordance with the provisions of Ceiling Price Regulation 61 issued by the Office of Price Stabilization.

SEC. 8. *Records*—(a) *Base period records.* On and after the effective date of this regulation, for so long as the Defense Production Act of 1950, as amended, shall remain in effect and for two years thereafter, you shall maintain and keep for examination by the Director of Price Stabilization, all your existing records relating to prices which you charged for commodities or services which you sold or contracted to sell at a definite price during the base period, or, if you had not been in business during the base period, the period upon which your formula as filed under section 9 is based. These records shall include all information which would enable the Director of Price Stabilization to compute your raw material, conversion, margin and delivery factors as set forth in section 3 of this regulation.

(b) *Current records.* Every person who sells and every person who in regular course of business buys converted paperboard products covered by this regulation shall make or keep for inspection by the Director of Price Stabilization for a period of two years complete and accurate records of each sale or purchase made after the effective date of the sale or purchase, showing (1) the date of the sale or purchase; (2) the name and address of the seller and purchaser; (3) the price charged or paid; (4) the quantity and description of the commodity sold. In addition thereto, you, the converter, shall also keep and maintain for two years your calculations by which you determine the ceiling prices of each commodity sold by you under this regulation.

SEC. 9. *Reports.* (a) Within forty-five days after the effective date of this regulation, you shall file with the Office of Price Stabilization, Pulp, Paper and Paperboard Branch, Washington 25, D. C., your pricing formula, or estimating manual, including such items as, but not limited to, hourly rates or piece rates for hand or machine operations, or rates per thousand units or per thousand square feet of base material, and standards of production applicable thereto as defined in section 15 of this regulation, make-ready charges, delivery charges, and a complete range of margins, as employed by you during the base period, or during the thirty days immediately preceding the effective date of this regulation if your business began after the base period, in determining the selling price of every commodity and service sold or contracted to be sold during such period, as well as three sample estimates showing the application of such formula.

SEC. 10. *Application for approval of new formulas or factors.* If you are a converter who was in business during the base period and who has subsequently installed new equipment or methods requiring new conversion or margin factors, you shall submit your proposed factors to the Office of Price Stabilization, Pulp, Paper, and Paperboard Branch, Washington 25, D. C., for approval, disapproval or adjustment.

Your application for approval of a new conversion factor shall include (1) the hour or piece rates for similar hand or machine operations generally prevailing in your immediate competitive area during the base period, and (2) an explanation for any variance between such generally prevailing rate and the rate you now wish to apply.

Your application for approval of a new margin factor shall include: (1) the location of your plants; (2) the type of equipment you use; (3) the capacity of your equipment; (4) a list of the products you intend to produce; (5) the range of margins proposed; and (6) a statement of the method you use to determine special differentials.

You may use the proposed conversion or margin factors as soon as you file your application. However, until your application has been approved by the Director of Price Stabilization, you shall notify the purchaser in writing that all prices which have been based upon the proposed conversion or margin factors are subject to adjustment by you, and to refunds if necessary, to conform with the conversion or margin factors as fixed by the Director of Price Stabilization. Official action upon any application filed under the provisions of this section will be communicated to you by letter order of the Director of Price Stabilization or his duly authorized representative. If such action approving, disapproving, adjusting, amending, or extending for cause the time within which to do any of the foregoing is not taken within twenty-one days after the filing of the application, such application may be deemed to have been approved, subject to nonretroactive disapproval or adjustment at any later time by the Director of Price Stabilization.

SEC. 11. *Transfers of business or stock in trade.* If the business, assets or stock in trade of any business are sold or otherwise transferred after the issue date of this regulation and the transferee carries on the business or continues to deal in the same type of commodities or services in an establishment separate from any other establishment previously owned or operated by him, the ceiling prices of the transferee and his practice with respect to sales of converted paperboard products shall be the same as those to which his transferor would have been subject if no such transfer had taken place, and his obligation to keep records in accordance with Section 8 shall be the same. The transferor shall either preserve and make available, for so long as the Defense Production Act of 1950, as amended, remains in effect, or turn over to the transferee all records of transactions prior to the transfer which are necessary to enable the transferee to comply with the record keeping provisions of this regulation.

SEC. 12. *Prohibitions.* You shall not do any act prohibited or omit to do any act required by this regulation, nor shall you offer, solicit, attempt, or agree to do or omit to do any such acts. Specifically (but not in limitation of the above), you shall not, regardless of any contract or other obligation, sell, and no person in the regular course of trade or business shall buy from you at a price higher than the ceiling price established by this regulation, and you shall keep, make, and preserve true and accurate records and reports required by this regulation. If you violate any provisions of this regulation, you are subject to criminal penalties, enforcement action, and action for damages.

SEC. 13. *Evasions.* Any means or device which results in obtaining indirectly a higher price than is permitted by this regulation, or in concealing or falsely representing information as to which this regulation requires records to be kept, is a violation of this regulation. This prohibition includes, but is not limited to, means or devices making use of commissions, services, cross sales, transportation arrangements, premiums, discounts, special privileges, upgrading, tie-in agreements and trade understandings, as well as the omission from records of true data and the inclusion in records of false data.

SEC. 14. *Petitions for amendment.* If you wish to have this regulation amended, you may file a petition for amendment in accordance with the provisions of Price Proceedural Regulation No. 1, revised (15 F. R. 9055).

SEC. 15. *Definitions and explanations.* The terms appearing in this regulation, unless the context clearly requires a different meaning, shall be construed as follows:

"*Assembly*" means the putting together of component parts of commod-

ities by such means as gluing, taping, covering, stitching, pasting, and tying.

"Base period" means the period January 25, 1951, to February 24, 1951, inclusive.

"Commodity" means any product covered by this regulation and includes the service rendered in connection therewith. Wherever in this regulation the word "commodity" or "commodities" is used, it means "commodity or service, or both" or "commodities or services, or both."

"Contract to sell" means the written or oral acceptance of any written or oral order.

"Conversion" means the normal operations and processes applied to the raw material to produce the commodity.

"Converter" includes any person who produces, from any raw materials, partially or completely, the commodities or supplies the services covered by this regulation, and includes the agents and representatives of such person. Each converter's place of business set up basically to process partially or completely and sell the commodities or services covered by this regulation shall be deemed to be a separate seller.

"Fabrication" means the manufacturing processes including but not limited to cutting, printing, creasing, scoring, slotting, slitting, die cutting and assembling.

"Hand operation" means the manufacturing processes, including but not limited to fabrication, assembly, marking and packing which require only the use of hand tools.

"Hourly rates" means the cost per hour for labor, machine overhead, and other manufacturing expenses as established for estimating purposes.

"Machine operations" means the manufacturing processes including but not limited to fabrication, assembly, marking and packing which require the use of mechanical devices.

"Make-ready" means the preparation of a machine for a particular conversion operation including such procedures as adjustment of feeding and receiving devices, installation of proper printing plates, cutting knives or creasing bars, and cleaning the machine after the completion of the conversion operation.

"Margin" is the selling price f. o. b. shipping point minus the sum of your raw material and conversion factors. Margin may include such items as allowance for returned goods or bad credits, sales and administrative expense, general overhead, repairs, rent, fuel, light, power, insurance and profit.

"Marking" includes printing, labeling, stamping and decorating.

"Packing" includes packaging, wrapping, and tying.

"Percentage basis" means the percentage obtained by dividing the margin by the total of raw material costs and applicable conversion charges.

"Person" includes an individual, corporation, partnership, association, or any other organized group of persons, or legal successors or representatives of any of the foregoing, and includes the United States or any agency thereof, or any other government, or any of its political subdivisions, or any agency of the foregoing.

"Piece rates" means the cost per numerical unit for labor, machine, machine overhead and other manufacturing expenses as established for estimating purposes.

"Rate per unit of material" refers to the method adopted by the manufacturer in computing the margin on the basis of a square foot or an area. (For example $. ___ per thousand square feet of corrugated or solid fibre board.)

"Raw materials" means the materials which are fabricated into the commodities covered by this regulation and all processing and packing materials used for such commodities.

"Records" includes without limitation, books of account, sales lists, sales slips, orders, vouchers, contracts, receipts, invoices, bills of lading, and other papers, documents, letters and correspondence.

"Sell" includes sell, supply, dispose, barter, exchange, lease, transfer, and deliver, and contracts and offers to do any of the foregoing. The terms "sale", "selling", "sold", "buy", "purchase", and "purchaser", shall be construed accordingly.

"Selling price f. o. b. shipping point" means the actual sales price less any delivery charges included as part of the price.

"Services" includes any service rendered, or supplied, otherwise than as an employee, in connection with the manufacture and processing of any of the commodities covered by this regulation, and generally, without limiting the foregoing, all services which preserve or add to the value or utility of such commodities.

"Standards of production" means the number of units produced in relation to the machine speed or man-hours.

"You" means the person subject to this regulation.

Effective date. This regulation shall become effective October 30, 1951.

NOTE: The record keeping requirements of this regulation have been approved by the Bureau of the Budget in accordance with the Federal Reports Act of 1942.

MICHAEL V. DISALLE,
Director of Price Stabilization.

OCTOBER 17, 1951.

[F. R. Doc. 51-12604; Filed, Oct. 17, 1951; 4:00 p. m.]

[Ceiling Price Regulation 85]

CPR 85—CEILING PRICES FOR CANNED MAINE SARDINES

Pursuant to the Defense Production Act of 1950, as amended, (Pub. Law 774, 81st Cong., Pub. Law 96, 82nd Cong.), Executive Order 10161 (15 F. R. 6105), and Economic Stabilization Agency General Order No. 2 (16 F. R. 738), this Ceiling Price Regulation 85 is hereby issued.

STATEMENT OF CONSIDERATIONS

This regulation establishes specific dollars-and-cents ceiling prices for sales by canners of Maine sardines.

The Maine sardine industry has found itself in a most difficult economic position for reasons that were both unpredictable and uncontrollable. The number of sardines caught off the coasts of Maine and Southern Canada fell off 70 percent from the catch of last year. In 1950 the industry packed 3,844,164 standard cases. The average pack for the preceding ten years was 3,142,167 cases. At the present time there is no carry-over of last year's pack at the canner's level. As of September 15 of this year 663,186 cases had been packed. According to a 10-year average, 62 percent of the pack is prepared by September 15. On this basis, the 1951 pack should be approximately 1,000,000 cases. The size of the individual fish decreased in an even greater proportion. Where normally four to six fish were put into the standard size can, this year's catch requires that upwards of twenty fish be packed into this same size can. Thus, with a greatly decreased volume of fish to pack and with vastly increased labor expense to pack the very small size fish, unit direct costs have advanced sharply. The result has been a tremendous increase in cost per case to turn out this year's pack of Maine sardines.

The ceiling prices of this industry are currently established by CPR 22. Under that regulation, canners' ceiling prices were founded on the 1949 pack, which they selected as their CPR 22 base. That year saw a normal size pack of 3,074,523 standard cases. The sardine canning companies had filed their Form No. 8's in May and June of this year before this year's extremely short pack became an accepted fact. Nor was it known at that time that the run of small fish would continue in the majority for the rest of the season contrary to the normal run of sardines. The additional labor and overhead necessary to pack the sardines this year were not reflected in the prices filed on those forms. When the full situation was realized, a meeting of the Sardine Sub-Committee of the East Coast and Gulf Canned Fish Advisory Committee was held at Portland, Maine, on September 26, 1951. Facts pertinent to this year's operations were reviewed including the cost studies upon which this regulation is based. The results of these studies and the recommendations of the Committee have been given full consideration in arriving at these adjusted ceiling prices.

The Director has decided that a price of $10.50 for a case of 100 standard keyless cans of Maine sardines packed in oil is a fair and equitable price. This increase of 15 percent over the average price which would be permissible under CPR 22, is necessary to take account of the low volume of fish available this year, and the small size of fish. This price is approximately equivalent to that recommended by the Industry Advisory Committee. Even with this increase this price is still below that which prevailed during the years of 1947 and 1948.

It must be emphasized that the prices herein shall apply only to the 1951 pack, due to the abnormal factors discussed above. It is expected that these prices will be revised according to the pack and circumstances existing in 1952.

This regulation establishes dollars-and-cents ceiling prices for those items customarily distinguished for pricing purposes by the industry. Differentials of various styles of pack which follow industry distinctions have been recognized. The prices specified are gross prices and customary allowances and discounts must be deducted from them. These increased prices will be reflected at the wholesale and retail level by the percentage markups provided for in CPR's 14, 15, and 16, and will maintain for Maine sardines, normal price relationships with other competitive canned fish.

In formulating this regulation, the Director of Price Stabilization has consulted with industry representatives to the extent practicable and has given full consideration to their recommendations. In his judgment the provisions of this regulation are generally fair and equitable and are necessary to effectuate the purposes of Title IV of the Defense Production Act of 1950, as amended. The ceiling prices established by this regulation are higher than the prices prevailing just before the date of issuance of this regulation.

As far as practicable, the Director of Price Stabilization gave due consideration to the national effort to achieve maximum production in furtherance of the Defense Production Act of 1950; to prices prevailing during the period from May 24, 1950, to June 24, 1950, inclusive; and to relevant factors of general applicability.

REGULATORY PROVISIONS

Sec.
1. What this regulation does.
2. Where this regulation applies.
3. Ceiling prices for Maine sardines.
4. Conditions and terms of sale.
5. Adjustments.
6. Records.
7. Petition for amendment.
8. Prohibitions.
9. Penalties.
10. Definitions.

AUTHORITY: Sections 1 to 10 issued under sec. 704, 64 Stat. 816, as amended; 50 U. S. C. App. Sup., 2154. Interpret or apply Title IV, 64 Stat. 803, as amended; 50 U. S. C. App. Sup. 2101–2110, E. O. 10161, Sept. 9, 1950, 15 F. R. 6105; 3 CFR, 1950 Supp.

SECTION 1. *What this regulation does.* This regulation establishes specific dollars-and-cents ceiling prices for most sales of canned Maine sardines when such sales are made by the canners of those sardines. These ceiling prices supersede those established by the General Ceiling Price Regulation and by Ceiling Price Regulation 22.

SEC. 2. *Where this regulation applies.* The provisions of this regulation are applicable in the 48 States of the United States and in the District of Columbia.

SEC. 3. *Ceiling prices for Maine sardines.* Your ceiling prices for Maine sardines are as listed below. These prices are for cases of Maine sardines packed in the listed container sizes and types and styles of pack, f. o. b. car at the railroad shipping point nearest the cannery.

A case means a lot of one hundred (100) ¼'s cans or a lot of forty-eight (48) ¾'s cans. The price of a case includes the cost of the shipping container.

Container size and type	Style of pack	Ceiling price per case
Keyless standard packs:		
¼'s	In soybean or cottonseed oil	$10.50
¼'s	In mustard sauce	10.50
¼'s	In tomato sauce	10.50
¼'s	In mustard sauce	9.00
¼'s	In tomato sauce	9.00
Can pack with key:		
With keys wrapped:		
¼'s	In soybean or cottonseed oil	12.00
¼'s	In mustard sauce	12.00
¼'s	In tomato sauce	12.00
¼'s	In peanut oil	12.00
With keys in cartons:		
¼'s	In soybean or cottonseed oil	12.00
¼'s	In mustard sauce	12.00
¼'s	In tomato sauce	12.00
¼'s	In peanut oil	12.00
With keys decorated tops:		
¼'s	In soybean or cottonseed oil	11.25
¼'s	In tomato sauce	11.25
¼'s	In peanut oil	12.00
With keys plain:		
¼'s	In soybean or cottonseed oil	11.00
¾'s	In mustard sauce	11.00

SEC. 4. *Conditions and terms of sale.* The ceiling prices set forth in section 3 of this regulation are gross prices and you must continue to apply all customary delivery terms, discounts, allowances, guarantees, and other usual and customary terms and conditions of sale; which you had in effect between Dec. 19, 1950 and Jan. 25, 1951 inclusive, except that in no instance shall the gross selling price of any item covered by this regulation exceed the ceiling price for such item as set forth in section 3.

SEC. 5. *Adjustments.* For container sizes, or types and styles of pack of Maine sardines not listed in section 3 of this regulation, the ceiling price shall be a price determined by the Director of Price Stabilization to be in line with the prices listed in that section 3. Such determination shall be made upon written request addressed to the Fish Branch, Office of Price Stabilization, Washington 25, D. C., showing the size and type of container listed in section 3 to which your unlisted product is most similar and your price differential between the unlisted product and most similar listed product as of June 24, 1950 or the latest date previous to June 24, 1950 on which both products were sold or offered for sale by you. You may not sell your product under this section 5 until you receive written notification of the ceiling price which has been approved for such product. Until you have received a price under this section 5, you may use the prices you filed pursuant to CPR 22, if approved, or your GCPR prices.

SEC. 6. *Records.* After the effective date of this regulation, if you sell or exchange Maine sardines in the course of trade or business or otherwise deal therein, you must make, preserve, and keep available for examination by the Director of Price Stabilization for a period of two years, accurate records of each sale, showing:

(1) The date of sale;

(2) The name and address of the buyer and of the seller;

(3) The price contracted for or received, with a recording of all allowances, discounts, and other terms and conditions of sale;

(4) The quantity, style of pack, and the container size and type.

SEC. 7. *Petition for amendment.* If you wish to have this regulation amended, you may file a petition for amendment in accordance with the provisions of Price Procedural Regulation 1, Revised (16 F. R. 4974).

SEC. 8. *Prohibitions.* On or after the effective date of this regulation, regardless of any contract, agreement, or other obligation, you shall not sell or deliver, and no person in the course of trade or business shall buy or receive any commodity covered by this regulation at prices higher than those established by this regulation, and no person shall agree, offer, solicit, or attempt to do any of the foregoing. The price limitations set forth in this regulation shall not be evaded, whether by direct or indirect methods, in connection with any offer, solicitation, agreement, sale, delivery, purchase, or receipt of, or relating to any of the commodities covered by this regulation, alone or in conjunction with any other commodity, or by way of any commission, service, transportation, or other charge, or discount, premium, or other privilege, or by tying-agreement or other trade understanding, or by changing the selection or style of processing or the canning, wrapping or packaging of the commodities covered in this regulation, or in any other way.

SEC. 9. *Penalties.* Persons violating any provision of this regulation are subject to the criminal penalties, civil enforcement actions, and suits for damages provided for by the Defense Production Act of 1950, as amended.

SEC. 10. *Definitions.* When used in this regulation the term: (a) "Maine Sardines" means canned Atlantic sea herring (ordinarily Clupea harengus) of the sizes customarily packed and sold under the trade designation of Maine sardines.

(b) "¼'s" means drawn cans of the following measurements: 300.5×404×014.5 or 405×211×016.

(c) "¾'s" means three piece cans or drawn cans of the following measurements: 308×412×112 or 304×508×105.

(d) "Canner" means a person who preserves Maine sardines by processing and hermetically sealing them in metal containers.

(e) "You" means the person subject to this regulation.

Effective date. This regulation is effective October 22, 1951.

NOTE: The record keeping and reporting requirements of this regulation have been approved by the Bureau of the Budget in accordance with the Federal Reports Act of 1942.

MICHAEL V. DISALLE,
Director of Price Stabilization.

OCTOBER 17, 1951.

[F. R. Doc. 51-12605; Filed, Oct. 17, 1951; 4:00 p. m.]

Chapter XXI—Office of Rent Stabilization, Economic Stabilization Agency

[Rent Regulation 3, Amdt. 4 to Schedule A]

RR 3—HOTEL REGULATION

SCHEDULE A—DEFENSE RENTAL AREA

KENTUCKY AND ILLINOIS

Amendment 4 to Schedule A of Rent Regulation 3—Hotel Regulation. Said regulation is amended in the following respect:

New Item 127 is hereby added to Schedule A as follows:

Name of defense-rental area	State	County or counties in defense-rental area under rent regulation 3	Maximum rent date	Effective date of regulation
(127) Paducah	Kentucky Illinois	Ballard and McCracken Massac County; and in Johnson County, the township of Vienna, including the city of Vienna.	Jan. 1, 1951 do	Oct. 17, 1951 Do.

(Sec. 204, 61 Stat. 197, as amended; 50 U. S. C. App. Sup. 1894)

This amendment shall be effective October 17, 1951.

Issued this 15th day of October 1951.

JOHN J. MADIGAN,
Acting Director of Rent Stabilization.

[F. R. Doc. 51-12509; Filed, Oct. 71, 1951; 8:56 a. m.]

TITLE 33—NAVIGATION AND NAVIGABLE WATERS

Chapter I—Coast Guard, Department of the Treasury

Subchapter B—Military Personnel

[CGFR 51-48]

PART 49—PAYMENT OF AMOUNTS DUE MENTALLY INCOMPETENT COAST GUARD PERSONNEL

SUBPART 49.01—GENERAL PROVISIONS

Sec.
49.01-1 Applicability.
49.01-5 Requests for appointment of trustee.
4901-10 Determination of incompetency.

SUBPART 49.05—TRUSTEE

49.05-1 Appointment of trustee.
49.05-5 Bonding of trustee.
49.05-10 Affidavits required.

SUBPART 49.10—REPORTS AND MONEYS

49.10-1 Reports required.
49.10-5 Payment of moneys due.
49.10-10 Cessation of payments.
49.10-15 Final accounting by trustee.

SUBPART 49.15—ADDITIONAL INSTRUCTIONS

49.15-1 Implementing instructions.

AUTHORITY: §§ 49.01-1 to 49.15-1 issued under sec. 3, 64 Stat. 249; 37 U. S. C. 353.

The purpose of the following regulations is to establish necessary requirements and procedures so that payment of moneys due mentally incompetent Coast Guard personnel may be made. Because these regulations establish the procedures and practices in connection with the payment of moneys due mentally incompetent Coast Guard personnel and since it is for the immediate benefit of these incompetent persons, it is hereby found that compliance with the notice of proposed rule making, public rule making procedure thereon, and effective date requirements of the Administrative Procedure Act is impracticable and contrary to the public interest.

Pursuant to the authority vested in the Secretary of the Treasury by section 3 of the act of June 21, 1950, 64 Stat. 249 (37 U. S. C. 351-354), the following regulations are promulgated to govern the payments of amounts due from the Federal Government to persons on the active or retired list of the Coast Guard or the Coast Guard Reserve, entitled to Federal pay either on the active or retired list of said service, when such persons, in the opinion of competent medical authority, have been declared mentally incapable of managing their own affairs.

SUBPART 49.01—GENERAL PROVISIONS

§ 49.01-1 *Applicability.* The Commandant of the Coast Guard is hereby designated and is authorized to appoint, in his discretion, the person or persons who may receive active-duty pay and allowances, amounts due for accumulated or accrued leave, or any retired or retainer pay, otherwise payable to personnel on the active or retired list of the Coast Guard and Coast Guard Reserve, entitled to Federal pay either on the active or any retired list of said service, who, in the opinion of competent medical authority, have been determined to be mentally incapable of managing their own affairs, and for whom no legal committee, guardian, or other representative has been appointed by a court of competent jurisdiction.

§ 49.01-5 *Requests for appointment of trustee.* Requests for the appointment of a person or persons to receive moneys due personnel believed to be mentally incapable of managing their own affairs shall be submitted to the Commandant of the Coast Guard:

(a) By any person or persons who believe, because of relationship, they should be appointed to receive payments on behalf of the alleged incompetent;

(b) By the Commanding Officer of the alleged incompetent if the latter is on active duty;

(c) By the Commanding Officer of any Armed Forces hospital in which the mentally incompetent is undergoing treatment;

(d) By the head of any veterans' hospital, or other public or private institution in which the alleged incompetent is undergoing treatment;

(e) By any other person or organization acting for and in the best interests of the alleged mentally incompetent.

§ 49.01-10 *Determination of incompetency.* After examining the legitimacy, substance, and sufficiency of the application, the Commandant shall either (a) direct the Commanding Officer of the alleged mentally incompetent, (b) the Commanding Officer of the Coast Guard unit to which such incompetent may be conveniently referred, or (c) request the Surgeon General of the Public Health Service to convene or appoint, at the Public Health Hospital or facility, where the alleged incompetent is receiving treatment or to which his case may be conveniently referred, a board of not less than three qualified medical officers, one of whom shall be specially qualified in the treatment of mental disorders, to determine whether the alleged incompetent is capable of managing his own affairs. The record of proceedings and the findings of the board shall, after action by the Convening or Appointive Authority thereon, be forwarded to the Commandant.

SUBPART 49.05—TRUSTEE

§ 49.05-1 *Appointment of trustee.* Upon receipt of a finding by a board convened or appointed in accordance with § 49.01-10, that the alleged incompetent is mentally incapable of managing his own affairs, the Commandant may appoint a suitable person or persons, not under legal disability so to act, as trustee or trustees to receive in behalf of the incompetent all amounts due the incompetent from such sources set forth in § 49.01-1, and to use said funds in the best interests of the incompetent.

§ 49.05-5 *Bonding of trustee.* The trustee or trustees appointed to receive moneys in behalf of incompetent personnel shall furnish a bond in all cases when the amounts to be received may be expected to exceed $1,000, and in such other cases when deemed appropriate by the Commandant. The bond so required and furnished shall have as surety a company approved by the Federal Government, and shall be in such amount as is required by the Commandant. Such bonds shall be continued in effect for the life of trusteeship and expenses in connection with the furnishing and renewal of such bonds may be paid out of sums due the incompetent.

§ 49.05-10 *Affidavits required.* The trustee or trustees appointed to receive moneys due incompetent personnel shall, prior to the payment of any such moneys, execute and file with the Commandant an affidavit or affidavits saying and deposing that any moneys henceforth received by virtue of such appointment shall be applied solely to the use and benefit of the incompetent and that no fee, commission, or charge shall be demanded, or in any manner accepted, for any service or services rendered in connection with such appointment as trustee or trustees.

SUBPART 49.10—REPORTS AND MONEYS

§ 49.10-1 *Reports required.* The trustee or trustees so appointed shall submit reports annually, or at such other times as the Commandant may designate. The report shall show a statement of the conditions of the trust account at the time

of the submission of the report, including all funds received on behalf of the incompetent; all expenditures made in behalf of the incompetent, accompanied by receipts or vouchers covering such expenditures; and a receipt indicating that the surety bond required by § 49.05-5 has been renewed. When the trustee is the spouse or adult dependent of the incompetent, receipts or vouchers need not be filed for expenditures made for living expenses. If the trustee or trustees fail to report promptly and properly at the end of any annual period or at such other times as the Commandant desires, the Commandant may, in his discretion, cause payment to such trustee or trustees to cease, and may, if deemed advisable, appoint another person or persons not under legal disability so to act, to receive future payments of moneys due the incompetent for the use and benefit of the incompetent.

§ 49.10-5 *Payment of moneys due.* Upon the appointment of a trustee or trustees to receive moneys due an incompetent, the authorized certifying officer having custody of that person's pay record shall be advised. After such notification, payments of moneys due the incompetent may be made by the appropriate officer in accordance with procedure prescribed by the Commandant. All such payments so made, however, shall be made to the designated trustee or trustees.

§ 49.10-10 *Cessation of payments.* (a) Payments of amounts due incompetent personnel shall cease to be paid to the trustee or trustees upon receipt of notification by the authorized certifying officer of the occurrence of any of the following:

(1) Death of the incompetent;

(2) Death or disability of the trustee or trustees appointed;

(3) Receipt of notice that a committee, guardian, or other legal representative has been appointed for the incompetent by a court of competent jurisdiction;

(4) Failure of the trustee or trustees to render the reports required by § 49.10-1;

(5) That there is probable cause to believe that moneys received on behalf of the incompetent have been, or are being, improperly used;

(6) A finding by a board of medical officers that the heretofore incompetent is mentally capable of managing his own affairs;

(7) That the Commandant deems it to be in the best interest of the incompetent.

(b) In the event of termination of payments under subparagraphs (2), (4), (5), or (7) in paragraph (a) of this section, the Commandant may, if deemed appropriate, appoint a successor trustee or trustees. The successor trustee or trustees, so appointed, shall comply with the provisions of the regulations and instructions in this part issued thereunder, and do all acts in the manner required of the original trustee or trustees.

§ 49.10-15 *Final accounting by trustee.* The trustee or trustees, when payments hereunder are terminated, shall file a final account with the said Commandant. Thereupon, the trustee or trustees will be discharged and the surety released. In event of death or disability of the trustee, the final accounting will be filed by his legal representative.

SUBPART 49.15—ADDITIONAL INSTRUCTIONS

§ 49.15-1 *Implementing instructions.* The Commandant is hereby authorized to issue such instructions not in conflict with the regulations in this part as may be necessary from time to time to give full force and effect thereto.

Dated: October 11, 1951.

[SEAL] E. H. FOLEY,
Acting Secretary of the Treasury.

[F. R. Doc. 51-12504; Filed, Oct. 17, 1951; 8:53 a. m.]

TITLE 38—PENSIONS, BONUSES, AND VETERANS' RELIEF

Chapter I—Veterans' Administration

PART 1—GENERAL PROVISIONS

MISCELLANEOUS AMENDMENTS

1. Sections 1.509 and 1.510 are amended to read as follows:

§ 1.509 *Disclosure to courts in proceedings in the nature of an inquest.* The solicitor, chief attorneys, and managers are authorized to make disclosures to courts of competent jurisdiction of such files, records, reports, and other documents as are necessary and proper evidence in proceedings in the nature of an inquest into the mental competency of claimants and other proceedings incident to the appointment and discharge of guardians, curators, or conservators to any court having jurisdiction of such fiduciaries in all matters of appointment, discharge, or accounting in such courts.

§ 1.510 *Disclosure to insurance companies cooperating with the Department of Justice in the defense of insurance suits against the United States.* Copies of records from the files of the Veterans' Administration will, in the event of litigation involving commercial insurance policies issued by an insurance company cooperating with the Department of Justice in defense of insurance suits against the United States, be furnished to such companies without charge, provided the claimant or his duly authorized representative has authorized the release of the information contained in such records. If the release of information is not authorized in writing by the claimant or his duly authorized representative, information contained in the files may be furnished to such company if to withhold same would tend to permit the accomplishment of a fraud or miscarriage of justice. However, before such information may be released without the consent of the claimant, the request therefor must be accompanied by an affidavit of the representative of the insurance company, setting forth that litigation is pending, the character of the suit, and the purpose for which the information desired is to be used. If such information is to be used adversely to the claimant, the affidavit must set forth facts from which it may be determined by the solicitor or chief attorney whether the furnishing of the information is necessary to prevent the perpetration of a fraud or other injustice. The averments contained in such affidavit should be considered in connection with the facts shown by the claimant's file, and, if such consideration shows the disclosure of the record is necessary and proper to prevent a fraud or other injustice, information as to the contents thereof may be furnished to the insurance company or copies of the records may be furnished to the court, Workmen's Compensation, or similar board in which the litigation is pending upon receipt of a subpena duces tecum addressed to the Administrator of Veterans' Affairs, or the manager of the office in which the records desired are located. In the event the subpena requires the production of the file, as distinguished from the copies of the records, no expense to the Veterans' Administration may be involved in complying therewith, and arrangements must be made with the representative of the insurance company causing the issuance of the subpena to insure submission of the file to the court without expense to the Veterans' Administration.

2. In § 1.511, paragraphs (a), (b), and (c) are amended to read as follows:

§ 1.511 *Judicial proceedings generally.* (a) Where a suit has been threatened or instituted against the Government, other than for insurance under section 19 of the World War Veterans' Act, 1924, as amended, or section 617, National Service Life Insurance Act, as amended, or a prosecution against a claimant has been instituted or is being contemplated, the request of the claimant or his duly authorized representative for information, documents, reports, etc., shall be acted upon by the solicitor in Central office of the chief attorney in the field station who shall determine the action to be taken with respect thereto. In cases involving insurance litigation (suits for insurance filed under section 19 of the World War Veterans' Act, 1924, as amended, or section 617, National Service Life Insurance Act, as amended), the request shall be acted upon by the director of the service having jurisdiction over the subject matter in central office or field station. Where the files have been sent to the Department of Justice in connection with any such suit, the request will be referred to the Department of Justice, Veterans' Affairs Section, Washington, D. C., for attention. In all other cases where copies of documents or records are desired by or on behalf of parties to a suit, whether in a court of the United States or any other, such copies shall be furnished as provided in paragraph (d) of this section; otherwise to the court only, and on an order of the court or subpena duces tecum addressed to the Administrator of Veterans' Affairs, or the man-

ager of the field station in which the records desired are located requesting the same. The determination as to the action to be taken upon any order received in this class of cases shall be made by the service having jurisdiction over the subject matter in central office or the division having jurisdiction over the subject matter in the field station, except in those cases in which the records desired are to be used adversely to the claimant, in which latter event the order of the court or the subpena will be referred to the solicitor in central office or to the chief attorney in the field station for disposition.

(b) Where the process of a United States court requires the production of documents or records (or copies thereof) contained in the Veterans' Administration file of a claimant, such documents or records (or copies) will be made available to the court out of which process has been issued. Where original records are produced, they must remain at all times in the custody of a representative of the Veterans' Administration, and, if offered and received in evidence, permission should be obtained to substitute a copy so that the original may remain intact in the file. Where the subpena is issued praecipe of a party litigant other than the United States, such party litigant must prepay the costs of copies in accordance with fees prescribed by § 1.526 (g) and any other costs incident to production.

(c) Where copies of documents or records are requested by the process of any State or municipal court, Workmen's Compensation Board or other administrative agency, functioning in a quasi-judicial capacity, the process when presented must be accompanied either by authority from the claimant concerned to comply therewith or by an affidavit of the attorney of the party securing the same, setting forth the character of the pending suit, the purpose for which the documents or records sought are to be used as evidence, and, if adversely to the claimant, information from which it may be determined whether the furnishing of the records sought is necessary to prevent the perpetration of fraud or other injustice. When the process received is accompanied by authorization of the claimant to comply therewith, if otherwise it be proper under §§ 1.501 to 1.526, copies of the records requested shall be furnished to the attorney for the party who caused the process to be issued upon the payment of the prescribed fee. If it appears by the process or otherwise that the records are to be used adversely to the claimant, the averments contained in the affidavit shall be considered in connection with the facts shown by the claimant's file, and, if such consideration shows the disclosure of the records is necessary and proper to prevent a fraud or other injustice, the records requested shall be produced before the court, or board or other agency on the date stipulated in the subpena duces tecum, or other proper process and appropriate disclosure made within the limits of §§ 1.501 to 1.526. In such case both the attorney for the veteran and the attorney for the party who secured the process, shall be advised by the Veterans' Administration representative having custody of the records or file that the same are available for examination within said limits by either or both of the said attorneys. Payment of the fees as prescribed by the schedule of fees, as well as the amount of any other cost incident to producing the records, must first be deposited with the Veterans' Administration by the party who caused the process to be issued. If the responsible Veterans' Administration employees (see paragraph (a) of this section) decides that insufficient cause has been shown to warrant releasing the requested information, the Veterans' Administration employee who responds to the process will insist that Veterans' Administration records are confidential and privileged, and although produced at the hearing, will decline to reveal their content. The file must remain at all times in the custody of a representative of the Veterans' Administration, and, if there is an offer and admission of any record or document contained therein, permission should be obtained to substitute a copy so that the original may remain intact in the file.

* * * * *

(Sec. 5, 43 Stat. 606, as amended, sec. 2, 46 Stat. 1016; 38 U. S. C. 11a, 426. Interpret or apply sec. 30, 43 Stat. 615, as amended, Vet. Reg. 11, as amended; 53 U. S. C. 456 ch. 12, Note)

This regulation effective October 18, 1951.

[SEAL] O. W. CLARK,
Deputy Administrator.

[F. R. Doc. 51-12493; Filed, Oct. 17, 1951; 8:54 a. m.]

TITLE 39—POSTAL SERVICE

Chapter I—Post Office Department

PART 43—TREATMENT OF DOMESTIC MAIL MATTER AT RECEIVING POST OFFICES

PART 127—INTERNATIONAL POSTAL SERVICE: POSTAGE RATES, SERVICE AVAILABLE, AND INSTRUCTIONS FOR MAILING

MISCELLANEOUS AMENDMENTS

1. In § 43.47 *Disposal of undeliverable perishable matter* (15 F. R. 2181) subparagraph (2) *Baby Fowl* of paragraph (b) *When may be sold* is redesignated as subparagraph (3).

2. In § 127.298 *Madeira Islands,* amend paragraph (b) (1) by adding new subdivision (ii) to read as follows:

(ii) Air parcels.

Rates $0.75 first 4 ounces; $0.50 each additional 4 ounces. Each air parcel and the relative dispatch note must have affixed the blue Par Avion Label (Form 2978). (See § 127.55 (b).)

(R. S. 161, 396, 398, sec. 1, 46 Stat. 264, secs. 304, 309, 42 Stat. 24, 25; 5 U. S. C. 22, 369, 372, 39 U. S. C. 261)

[SEAL] J. M. DONALDSON,
Postmaster General.

[F. R. Doc. 51-12459; Filed, Oct. 17, 1951; 8:47 a. m.]

TITLE 47—TELECOMMUNICATION

Chapter I—Federal Communications Commission

[Docket No. 9934]

PART 43—REPORTS OF COMMUNICATIONS COMMON CARRIERS AND THEIR AFFILIATES

AMENDMENT OF ANNUAL REPORT OF FORM M, APPLICABLE TO CLASS A AND B TELEPHONE COMPANIES

In the matter of amendment of Annual Report Form M; applicable to Class A and Class B Telephone Companies.

On July 18, 1951, the Commission adopted a notice of proposed rule making looking toward the amendment of Annual Report Form M applicable to Class A and Class B Telephone Companies. That notice was published in the FEDERAL REGISTER (16 F. R. 7365) in accordance with section 4 (a) of the Administrative Procedure Act. Interested persons were required to file comments with the Commission on or before August 24, 1951. Persons who desired to file answers or further comments in response to comments filed by the August 24th date were required to do so on or before September 7, 1951.

The Commission received comments from the American Telephone and Telegraph Company (hereinafter referred to as A. T. & T.), on behalf of the Bell System, from the Communications Workers of America, affiliated with CIO (hereinafter referred to as CWA–CIO), and from the United States Independent Telephone Association (hereinafter referred to as USITA). Many of the comments which were filed by A. T. & T., and three suggestions by the F. C. C. staff, are editorial in nature and tend to clarify the proposed amendments to the rules and regulations. Likewise, it has been determined that the proposal to segregate statistical data on local telephone calls as between "completed" and "uncompleted" will not produce results justifying the additional cost to the carriers of compiling and reporting these data. Accordingly, these changes in the proposed form as set forth below are adopted by the Commission.

All of the proposals submitted by CWA–CIO, some of the comments filed by A. T. & T., and the comment filed by USITA were substantive in nature and will be discussed in some detail in the following paragraphs in the same order as the schedules appearing in the Proposed Form M.

Schedule 5. Voting powers and elections. CWA–CIO has suggested that the information obtained in this schedule should be enlarged by adding an item which would require the reporting company to give the names and titles of individuals who voted proxy shares at the meeting reported on the date shown in the answer to Query 4 of that schedule. The Commission finds no need for these data to be reported in Form M. Moreover, data with respect to proxy holders are filed with the Securities and Exchange Commission and are available to the Commission and other parties upon

request. Accordingly, this proposed amendment is not adopted.

Schedule 6. Stockholders. With respect to this schedule, CWA-CIO has suggested that the Commission should modify the Form to require the reporting companies to submit the names of all the beneficial owners of 1,000 or more shares of stock in the reporting company. The Form presently requires the reporting company to state the total number of shares outstanding and to list the names of the thirty largest stockholders in the company. Section 219 of the Communications Act of 1934 requires the annual reports of telephone companies to show the total number of stockholders and the names of the thirty largest holders of each class of stock and the amount held by each person. The information required by Schedule 6 of Form M as proposed by the Commission is that which is required by statute and appears to be adequate for the Commission's regulatory purposes.

In view of the foregoing, this proposal is not adopted by the Commission.

Schedule 10. Balance sheet. USITA has suggested that Schedule 10 be modified to provide for a showing of depreciation and amortization reserves on the liability side of the balance sheet rather than the asset side. However, the preponderance of opinion among accounting authorities is that depreciation and amortization reserves are contra-accounts to the plant accounts; that these reserves show the estimated portion of the asset cost which has expired, and which has been charged off as depreciation and amortization; and that these reserves should, accordingly, be shown on the balance sheet as deductions from the related assets. This form of balance sheet presentation is used almost universally in business, including other regulated utilities such as railroads, motor carriers, electric and gas companies, telegraph and cable companies, etc. Accordingly, the Commission is of the opinion that telephone companies should also follow this well-accepted practice.

A. T. & T. has suggested that note 3 on page 13 should be revised so as not to include investment advances for the reason that such advances are usually evidenced by demand notes or are made an open account and it is normally intended that such debts will be repaid from the proceeds realized from issuance of capital stock or funded debt. The purpose of Note 3 is to show the amount which the company may be required to liquidate within one year from the date of the balance sheet. When the amount thereof includes items which are intended to be repaid from the proceeds realized from the issuance of capital stock or funded debt, or when other circumstances known to the respondent would make the statement misleading, further information should be added as required by General Instruction 9.

Accordingly, the above-proposed revisions of Schedule 10 are not adopted.

Schedule 11. Income and earned surplus statement. A. T. & T. has suggested that the wording of Note 1 of Schedule 11 should be revised since as presently proposed by the Commission there is an implication that the company knows what portion of revenue subject to refund in any pending rate proceedings actually would be refunded in the event of adverse decisions. The company's suggestion is not adopted since under the provisions of General Instruction 9 any further material information should be included in any event.

Schedule 36-A. Operating taxes. This schedule requires the reporting company to submit data with respect to taxes paid, showing a breakdown as to the states in which the taxes were paid, and the type of taxes for each state. A. T. & T. has suggested that this additional breakdown will impose a serious burden on the companies, and has suggested that the old form, requiring only a showing by states of taxes other than U. S. Government taxes, be continued. However, a detailed breakdown showing the type of taxes as well as the amount paid to each state is of particular value to state regulatory commissions which, to a large extent, also require the filing of this form. Accordingly, this suggestion is not adopted.

Schedule 40. Advertising. This schedule requires the reporting company to submit information with respect to (1) all expenditures for advertising generally, (2) all expenditures for the specific purpose of influencing political decisions, proposed legislation, etc., and (3) all other monies expended for advertsing purposes in conjunction with the conduct of the company's business, whether or not such amounts are specifically charged to the advertising account. A. T. & T. has suggested that these requirements impose a severe burden on the companies requiring them to analyze and extract material from 20 or more accounts, and has suggested that the requirement set forth in (3), above, is of little regulatory value and should be omitted from the schedule or, in the alternative, the requested information should be limited to expenditures of more than $1,000.

On the other hand, CWA-CIO has contended that the information which the Commission receives in Schedule 40 is inadequate and that advertising costs should be further broken down to show what portion of the company's advertising expenditures relate to labor-management relations and more particularly what portion of this expenditure relates to advertisements designed to influence public opinion with respect to labor-management disputes in industry. The company and the union have expressed directly opposite views concerning this matter, and the Commission is unable to agree with either.

Information with respect to over-all advertising expenditures on the part of the company is of value to this Commission in exercising its regulatory responsibility. On the other hand, it appears that a further breakdown in the annual reporting of advertising expenditures to make the showings requested by the union is of little value to this Commission in so far as its regulatory functions are concerned.

Accordingly, none of the foregoing suggestions with respect to Schedule 40 are adopted.

Schedules 60A and 60B. Relief and pensions. CWA-CIO has suggested that these schedules be revised to provide a separate breakdown of data relating to relief and pensions so that the Commission can determine what portion of revenues and money spent went to so-called management employees and what portion went to non-management employees.

It would be impracticable, if not impossible, for the companies to make the requested segregation with respect to advance accruals (approximately 80 percent of the total annual charges for pensions and other benefits) to pension funds and premiums paid to life insurance companies for annuities. Trustees of pension funds and life insurance companies disburse pensions directly to retired employees from funds provided by the companies through the advance accruals which are determined by actuarial computations which make no segregation between management and non-management employees. In fact, the actuaries would have no way of knowing whether the persons for whom pension accruals are being computed will be in the management or non-management status upon retirement. Furthermore, to segregate pension payments, other benefit payments, and costs of operating benefit and medical departments, as between management and non-management employees, would be impracticable in many instances, and would serve no useful purpose since the Commission's needs are met by the provisions of the proposed schedules. Accordingly, no changes are made in Schedules 60A and 60B.

Schedule 70C. Wages and hours. CWA-CIO has also recommended that this schedule be modified to permit the Commission to determine an actual wage frequency distribution of all workers covered by the report and that provision should be made for actual hourly rates and the number of persons at each and every wage rate for the year reported. The Commission sees no regulatory need for a more detailed breakdown of wage statistics in Form M. Moreover, the more general breakdowns embodied in this schedule have proved to be adequate for the Bureau of Labor Statistics and for other groups interested in general information with respect to the hours and wages of employees of telephone companies. Accordingly, this suggestion is not adopted.

Inasmuch as the comments received clearly state the position of the parties who have filed comments, the Commission finds that oral argument is not warranted in this matter.

Authority for the issuance of this rule-amendment is contained in sections 4 (i) and 219 of the Communications Act of 1934, as amended.

It is ordered, therefore, That "Annual Report Form M—Revision of 1951" as set out in the appendix attached to the aforementioned notice of proposed rule making, and modified as set out below, be, and is hereby adopted; and

It is further ordered, That each Class A and Class B Telephone Company subject to the jurisdiction of the Commission shall prepare and file its annual report,

to the Commission for the year ended December 31, 1951, and for each year thereafter until further order of the Commission, in the form and manner therein prescribed; *Provided, however,* That a company that has kept its records for the calendar year 1951 in a manner that would require unduly burdensome analysis or rearrangement to compile and report data not called for in the previous report form may, upon application to and approval by the Commission in the specific instance, annotate particular schedules or portions thereof in lieu of filing complete returns for the calendar year 1951.

(Sec. 4, 48 Stat. 1066 as amended; 47 U. S. C. 154. Interprets or applies sec. 219, 48 Stat. 1077, 47 U. S. C. 219)

Adopted: October 10, 1951.

Released: October 11, 1951.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] T. J. SLOWIE,
Secretary.

1. *Parallel reference table.* Delete reference to Schedules 330 and 331 in Footnote 1 and substitute dashes for the number 7 and 9–10 in the 9th and 11th items in the 7th and 8th columns from the left in this table.

2. *General instructions.* The word, "three" appearing in line 2 of paragraph 2 of the General Instructions should read, "two."

3. *Schedule 3. Board of Directors.* The following sentence should be added to the instructions: "Columns (e) and (f) relate to Board meetings only."

4. *Schedule 7. Important changes during the year.* In the third line of Instructions 5 and 6 after the words, "other parties" change the word, "under" to read, "to a."

5. *Schedule 11. Income and earned surplus statement.* Insert an asterisk following the caption, "Earned Surplus" in column (a) of Schedule 11 and append a footnote reading:

*See Schedule 81 for an analysis of Earned Surplus Reserved at the end of the year.

6. *Schedule 12B. Analysis of credits for telephone plant retired.* Change the line references in Instruction 4 to read, "11 to 19."

7. *Schedule 13B. Analysis of telephone plant acquisition adjustments.* Block out column (b) on line 15.

8. *Schedule 14A. Analysis of entries in depreciation reserve.* Revise the note to read: "Included in Account 607, 'Station removals and changes'."

9. *Schedule 16. Miscellaneous physical property.* The period at the end of Instruction 1 should be changed to a comma and the following language added: "including in columns (d) through (g) data for property disposed of during the year."

10. *Schedule 17. Investments.* In the third line of Instruction 1 following the word, "security" the following should be added: "(except that all U. S. Government issues included in one account may be shown on one line)"

11. a. In line 5 of Instruction 1 the classification D should be changed to read: "D Other."

b. The following instruction should be added:

5. With respect to investment advances included in Accounts 101.2 and 102, responses should be made only in columns (c), (f), (j) and (k) for the total of advances made to each of the companies listed in column (b).

12. *Schedule 20. Notes Receivable.* Block outs should be inserted in column (f) at lines 11 and 23.

13. *Schedule 23. Capital stock.* A footnote, which was inadvertently omitted, should be inserted reading as follows:

[1] ( ) denotes discount.

14. *Schedule 28. Notes payable.* Block outs should be inserted in column (f) at lines 11 and 23.

15. *Schedule 37. Analysis of dividend and interest income.* Divide column (d) into two columns headed, respectively, (d) "Dividend Income" and (e) "Interest Income," and revise instruction 2 to read "The sum of the totals of columns (d) and (e) should equal the amount shown on line 11 in column (b) of schedule 11."

16. *Schedule 43. Donations or payments for services rendered by persons other than employees.* The word, "non-carrier" should be inserted before the word, "affiliates" in the last line of Instruction 1.

17. *Schedule 51. Statistics relating to central offices.* The word, "switching" should be deleted in line 11 of Schedule 51.

18. *Schedule 52. Telephones in service.* Line 12 should be deleted.

19. *Schedule 53. Telephone calls.* Delete columns (c) and (d), and redesignate columns (e) to (j), inclusive, as (c) to (h). In Instruction 3 delete reference to columns (d) and (e), and in Instruction 5 change the reference to columns (f) and (j) to read "(d) and (h)," and the reference to columns (e) and (i) to read "(c) and (g)."

20. *Schedule 54. Telegraph stations.* "December 31" should be substituted for, "June 30" in line 1 of Instruction 1 and in the caption above columns (b) to (i).

21. a. *Schedule 57C. Domestic public land mobile radio services.* Line 10 of column (m) in Schedule 57C should be blocked out.

b. Line 24 should be changed to read as follows: "Revenue during the year from private mobile radiotelephone systems $_____."

22. a. *Schedule 60B. Pensions paid.* A caption, "At End of the Year" should be inserted at the right-hand side of the schedule above lines 9 to 12, inclusive.

b. On line 12 the word, "are" should be changed to read, "were."

23. *Schedule 70B. Compensation of Officers, Directors, Etc.* Substitute the words, "an affiliated" for the word, "another" in the second line of Instruction 3.

[F. R. Doc. 51-12525; Filed, Oct. 17, 1951; 9:00 a. m.]

PROPOSED RULE MAKING

DEPARTMENT OF THE TREASURY

Bureau of Internal Revenue

[26 CFR Part 29]

INCOME TAX; TAXABLE YEARS BEGINNING AFTER DECEMBER 31, 1941

NOTICE OF PROPOSED RULE MAKING

Notice is hereby given, pursuant to the Administrative Procedure Act, approved June 11, 1946, that the regulations set forth in tentative form below are proposed to be prescribed by the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury, subject to any changes which may be necessitated by the revenue legislation now pending before the Congress, H. R. 4473. Prior to the final adoption of such regulations, consideration will be given to any data, views, or arguments pertaining thereto which are submitted in writing in duplicate to the Commissioner of Internal Revenue, Washington 25, D. C., within the period of 30 days from the date of publication of this notice in the FEDERAL REGISTER. The proposed regulations are to be issued under the authority contained in sections 62, and 3791 of the Internal Revenue Code (53 Stat. 32, 467; 26 U. S. C. 62, 3791).

[SEAL] JOHN B. DUNLAP,
Commissioner of Internal Revenue.

In order to conform Regulations 111 (26 CFR Part 29) to section 218 of the Revenue Act of 1950, Public Law 814, 81st Congress, approved September 23, 1950, such regulations are hereby amended as follows:

PARAGRAPH 1. There is inserted immediately following § 29.130–1 the following:

SEC. 218. STOCK OPTIONS [REVENUE ACT OF 1950, APPROVED SEPTEMBER 23, 1950].

(a) *Treatment of certain employee stock options.* Supplement B of chapter 1 is hereby amended by adding at the end thereof the following new section:

SEC. 130A. EMPLOYEE STOCK OPTIONS.

(a) *Treatment of restricted stock options.* If a share of stock is transferred to an individual pursuant to his exercise after 1949 of a restricted stock option, and no disposition of such share is made by him within two years from the date of the granting of the option nor within six months after the transfer of such share to him—

(1) No income shall result at the time of the transfer of such share to the individual

upon his exercise of the option with respect to such share;

(2) No deduction under section 23 (a) shall be allowable at any time to the employer corporation of such individual or its parent or subsidiary corporation with respect to the share so transferred; and

(3) No amount other than the option price shall be considered as received by either of such corporations for the share so transferred.

This subsection and subsection (b) shall not apply unless (A) the individual, at the time he exercises the restricted stock option, is an employee of the corporation granting such option or of a parent or subsidiary corporation of such corporation, or (B) the option is exercised by him within three months after the date he ceases to be an employee of any of such corporations.

(b) *Special rule where option price is between 85 percent and 95 percent of value of stock.* If no disposition of a share of stock acquired by an individual upon his exercise after 1949 of a restricted stock option is made by him within two years from the date of the granting of the option nor within six months after the transfer of such share to him, but, at the time the restricted stock option was granted, the option price was less than 95 per centum of the fair market value at such time of such share, then, in the event of any disposition of such share by him, or in the event of his death (whenever occurring) while owning such share, there shall be included as compensation (and not as gain upon the sale or exchange of a capital asset) in his gross income, for the taxable year in which falls the date of such disposition or for the taxable year closing with his death, whichever is applicable, an amount equal to the amount (if any) by which the option price is exceeded by the lesser of—

(1) The fair market value of the share at the time of such disposition or death, or

(2) The fair market value of the share at the time the option was granted.

In the case of the disposition of such share by the individual, the basis of the share in his hands at the time of such disposition shall be increased by an amount equal to the amount so includible in his gross income.

(c) *Acquisition of new stock.* If stock transferred to an individual upon his exercise of the option is exchanged by him for stock or securities in an exchange within the provisions of section 112 (b) (2) or (3), or if new stock, as described in section 113 (a) (19), is acquired upon a distribution with respect to such stock, the stock or securities acquired in such exchange and such new stock shall be considered as having been transferred to him upon his exercise of such option. A similar rule shall be applied in the case of a series of such exchanges or acquisitions.

(d) *Definitions.* As used in this section—

(1) *Restricted stock option.* The term "restricted stock option" means an option granted after February 26, 1945, to an individual, for any reason connected with his employment by a corporation, if granted by the employer corporation or its parent or subsidiary corporation, to purchase stock of any of such corporations, but only if—

(A) At the time such option is granted the option price is at least 85 per centum of the fair market value at such time of the stock subject to the option; and

(B) Such option by its terms is not transferable by such individual otherwise than by will or the laws of descent and distribution, and is exercisable, during his lifetime, only by him; and

(C) Such individual, at the time of the option is granted, does not own stock possessing more than 10 per centum of the total combined voting power of all classes of stock of the employer corporation or of its parent or subsidiary corporation. For the purposes of this subparagraph—

(i) Such individual shall be considered as owning the stock owned, directly or indirectly, by or for his brothers and sisters (whether by the whole or half blood), spouse, ancestors, and lineal descendants; and

(ii) Stock owned, directly or indirectly, by or for a corporation, partnership, estate, or trust, shall be considered as being owned proportionately by or for its shareholders, partners, or beneficiaries.

(2) *Parent corporation.* The term "parent corporation" means any corporation (other than the employer corporation) in an unbroken chain of corporations ending with the employer corporation if, at the time of granting of the option, each of the corporations other than the employer corporation owns stock possessing more than 50 per centum of the total combined voting power of all classes of stock in one of the other corporations in such chain.

(3) *Subsidiary corporation.* The term "subsidiary corporation" means any corporation (other than the employer corporation) in an unbroken chain of corporations beginning with the employer corporation if, at the time of the granting of the option, each of the corporations other than the last corporation in the unbroken chain owns stock possessing more than 50 per centum of the total combined voting power of all classes of stock in one of the other corporations in such chain.

(4) *Disposition.* The term "disposition" includes a sale, exchange, gift, or any transfer of legal title, but does not include—

(A) A transfer from a decedent to his estate or a transfer by bequest or inheritance;

(B) An exchange which is within the provisions of section 112 (b) (2) or (3); or

(C) A mere pledge or hypothecation.

(e) *Modification, extension, or renewal of option.* For the purposes of subsection (d), if the terms of any option to purchase stock are modified, extended, or renewed, the following rules shall be applied with respect to transfers of stock made upon an exercise of the option after the making of such modification, extension, or renewal:

(1) Such modification, extension, or renewal shall be considered as the granting of a new option;

(2) The fair market value of such stock at the time of the granting of such option shall be considered as (A) the fair market value of such stock on the date of the original granting of the option, (B) the fair market value of such stock on the date of the making of such modification, extension, or renewal, or (C) the fair market value of such stock at the time of the making of any intervening modification, extension, or renewal, whichever is the highest.

(b) *Effective date.* The amendment made by this section shall be applicable with respect to taxable years ending after December 31, 1949.

§ 29.130A–1 *Meaning and use of certain terms.* For the purpose of section 130A—

(a) *Option.* The term "option" includes the right or privilege of an individual to purchase stock from a corporation by virtue of an offer of the corporation continuing for a stated period of time, whether or not irrevocable, to sell such stock at a stated price, such individual being under no obligation to purchase. Such right or privilege, when granted, must be evidenced in writing The individual who has such right or privilege is referred to as the optionee and the corporation offering to sell stock under such an arrangement is referred to as the optionor. While no particular form of words is necessary, the written option must express an offer to sell at a stated option price and must specify a period of time during which the offer shall remain open.

An option may be granted as part of or in conjunction with an employee stock purchase plan or subscription contract.

An arrangement between a corporation and an employee may involve more than one option. For example, if a corporation on June 1, 1951, grants to an employee the right to purchase 1,000 shares of its stock on or after June 1, 1952, another 1,000 shares on or after June 1, 1953, and a further 1,000 shares on or after June 1, 1954, all shares to be purchased before June 1, 1955, provided the employee at the time of exercise of any of the purchase rights is employed by the corporation, such an arrangement will be construed as the grant to the employee on June 1, 1951, of three options, each for the purchase of 1,000 shares. Similarly, if a corporation grants to an employee on January 1, 1952 the right to purchase 1,000 shares of its stock at $85 per share during 1952, at $75 per share during 1953, and at $65 per share during 1954, such an arrangement will be construed as the grant to the employee on January 1, 1952, of three alternative options, one option for the purchase of 1,000 shares at $85 per share during 1952, an alternative option for the purchase of 1,000 shares at $75 per share during 1953, and a third alternative option for the purchase of 1,000 shares at $65 per share during 1954.

(b) *Time and date of granting of option.* The words "the date of the granting of the option" and "the time such option is granted", and similar phrases, refer to the date or time when the employer corporation completes the corporate action constituting an offer of stock for sale to an employee under the terms and conditions of a restricted stock option. Ordinarily, the time or date of the granting of an option shall not be deemed to be prior to the time or date the corporation takes the last step necessary to give notice to the individual employee or to a class or group of employees, including such individual, that an option or options have been granted. If the corporation imposes conditions on the granting of an option (as distinguished from conditions governing the exercise of the option), effect shall be given to such conditions. For example, if the granting of an option is conditioned by its terms upon the approval of the stockholders, such as a recital that the arrangement shall be reported to the stockholders for their approval, such option is not granted until the necessary approval is obtained. If the granting of an option is subject to a condition which does not require corporate action, such as the approval of some regulatory or governmental agency, for example, a stock exchange or the Securities and Exchange Commission, such fact will not affect the date of the granting of the option. If an option is granted to an individual upon the condition that such individual will become an employee of the corporation granting the option or of its parent or subsidiary corporation,

such option is not granted prior to the date the individual becomes such an employee.

In general, conditions imposed upon the exercise of an option will not operate to make ineffective the granting of an option. For example, on June 1, 1951, the A Corporation grants to X, an employee, an option to purchase 5,000 shares of the corporation stock, exercisable by X on or after June 1, 1952, provided he is employed by the corporation on June 1, 1952. Such an option is granted to X on June 1, 1951.

(c) *Stock.* The term "stock" means capital stock of any class, including voting or nonvoting common or preferred stock. The term also includes treasury stock and stock of original issue. Special classes of stock authorized to be issued to and held by employees are within the scope of the term "stock" as used in section 130A, provided such stock otherwise possesses the rights and characteristics of capital stock.

(d) *Option price.* The term "option price" means the consideration in money or property stated in the option to be the price for the stock subject to the option. For example, if the A Company grants to an employee on June 1, 1951, an option to purchase 1,000 shares of the A Company's stock at a price equal to 95 percent of the fair market value of such stock on June 1, 1951, and if the fair market value of such stock on June 1, 1951 is $100 per share, the option price is fixed and determinable as of the date the option is granted, and is an amount equal to $95 per share.

(e) *Exercise.* The term "exercise", when used in reference to an option, means the act of acceptance by the optionee of the offer to sell contained in the option. In general, the time of exercise is the time when there is a sale or a contract to sell between the corporation and the individual.

(f) *Transfer.* The term "transfer", when used in reference to the transfer to an individual of a share of stock pursuant to his exercise of a restricted stock option means the transfer of ownership of such share, or the transfer of substantially all the rights of ownership. Such transfer must, within a reasonable time after the exercise of the option, be evidenced on the books of the corporation.

§ 29.130A-2 *Restricted stock option—*(a) *In general.* A "restricted stock option" is an option granted after February 26, 1945, to an individual, for any reason connected with his employment by a corporation, if granted by the employer corporation or its parent or subsidiary corporation, to purchase stock of any of such corporations, but only if (1) at the time such option is granted the option price is at least 85 percent of the fair market value at such time of the stock subject to the option; and (2) such option by its terms is not transferable by such individual otherwise than by will or by the laws of descent and distribution, and is exercisable, during his lifetime, only by him; and (3) such individual, at the time the option is granted, does not own stock possessing more than 10 percent of the total combined voting power of all classes of stock of the employer corporation or of its parent or subsidiary corporation.

At the time the option is granted, the relationship between the individual to whom an option is granted and the corporation granting the option (or a corporation which is a parent or subsidiary thereof) must be the legal and bona fide relationship of employer and employee. For rules applicable to the determination whether the employer-employee relationship exists, see § 405.104 of Regulation 116, relating to collection of income tax at source on wages. An option granted prior to employment or after termination of employment is not a restricted stock option. As to the granting of an option conditioned upon employment, see § 29.130A-1 (b). The option must be granted for a reason connected with the individual's employment by the corporation or by its parent or subsidiary corporation. An option may qualify as a restricted stock option only if, under the terms of the option, it is not transferable (other than by will or by the laws of descent and distribution) by the individual to whom it is granted, and is exercisable, during the lifetime of such individual, only by him. Accordingly, an option which is transferable by the individual to whom it is granted during his lifetime, or is exercisable during such individual's lifetime by another person, is not a restricted stock option.

At the time a restricted stock option is granted, the option price must be at least 85 percent of the fair market value at such time of the stock subject to the option. If the option price is not fixed or determinable at such time, the option is not a restricted stock option, whether or not the purchase price under the option is fixed or determinable at a later date.

(b) *Ownership of 10 percent of stock.* In determining the amount of stock owned by an individual, for the purpose of applying the 10 percent test of section 130A (d) (1) (C), stock of the employer corporation or of its parent or subsidiary owned (directly or indirectly) by or for such individual's brothers and sisters (whether by the whole or halfblood), spouse, ancestors, and lineal descendants, shall be considered as owned by such individual. For the purpose of section 130A, if a corporation, partnership, estate, or trust owns (directly or indirectly) stock of the employer corporation or of its parent or subsidiary, such stock shall be considered as being owned proportionately by or for the shareholders, partners, or beneficiaries of the corporation, partnership, estate, or trust.

§ 29.130A-3 *Exercise of restricted stock option.* The special rules of income tax treatment provided in subsections (a) and (b) of section 130A are applicable only if the following conditions exist with respect to the transfer of a share of stock to an individual:

(a) The share of stock is transferred to the individual pursuant to his exercise after 1949 of a restricted stock option; and

(b) At the time the option is exercised by him, the individual is an employee of the corporation granting such option (or of a parent or subsidiary thereof) or was an employee of any such corporations within three months prior to the date the option is exercised.

The special treatment provided in subsections (a) and (b) of section 130A shall apply only if the restricted stock option is exercised by the individual to whom it was granted. Such special treatment shall not be applicable with respect to stock transferred pursuant to the exercise of the option by the individual's executor, administrator, heir, or legatee. Under the provisions of section 130A (d) (1) (B), an option may qualify as a restricted stock option although it is transferable at death to the individual's executor, administrator, heir, or legatee. Thus, the fact that a restricted stock option may be exercised by an executor, administrator, heir, or legatee does not deprive the individual who exercises such option during his lifetime of the special treatment provided in section 130A.

At the time of exercise of a restricted stock option, the status of the individual exercising such option must be that of a bona fide employee of the corporation granting the option or that of a bona fide employee of a parent or subsidiary of such corporation, or such individual must have been a bona fide employee of any such corporation within three months previous to the date of exercise.

The determination whether an option ultimately exercised is a restricted stock option is made as of the date such option is granted. An option which is a restricted stock option when granted does not lose its character as such an option by reason of subsequent events, and an option which is not a restricted stock option when granted does not become such an option by reason of subsequent events. See, however, § 29.130A-4, relating to modification, extension, or renewal of an option. This rule is illustrated as follows:

Example 1. S-1 Corporation is a subsidiary of S Corporation which, in turn, is a subsidiary of P Corporation. On June 1, 1951, P grants to an employee of P a restricted stock option to purchase a share of stock of S-1. On January 1, 1952, S sells a portion of the S-1 stock which it owns to an unrelated corporation and, as of that date, S-1 ceases to be a subsidiary of S. On May 1, 1952, while still employed by P, the employee exercises his option to purchase a share of S-1 stock. The employee has exercised a restricted stock option.

Example 2. Assume P grants an option to an employee under the same facts as in Example 1 above, except that on June 1, 1951, S-1 is not a subsidiary of either S or P. Such option is not a restricted stock option on June 1, 1951. On January 1, 1952, S purchases from an unrelated corporation a sufficient number of shares of S-1 stock to make S-1, as of that date, a subsidiary of S. On May 1, 1952, while still employed by P, the employee exercises his option to purchase a share of S-1 stock. The employee has not exercised a restricted stock option.

§ 29.130A-4 *Modification, extension, or renewal.* Subsection (e) of Section 130A provides rules for determining whether a share of stock transferred to an individual upon his exercise of an option, after the terms thereof have been modified, extended, or renewed, is transferred pursuant to the exercise of a restricted stock option. For the purpose

of such determination, the statute provides that:

(a) Any modification, extension, or renewal of the terms of an option to purchase stock shall be considered as the granting of a new option; and

(b) The fair market value of the stock subject to the option at the time of the granting of such option shall be considered as the fair market value of such stock (1) on the date of the original granting of the option, (2) on the date of the making of such modification, extension, or renewal, or (3) at the time of the making of any intervening modification, extension, or renewal, whichever is the highest.

The time or date when an option is modified, extended, or renewed shall be determined, insofar as applicable, in accordance with the rules governing determination of the time or date of granting an option provided in § 29.130A–1 (b). A modification of an option includes any material change in the terms or conditions of the option. For example, a material change in the terms of the option with respect to the number, kind, or price of the shares of stock subject to the option is a modification of the option. Likewise, a material change in the time of issuance of stock subject to the option, the terms of payment for such stock, or an acceleration or postponement of the exercise date is a modification of the option. However, a mere change in the terms of the option, with respect to the number or price of the shares of stock subject to the option, to reflect a stock dividend or stock split-up is not a modification of the option. An extension of an option refers to the granting by the corporation to the optionee of an additional period of time within which to exercise the option beyond the time originally prescribed. A renewal of an option is the granting by the corporation of the same rights or privileges contained in the original option on the same terms and conditions. The foregoing rules apply as well to successive modifications, extensions, and renewals.

A restricted stock option may, as result of a modification, extension, or renewal, thereafter cease to be a restricted stock option, or an option may, by modification, extension, or renewal, thereafter become a restricted stock option. The rule stated in subsection (e) of section 130A is illustrated as follows:

Example 1. On June 1, 1950, the X Corporation grants to an employee an option to purchase 100 shares of the stock of X Corporation at $80 per share, such option to be exercised on or before June 1, 1952. At the time the option is granted, the fair market value of the X Corporation stock is $100 per share. On February 1, 1951, before the employee exercises the option, X Corporation modifies the option to provide that the number of shares of stock which the employee may purchase at $80 per share will be 200. On February 1, 1951, the fair market value of the X Corporation stock is $90 per share. Under section 130A (e), the X Corporation is deemed to have granted an option to the employee on February 1, 1951, to purchase at $80 per share 200 shares of stock having a fair market value of $100 per share, that is, the higher of the fair market value of the stock on June 1, 1950, and on February 1, 1951. The exercise of such option by the employee after February 1, 1951, is not the exercise of a restricted stock option.

Example 2. On June 1, 1950, the X Corporation grants to an employee a restricted stock option to purchase 100 shares of X Corporation stock at $90 per share, exercisable on or before June 1, 1952. On June 1, 1950, the fair market value of X Corporation's stock is $100 per share. On February 1, 1951, before the employee exercises the option, X Corporation modifies the option to provide that the number of shares which the employee may purchase at $90 per share shall be 200. On February 1, 1951, the fair market value of X Corporation stock is $110 per share. Under section 130A (e), X Corporation is deemed to have granted an option to the employee on February 1, 1951 to purchase at $90 per share 200 shares of stock having a fair market value of $110 per share, that is, the higher of the fair market value of the stock on June 1, 1950 and on February 1, 1951. The exercise of such option by the employee after February 1, 1951, is not the exercise of a restricted stock option.

Example 3. On June 1, 1950, the X Corporation grants to an employee a restricted stock option to purchase 100 shares of X Corporation stock at $90 per share, exercisable in whole or in part on or before June 1, 1952. On June 1, 1950, the fair market value of X Corporation stock is $100 per share. On February 1, 1951, the employee exercises the option to the extent of 50 shares. On March 1, 1951, X Corporation modifies the option to provide that the total number of shares which the employee may purchase at $90 per share shall be 200. On March 1, 1951, the fair market value of the X Corporation stock is $110 per share. Under section 130A (e), with respect to any exercise of the option after March 1, 1951, X Corporation is deemed to have granted to the employee an option on March 1, 1951, to purchase at $90 per share 150 shares of stock having a fair market value of $110 per share, that is, the higher of fair market value of the stock on June 1, 1950, and on March 1, 1951. Any exercise of the option after March 1, 1951, is not the exercise of a restricted stock option. The exercise of the option on February 1, 1951, pursuant to which 50 shares were acquired, is the exercise of a restricted stock option.

§ 29.130A–5 *Operation of section 130A.* With respect to taxable years ending after December 31, 1949—

(a) *Rules applicable to all restricted stock options—(1) In general.* If a share of stock is transferred to an individual pursuant to his timely exercise of a restricted stock option and is not disposed of by him within two years from the date of the granting of the option nor within six months after the transfer of such share to him, then subsection (a) of section 130A provides that—

(i) No income shall result at the time of the transfer of such share to the individual upon his exercise of the option with respect to such share;

(ii) No deduction under section 23 (a) shall be allowable at any time to the employer corporation of such individual or its parent or subsidiary corporation with respect to the share so transferred; and

(iii) No amount other than the option price shall be considered as received by either of such corporations for the share so transferred.

For the purpose of the foregoing rules, each share of stock transferred pursuant to a restricted stock option is treated separately. For example, if an individual, while employed by a corporation granting him a restricted stock option, exercises the option with respect to part of the stock covered by the option, and if such individual exercises the balance of the option more than three months after leaving such employment, the application of section 130A to the stock obtained upon the earlier exercise of the option is not affected by the fact that the income taxes of the employer and the individual with respect to the stock obtained upon the later exercise of the option are not determined under section 130A.

(2) Holding period. The special rules provided in section 130A (a) are not applicable if the individual disposes of the share of stock within two years from the date the option is granted or within six months after the transfer of such share to him. Section 130A is not made inapplicable by a transfer within the two-year or six-month period if such transfer is not a disposition of the stock as defined in subparagraph (3) of this paragraph, for example, a transfer from the decedent to his estate or a transfer by bequest or inheritance. Similarly, a disposition by the executor, administrator, heir, or legatee is not a disposition by the decedent. However, a disposition of the stock pursuant to a pledge or hypothecation is a disposition by the individual, even though the making of the pledge or hypothecation is not such a disposition.

(3) *Disposition of stock.* The term "disposition", for the purpose of section 130A, includes a sale, exchange, gift, or any transfer of legal title, but does not include a transfer from a decedent to his estate or a transfer by bequest or inheritance, an exchange which is within the provisions of section 112 (b) (2) or (3), or a mere pledge or hypothecation.

If an individual exercises a restricted stock option and a share of stock subject to such option is transferred to such individual and his spouse jointly, with right of survivorship, the individual has made a disposition of such share. Likewise, if an individual exercises a restricted stock option and a share of stock is transferred to another or is transferred to such individual in his name as trustee for another, the individual has made a disposition of such share.

(4) *Examples.* The rules of subsection (a) of section 130A are illustrated as follows:

Example 1. On June 1, 1951, X Corporation grants to E, an employee, a restricted stock option to purchase 100 shares of X Corporation stock at $95 per share. On that date, the fair market value of X Corporation stock is $100 per share. On June 1, 1952, while employed by X Corporation, E exercises the option in full and pays X Corporation $9,500, and on that day X Corporation transfers to E 100 shares of its stock having a fair market value of $12,000. Prior to June 1, 1953, E makes no disposition of the 100 shares so purchased. E realizes no income on June 1, 1952, with respect to the transfer to him of the 100 shares of X Corporation stock. X Corporation is not entitled to any deduction at any time with respect to its transfer to E of the stock. In computing its gain or loss, if any, upon such transfer, X Corporation is considered to have received no more than $9,500 for the stock

so transferred. E's basis for such 100 shares is $9,500.

Example 2. Assume, in Example 1, that on August 1, 1953, two years and one month after the granting of the option and one year and one month after the transfer of the shares to him, E sells the 100 shares of X Corporation stock for $13,000, which is the fair market value of the stock on that date. For the taxable year in which the sale occurs, E realizes a gain of $3,500 ($13,000 minus E's basis of $9,500), of which $1,750 is taken into account as long-term capital gain.

Example 3. Assume, in Example 2, that on August 1, 1953, E makes a gift of the 100 shares of X Corporation stock to his son. Such disposition results in no realization of gain to E either for the taxable year in which the option is exercised or the taxable year in which the gift is made. E's basis of $9,500 becomes the donee's basis for determining gain or loss.

Example 4. Assume, in Example 1, that on May 1, 1953, one year and eleven months after the granting of the option and eleven months after the transfer of the shares to him, E sells the 100 shares of X Corporation stock for $13,000. The special rules of section 130A (a) are not applicable to the transfer of the stock by X Corporation to E, because disposition of the stock was made by E within two years from the date the option was granted.

Example 5. Assume, in Example 1, that E dies on September 1, 1952, owning the 100 shares of X Corporation stock acquired by him pursuant to his exercise on June 1, 1952, of the restricted stock option. On the date of death, the fair market value of the stock is $12,500. No income is realized by E by reason of the transfer of the 100 shares to his estate. If E's executor elects to value the stock as of the date of death, the basis of the 100 shares in the hands of the executor is $12,500.

(b) *Additional rules applicable where the option price is between 85 percent and 95 percent of the value of the stock*—(1) *In general.* If all the conditions necessary for the application of subsection (a) of section 130A exist, subsection (b) of section 130A provides additional rules which are applicable in cases where, at the time the restricted stock option is granted, the option price per share is less than 95 percent (but not less than 85 percent) of the fair market value of such share. In such case, upon the disposition of such share by the individual after the expiration of the two-year and the six-months periods, or upon his death while owning such share (whether occurring before or after the expiration of such periods), there shall be included in the individual's gross income as compensation (and not as gain upon the sale or exchange of a capital asset) the amount, if any, by which the option price is exceeded by the lesser of the fair market value of the share at the time the option was granted or the fair market value of the share at the time of such disposition or death. The amount of such compensation shall be included in the individual's gross income for the taxable year in which the disposition occurs or for the taxable year closing with his death, whichever event results in the application of section 130A (b).

The application of the special rules provided in section 130A (b) shall not affect the rules provided in section 130A (a) with respect to the individual exercising the option, the employer corporation, or its parent or subsidiary corporation. Thus, notwithstanding the inclusion of an amount as compensation in the gross income of an individual, as provided in section 130A (b), no income results to the individual at the time the stock was transferred to him, and no deduction under section 23 (a) is allowable at any time to the employer corporation or its parent or subsidiary with respect to such amount. Likewise, for the purpose of determining gain or loss, if any, realized by any of such corporations by reason of the transfer of a share of stock with respect to which the rules of section 130A (b) apply, no amount other than the option price shall be considered as received by any of such corporations for the stock so transferred.

If the individual exercises a restricted stock option during his lifetime and dies before the stock is transferred to him pursuant to his exercise of the option, the transfer of such stock to the individual's executor, administrator, heir, or legatee is deemed, for the purpose of section 130A, to be a transfer of the stock to the individual exercising the option and a further transfer by reason of death from such individual to his executor, administrator, heir, or legatee.

(2) *Basis.* If the special rules provided in subsection (b) of section 130A are applicable to the disposition of a share of stock by an individual, the basis of such share in the individual's hands at the time of such disposition, determined under section 113, shall be increased by an amount equal to the amount includible in his gross income under section 130A (b). If the special rules provided in section 130A (b) are applicable to a share of stock upon the death of an individual, the basis of such share in the hands of the estate or the person receiving the stock by request or inheritance shall be determined under section 113, and shall not be increased by reason of the inclusion upon the decedent's death of any amount in his gross income under section 130A (b).

(3) *Examples.* The operation of section 130A (b) may be illustrated as follows:

Example 1. On June 1, 1951, the X Corporation grants to E, an employee, a restricted stock option to purchase a share of X Corporation's stock for $85. The fair market value of the X Corporation stock on such date is $100 per share. On June 1, 1952, E exercises the restricted stock option and on that date X Corporation transfers the share of stock to E. On January 1, 1954, E sells the share for $150, its fair market value on that date. E makes his income tax return on the basis of the calendar year. The income tax consequences to E and to X Corporation are as follows:

Compensation in the amount of $15 is included in E's gross income for 1954, the year of the disposition of the share. The $15 represents the difference between the option price ($85) and the fair market value of the share on the date the option was granted ($100), since the latter value is less than the fair market value of the share on the date of disposition ($150). For the purpose of computing E's gain or loss on the sale of the share, E's cost basis of $85 is increased by $15, the amount included in E's gross income as compensation. Thus, E's basis for the share is $100. Since the share was sold for $150, E realizes a gain of $50, of which $25 is taken into account as long-term capital gain.

X Corporation is entitled to no deduction under section 23 (a) at any time with respect to the share transferred to E. For the purpose of computing gain or loss, if any, to X Corporation on account of the transfer of the share to E, X Corporation received $85 for the share.

Example 2. Assume, in Example 1 above, E sells the share of X Corporation stock on January 1, 1955, for $75, its fair market value on that date. Since $75 is less than the option price ($85), no amount in respect of the sale is includible as compensation in E's gross income for 1955. E's basis for determining gain or loss on the sale is $85. Since E sold the share for $75, E realized a loss on the sale of $10, of which $5 is taken into account as long-term capital loss.

Example 3. Assume, in Example 1 above, that instead of selling the share on January 1, 1954, E makes a gift of the share on that day. In such case, $15 is included as compensation in E's gross income for 1954. E's cost basis of $85 is increased by $15, the amount included in E's gross income as compensation. Thus, E's basis for the share is $100, which becomes the donee's basis, as of the time of the gift, for determining gain or loss.

Example 4. Assume, in Example 2 above, that instead of selling the share on January 1, 1955, E makes a gift of the share on that date. Since the fair market value of the share on that day ($75) is less than the option price ($85), no amount in respect of the disposition by way of gift is includible as compensation in E's gross income for 1955. E's basis for the share is $85, which becomes the donee's basis, as of the time of the gift, for the purpose of determining gain. The donee's basis for the purpose of determining loss, determined under section 113 (a) (2), is $75 (fair market value of the share at the date of gift).

Example 5. Assume, in Example 1 above, that after acquiring the share of stock on June 1, 1952, E dies on August 1, 1953, at which time the share has a fair market value of $150. Compensation in the amount of $15 is included in E's gross income for the taxable year closing with his death, such $15 being the difference between the option price ($85) and the fair market value of the share when the option was granted ($100), since the latter value is less than the fair market value at date of death ($150). The basis of the share in the hands of E's estate is determined under section 113 (a) (5) without regard to the $15 included in the decedent's gross income.

Example 6. Assume, in Example 5 above, that E dies on August 1, 1952, at which time the share has a fair market value of $150. Although E's death occurred within two years from the date of the granting of the option and within six months after the transfer of the share to him, the income tax consequences are the same as in Example 5.

(c) *Acquisition of other stock or securities.* Section 130A (c) provides that the special rules stated in subsections (a) and (b) of section 130A, if applicable with respect to stock transferred to an individual upon his exercise of an option, shall likewise be applicable with respect to (1) stock or securities acquired by such individual in exchange for such stock, if the exchange is within the provisions of section 112 (b) (2) or (3), and (2) new stock, as described in section 113 (a) (19), acquired upon a distribution with respect to such stock. Such new stock and such stock or securities

so acquired shall, for the purpose of section 130A, be considered as having been transferred to the individual upon his exercise of the option. A similar rule shall be applied in the case of a series of such exchanges or acquisitions.

For example, if new stock, as described in section 113 (a) (19), is acquired upon a distribution with respect to stock transferred to the individual upon the timely exercise of a restricted stock option, and if such new stock is disposed of within two years from the date the option was granted or within six months after the original stock was transferred to such individual, section 130A is not applicable with respect to such new stock. If the disposition occurs after the two-year and six-months periods, section 130A is applicable.

PAR. 2. Section 29.22 (a)-1, as amended by Treasury Decision 5600, approved February 2, 1948, is further amended as follows:

(A) By striking the first word of the third paragraph, and by inserting in lieu thereof the following: "Except as otherwise provided in section 130A, if"; and

(B) By adding at the end of the third paragraph thereof the following sentence: "See section 130A and the regulations prescribed thereunder for special rules with respect to stock transferred from an employer to an employee pursuant to the timely exercise of a restricted stock option."

PAR. 3. Section 29.113 (a)-1, as amended by Treasury Decision 5402, approved September 5, 1944, is further amended by adding at the end thereof the following sentence: "For special rules for determining the basis for gain or loss in the case of the disposition of a share of stock acquired pursuant to the timely exercise of a restricted stock option where the option price was between 85 percent and 95 percent of the fair market value of the stock at the time the option was granted, see section 130A (b)."

[F. R. Doc. 51-12507; Filed, Oct. 17, 1951; 8:56 a. m.]

Bureau of Narcotics

3-METHOXY-N-METHYLMORPHINAN, AND BASIC KETO-BEMIDONE

NOTICE OF PROPOSED RULE MAKING

Notice is hereby given, pursuant to the provisions of section 1 of the act of March 8, 1946 (60 Stat. 38; 26 U. S. C. 3228), section 4 of the Administrative Procedure Act (60 Stat. 238; 5 U. S. C. 1003), and by virtue of authority vested in me by the Secretary of the Treasury (21 CFR 205.1), that a determination is proposed to be made that the drug identified as 3-methoxy-N-methylmorphinan has an addiction-forming or addiction-sustaining liability similar to morphine and is an opiate.

Notice is also hereby given, pursuant to the same authority, that a determination is proposed to be made that the drug identified as 4-(3-hydroxyphenyl)-1-methyl-4-piperidyl ethyl ketone has an addiction-forming or addiction-sustaining liability similar to morphine and is an opiate. A finding relative to such addiction-forming and addiction-sustaining liability of the hydrochloride salt of this drug (otherwise identified as Keto-bemidone) was proclaimed by the President September 4, 1948, by Proclamation 2807 (13 F. R. 5229).

Consideration will be given to any written data, views, or arguments, pertaining to the addiction-forming or addiction-sustaining liability of the drug 3-methoxy-M-methylmorphinan and of the drug 4-(3-hydroxyphenyl)-1-methyl-4-piperidyl ethyl ketone respectively, which are received by the Commissioner of Narcotics prior to November 16, 1951. Any person desiring to be heard on the addiction-forming or addiction-sustaining liability of either of these two drugs will be accorded the opportunity at a hearing in the office of the Commissioner of Narcotics, 1300 E Street NW., Washington, D. C., at 10:00 a. m., November 16, 1951: *Provided*, That such person furnish written notice of his desire to be heard, to the Commissioner of Narcotics, Washington 25, D. C., not later than 20 days from the publication of this notice in the FEDERAL REGISTER. If no written notice of desire to be heard shall be received within 20 days from the date of publication of this notice in the FEDERAL REGISTER, no hearing shall be held, but the Commissioner of Narcotics shall proceed to make a recommendation to the Secretary of the Treasury for a finding under section 1 of the act of March 8, 1946.

(Sec. 7, 58 Stat. 721, as amended; 26 U. S. C. 3228)

[SEAL] H. J. ANSLINGER,
Commissioner of Narcotics.

[F. R. Doc. 51-12506; Filed, Oct. 17, 1951; 8:53 a. m.]

DEPARTMENT OF AGRICULTURE

Production and Marketing Administration

[7 CFR Part 904]

HANDLING OF MILK IN THE GREATER BOSTON, MASS., MARKETING AREA

NOTICE OF OPPORTUNITY TO SUBMIT DATA, VIEWS, AND ARGUMENTS IN CONNECTION WITH PROPOSED AMENDED RULES AND REGULATIONS

Notice is hereby given that pursuant to the authority contained in Order No. 4, as amended, regulating the handling of milk in the Greater Boston, Massachusetts, marketing area (7 CFR Part 904), the market administrator is considering the issuance, as hereinafter proposed, of amended rules and regulations. The proposed rules and regulations will supersede the currently effective rules and regulations (7 CFR 904.101 et seq.), issued to effectuate the terms and provisions of the said order.

All persons who desire to submit data, views, or arguments in connection with the proposed amended rules and regulations should submit them in writing to the market administrator at Room 403, 230 Congress Street, Boston, Massachusetts, by mail or otherwise, in time to be received not later than 5:15 p. m., October 22, 1951.

The proposed amended rules and regulations are as follows:

CLASSIFICATION

§ 904.101 *Application of §§ 904.102 through 904.105.* Milk and milk products received by a handler shall be classified in accordance with the provisions of §§ 904.102 through 904.105, except when Class I classification is required under § 904.17.

§ 904.102 *Fluid milk products disposed of to consumers.* (a) Subject to the other paragraphs of this section, all fluid milk products disposed of to consumers, except cream and skim milk, shall be classified as Class I milk.

(b) Cream and skim milk shall be classified as Class II milk.

(c) Concentrated milk disposed of to bakeries or similar commercial users, and not thereafter disposed of for fluid consumption, shall be classified as Class II milk.

(d) All fluid milk products disposed of to and used by a livestock farmer for animal feed, except milk suitable for human consumption as milk, shall be classified as Class II milk.

§ 904.103 *Fluid milk products manufactured into other milk products.* Fluid milk products manufactured by a handler or dealer into other milk products shall be classified as Class II milk, unless the resulting milk product is subsequently reconverted into fluid milk products for which Class II utilization is not established. Specifically, the following shall be considered to be milk products:

Acidophilus milk.
Butter.
Buttermilk powder.
Casein.
Cheese and cheese paste.
Condensed buttermilk.
Condensed skim milk.
Eggnog.
Evaporated milk.
Evaporated skim milk.
Ice cream, ice cream mix, and similar frozen desserts.
Milk powder.
Nonfat dry milk solids (skim powder).
Sweetened condensed milk.
Whey and whey products.
Yogurt (Bulgarian milk).

§ 904.104 *Miscellaneous uses.* Fluid milk products used or disposed of by a handler or dealer in accordance with this section shall be classified as follows:

(a) Fluid milk products dumped or discarded, except milk suitable for human consumption as milk, shall be classified as Class II milk.

(b) Fluid milk products destroyed or spilled under extraordinary circumstances shall be classified as Class II milk.

§ 904.105 *Inventories.* All milk products on hand at any plant at the close of the month may be classified tentatively as Class II milk. Final classification shall be made when disposition of the milk products takes place.

PLANT SHRINKAGE

§ 904.106 *Requirement to establish plant shrinkage.* (a) Plant shrinkage may be considered as established only if both the volume of fluid milk products handled during the month and the total of specific uses of fluid milk products during the month are established.

(b) If plant shrinkage is not established, the total quantity of fluid milk products not specifically accounted for shall be classified as Class I milk.

§ 904.107 *Computation of volume handled and of total of specific uses.* (a) The volume of fluid milk products handled by a handler during the month shall consist of the total receipts of fluid milk products at the handler's regulated plants, plus the opening inventory, and minus the closing inventory, at such plants.

(b) Each handler's total of specific uses of fluid milk products during the month shall consist of the total quantity of fluid milk products the specific disposition of which is established at the handler's regulated plants, minus the quantity of syrup or other flavoring material disposed of in flavored milk or flavored skim milk.

§ 904.108 *Determination and classification of plant shrinkage.* (a) Plant shrinkage shall be determined by deducting the total of specific uses from the volume handled. The remainder, if it can reasonably be considered to represent the loss or shrinkage in fluid milk products normally incurred by the handler in the receiving, processing, packaging, and distribution of the milk and milk products handled by him, shall be considered his plant shrinkage.

(b) The classification of plant shrinkage shall be determined by computing 2 percent of the volume handled, and comparing the result with the plant shrinkage. Plant shrinkage not in excess of such result shall be classified as Class II milk. Plant shrinkage in excess of such result shall be classified as Class I milk.

DUE DATES AND DETAILS OF HANDLERS' REPORTS

§ 904.110 *Due dates of reports of buyer-handlers, producer-handlers, and handlers who operate unregulated distributing plants.* For each month in which a handler is a buyer-handler, producer-handler, or the operator of an unregulated distributing plant, he shall file with the market administrator, on or before the 8th day after the end of the month, a report of his receipts and utilization of fluid milk products.

§ 904.111 *Due dates of reports of handlers who purchase outside cream.* Each handler who purchases bottling quality cream from nonpool handlers shall report on the 16th day of each month with respect to his purchases of such cream in the preceding 15 days, and shall report on the first day of the following month with respect to his purchases of such cream from the 16th day to the last day of the previous month.

§ 904.112 *Details of pool handlers' reports.* In addition to the information required by § 904.30, each pool handler shall report the following information:

(a) The respective quantities of milk received at each plant from producers whose farms are located not more than 40 miles, more than 40 miles but not more than 80 miles, and more than 80 miles from the State House in Boston; and the number of producers in each group;

(b) The total receipts at each plant, other than the plant of a qualified operating association, from producers who are members of each cooperative association qualified pursuant to § 904.71 and from producers who are nonmembers; and the number of producers in each group;

(c) The shipments of fluid milk products from each country pool plant; and

(d) The information necessary to calculate the amount of the butter and cheese adjustment provided for in § 904.44.

§ 904.113 *Details of nonpool handlers' reports.* Each nonpool handler shall report the following information:

(a) The receipts of fluid milk products at each plant from other handlers and dealers;

(b) The receipts of milk from his own production, and from other dairy farmers;

(c) The receipts of outside milk and of exempt milk.

(d) The total quantity of Class I milk disposed of to consumers without intermediate movement to another plant, showing the respective quantities so disposed of in the marketing area and outside the marketing area;

(e) The total quantity of Class I milk disposed of to individual handlers, dealers, and other milk route operators, showing the respective quantities so disposed of in the marketing area and outside the marketing area; and

(f) The total quantity of fluid milk products disposed of as Class II milk, and information as to the quantities so disposed of to individual handlers and dealers.

PAYMENTS TO PRODUCERS

§ 904.120 *Averaging of semimonthly butterfat tests.* In making payments for milk to each producer as required by § 904.61 (a), each handler may determine the average butterfat content of the milk by using the simple average of the butterfat tests of semimonthly composite samples of the milk, unless the difference between the semimonthly tests is more than two points (.2%), or the quantity of milk delivered by the producer in either semimonthly period is as much as three times as large as his deliveries in the other semimonthly period.

§ 904.121 *Authorization for deductions.* In making payments to producers as required by §§ 904.60 and 904.61 (a), the burden shall rest upon the handler making deductions from such payments to prove that each deduction is properly authorized, and properly chargeable to the producer.

§ 904.122 *Deductions for cooperative associations.* Upon receipt of notice from the market administrator that there is an error in the claim filed by a cooperative association pursuant to § 904.75, the handler shall be relieved of the obligation to make that part of the deductions which was claimed in error, as determined by the market administrator.

BUTTERFAT SUBJECT TO THE BUTTER AND CHEESE ADJUSTMENT

§ 904.130 *Definitions of terms, and applicable standards of identity.* As used in §§ 904.131 through 904.133, the term "Cheddar-type cheese" shall mean Cheddar cheese, American Cheddar cheese, Colby cheese, washed curd cheese, and part skim Cheddar cheese; and the term "salted butter" shall mean butter which contains not less than 1.5 percent of salt by weight. The definitions and standards of identity issued by the Food and Drug Administration of the Federal Security Agency, insofar as they are applicable, shall govern in determining whether a given product is Cheddar-type cheese or butter.

§ 904.131 *General provisions for determining quantity subject to adjustment.* (a) The butter and cheese adjustment shall not apply to the butterfat in receipts of milk from dairy farmers who are not producers, receipts of butterfat in farm-separated cream, and receipts of butterfat in other fluid milk products derived from nonpool milk, regardless of the form in which the butterfat is received or used at any plant.

(b) The butter and cheese adjustment shall not apply to butterfat processed into salted butter or Cheddar-type cheese at any plant other than a plant of the first handler of the butterfat or of a second person to which the butterfat is moved.

(c) In general, the butter and cheese adjustment shall apply only to butterfat processed into salted butter or Cheddar-type cheese during any of the months of April through July. In the case of movements of butterfat to the plant of a second person, however, the date of shipment to such person, rather than the date of processing, shall govern. Accordingly, the adjustment shall not apply to butterfat shipped to a second person during March, but shall apply to butterfat so shipped during July if the butterfat is otherwise eligible for the adjustment.

(d) The butter and cheese adjustment shall not apply to butterfat which is disposed of by the first handler or the second person in a form other than salted butter after being processed into that product. However, if the salted butter is held in inventory by the first handler or the second person at the close of any month, the butterfat in such butter may be tentatively considered as eligible for the adjustment, subject to proof of the form in which the butterfat was subsequently disposed of by the first handler or the second person.

(e) The butter and cheese adjustment may apply to the butterfat in route returns which is processed into salted butter or Cheddar-type cheese, except as provided in paragraph (a) of this section.

§ 904.132 *Assignment of identified butterfat to source.* When the source of butterfat processed into salted butter or Cheddar-type cheese at any plant is established by the processor's records, the butterfat shall be assigned to that source.

§ 904.133 *Assignment of unidentified butterfat to source.* When the source of butterfat processed into salted butter or Cheddar-type cheese at any plant is not established by the processor's records, the butterfat so used shall be assigned in the following manner:

(a) Butterfat processed into salted butter shall first be assigned to the butterfat in receipts of farm-separated cream at the plant, unless the records establish other uses of the cream.

(b) Butterfat processed into salted butter or Cheddar-type cheese at a plant at which the receipts of butterfat in fluid milk products are derived partly from pool milk and partly from nonpool milk shall be assigned proportionately to butterfat derived from pool milk and from nonpool milk, except as provided in paragraph (a) of this section.

(c) After butterfat processed into salted butter or Cheddar-type cheese has been assigned to butterfat derived from nonpool milk as provided in paragraphs (a) and (b) of this section, any remaining quantity of butterfat so processed shall first be assigned to the processing handler's receipts from producers, and then to his receipts from other handlers.

(d) Butterfat shipped to the plant of another person for processing into salted butter or Cheddar-type cheese shall be assigned to the butterfat in the shipping plant's receipts from pool sources and from nonpool sources in the manner set forth in paragraph (b) of this section. The butterfat assigned to pool sources shall be considered eligible for the butter and cheese adjustment, but not in excess of the quantity of butterfat available at the shipping plant from the handler's receipts from producers.

WEIGHTS OF FLUID MILK PRODUCTS

§ 904.140 *Basis for determination of quantity.* The determination of the quantity of fluid milk products received or used by each handler or dealer shall be on the basis of the weight, in pounds, of the fluid milk products, except that in the case of concentrated milk the determination shall be on the basis of the weight, in pounds, of the fluid milk products used to produce the concentrated milk.

§ 904.141 *Standard weights.* In the absence of specific weights, the weight of fluid milk products received or disposed of in a quart or 40-quart container shall be determined according to the following table. The weight of such products in any other container shall be determined by multiplying the equivalent number of quarts by the respective standard weight per quart container, except that, in the absence of specific weights, the weight of such products in a 20-quart container shall be considered to be one-half of the applicable standard weight per 40-quart container.

TABLE OF STANDARD WEIGHTS

Product	Butterfat test (percent)	Weight (pounds) Per quart container	Weight (pounds) Per 40-quart container
Milk, Skimmed milk, Buttermilk, Flavored drink, Flavored skim milk, Buttermilk, Cultured skim milk	Any test	2.15	86.0
	Any test	2.16	86.0
Cream	16	2.156	86.20
	17	2.154	86.12
	18	2.152	86.04
	19	2.150	85.96
	20	2.148	85.88
	21	2.146	85.80
	22	2.144	85.72
	23	2.142	85.64
	24	2.140	85.56
	25	2.138	85.48
	26	2.136	85.44
	27	2.133	85.31
	28	2.131	85.24
	29	2.129	85.15
	30	2.128	85.09
	31	2.126	85.04
	32	2.125	84.97
	33	2.123	84.91
	34	2.122	84.85
	35	2.120	84.80
	36	2.119	84.74
	37	2.117	84.68
	38	2.116	84.62
	39	2.114	84.56
	40	2.113	84.50
	41	2.111	84.44
	42	2.110	84.38
	43	2.108	84.32
	44	2.107	84.28
	45	2.105	84.20
	46	2.104	84.15
	47	2.102	84.09
	48	2.101	84.03
	49	2.099	83.97
	50	2.098	83.91

Issued at Boston, Massachusetts, this 10th day of October 1951.

[SEAL] RICHARD D. APLIN,
Market Administrator.

[F. R. Doc. 51-12526; Filed, Oct. 17, 1951; 9:02 a. m.]

[7 CFR Part 928]

[Docket No. AO-227]

HANDLING OF MILK IN THE NEOSHO VALLEY (KANSAS-MISSOURI) MARKETING AREA

DECISION WITH RESPECT TO A PROPOSED MARKETING AGREEMENT AND A PROPOSED ORDER

Pursuant to the provisions of the Agricultural Marketing Agreement Act of 1937, as amended (7 U. S. C. 601 et seq.), and the applicable rules of practice and procedure, as amended, governing proceedings to formulate marketing agreements and marketing orders (7 CFR Part 900), public hearings were conducted at Chanute, Kansas, on November 13–17, 1950, June 12, 1951, and July 9, 1951, pursuant to notices thereof which were issued on October 23, 1950 (15 F. R. 7186), May 28, 1951 (16 F. R. 5135, 16 F. R. 5497), and June 21, 1951 (16 F. R. 6000).

Upon the basis of the evidence introduced at the hearings and the records thereof the Assistant Administrator, Production and Marketing Administration, on September 26, 1951, filed with the Hearing Clerk, United States Department of Agriculture, his recommended decision and opportunity to file written exceptions thereto which was published in the FEDERAL REGISTER on September 29, 1951 (16 F. R. 9957).

The material issues considered at the hearings were concerned with the following:

A. Whether the handling of milk in the Neosho Valley marketing area is in the current of interstate commerce or directly burdens, obstructs, or affects interstate commerce in milk or its products;

B. Whether marketing conditions justify the issuance of a marketing agreement or order regulating the handling of milk in the Neosho Valley marketing area; and

C. If issuance of such an agreement or order is justified, what its provisions should be.

The evidence on this last issue involved the following:

(1) The extent of the marketing area;

(2) The definition of "producer," "handler," "approved plant," "other source milk," and other terms;

(3) The classification and allocation of milk;

(4) The determination and level of class prices;

(5) Payments to producers;

(6) Administrative provisions necessary to carry out the foregoing provisions.

Findings and conclusions. Upon the basis of the evidence adduced at the hearings, it is hereby found and concluded that:

A. The handling of milk produced for the Neosho Valley marketing area is in the current of interstate commerce and directly burdens, obstructs, or affects interstate commerce in milk and its products.

The marketing area as hereinafter proposed would include certain specified areas in the States of Kansas and Missouri. Handlers located in the Missouri towns within the proposed area purchase milk in competition with handlers located in the State of Kansas. Such milk, so purchased and bottled in the State of Missouri, is sold on routes and through stores in both Missouri and Kansas. Handlers located in the Kansas portion of the proposed area purchase milk in the States of Oklahoma, Kansas, and Missouri. Milk so purchased is bottled in handlers' plants located in the State of Kansas and is disposed of on routes and through stores in the States of Kansas, Oklahoma, and Missouri. Milk purchased in the State of Oklahoma and in the extreme southern portion of the State of Kansas is purchased in competition with milk purchased for the Tulsa and Muskogee, Oklahoma, fluid markets.

The Neosho Valley Cooperative Association, an operating cooperative which would be a handler under the proposed order, purchases Grade A milk in competition with other handlers and disposes of a substantial portion of such milk in areas outside of the States of Missouri and Kansas, particularly during the months of short production. In addition, this cooperative association, as well as several other handlers in the market, operate manufacturing facili-

ties and purchase substantial quantities of ungraded milk and cream which is disposed of as butter, condensed products, and nonfat dry milk solids competitively out of state on the open market. Ice cream, manufactured locally from ingredients purchased on the open market and from locally produced milk is sold in surrounding areas in the States of Oklahoma, Kansas, and Missouri. Butter manufactured in the State of Oklahoma is purchased by local handlers and disposed of to customers on routes in the States of Kansas and Missouri. Reddi-wip manufactured in St. Louis, Missouri, is disposed of through stores and by local handlers on routes in the States of Missouri, Kansas, and Oklahoma.

From the foregoing it is clear that a substantial volume of the milk in the Neosho Valley market is moved physically in interstate commerce in the form of milk, ice cream, butter, and other manufactured dairy products and that the handling of milk in the market directly burdens, obstructs, and affects interstate commerce in milk and its products.

B. Milk marketing conditions in the Neosho Valley market justify the issuance of a marketing agreement and order.

Producers delivering milk to handlers in the Neosho Valley market are not being paid for their milk on a use basis and there is no uniform pricing plan as among the several handlers with the result that producer prices for milk of similar quality and use vary substantially. While much of the market apparently operates on a base and surplus plan there is a wide difference in the application of such a plan as between handlers and accordingly a wide variation in the net returns to producers.

There is much dissatisfaction among producers in regard to the butterfat testing of their milk. The record shows a number of instances where producers were paid on the same test for a number of pay periods which is an unusual occurrence when samples are properly taken and properly tested. Producers delivering part of their milk to each of two plants have been paid on substantially different tests at the two plants. In addition the record shows wide variations between plant tests and D. H. I. A. tests. Even when due consideration is given to the purpose and methods of D. H. I. A. testing these extreme variations appear unreasonable and strongly support the producers in their contention that they are presently paid on inaccurate tests.

At the present time producers do not have access to the necessary market information to enable them to market their milk efficiently. They have no voice in the sales of their milk or in the testing and weighing thereof. Many of the handlers in the market have refused to recognize the existence of a cooperative association which was formed by a large group of the producers on the market as an agency to represent them in the sales of their milk. The adverse attitude which certain handlers have taken toward the association has so disrupted the market that the cooperative association is reluctant to reveal the identity of its membership and in many instances new members specifically request that their identity not be revealed for fear of reprisals on the part of handlers to whom they dispose of their milk. As a result, the cooperative association has been unable to bargain effectively with handlers in the sale of milk for its members.

The issuance of an order would provide producers with the market information necessary for efficient marketing of their milk. Furthermore, the pricing of producer milk in accordance with its use, auditing of handlers' utilization of milk, and checking of weights and tests by an impartial agency under an order will aid in establishing and maintaining the orderly marketing of milk and its products in the Neosho Valley market.

C. From the evidence, it is concluded that the proposed marketing agreement and order which are hereinafter set forth and all of the terms and conditions thereof, meet the needs of the Neosho Valley marketing area and will tend to effectuate the declared policy of the act. The following findings and conclusions are made with respect to the several provisions of the proposed marketing agreement and order.

1. *Extent of the marketing area.* The marketing area should be defined to include all territory within the counties of Allen, Bourbon, Cherokee, Crawford, Labette, Montgomery, Neosho and Wilson, all in the State of Kansas, and the counties of Barton, Jasper, Newton and Vernon, all in the State of Missouri.

Producers originally proposed that the marketing area include the municipalities of Pittsburg, Parsons, Independence, Coffeyville, Fort Scott, Iola and Chanute all in Kansas, and of Joplin, Carthage and Neosho, all in Missouri. No other proposals were made for inclusion in the original notice of hearing. Subsequent to the issuance of a recommended decision on the issues of the November 1950 hearing the hearing was reopened at the request of handlers doing business in these municipalities in order to receive evidence on additional proposals which sought to define the marketing area by county boundaries so as to include the Kansas counties named above with the addition of Woodson County, and provided that if any Missouri territory were included the Missouri counties named above and McDonald County should be included.

The ten cities named and the City of Nevada, Missouri, represent the larger centers of population in the counties to be included in the marketing area. There are, however, numerous smaller towns in the area. Handlers operating in the larger cities of the area distribute milk in these smaller cities and towns, in many of which there are no local distributing plants. As a result several handlers located in the larger cities do a substantial portion of their business in the smaller towns. While it does not appear that any single handler distributes throughout the entire twelve-county area proposed, the distribution routes of all handlers are extensively intermingled throughout the area. Handlers from the larger cities compete with each other and with local handlers for the fluid milk business of the smaller towns. In addition, there is considerable movement of milk between the larger cities. Handlers from Pittsburg and Parsons, Kansas, have substantial sales in Joplin, Missouri. The Parsons handler distributes milk in Pittsburg and Chanute and the Pittsburg handler in Fort Scott, Kansas.

All the larger cities and many of the smaller cities have Grade A milk ordinances patterned after the standard recommended by the U. S. Public Health Service. The States of Kansas and Missouri each have similar standards for milk sold as Grade A milk. The record would indicate that a very high percentage of all milk sold in the area is Grade A milk. While there may be some differences in the degree of effectiveness of enforcement of these uniform standards by the various health authorities of the area the movement of milk from one health jurisdiction to another indicates that the quality of Grade A milk is generally uniform throughout the various portions of the area.

In view of the characteristics of the area and the milk trade therein, and the uniformity of health regulations, it is concluded that the marketing area should so far as possible be contiguous and be defined by county boundaries. While this will result in the inclusion of much rural area, it does not appear that serious administrative difficulties will be incurred as a result. It is proposed that only handlers who distribute Grade A milk in the marketing area shall be regulated. Such handlers and their approved producers are readily identifiable under the health regulations.

The twelve counties to be defined as the marketing area represent the principal area within which milk is distributed by handlers of the ten cities first proposed by producers. The distribution of these handlers in Woodson County, Kansas, and McDonald County, Missouri, which were also proposed for inclusion in the marketing area, is not so extensive as in the counties named. In addition, it appears that in these two counties some milk is also being distributed by handlers who are primarily associated with other markets and have no other connection with the Neosho Valley market. In the twelve counties named, the only such distribution shown on the record is by handlers already regulated under the orders issued for the Springfield, Missouri, and Tulsa, Oklahoma, markets. It is therefore concluded that Woodson County, Kansas, and McDonald County, Missouri, should not be included in the marketing area.

2. *Definitions.* In order to designate clearly exactly what milk is to be subject to the pricing provisions of the order, which processors and distributors are to be subject to regulation and which dairy farmers will participate in the market pool it is necessary to define the terms "approved plant," "handler," "producer" and "other source milk."

It is intended that any producer holding a permit or rating issued by the appropriate health authority having jurisdiction in the marketing area and who delivered milk to a plant which disposes of at least 10 percent of its receipts of

milk qualified for distribution as Grade A milk in the marketing area as Class I milk on wholesale or retail routes in the marketing area during the delivery period should be included in the market pool. Accordingly, an "approved plant" is designated as any milk processing plant, except that of a producer-handler, which is approved by the appropriate health authority having jurisdiction in the marketing area and from which 10 percent or more of the receipts during the delivery period of milk qualified for distribution as Grade A milk in the marketing area is disposed of during the delivery period on wholesale or retail routes (including plant stores) as Class I milk in the marketing area. The exemption of a distributing plant from which less than 10 percent of its approved receipts are disposed of as Class I milk on routes in the marketing area is necessary in this market to eliminate the influence on returns to producers caused by the operations of distributors who are not primarily associated with the marketing area and to prevent possible hardship upon such distributors which might result from applying the provisions of the proposed order to the total operations of such distributors when they actually are more closely associated with other markets. In order to prevent these distributors from having a price advantage with respect to sales of Class I milk in the marketing area they should be required to pay into the producer-settlement fund the difference between the Class I and the Class II price on such milk disposed of in the marketing area. In addition, such distributors should be required to pay to the market administrator, as their share of the administrative cost of operating this order, the administrative assessment on the quantity of Class I milk disposed of in the marketing area, and they should also be required to make reports to the market administrator and to keep the necessary books and records of receipts and utilization and permit verification thereof.

The term "producer" should be defined as any person, other than a producer-handler, who produces milk under a dairy farm inspection permit or rating issued by the appropriate health authority which milk is received at an approved plant or is diverted from an approved plant to any milk distributing or milk manufacturing plant. In order to eliminate possible conflict between this order and other orders regulating the handling of milk in adjacent areas it is provided that the term "producer" shall not include a person with respect to milk produced by him which is received by a handler who does a greater percentage of his Class I business under another Federal marketing order.

The term "handler" should include any person in his capacity as the operator of an approved plant, a producer-handler, any person in his capacity as the operator of an unapproved plant from which milk is disposed of as Class I milk in the marketing area and a cooperative association with respect to milk of producers which it causes to be diverted to an unapproved plant. Milk diverted from an approved plant to an unapproved plant for the account of the approved plant operator should be considered as having been received at the approved plant since producers of such milk would ordinarily be regular suppliers of the market and as such should be assured the market blend price for their milk. The inclusion in the definition of a cooperative association, even though it might not operate a plant, will enable such a cooperative association to participate in the market pool with respect to milk of its members which it may have to divert to an unapproved plant.

"Other source milk" should be defined to include all skim milk and butterfat from a producer-handler or from a source other than producers or other handlers operating approved plants except any nonfluid milk product received and disposed of in the same form.

Other source milk is not normally available for the market either because it does not meet the normal quality requirements or because its availability is restricted by the people handling it. Such milk should not share in the market pool. It is not priced under the terms of the order and to prevent its displacing the milk of producers which constitutes the regular supply of the market it is allocated to the lowest use in the handler's plant.

Since producer-handlers normally dispose of their milk during most of the year in Class I products, and since sales of Class I milk by these handlers would not be pooled, the pooling of any surplus milk purchased by handlers from producer-handlers would result in a preferential market for producer-handlers as compared with regular producers. Milk purchased from producer-handlers should be treated therefore as other source milk and would be unpriced under this proposed order. The inclusion, as other source milk, of all receipts from handlers as operators of unapproved plants assures the treatment of such milk in the same manner as is proposed for other nonproducer milk. Nonfluid milk products received and disposed of in the same form are not included as other source milk because they would not affect the classification of producer milk.

The terms "act," "person," "Secretary," "Department," "cooperative association," "producer milk," and "delivery period" are common to Federal milk marketing orders issued pursuant to the act and are defined to facilitate the drafting of the other provisions of the order.

3. *Classification and allocation of milk.* The classification of milk should be as follows: Class I milk should include all skim milk and butterfat disposed of in fluid form (except as livestock feed) as milk, skim milk, buttermilk, milk drinks, cream, cultured sour cream, any mixture of cream and milk or skim milk (except bulk ice cream mix, eggnog, and aerated cream), all skim milk and butterfat in inventory at the end of the delivery period in the form of Class I items, and all skim milk and butterfat not specifically accounted for as Class II milk. Class II milk should include all skim milk and butterfat used to produce any product other than those specified in Class I, disposed of as livestock feed, as actual plant shrinkage of skim milk and butterfat in producer milk but not in excess of 2 percent of such receipts of skim milk and butterfat, respectively, except that during the delivery periods of April, May, and June actual shrinkage on skim milk in producer milk shall be limited to 5 percent of such receipts, and in actual plant shrinkage of skim milk and butterfat, respectively, in other source milk received.

The products to be classified as Class I are those which, under the several health ordinances in effect in the marketing area, are required to be made from approved milk. They are all derived from milk which is subject to the same transportation costs in moving from farm to market. These Class I items are all normally associated with a fluid milk business, and are all disposed of in the marketing area in fluid form through the same retail and wholesale channels as bottled fluid milk. Their physical characteristics, purposes, values, and uses are more nearly similar to those of fluid milk than to the products to be classified as Class II. The inclusion as Class I of all inventory of skim milk and butterfat in fluid items does not affect either producer returns or handlers' costs for milk over a period of time. It does, however, minimize the work of the market administrator in the reclassification and resulting audit adjustments which otherwise result when fluid items in inventory are later disposed of as Class I milk.

Skim milk and butterfat contained in cream and cream mixtures are subject to the same production costs as milk for other fluid uses. Furthermore, milk so utilized is the same quality of milk as is disposed of in other Class I products and is subject to the same transportation costs in moving from the farm to the handler's plant. In addition, the separate accounting of skim milk and butterfat herein proposed and the pricing thereof results in handlers being charged only for the exact volume of skim milk or butterfat actually disposed of in any particular use.

The products to be classified in Class II are not required under the local health ordinances to be made from approved milk. For this reason cottage cheese, originally proposed to be classified as Class I milk, is included in Class II milk. Producer milk in excess of the needs of local handlers for milk for Class I use must compete with ungraded milk over which it commands no premium for manufacturing uses. Accordingly, such excess milk must be classified in a lower class than that utilized for fluid products. In this manner a lower pricing is provided for such milk which lower pricing is necessary to assure the free movement of such excess supplies into manufacturing channels without burdensome competitive disadvantages to affected handlers.

Producers proposed a one percent maximum shrinkage allowance in the lowest use class while handlers proposed a minimum three percent allowance and

in addition proposed that dumped milk be classified as Class II. Dumping results in complete disappearance of the skim milk and butterfat involved and it would be necessary in order to adequately protect producer interests that a representative of the market administrator's office be in a position to witness the actual dumping. The geographical characteristics of this particular marketing area, consisting as it does of twelve counties in which there are numerous separate municipalities, and the fact that most of the handlers deal in relatively small volumes of milk make it impractical to allow dumped milk to be classified as Class II. Any excess butterfat which cannot be disposed of for fluid uses or in other higher valued products can be utilized locally in the manufacture of butter. Hence under no circumstances should it be necessary to dispose of whole milk or butterfat by dumping. There are ample manufacturing facilities in the area to handle any prospective local surpluses and these manufacturing plants at times import milk from substantial distances to supplement their local supplies. Moreover, most of the handlers are short of producer milk during the fall and winter months. A Class II classification for producer skim milk which is dumped at the same time that other source milk is being received for fluid use cannot be justified. This narrows the consideration to one of a lower classification for skim milk dumped during the peak production months when supplies of local producer milk exceed the demand for fluid uses. In this connection it is proposed that for purposes of this order any milk, skim milk, or cream which is dumped be considered unaccounted for milk which, except in the case of skim milk during the months of April through June should be included as allowable shrinkage within the limits of 2 percent of producer receipts. An allowable shrinkage on skim milk of 5 percent during the months of April through June should serve to alleviate any hardship to individual handlers resulting from excess volumes in amounts too small to justify transporting to manufacturing plants or otherwise disposing of as Class II products. Unaccounted for producer milk in excess of allowable shrinkage should be classified as Class I. No limit is proposed for shrinkage of other source milk allowed in Class II since such milk is deducted from the lowest use class under the allocation provisions.

It is not administratively feasible to segregate the actual plant shrinkage on producer milk from shrinkage on other source milk in the same plant. Accordingly, in such case, the shrinkage of skim milk and butterfat, respectively allocated to producer milk and to other source milk should be computed pro rata in proportion to the volumes of skim milk and butterfat, respectively, received from such sources.

The allocation provisions should provide that other source milk, which is unpriced, be allocated to the lowest use in the handler's plant. This is done to prevent other source milk from displacing the milk of producers which constitutes the regular supply of the market.

In establishing the classification of milk the responsibility should be placed upon the handler who first receives milk from producers to account for all skim milk and butterfat received at his approved plant and to prove to the market administrator that such skim milk and butterfat should be classified as other than Class I. The handler who first receives milk from producers is responsible for reporting the proper utilization of such milk and making full payment for it. He must, therefore, maintain records to furnish adequate proof of utilization to the market administrator.

Provision should be made in the order to cover the classification of skim milk and butterfat transferred from an approved plant to another approved plant or to an unapproved plant. In the case of transfers between approved plants classification should be on the basis of written agreement between the affected handlers to the extent of utilization in the agreed use in the transferee plant. This provision affords suitable flexibility in the pricing, classification, and accounting for of milk transferred. It does not affect producer returns because all of the milk is accounted for in the pool computation in any event. In order to assure adequate protection of producers in the classification of their milk it should be provided that in case other source milk is received in either or both plants the classification of milk in each plant shall be made in such a manner as will return the higher class utilization to producer milk.

Transfers to a producer-handler should be classified as Class I milk. Producer-handlers ordinarily carry on only fluid operations and any milk which they purchase from a handler would normally be for fluid uses. Accordingly, it is unnecessary to provide for the classification of such a transfer in a lower use class.

Transfers to an unapproved plant located not more than 250 miles from the square at Chanute, Kansas, and from which Class I milk is disposed of should be classified on the basis of written agreement in the same manner as is proposed for transfers between approved plants, except that the individual dairy farmers delivering milk direct to such plant should be assured of the highest available use in such plant. This would facilitate the movement of skim milk and butterfat in excess of Class I needs and at the same time protect producers in the classification of their milk by requiring records to prove to the market administrator that an equivalent amount of skim milk and butterfat was actually used in the claimed class.

Transfers of milk, skim milk, or cream to an unapproved plant within the 250 mile limit and from which no Class I milk is disposed of should be Class II, since that necessarily would be the highest use in such plant.

Transfers of skim milk and butterfat in the form of milk or skim milk to an unapproved plant located in excess of 250 miles from the square of Chanute, Kansas, should be classified as Class I. Milk and skim milk ordinarily does not move long distances for other than fluid uses. The record shows that there are ample manufacturing outlets within the proposed 250 mile radius to dispose of any prospective surplus of producer milk. Accordingly, it is unnecessary to provide for such transfer of skim milk and butterfat in the form of milk or skim milk as other than Class I and it would be administratively impractical to do so because the market administrator would have to verify any claimed utilization in Class II.

Transfers in the form of cream to an unapproved plant beyond the 250-mile limit should be classified as Class II. Cream is less bulky than milk or skim milk and ordinarily can be moved much greater distances for other than fluid uses. Proponents proposed that skim milk and butterfat in the form of cream should be Class I if so moved under a Grade A certification. However, they offered no evidence in support of such a provision. While this provision is contained in the Federal marketing orders of several nearby areas it would be impossible to adopt such a provision without specific evidence indicating that the conditions which prompted the adoption of this proposal in those markets also prevail in the Neosho Valley area.

4. *Class prices.* Class I milk prices in this area should be based on prices paid for milk used for manufacturing purposes. Prices paid for milk used for fluid purposes in this area have been closely related to prices paid for milk for manufacturing purposes. Production and marketing of milk for each type of outlet are subject to many of the same economic factors. Since the market for most manufactured products is country wide, prices of manufactured dairy products reflect many of the changes in the general economic conditions affecting the supply and demand for milk. Moreover, butter, powder, and cheese prices, or the prices paid by condenseries with differentials over these basic or manufacturing prices are frequently used to establish fluid milk prices in those areas where the production of manufacturing quality milk is a significant factor in the total potential supply of milk for the market. The production of manufacturing quality milk in the supply area of the Neosho Valley area is a significant factor in the availability of milk for this market indicating the feasibility of a Class I pricing formula based on the prices of milk for manufacturing uses. Differentials over the basic formula are needed to cover the cost of meeting quality requirements in the production of market milk and to furnish the necessary incentive to get such milk produced.

The basic formula price to be used in establishing the current delivery period price for Class I milk of 4.0 percent butterfat content should be the highest of the following for the preceding month: the prices paid to farmers at 18 milk manufacturing plants in Wisconsin and Michigan for milk of 3.5 percent butterfat content adjusted to a 4.0 percent basis; a formula price based upon the market price of butter and powder; or the average price paid to farmers for milk of 4.0 percent butterfat content by specified local manufacturing plants.

Pricing of producer milk on a 4.0 percent butterfat basis follows the usual custom of the market and no objection was made to the proposal. The use of the previous month's manufacturing values in determining the basic formula price for the current delivery period permits handlers to know their milk costs at the time of purchase and is consistent with the practice in the surrounding Federal order markets.

The components of the basic formula price herein decided upon are identical with those in effect in the Tulsa market and very similar to those in effect in the Springfield, St. Louis, Kansas City and Wichita markets. Correlation of the movement of prices with that in these markets is important, since Neosho Valley handlers compete for supplies of milk with handlers in each of these markets, and compete for sales with Tulsa and Springfield handlers. A Wichita handler buys a substantial volume of milk from producers in Wilson, Montgomery and Labette Counties, Kansas, which are included in the marketing area. A Tulsa handler buys milk from producers located in Cherokee County, Kansas, and Newton County, Missouri, and from producers located in the area in Oklahoma from which a Neosho Valley handler at Coffeyville secures a major portion of his milk supply. Springfield handlers secure some supplies from areas in Missouri from which producers supply milk to Neosho Valley handlers located in Joplin, Neosho, Nevada and Pittsburg. A receiving station for Kansas City at Butler, Missouri, and one for St. Louis at Monnett, Missouri, are each located in counties adjoining the marketing area.

The Class I differential should be fixed at $1.00 per hundredweight over the basic formula price during the delivery periods of April through June and at $1.45 per hundredweight over the basic formula price during the delivery periods of July through March. Such pricing serves to maintain the Class I price in the area at approximately the same level as that paid recently by handlers in the Wichita market, but approximately 35 cents per hundredweight less than that provided for the months of September through December 1951 by a recent amendment to the Wichita order, of which official notice is hereby taken. The differentials herein decided upon produce a Class I price 40 cents less per hundredweight than that of the Tulsa order. To some extent these differences will be offset by increased costs of delivery to Wichita and Tulsa. Any greater differences, however, would result in increased loss of milk supplies from the Neosho Valley market to these markets.

The Class I prices of the Springfield market, in which a Federal order became effective in March 1950 are arranged in a different seasonal pattern and are somewhat less than those that will result from these differentials. As indicated by the record, hearings have been held on proposals for upward adjustment of the Class I pricing formulas of the Springfield market. For much of the year the difference under the current provisions of the Springfield order is less than the 20 cents per hundredweight that Neosho Valley handlers indicated as a proper alignment of the two areas. In view of the necessity for establishment of a price structure which will not unduly accelerate the shifting of additional supplies to the Tulsa and Wichita markets, the differentials decided upon herein appear to be the most satisfactory pricing basis for Class I milk in the area.

The Class I prices resulting from the basic formula prices and differentials herein decided would have been somewhat higher than the average prices currently paid by handlers in the Neosho Valley market. There have, however, been considerable variations in the prices paid by different handlers who compete with each other for supplies and sales. The record would indicate that during the short supply season a number of handlers have not had an adequate supply of local producer milk. Production and sales data for the market as a whole is not available upon which to base judgment as to the overall adequacy of supply in the market.

The use of seasonal differentials in the pricing of Class I milk follows the pricing scheme in effect in the Tulsa, Kansas City, and Wichita markets with which Neosho area prices must be aligned.

Because of the wide variation in producer receipts between the spring and the fall months it is concluded that no changes should be permitted in the proposed pricing for Class I milk which would tend to discourage a desired leveling of production throughout the year. This can best be prevented by providing for a contraseasonal provision. Such a provision would prevent any decrease in the Class I price during the months of September through December when production costs are highest and any increase in such price during the months of April through June when production costs are lowest.

Certain handlers proposed a lower pricing for milk sold (in bulk) as Class I, outside of the marketing area, contending that without such a pricing they could not compete for outside sales and that as a result local producers would receive less total money for their milk. A lower pricing for fluid milk sold outside the marketing area is not justified. Milk disposed of by local handlers to outside areas is the same quality as that disposed of within the marketing area and is subject to the same transportation costs in moving from the farm to the handler's plant. Furthermore, such bulk sales by local handlers have no aspects of an outlet for seasonal surplus of producer milk but in fact occur primarily during the short production months when other handlers in the market are importing supplemental supplies to meet local fluid requirements.

The level of pricing herein proposed is established with a view to providing an adequate supply of milk to meet the normal needs of local handlers. Bulk sales to outside areas during the short production season when local supplies are inadequate cannot be construed as a normal requirement of local handlers. Rather the consummation of such sales offers strong support to producers' claims of an inadequate return for their milk. A lower pricing for milk sold outside of the marketing area would require a higher pricing for locally consumed milk which would result in local consumers subsidizing consumers in other markets to which such sales were made.

The price for Class II milk should be based on the average of the prices paid for milk during the current delivery period by four nearby milk manufacturing plants. The use of local manufacturing plants was supported by both producers and handlers and the price paid at the plants named herein should be representative of the value of manufacturing milk in the Neosho Valley area. Handlers purchasing ungraded milk have paid prices almost identical with the average prices of these four plants. Handlers purchasing graded milk on base-surplus plans have been paid surplus prices at and above this level. Since handlers compete with these plants in the sale of products included in Class II milk and from time to time dispose of some of their surplus milk to one or another of these plants, it is necessary that producer milk going into such products be priced at a level comparable to the prices paid for milk by such plants in order to insure a market for producer milk in excess of fluid requirements.

Such pricing would have resulted in an average Class II price in recent periods somewhat less than the prices for such milk under the Springfield, St. Louis, and Kansas City orders, slightly more than that for such milk under the Tulsa order, and somewhat more than the prices for such milk under the Oklahoma City and Wichita orders. For the month of May 1951 the prices (converted to a 4.0 percent basis where required) would have been as follows: Neosho Valley, $3.75; Springfield, $3.805; St. Louis, $3.955; Kansas City, $3.834; Tulsa, $3.70; Oklahoma City, $3.50; Wichita, $3.51. The May prices for Springfield and Kansas City are affected by seasonal reductions, so that greater differences might be shown for other months. Hearings have now been held on proposals for upward revision of surplus milk prices in Oklahoma City and Witchita.

The class prices computed and publicly announced by the market administrator under the terms of the order would be those for milk containing 4.0 percent butterfat. The class prices for each handler should be adjusted by a butterfat differential to reflect the average test of producer milk classified in each class. Such differential for Class II milk shall be computed on the basis of the price of Grade A (92-score) bulk creamery butter at Chicago for the delivery period plus 15 percent. This differential is in line with the general level of the price of butterfat in the area for manufacturing uses. With regard to Class I milk, such differential should be computed at the basis of the price of Grade A (92-score) bulk creamery butter at Chicago for the preceding delivery period plus 25 percent, reflecting the higher valued use of butterfat for fluid uses. These differentials are the same as those currently in effect in the Tulsa market.

5. *Payments to producers.* The "market-wide" type of pool with base-rating plan should be established in this order for the purpose of distributing among producers returns from the sale of their milk. Under this plan all producers receive the same uniform price for their milk (or when bases are applicable a uniform price for base milk and a uniform price for milk in excess of base) irrespective of the utilization made of such milk by individual handlers.

The alternative to the market-wide pool is the individual-handler pool. Under this latter system producers delivering to each handler receive a uniform price based on each handler's utilization of milk. Because different handlers utilize different proportions of their milk as Class I and Class II, the uniform prices of individual handlers would vary one from the other. This might facilitate the distribution of the available supply of milk in accordance with handlers' needs in a marketing area of this size. A cooperative association representing a large segment of the producers in the market has however proposed that the order be so written as to enable it to become a handler when necessary to market the surplus milk of its members. Under these circumstances an individual-handler pool would result in an unequal sharing of the market among producers and would not be conducive to orderly marketing. The order has been written to permit a cooperative association to become a handler and it is therefore concluded that a market-wide pool should be adopted at this time. In addition the use of a market-wide type of pooling will facilitate the distribution among producers of compensatory payments required under certain conditions from nonpool handlers and those subject to other orders.

In the computation of the value of producer milk, provision should be made for the inclusion of the value of milk classified in excess of reported receipts from producers, other handlers, and other sources. This provision is found in other milk orders and is necessary to account for differences between the reported and actual weights and tests of milk received from producers.

The butterfat differential to be used in making payments to producers should be fixed at one-tenth of the price of Grade A (92-score) butter on the Chicago market multiplied by 1.2. This differential is the same as that established under the Tulsa and Oklahoma City marketing orders. The producer butterfat differential merely affects the proration of returns among producers, and it in no way affects handlers' costs for milk.

The distribution among producers of the returns from the sales of milk should be made through the medium of a base-rating plan. There is a wide variation in producer receipts from season to season which both producers and handlers recognize as an undesirable situation in the market. The proposal for a base-rating plan is supported by both the producers association and handlers in the market. While many of the handlers have developed some modification of a base-rating plan for paying their producers the actual operations of these plans have been very limited and consequently ineffective in accomplishing the objective of an evening out of the seasonal variations in milk deliveries. Under the plan as hereinafter provided new bases would be established each year on the basis of total deliveries made by each producer during the short production months of September through December.

In view of the date at which any order may now become effective, provision is included that the first base-forming period shall be the delivery periods from the effective date of the order through January 1952. There was considerable testimony in the record to the effect that January should be included as one of the base-forming months. While it is concluded that for future years it is more appropriate to use an earlier period in order that new producers may be attracted to the market in time to supply milk during the entire short production season, January appears an appropriate month for inclusion the first year of operation of the order to provide a reasonable period upon producers' bases may be established. The market administrator would compute the base of each producer from whom each handler received milk during the base period and notify each producer of his established base on or before the 15th day of February of each year. The bases so established would be used in making payments to producers during the months of greatest production, i. e., April through June.

A uniform price for base milk during these months would be computed which would reflect the residual value of milk for the market as a whole after the prior assignment of deliveries of milk in excess of base to the lowest available use class. The price of base milk would thus be enhanced above the average for the market and the uniform price for excess milk would be below the average. The lower price applicable to milk in excess of base deliveries tends to limit the deliveries of such milk during the months of surplus production. Conversely, the value of a large base gives impetus to the delivery of milk in the season of short production. The influences of these two forces tends to cause a more even seasonal pattern of milk deliveries than if payments were made during all months of the year on a straight uniform price basis.

It is necessary to provide certain rules in connection with the establishment and transfer of bases to provide redsonable administrative workability of the plan. In order to accomplish this purpose and preserve the effectiveness of the plan no provisions should be made for the transfer of partial bases. However, transfer of the entire base of an individual producer to members of his family in case of death, retirement or entry into military service is permitted. Provision is also made for transfer of the entire base in the case of the termination of joint landlord-tenant relationships. These rules should assure the workability of the plan and at the same time place no undue hardship upon any producer since the established bases are effective in determining producer payments in only three of the twelve months of each year.

Although uniform prices are computed once a month, provision should be made to pay producers on a semi-monthly basis. The majority of producers on the market have customarily been paid twice a month and it is concluded that this practice should be continued. The advance payment to be made on or before the last day of the delivery period and covering receipts of producer milk during the first 15 days of the delivery period should be at not less than the Class II price for the preceding delivery period. Payment at this rate will largely eliminate the possibility of handlers making overpayments to producers who may leave the market before the end of the delivery period. Final payment for milk received during each delivery period should be made on or before the 16th day after the end of the delivery period.

In the case of a qualified cooperative association, who so requests, the handler should make the advance and final payments sufficiently in advance of the date for payment to other producers to enable the cooperative association to pay its members at that date. The dates which have been provided for these various payments are so spaced that ample time is provided the handlers and the market administrator for the filing of reports, the computation of the various prices and the writing and mailing of checks.

6. Certain other provisions should be adopted to enable proper and efficient administration of the order.

(a) *Administrative assessment.* Each handler should be required to pay to the market administrator, as his pro rata share of the cost of administration of the order, 5 cents per hundredweight, or such lesser sum as the Secretary may from time to time prescribe, on all receipts at his pool plant within the delivery period of (1) milk from producers (including such handler's own production) and (2) other source milk which is classified as Class I.

The market administrator must have sufficient funds to enable him to administer properly the terms of the order and the act provides that the administration of the order be financed through assessment against handlers. In view of the anticipated volume of milk on which the rate would apply it is concluded that a maximum rate of 5 cents per hundredweight is necessary at this time to guarantee sufficient administrative funds. In the event at a later date a lesser amount proves to be sufficient for proper administration, provision is made to enable the Secretary to reduce the assessment accordingly.

(b) *Deductions for marketing services.* Provision should be made for the dissemination of market information to producers and for the verification of weights and for the sampling and testing of milk received from producers for whom such services are not being rendered by a qualified cooperative association. This provision, including the assessing of producers in payment thereof, is specifically authorized by the act. Five cents per hundredweight or such lesser rate as the Secretary may

determine should be deducted by handlers from the payment to producers and turned over to the market administrator to finance such services. This rate was proposed by producer groups who have had experience with check sampling, weighing, and testing programs in the marketing area. In the event any qualified cooperative association is determined to be performing such services for any producer, handlers should pay to the cooperative association such deductions as are authorized by such producer in lieu of the payment to the market administrator.

(c) *Other administrative provisions.* The other provisions of the order are of a general administrative nature, are incidental to the other provisions of the order, and are necessary for the proper and efficient administration of the order. They provide for the selection of the market administrator, define his powers and duties, prescribe the information to be reported by handlers each month and the length of time that records must be retained. A plan for liquidation of the order in the event of its suspension or termination should also be provided.

Producer-handlers should be exempt from the regulatory provisions of the order except that they should be required to file reports as requested by the market administrator. Since a producer-handler may change his status from time to time it is necessary that the market administrator have authority to require such reports as will enable him to verify the current status of a producer-handler and to supplement other market information.

The operator of an approved plant which is subject to the regulatory provisions of another milk marketing agreement or order issued pursuant to the act and which the Secretary determines disposes of a greater volume of its Class I milk in such other marketing area than in this marketing area should be partially exempt from the provisions of this order. It would be impractical to attempt to regulate a handler under two separate orders with respect to the same milk. It appears reasonable that the effective regulation should be that of the area in which such a handler makes the greater portion of his sales. In order to insure equity between handlers, such a handler should not be permitted to purchase milk for sale as Class I in either area at less than the price paid by regulated handlers of the area. Therefore it should be provided that if the price such handler is required to pay for Class I milk under the other order to which he is subject is less than the price provided in the proposed order, he should pay to the producer-settlement fund an amount equal to the difference between the two prices on all Class I milk disposed of within the area. Such handler should also be required to report to the market administrator regularly so that he may ascertain the amount of milk disposed of by such persons within the area.

The order should provide limitations on the period of time handlers shall retain books and records which are required to be made available to the market administrator, and on the period of time in which obligations under the order shall terminate. The provision made in this regard is identical in principal with the general amendment made to all orders in operation on July 30, 1947, effective February 22, 1949, and the Secretary's decision of January 26, 1949 (14 F. R. 444), covering the retention of records and limitation of claims is equally applicable in this situation and is adopted as a part of this decision.

Ruling on exceptions. Within the period reserved, exceptions to certain of the findings, conclusions and actions recommended by the assistant administrator were filed. In arriving at the findings, conclusions, and regulatory provisions of this decision, each of such exceptions was carefully and fully considered in conjunction to the record evidence pertaining thereto. To the extent that the findings, conclusions and actions decided upon herein are at variance with any of the exceptions pertaining thereto such exceptions are denied for the reasons set forth in the findings and conclusions relating to the issue to which the exception refers.

General findings. (a) The proposed marketing agreement and the order and all of the terms and conditions thereof will tend to effectuate the declared policy of the act;

(b) The parity prices of milk produced for sale in the said marketing area as determined pursuant to section 2 of the act are not reasonable in view of the price of feeds, available supplies of feeds and other economic conditions which affect market supply of and demand for such milk, and the minimum prices specified in the proposed marketing agreement and in the order are such prices as will reflect the aforesaid factors, insure a sufficient quantity of pure and wholesome milk and be in the public interest; and

(c) The proposed order will regulate the handling of milk in the same manner as, and is applicable only to persons in the respective classes of industrial and commercial activity specified in the said marketing agreement upon which a hearing has been held.

Determination of representative period. The month of August 1951 is hereby determined to be the representative period for the purpose of ascertaining whether the issuance of an order regulating the handling of milk in the Neosho Valley marketing area in the manner set forth in the attached order is approved or favored by producers who during such period were engaged in the production of milk for sale in the marketing area specified in such marketing order.

Annexed hereto and made a part hereof are two documents entitled respectively "Marketing Agreement Regulating the Handling of Milk in the Neosho Valley Marketing Area," and "Order Regulating the Handling of Milk in the Neosho Valley Marketing Area," which have been decided upon as the detailed and appropriate means of effectuating the foregoing conclusions. These documents shall not become effective unless and until the requirements of § 900.14 of the rules of practice and procedure, as amended, governing proceedings to formulate marketing agreements and orders have been met.

It is hereby ordered that all of this decision, except the attached marketing agreement, be published in the FEDERAL REGISTER. The regulatory provisions of said marketing agreement are identical with those contained in the attached order which will be published with this decision.

This decision filed at Washington, D. C., this 15th day of October 1951.

[SEAL] CHARLES F. BRANNAN,
Secretary of Agriculture.

Order[1] Regulating the Handling of Milk in the Neosho Valley Marketing Area

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[1] This order shall not become effective unless and until the requirements of § 900.14 of the rules of practice and procedure, as amended, governing proceedings to formulate marketing agreements and orders have been met.

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AUTHORITY: §§ 928.0 to 928.111, inclusive, issued under sec. 5, 49 Stat. 753, as amended; 7 U. S. C. and Sup. 608c.

§ 928.0 *Findings and determinations—(a) Findings upon the basis of the hearing record.* Pursuant to the provisions of the Agricultural Marketing Agreement Act of 1937, as amended (7 U. S. C. 601 et seq.), and the applicable rules of practice and procedure, as amended, governing the formulation of marketing agreements and marketing orders (7 CFR Part 900), public hearings were held upon a proposed marketing agreement and a proposed order regulating the handling of milk in the Neosho Valley marketing area. Upon the basis of the evidence introduced at such hearings and the records thereof, it is found that:

(1) The said order and all of the terms and conditions thereof, will tend to effectuate the declared policy of the act;

(2) The parity prices of milk produced for sale in the said marketing area as determined pursuant to section 2 of the act are not reasonable in view of the price of feeds, available supplies of feeds and other economic conditions which affect market supplies of and demand for such milk, and the minimum prices specified in the order are such prices as will reflect the aforesaid factors, insure a sufficient quantity of pure and wholesome milk and be in the public interest;

(3) The said order regulates the handling of milk in the same manner as and is applicable only to persons in the respective classes of industrial and commercial activity specified in a marketing agreement upon which a hearing has been held;

(4) All milk and milk products, handled by handlers, as defined in this order, are in the current of interstate commerce or directly burden, obstruct or affect interstate commerce in milk or its products; and

(5) It is hereby found that the necessary expenses of the market administrator for the maintenance and functioning of such agency will require the payment by each handler, as his pro rata share of such expenses, 5 cents per hundredweight or such lesser amount as the Secretary may prescribe with respect to all receipts within the delivery period of: (i) Milk from producers including such handler's own production, and (ii) other source milk which is classified as Class I.

Order relative to handling. It is therefore ordered that on and after the effective date hereof the handling of milk in the Neosho Valley marketing area shall be in conformity to and in compliance with the following terms and conditions:

DEFINITIONS

§ 928.1 *Act.* "Act" means Public Act No. 10, 73d Congress, as amended, and as reenacted and amended by the Agricultural Marketing Agreements Act of 1937, as amended (7 U. S. C., 1940 ed., 601 et seq.).

§ 928.2 *Secretary.* "Secretary" means the Secretary of Agriculture or any other officer or employee of the United States authorized to exercise the powers or to perform the duties of the said Secretary of Agriculture.

§ 928.3 *Department.* "Department" means the United States Department of Agriculture or such other Federal agency as is authorized to perform the price reporting functions of the United States Department of Agriculture.

§ 928.4 *Person.* "Person" means any individual, partnership, corporation, association, or any other business unit.

§ 928.5 *Cooperative association.* "Cooperative association" means any cooperative marketing association of producers which the Secretary determines, after application by the association:

(a) To be qualified under the provisions of the act of Congress of February 18, 1922, as amended, known as the "Capper-Volstead Act"; and,

(b) Is authorized by its members to make collective sales or to market milk or its products for its members.

§ 928.6 *Neosho Valley marketing area.* "Neosho Valley marketing area," hereinafter called the "marketing area" means all of the territory within the counties of Allen, Bourbon, Cherokee, Crawford, Labette, Montgomery, Neosho and Wilson, all in the State of Kansas, and the counties of Barton, Jasper, Newton and Vernon, all in the State of Missouri.

§ 928.7 *Approved plant.* "Approved plant" means any milk processing plant, except that of a producer-handler, which is approved by the appropriate health authority having jurisdiction in the marketing area and from which 10 percent or more of the receipts during the delivery period of milk qualified for distribution as Grade A milk in the marketing area is disposed of during the delivery period on wholesale or retail routes (including plant stores) as Class I milk in the marketing area.

§ 928.8 *Handler.* "Handler" means: (a) Any person in his capacity as the operator of an approved plant, (b) a producer-handler, (c) any person, except a producer-handler, in his capacity as the operator of an unapproved plant from which milk is disposed of during the delivery period on wholesale or retail routes (including plant stores) as Class I milk in the marketing area, and (d) any cooperative association with respect to the milk of producers which it causes to be diverted to an unapproved plant for the account of such association.

§ 928.9 *Producer.* "Producer" means any person, other than a producer, handler, who produces milk under a dairy farm permit or rating issued by the appropriate health authority having jurisdiction in the marketing area over the production of milk disposed of for consumption as Grade A milk which milk is (a) received at an approved plant, or (b) diverted from an approved plant to any milk distributing or milk manufacturing plant: *Provided,* That such milk so diverted shall be deemed to have been received by the handler for whose account it was diverted: *And provided further,* That this definition shall not include a person with respect to milk produced by him which is received by a handler who is partially exempted from the provisions of this order pursuant to §§ 928.61 and 928.62.

§ 928.10 *Producer-handler.* "Producer-handler" means any person who processes milk from his own farm production, all or a portion of which is disposed of as Class I milk, within the marketing area, and who receives no milk from producers.

§ 928.11 *Other source milk.* "Other source milk" means all skim milk and butterfat received in any form from a producer-handler or from a source other than producers or another handler in his capacity as the operator of an approved plant except any nonfluid milk product received and disposed of in the same form.

§ 928.12 *Delivery period.* "Delivery period" means a calendar month, or any portion thereof during which this order is in effect.

MARKET ADMINISTRATOR

§ 928.20 *Designation.* The agency for the administration hereof shall be a market administrator, selected by the Secretary, who shall be entitled to such compensation as may be determined by, and shall be subject to removal at the discretion of, the Secretary.

§ 928.21 *Powers.* The market administrator shall have the following powers with respect to this order:

(a) To administer its terms and provisions;

(b) To receive, investigate, and report to the Secretary complaints of violations;

(c) To make rules and regulations to effectuate its terms and provisions; and

(d) To recommend amendments to the Secretary.

§ 928.22 *Duties.* The market administrator shall perform all duties necessary to administer the terms and provisions hereof, including but not limited to the following:

(a) Within 30 days following the date on which he enters upon his duties, or such lesser period as may be prescribed by the Secretary, execute and deliver to the Secretary a bond, effective as of the date on which he enters upon his duties

(d) Wages at a rate of not less than 40 cents per hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the paper board division of the Paper, Paper Products, Printing, Publishing, and Related Industries in Puerto Rico who is engaged in commerce or in the production of goods for commerce.

(e) Wages at a rate of not less than 40 cents per hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the general division of the Paper, Paper Products, Printing, Publishing, and Related Industries in Puerto Rico who is engaged in commerce or in the production of goods for commerce.

§ 677.2 *Notices of order.* Every employer employing any employees so engaged in commerce or in the production of goods for commerce in the Paper, Paper Products, Printing, Publishing, and Related Industries in Puerto Rico shall post and keep posted in a conspicuous place in each department of his establishment where such employees are working such notices of this order as shall be prescribed from time to time by the Wage and Hour Division of the United States Department of Labor and shall give such other notice as the Division may prescribe.

§ 677.3 *Definitions of the Paper, Paper Products, Printing, Publishing and Related Industries in Puerto Rico and its divisions.* (a) The manufacture of pulp from wood, rags and other fibers; the conversion of such pulp into paper or paper board; the manufacture of building board from bagasse and similar materials; the manufacture of paper, paper board and pulp into bags, boxes, containers, tags, cards, envelopes, pressed and molded pulp goods and all other converted paper products, and the manufacture of all like products in which a synthetic material in sheet form, such as cellophane and pliofilm, is the basic component; the printing performed on any of the foregoing products; and the printing or publishing of newspapers, books, periodicals, maps, music and all other products or services of typesetters and advertising typographers, electrotypers and stereotypers, photoengravers, steel and copper plate engravers, commercial printers, lithographers, gravure printers, private printing plants of concerns engaged in other business, binderies, and news syndicates.

(b) The separable divisions of the industries, as defined in paragraph (a) of this section, to which this part shall apply, are hereby defined as follows:

(1) *Daily newspaper division.* This division consists of the printing or publishing of daily newspapers.

(2) *Paper box division.* This division consists of the manufacture of corrugated, folding, and set-up paper boxes.

(3) *Paper board division.* This division consists of the manufacture of paper board, including, but without limitation, the manufacture of pulp therefor from wood, waste paper, rags, and other fibers, the conversion of the pulp into paper board, and the collection and sorting of waste paper to be used in the manufacture of the paper board.

(4) *Paper bag division.* This division consists of the manufacture of paper bags.

(5) *General division.* This division consists of all products and activities included in the Paper, Paper Products, Printing, Publishing and Related Industries in Puerto Rico, as defined in this section, except those included in the daily newspaper division, paper box division, paper board division, and paper bag division, as defined in this paragraph.

Signed at Washington, D. C., this 12th day of October 1951.

WM. R. MCCOMB,
Administrator,
Wage and Hour Division.

[F. R. Doc. 51-12192; Filed, Oct. 17, 1951; 8:51 a. m.]

[29 CFR Part 699]

GENERAL DIVISION OF TEXTILE AND TEXTILE PRODUCTS INDUSTRY IN PUERTO RICO

MINIMUM WAGE RATES

On May 11, 1951, pursuant to section 5 of the Fair Labor Standards Act of 1938, as amended, hereinafter called the act, the Administrator of the Wage and Hour Division, United States Department of Labor, by Administrative Order No. 411, appointed Special Industry Committee No. 10 for Puerto Rico, hereinafter called the Committee, and directed the Committee to investigate conditions in a number of industries in Puerto Rico specified and defined in the order, including the General Division of the Textile and Textile Products Industry, and to recommend minimum wage rates for employees engaged in commerce or in the production of goods for commerce in such industries.

For purposes of investigating conditions in and recommending minimum wage rates for the General Division of the Textile and Textile Products Industry in Puerto Rico, the Committee included three disinterested persons representing the public, a like number representing employers, and a like number representing employees in the industry, and was composed of residents of Puerto Rico and of the United States outside of Puerto Rico.

After investigating economic and competitive conditions in the General Division of the Textile and Textile Products Industry in Puerto Rico, the Committee filed with the Administrator a report containing its recommendation for a minimum wage rate of 35 cents per hour to be paid employees engaged in commerce or in the production of goods for commerce in the industry.

Pursuant to notice published in the FEDERAL REGISTER August 14, 1951, and circulated to all interested persons, a public hearing upon the Committee's recommendation was held before Hearing Examiner E. West Parkinson, as presiding officer, in Washington, D. C., on October 9, 1951, at which all interested parties were given an opportunity to be heard. After the hearing was closed the record of the hearing was certified to the Administrator by the presiding officer.

Upon reviewing all the evidence adduced in this proceeding and after giving consideration to the provisions of the act, particularly sections 5 and 8 thereof, I have concluded that the recommendation of the Committee for a minimum wage rate of 35 cents per hour in the General Division of the Textile and Textile Products Industry, as defined, was made in accordance with law, is supported by the evidence adduced at the hearing, and, taking into consideration the same factors as are required to be considered by the Committee, will carry out the purposes of sections 5 and 8 of the act.

I have set forth my decision in a document entitled "Findings and Opinion of the Administrator in the Matter of the Recommendation of Special Industry Committee No. 10 for Puerto Rico for a Minimum Wage Rate in the General Division of the Textile and Textile Products Industry in Puerto Rico," a copy of which may be had upon request addressed to the Wage and Hour Division, United States Department of Labor, Washington 25, D. C.

Accordingly, notice is hereby given, pursuant to the Administrative Procedure Act (60 Stat. 237; 5 U. S. C. 1001) and the rules of practice governing this proceeding, that I propose to approve the recommendation of the Committee for the General Division of the Textile and Textile Products Industry and to amend this part as set forth below to carry such recommendation into effect.

Within 15 days from publication of this notice in the FEDERAL REGISTER, interested parties may submit written exceptions to the proposed action. Exceptions should be addressed to the Administrator of the Wage and Hour Division, United States Department of Labor, Washington 25, D. C. They should be submitted in quadruplicate, and should include supporting reasons for any exceptions.

1. Amend § 699.2 (e) to read as follows:

§ 699.2 *Wage rates.* * * *

(e) Wages at a rate of not less than 35 cents per hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the General Division of the Textile and Textile Products Industry in Puerto Rico who is engaged in commerce or in the production of goods for commerce.

2. Amend § 699.4 (b) (1) to read as follows:

§ 699.4 *Definitions of the textile and textile products industry in Puerto Rico and its divisions.* * * *

(b) The separable divisions of the industry, as defined in paragraph (a) (1) of this section, to which this order and its several provisions shall apply, are hereby defined as follows:

(1) *General division.* This division consists of the preparation of textile fi-

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bers; the manufacture of batting, wadding, and filling; the manufacture of yarn, cordage, twine, felt, woven and knitted fabrics, and lace machine products, from cotton, jute, sisal, coir, maguey, silk, rayon, nylon, wool or other vegetable, animal, or synthetic fibers, or from mixtures of these fibers; and the manufacture of blankets, textile bags, oil cloth and artificial leather, and woven carpets and rugs: *Provided, however,* That the definition shall not include the ginning and compressing of cotton; the manufacture from any fiber of hand-loomed fabrics, blankets, rugs and similar textiles; the manufacture from kenaf, coir, sisal, jute or other hard or coarse textile fiber or mixtures of these fibers of yarn, bagging, bags, rope, matting, and similar textiles and textile products; and the chemical manufacturing of synthetic fiber and such related processing of yarn as is conducted in establishments manufacturing synthetic fiber. * * *

(Sec. 8, 63 Stat. 915; 29 U. S. C. 208)

Signed at Washington, D. C., this 12th day of October 1951.

WM. R. MCCOMB,
Administrator,
Wage and Hour Division.

[F. R. Doc. 51-12491; Filed, Oct. 17, 1951; 8:53 a. m.]

NOTICES

DEPARTMENT OF THE TREASURY

United States Coast Guard

[CGFR 51-51]

NAVIGATION AND VESSEL INSPECTION LAWS AND REGULATIONS APPLICABLE IN THE PACIFIC NORTHWEST

NOTICE OF HEARING

1. The Commander, 13th Coast Guard District, United States Coast Guard, will hold a public hearing at 10:00 a. m., P. s. t., on Monday, October 29, 1951, at the Coast Guard District Office, 618 Second Avenue, Seattle 4, Washington, for the purpose of receiving comments on and discussing matters pertaining to the maritime industry which are peculiar to the Pacific Northwest and over which the Coast Guard has jurisdiction.

2. The following subjects will be considered at this hearing:

(a) Application and administration of marine inspection requirements to the merchant marine in the Pacific Northwest.

(b) Classificaiton of the waters for inspection and navigation purposes in the Pacific Northwest.

3. All persons interested in the marine industry in the Pacific Northwest are invited to attend this hearing. It will be appreciated if interested persons or parties will inform the Commander, 13th Coast Guard District, 618 Second Avenue, Seattle 4, Washington, whether or not they will attend or have a representative present, stating name and position in their organization (if any), and if time is desired to present comments orally. Briefs or written comments will be welcomed from those present at this hearing or from those unable to attend.

Dated: October 15, 1951.

[SEAL] MERLIN O'NEILL,
Vice Adm., U. S. Coast Guard,
Commandant.

[F. R. Doc. 51-12505; Filed, Oct. 17, 1951; 8:53 a. m.]

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

ALASKA

SHORE SPACE RESTORATION ORDER NO. 464

OCTOBER 11, 1951.

By virtue of the authority contained in the act of June 5, 1920 (41 Stat. 1059, 48 U. S. C. 372), and pursuant to section 2.22 (a) (3), of Order No. 1, Bureau of Land Management, Region VII, approved by the Acting Secretary of the Interior August 20, 1951 (16 F. R. 8625, 8627), it is ordered as follows:

Subject to valid existing rights and the provisions of existing withdrawals, the 80-rod shore space reserve created under the act of May 14, 1898 (30 Stat. 409), as amended by the act of March 3, 1903 (32 Stat. 1028, 48 U. S. C. 371), is hereby revoked as to the following described lands:

A tract of land located on Gastineau Channel, Alaska, more particularly described as follows: 0.5 acres beginning at Corner No. 1 which point is identical with Meander Corner No. 7, U. S. Survey 2433, thence northwesterly along Meander Line of Gastineau Channel 200' more or less to Corner No. 2, thence S. 60° 57' W., 100' more or less to Corner No. 3 identical to the near boundary of highway right-of-way, thence southeasterly along the boundary of the highway right-of-way 200' more or less to Corner No. 4, identical intersection of highway right-of-way and line 6-7 U. S. Survey 2433, thence N. 60° 57' E., 100' more or less to Corner No. 1 the point of beginning. Containing approximately 0.5 acres (homesite settlement claim and petition for shorespace restoration of John Walfred Bergquist, Anchorage 017539).

A tract of land located on Alexander Creek, Alaska described as follows: Commencing at USLM No. 1824; thence 660' in a generally easterly direction along the north bank of Alexander Creek to Corner No. 2; thence in a northerly direction 330' to Corner No. 3; thence westerly 660' to Corner No. 4; thence southerly 330' to place of beginning containing approximately 5 acres (homesite application and petition for shorespace restoration of Carl Gustav Adolph Thiele Anchorage 016987).

No application for these lands may be allowed under the Small Tract Act of June 1, 1938 (52 Stat. 609; 43 U. S. C. 682a), unless the land has already been classified as valuable or suitable for such type of application or shall be so classified upon consideration of an application.

At 10:00 a. m. on October 31, 1951, the lands shall, subject to valid existing rights and the provisions of existing withdrawals become subject to application, petition, location, or selection as follows:

(a) *Ninety-day period for preference-right filings.* For a period of 90 days from October 31, 1951, to January 28, 1952, inclusive, the public lands affected by this order shall be subject to (1) application under the homestead or homesite laws, or the small tract act of June 1, 1938 (52 Stat. 609, 43 U. S. C. sec. 682a) as amended by qualified veterans of World War II, for whose service recognition is granted by the act of September 27, 1944 (58 Stat. 747, 43 U. S. C. secs. 279-283), as amended, subject to the requirements of applicable law, and (2) application under any applicable public-land law, based on prior existing valid settlement rights and preference rights conferred by existing laws or equitable claims subject to allowance and confirmation. Applications by such veterans shall be subject to claims of the classes described in subdivision (2).

(b) *Twenty-day advance period for simultaneous preference-right filings.* For a period of 20 days from October 11, 1951, to October 30, 1951, inclusive, such veterans and persons claiming preference rights superior to those of such veterans, may present their applications, and all such applications, together with those presented at 10:00 a. m. on October 31, 1951, shall be treated as simultaneously filed.

(c) *Date for non-preference right filings authorized by the public land laws.* Commencing at 10:00 a. m. on January 29, 1952, any of the lands remaining unappropriated shall become subject to such application, petition, location, or selection by the public generally as may be authorized by the public land laws.

(d) *Twenty-day advance period for simultaneous non-preference right filings.* Applications by the general public may be presented during the 20-day period from January 9, 1952, to January 28, 1952, inclusive, and all such applications, together with those presented at 10:00 a. m. on January 29, 1952, shall be treated as simultaneously filed.

A veteran shall accompany his application with a complete photostatic, or other copy (both sides), of his certificate of honorable discharge, or of an official document of his branch of the service which shows clearly his honorable discharge as defined in § 181.36 of Title 43 of the Code of Federal Regulations, or constitutes evidence of other facts upon which the claim for preference is based and which shows clearly the period of service. Other persons claiming credit for service of veterans must furnish like proof in support of their claims. Persons asserting preference rights, through settlement or otherwise, and those having equitable claims, shall accompany their applications by duly corroborated statements in support thereof, setting

forth in detail all facts relevant to their claims.

Applications for these lands, which shall be filed in the Land Office at Anchorage, Alaska, shall be acted upon in accordance with the regulations contained in § 295.8 of Title 43 of the Code of Federal Regulations (Circular No. 324, May 22, 1914, 43 L. D. 254), to the extent that such regulations are applicable. Applications under the homestead and homesite laws shall be governed by the regulations contained in Parts 64, 65 and 66, of Title 43 of the Code of Federal Regulations and applications under the small tract act of June 1, 1938, as amended, shall be governed by the regulations contained in Part 257 of that title.

Inquiries concerning these lands shall be addressed to the Land Office at Anchorage, Alaska.

HAROLD T. JORGENSON,
Chief, Division of Land Planning.

[F. R. Doc. 51-12464; Filed, Oct. 17, 1951; 8:49 a. m.]

ALASKA

SHORE SPACE RESTORATION ORDER NO. 465

OCTOBER 11, 1951.

By virtue of the authority contained in the act of June 5, 1920 (41 Stat. 1059, 48 U. S. C. 372), and pursuant to section 2.22 (a) (3), of Order No. 1, Bureau of Land Management, Region VII, approved by the Acting Secretary of the Interior August 20, 1951 (16 F. R. 8625, 8627), it is ordered as follows:

Subject to valid existing rights and the provisions of existing withdrawals, the 80-rod shore space reserve created under the act of May 14, 1898 (30 Stat. 409), as amended by the act of March 3, 1903 (32 Stat. 1028, 48 U. S. C. 371), is hereby revoked as to the following described lands:

A tract of land located on Tongass Narrows, Alaska, identified as Lot 22 U. S. Survey 2603 containing approximately 3.20 acres (homesite application and petition for shore space restoration of Salmer O. Aanstad, Anchorage 016718)

A tract of land on Tongass Narrows, Alaska, identified as Homesite 880 Lot 71, U. S. Survey 3020 containing approximately 4.17 acres (homesite application and petition for shore space restoration of Elmer E. Dravage, Anchorage 015963)

A tract of land located on Narrow Strait, Alaska, identified as follows: from Corner No. 3 M. C. of U. S. Survey No. 1974 on Spruce Island run approximately 1200' in a southwesterly direction (approximately south 81° 41' west) along the mean high tide mark to Corner No. 1 the true point of the beginning; thence north 27° 30' west a distance of 500' to Corner No. 2; thence at right angles in a southwesterly direction a distance of 400' to Corner No. 3; thence at right angles in a southwesterly direction a distance of approximately 500' to the mean high mark of the Small Bay on the north side of Narrow Strait to Corner No. 4, thence following the mean high tide mark of the said bay in a northeasterly direction a distance of approximately 400' to the point of beginning, (homesite application of Fred A. Torsen, Anchorage 016294) containing approximately 5 acres.

A tract of land located on Bumble Bay, Alaska identified as follows: commencing at mean high tide at Bumble Bay, Kodiak Island 60' southwest of U. S. Land Monument No. 2310, this to be known as Corner No. 1; thence in a northeasterly direction following the mean high tide line of Bumble Bay for a distance of 660' to Corner No. 2; thence turning 90° to the right and in a southeasterly direction for a distance of 330' to Corner No. 3; thence turning 90° to the right in a southwesterly direction and paralleling the beach of Bumble Bay for a distance of 660' to Corner No. 4; thence turning 90° to the right and in a northwesterly direction for a distance of 330' to Corner No. 1 point of beginning. (Headquarters site application of Alf Madsen, Anchorage 014762) containing approximately 5 acres.

A tract of land located on Auke Lake, Alaska identified as Lot L, U. S. Survey 2386 containing approximately 1.92 acres (homesite application of Arthur Kobbivik, Anchorage 015277).

A tract of land located on Tongass Narrows, Alaska, identified as Lot 25B, U. S. Survey 2990 containing approximately 0.30 acre (homesite application of Edwin Jones, Anchorage 016050).

A tract of land located on Warm Springs Bay, Alaska to be identified as U. S. Survey 3110 containing approximately 1.04 acres (homesite application and petition for free survey of Fred Bahovec, Anchorage 016916).

HAROLD T. JORGENSON,
Chief,
Division of Land Planning.

[F. R. Doc. 51-12465; Filed, Oct. 17, 1951; 8:49 a. m.]

ALASKA

SHORE SPACE RESTORATION ORDER NO. 466

OCTOBER 11, 1951.

By virtue of the authority contained in the act of June 5, 1920 (41 Stat. 1059, 48 U. S. C. 372), and pursuant to section 2.22 (a) (3), of Order No. 1, Bureau of Land Management, Region VII, approved by the Acting Secretary of the Interior August 20, 1951 (16 F. R. 8625, 8627), it is hereby determined that the lands described below are not necessary for harborage uses and purposes and that no shorespace reserve in such lands shall now or hereafter be created under the act of May 14, 1898 (30 Stat. 409), as amended by the act of March 3, 1903 (32 Stat. 1028, 48 U. S. C. 371), by the initiation of claims under the public land laws:

Unsurveyed lands, described as follows:

All lands on Spruce Island, Alaska, abutting or lying within 80 rods of the shore of Marmot Bay, more particularly described as follows: Beginning at the point of intersection of the shore of Spruce Island with lat. 57°57'32.75" N., long. 152°28'45" W.; thence following the meanders of the shore of Spruce Island in a southerly direction to the point of intersection of the shore of said Spruce Island with lat. 57°56'30" N., long. 152°28'56" W.

All lands abutting or lying within 80 rods of the south shore of Grantly Harbor and Port Clarence, Alaska, more particularly described as follows: Beginning at the point of intersection of the shore of Grantly Harbor with lat. 65°15'00" N., long. 166°10'00" W.; thence following the meanders of the south shore of Grantly Harbor and Port Clarence in a westerly direction to the point of intersection of the shore of Port Clarence with lat. 65°16'45" N., long. 166°50'00" W.

HAROLD T. JORGENSON,
Chief,
Division of Land Planning.

[F. R. Doc. 51-12466; Filed, Oct. 17, 1951; 8:50 a. m.]

Office of the Secretary

EDDY AND LEA COUNTIES, NEW MEXICO

OIL AND GAS, AND POTASH LEASING AND DEVELOPMENT WITHIN POTASH AREA

1. For the purpose of providing for concurrent operations in the prospecting for and the development and production of oil and gas and potash deposits owned by the United States within the area herein described and designated as "Potash Area" (see Schedule A), and for the purpose of opening to oil and gas leasing certain lands (see Schedule B) which have heretofore been withheld from such leasing and, subject to valid existing rights as to leases heretofore issued, it is ordered as follows:

1. *Oil and gas leases for that part of Potash Area covered by order of February 6, 1939.* (a) The order of the Secretary of the Interior dated February 6, 1939 (4 F. R. 1012), withholding certain lands in New Mexico from application or lease under the oil and gas provisions of the Mineral Leasing Act of February 25, 1920 (41 Stat. 437), as amended, is hereby revoked.

(b) The lands described in the order dated February 6, 1939 (except the E½SE¼, sec. 24, and the E½E½, W½SE¼, S½SW¼, sec. 25, T. 20 S., R. 29 E., N. M. M., which were withdrawn from all forms of entry by Public Land Order No. 569, 14 F. R. 1086), shall be open for oil and gas leasing as of the date of this notice, and offers on form No. 4-1158, Second Edition, received up to and including November 16, 1951, at the Land and Survey Office, Bureau of Land Management, Santa Fe, New Mexico, for lands subject to noncompetitive leasing under section 17 of the Mineral Leasing Act, as amended, shall be regarded as simultaneously filed.

(c) During the period from the date of this order to and including November 16, 1951, the following rules must be followed in applying for oil and gas leases:

(i) Each offer must cover all the Federal land subject to noncompetitive oil and gas leasing contained in a particular section and must not cover more than one section.

(ii) All offers of any offeror shall be rejected if the offeror's interests, direct and indirect, in oil and gas leases and offers and applications therefor on Federal lands in the State of New Mexico, including the offers filed pursuant to this notice exceed 15,360 chargeable acres. Where a corporation, or association, files an application for the Federal lands in a section, no person who owns an interest of 10 percent or more in such corporation or association shall be eligible to file an offer for the same area.

(iii) It will be necessary to file only one copy of each offer to lease and lease form for each section. If the offeror is successful, the Manager will execute the form and arrange to obtain the additional copies.

(iv) Each offer, accompanied by two separate checks or money orders, must be enclosed in a separate sealed envelope. One check or money order must be for $10 to cover the filing fee. The second check or money order must cover the first year's rental (50 cents per acre).

(v) The front of each envelope must be marked to show the nature of the contents and the section involved as follows:

Oil and Gas Offer, Potash Area
Sec. ------ T. ------, R. ------

(vi) Any offer filed during the prescribed period that does not conform to all the requirements of this notice shall be rejected.

(d) If necessary, a drawing will be held to determine the successful offeror for each section. Such drawing will commence at 10 a. m., m. s. t., November 20, 1951, at the Land and Survey Office, Santa Fe, New Mexico.

(e) Each successful applicant for a noncompetitive oil and gas lease, and any party awarded a competitive lease, for lands included in schedule B will be required, as a condition to the issuance of such lease, to execute a stipulation agreeing that:

(i) No wells will be drilled for oil or gas in formations above the base of the Delaware sand, or above a depth of 5,000 feet, whichever is the lesser, except upon approval of the Director of the Geological Survey, it being understood that drilling for production to these formations will be permitted only in the event that it is satisfactorily established that such drilling will not interfere with the mining and recovery of potash deposits or the interest of the United States would best be subserved thereby.

(ii) No wells will be drilled for oil or gas in formations below the base of the Delaware sand, or below a depth of 5,000 feet, whichever is the lesser, except pursuant to a unit plan approved by the Director of the Geological Survey, unless drilling is otherwise required or approved by the Director to protect the lease from drainage.

(iii) No wells will be drilled for oil or gas at a location which, in the opinion of the Oil and Gas Supervisor of the Geological Survey, would result in undue waste of potash deposits or constitute a hazard to or unduly interfere with mining operations being conducted for the extraction of potash deposits.

(iv) The drilling or the abandonment of any well on said lease shall be done in accordance with applicable oil and gas operating regulations including such requirements as the Oil and Gas Supervisor of the Geological Survey may prescribe as necessary to prevent the infiltration of oil, gas, or water into formations containing potash deposits or into mines or workings being utilized in the extraction of such deposits.

2. *Oil and gas leases for lands in Potash Area not covered by order of February 6, 1939.* (a) As a condition to the issuance of either a non-competitive or a competitive lease, or the granting of any renewal or extension of any existing lease, embracing such lands, the applicant, the successful bidder, or the lessee, as the case may be, will be required to execute a stipulation identical to that specified in item 1 (e) hereof.

(b) Upon the discovery hereafter of any oil or gas pool or field embracing all or part of any nonunitized oil and gas lease heretofore issued, unit operation will be required under the applicable unitization provisions of the lease and the Mineral Leasing Act of 1920, as amended, unless it is shown to the satisfaction of the Secretary of the Interior that independent operation will not jeopardize maximum economic recovery of the natural resources of the area.

3. *Potash leases.* All potash permits and leases hereafter issued or existing potash leases hereafter renewed for federal lands within the Potash Area, shall be subject to a requirement, either to be included in the lease or permit or imposed as a stipulation, to the effect that no mining or exploratory operations will be conducted that, in the opinion of the Mining Supervisor of the Geological Survey, would constitute a hazard to oil or gas production, or that would unreasonably interfere with the orderly development and production under any oil or gas lease issued for the same land.

4. *Maps and surveys.* (a) Well records and survey plats that an oil and gas lessee must file, pursuant to applicable operating regulations (30 CFR Part 221), shall be available for inspection at the office of the Oil and Gas Supervisor, to any party holding a potash permit or lease on the land on which the well is situated insofar as such records are pertinent to the mining and protection of potash deposits.

(b) Maps of mine workings and surface installations, and records of core analyses that a potash lessee must file pursuant to applicable operating regulations (30 CFR Part 231), shall be available for inspection at the office of the Mining Supervisor, to any party holding an oil and gas lease on the same land insofar as such maps or records are pertinent to the development and protection of oil and gas deposits.

5. *Unit plans.* Any unit plan hereafter approved or prescribed that includes oil and gas leases covered by this notice shall include a provision embodying in substance the requirements set forth in items 1 (e) (iii) and (iv) and 4 (a), hereof.

6. *Definition.* The word "potash" as used herein shall be deemed to embrace potassium and associated minerals as specified in the act of February 7, 1927 (44 Stat. 1057).

If Except to the extent herein modified the general regulations contained in 43 CFR, Parts 191 and 192, governing the leasing and development of oil and gas and in 43 CFR, Part 194, governing the leasing and development of potash deposits shall be applicable to the lands covered hereby. Copies of this notice and copies of form No. 4–1158, Second Edition, titled "Offer to Lease and Lease for Oil and Gas" can be obtained from the Land and Survey Office, Bureau of Land Management, Santa Fe, N. Mex.

SCHEDULE A

DESIGNATED POTASH AREA

New Mexico Principal Meridian

T. 19 S., R. 29 E.,
Sec. 11, SE¼;
Sec. 12, S½;
Secs. 13, and 14;
Sec. 23, N½;
Sec. 24, N½.
T. 20 S., R. 29 E.,
Sec. 12, NE¼SE¼, and S½SE¼;
Sec. 13, NE¼, and S½;
Sec. 24, N½;
Sec. 36.
T. 21 S., R. 29 E.,
Secs. 1 and 2;
Sec. 3, E½;
Sec. 10, E½;
Sec. 11 to 15 inclusive;
Sec. 22, N½N½;
Sec. 23, N½;
Secs. 24 and 25;
Sec. 35, E½;
Sec. 36.
T. 22 S., R. 29 E.,
Secs. 1 and 2;
Sec. 3, S½;
Sec. 9, E½;
Secs. 10 to 16 inclusive;
Sec. 17, E½;
Sec. 20, E½;
Secs. 21 to 28 inclusive;
Secs. 33 to 36 inclusive.
T. 23 S., R. 29 E.,
Secs. 1 to 3 inclusive;
Secs. 4, E½;
Sec. 9, E½;
Secs. 10 to 15 inclusive;
Secs. 23 to 27 inclusive;
Secs. 34 to 36 inclusive.
T. 18 S., R. 30 E.,
Sec. 12, S½;
Secs. 13 and 14;
Sec. 15, SE¼;
Sec. 21, SE¼;
Secs. 22 to 24 inclusive;
Sec. 25, W½;
Secs. 26 to 28 inclusive;
Sec. 29, SE¼;
Sec. 32, NE¼, and S½;
Secs. 33 and 34;
Sec. 35, W½.
T. 19 S., R. 30 E.,
Secs. 2 to 5 inclusive;
Sec. 6, SE¼;
Sec. 7, NE¼, and S½;
Secs. 8 to 36 inclusive.
T. 20 S., R. 30 E.;
T. 21 S., R. 30 E.,
Secs. 1 to 11 inclusive;
Sec. 12, S½;
Secs. 13 to 22 inclusive;
Sec. 23, N½;
Sec. 24, N½;
Secs. 27 to 34 inclusive;
Sec. 35, S½.
T. 22 S., R. 30 E.,
Secs. 1 to 24 inclusive;
Sec 25, W½;
Secs. 26 to 35 inclusive;
Sec. 36, W½.
T. 23 S., R. 30 E.,
Sec. 1, S½;
Secs. 2 to 36 inclusive.
T. 24 S., R. 30 E.,
Sec. 1, N½;
Sec. 2, N½;
Sec. 3, N½.
T. 18 S., R. 31 E.,
Sec. 18, W½.
T. 19 S., R. 31 E.,
Secs. 9 and 10;
Sec. 11, W½;
Sec. 14, W½;
Secs. 15 to 17 inclusive;
Secs. 19 to 22 inclusive;
Sec. 23, W½;

Sec. 25, S½;
Secs. 26 to 36 inclusive.
T. 20 S., R. 31 E.;
T. 21 S., R. 31 E.,
Sec. 1, lots 1 to 16 inclusive;
Sec. 2, lots 1 to 16 inclusive;
Sec. 4, W½;
Secs. 5 and 6;
Sec. 18, S½;
Sec. 19, N½.
T. 22 S., R. 31 E.,
Secs. 4 to 9 inclusive;
Secs. 17 and 18;
Sec. 19, N½.
T. 23 S., R. 31 E.,
Sec. 7;
Sec. 8, S½;
Sec. 16, SW¼;
Secc. 17 to 20 inclusive;
Sec. 21, W½;
Secs. 28 to 33 inclusive.
T. 24 S., R. 31 E.,
Secs. 4 to 6 inclusive.
T. 19 S., R. 32 E.,
Sec. 23, S½;
Secs. 24 to 27 inclusive;
Sec. 28, S½;
Sec. 31, S½;
Sec. 32, S½;
Secs. 33 to 36 inclusive.
T. 20 S., R. 32 E.;
T. 21 S., R. 32 E.
Secs. 1 to 17 inclusive;
Secs. 21 to 27 inclusive;
Secs. 35 and 36.
T. 19 S., R. 33 E.,
Secs. 19, 30 and 31.
T. 20 S., R. 33 E.,
Secs. 5 to 9 inclusive;
Secs. 16 to 23 inclusive;
Secs. 25 to 36 inclusive.
T. 21 S., R. 33 E.,
Secs. 4 to 9 inclusive;
Secs. 16 to 21 inclusive;
Secs. 28 to 33 inclusive.
T. 22 S., R. 33 E.,
Secs. 4 to 6 inclusive.
T. 20 S., R. 34 E.,
Sec. 31.

The area described, including both public and nonpublic lands, aggregates approximately 298,345 acres.

SCHEDULE B

LANDS COVERED BY ORDER OF FEBRUARY 6, 1939, WITHIN POTASH AREA[1]

T. 20 S., R. 29 E.,
Sec. 12, SE¼SE¼;
Sec. 13, E½E½, and NW¼NE¼;
Sec. 24, E½NE¼;
Sec. 36.
T. 21 S., R. 29 E.,
Sec. 1;
Sec. 11, N½NE¼, SW¼NE¼, N½NW¼, SE¼NW¼, and SE¼;
Sec. 12;
Sec. 13, E½, and S½SW¼;
Sec. 14, SW¼NE¼, SW¼, and S½SE¼;
Sec. 15, NE¼, NE¼NW¼, S½NW¼, and S½;
Sec. 22, N½N½;
Sec. 23, N½N½;
Sec. 24, NE¼, and N½NW¼.
T. 22 S., R. 29 E.,
Sec. 1;
Sec. 11, E½, N½NW¼, and S½SW¼;
Secs. 12 to 14, inclusive;
Secs. 23 and 24;
Sec. 25, NE¼, NE¼NW¼, S½NW¼, and S½;
Sec. 26, W½NW¼, and S½;
Sec. 35, NE¼.
T. 19 S., R. 30 E.,
Sec. 22, S½;
Sec. 23, S½N½, and S½;
Sec. 24;
Sec. 25, NE¼, NE¼NW¼, S½NW¼, and S½;
Secs. 26 and 27;
Sec. 28, SE¼;
Secs. 33 to 35 inclusive.
T. 20 S., R. 30 E.,
Sec. 3, lots 2, 3, and 4, S½N½, and S½;
Sec. 4;
Sec. 5, lots 1, 2, 3, and 4, S½N½, N½SW¼, SE¼SW¼, and SE¼;
Sec. 6, E½SE¼;
Sec. 7, lots 3 and 4, NE¼NE¼, S½NE¼, SE¼NW¼, E½SW¼, and SE¼;
Secs. 8 to 10 inclusive;
Sec. 13, SE¼;
Sec. 14, NW¼NE¼, S½NE¼, NW¼, and S½;
Sec. 15;
Sec. 21, N½NE¼;
Sec. 22, N½;
Sec. 23, N½;
Sec. 24, NW¼;
Sec. 26, NE¼, and S½;
Sec. 31, lots 1, 2, 3, and 4, E½W½;
Sec. 35, S½.
T. 21 S., R. 30 E.,
Sec. 3, lots 3, 4, 5, 6, 11, 12, 13, and 14, SW¼;
Secs. 4 to 7 inclusive;
Sec. 8, NE¼, NE¼NW¼, S½NW¼, and S½;
Sec. 9;
Sec. 10, W½;
Secs. 17 and 18;
Sec. 19, lots 1, 2, 3, and 4, NE¼, and E½NW¼;
Sec. 20, N½N½;
Sec. 31.
T. 22 S., R. 30 E.,
Secs. 6 and 7;
Secs. 18 to 20 inclusive;
Sec. 21, W½E½, and W½;
Secs. 28 and 29;
Sec. 30, lots 1, 2, 3, and 4, N½NE¼, SE¼NE¼, E½W½, and SE¼;
Sec. 31, lot 1.
T. 19 S., R. 31 E.,
Secs. 19, 30, and 31.
T. 20 S., R. 31 E.,
Secs. 28 to 31 inclusive;
Sec. 33.

The areas described aggregate 42,245.18 acres.

Dated: October 16, 1951.

OSCAR L. CHAPMAN,
Secretary of the Interior.

[F. R. Doc. 51-12547; Filed, Oct. 18, 1951; 8:46 a. m.]

[1] Of the lands included in this schedule, the following tracts are covered by outstanding leases or are within the limits of a known geologic structure of a producing oil or gas field: E½NE¼, sec. 24, T. 20 S., R. 29 E., S½NE¼, SE¼, sec. 9, W½SE¼, SW¼, SE¼SE¼, sec. 10, sec. 15 (all), N½NE¼, sec. 21, T. 20 S., R. 30 E. The SE¼NE¼, sec. 11, T. 21 S., R. 29 E., is included in the order of February 6, 1939, but is omitted from this schedule because it is state land.

CIVIL AERONAUTICS BOARD

[Docket No. 2021]

ALASKA AIRLINES, INC.

NOTICE OF HEARING

In the matter of the compensation for the transportation of mail by aircraft, the facilities used and useful therefor, and the services connected therewith, of Alaska Airlines, Inc., over its entire system.

Notice is hereby given, pursuant to the provisions of the Civil Aeronautics Act of 1938, as amended, that a hearing in the above-entitled matter is assigned to be held on October 18, 1951, at 10:00 a. m., e. s. t., in Room E-210, Temporary Building No. 5, Sixteenth Street and Constitution Avenue NW., Washington, D. C., before Examiner Barron Fredricks.

Dated at Washington, D. C., October 15, 1951.

By the Civil Aeronautics Board.

[SEAL] M. C. MULLIGAN,
Secretary.

[F. R. Doc. 51-12526; Filed, Oct. 17, 1951; 9:01 a. m.]

ECONOMIC STABILIZATION AGENCY

Office of Price Stabilization

[Ceiling Price Regulation 7, Section 43, Special Order 5, Amdt. 3]

COOPERS, INC.

CEILING PRICES AT RETAIL

Statement of considerations. Special Order 5 under section 43 of Ceiling Price Regulation 7 established ceiling prices for sales at retail of men's and boys' underwear manufactured by Coopers, Inc.

Coopers, Inc., has filed an application for an amendment to this special order to include cost lines which were covered by the original special order, as issued on April 25, 1951, but which were omitted by Amendment 2 to Special Order 5, as issued on August 24, 1951.

This amendment permits the establishment of a cost bracket to the retailer, which bracket applies to a specific retail price. The costs of the articles purchased by the retailer should, on the average, fall evenly between the polar ends of each cost bracket and will thus maintain the general historical markup pattern. The establishment of such cost bracket permits minor changes in costs without influencing the general level of retail prices of the articles in question.

The Director has determined, on the basis of information available to him, that the retail ceiling prices requested are in line with those already granted and are no higher than the level of prices under Ceiling Price Regulation 7.

This amendment also extends the date by which the applicant was required to mark, tag, or ticket the articles covered by the special order. The extension is granted on applicant's demonstration of its inability to preticket by the date specified in the special order.

Amendatory provisions. Special Order 5 under Ceiling Price Regulation 7, section 43, is amended in the following respects:

1. In paragraph 1, delete all after the sentence, "The manufacturer's prices listed below are subject to a discount of 2/10 EOM, Net 60," and substitute therefor the following:

MEN'S AND BOYS' UNDERWEAR

Manufacturer's selling price (per dozen):	*Ceiling prices at retail (per unit)*
$5.00	$0.69
$5.25–$5.40	.75
$5.50	.79
$6.00	.85
$6.50	.90
$6.80	.95

MEN'S AND BOYS' UNDERWEAR—Continued

Manufacturer's selling price (per dozen):	Ceiling price at retail (per unit)
$7.20-$7.25	$1.00
$7.50	1.05
$7.80	1.10
$8.00-$8.25	1.15
$8.50	1.20
$9.00	1.25
$9.75	1.35
$10.00-$10.25	1.40
$10.50-$10.75	1.50
$11.00	1.55
$11.50	1.65
$12.00-$12.50	1.75
$13.00	1.85
$14.00	1.05
$14.25-$14.50	2.00
$15.50-$16.00	2.25
$16.50	2.35
$17.50-$18.00	2.50
$18.50-$19.00	2.65
$19.50	2.75
$21.00-$21.50	2.95
$22.50	3.00
$23.50	3.25
$24.50-$25.50	3.50
$27.00	3.75
$28.00	3.95
$28.50	4.00
$30.00	4.25
$31.00-$31.50	4.50
$34.00	4.75
$36.00	5.00
$39.00-$39.50	5.50
$42.00	5.95

2. In paragraph 4 of the special order, as amended by Amendment 2, substitute for the date "October 15, 1951" the date, "January 2, 1952."

3. In paragraph 4 of the special order as amended by Amendment 2, substitute for the date "November 15, 1951," wherever it appears, the date "February 1, 1952."

Effective date. This amendment shall become effective on October 12, 1951.

MICHAEL V. DISALLE,
Director of Price Stabilization.

OCTOBER 12, 1951.

[F. R. Doc. 51-12433; Filed, Oct. 12, 1951; 5:02 p. m.]

[Ceiling Price Regulation 7, Section 43, Special Order 102, Amdt. 2]

ROSE BROTHERS, INC.

CEILING PRICES AT RETAIL

Statement of considerations. Special Order 102 issued to Rose Brothers, Inc., under section 43, of Ceiling Price Regulation 7, established ceiling prices for men's suits and slacks having the brand names "Surretwill," "Krisp Spun," and "Airgora Spun". Due to a typographical error a $17.00 retail ceiling price rather than a $17.50 retail ceiling price was established for a $10.50 cost line. This amendment corrects this error by substituting a $17.50 retail ceiling price for the $17.00 retail ceiling price.

The Director has determined on the basis of information available to him that the retail ceiling price requested and which is established by this special order is no higher than the level of ceiling prices under Ceiling Price Regulation 7.

Amendatory provisions. 1. In paragraph one delete from the list of retail ceiling prices "$17.00," and substitute therefore "$17.50."

Effective date. This amendment shall become effective October 12, 1951.

MICHAEL V. DISALLE,
Director of Price Stabilization.

OCTOBER 12, 1951.

[F. R. Doc. 51-12434; Filed, Oct. 12, 1951; 5:02 p. m.]

[Ceiling Price Regulation 7, Section 43, Special Order 143, Amdt. 1]

VASSAR CO.

CEILING PRICES AT RETAIL

Statement of considerations. This amendment to Special Order 143, issued under section 43 of Ceiling Price Regulation 7 to Vassar Company adds a new cost line to those for which ceiling prices at retail were established by the special order. The Director has determined on the basis of information available to him that the retail ceiling price requested is in line with those already granted and is no higher than the level of ceiling prices under Ceiling Price Regulation 7.

Amendatory provisions. Special Order 143 under Ceiling Price Regulation 7, section 43, is amended in the following respects:

1. In paragraph 1 add "33.00" to the column headed "Manufacturer's Selling Price (per dozen)" between the figures "$25.50" and "38.04" now appearing therein. Opposite the inserted figure in the column headed "Ceiling Price at Retail (per unit)" add the figure "5.00" between the figures "$3.95" and "5.95" now appearing therein.

Effective date. This amendment shall become effective October 12, 1951.

MICHAEL V. DISALLE,
Director of Price Stabilization.

OCTOBER 12, 1951.

[F. R. Doc. 51-12435; Filed, Oct. 12, 1951; 5:02 p. m.]

[Ceiling Price Regulation 7, Section 43, Special Order 169, Amdt. 1]

FULPER POTTERY CO.

CEILING PRICES AT RETAIL

Statement of considerations. The accompanying amendment to Special Order 169 under section 43 of Ceiling Price Regulation 7 modifies those provisions relating to preticketing usually required by orders of this type. This amendment, designed to meet the particular requirements of the dinnerware industry, accomplishes the objective of notifying consumers of the uniform prices fixed under the order.

Amendatory provisions. 1. Delete paragraph 3 of the special order and substitute therefor the following:

3. On and after December 12, 1951, Fulper Pottery Co., must furnish each purchaser for resale to whom within two months immediately prior to the effective date the manufacturer had delivered any article covered by paragraph 1 of this special order, with a sign 8 inches wide and 10 inches high, a price book, and a supply of tags and stickers. The sign must contain the following legend:

The retail ceiling prices for Fulper Pottery Co. dinnerware and art ware have been approved by OPS and are shown in a price book we have available for your inspection.

The price book must contain an accurate description of each article covered by paragraph 1 of this special order and the retail ceiling price fixed for each article. The front cover of the price book must contain the following legend:

The retail ceiling prices in this Fulper Pottery Co. price book have been approved by OPS under section 43, CPR 7.

The tags and stickers must be in the following form:

Fulper Pottery Co.
OPS—Sec. 43—CPR 7
Price $_____

Prior to January 11, 1952, unless the retailer has received the sign described above and has it displayed so that it may be easily seen and a copy of the price book described above available for immediate inspection, the retailer shall comply with the marking, tagging, and posting provisions of the regulation which would apply in the absence of this special order.

On and after January 11, 1952, no retailer may offer or sell any article covered by this order unless he has the sign described above displayed so that it may be easily seen and a copy of the price book described above available for immediate inspection. In addition, the retailer must affix to each article covered by the order and which is offered for sale on open display (except in show windows or decorative displays) a tag or sticker described above. The tag or sticker must contain the retail ceiling price established by this special order for the article to which it is affixed.

Upon issuance of any amendment to this special order which either adds an article to those already listed in the manufacturer's application or changes the retail ceiling price of a listed article, the applicant named in this special order must within 30 days after the effective date of the amendment, as to each such article, send an insertion stating the required addition or change for the price book described above. After 60 days from the effective date of the amendment, no retailer may offer or sell the article, unless he has received the insertion described above and inserted it in the price book. Prior to the expiration of the 60 day period, unless the retailer has received and placed the insertion in the price book, the retailer shall comply with the marking, tagging, and posting provisions of the regulation which would apply in the absence of this special order.

Effective date. This amendment shall become effective October 12, 1951.

MICHAEL V. DISALLE,
Director of Price Stabilization.

OCTOBER 12, 1951.

[F. R. Doc. 51-12436; Filed, Oct. 12, 1951; 5:03 p. m.]

[Ceiling Price Regulation 7, Section 43, Special Order 170, Amdt. 1]

A. H. ROGERS & CO.

CEILING PRICES AT RETAIL

Statement of considerations. This amendment to Special Order 170, issued under section 43 of Ceiling Price Regulation 7 to A. H. Rogers & Co., adds new price lines to those for which ceiling prices at retail were established by the special order. Some price lines are deleted from the coverage of the order.

The Director has determined, on the basis of information available to him, that the retail ceiling prices requested are in line with those already granted, and are no higher than the level of ceiling prices under Ceiling Price Regulation 7.

This amendment also extends the date by which the applicant was required to mark, tag, or ticket the articles covered by the special order. The extension is granted on applicant's demonstration of its inability to preticket in the manner set forth in the special order by the date specified.

Amendatory provisions. Special Order 170 under Ceiling Price Regulation 7, section 43 is amended in the following respects:

1. Delete paragraph 1 of the special order, and substitute therefor the following:

1. (a) The following ceiling prices are established for any seller at retail of lingerie and robes manufactured by A. H. Rogers & Co., 500 Fifth Avenue, New York 18, N. Y., having the brand name "Rogers" and described in the manufacturer's application dated April 24, 1951 as supplemented and amended by the manufacturer's applications dated August 3, 1951 and August 22, 1951. Sales may of course, be made at less than the ceiling prices. The manufacturer's prices listed below carry terms of 2/10 EOM F. O. B. McMinnville, Tennessee.

ROGERS NYLON TRICOT LINGERIE

Manufacturer's selling price (per dozen):	Ceiling price at retail (per each)
$14.00	$1.95
$16.00	2.25
$17.25	2.50
$19.25	2.75
$20.50	2.95
$24.00	3.50
$28.50	3.95
$42.00	5.95
$48.00–$49.00	6.95
$56.00–$57.00	7.95
$62.50–$64.00	8.95
$71.00–$71.50	9.95
$78.00–$78.50	10.95
$90.00–$93.00	12.95
$105.00	14.95
$114.00	15.95
$121.00	16.95
$142.00	19.95
$145.00	21.95
$165.00	22.95
$214.00	29.95

ROGERS AT-HOME COLLECTION

$42.00	$5.95
$62.50–$64.00	8.95
$71.50	9.95
$178.00	24.95

ROGERS RAYON TRICOT LINGERIE

Manufacturer's selling price (per dozen):	Ceiling price at retail (per each)
$5.00	$0.69
$5.75	.79
$6.00–$6.50	.89
$7.00–$7.25	1.00
$7.50–$8.25	1.15
$8.50–$8.75	1.25
$9.00	1.20
$9.50–$9.75	1.35
$10.00–$10.75	1.50
$11.00	1.65
$11.25–$11.50	1.59
$12.00	1.69
$13.25–$14.50	1.95
$15.50–$16.25	2.25
$17.50–$17.75	2.50
$20.50–$21.50	2.95
$24.50	3.50
$28.00–$28.50	3.95
$31.50	4.50
$36.00	4.95
$42.50	5.95
$50.00	6.95

(b) Nylon tricot lingerie, having the style number 9811 in the manufacturer's amended application dated August 22, 1951, so long as it has a manufacturer's selling price of $165.00 per dozen, shall have a ceiling price at retail of $24.95 each. This price carries terms of 2/10 E. O. M., F. O. B., McMinnville, Tennessee. Sales may, of course be made at less than the ceiling price.

(c) Rayon tricot lingerie having the style number 8101 in the manufacturer's amended application dated August 22, 1951, so long as it has a manufacturer's selling price of $12.00 per dozen, shall have a ceiling price at retail of $1.75 each. This price carries terms of 2/10 E. O. M., F. O. B., McMinnville, Tennessee. Sales may, of course, be made at less than the ceiling price.

2. In paragraph 3, substitute for the date "August 17, 1951," the date "November 17, 1951."

3. In paragraph 3, substitute for the date "September 17, 1951," wherever it appears, the date "December 17, 1951."

4. Delete paragraph 4 and substitute therefor the following:

4. Within 15 days after the effective date of this special order, the manufacturer shall send a copy of this special order to each purchaser for resale to whom, within two months immediately prior to the effective date, the manufacturer had delivered any article covered in paragraph 1 of this special order. Copies shall be sent to all other purchasers on or before the date of the first delivery of any such article, subsequent to the effective date of this special order, and shall be accompanied by copies of each amendment thereto issued prior to the date of the delivery. Within 15 days after the effective date of any subsequent amendment to this special order, the manufacturer shall send a copy of the amendment to each purchaser to whom, within two months immediately prior to the effective date of such amendment, the manufacturer had delivered any article the sale of which is affected in any manner by the amendment.

Effective date. This amendment shall become effective October 12, 1951.

MICHAEL V. DISALLE,
Director of Price Stabilization.

OCTOBER 12, 1951.

[Ceiling Price Regulation 7, Section 43, Special Order 192, Amdt. 1]

[Ceiling Price Regulation 7, Section 43, Special Order 192, Amdt. 1]

GREAT AMERICAN KNITTING MILLS, INC.

CEILING PRICES AT RETAIL

Statement of considerations. Special Order 192, under section 43 of Ceiling Price Regulation 7, issued on July 24, 1951, established ceiling prices for sales at retail of men's hose manufactured by Great American Knitting Mills, Inc. The special order required the manufacturer to mark each article listed in the special order with the retail ceiling price fixed under the special order or to attach to each article a label, tag or ticket stating the retail ceiling price. Applicant was required to comply with this preticketing provision on and After August 23, 1951.

Great American Knitting Mills, Inc., has filed an application for an extension of time in which to meet this preticketing requirement. The application points out that the applicant has a large number of items covered by the special order. These items are individually labeled with the retail prices established by the special order, but they do not have the exact phraseology required by the special order. The applicant has submitted an alternative method of labeling which, in the opinion of the Director, conforms with the provisions of section 43, Ceiling Price Regulation 7.

Under the special circumstances set forth by the applicant, the Director has determined that the requested amendment should be granted. In addition, this special order lists the manufacturer's selling prices and the retail ceiling prices for the articles which were established by the special order but which were not listed in the special order.

Amendatory Provisions. Special Order 192 under Ceiling Price Regulation 7, section 43, is amended in the following respects:

1. Delete paragraph 1 from the special order and substitute therefor the following:

1. The following ceiling prices are established for sales after the effective date of this amendment by any seller at retail of men's hose manufactured by Great American Knitting Mills, Inc., Bechtelsville, Pennsylvania, having the brand name "Gold Toe Socks" and described in the manufacturer's application dated March 21, 1951. The manufacturer's prices listed below are subject to terms of 8/10.

MEN'S HOSE

Manufacturer's selling price (per dozen):	Ceiling price at retail (per unit)
$5.40	$0.75
$6.10	.85
$7.20	1.00
$9.00	1.25

2. Delete paragraph 3 from the special order and substitute therefor the following:

3 (a). Prior to December 24, 1951, Great American Knitting Mills, Inc., must mark each article listed in paragraph 1 of this special order with the retail ceiling price under this special order, or attach to the article a label, tag or ticket stating the retail ceiling price.

(b) Prior to January 23, 1952, no retailer may offer or sell the article unless it is marked or tagged with the retail ceiling price under this order.

(c) On and after December 24, 1951, Great American Knitting Mills, Inc., must mark each article listed in paragraph 1 of this special order with the retail ceiling price under this special order, or attach to the article a label, tag or ticket stating the retail ceiling price.

The statement "OPS—Sec. 43—CPR 7" must appear on the mark, label, tag or ticket. On and after January 23, 1952, no retailer may offer or sell the article unless it is marked or tagged in this form.

(d) Upon issuance of any amendment to this special order which either adds an article to those already listed in paragraph 1 of this special order or changes the retail ceiling price of a listed article, Great American Knitting Mills, Inc., must comply, as to each such article, with the preticketing requirements of this paragraph within 60 days after the effective date of the amendment. Prior to the expiration of the 90 day period, unless the article is so ticketed, the retailer shall comply with the marking, tagging and posting provisions of the regulation which would apply in the absence of this special order. After 90 days from the effective date, no retailer may offer or sell the article unless it is ticketed in accordance with the requirements of this paragraph.

3. Delete paragraph 4 from the special order and substitute therefor the following:

4. Within 15 days after the effective date of this special order, the manufacturer shall send a copy of this special order to each purchaser for resale to whom, within two months immediately prior to the effective date, the manufacturer had delivered any article covered in paragraph 1 of this special order. Copies shall also be sent to all other purchasers on or before the date of the first delivery of any such article subsequent to the effective date of this special order and shall be accompanied by copies of each amendment thereto issued prior to the date of the delivery.

Within 15 days after the effective date of any subsequent amendment to this special order, the manufacturer shall send a copy of the amendment to each purchaser to whom within two months immediately prior to the effective date of such amendment, the manufacturer had delivered any article the sale of which is affected in any manner by the amendment.

Effective date. This amendment shall become effective October 12, 1951.

MICHAEL V. DISALLE,
Director of Price Stabilization.

OCTOBER 12, 1951.

[F. R. Doc. 51-12438; Filed, Oct. 12, 1951; 5:03 p. m.]

[Ceiling Price Regulation 7, Section 43, Special Order 197, Amdt. 1]

DENTON SLEEPING GARMENT MILLS, INC.

CEILING PRICES AT RETAIL

Statement of considerations. This amendment to Special Order 197, issued under section 43 of Ceiling Price Regulation 7, to Denton Sleeping Garment Mills, Inc., extends the date by which the applicant was required to mark or tag its branded articles. The extension is granted on applicant's demonstration of its inability to preticket in the manner set forth in the special order by the date specified.

Amendatory provisions. Special Order 197 under Ceiling Price Regulation 7, section 43, is amended in the following respects:

1. In paragraph 3, substitute for the date "August 25, 1951," the date "November 26, 1951."

2. In paragraph 3, substitute for the date "September 24, 1951," wherever it appears, the date "December 26, 1951."

Effective date. This amendment shall become effective October 12, 1951.

MICHAEL V. DISALLE,
Director of Price Stabilization.

OCTOBER 12, 1951.

[F. R. Doc. 51-12439; Filed, Oct. 12, 1951; 5:03 p. m.]

[Ceiling Price Regulation 7, Section 43, Special Order 282, Amendment 1]

HANES HOSIERY MILLS CO.

CEILING PRICES AT WHOLESALE AND RETAIL

Statement of considerations. Special Order 282 under section 43 of Ceiling Price Regulation 7, issued on August 6, 1951, established ceiling prices for sales at retail of women's hosiery manufactured by Hanes Hosiery Mills Co. The special order required the manufacturer to mark each article listed in the special order or to attach to each article a label, tag or ticket stating the retail ceiling price. The applicant was required to comply with this preticketing provision on and after October 6, 1951.

Hanes Hosiery Mills Co. has filed an application for an extension of time in which to meet this preticketing requirement. The application points out that the applicant is complying with the preticketing requirement for all items now being manufactured. However, applicant has a large number of items covered by this special order individually labeled with retail price established by the special order, but they do not have the exact phraseology required by the special order. The applicant has submitted an alternative method of labeling which, in the opinion of the Director, conforms with the provision of section 43, Ceiling Price Regulation 7.

Special Order 282 established ceiling prices at retail but did not establish ceiling prices at wholesale. Specific wholesale ceiling prices were requested by Hanes Hosiery Mills Co. in its application dated May 21, 1951 (as supplemented and amended by its application of August 22, 1951) and upon examination, it appears that these prices may be established under section 43 of Ceiling Price Regulation 7. Therefore this amendment establishes ceiling prices for sales at wholesale of women's hosiery having the brand name "Hanes."

This amendment also lists the manufacturer's selling prices and the retail ceiling prices for the articles which were established by the special order but which were not listed in the special order. The ceiling price for sales at wholesale of the articles established by this special order are also listed.

Amendatory provisions. For the reasons set forth in the statement of considerations and pursuant to section 43 of Ceiling Price Regulation 7, Special Order 282 is amended in the following respects.

1. Delete paragraph 1 from the special order and substitute therefor the following:

1. *Ceiling prices* (a) The following ceiling prices are established for sales after the effective date of this special order by any seller at retail and any seller at wholesale of women's hosiery manufactured by Hanes Hosiery Mills Co., Winston-Salem, North Carolina, having the brand name "Hanes" and described in the manufacturer's application dated May 21, 1951, as supplemented and amended to the manufacturer's application dated August 22, 1951. No seller at retail or wholesale may offer or sell any article covered by this special order at a price higher than the ceiling prices established by this special order. Sales may be made, of course, at less than the ceiling prices. Terms to wholesalers Net 30. Terms to retailers are either Net 10 or Net 30.

Manufacturer's selling price (per dozen)	Ceiling price at wholesale (per dozen)	Ceiling price at retail (per unit)
$8.15	$9.65	$1.35
9.10	10.75	1.50
9.75	11.60	1.65
11.35	13.50	1.95

(b) The retail ceiling price of an article stated in paragraph (a) of this special order shall apply to any other article of the same type which is otherwise priceable under Ceiling Price Regulation 7 by retailers subject to that regulation, having the same selling price to the retailer, the same brand or company name and first sold by the manufacturer after the effective date of this special order.

2. Delete paragraph 2 from the special order and substitute therefor the following:

2. *Marking and tagging.* (a) Prior to January 2, 1952, Hanes Hosiery Mills Co., must mark each article listed in paragraph 1 of this special order with the retail ceiling price under this special order, or attach to the article a label, tag or ticket stating the retail ceiling price.

(b) Prior to February 2, 1952, no retailer may offer or sell the article unless it is marked with the retail ceiling price under this order.

(c) On and after January 2, 1952, Hanes Hosiery Mills Co., must mark each article listed in paragraph 1 of this special order with the retail ceiling price under this special order, or attach to the article a label, tag or ticket stating the retail ceiling price. The statement "OPS—Sec. 43—CPR 7" must appear on the mark, label, tag or ticket. On and after February 2, 1952, no retailer may offer or sell the article unless it is marked or tagged in this form.

(d) Upon issuance of any amendment to this special order which either adds an article to those already listed in paragraph 1 of this special order or changes the retail ceiling price of a listed article Hanes Hosiery Mills Co., must comply, as to each such article, with the preticketing requirements of this paragraph within 60 days after the effective date of the amendment. Prior to 90 days from the effective date unless the article is so ticketed, the retailer shall comply with the marking, tagging and posting provisions of the regulation which would apply in the absence of this special order. After the expiration of the 90 day period, no retailer may offer or sell the article unless it is ticketed in accordance with the requirements of this paragraph.

3. Delete paragraph 3 and substitute therefor the following:

3. *Notification to Resellers*—(a) *Notices to be given by applicants.*

(1) After receipt of this special order, a copy of this special order shall be sent by the applicant to each purchaser for resale on or before the date of the first delivery of any article covered in paragraph 1 of this special order.

(2) Within 15 days after the effective date of this special order, the applicant shall send a copy of this special order to each purchaser for resale to whom within two months immediately prior to the receipt of this special order, the applicant had delivered any article covered by paragraph 1 of this special order.

(3) The applicant must notify each purchaser for resale of any amendment to this special order in the same manner.

(4) The applicant must supply each purchaser for resale other than a retailer with sufficient copies of this special order and any amendment thereto, to permit such purchasers for resale to comply with the notification requirements of this special order.

(b) *Notices to be given by purchasers for resale (other than retailers).* (1) A copy of this special order and any amendment thereto shall be sent by each purchaser for resale (other than retailers) to each of his purchasers on or before the date of the first delivery after receipt of a copy of this special order.

(2) Within 15 days of receipt of this special order and amendments thereto, each purchaser for resale (other than retailers) shall send a copy of the order and amendments to each of his purchasers to whom, within two months prior to receipt of this special order or amendment his records indicate he had delivered any article covered by paragraph 1 of this special order.

Effective Date. This amendment shall become effective October 12, 1951.

MICHAEL V. DISALLE,
Director of Price Stabilization.

OCTOBER 12, 1951.

[F. R. Doc. 51-12440; Filed, Oct. 12, 1951; 5:04 p. m.]

[Ceiling Price Regulation 7, Section 43, Special Order 318, Amdt. 1]

SOHMER AND CO., INC.

CEILING PRICES AT RETAIL

Statement of considerations. Special Order 318, under section 43 of Ceiling Price Regulation 7, established ceiling prices at retail for pianos and piano benches. This amendment removes piano benches from the operation of the special order, since they are not branded articles. It also amends the title of the order to delete an inaccurate reference to establishment of ceiling prices at wholesale.

Amendatory provisions. Special Order 318 under Ceiling Price Regulation 7, section 43, is amended in the following respects:

1. Delete the title of the special order and substitute therefor the following:

"Sohmer and Co., Inc., Ceiling Prices at Retail."

2. In paragraph 1 delete the words "and benches" from the first sentence thereof.

Effective date. This amendment shall become effective October 12, 1951.

MICHAEL V. DISALLE,
Director of Price Stabilization.

OCTOBER 12, 1951.

[F. R. Doc. 51-12441; Filed, Oct. 12, 1951; 5:04 p. m.]

[Ceiling Price Regulation 7, Section 43, Special Order 333, Amdt. 1]

WILMINGTON HOSIERY MILLS, INC.

CEILING PRICES AT RETAIL

Statement of considerations. Special Order 333, under section 43 of Ceiling Price Regulation 7, issued on August 8, 1951, established ceiling prices for sales at retail of men's and boys' hosiery and slipper socks manufactured by Wilmington Hosiery Mills, Inc. The special order required the manufacturer to mark each article listed in the special order with the retail ceiling price fixed under the special order or to attach to each article a label, tag or ticket stating the retail ceiling price. Applicant was required to comply with this preticketing provision on and after October 8, 1951.

Wilmington Hosiery Mills, Inc., has filed an application for an extension of time in which to meet this preticketing requirement. The application points out that the applicant has a large number of items covered by the special order. These items are individually labeled with the retail prices established by the special order, but they do not have the exact phraseology required by the special order. The applicant has submitted an alternative method of labeling which, in the opinion of the Director, conforms with the provisions of section 43, Ceiling Price Regulation 7.

Under the special circumstances set forth by the applicant, the Director has determined that the requested amendment should be granted. In addition, this special order lists the manufacturer's style number and the retail ceiling prices for the articles which were established by the special order but which were not listed in the special order.

Amendatory Provisions. Special Order 333 under Ceiling Price Regulation 7, section 43, is amended in the following respects:

1. Delete paragraph 1 from the special order and substitute therefor the following:

1. *Ceiling prices.* The following ceiling prices are established for sales after the effective date of this amendment by any seller at retail of men's and boys' hosiery and slipper socks manufactured by Wilmington Hosiery Mills, Inc., Wilmington 17, Delaware, having the brand name "Springfoot Sox" and described in the manufacturer's application dated March 30, 1951, as supplemented and amended by the manufacturer's applications dated April 26, 1951 and April 27, 1951. The manufacturer's prices listed below are subject to terms of:

Net 30 days F. O. B. Distributor's Warehouse.

For a minimum of 30 dozens (15 dozens of a style).

Less 5 percent F. O. B. Mill.

Minimum 120 dozens—Freight Prepaid.

MEN'S AND BOYS' HOSIERY AND SLIPPER SOCKS

Manufacturer's style No. (per dozen):	*Ceiling price at retail (per unit)*
S30	$0.29
S32	.39
S35	.39
S170	.39
S50	.39
S165	.49
S80	.49
S41	.49
S101	.49
S139	.49
S140	.49
S142	.49
S168	.49
S200	.49
S00	.49
S97	.49
S181	.49
S169	.49
S79	.59
S92	.59
S160	.59
S195	.59
S70	.59
S96	.89

MEN'S AND BOYS' HOSIERY AND SLIPPER SOCKS—Continued

Manufacturer's style No. (per dozen):	Ceiling price at retail (per unit)
S171	$0.59
S160	.59
S162	.59
S183	.59
S184	.59
S185	.59
S800	.59
S801	.59
S100	.65
S110	.65
S120	.65
S20	.65
S21	.65
S22	.65
S93	.65
S94	.65
S96	.65
S99	.65
S900	.65
S901	.65
S902	.65
S903	.65
S904	.65
S600	.65
S7	.75
S8	.75
S9	.75
S11	.75
S16	.75
S18	.75
S19	.75
S28	.75
S13	1.00
S14	1.00
S17	1.00
S700	1.00
S6	1.00
S25	1.00
S26	1.25
S10	1.25
S15	1.25
S500	1.65
S501	1.95
S502	1.95
S550	1.95
S552	1.95
S553	1.95
S560	2.95
S561	3.50

2. Delete paragraph 2 from the special order and substitute therefor the following:

2. *Marking and Tagging.* (a) Prior to February 7, 1952, Wilmington Hosiery Mills, Inc., must mark each article listed in paragraph 1 of this special order with the retail ceiling price under this special order, or attach to the article a label, tag or ticket stating the retail ceiling price.

(b) Prior to March 7, 1952, no retailer may offer or sell the article unless it is marked or tagged with the retail ceiling price under this order.

(c) On and after February 7, 1952, Wilmington Hosiery Mills, Inc., must mark each article listed in paragraph 1 of this special order with the retail ceiling price under this special order, or attach to the article a label, tag or ticket stating the retail ceiling price. The statement "OPS—Sec. 43—CPR 7" must appear on the mark, label, tag or ticket. On and after March 7, 1952, no retailer may offer or sell the article unless it is marked or tagged in this form.

(d) Upon issuance of any amendment to this special order which either adds an article to those already listed in paragraph 1 of this special order or changes, the retail ceiling price of a listed article, Wilmington Hosiery Mills, Inc., must comply, as to each such article, with the preticketing requirements of this paragraph within 60 days after the effective date of the amendment. Prior to the expiration of the 90 day period, unless the article is so ticketed, the retailer shall comply with the marking, tagging and posting provisions of the regulation which would apply in the absence of this special order. After 90 days from the effective date, no retailer may offer or sell the article unless it is ticketed in accordance with the requirements of this paragraph.

3. Delete paragraph 3 from the special order and substitute therefor the following:

3. *Notification to Resellers*—(a) *Notices to be given by applicant.*

(1) After receipt of this special order, a copy of this special order shall be sent by the applicant to each purchaser for resale on or before the date of the first delivery of any article covered in paragraph 1 of this special order.

(2) Within fifteen days after the effective date of this special order the applicant shall send a copy of this special order to each purchaser for resale to whom within two months immediately prior to the receipt of this special order, the applicant had delivered any article covered by paragraph 1 of this special order.

(3) The applicant must notify each purchaser for resale of any amendment to this special order in the same manner.

(4) The applicant must supply each purchaser for resale other than a retailer with sufficient copies of this special order and any amendment thereto to permit such purchasers for resale to comply with the notification requirements of this special order.

(b) *Notices to be given by purchasers for resale (other than retailers).* (1) A copy of this special order and any amendment thereto shall be sent by each purchaser for resale (other than retailers) to each of his purchasers on or before the date of the first delivery after receipt of a copy of this special order.

(2) Within 15 days of receipt of this special order and amendments thereto, each purchaser for resale (other than retailers) shall send a copy of the order and amendments to each of his purchasers to whom, within two months prior to receipt of this special order or amendment his records indicate he had delivered any article covered by paragraph 1 of this special order.

Effective date. This amendment shall become effective October 12, 1951.

MICHAEL V. DISALLE,
Director of Price Stabilization.

OCTOBER 12, 1951.

[F. R. Doc. 51-12442; Filed, Oct. 12, 1951; 5:04 p. m.]

[Ceiling Price Regulation 7, Section 43, Special Order 343, Amendment 1]

CARMAN MANUFACTURING CO.

CEILING PRICES AT RETAIL

Statement of considerations. This amendment to Special Order 343, issued under section 43 of Ceiling Price Regulation 7 to Carman Manufacturing Company, Tacoma 1, Washington, adds new price lines to those for which ceiling prices at retail were established by the special order. Certain articles for which retail ceiling prices were established by the special order are deleted from the coverage of the special order by this amendment.

The Director has determined on the basis of information available to him that the retail ceiling prices requested are in line with those already granted and are no higher than the level of ceiling prices under Ceiling Price Regulation 7.

In addition, this amendment lists the manufacturer's selling prices and the retail ceiling prices for the articles which were established by the special order but which were not listed in the special order.

Amendatory provisions. Special Order 343 under Ceiling Price Regulation 7, section 43 is amended in the following respects.

1. Delete paragraph 1 from the special order and substitute therefor the following:

1. The following ceiling prices are established for sales after the effective date of this amendment by any seller at retail of mattresses and box springs manufactured by Carman Manufacturing Company, 801 East 25th Street, Tacoma, Washington, having the brand names "Spring Air", "Carman '400' " and "Carman Orthopedic" and described in the manufacturer's application dated March 15, 1951, as supplemented and amended in the manufacturer's applications dated July 24, 1951 and September 13, 1951. Sales may, of course, be made at less than the ceiling prices. Terms: Net 30 days.

Manufacturer's selling price (per unit):	Ceiling prices at retail (per unit)
$21.75	$39.50
$28.00	49.50
$30.00-$32.50	52.50
$35.00	64.50
$37.50	69.50
$42.50-$43.50	79.50
$86.50 [1]	[1] 149.50
$140.00 [1]	[1] 259.50
$150.00	279.50

[1] Combinations sold as sets.

2. Delete paragraph 4 from the special order and substitute therefor the following:

4. Within 15 days after the effective date of the special order, the manufacturer shall send a copy of this special order to each purchaser for resale to whom, within two months immediately prior to the effective date, the manufacturer had delivered any article covered in paragraph 1 of this special order. Copies shall also be sent to all other purchasers on or before the date of the first delivery of any such article subsequent to the effective date of the special order, and shall be accompanied by copies of each amendment thereto, issued prior to the date of the delivery.

Within 15 days after the date of any subsequent amendment to this special order, the manufacturer shall send a copy of the amendment to each purchaser to whom, within two months im-

mediately prior to the effective date of such amendment, the manufacturer had delivered any article the sale of which is affected in any manner by the amendment.

Effective date. This amendment shall become effective October 12, 1951.

MICHAEL V. DISALLE,
Director of Price Stabilization.

OCTOBER 12, 1951.

[F. R. Doc. 51-12443; Filed, Oct. 12, 1951; 5:05 p. m.]

[Ceiling Price Regulation 7, Section 43, Special Order 439, Amdt. 1]

CARMAN MFG. CO.

CEILING PRICES AT RETAIL

Statement of considerations. This amendment to Special Order 439, issued under section 43 of Ceiling Price Regulation 7 to Carman Manufacturing Company, adds new price lines to those for which ceiling prices at retail were established by the special order.

The Director has determined on the basis of information available to him that the retail ceiling prices requested are in line with those already granted and are no higher than the level of ceiling prices under Ceiling Price Regulation 7.

In addition, this amendment lists the manufacturer's selling prices and the retail ceiling prices for the articles which were established by the special order but which were not listed in the special order.

Amendatory provisions.—Special Order 439 under Ceiling Price Regulation 7, section 43 is amended in the following respects:

1. Delete paragraph 2 from the special order and substitute therefor the following:

2. *Retail ceiling prices for listed articles.* The following ceiling prices are established for sales after the effective date of this amendment by any seller at retail of mattresses and box springs manufactured by Carman Manufacturing Company, 1701 S. Alaskan Way, Seattle 4, Washington, having the names "Spring Air," "Spring Air Back Supporter" and "Carman Orthopedic" and described in the manufacturer's application dated March 15, 1951, as supplemented and amended in the manufacturer's applications dated April 24, 1951, May 14, 1951, July 24, 1951, September 14, 1951, and September 24, 1951. Sales may, of course, be made at less than the ceiling prices. Terms: 2/10 EOM.

Manufacturer's selling price (per unit):	Ceiling price at retail (per unit)
$21.75	$39.50
$24.50	44.50
$27.25	49.50
$30.00–$32.50	59.50
$35.00	64.50
$37.50	69.50
$42.50–$43.50	79.50
$86.50[1]	[1]149.50
$140.00[1]	[1]259.50
$150.00[1]	[1]279.50

[1] Set.

2. In paragraph 7 of the special order delete subparagraph (a) and substitute therefor the following:

(a) *Sending order to old customers.* Within 15 days after the effective date of this special order, you shall send a copy of this order to each purchaser for resale to whom, within two months immediately prior to the effective date, you had delivered any article covered by this order.

3. In paragraph 7 of the special order delete subparagraph (b) and substitute therefor the following:

(b) *Notification to new customers.* A copy of this special order shall be sent to all other purchasers for resale on or before the date of the first delivery of any article covered by this order.

4. In paragraph 7 of the special order delete subparagraph (d).

5. Delete paragraph 8 and insert the word "Deleted" after the paragraph designation "8".

Effective Date. This amendment shall become effective October 12, 1951.

MICHAEL V. DISALLE,
Director of Price Stabilization.

OCTOBER 12, 1951.

[F. R. Doc. 51-12444; Filed, Oct. 12, 1951; 5:05 p. m.]

[Region II, Redelegation of Authority]

DIRECTORS OF DISTRICT OFFICES, REGION II

REDELEGATION OF AUTHORITY TO PROCESS INITIAL REPORTS FILED BY CERTAIN RESTAURANT OPERATORS UNDER CPR 11

By virtue of the authority vested in me as Director of the Regional Office of Price Stabilization, No. 2, pursuant to delegation of authority No. 17 (16 F. R. 8158) this redelegation of authority is hereby issued.

1. *Authority to act under section 6 of CPR 11.* Authority is hereby redelegated to the Directors of the New York City, Buffalo, Rochester, Syracuse and Albany, New York, and the Newark and Trenton, New Jersey, Offices of Price Stabilization to process the initial reports filed under section 6 of CPR 11 and to revise food costs per dollar of sale ratio referred to in section 4 thereof.

This redelegation of authority is effective as of October 18, 1951.

JAMES G. LYONS,
Director of Regional Office No. 2.

OCTOBER 16, 1951.

[F. R. Doc. 51-12572; Filed, Oct. 16, 1951; 4:17 p. m.]

[Region II, Redelegation of Authority 6]

DIRECTORS OF DISTRICT OFFICES, REGION II

REDELEGATION OF AUTHORITY TO PROCESS REPORTS OF PROPOSED CEILING PRICES FOR SALES AT RETAIL BY RESELLERS PURSUANT TO SECTION 5 OF CPR 67

By virtue of the authority vested in me as Director of the Regional Office of Price Stabilization, No. 2, pursuant to delegation of authority No. 22 (16 F. R. 10010) this redelegation of authority is hereby issued.

1. Authority is hereby redelegated to the Directors of the New York City, Buffalo, Rochester, Syracuse and Albany, New York, and the Newark and Trenton, New Jersey, Offices of Price Stabilization, to approve, pursuant to section 5, CPR 67, a ceiling price for sales at retail proposed by a reseller under CPR 67, disapprove such a proposed ceiling price, establish a different ceiling price by order, or request further information concerning such a ceiling price.

This redelegation of authority is effective as of October 18, 1951.

JAMES G. LYONS,
Director of Regional Office No. 2.

OCTOBER 16, 1951.

[F. R. Doc. 51-12570; Filed, Oct. 16, 1951; 4:16 p. m.]

[Region VI, Redelegation of Authority No. 6]

DIRECTORS OF DISTRICT OFFICES, REGION VI

REDELEGATION OF AUTHORITY TO PROCESS REPORTS OF PROPOSED CEILING PRICES FOR SALES AT RETAIL BY RESELLERS PURSUANT TO SECTION 5 OF CPR 67

By virtue of the authority vested in me as Director of the Regional Office of Price Stabilization, No. VI, pursuant to delegation of authority No. 22 (16 F. R. 10010) this redelegation of authority is hereby issued.

1. Authority is hereby redelegated to the Directors of the Cincinnati, Ohio; Cleveland, Ohio; Columbus, Ohio; Detroit, Michigan; Grand Rapids, Michigan; Louisville, Kentucky; and Toledo, Ohio District Offices of the Office of Price Stabilization to approve, pursuant to Section 5, CPR 67, a ceiling price for sales at retail proposed by a reseller under CPR 67, disapprove such a proposed ceiling price, establish a different ceiling price by order, or request further information concerning such a ceiling price.

This redelegation of authority is effective as of October 5, 1951.

SYDNEY A. HESSE,
Director of Regional Office No. VI.

OCTOBER 16, 1951.

[F. R. Doc. 51-12571; Filed, Oct. 16, 1951; 4:16 p. m.]

[Region XIV, Redelegation of Authority 2, 4]

TERRITORIAL DIRECTORS

REDELEGATIONS OF AUTHORITY

Delegation of Authority 7 Supplement 2 issued July 13, 1951 (16 F. R. 6806), and Delegation of Authority 7 Supplement 5 issued September 7, 1951 (16 F. R. 9200), are hereby redesignated respectively as Region XIV, Redelegation of Authority

2 and Region XIV, Redelegation of Authority 4.

These redesignations shall take effect October 18, 1951.

J. HERBERT MEIGHAN,
Director, Region XIV.

OCTOBER 16, 1951.

[F. R. Doc. 51-12573; Filed, Oct. 16, 1951; 4:17 p. m.]

[Region XIV, Redelegation of Authority 3]

TERRITORIAL DIRECTORS

REDELEGATION OF AUTHORITY TO ACT ON APPLICATIONS PERTAINING TO CERTAIN FOOD AND RESTAURANT COMMODITIES

Delegation of Authority 13 Supplement 1, issued July 19, 1951 (16 F. R. 7187), is hereby redesignated as Region XIV, Redelegation of Authority 3.

This redesignation shall take effect October 18, 1951.

J. HERBERT MEIGHAN,
Director, Region 14.

OCTOBER 16, 1951.

[F. R. Doc. 51-12574; Filed, Oct. 16, 1951; 4:17 p. m.]

[Region XIV, Redelegation of Authority 5]

TERRITORIAL DIRECTORS

REDELEGATION OF AUTHORITY TO PROCESS INITIAL REPORTS FILED BY CERTAIN RESTAURANT OPERATORS UNDER CPR-11

By virtue of the authority vested in me as Director of Region 14 of the Office of Price Stabilization, by Delegation of Authority No. 17, this redelegation of authority is hereby issued.

1. *Authority to act under section 6 of CPR-11.* Authority is hereby redelegated to the Directors of the Territorial Offices of the Office of Price Stabilization for Alaska, Guam, Hawaii, Puerto Rico, and the Virgin Islands, respectively, to process the initial reports filed under section 6 of CPR-11 and to revise food cost per dollar of sale ratio referred to in section 4 thereof.

This redelegation of authority shall take effect on October 18, 1951.

J. HERBERT MEIGHAN,
Director, Region 14.

OCTOBER 16, 1951.

[F. R. Doc. 51-12575; Filed, Oct. 16, 1951; 4:17 p. m.]

FEDERAL POWER COMMISSION

[Docket No. G-1774]

ALABAMA-TENNESSEE NATURAL GAS CO.

ORDER FIXING DATE OF HEARING

OCTOBER 11, 1951.

On August 23, 1951, Alabama-Tennessee Natural Gas Company (Applicant) a Delaware corporation having its principal office in Florence, Alabama, filed an application for a certificate of public convenience and necessity pursuant to section 7 (c) of the Natural Gas Act, as amended, authorizing the construction and operation of certain natural-gas facilities, subject to the jurisdiction of the Commission, as are fully described in the application on file with the Commission and open to public inspection.

The Commission finds: This proceeding is a proper one for disposition under the provisions of § 1.32 (b) (18 CFR 1.32 (b)) of the Commission's rules of practice and procedure, Applicant having requested that its application be heard under the shortened procedure provided by the aforesaid rule for noncontested proceedings, and no request to be heard, protest or petition having been filed subsequent to the giving of due notice of the filing of the application, including publication in the FEDERAL REGISTER on September 8, 1951 (16 F. R. 9180).

The Commission orders:

(A) Pursuant to the authority contained in and subject to the jurisdiction conferred upon the Federal Power Commission by sections 7 and 15 of the Natural Gas Act, as amended, and the Commission's rules of practice and procedure, a hearing be held on October 30, 1951, at 9:45 a. m., e. s. t., in the Hearing Room of the Federal Power Commission, 1800 Pennsylvania Avenue NW., Washington, D. C., concerning the matters involved and the issues presented by such application: *Provided, however,* That the Commission may, after a noncontested hearing, forthwith dispose of the proceeding pursuant to the provisions of § 1.32 (b) of the Commission's rules of practice and procedure.

(B) Interested State commissions may participate as provided by §§ 1.8 and 1.37 (f) (18 CFR 1.8 and 1.37 (f)) of the said rules of practice and procedure.

Date of issuance: October 12, 1951.

By the Commission.

[SEAL] LEON M. FUQUAY,
Secretary.

[F. R. Doc. 51-12453; Filed, Oct 17, 1951; 8:46 a. m.]

[Docket No. G-1798]

OHIO FUEL GAS CO.

NOTICE OF APPLICATION

OCTOBER 12, 1951.

Take notice that The Ohio Fuel Gas Company (Applicant), an Ohio corporation, address, Columbus, Ohio, filed on September 27, 1951, an application for a certificate of public convenience and necessity pursuant to section 7 of the Natural Gas Act, authorizing the construction and operation of approximately 10.2 miles of 20-inch loop pipeline paralleling Applicant's existing Line "A", and extending from its Line "Z" to Howell Junction in Greene County, Ohio.

Applicant proposes the construction and operation of said facilities to protect service to its existing markets during the coming winter and states that the proposed facilities are necessary because of a reduction in the volumes of natural gas anticipated to be available to Applicant from the Texas Gas Transmission Corporation during the coming winter. Upon completion of the construction of the proposed facilities, Applicant estimates the capacity of its loop line between Mount Sterling compressor station and Howell Junction will be increased by approximately 20,000 Mcf per day of natural gas. No service to new markets is proposed to be rendered by means of the proposed facilities.

The total estimated capital cost of the proposed construction is $545,000, which Applicant expects to finance from funds to be obtained from its parent, The Columbia Gas System, Inc.

Protests or petitions to intervene may be filed with the Federal Power Commission, Washington 25, D. C., in accordance with the rules of practice and procedure (18 CFR 1.8 or 1.10) on or before the 31st day of October 1951. The application is on file with the Commission for public inspection.

[SEAL] LEON M. FUQUAY,
Secretary.

[F. R. Doc. 51-12451; Filed, Oct 17, 1951; 8:45 a. m.]

[Docket No. G-1601]

MARTIN WUNDERLICH AND LEE AIKEN

NOTICE OF APPLICATION

OCTOBER 11, 1951.

Take notice that Martin Wunderlich and Lee Aiken (Applicants), as individuals, filed on October 2, 1951, a joint application for a certificate of public convenience and necessity pursuant to section 7 (c) of the Natural Gas Act, as amended, authorizing the acquisition and operation of certain natural-gas facilities now owned and operated by United Gas Pipe Line Company (United) which are or may be subject to the jurisdiction of the Commission.

Applicants propose to acquire from United, under an agreement dated August 29, 1951, facilities described as the "Wichita Falls District" of the United pipeline system. Said facilities comprise approximately 678 miles of pipeline ranging in size from one inch to sixteen inches located in Wheeler, Collingsworth, Donley, Hall, Childress, Hardeman, Wilbarger, Wichita, Clay, Archer, Jack, Baylor, and Young Counties, Texas, and in Harman and Beckham Counties, Oklahoma, together with compressor stations and other facilities used in connection with the operation of said pipeline. Applicants propose to operate such facilities and to continue the service now rendered by United to its customers in its Wichita Falls District.

The cost of all the facilities proposed to be acquired by Applicants, including those which are or may be subject to the jurisdiction of the Commission, aggregates $5,000,001.00, which Applicants propose to finance by bank loans.

Protests or petitions to intervene may be filed with the Federal Power Commission, Washington 25, D. C., in accordance with the rules of practice and procedure (18 CFR 1.8 or 1.10) on or before the 31st day of October 1951. The applica-

tion is on file with the Commission for public inspection.

[SEAL] LEON M. FUQUAY,
Secretary.

[F. R. Doc. 51-12458; Filed, Oct. 17, 1951; 8:47 a. m.]

[Docket No. G-1803]

SOUTHERN NATURAL GAS CO.

NOTICE OF APPLICATION

OCTOBER 12, 1951.

Take notice that Southern Natural Gas Company (Applicant), a Delaware corporation with its principal place of business at Birmingham, Alabama, filed on October 3, 1951, an application for a certificate of public convenience and necessity pursuant to section 7 (c) of the Natural Gas Act, as amended, authorizing the construction and operation of certain facilities for the exhange or sale and delivery of natural gas as hereinafter set forth.

Applicant proposes to construct and operate a line tap on its Gwinville-Selma line, and a line tap, a meter, other measuring equipment, and a connecting line on its Macon branch line, for the purpose of providing two interconnections between Applicant's pipelines and the pipeline of Transcontinental Gas Pipe Line Corporation (Transcontinental); said interconnections to be made near Selma, Alabama, and Jonesboro, Georgia. The above-described facilities will be used for the exchange of natural gas between Applicant and Transcontinental pursuant to Transcontinental's Rate Schedule EX-1 and Applicant's propdsed Rate Schedule EX-1, which was filed simultaneously with this application. Said rate schedules provide for the exchange thereunder of natural gas not required by Applicant and Transcontinental to meet their other obligations. Through construction of the connecting line on its Macon branch line, Applicant will be enabled to take from Transcontinental approximately 200,000 Mcf per day, and expects to be able to deliver to Transcontinental at the same point up to 70,000 Mcf per day.

The estimated cost of the proposed facilities is $31,000, which will be financed from Applicant's current funds.

Protests or petitions to intervene may be filed with the Federal Power Commission, Washington 25, D. C., in accordance with the rules of practice and procedure (18 CFR 1.8 or 1.10) on or before the 31st day of October 1951. The application is on file with the Commission for public inspection.

[SEAL] LEON M. FUQUAY,
Secretary.

[F. R. Doc. 51-12452; Filed, Oct. 17, 1951; 8:45 a. m.]

[Project No. 1585]

CAL-ORE MINING AND DEVELOPMENT CO.

NOTICE OF ORDER ISSUING NEW LICENSE

OCTOBER 12, 1951.

Notice is hereby given that, on July 11, 1951, the Federal Power Commission issued its order, entered July 3, 1951, issuing new license (Minor), in the above-entitled matter.

[SEAL] LEON M. FUQUAY,
Secretary.

[F. R. Doc. 51-12454; Filed, Oct. 17, 1951; 8:46 a. m.]

[Project No. 2059]

CITY OF EUGENE, OREG.

NOTICE OF ORDER ISSUING PRELIMINARY PERMIT

OCTOBER 12, 1951.

Notice is hereby given that, on August 16, 1951, the Federal Power Commission issued its order, entered August 15, 1951, issuing preliminary permit, in the above-entitled matter.

[SEAL] LEON M. FUQUAY,
Secretary.

[F. R. Doc. 51-12455; Filed, Oct. 17, 1951; 8:46 a. m.]

[Project No. 2069]

ARIZONA POWER CO.

NOTICE OF ORDER ISSUING LICENSE

OCTOBER 12, 1951.

Notice is hereby given that, on August 31, 1951, the Federal Power Commission issued its order, entered August 28, 1951, issuing license (Major), in the above-entitled matter.

[SEAL] LEON M. FUQUAY,
Secretary.

[F. R. Doc. 51-12456; Filed, Oct. 17, 1951; 8:46 a. m.]

[Docket Nos. ID-922, ID-923, ID-1102, ID-1104, ID-1156, ID-1157, ID-1158]

CLARENCE M. OYER ET AL.

NOTICES OF ORDERS AUTHORIZING APPLICANTS TO HOLD CERTAIN POSITIONS

OCTOBER 12, 1951.

In the matters of Clarence M. Oyer, Docket No. ID-922; Llewellyn F. Pearce, Docket No. ID-923; Joseph M. Costello, Docket No. ID-1102; Silas C. McMeekin, Docket No. ID-1104; W. J. Ready, Docket No. ID-1156; E. L. Godshalk, Docket No. ID-1157; T. A. Busby, Docket No. ID-1158.

Notice is hereby given that, on October 11, 1951, the Federal Power Commission issued its orders, entered October 9, 1951, authorizing applicants to hold certain positions, pursuant to section 305 (b) of the Federal Power Act, in the above-entitled matters.

[SEAL] LEON M. FUQUAY,
Secretary.

[F. R. Doc. 51-12457; Filed, Oct. 17, 1951; 11:47 a. m.]

FEDERAL TRADE COMMISSION

[File No. 21-283]

NARROW FABRICS INDUSTRY

NOTICE OF HEARING AND OF OPPORTUNITY TO PRESENT VIEWS, SUGGESTIONS, OR OBJECTIONS

Opportunity is hereby extended by the Federal Trade Commission to any and all persons, firms, partnerships, corporations, organizations, or other parties, including farm, labor, and consumer groups, affected by or having an interest in the proposed trade practice rules for the Narow Fabrics Industry, to present to the Commission their views concerning said rules, including such pertinent information, suggestions, or objections as they may desire to submit, and to be heard in the premises. For this purpose copies of the proposed rules may be obtained upon application to the Commission. Such views, information, suggestions, or objections may be submitted by letter, memorandum, brief,. or other communication, to be filed with the Commission not later than November 6, 1951. Opportunity to parties desiring to be heard orally will be afforded at the hearing beginning at 10 a. m., November 6, 1951, in Room 332, Federal Trade Commission Building, Pennsylvania Avenue at Sixth Street NW., Washington, D. C. After due consideration of all matters presented in writing or orally, the Commission will proceed to final action on the proposed rules.

The industry for which these rules are proposed is composed of the persons, firms, partnerships, corporations and organizations engaged in the manufacture, sale, or distribution of "narrow fabrics" as such term is dilineated in the definition preceding the proposed rules. Such fabrics are primarily sold directly, or through jobbers, to manufacturers and processors for use as a component of, or for conversion into, other products such as insulation tape, woven labels, slide fasteners, industrial belting, shoe webbing, garment trimming, rug or carpet binding, etc.

Issued: October 15, 1951.

By the Commission.

[SEAL] D. C. DANIEL,
Secretary.

[F. R. Doc. 51-12501; Filed, Oct. 17, 1951; 8:55 a. m.]

INTERSTATE COMMERCE COMMISSION

[4th Sec. Application 26471]

CAST IRON PIPE FROM LYNCHBURG AND RADFORD, VA., TO SOUTHWEST

APPLICATION FOR RELIEF

OCTOBER 15, 1951.

The Commission is in receipt of the above-entitled and numbered application for relief from the long-and-short-haul provision of section 4 (1) of the Interstate Commerce Act.

Filed by: R. E. Boyle, Jr., Agent, for carriers parties to Agent C. A. Spanger's tariff I. C. C. No. 1191.

Commodities involved: Cast iron pipe and fittings, carloads.

From: Lynchburg and Radford, Va.

To: Southwestern territory.

Grounds for relief: Circuitous routes and to apply over short tariff routes rates constructed on the basis of the short line distance formula.

Schedules filed containing proposed rates: C. A. Spaninger's tariff I. C. C. No. 1191, Supp. 25.

Any interested person desiring the Commission to hold a hearing upon such application shall request the Commission in writing so to do within 15 days from the date of this notice. As provided by the general rules of practice of the Commission, Rule 73, persons other than applicants should fairly disclose their interest, and the position they intend to take at the hearing with respect to the application. Otherwise the Commission, in its discretion, may proceed to investigate and determine the matters involved in such application without further or formal hearing. If because of an emergency a grant of temporary relief is found to be necessary before the expiration of the 15-day period, a hearing, upon a request filed within that period, may be held subsequently.

By the Commission, Division 2.

[SEAL] W. P. BARTEL, *Secretary.*

[F. R. Doc. 51-12470; Filed, Oct. 17, 1951; 8:50 a. m.]

[4th Sec. Application 26472]

VARIOUS COMMODITIES FROM AND TO THE SOUTH

APPLICATION FOR RELIEF

OCTOBER 15, 1951.

The Commission is in receipt of the above-entitled and numbered application for relief from the long-and-short-haul provision of section 4 (1) of the Interstate Commerce Act.

Filed by: R. E. Boyle, Jr., Agent, for carriers parties to tariffs listed in Exhibit A of the application, pursuant to fourth-section order No. 9800.

Commodities involved: Various commodities, carloads.

Between points in southern territory and between points in that territory and official territory.

Any interested person desiring the Commission to hold a hearing upon such application shall request the Commission in writing so to do within 15 days from the date of this notice. As provided by the general rules of practice of the Commission, Rule 73, persons other than applicants should fairly disclose their interest, and the position they intend to take at the hearing with respect to the application. Otherwise the Commission, in its discretion, may proceed to investigate and determine the matters involved in such application without further or formal hearing. If because of an emergency a grant of temporary relief is found to be necessary before the expiration of the 15-day period, a hearing, upon a request filed within that period, may be held subsequently.

By the Commission, Division 2.

[SEAL] W. P. BARTEL, *Secretary.*

[F. R. Doc. 51-12471; Filed, Oct. 17, 1951; 8:51 a. m.]

[4th Sec. Application 26473]

BLACKS, DRY, FROM SOUTHWEST

APPLICATION FOR RELIEF

OCTOBER 15, 1951.

The Commission is in receipt of the above-entitled and numbered application for relief from the long-and-short-haul provision of section 4 (1) of the Interstate Commerce Act.

Filed by: D. Q. Marsh, Agent, for carriers parties to his tariff I. C. C. No. 3744.

Commodities involved: Blacks, dry, carloads.

From: Producing points in southwestern territory.

To: St. Louis, Mo., Natchez and Vicksburg, Miss., Memphis, Tenn., Baton Rouge and New Orleans, La., East St. Louis, Ill., and certain other points in Illinois.

Grounds for relief: Circuitous routes, rail and market competition, and grouping.

Schedules filed containing proposed rate: D. Q. Marsh's tariff I. C. C. No. 3744, Supp. 93.

Any interested person desiring the Commission to hold a hearing upon such application shall request the Commission in writing so to do within 15 days from the date of this notice. As provided by the general rules of practice of the Commission, Rule 73, persons other than applicants should fairly disclose their interest, and the position they intend to take at the hearing with respect to the application. Otherwise the Commission, in its discretion, may proceed to investigate and determine the matters involved in such application without further or formal hearing. If because of an emergency a grant of temporary relief is found to be necessary before the expiration of the 15-day period, a hearing, upon a request filed within that period, may be held subsequently.

By the Commission, Division 2.

[SEAL] W. P. BARTEL, *Secretary.*

[F. R. Doc. 51-12472; Filed, Oct. 17, 1951; 8:51 a. m.]

[4th Sec. Application 26474]

GRAIN BETWEEN NORTHEAST OKLAHOMA R. R. POINTS AND THE SOUTHWEST

APPLICATION FOR RELIEF

OCTOBER 15, 1951.

The Commission is in receipt of the above-entitled and numbered application for relief from the long-and-short-haul provision of section 4 (1) of the Interstate Commerce Act.

Filed by: D. Q. Marsh, Agent, for carriers parties to schedules listed below.

Commodities involved: Grain, grain products, and related articles, carloads.

Between stations in Kansas and Oklahoma on the Northeast Oklahoma Railroad and points in southwestern territory, including Mississippi River crossings.

Grounds for relief: Circuitous routes and to maintain grouping.

Schedules filed containing proposed rates: D. Q. Marsh's tariffs I. C. C. Nos. 3940, Supp. 12; 3941, Supp. 19; 3942, Supp. 15; 3831, Supp. 39; 3938, Supp. 10; 3939, Supp. 13.

Any interested person desiring the Commission to hold a hearing upon such application shall request the Commission in writing so to do within 15 days from the date of this notice. As provided by the general rules of practice of the Commission, Rule 73, persons other than applicants should fairly disclose their interest, and the position they intend to take at the hearing with respect to the application. Otherwise the Commission, in its discretion, may proceed to investigate and determine the matters involved in such application without further or formal hearing. If because of an emergency a grant of temporary relief is found to be necessary before the expiration of the 15-day period, a hearing, upon a request filed within that period, may be held subsequently.

By the Commission, Division 2.

[SEAL] W. P. BARTEL, *Secretary.*

[F. R. Doc. 51-12473; Filed, Oct. 17, 1951; 8:52 a. m.]

[Rev. S. O. 874, Gen. Permit 19]

LIQUID STARCH

LOADING REQUIREMENTS

Pursuant to the authority vested in me in paragraph (d) of Revised Service Order No. 874 (16 F. R. 2040, 3133), permission is granted for any common carrier by railroad, subject to the Interstate Commerce Act, to disregard the provisions of Revised Service Order No. 874 insofar as they apply to any refrigerator car loaded with liquid starch packed in glass in cartons or loaded with liquid starch packed in glass in cartons when mixed with other commodities when protection against freezing by heaters is required, when such cars are loaded to at least 50,000 pounds.

The shipping instructions and waybills shall show reference to this general permit and any consignor forwarding cars under this general permit shall furnish the permit agent the car numbers, initials, and destinations of the cars shipped under this permit, and also the dates forwarded, car numbers, initials, and weights of all cars shipped; such information to be furnished on the first of each month.

This general permit shall become effective at 12:01 a. m., October 15, 1951, and shall expire at 11:59 p. m., March 15, 1952, unless otherwise modified, changed, suspended or revoked.

A copy of this general permit has been served upon the Association of American Railroads, Car Service Division, as agent of the railroads subscribing to the car service and per diem agreement under the terms of that agreement, and notice of this permit shall be given to the general public by depositing a copy in the office of the Secretary of the Commission at Washington, D. C., and by filing it with the Director, Division of the Federal Register.

Issued at Washington, D. C., this 10th day of October 1951.

HOWARD S. KLINE,
Permit Agent.

[F. R. Doc. 51-12486; Filed, Oct. 17, 1951; 8:52 a. m.]

[S. O. 878, Gen. Permit 7-F]

SYRUP

LOADING REQUIREMENTS

Pursuant to the authority vested in me in paragraph (e) of Service Order No. 878 (16 F. R. 5768), permission is granted for any common carrier by railroad, subject to the Interstate Commerce Act, to disregard the provisions of Service Order No. 878 insofar as they apply to any refrigerator car loaded with syrup packed in glass in cartons or loaded with syrup packed in glass in cartons when mixed with other commodities when protection against freezing by heaters is required, when such cars are loaded to at least 50,000 pounds.

The shipping instructions and waybills shall show reference to this general permit, and any consignor forwarding cars under this general permit shall furnish the permit agent with the car numbers, initials, weights and destinations of the cars shipped under this permit and also the dates forwarded, car numbers, initials and weights of all cars shipped; such information to be furnished on the first day of each month.

This general permit shall become effective at 12:01 a. m., October 15, 1951, and shall expire at 11:59 p. m., November 30, 1951, unless otherwise modified, changed, suspended or revoked.

A copy of this general permit has been served upon the Association of American Railroads, Car Service Division, as Agent of the railroads subscribing to the car service and per diem agreement under the terms of that agreement, and notice of this permit shall be given to the general public by depositing a copy in the Office of the Secretary of the Commission at Washington, D. C., and by filing it with the Director, Division of the Federal Register.

Issued at Washington, D. C., this 10th day of October 1951.

HOWARD S. KLINE,
Permit Agent.

[F. R. Doc. 51-12487; Filed, Oct. 17, 1951; 8:52 a. m.]

SECURITIES AND EXCHANGE COMMISSION

[File No. 70-2714]

WORCESTER COUNTY ELECTRIC CO.

NOTICE OF FILING REQUESTING AUTHORIZATION TO ISSUE PROMISSORY NOTES

OCTOBER 12, 1951.

Notice is hereby given that Worcester County Electric Company ("Worcester County"), a subsidiary of New England Electric System ("NEES"), a registered holding company, has filed a declaration pursuant to the Public Utility Holding Company Act of 1935 ("act"), and has designated sections 6 (a) and 7 thereof and Rules U-23 and U-42 (b) (2) thereunder as applicable to the proposed transactions which are summarized as follows:

Worcester County has outstanding with banks $2,500,000 of six months 2½ percent promissory notes and proposes to issue to banks, from time to time, but not later than December 31, 1951, additional unsecured promissory notes in a principal amount not exceeding $3,200,000. Said additional notes are to be due not later than six months after the respective dates thereof and are to bear interest at the prime interest rate for such notes (presently 2½ percent). Should said prime interest rate for such notes exceed 2¾ percent, Worcester County will file an amendment to its declaration which, unless the Commission gives notice to the contrary, shall become effective five days thereafter. The proceeds of the proposed additional notes are to be used to retire $1,500,000 principal amount of presently outstanding notes and the balance will be used to pay for future construction or to reimburse the treasury for prior construction expenditures. The amount of all unsecured promissory notes of Worcester County to be outstanding at any one time prior to December 31, 1951, will not exceed $4,200,000.

The declaration states that Worcester County expects that its note indebtedness will be financed permanently through the issuance of common stock to NEES in the latter part of 1951 or early in 1952.

The total expenses in connection with the proposed issuance of notes are estimated by Worcester County not to exceed $1,000 and, according to the Company, no State Commission or Federal commission, other than this Commission, has jurisdiction over the proposed note issue. Worcester County requests that the Commission's order herein become effective forthwith upon issuance.

Notice is further given that any interested person may, not later than October 26, 1951, at 5:30 p. m., e. s. t., request, in writing, that a hearing be held on such matter, stating the nature of his interest, the reasons for such request and the issues of fact or law, if any, raised by said declaration which he desires to controvert, or may request that he be notified if the Commission should order a hearing thereon. Any such request should be addressed: Secretary, Securities and Exchange Commission, 425 Second Street NW., Washington 25, D. C. At any time after October 26, 1951, said declaration, as filed or as amended, may be permitted to become effective as provided in Rule U-23 of the rules and regulations promulgated under said act, or the Commission may exempt such transactions as provided in Rule U-20 (a) and Rule U-100 thereof.

By the Commission.

[SEAL] ORVAL L. DUBOIS,
Secretary.

[F. R. Doc. 51-12461; Filed, Oct. 17, 1951; 8:48 a. m.]

[File No. 70-2720]

ATTLEBORO STEAM AND ELECTRIC CO. ET AL.

NOTICE OF FILING OF PROPOSED ISSUES OF PROMISSORY NOTES TO PARENT COMPANY BY ITS SUBSIDIARIES

OCTOBER 12, 1951.

In the matter of Attleboro Steam and Electric Company, Beverly Gas and Electric Company, Gloucester Electric Company, Haverhill Electric Company, Malden Electric Company, Northampton Electric Lighting Company, Southern Berkshire Power & Electric Company, Weymouth Light and Power Company, and New England Electric System.

Notice is hereby given that Attleboro Steam and Electric Company ("Attleboro"), Beverly Gas and Electric Company ("Beverly"), Gloucester Electric Company ("Gloucester"), Haverhill Electric Company ("Haverhill"), Malden Electric Company ("Malden"), Northampton Electric Lighting Company ("Northampton"), Southern Berkshire Power & Electric Company ("Southern Berkshire"), and Weymouth Light and Power Company ("Weymouth") (hereinafter sometimes collectively referred to as "the borrowing companies") and their parent company, New England Electric Company ("NEES"), a registered holding company, have filed a joint declaration pursuant to the Public Utility Holding Company Act of 1935 ("the act") and have designated sections 6 (a), 7, 9 (a), 10 and 12 (f) thereof and Rules U-23, U-45 (a) and U-43 (a) thereunder as applicable to the proposed transactions which are summarized as follows:

The borrowing companies propose to issue to NEES, from time to time but not later than December 31, 1951, unsecured promissory notes in the aggregate amounts set forth in the following table:

Company	Notes payable to NEES at Oct. 1, 1951	Proposed borrowings Oct. 1, 1951, to Dec. 31, 1951	Notes payable to NEES at Dec. 31, 1951
Attleboro		$200,000	$200,000
Beverly	$1,175,000	400,000	1,575,000
Gloucester	455,000	50,000	505,000
Haverhill	300,000	150,000	450,000
Malden	600,000	500,000	1,100,000
Northampton	100,000	25,000	125,000
Southern Berkshire	755,000	50,000	805,000
Weymouth	350,000	150,000	500,000
Total	3,735,000	1,525,000	5,260,000

Said notes will mature April 1, 1952 and will bear interest at the prime interest rate charged by banks for such notes (presently 2½%). Should said prime interest rate exceed 2¾ percent, the borrowing company and NEES will file an amendment to said declaration which, unless the Commission gives notice to the contrary, shall become effective five days thereafter. The proceeds of the proposed notes will be used by the borrowing companies for construction and to reimburse their treasuries for prior construction expenditures and, in the case of Attleboro, to pay its presently outstanding debt incurred for construction and amounting to $60,000 in notes payable to banks and $40,000 representing a non-interest bearing advance payable to NEES.

The expenses in connection with the proposed note issues are estimated not to exceed $100 for each declarant company or an aggregate of $900 and, according to the declaration, no State commission or Federal commission, other than this Commission, has jurisdiction over the proposed note issues. The declarant companies request that the Commission's order herein become effective forthwith upon issuance.

Notice is further given that any interested person may, not later than October 26, 1951, at 5:30 p. m., e. s. t., request in writing that a hearing be held on such matter, stating the nature of his interest, the reasons for such request and the issues of fact or law, if any, raised by said declaration which he desires to controvert, or may request that he be notified if the Commission should order a hearing thereon. Any such request should be addressed: Secretary, Securities and Exchange Commission, 425 Second Street NW., Washington 25, D. C. At any time after October 26, 1951, said declaration, as filed or as amended, may be permitted to become effective as provided by Rule U-23 of the rules and regulations promulgated under said act, or the Commission may exempt such transactions as provided in Rule U-20 (a) and Rule U-100 thereof.

By the Commission.

[SEAL] ORVAL L. DUBOIS, *Secretary.*

[F. R. Doc. 51-12463; Filed, Oct. 17, 1951; 8:49 a. m.]

[File No. 70-2721]

NORTHERN BERKSHIRE GAS CO. ET AL.

NOTICE OF FILING REQUESTING AUTHORIZATION TO ISSUE PROMISSORY NOTES

OCTOBER 12, 1951.

In the matter of Northern Berkshire Gas Co., Quincy Electric Light and Power Co., and Suburban Gas and Electric Co.

Notice is hereby given that Northern Berkshire Gas Company ("Northern Berkshire"), Quincy Electric Light and Power Company ("Quincy"), and Suburban Gas and Electric Company ("Suburban"), subsidiary companies of New England Electric System ("NEES"), a registered holding company, have filed a joint declaration, pursuant to the Public Utility Holding Company Act of 1935 ("the act") and have designated sections 6 (a) and 7 thereof and Rules U-23 and U-42 (b) (2) thereunder as applicable to the proposed transactions which are summarized as follows:

Northern Berkshire, Quincy and Suburban propose to issue to banks, from time to time but not later than December 31, 1951, unsecured promissory notes in the principal amounts of $720,000, $580,000 and $1,075,000, respectively. Said notes are to be due six months after the respective dates thereof and are to bear interest at the prime interest rate for such notes (presently 2½ percent). Should said prime interest rate exceed 2¾ percent, the borrowing declarant company will file an amendment to said declaration which, unless the Commission gives notice to the contrary, shall become effective five days thereafter. The proceeds of the proposed notes will be used by Northern Berkshire, Quincy and Suburban to repay notes payable to NEES in the amounts of $350,000, $430,000, and $375,000, respectively, and the balances of $370,000, $150,000 and $700,000, respectively, will be used to pay for construction costs, the cost of conversion to natural gas and to reimburse the treasury for prior construction expenditures.

The declaration states that Northern Berkshire and Suburban expect that their proposed note indebtedness will be paid from the proceeds of the sale of their gas properties in the latter part of 1951 or early in 1952 and that Quincy does not expect any permanent financing in the immediate future.

The total expenses in connection with the proposed issuance of notes are estimated in the declaration not to exceed $750 ($250 for each declarant company) and it is stated that no State commission or Federal commission, other than this Commission, has jurisdiction over the proposed note issues. The declarant companies request that the Commission's order herein become effective forthwith upon issuance.

Notice is further given that any interested person may, not later than October 26, 1951, at 5:30 p. m., request, in writing, that a hearing be held on such matter, stating the nature of his interest, the reasons for such request and the issues of fact or law, if any, raised by said declaration which he desires to controvert, or may request that he be notified if the Commission should order a hearing thereon. Any such request should be addressed: Secretary, Securities and Exchange Commission, 425 Second Street NW., Washington 25, D. C. At any time after October 26, 1951, said declaration, as filed or as amended, may be permitted to become effective as provided by Rule U-23 of the rules and regulations promulgated under said act, or the Commission may exempt such transactions as provided in Rule U-20 (a) and Rule U-100 thereof.

By the Commission.

[SEAL] ORVAL L. DUBOIS, *Secretary.*

[F. R. Doc. 51-12460; Filed, Oct. 17, 1951; 8:48 a. m.]

[File No. 70-2722]

GRANITE STATE ELECTRIC CO.

NOTICE OF FILING REQUESTING AUTHORIZATION TO ISSUE PROMISSORY NOTES

OCTOBER 12, 1951.

Notice is hereby given that Granite State Electric Company ("Granite State"), a subsidiary of New England Electric System ("NEES"), a registered holding company, has filed a declaration pursuant to the Public Utility Holding Company Act of 1935 ("the act") and has designated sections 6 (a) and 7 thereof and Rules U-23 and U-42 (b) (2) thereunder as applicable to the proposed transactions which are summarized as follows:

Granite State has outstanding a 2½ percent promissory note in the principal amount of $250,000 which is due November 15, 1951, and proposes to issue on that date to The First National Bank of Boston a new $300,000 promissory note payable in six months. Said note will bear interest at its prime interest rate (present 2½ perecent). Should said prime interest rate for such note exceed 2¾ percent, Granite State will file an amendment to its declaration which, unless the Commission gives notice to the contrary, shall become effective five days thereafter. The proceeds of the proposed note will be used to pay the presently outstanding note and to pay for construction expenditures.

The declaration states that Granite State expects that its note indebtedness will be financed permanently through the issuance of common stock to NEES in the latter part of 1951 or early in 1952.

The total expenses in connection with the proposed note issue are estimated by Granite State not to exceed $600 and, according to counsel for the company, all action necessary to make the proposed note valid has been taken by and before all regulatory bodies, except this Commission. Granite State requests that the Commission's order herein become effective forthwith upon issuance.

Notice is further given that any interested person may, not later than October 26, 1951, at 5:30 p. m., request in writing that a hearing be held on such matter, stating the nature of his interest, the reasons for such request and the issues of fact or law, if any, raised by said declaration which he desires to controvert, or may request that he be notified if the Commission should order a hearing thereon. Any such request should be addressed: Secretary, Securities and Exchange Commission, 425 Second Street NW., Washington 25, D. C. At any time after October 26, 1951, said declaration, as filed or as amended, may be permitted to become effective as provided by Rule U-23 of the rules and regulations promulgated under said act, or the Commission may exempt such transactions as provided in Rule U-20 (a) and Rule U-100 thereof.

By the Commission.

[SEAL] ORVAL L. DUBOIS, *Secretary.*

[F. R. Doc. 51-12462; Filed, Oct. 17, 1951; 8:49 a. m.]

DEPARTMENT OF JUSTICE

Office of Alien Property

AUTHORITY: 40 Stat. 411, 55 Stat. 839, Pub. Laws 322, 671, 79th Cong., 60 Stat. 50, 925; 50 U. S. C. and Supp. App. 1, 616; E. O. 9193, July 6, 1942, 3 CFR, Cum. Supp., E. O. 9567, June 8, 1945, 3 CFR, 1945 Supp., E. O. 9788, Oct. 14, 1946, 11 F. R. 11981.

[Vesting Order 500A-292]

COPYRIGHTS OF CERTAIN GERMAN NATIONALS

Under the authority of the Trading With the Enemy Act, as amended, Executive Order 9193, as amended, and Executive Order 9788, and pursuant to law, after investigation, it is hereby found:

1. That the persons (including individuals, partnerships, associations, corporations or other business organizations) referred to or named in Column 5 of Exhibit A set forth below and made a part hereof and whose last known addresses are listed in said Exhibit A as being in a foreign country (the names of which persons are listed (a) in Column 3 of said Exhibit A as the authors of the works, the titles of which are listed in Column 2, and the copyright numbers, if any, of which are listed in Column 1, respectively, of said Exhibit A, and/or (b) in Column 4 of said Exhibit A as the owners of the copyrights, the numbers, if any, of which are listed in Column 1, and covering works the titles of which are listed in Column 2, respectively, of said Exhibit A, and/or (c) in Column 5 of said Exhibit A as others owning or claiming interests in such copyrights) are residents of, or are organized under the laws of, or have their principal places of business in, such foreign country and are nationals thereof;

2. That all right, title, interest and claim of whatsoever kind or nature, under the statutory and common law of the United States and of the several States thereof, of the persons referred to in Column 5 of said Exhibit A, and also of all other persons (including individuals, partnerships, associations, corporations or other business organizations), whether or not named elsewhere in this order including said Exhibit A, who are residents of, or which are organized under the laws of or have their principal places of business in, Germany or Japan, and are nationals of such foreign countries, in, to and under the following:

a. The copyrights, if any, described in said Exhibit A,

b. Every copyright, claim of copyright and right to copyright in the works described in said Exhibit A and in every issue, edition, publication, republication, translation, arrangement, dramatization and revision thereof, in whole or in part, of whatsoever kind or nature, and of all other works designated by the titles therein set forth, whether or not filed with the Register of Copyrights or otherwise asserted, and whether or not specifically designated by copyright number,

c. Every license, agreement, privilege, power and right of whatsoever nature arising under or with respect to the foregoing,

d. All monies and amounts, and all rights to receive monies and amounts, by way of royalty, share of profits or other emolument, accrued or to accrue, whether arising pursuant to law, contract or otherwise, with respect to the foregoing,

e. All rights of renewal, reversion or revesting, if any, in the foregoing, and

f. All causes of action accrued or to accrue at law or in equity with respect to the foregoing, including but not limited to the rights to sue for and recover all damages and profits and to request and receive the benefits of all remedies provided by common law or statute for the infringement of any copyright or the violation of any right or the breach of any obligation described in or affecting the foregoing,

is property of, and is property payable or held with respect to copyrights or rights related thereto in which interests are held by, and such property itself constitutes interests held therein by, the aforesaid nationals of foreign countries.

All determinations and all action required by law, including appropriate consultation and certification, having been made and taken, and, it being deemed necessary in the national interest,

There is hereby vested in the Attorney General of the United States the property described in subparagraph 2 hereof, to be held, used, administered, liquidated, sold or otherwise dealt with in the interest of and for the benefit of the United States.

The term "national" as used herein shall have the meaning prescribed in section 10 of Executive Order 9193, as amended.

Executed at Washington, D. C., on September 27, 1951.

For the Attorney General.

[SEAL] HAROLD I. BAYNTON,
Assistant Attorney General,
Director, Office of Alien Property.

EXHIBIT A

Column 1 Copyright number	Column 2 Title of work	Column 3 Names and last known nationalities of authors	Column 4 Names and last known addresses of owners of copyrights	Column 5 Identified persons whose interests are being vested
Unknown.....	Beilstein's Handbuch der Organischen Chemie (all volumes published prior to 1917).	Unknown.....	Julius Springer, Berlin, Germany, and Springer-Verlag, Berlin, Germany (nationality: German).	Owners.

[F. R. Doc. 51-12523; Filed, Oct. 17, 1951; 9:00 a. m.]

[Vesting Order 500A-293]

COPYRIGHTS OF CERTAIN JAPANESE NATIONALS

Under the authority of the Trading With the Enemy Act, as amended, Executive Order 9193, as amended, and Executive Order 9788, and pursuant to law, after investigation, it is hereby found:

1. That the persons (including individuals, partnerships, associations, corporations or other business organizations) referred to or named in Column 5 of Exhibit A set forth below and made a part hereof and whose last known addresses are listed in said exhibit A as being in a foreign country (the names of which persons are listed (a) in Column 3 of said Exhibit A as the authors of the works, the titles of which are listed in Column 2, and the copyright numbers, if any, of which are listed in Column 1, respectively, of said Exhibit A, and/or (b) in Column 4 of said exhibit A as the owners of the copyrights, the numbers, if any, of which are listed in Column 1, and covering works the titles of which are listed in Column 2, respectively, of said Exhibit A, and/or (c) in Column 5 of said Exhibit A as others owning or claiming interests in such copyrights) are residents of, or are organized under the laws of, or have their principal places of business in, such foreign country and are nationals thereof;

2. That all right, title, interest and claim of whatsoever kind or nature, under the statutory and common law of the United States and of the several states thereof, of the persons referred to in Column 5 of said Exhibit A, and also of all other persons (including individuals, partnerships, associations, corporations or other business organizations), whether or not named elsewhere in this Order including said Exhibit A, who are residents of, or which are organized under the laws of or have their principal places of business in, Germany or Japan, and are nationals of such foreign countries, in, to and under the following:

a. The copyrights, if any, described in said Exhibit A,

b. Every copyright, claim of copyright and right to copyright in the works described in said Exhibit A and in every issue, edition, publication, republication, translation, arrangement, dramatization and revision thereof, in whole or in part, of whatsoever kind or nature, and of all other works designated by the titles therein set forth, whether or not filed with the Register of Copyrights or otherwise asserted, and whether or not specifically designated by copyright number,

c. Every license, agreement, privilege, power and right of whatsoever nature arising under or with respect to the foregoing.

d. All monies and amounts, and all rights to receive monies and amounts, by way of royalty, share of profits or other emolument, accrued or to accrue, whether arising pursuant to law, contract or otherwise, with respect to the foregoing,

e. All rights of renewal, reversion or revesting, if any, in the foregoing, and

f. All causes of action accrued or to accrue at law or in equity with respect to the foregoing, including but not limited to the rights to sue for and recover all damages and profits and to request and receive the benefits of all remedies provided by common law or statute for the infringement of any copyright or the violation of any right or the breach of any obligation described in or affecting the foregoing,

is property of, and is property payable or held with respect to copyrights or rights related thereto in which interests are held by, and such property itself constitutes interests held therein by, the aforesaid nationals of foreign countries.

All determinations and all action required by law, including appropriate consultation and certification, having been made and taken, and, it being deemed necessary in the national interest,

There is hereby vested in the Attorney General of the United States the property described in subparagraph 2 hereof, to be held, used, administered, liquidated, sold or otherwise dealt with in the interest of and for the benefit of the United States.

The term "national" as used herein shall have the meaning prescribed in section 10 of Executive Order 9193, as amended.

Executed at Washington, D. C. on September 27, 1951.

For the Attorney General.

[SEAL] HAROLD I. BAYNTON,
Assistant Attorney General,
Director, Office of Alien Property.

EXHIBIT A

Column 1 Copyright number	Column 2 Title of Work	Column 3 Names and last known nationalities of authors	Column 4 Names and last known addresses of owners of copyrights	Column 5 Identified persons whose interests are being vested
Unknown.....	Shina No Yoru (China Night).	Nobuyuki Takeoka and Yaso Saijo, both of Japan.	Japan Overseas Music Association, 5 Ginza Nishi, 2--Chome, Tokyo, Japan, and/or Nobuyuki Takeoka and Yaso Saijo, both of Japan.	Author and owner.
E-Unpub. 10247.	China Night (Shina No Yoru).	Gwennie James, San Antonio, Tex.	.....	Nobuyuki Takeoka, Yaso Saijo, and Japan Overseas Music Association, all of Japan.
E-Pub. 45475.....	Truly Lulu.....	Gwennie James, San Antonio, Tex., and Nobuyuki Takeoka, of Japan.	.....	Do.

[F. R. Doc. 51-12524; Filed, Oct. 17, 1951; 9:00 a. m.]

[Vesting Order 18544]

PETER E. LUDVIGSEN

In re: Estate of Peter E. Ludvigsen, deceased. File No. D-19-120; E. T. Sec. 3763.

Under the authority of the Trading With the Enemy Act, as amended, Executive Order 9193, as amended, and Executive Order 9788, and pursuant to law, after investigation, it is hereby found:

1. That Maria Margaretha (Ludewig) Asmussen and Hans Jurgen Ludewig, whose last known address is Germany, are residents of Germany and nationals of a designated enemy country (Germany);

2. That the property described as follows: All property in the possession or custody of or under the control of Bank of America National Trust and Savings Association, Fresno, California, as trustee of the Trust under the Will of Peter E. Ludvigsen, deceased, including particularly but not limited to the sum of $29,631.18 as of September 28, 1951, together with any and all accruals thereto,

is property payable or deliverable to, or claimed by, the aforesaid nationals of a designated enemy country (Germany);

3. That such property is in the process of administration by Bank of America National Trust and Savings Association, as trustee, acting under the judicial supervision of the Superior Court of the State of California, in and for the County of Fresno,

and it is hereby determined:

4. That to the extent that the persons named in subparagraph 1 hereof are not within a designated enemy country, the national interest of the United States requires that such persons be treated as nationals of a designated enemy country (Germany).

All determinations and all action required by law, including appropriate consultation and certification, having been made and taken, and, it being deemed necessary in the national interest,

There is hereby vested in the Attorney General of the United States the property described above, to be held, used, administered, liquidated, sold or otherwise dealt with in the interest of and for the benefit of the United States.

The terms "national" and "designated enemy country" as used herein shall have the meanings prescribed in section 10 of Executive Order 9193, as amended.

Executed at Washington, D. C., on October 11, 1951.

For the Attorney General.

[SEAL] HAROLD I. BAYNTON,
Assistant Attorney General,
Director, Office of Alien Property.

[F. R. Doc. 51-12514; Filed, Oct. 17, 1951; 8:58 a. m.]

[Vesting Order 18543]

DOROTHEA URSULA LEMBKE ET AL.

In re: Rights of Dorothea Ursula Lembke, et al. under Insurance Contracts. Files Nos. F-28-4207-H-1 and H-2.

Under the authority of the Trading With the Enemy Act, as amended, Executive Order 9193, as amended, and Executive Order 9788, and pursuant to law, after investigation, it is hereby found:

1. That Dorothea Ursula Lembke, Wolfgang Lembke and Hanno Lembke, whose last known address is Germany, are residents of Germany and nationals of a designated enemy country (Germany);

2. That the children, names unknown, of Dorothea Lembke and Walter Adolf Otto Lembke, born after July 15, 1938, who there is reasonable cause to believe are residents of Germany, are nationals of a designated enemy country (Germany);

3. That the net proceeds due or to become due under contracts of insurance evidenced by Policies numbered 1021233 and 1021234 issued by the Occidental Life Insurance Company of California, Los Angeles, California, to Mrs. Dorothea Ursula Lembke, and any and all other benefits and rights of any kind or character whatsoever under or arising out of said contracts of insurance except those of the aforesaid Occidental Life Insurance Company of California, together with the right to demand, enforce, receive and collect the same is property within the United States owned or controlled by, payable or deliverable to, held on behalf of, or on account of, or owing to, or which is evidence of ownership or control by, the aforesaid nationals of a designated enemy country (Germany);

and it is hereby determined:

4. That to the extent that the persons identified in subparagraph 1 and 2 hereof are not within a designated enemy country, the national interest of the United States requires that such persons be treated as nationals of a designated enemy country (Germany).

All determinations and all action required by law, including appropriate consultation and certification, having been made and taken, and, it being deemed necessary in the national interest,

There is hereby vested in the Attorney General of the United States the property described above, to be held, used, administered, liquidated, sold or otherwise dealt with in the interest of and for the benefit of the United States.

The terms "national" and "designated enemy country" as used herein shall have the meanings prescribed in section 10 of Executive Order 9193, as amended.

Executed at Washington, D. C., on October 11, 1951.

For the Attorney General.

[SEAL] HAROLD I. BAYNTON,
Assistant Attorney General,
Director, Office of Alien Property.

[F. R. Doc. 51-12513; Filed, Oct. 17, 1951; 8:51 a. m.]

[Vesting Order 18545]

BERTHA RUTHER

In re: Estate of Bertha Ruther, deceased. File No. D-28-13065; E. T. Sec. No. 17183.

Under the authority of the Trading With the Enemy Act, as amended, Executive Order 9193, as amended, and Executive Order 9788, and pursuant to law, after investigation, it is hereby found:

1. That Marie Goesser, Pauline Von Ey, Mathilde Buechsenschuetz, Henriette Maria Rohleder, Martha Hegemann, Anna Fabricius, Paul Roemer, Florenz Roemer, Elsa Roemer, Grete Muckenhaupt, Karl Muckenhaupt, Lieselotte Muckenhaupt, Mathilde Mueller, Ernst Pohl, Martha Gross, Gustav Pohl, and Auguste Roemer, whose last known address is Germany, are residents of Germany and nationals of a designated enemy country (Germany);

2. That all right, title, interest and claim of any kind or character whatsoever of the persons identified in subparagraph 1 hereof, and each of them, in and to the estate of Bertha Ruther, deceased, is property payable or deliverable to, or claimed by, the aforesaid nationals of a designated enemy country (Germany);

3. That such property is in the process of administration by John J. Hayes, as Administrator, acting under the judicial supervision of the Probate Court of Suffolk County, Massachusetts;

and it is hereby determined:

4. That to the extent that the persons identified in subparagraph 1 hereof are not within a designated enemy country, the national interest of the United States requires that such persons be treated as nationals of a designated enemy country (Germany).

All determinations and all action required by law, including appropriate consultation and certification, having been made and taken, and, it being deemed necessary in the national interest,

There is hereby vested in the Attorney General of the United States the property described above, to be held, used, administered, liquidated, sold or otherwise dealt with in the interest of and for the benefit of the United States.

The terms "national" and "designated enemy country" as used herein shall have the meanings prescribed in section 10 of Executive Order 9193, as amended.

Executed at Washington, D. C., on October 11, 1951.

For the Attorney General.

[SEAL] HAROLD I. BAYNTON,
Assistant Attorney General,
Director, Office of Alien Property.

[F. R. Doc. 51-12515; Filed, Oct. 17, 1951; 8:58 a. m.]

[Vesting Order 18541]

FRANCES DRAXLER ET AL.

In re: Frances Draxler, et al. v. Joseph Kauer, Sr., Executor and Trustee, et al. File No. D-28-13059; E. T. Sec. 17180.

Under the authority of the Trading With the Enemy Act, as amended, Executive Order 9193, as amended, and Executive Order 9788, and pursuant to law, after investigation, it is hereby found:

1. That Mary Findru, also known as Mary Yindra (Mrs. Johann Weber) and Anton Findru, also known as Anton Yindra, whose last known address is Germany, are residents of Germany and nationals of a designated enemy country (Germany);

2. That the sum of $199.36 deposited with Frances W. Kulwiec, as Clerk of the Circuit Court of Taylor County, Wisconsin, to the credit of the persons named in subparagraph 1 hereof pursuant to an order of the Circuit Court of Taylor County, Wisconsin, dated December 13, 1946, and entered in a proceeding entitled Frances Draxler, et al. v. Joseph Kauer, Sr., Executor and Trustee of the Estate of Maria Draxler, deceased, et al., together with any and all accumulations and subject to the payment of any lawful fees and disbursements of the said Frances W. Kulwiec as Clerk of the Circuit Court of Taylor County, Wisconsin, is property payable or deliverable to, or claimed by the aforesaid nationals of a designated enemy country (Germany);

3. That such property is in the process of administration by the Clerk, Circuit Court of Taylor County, Wisconsin, as depositary, acting under the judicial supervision of the Circuit Court of Taylor County, Medford, Wisconsin;

and it is hereby determined:

4. That to the extent that the persons named in subparagraph 1 hereof are not within a designated enemy country, the national interest of the United States requires that such persons be treated as nationals of a designated enemy country (Germany).

All determinations and all action required by law, including appropriate consultation and certification, having been made and taken, and, it being deemed necessary in the national interest,

There is hereby vested in the Attorney General of the United States the property described above, to be held, used, administered, liquidated, sold or otherwise dealt with in the interest of and for the benefit of the United States.

The terms "national" and "designated enemy country" as used herein shall have the meanings prescribed in section 10 of Executive Order 9193, as amended.

Executed at Washington, D. C., on October 11, 1951.

For the Attorney General.

[SEAL] HAROLD I. BAYNTON,
Assistant Attorney General,
Director, Office of Alien Property.

[F. R. Doc. 51-12511; Filed, Oct. 17, 1951; 8:57 a. m.]

[Vesting Order 18542]

SUYE FUJIHARA ET AL.

In re: Rights of Suye Fujihara et al. under Insurance Contract. File No. D-39-15436-H-1.

Under the authority of the Trading With the Enemy Act, as amended, Executive Order 9193, as amended, and Executive Order 9788, and pursuant to law, after investigation, it is hereby found:

1. That Suye Fujihara, whose last known address is Japan, is a resident of Japan and a national of a designated enemy country (Japan);

2. That the domiciliary personal representatives, heirs-at-law, next of kin, legatees and distributees, names unknown, of Suye Fujihara, who there is reasonable cause to believe are residents of Japan, are nationals of a designated enemy country (Japan);

3. That the net proceeds due or to become due under contract of insurance evidenced by Policy No. 603,811 issued by the Manufacturers Life Insurance Company, Toronto, Canada, to Tomoyuki Fujihara, together with the right to demand, receive and collect said net proceeds (including without limitation the right to proceed for collection against branch offices and legal reserves maintained in the United States), is property within the United States, owned or controlled by, payable or deliverable to, held on behalf of or on account of, or owing to, or which is evidence of ownership or control by, the aforesaid nationals of a designated enemy country (Japan);

and it is hereby determined:

4. That to the extent that the person named in subparagraph 1 hereof and the domiciliary personal representatives, heirs-at-law, next-of-kin, legatees and distributees, names unknown, of Suye Fujihara, are not within a designated enemy country, the national interest of the United States requires that such persons be treated as nationals of a designated enemy country (Japan).

All determinations and all action required by law, including appropriate consultation and certification, having been made and taken, and, it being deemed necessary in the national interest,

There is hereby vested in the Attorney General of the United States the property described above, to be held, used, administered, liquidated, sold or otherwise dealt with in the interest of and for the benefit of the United States.

The terms "national" and "designated enemy country" as used herein shall have the meanings prescribed in section 10 of Executive Order 9193, as amended.

Executed at Washington, D. C., on October 11, 1951.

For the Attorney General.

[SEAL] HAROLD I. BAYNTON,
Assistant Attorney General,
Director, Office of Alien Property.

[F. R. Doc. 51-12512; Filed, Oct. 17, 1951; 8:57 a. m.]

[Vesting Order 18546]

PETER ZIMMERMANN

In re: Estate of Peter Zimmermann, deceased. File No. 017-26855.

Under the authority of the Trading With the Enemy Act, as amended, Executive Order 9193, as amended, and Executive Order 9788, and pursuant to law, after investigation, it is hereby found:

1. That the issue and domiciliary personal representatives, heirs, next of kin, legatees and distributees, names unknown, of Werner Zimmermann, deceased son, who there is reasonable cause to believe are residents of Germany, are nationals of a designated enemy country (Germany);

2. That all right, title, interest and claim of any kind or character whatsoever of the persons identified in subparagraph 1 hereof, and each of them, in and to the estate of Peter Zimmermann, deceased, is property payable or deliverable to, or claimed by, the aforesaid nationals of a designated enemy country (Germany);

3. That such property is in the process of administration by the County Treasurer of Clinton County, Michigan, under the judicial supervision of the Probate Court of Clinton County, Michigan;

and it is hereby determined:

4. That to the extent that the issue and domiciliary personal representatives, heirs, next of kin, legatees and distributees, names unknown, of Werner Zimmermann, deceased son, are not within a designated enemy country, the national interest of the United States requires that such persons be treated as nationals of a designated enemy country (Germany).

All determinations and all action required by law, including appropriate consultation and certification, having been made and taken, and it being deemed necessary in the national interest,

There is hereby vested in the Attorney General of the United States the property described above, to be held, used, administered, liquidated, sold or otherwise dealt with in the interest of and for the benefit of the United States.

The terms "national" and "designated enemy country" as used herein shall have the meanings prescribed in section 10 of Executive Order 9193, as amended.

Executed at Washington, D. C., on October 11, 1951.

For the Attorney General.

[SEAL] HAROLD I. BAYNTON,
Assistant Attorney General,
Director, Office of Alien Property.

[F. R. Doc. 51-12516; Filed, Oct. 17, 1951; 8:58 a. m.]

[Vesting Order 18547]

A. G. FUER IN-UND AUSLAENDISCHE WERTE

In re: Bank account owned by A. G. fuer in-und auslaendische Werte. F-63-10146-A-1.

Under the authority of the Trading With the Enemy Act, as amended, Executive Order 9193, as amended, and Executive Order 9788, and pursuant to law, after investigation, it is hereby found:

1. That the persons whose names and last known addresses are set forth below are residents of Germany and nationals of a designated enemy country (Germany):

Viktor von Martin, Linswege ueber Ocholt, Oldenburg, Germany.

Professor Dr. Alfred von Martin, 8 Heimstaettenstrasse, Munich, Germany.

Hans von Martin, House No. 151½, Homburg am Main, Germany.

Margarethe Countess von Kirchbach, nee von Martin, House "Sonnenblick", Berchtesgaden-Schoenau, Germany.

Elsa Thiel, nee von Martin, Brueggen ueber Alfeld, Leine, House No. 74, Germany.

2. That the personal representatives, heirs, next of kin, legatees and distributees of Fritz von Martin, deceased, who there is reasonable cause to believe are residents of Germany, are nationals of a designated enemy country (Germany);

3. That A. G. fuer in-und auslaendische Werte is a corporation organized under the laws of Switzerland, whose principal place of business is located at Schaffhausen, Switzerland, and is or, since the effective date of Executive Order 8389, as amended, has been controlled by or acting or purporting to act, directly or indirectly, for the benefit or on behalf of the aforesaid Viktor von Martin, Professor Dr. Alfred von Martin, Hans von Martin, Margarethe Countess von Kirchbach, nee von Martin, Elsa Thiel, nee von Martin, and the personal representatives, heirs, next of kin, legatees and distributees of Fritz von Martin, deceased, and is a national of a designated enemy country (Germany);

4. That the property described as follows: That certain debt or other obligation owing to A. G. fuer in-und auslaendische Werte by J. Henry Schroder Banking Corporation, 57 Broadway, New York 15, New York, arising out of a current account entitled A. G. fuer in-und auslaendische Werte, maintained at the aforesaid Bank, and any and all rights to demand, enforce and collect the same,

is property within the United States owned or controlled by, payable or deliverable to, held on behalf of or on account of, or owing to, or which is evidence of ownership or control by A. G. fuer in-und auslaendische Werte, the aforesaid national of a designated enemy country (Germany);

and it is hereby determined:

5. That A. G. fuer in-und auslaendische Werte is controlled by or acting for or on behalf of a designated enemy country (Germany) or persons within such country and is a national of a designated enemy country (Germany);

6. That to the extent that A. G. fuer in-und auslaendische Werte, the persons named in subparagraph 1 hereof and the persons referred to in subparagraph 2 hereof are not within a designated enemy country, the national interest of the United States requires that such persons be treated as nationals of a designated enemy country (Germany).

All determinations and all action required by law, including appropriate consultation and certification, having been made and taken, and, it being deemed necessary in the national interest,

There is hereby vested in the Attorney General of the United States the property described above, to be held, used, administered, liquidated, sold or otherwise dealt with in the interest of and for the benefit of the United States.

The terms "national" and "designated enemy country" as used herein shall have the meanings prescribed in section 10 of Executive Order 9193, as amended.

Executed at Washington, D. C., on October 11, 1951.

For the Attorney General.

[SEAL] HAROLD I. BAYNTON,
Assistant Attorney General,
Director, Office of Alien Property.

[F. R. Doc. 51-12517; Filed, Oct. 17, 1951; 8:58 a. m.]

[Vesting Order 18548]

SAWAHEI FUNATSU

In re: Bank account owned by Sawahei Funatsu. F-39-7060-E-1.

Under the authority of the Trading With the Enemy Act, as amended, Executive Order 9193, as amended, and Executive Order 9788, and pursuant to law, after investigation, it is hereby found:

1. That Sawahei Funatsu, whose last known address is Tamana-gun, Kumamoto-ken, Japan, is a resident of Japan and a national of a designated enemy country (Japan);

2. That the property described as follows: That certain debt or other obligation owing to Sawahei Funatsu by the Bishop National Bank of Hawaii at Honolulu, King & Bishop Streets, Honolulu, T. H., arising out of a Savings Account numbered 57223, entitled Sawahei Funatsu, maintained with the aforesaid Bank, and any and all rights to demand, enforce and collect the same,

is property within the United States owned or controlled by, payable or deliverable to, held on behalf of or on account of, or owing to, or which is evidence of ownership or control by, the aforesaid national of a designated enemy country (Japan);

and it is hereby determined:

3. That to the extent that the person named in subparagraph 1 hereof is not within a designated enemy country, the national interest of the United States requires that such person be treated as a national of a designated enemy country (Japan).

All determinations and all action required by law, including appropriate consultation and certification, having been made and taken, and, it being deemed necessary in the national interest,

There is hereby vested in the Attorney General of the United States the property described above, to be held, used, administered, liquidated, sold or otherwise dealt with in the interest of and for the benefit of the United States.

The terms "national" and "designated enemy country" as used herein shall have the meanings prescribed in section 10 of Executive Order 9193, as amended.

Executed at Washington, D. C., on October 11, 1951.

For the Attorney General.

[SEAL] HAROLD I. BAYNTON,
Assistant Attorney General,
Director, Office of Alien Property.

[F. R. Doc. 51-12518; Filed, Oct. 17, 1951; 8:59 a. m.]

April 16, 1952

No new oil or gas leases will be granted on lands presently held under leases by the potash companies. As any existing oil leases in the above area expire or are relinquished, the land will be withdrawn and no new leases issued.

The one-quarter mile strip contiguous to the above mentioned potash leases may be leased for oil or gas prospecting or development but no holes shall be drilled in this strip closer than 990 feet to the potash lease boundary line.

If any producing wells are drilled in the lands adjacent to the withdrawn area, a review shall be made of the withdrawn acreage to ascertain if oil or gas drilling can be undertaken therein without danger to the potash operations. The permanently appointed Committee shall continue, subject to call by the Land Commissioner, and shall make such a study, and the affected potash company must also agree to such drilling within the described boundaries.

In the remaining acreage in (Description)

the lands will be offered for oil & gas leases, but any prospecting or development shall be done under such regulatory measures as will protect, to the greatest degree possible, the zone in which future commercial potash may occur. The oil representatives of this Committee will prepare such protective rules and will present them to a meeting of the full Committee to be held within 15 days. The regulations adopted shall also apply to drilling on any existing leases which are located in the potash lease areas.

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER GUY SHEPARD
MEMBER
STATE GEOLOGIST R. R. SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

June 22 - 1951

M E M O R A N D U M

To: R. R. Spurrier

From: George Graham

SUBJECT: Case 278

Here are the only copies of the respective transcripts of the oil-potash hearings of February 27, 1951, and March 29, 1951, which upon motion were to be included in the record of Case 278. If I remember correctly, you agreed to have these transcripts Dupliratted for the convenience of the interested parties. I imagine it will take 75 or 100 copies.

GS:nr

Eddy County Gets Oil Leasing Rules

SANTA FE, April 18 (AP)—Special regulations to protect future potash mining operations will be set up for 21,000 acres of Eddy County land where its been decided to allow oil and gas leasing.

Potash and oil spokesmen today agreed that oil and gas leases should be sold on the 21,000 acres. The leases will be sold May 10.

State Land Commissioner Guy Shepard said a committee of two oil operators and two potash officials will meet in Carlsbad on May 1 to draw up details of a casing and cement program.

The special regulations will outline methods for casing and cementing to less the danger of crumbling and cave-ins in future potash mining of the same land.

The committee agreed yesterday that the potash and oil industries can operate on the same land if proper regulations are adopted.

No Lea County land will be covered by the new rules.

San Juan Needs Roads--Mechem

SANTA FE, April 18 (AP)—Gov. Edwin L. Mechem said today that San Juan County needs at least two roads, one from Aztec to the Colorado line and one from Bloomfield to Blanco.

The governor dedicated a new courthouse at Aztec yesterday.

He declined to say whether he will recommend such roads to the next meeting of the state Highway Commission.

Mechem said the state Labor Commission will meet in his office Friday afternoon to select a third member to the commission

Albuquerque Journal

4-19-51

NOTE: The description by lots was not used by the committee, but it might be desirable to change the attached descriptions where lots are involved.

These seem to be:

T 18 S-R 31 E Sec. 18

T 19 S-R 30 E Sec. 7

T 19 S-R 32 E Sec. 31

T 21 S-R 29 E Sec. 3

T 21 S-R 31 E Sec. 1, 2, 18, 19

T 22 S-R 31 E Sec. 19

In T 21 S-R 31 E, the descriptions in sections 1 and 2 are to include 16 lots in each section.

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

December 5, 1951

COPY

Mr. Guy Shepard
Commissioner of Public Lands
Santa Fe, N. M.

Dear Mr. Shepard:

Enclosed is a signed copy of Order R-111 issued by the Oil Conservation Commission in Case 278: In the Matter of Defining Boundaries of Potential Oil Producing Areas in Eddy and Lea Counties, New Mexico, Within Which Potash Minerals Are Being Produced or Potential Potash Producing Lands Are Located.

This order has been issued to the general mailing list of the Oil Conservation Commission. We are also sending six extra copies of the order as released, in case you need them for your records.

Very truly yours,

Jason Kellahin, Attorney

JK:nr
Encl.

Potash - vs. Oil 4/6/51

CASING PROGRAM — Turkey Track

10 3/4" hole and set 8" casing at top of salt. (300 to 315') Set 8" casing and cement by Haliburton Method with 40 sax of cement.

Drill 8" hole to pay Horizon and cement 7" casing with 40 sax cement. (Haliburton Method).

To plug wells, keep hole and annular space filled with mud and spot ten sax of cement in each string, 4' above casing shoe.

Operator	Lease	No.	S-T-R	Location	Elevation	Completed
Miller Bros.	Jones & Watkins	1	[illegible]	[illegible]	[illegible]	3011/30
Continental Oil Co.	State	1	[illegible]	[illegible]	3[illegible]/25	P & A
Jones & Watkins	Miller State	1	[illegible]	[illegible]	[illegible]	[illegible]
Miller Bros.	State	2	[illegible]	[illegible]	[illegible]	1[illegible]/30
Jones & Watkins	Powell	2	[illegible]	[illegible]	Log not [illegible]. Set [illegible] to 1450 to 1500 Dakota [illegible] 300 to 305	
Jones & Watkins	La Luz [illegible]	1	[illegible]	[illegible]	[illegible] of white & sandy shale 4250; [illegible] base of Dry & sandy top 5015.	
Jones & Watkins	State	5	10-19-29	330/N; 330/W	[illegible]/30	
Jones & Watkins	State	2	17-19-29	1650/N; 1650/W		1365/25
Jones & Watkins	Continental St.	1	20-19-29	990/N; 1980/W	1[illegible]/30	
Jones & Watkins	Continental St.	3	10-19-29	[illegible]; 1650/W	3[illegible]/30	1327/35
Leonard Oil Co.	State	1-B	11-19-29	330/N; 330/W		Plugged & Ab.
Malco Resler Yates	State	113	11-19-29	1[illegible]0/S; 66[illegible]/W	350/30	2600/100
G. Kelly Stout	St.-Dunigan	1	12-19-29	990/N; 330/W	375/25	
Leonard Oil Co.	State	2	12-19-29	330/N; 330/W	3[illegible]/30	2192/30
Martin Yates, Jr. et al	State	1	13-19-29	660/S; 1980/W	1[illegible]/30	P & A
G. Kelly Stout	St.-Dunigan	2	14-19-29	2310/N; 330/W	310/25	
Jones & Watkins	Dickey Sullivan	2	15-19-29	330/N; 1650/W		1[illegible]/30
Jones & Watkins	Sawell	1	15-19-29	330/N; 1650/W	319/15	1760/30
Jones & Watkins	State	4	15-19-29	330/N; 330/W	310/30	1[illegible]/20

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
James M. Watkins	[illegible]	1	11-14-[illegible]	[illegible]; [illegible]	[illegible]	[illegible]
George W. Bangs	[illegible]	1	11-1-[illegible]	[illegible]; [illegible]	Imp. [illegible]	[illegible]
Robt. A. Dykes	[illegible]	1	11-12-[illegible]	[illegible]; [illegible]	[illegible]	Imp. [illegible]
T. Holly [illegible]	[illegible]	1	12-1-[illegible]	[illegible]; [illegible]	[illegible]	

OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

October 1, 1951

COPY

Mr. F. H. Stewart
General Superintendent
Southwest Potash Corporation
Carlsbad, New Mexico

Dear Sir:

According to our records, the actual workings of your mine are embraced within the following described lands:

Shaft - SE/4 section 9, T. 19 S, R. 30 E

As this information is needed in connection with drafting of regulations for oil and gas exploration and production in potash-producing areas, we would appreciate it if you would check the description and advise us if it is sufficient to embrace actual mining operations.

Yours very truly,

JK:bpw

Attorney

OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

October 2, 1951

COPY

Mr. F. O. Davis, President
Potash Company of America
Carlsbad, New Mexico

Dear Sir:

According to our records, the actual workings of your mine are embraced within the following described lands:

T. 19 S, R. 30 E
SE/4 section 27
SW/4 section 26
SE/4 section 33
all section 34
NW/4 section 35

T. 20 S, R. 30 E
NE/4 and W/2 section 3
E/2 and SW/4 section 4
E/2 section 8
W/2 and NE/4 section 9
NW/4 section 10
W/2 section 17

As this information is needed in connection with drafting of regulations for oil and gas exploration and production in potash-producing areas, we would appreciate it if you would check the description and advise us if it is sufficient to embrace actual mining operations.

Yours very truly,

JK:bpw

Jason Kellahin, Attorney

OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

October 2, 1951

COPY

Mr. T. M. Cramer, Vice-president
U. S. Potash Corporation
Carlsbad, New Mexico

Dear Sir:

According to our records, the actual workings of your mine are embraced within the following described lands:

T. 21 S, R. 29 E
SE/4 section 1
SE/4 section 11
All section 12
N/2 and SE/4 section 13
NE/4 section 14

T. 21 S, R. 30 E
SW/4 section 7
NW/4 section 18

As this information is needed in connection with drafting of regulations for oil and gas exploration and production in potash-producing areas, we would appreciate it if you would check the description and advise us if it is sufficient to embrace actual mining operations.

Yours very truly,

JK:bpw

Jason Kellahin, Attorney

CLASS OF SERVICE

This is a full-rate Telegram or Cable-gram unless its deferred character is indicated by a suitable symbol above or preceding the address.

WESTERN UNION

1201

W. P. MARSHALL, PRESIDENT

SYMBOLS

DL = Day Letter

NL = Night Letter

LT = Int'l Letter Telegram

VLT = Int'l Victory Ltr.

The filing time shown in the date line on telegrams and day letters is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

,LA08 SSB862

1951 OCT 9 PM 6 23

L CSA081 PD=CARLSBAD NMEX 9 533P=

=MR JASON KELLAHIN ATTORNEY=

:NEW MIXICO OIL CONSERVATION COMMISSION=

=PO BOX 871=SANTA FE NMEX=

=YOUR LETTER OCTOBER SECOND QUARTER SECTIONS MINING ACTIVITY TAKING PLACE ON LEASES HELD BY THIS COMPANY SUBSTANTIALLY GREATER THAN MENTIONED YOUR LETTER. AIRMAILING YOU LIST TOMORROW=

:U S POTASH COMPANY CRAMER=

Rec'd 8:50 a.m. 10-10-51

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

UNITED STATES POTASH COMPANY
INCORPORATED

GENERAL OFFICES
30 ROCKEFELLER PLAZA
NEW YORK 20, N. Y.

CARLSBAD, NEW MEXICO
October 10, 1951

Mr. Jason Kellahin, Attorney
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Sir:

On October 2 you stated in your letter that according to your records the actual workings of our mine are embraced in the following lands:

T. 21 S, R. 29E
SE/4 section 1
SE/4 section 11
All section 12
N/2 and SE/4 section 13
NE/4 section 14

T. 21 S, R. 30 E
SW/4 section 7
NW/4 section 18

To this list should be added:

SW¼ Section 1 and SW¼ of Section 13,
Township 21 South, Range 29 East.

NW¼ of Section 7 and SW¼ of Section 18,
Township 21 South, Range 30 East.

In addition to these quarters we wish to call your attention to the fact that we have sub-leased part of our State Lease to the International Minerals and Chemical Corporation in accordance with arrangements on file in your office. It is our understanding that the International Minerals and Chemical Corporation have active mine workings

in the NE¼, SE¼ and SW¼ of Section 36, Township 21 South, Range 29 East, and in the SW¼ of Section 32 in Township 21 South, Range 30 East and the NW¼ of Section 5 in Township 22 South, Range 30 East.

This adds 9 quarter sections to the 11 quarter sections mentioned in your letter. If you have called upon the International for similar information, it may be that some of the descriptions given above will overlap the descriptions given by them.

Very truly yours,

UNITED STATES POTASH COMPANY

T. M. Cramer

Vice President

TMC:ng

OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

October 2, 1951

COPY

Mr. G. C. Weaver
Duval Sulphur and Potash Company
Carlsbad, New Mexico

Dear Sir:

According to our records, the actual workings of your mine are embraced within the following described lands:

T. 20 S, R. 30 E
NE/4 section 35

As this information is needed in connection with drafting of regulations for oil and gas exploration and production in potash-producing areas, we would appreciate it if you would check the description and advise us if it is sufficient to embrace actual mining operations.

Yours very truly,

JK:bpw

Jason Kellahin, Attorney

DUVAL SULPHUR & POTASH COMPANY

P. O. BOX 510
CARLSBAD, NEW MEXICO

October 5, 1951

Case # 278

Mr. Jason Kellahin, Attorney
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Mr. Kellahin:

This will acknowledge receipt of your letter of October 2 to Mr. C. G. Beaver, our Consulting Engineer, in which you request a description of the lands embracing our actual mine workings.

As you have no doubt been advised, our potash mine and refinery are still in the construction stage. Under this program, we are now sinking two shafts in the northeast quarter of section 35, Township 20S, Range 30E. Since our mine development program cannot be started until both shafts are completed and permanent hoisting equipment is installed, we will not be in a position to begin actual extraction of potash ore under a mine development and production program until the construction program is completed.

Included in the "A" area shown on the potash-area map submitted by potash industry representatives at the hearing before the Commission on July 10, 1951, are the lands that are held by Duval and underlain by proven commercial potash to be mined under our planned mining program. This area includes the following:

$S\frac{1}{2}$ Section 22, T20S, R30E
$S\frac{1}{2}$ Section 23, T20S, R30E
Section 26, T20S, R30E
Section 27, T20S, R30E
$N\frac{1}{2}$, Section 34, T20S, R30E
$N\frac{1}{2}$, Section 35, T20S, R30E
Section 1, T20S, R30E
$N\frac{1}{2}$, $SW\frac{1}{4}$, Section 12, T20S, R30E
$NE\frac{1}{4}$, $N\frac{1}{2}SE\frac{1}{4}$, Section 11, T20S, R30E
Section 6, T20S, R31E

Trusting that the foregoing will provide the desired information, I remain

Very truly yours,

W. P. Morris, General Supt.

WPM:pbl

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
OCT 8 1951
RECEIVED

OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

October 2, 1951

COPY

Mr. H. L. Gardner
International Minerals & Chemical Corporation
Carlsbad, New Mexico

Dear Sir:

According to our records, the actual workings of your mine are embraced within the following described lands:

T. 21 S, R. 29 E
E/2 section 36

T. 21 S, R. 30 E
All section 31

T. 22 S, R. 29 E
E/2 and SW/4 section 1
N/2 section 12

T. 22 S, R. 30 E
N/2 and SW/4 section 6

As this information is needed in connection with drafting of regulations for oil and gas exploration and production in potash-producing areas, we would appreciate it if you would check the description and advise us if it is sufficient to embrace actual mining operations.

Yours very truly,

JK:bpw

Jason Kellahin, Attorney

Case 418

INTERNATIONAL

MINERALS & CHEMICAL CORPORATION

GENERAL OFFICES · 20 NORTH WACKER DRIVE · CHICAGO 6

P. O. BOX 71
CARLSBAD, NEW MEXICO

October 8, 1951

OC

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

Attention: Mr. Jason Kellahin, Attorney

Dear Mr. Kellahin:

We have your letter of October 2, 1951 in which the description of the lands embracing our actual mining operations is noted.

Recent, and current, mining operations and development programs will take in additional areas. The description of these areas is as follows:

T. 21 S., R. 29 E.
SW¼, Section 36

T. 21 S., R. 30 E.
W½W½, Section 32

T. 22 S., R. 30 E.
W½NW¼, Section 5

T. 22 S., R. 29 E.
SE¼NW¼, Section 1

T. 22 S., R. 29 E.
NW¼SE¼, Section 11

T. 22 S., R. 29 E.
NW¼NW¼, Section 23

Therefore, the lands as listed in your letter of October 2, 1951, plus the recent additional lands are as follows:

T. 21 S., R. 29 E.
E½, SW¼, Section 36

T. 21 S., R. 30 E.
All, Section 31
W½W½, Section 32

T. 22 S., R. 29 E.
E½, SW¼, SE¼NW¼, Section 1
NW¼SE¼, Section 11
NW¼NW¼, Section 23

T. 22 S., R. 30 E.
W½NW¼, Section 5
N½, SW¼, Section 6

We trust that the above information will meet your needs.

Yours very truly,

INTERNATIONAL MINERALS & CHEMICAL CORP.

By: H. L. Gardner
H. L. Gardner

HLG:fm

cc: Messrs. G. T. Harley
C. A. Arend, Jr.
C. W. Hicks
File (1)

POTASH COMPANY OF AMERICA

GENERAL SALES OFFICES · 50 BROADWAY · NEW YORK · N · Y ·
SOUTHERN SALES OFFICE · 408 · 9 CANDLER BLDG · ATLANTA · GA ·

P.C.A. SALT of the EARTH RED MURIATE

EXECUTIVE OFFICES
MINES AND REFINERY
CARLSBAD · NEW MEXICO

October 8, 1951

Mr. Jason Kellahin, Attorney
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Sir:

In the absence of Mr. F. O. Davis, to whom your letter of October 2nd is addressed, I submit the following description of lands covering the area of mine workings and development of our potash deposit:

T. 19 S., R. 30E
SE/4 SE/4 Sec. 20
SW/4 SW/4 Sec. 21
SE/4 Sec. 22
SW/4 NW/4 & SW/4 Sec. 23
W/2 and SE/4 Sec. 26
All Sec. 27
All Sec. 28
E/2 E/2 Sec. 29
E/2 Sec. 32
All Sec. 33
All Sec. 34
All Sec. 35
SW/4 Sec. 36

T. 20S., R. 30E.
NW/4 and E/2 Sec. 2
All Sec. 3
All Sec. 4
All Sec. 5
E/2 and SW/4 Sec. 6
NW/4 and E/2 Sec. 7

T. 20 S., R. 30 E. (cont'd)

All Sec. 8
W/2 and NE/4 Sec. 9
All Sec. 10
SW/4 Sec. 13
S/2, NW/4, S/2 NE/4, NW/4 NE/4 Sec. 14
All Sec. 15
W/2 Sec. 16
All Sec. 17
E/2 Sec. 18
E/2 Sec. 19
All Sec. 20
NW/4 Sec. 21
N/2 Sec. 22
N/2 Sec. 23
NW/4 Sec. 24

T. 20 S., R. 29 E.

S/2 Sec. 24
All Sec. 23

I trust this information will serve your needs in connection with drafting of regulations for oil and gas exploration and production in potash-producing areas.

Yours very truly,

J. B. Cummings,
Chief Geologist

JBC/lm

DESCRIPTION OF POTASH MINE WORKINGS, IRRESPECTIVE OF LAND STATUS
9/28/51

Workings of PCA:

T. 19 S, R. 30 E
SE/4 section 27
SW/4 section 26
SE/4 33
All 34
NW/4 35

T. 20 S, R. 30 E
NE/4 and W/2 section 3
E/2 and SW/4 section 4
E/2 section 8
W/2 and NE/4 section 9
NW/4 section 10
W/2 section 17

T. 21 S, R. 29 E US Potash
SE/4 section 1
SE/4 section 11
All section 12
N/2 and SE/4 section 13
NE/4 section 14

T. 21 S, R. 30 E
SW/4 section 7
NW/4 section 18

Workings of IM&CC

T. 21 S, R. 29 E
E/2 section 36

T. 21 S, R. 30 E
All section 31

T. 22 S, R. 29 E
E/2 and SW/4 section 1
N/2 section 12

T. 22 S, R. 30 E
N/2 and SW/4 section 6

Shaft of SW Potash

T. 19 S, R. 30 E
SE/4 section 9

Shaft of Duval Sulphur & Potash

T. 20 S, R. 30 E
NE/4 section 35

Case 278

SOUTHWEST POTASH CORPORATION
P. O. BOX 472
CARLSBAD, NEW MEXICO

NEW YORK OFFICE
61 BROADWAY
NEW YORK 6, N.Y.

Carlsbad, N.M.
October [illegible], 1951

Mr. Jason Kellahin, Attorney
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Mr. Kellahin:

This will acknowledge your letter of October 1, 1951 from which we see that according to your records our actual mine workings are embraced within the following described lands:

Shaft - SE/4 Section 9, T. 19 S., R. 30 E

Our shafts are located on the above lands. Our mining operations will not commence until next year, but as our ore deposits are developed and mined the workings will extend over a large area, including a number of sections of both State and Federal lands. Therefore, the tract on which the shafts are located is not a valid basis on which to determine the ultimate area from which we will extract potash.

The State lands on which we have developed commercial potash ore by drilling, and which we will mine in the course of our operations, include the following tracts:

SE/4 Section 11, T. 19 S, R. 29 E

S/2 Section 12, T. 19 S, R. 29 E

ALL Section 13, T. 19 S, R. 29 E

E/2 Section 14, T. 19 S, R. 29 E

ALL Section 16, T. 19 S, R. 30 E

Any oil and gas drilling in the above tracts would prevent the orderly and economic mining of our ore body and would therefore result in a substantial loss of potash, which is a vital national resource. Such drilling might also create a hazard to our mine employees.

We strongly urge that in drafting regulations for oil and gas exploration no drilling be permitted in the above tracts. Should you desire information as to the Federal lands embraced by our ore deposit, we would be very glad to furnish this.

October 8, 1951

Mr. Jason Kellahin, Attorney
Santa Fe, New Mexico

The Federal Government, as you know, is now formulating various rules and regulations to govern the prospecting for oil and gas on Federal lands in the potash area of Southeastern New Mexico. It is our belief that a uniform program by the State and the Federal Government would be beneficial to both the oil and the potash industries and we respectfully suggest that the Federal regulations be taken into consideration by the State in formulating its policies.

Should you require any further information of any kind regarding this matter, we would be very glad to furnish it.

Yours very truly,

SOUTHWEST POTASH CORPORATION

F. H. Stewart

F. H. Stewart

FHS/LM

cc - Mr. Guy Shepard, Land Commissioner

cc - Mr. R. R. Spurrier, State Geologist

Potash Areas "A" and "B" combined:

T. 19 S, R. 29 E
Sec. 11, SE/4
Sec. 12 S/2
Sec. 14, all
Sec. 13, all
Sec. 23, N/2,
Sec. 24, N/2

T. 20 S, R. 29 E
Sec. 12, NE/4 SE/4 and S/2 SE/4
Sec. 13, NE/4 and S/2
Sec. 22, all
Sec. 23, all
Sec. 24, all
Sec. 25, all
Sec. 26, all
Sec. 27, all
Sec. 34, all
Sec. 35, all
Sec. 36, all

T. 21 S, R. 29 E
Sec. 1, all
Sec. 2, all
Sec. 3, E/2
Sec. 10, E/2
Sec. 11, all
Sec. 12, all
Sec. 13, all
Sec. 14, all
Sec. 15, E/2
Sec. 23, N/2
Sec. 24, all
Sec. 25, all
Sec. 35, E/2
Sec. 36, all

T. 22 S, R. 29 E
Sec. 1, all
Sec. 2, all
Sec. 3, S/2
Sec. 9, E/2
Sec. 10, all
Sec. 11, all
Sec. 12, all
Sec. 13, all
Sec. 14, all
Sec. 15, all
Sec. 16, all
Sec. 17, E/2
Sec. 20, E/2
Sec. 21, all
Sec. 22, all
Sec. 23, all
Sec. 24, all
Sec. 25, all
Sec. 26, all
Sec. 27, all
Sec. 28, all
Sec. 33, all
Sec. 34, all
Sec. 35, all
Sec. 36, all

U. N. M. C. E. MICROCARDTRON

T. 23 S, R. 29 E
Sec. 1, all
Sec. 2, all
Sec. 3, all
Sec. 4, E/2
Sec. 9, E/2
Sec. 10, all
Sec. 11, all
Sec. 12, all
Sec. 13, all
Sec. 14, all
Sec. 15, all
Sec. 22, all
Sec. 23, all
Sec. 24, all
Sec. 25, all
Sec. 26, all
Sec. 27, all
Sec. 34, all
Sec. 35, all
Sec. 36, all

T. 18 S. R. 30 E
Sec. 12, S/2
Sec. 13, all
Sec. 14, all
Sec. 15, SE/4
Sec. 21, SE/4
Sec. 22, all
Sec. 23, all
Sec. 24, all
Sec. 25, W/2
Sec. 26, all
Sec. 27, all
Sec. 28, all
Sec. 29, SE/4
Sec. 32, SW/4 and E/2
Sec. 33, all
Sec. 34, all
Sec. 35, E/2

T. 19 S, R. 30 E
Sec. 2, all
Sec. 3, all
Sec. 4, all
Sec. 5, all
Sec. 6, SE/4
Sec. 7, NE/4 and S/2
Sec. 8, all
Sec. 9, all Sec. 10 to 18, incl.
Sec. 10, all
Sec. 11, all
Sec. 12, all
Sec. 13, all
Sec. 14, all
Sec. 15, all
Sec. 16, all
Sec. 17, all
Sec. 18, all
Sec. 19 to 30, incl.
Sec. 32 to 36, incl.

T. 20 S, R. 30 E
Sec. 1 to 36, incl.

T. 21 S, R. 30 E
Sec. 1 to 11, incl.
Sec. 12, S/2
Sec. 13 to 22, incl.
Sec. 23, N/2
Sec. 24, N/2
Sec. 27 to 30, incl.
Sec. 32 to 34, incl.
Sec. 35, S/2

T. 22 S, R. 30 E
Sec. 1 to 24, incl.
Sec. 25, W/2
Sec. 26 to 35, incl.
Sec. 36, W/2

T. 23 S, R. 30 E
Sec. 1, S/2
Sec. 2 to 36, incl.

T. 24 S, R. 30 E
Sec. 1, N/2
Sec. 2, N/2
Sec. 3, N/2

T. 19 S, R. 32 E
Sec. 23, S/2
Sec. 24 to 27, incl.
Sec. 28, S/2
Sec. 31, S/2
Sec. 32, S/2
Sec. 33 to 36, incl.

T. 20 S, R. 32 E
Sec. 1 to 36, incl.

T. 21 S, R. 32 E
Sec. 1 to 17, incl.
Sec. 21 to 27, incl.
Sec. 35 and 36

T. 18 S. R. 31 E
Sec. 18, W/2

T. 19 S, R. 31 E
Sec. 9 and 10
Sec. 11, W/2
Sec. 14, W/2
Sec. 15 to 17, incl.
Sec. 19 to 22, incl.
Sec. 23, W/2
Sec. 25, S/2
Sec. 26 to 36, incl.

W.N.M.C.F. MICROGRAPHICS

T. 20 S, R. 31 E
Sec. 1 to 36, incl.

T. 21 S, R. 31 E
Sec. 1, N/2
Sec. 2, N/2
Sec. 4, W/2
Sec. 5 and 6
Sec. 18, S/2
Sec. 19, N/2

T. 22 S, R. 31 E
Sec. 4 to 9, inl
Sec. 17 and 18
Sec. 19, N/2

T. 23 S, R. 31 E
Sec. 7, all
Sec. 8, S/2
Sec. 16, SW/4
Sec. 17 to 20, incl.
Sec. 21, W/2
Sec. 28 to 33, incl.

T. 24 S, R. 31 E
Sec. 4 to 6, incl.

T. 19 S, R. 33 E
Sec. 19, all
Sec. 30 and 31

T. 20 S, R. 33 E
Sec. 5 to 9, incl.
Sec. 15 to 23, incl.
Sec. 25 to 36, incl.

T. 21 S, R. 33 E
Sec. 4 to 9, incl.
Sec. 16 to 21, incl.
Sec. 28 to 33, incl.

T. 22 S, R. 33 E
Sec. 4 to 6, incl.

T. 20 S, R. 34 E
Sec. 31, all

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF DEFINING BOUNDARIES OF POTENTIAL OIL PRODUCING AREA IN EDDY (&) LEA COUNTIES, NEW MEXICO, WITHIN WHICH POTASH MINERALS ARE BEING PRODUCED OR POTENTIAL POTASH PRODUCING LANDS ARE LOCATED.

CASE NO. 278
ORDER NO. R-111

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," on June 21, 1951, and for further hearing on July 10, 1951, and the Commission, a quorum being present, having considered the testimony adduced and the exhibits introduced in evidence and arguments presented, and being fully advised in the premises,

FINDS, (1) That due notice having been given, according to law, and all interested parties having appeared, the Commission has jurisdiction of this cause, and the subject matter thereof.

(2) That an area defining potential oil and gas reserves within which are proved and potential potash deposits, and the promulgation of rules and regulations for the orderly development of oil and gas resources in such an area known to be productive of potash is within the authority of the Commission for the protection of correlative rights, the promotion of conservation, and the prevention of waste.

IT IS THEREFORE ORDERED:

(1) That this order shall be known as THE RULES AND REGULATIONS GOVERNING THE EXPLORATION AND PRODUCTION OF OIL AND GAS IN CERTAIN AREAS AND SUB-AREAS HEREIN DEFINED AND KNOWN TO CONTAIN PROVED AND SEMI-PROVED POTASH MINERALS IN THE AREA AND SUB-AREAS HEREINAFTER SET OUT.

W.N.M.C.F. MICROGRAPHICS

1

OBJECTIVE

The objective of these Rules and Regulations is to prevent waste, protect correlative rights, assure maximum conservation of the oil and gas resources of New Mexico and permit the simultaneous economic recovery of potash minerals in the area hereinafter defined.

THE POTASH - OIL AREAS

(1) These Rules and Regulations are applicable to oil and gas operations and to exploration for and production of oil and gas in proven or potential Potash-Oil areas herein defined as "Area A" and "Area B."

(a) The potash-oil area, represents the area in various parts of which potash mining operations are now in progress, or in which core tests indicate potential potash reserves are located, and is described as follows:

W.N.M.C.F. MICROGRAPHICS

Potash Areas "A" and "B" combined:

T. 19 S., R. 29 E.
Sec. 11, SE/4
Sec. 12 S/2
Sec. 14, all
Sec. 13, all
Sec. 23, N/2,
Sec. 24 N/2

T. 20 S., R. 29 E.
Sec. 12, NE/4 SE/4 and S/2 SE/4
Sec. 13, NE/4 and S/2
Sec. 22, all
Sec. 23, all
Sec. 24, all
Sec. 25, all
Sec. 26, all
Sec. 27, all
Sec. 34, all
Sec. 35, all
Sec. 36, all

T. 21 S., R. 29 E.
Sec. 1, all
Sec. 2, all
Sec. 3, E/2
Sec. 10, E/2
Sec. 11, all
Sec. 12, all
Sec. 13, all
Sec. 14, all
Sec. 15, E/2
Sec. 23, N/2
Sec. 24, all
Sec. 25, all
Sec. 35, E/2
Sec. 36, all

T. 22 S., R. 29 E.
Sec. 1, all
Sec. 2, all
Sec. 3, S/2
Sec. 9, E/2
Sec. 10, all
Sec. 11, all
Sec. 12, all
Sec. 13, all
Sec. 14, all
Sec. 15, all
Sec. 16, all
Sec. 17, E/2
Sec. 20, E/2
Sec. 21, all
Sec. 22, all
Sec. 23, all
Sec. 24, all
Sec. 25, all
Sec. 26, all
Sec. 27, all
Sec. 28, all
Sec. 33, all
Sec. 34, all
Sec. 35, all
Sec. 36, all

W.N.M.C.F. MICROGRAPHICS

T. 23 S, R. 29 E
Sec. 1, all
Sec. 2, all
Sec. 3, all
Sec. 4, E/2
Sec. 9, E/2
Sec. 10, all
Sec. 11, all
Sec. 12, all
Sec. 13, all
Sec. 14, all
Sec. 15, all
Sec. 22, all
Sec. 23, all
Sec. 24, all
Sec. 25, all
Sec. 26, all
Sec. 27, all
Sec. 34, all
Sec. 35, all
Sec. 36, all

T. 18 S. R. 30 E
Sec. 12, S/2
Sec. 13, all
Sec. 14, all
Sec. 15, SE/4
Sec. 21, SE/4
Sec. 22, all
Sec. 23, all
Sec. 24, all
Sec. 25, W/2
Sec. 26, all
Sec. 27, all
Sec. 28, all
Sec. 29, SE/4
Sec. 32, SW/4 and E/2
Sec. 33, all
Sec. 34, all
Sec. 35, E/2

T. 19 S, R. 30 E
Sec. 2, all
Sec. 3, all
Sec. 4, all
Sec. 5, all
Sec. 6, SE/4
Sec. 7, NE/4 and S/2
Sec. 8, all
Sec. 9, all ~~Sec. 10 to 18, incl.~~
Sec. 10, all
Sec. 11, all
Sec. 12, all
Sec. 13, all
Sec. 14, all
Sec. 15, all
Sec. 16, all
Sec. 17, all
Sec. 18, all
Sec. 19 to 30, incl.
Sec. 32 to 36, incl.

W.N.M.C.F. MICROGRAPHICS

T. 20 S, R. 30 E
Sec. 1 to 36, incl.

T. 21 S, R. 30 E
Sec. 1 to 11, incl.
Sec. 12, S/2
Sec. 13 to 22, incl.
Sec. 23, N/2
Sec. 24, N/2
Sec. 27 to 30, incl.
Sec. 32 to 34, incl.
Sec. 35, S/2

T. 22 S, R. 30 E
Sec. 1 to 24, incl.
Sec. 25, W/2
Sec. 26 to 35, incl.
Sec. 36, W/2

T. 23 S, R. 30 E
Sec. 1, S/2
Sec. 2 to 36, incl.

T. 24 S, R. 30 E
Sec. 1, N/2
Sec. 2, N/2
Sec. 3, N/2

T. 19 S, R. 32 E
Sec. 23, S/2
Sec. 24 to 27, incl.
Sec. 28, S/2
Sec. 31, S/2
Sec. 32, S/2
Sec. 33 to 36, incl.

T. 20 S, R. 32 E
Sec. 1 to 36, incl.

T. 21 S, R. 32 E
Sec. 1 to 17, incl.
Sec. 21 to 27, incl.
Sec. 35 and 36

T. 18 S, R. 31 E
Sec. 18, W/2

T. 19 S, R. 31 E
Sec. 9 and 10
Sec. 11, W/2
Sec. 14, W/2
Sec. 15 to 17, incl.
Sec. 19 to 22, incl.
Sec. 23, W/2
Sec. 25, S/2
Sec. 26 to 36, incl.

N.M.C.E. MICROGRAPHICS

T. 20 S, R. 31 E.
Sec. 1 to 36, incl.

T. 21 S, R. 31 E
Sec. 1, N/2
Sec. 2, N/2
Sec. 4, W/2
Sec. 5 and 6
Sec. 18, S/2
Sec. 19, N/2

T. 22 S, R. 31 E
Sec. 4 to 9, inl
Sec. 17 and 18
Sec. 19, N/2

T. 23 S, R. 31 E
Sec. 7, all
Sec. 8, S/2
Sec. 16, SW/4
Sec. 17 to 20, incl.
Sec. 21, W/2
Sec. 28 to 33, incl.

T. 24 S, R. 31 E
Sec. 4 to 6, incl.

R. 32

T. 19 S, R. 33 E.
Sec. 19, all
Sec. 30 and 31

T. 20 S, R. 33 E
Sec. 5 to 9, incl.
Sec. 15 to 23, incl.
Sec. 25 to 36, incl.

T. 21 S, R. 33 E
Sec. 4 to 9, incl.
Sec. 16 to 21, incl.
Sec. 28 to 33, incl.

T. 22 S, R. 33 E
Sec. 4 to 6, incl.

T. 20 S, R. 34 E
Sec. 31, all

(b) Area "A" represents the area in various parts of which potash mining operations are now is progress, and is described as follows:

T. 19 S, R. 30 E
Sec. 9, SE/4 NW/4, E/2 SW/4, S/2 NE/4, SE/4,
Sec. 10, ~~Sec. 9~~ SW/4 NW/4, W/2 SW/4,
Sec. 15, ~~Sec. 10~~ NW/4 NW/4,
Sec. 14, ~~Sec. 15~~ N/2 NE/4, NE/4 NW/4
Sec. 23, ~~Sec. 16~~ S/2 NW/4, SW/4 NE/4, W/2 SE/4, SW/4
Sec. 27, ~~Sec. 26~~ S/2 NE/4, SE/4 NW/4, NE/4 SW/4, S/2 SW/4, SE/4,
Sec. 28, ~~Sec. 27~~ SE/4 SE/4,
Sec. 33, ~~Sec. 28~~ SE/4 NW/4, NE/4 NE/4, S/2 NE/4, E/2 SW/4, SE/4
~~Sec. 33~~
Sec. 34, All
Sec. 35, NW/4, W/2 NE/4, NW/4 SE/4, N/2 SW/4, SW/4 SW/4
~~Sec. 35~~

T. 20 S, R. 30 E
Sec. 2, W/2 NW/4, NW/4 SW/4,
Sec. 3, ~~Sec. 2~~ N/2, SW/4, N/2 SE/4, SW/4 SE/4,
Sec. 4, ~~Sec. 3~~ E/2, SW/4, E/2 NW/4, SW/4 NW/4
Sec. 5, ~~Sec. 4~~ SE/4 NE/4, E/2 SE/4, SW/4 SE/4, SE/4 SW/4,
Sec. 7, ~~Sec. 5~~ SE/4 SE/4,
Sec. 8, ~~Sec. 7~~ E/2, E/2 NW/4, E/2 SW/4, SW/4 SW/4,
Sec. 9, ~~Sec. 8~~ N/2, SW/4, N/2 SE/4, SW/4 SE/4,
Sec. 10, ~~Sec. 9~~ NW/4, W/2 NE/4, NW/4 SE/4, N/2 SW/4,
Sec. 16, ~~Sec. 10~~ N/2 NW/4, NW/4 NE/4,
Sec. 17, ~~Sec. 16~~ W/2, N/2 NE/4, SW/4 NE/4, W/2 SE/4,
Sec. 18, ~~Sec. 17~~ E/2 NE/4, E/2 SE/4
Sec. 19, ~~Sec. 18~~ NE/4 NE/4
Sec. 20, ~~Sec. 19~~ N/2 NW/4, NW/4 NE/4
Sec. 25, ~~Sec. 20~~ SW/4 SW/4
Sec. 26, ~~Sec. 25~~ SE/4 SW/4, S/2 SE/4
Sec. 35, ~~Sec. 26~~ E/2 NW/4, NE/4, N/2 SE/4, NE/4 SW/4,
Sec. 36, ~~Sec. 35~~ W/2 NW/4, NW/4 SW/4
~~Sec. 36~~

T. 21 S, R. 29 E
Sec. 1, SE/4, S/2 NE/4, SE/4 NW/4, NE/4 SW/4, S/2 SW/4,
Sec. 2, ~~Sec. 1~~ SE/4 SE/4
Sec. 11, ~~Sec. 2~~ NE/4 NE/4, S/2 NE/4, SE/4 NW/4, E/2 SW/4, SE/4,
~~Sec. 11~~
Sec. 12, All
Sec. 13, N/2, SE/4, N/2 SW/4, SE/4 SW/4
Sec. 14, ~~Sec. 13~~ E/2 NW/4, NE/4, NE/4 SW/4, N/2 SE/4,
Sec. 24, ~~Sec. 14~~ NE/4 NW/4, N/2 NE/4,
Sec. 26, ~~Sec. 24~~ SE/4 SW/4, S/2 SE/4,
Sec. 36, ~~Sec. 25~~ E/2 NW/4, E/2 SW/4, E/2,
~~Sec. 36~~

T. 22 S, R. 29 E
Sec. 1, E/2 NW/4, SW/4 NW/4, SW/4, E/2,
Sec. 2, ~~Sec. 1~~ SE/4 NE/4, E/2 SE/4,
Sec. 11, ~~Sec. 2~~ E/2 NE/4, NE/4 SE/4
Sec. 12 ~~Sec. 11~~ N/2, N/2 SW/4, N/2 SE/4
~~Sec. 12~~

T. 21 S, R. 30 E.
Sec. 6, SW/4 NW/4, W/2 SW/4
Sec. 7, ~~Sec. 6~~ NW/4 NW/4, S/2 NW/4, SW/4 NE/4, SW/4, W/2 SE/4
Sec. 18, ~~Sec. 7~~ NW/4, W/2 NE/4, N/2 SW/4, SW/4 SW/4, NW/4 SE/4,
Sec. 19, ~~Sec. 18~~ NW/4 NW/4,
~~Sec. 19~~

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T. 21 S, R. 30 E.

Sec. 29 SW/4 SW/4
~~Sec. 29~~
Sec. 30 S/2 SW/4, S/2 SE/4
~~Sec. 30~~
Sec. 31, All
Sec. 32 W/2 NW/4, W/2 SW/4
~~Sec. 32~~

T. 22 S, R. 30 E

Sec. 5 W/2 NW/4, NW/4 SW/4,
Sec. 6 ~~Sec. 5~~ N/2, SW/4, N/2 SE/4, SW/4 SE/4
Sec 7 ~~Sec. 6~~ N/2 NW/4, SW/4 NW/4, NW/4 NE/4, NW/4 SW/4
~~Sec. 7~~

(c) Area "B" is defined as that area in which core tests indicate potential potash reserves, and includes the entire potash-oil area as described under "The Potash-Oil Areas" Sec. (1) (a), of this order, except and excluding lands defined and described as area "A" in "The Potash-Oil Areas," Sec. (1) (b) of this order.

(2) Area "A" and "B" as hereinabove defined, may be contracted or expanded by the Commission from time to time as circumstances or conditions may warrant, 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, that oil and gas exploratory test wells shall not be drilled through any open potash mines or within 1320' feet thereof unless agreed to in writing by the potash lessee involved.

(b) Any oil or gas leases hereafter issued for lands within Area "A" shall be subject to these regulations.

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

(d) Where oil and gas wells are in production in Area "A", no potash mine opening shall be driven to within less than 100 feet of such wells so that protection of both wells and mine can be afforded.

(e) Proposals to unitize with respect to land within Area "A" as herein defined and described will be considered on their merits.

(2) Area "B"

(a) Oil and gas exploratory test wells may be drilled in area "B" in accordance with these rules and regulations.

(3) Upon the discovery hereafter of oil and gas in Areas "A" or "B" the Oil Conservation Commission shall promulgate field or pool rules for the affected area after due notice and hearing.

(4) Nothing herein shall be construed to prevent unitization agreements involving lands in Areas "A" or "B", or both.

IV

DRILLING AND CASING PROGRAM

(1) For the purpose of the regulations and the drilling of oil and gas exploratory test wells, shallow and deep zones are defined as follows:

(a) The shallow zone shall include all formations above the base of the Delaware sand or above a depth of 5000 feet, whichever is the lesser.

(b) The deep zone shall include all formations below the base of the Delaware sand or below a depth of 5000 feet, whichever is the lesser.

(2) Surface Casing String:

(a) A surface casing string of new, second-hand or reconditioned pipe shall be set in the "Red Bed" section of the basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section, as determined necessary by the regulatory representative approving the drilling operations, and shall be cemented with not less than one hundred and fifty percent (150%) of calculated volume necessary to circulate cement to the ground surface.

(b) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(c) Casing and water shut-off tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic -2-, 2-, cont.

W.N.M.C.F. MICROGRAPHICS

pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measure shall be applied.

(ii) 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.

(d) The above requirements for the surface casing string shall be applicable to both the shallow and deep zones.

(3) Salt Protection String:

(a) A salt protection string of new, second-hand or reconditioned pipe shall be set not less than one hundred (100) feet nor more than two hundred (200) feet below the base of the salt section.

(b) The salt protection string shall be cemented as follows:

(i) For wells drilled to the shallow zone, the string may be cemented with a nominal volume of cement for testing purposes only. If the exploratory test well is completed as a productive well, the string shall be recemented with sufficient cement to fill the annular space back of the pipe from the top of the first cementing to the surface or to the bottom of the cellar, or may be cut and pulled if the production string is cemented to the surface as provided in sub-section IV (5), (a), (i) below.

(ii) For wells drilled to the deep zone, the string must be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(c) If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or gamma ray survey and additional cementing shall be done until the cement is brought to the point required.

(d) The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with three percent (3%) of calcium Chloride by weight of cement.

(e) Centralizers shall be spaced on at least every one hundred fifty (150) feet of the salt protection string below the surface casing string.

(f) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

W.N.M.C.F. MICROGRAPHICS

(g) Casing tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of one thousand (1000) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measure shall be applied,

(ii) 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.

(h) The above requirements for the salt protection string shall be applicable to both the shallow and deep zones except for sub-section IV (3), (b), (i) and (ii) above.

(4) Intermediate String:

(a) In the drilling of oil and gas exploratory test wells to the deep zone an intermediate string shall be set at sufficient depth to case-off all formations in the shallow zone and shall be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(b) Cementing procedures and casing tests for the intermediate string shall be the same as provided under sub-sections IV (3), (c), (f) and (g) for the salt protection string.

(5) Production String:

(a) A production string shall be set on top or through the oil or gas pay zone and shall be cemented as follows:

(i) For wells drilled to the shallow zone the production string shall be cemented to the surface if the salt protection string was cemented only with a nominal volume for testing purposes, in which case the salt protection string can be cut and pulled before the production string is cemented; provided, that if the salt protection string was cemented to the surface, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone.

(ii) For wells drilled to the deep zone the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided that if no intermediate string shall have been run and cemented to the surface, the production string shall be cemented to the surface.

(b) Cementing procedures and casing tests for the production string shall be the same as provided under sub-sections IV (3) (c), (f) and (g) for the salt protection string.

W.N.M.C.F. MICROGRAPHICS

V

DRILLING FLUID FOR SALT SECTION

The fluid used while drilling the salt section 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 fluid by the operator in overcoming any specific problem. This requirement is specifically to prevent enlarged drill holes.

VI

PLUGGING AND ABANDONMENT OF WELLS

All wells heretofor and hereafter drilled within Areas "A" and "B" 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.

VII

LOCATIONS FOR TEST WELLS

Before drilling for oil or gas on lands in Areas "A" or "B", a map or plat showing the location of the proposed well shall be prepared by the well operator and copy sent to the potash lessee involved, if any. Upon proper showing of such notice, & If no objection to the location of the proposed well is 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.

VIII

INSPECTION OF DRILLING AND MINING OPERATIONS

A representative of the potash lessee may be present during drilling, cementing, casing and plugging of all oil or gas wells on his lease to observe conformance with these regulations. Likewise, a representative of the oil and gas lessee may inspect mine workings on his lease to observe conformance with these regulations.

IX

FILING OF WELL AND MINE SURVEYS

Each oil and gas lessee shall furnish not later than January 31st of each year 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 or gas well drilled in Area "A" during the preceding calendar year. Each potash lessee shall furnish not later than January 31st of each year to the Oil Conservation Commission and to each oil and gas lessee involved, certified plat of survey of the location of open mine workings underlying outstanding oil and gas leases.

X

APPLICABILITY OF STATEWIDE RULES AND REGULATIONS

All general statewide rules and regulations of the Oil Conservation Commission governing the development, operation and production of oil and gas in the State of New Mexico not inconsistent or in conflict herewith, are hereby adopted and made applicable to the areas described herein.

N M C E MICROGRAPHICS

XI

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 September, 1951.

DONE at Santa Fe, New Mexico, this _____ day of September, 1951.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

_____
Edwin L. Mechem, Chairman

_____
Guy Shepard, Member

_____
R. R. Spurrier, Secretary

_____
Guy Shepard
Commissioner of Public Lands

COPY

May 27, 1955

Mr. Fred Moxey
N. M. Oil and Gas Association
Box 1291
ROSWELL, NEW MEXICO

Dear Fred:

Enclosed you will find Land Commissioner Guy Shepard's original application in Case 278, which you requested in our telephone conversation of this date.

Very truly yours,

W. B. Macey
Secretary - Director

WBM:nr

F

GOVERNOR JOHN F. SIMMS
CHAIRMAN

New Mexico
OIL CONSERVATION COMMISSION

LAND COMMISSIONER E. S. WALKER
MEMBER

STATE GEOLOGIST W. B. MACEY
SECRETARY - DIRECTOR

P. O. Box 871
SANTA FE, NEW MEXICO

May 20, 1955

Re: Case 278

Dear Pete,

Dub Girand has request us to transfer the case file on the above-captioned case to the Hobbs Office so that he may have access to it. Please keep track of the contents and return it when Dub is finished with it.

Bill

May 18, 1951

Mr. Emery Carper
Chairman - Oil-Potash Committee
Suite 200 - Carper Building
Artesia, New Mexico

Dear Sir:

Attached, hereto, you will find the committee report covering "Casing and Cementing programs for oil and gas test wells in the "Defined Areas" in Eddy County, New Mexico".

The suggestions set forth in this casing program must, of necessity, be confined to an area closely surrounding the present workings of the potash companies due to the Committee having no specific knowledge of what has been designated as the "Defined Area". Geological conditions change so rapidly to the south and east of the area now being mined that this program will necessarily have to be changed to suit the changing conditions encountered in the drilling of wells as they extend into the Delaware Basin.

The Advisory Committee consisted of the following members:

Mr. R. L. Bass	Gulf Oil Corporation
Mr. George Gray	Sinclair Oil and Gas Company
Mr. Harve Mayfield	Magnolia Petroleum Company
Mr. Raymond Lamb	Wilson Oil Company
Mr. Gil Griswold	New Mexico Oil and Gas Association
Mr. M. A. Sherwood	Shell Oil Company
Mr. George Cannon	Humble Oil and Refining Company
Mr. J. E. Hill	Richardson and Bass

Respectfully submitted,

Glenn Staley

Glenn Staley - Chairman

CGS/nm

cc: Mr. R. R. Spurrier
Mr. J. W. House

COPY

Proposed

CASING AND CEMENTING PROGRAMS FOR

OIL AND GAS TEST WELLS IN THE "DEFINED AREAS" IN EDDY COUNTY, NEW MEXICO

1. Surface Casing String

In order to protect the fresh water supply, 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 and shall be cemented back to the ground surface or to the bottom of the cellar.

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 per square inch; second-hand and re-conditioned pipe shall be re-tested to 600 pounds per square inch before being run.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string shall be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe. New pipe shall have received a mill test of not less than 1000 pounds per square inch; second-hand and re-conditioned pipe shall be re-tested to 1000 pounds per square inch before being run.

Centralizers shall be used on at least every third joint below surface casing.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. (The water used to mix with the cement shall be saturated with the salts common to the zones penetrated.) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests. If the cement fails to reach the surface, the salt protection casing shall be perforated just above the top of the cement and additional cement jobs done until cement is brought to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

Tests of casing shall vary with the drilling method. 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.

3. Intermediate String

This string may be a drilling protection string for deep drilling objectives or may be an oil string for testing medium depth zones.

a. If a drilling protection string, the casing shall be cemented with a sufficient volume of cement amply to protect this casing and all shallow pay zones above the casing shoe, and in every instance this string shall be cemented from a point one thousand (1000) feet below the salt string back to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

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.

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER GUY SHEPARD
MEMBER
STATE GEOLOGIST R. R. SPURRIER
SECRETARY AND DIRECTOR

ROOM 205, BOOKER BUILDING
Artesia, New Mexico

August 8, 1951

Mr. R. R. Spurrier,
Oil Conservation Commission,
Box 871,
Santa Fe, New Mexico

Dear Mr. Spurrier:

In regard to the casing program in the Potash area, I would like to recommend that a string of casing to protect the base of the salt should not have to be cemented to the surface, whether this string of casing was the production string or an intermediate string. I can't see that it would do any more good cemented to the surface than it would if it were cemented a few feet up into the salt. In my opinion it would be a waste of pipe. It would be almost impossible to accomplish a complete job in areas where wells were drilled through crevices in the salt. It would certainly do no good to cement the upper part of a string of casing which had already been conducted through surface casing which had been circulated with cement.

either I would like to suggest that the operator be allowed to set an intermediate string, or an oil production string, at least 100 feet below the salt and cement it back at least 50 feet into the salt. The operator should then be required to prove, by a temperature survey, that the salt came back to the required depth.

I read the tentative regulations in Mr. Lamb's office last Monday, but I could not bring them to Santa Fe with me because he was not through with them. I have not discussed them with anyone and I do not intend to until I see you.

I would like to talk this over with you more fully when you have time. I could come up there on August 17, 18, 19 or 20th very conviently if you would like to discuss this matter with me.

Very truly yours,

OIL CONSERVATION COMMISSION

BY _____
Justin Newman
Oil & Gas Inspector

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
AUG 10 1951

JPN/lp

PROPOSED

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

I. Objective

The objective of these rules and regulations is to assure maximum conservation and economic recovery of oil, gas and potash minerals.

II. Potash Areas

These regulations are applicable to the potash areas as herein defined as: "Area "A" and Area "B".

Area "A" is hereby defined as follows:

19S-30E - Sections S 1/2 3, all 4, 5, E 1/2 and S 1/2 SW 1/4 6, all 7, 8, 9, 10, W 1/2 and W 1/2 E 1/2 11, W 1/2 and W 1/2 E 1/2 14, all 15 to 18 incl. SE 1/4 20, S 1/2 21, all 22, 23, all 25 to 29 incl. all 32 to 36 incl.

20S-29E - Sections E 1/2 SE 1/4 12, (12, E/2 + SE/4)

20S-30E Sections - all Sec. 1 to 27 incl., all 34, 35, 36 (Sec 1-27 all incl.)

20S-31E Sections all 19, 20, 29, 30, 31, 32.

21S-29E Sections All 1, 2, E 1/2 10, all 11, 12, 13, 14 E 1/2 15, all 24 E 1/2 35, all 36.

21S-30E - Sections all 4 to 9 incl. all 16 to 19 incl., all 31

22S-29E - Sections all 1, 2, S 1/2 3, all 10 to 15 incl., all 22, 23, 24.

22S-30E - Sections all 6, 7, 18 19

Area "B" is hereby defined as follows:

18S-30E Sections S 1/2 12, all 13, 14, SE 1/4 15, SE 1/4 21, all 22, 23, 24, W 1/2 25, all 26, 27, 28, E 1/2 29, S 1/2 and NE 1/4 32, all 33, 34, W 1/2 35.

18S-31E Sections W 1/2 18.

19S-29E Sections SE 1/4 11, S 1/2 12, all 13, 14, N 1/2 23, N 1/2 24.

19S-30E Sections all 2, N 1/2 3, E 1/2 NE 1/4 and E 1/2 SE 1/4 11, all 12, 13, E 1/2 NE 1/4 and E 1/2 SE 1/4 14, all 24.

19S-31E Sections all 9, 10, W 1/2 11, W 1/2 14, all 15, 16, 17, all 19, 20, 21, 22, W 1/2 23, S 1/2 25, all 26 to 36 incl.

19S-32E Sections S 1/2 23, all 24 to 27 incl., S 1/2 of 28, S 1/2 31, S 1/2 32, all 33 to 36 incl.

19S-33E Sections all 19, 30, 31

20S-29E Sections NE 1/4 and S 1/2 13, all 22 to 27 incl., all 34, 35, 36.

20S-30E Sections all 28 to 33 Incl.

20S-31E Sections all 1 to 18 incl., all 21 to 28 incl., all 33 to 36 incl.

20S-32E Sections all 1 to 36 incl.

20S-33E Sections all 5 to 9 incl., all 15 to 23 incl. all 25 to 36 ind.

20S-34E Sections all 31.

21S-29E Sections E 1/2 3, all 25.

21S-30E Sections all 1, 2, 3, all 10, 11, S 1/2 12, all 13, 14, 15, all 20, 21, 22, N 1/2 23, N 1/2 24, all 27 to 30 incl., 32 to 34 incl., S 1/2 35.

21S-31E Sections N 1/2 1, N 1/2 2, N 1/2 3, NE 1/4 and W 1/2 4, all 5, 6, 18.

21S-32E Sections all 1 to 17 incl., all 21 to 27 incl., all 35, 36.

21S-33E Sections all 4 to 9 incl., all 16 to 21 incl., all 28 to 33 incl.,.

22S-29E Sections E 1/2 9, all 16, E 1/2 17, E 1/2 20, all 21, all 25 to 28 incl., all 33 to 36 incl.

22S-30E Sections all 1 to 5 incl., all 8 to 17 incl., all 20 to 24 incl., W 1/2 25, all 26 to 35 incl., W 1/2 36.

22S-31E Sections all 4 to 9 incl., all 17, 18, N 1/2 19.

22S-33E Sections all 4, 5, 6.

23S-29E Sections all 1 to 3 incl., E 1/2 4, E 1/2 9, all 10 to 15 incl., all 22 to 27 incl., all 34 to 36 incl.,

23S-30E Sections S 1/2 1, all 2 to 36 incl.

23S-31E Sections all 7, S 1/2 8, SW 1/4 16, all 17 to 20 incl., W 1/2 21, all 28 to 33 incl.

24S-30E Sections N 1/2 1, N 1/2 2, N 1/2 3.

24S-31E Sections all 4, 5, 6.

Each of the above described areas may be contracted or expanded by the Oil Conservation Commission after due notice and hearing.

III Exploration of Areas: 1. (a) - Area "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. Any oil or gas leases hereafter issued for lands within area "A" shall be subject to these regulations and no drilling shall be permitted thereon unless the expressed permission of the Oil Conservation Commission is first had and obtained after due notice and hearing.

all of the preceding tests

All future drilling in area "A" shall be further subject to the Rules and Regulations pertaining to deep wells contained in paragraphs III(2) as hereinafter set forth. Where oil and gas wells are in production within this area no mine opening shall be driven to within less than 100' of such wells so that protection can be afforded.

Area "B". Area "B" is herein defined as the area in which oil and gas test wells may be drilled in accordance with the Rules and Regulations as hereinafter set forth. Nothing herein shall be construed to prevent unitization agreements.

Upon the discovery of oil or gas the Oil Conservation Commission shall, after due notice and hearing promulgate field or pool rules for the affected areas.

III. Drilling Casing & Cementing Program For Potash Areas "A" and "B"

1. For Shallow Zone Oil and Gas Exploratory Test Wells:

(a) Surface Casing String: The shallow zone shall be defined as less than 5000 feet from the surface of the ground. In order 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 and shall be cemented back to the ground surface or to the bottom of the cellar.

Potash zone of deepest commercial ore or anhydrite as determined by the Regulatory representative

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 per square inch; second-hand and re-conditioned pipe shall be re-tested to 600 pounds per square inch before being run.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

(b) Salt Protection String: A salt protection string shall be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe capable of meeting the (manufacturer's) test specifications.

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 vdume necessary to circulate cement to surface. The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with ~~proper~~ 3% by weight amounts of calcium chloride.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (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 jobs done until cement is brought to that point. One or more temperature

or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

Test of casing shall vary with the drilling method. 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.

(c) Oil or Production String: This string may 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 salt protection casing shall have been run and commercial production obtained, that string shall be cemented to the surface as provided by above or as provided by for drilling wells to the deep zone.

Deep

2. For the purpose of these regulations the deep zones shall be defined as more or less 5000' from the surface of the ground. The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and to which has been added proper amounts of calcium chloride (3% by weight).

(a) Oil or Production String: This string may 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 salt protection casing shall have been run and commercial production obtained, that string shall be cemented to the surface as provided by above or as provided by for drilling wells to the deep zone.

(b) Surface Casing String: In order to prevent the intrusion of water, the surface casing string shall be set in the "Red Bed" beneath the surface of the ground section of the basal Russler formation immediately above the top of the salt section and shall be cemented back to the ground surface or to the bottom of the cellar.

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 per square inch; second-hand and re-conditioned pipe shall be re-tested to 600 pounds per square inch before being run.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

This casing string shall be tested with a hydraulic pressure of six hundred (600) pounds per square inch. If a drop of one hundred (100) pounds per square inch or more should occur within 30 minutes, corrective measures shall be applied.

(c) Salt Protection String: A salt protection string shall be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe. New pipe shall have received a mill test of not less than 1000 pounds per square inch; second-hand and re-conditioned pipe shall be re-tested to 1000 pounds per square inch before being run.

Centralizers shall be used on at least every 150 feet of casing below surface casing.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and to which has been added proper amounts of calcium chloride (3% by weight). Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests. If the cement fails to reach the surface, the top of the cement shall be located by a temperature or gamma ray survey, and additional cement jobs done until cement is brought to the surface.

This casing string shall be tested with a hydraulic pressure of 1000 pounds per square inch. If a drop of 100 pounds per square inch or more should occur within 30 minutes, corrective measures shall be applied.

(d) 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 one thousand (1000) feet below the salt string back to the surface.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four hours before drilling the plugs or initiating tests. Casing shall be tested with a hydraulic pressure of 1000 pounds per square inch. If a drop of one hundred (100) pounds per square inch or more should occur within 30 minutes corrective measures shall be applied.

(e) Oil or Production String: 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 (c-1) above. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests. Hydraulic pressure tests shall be applied to this string as above.

(f) 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.

IV. 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, ~~and 3% calcium chloride by weight of cement.~~ 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.

V. Plugging and Abandonment of Wells: All oil and gas wells which are abandoned shall be plugged in accordance with the following procedure.

1. (a) 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 plug through the salt section and prevent liquids or gases from entering the hole above or below the salt section.

(b) 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 in 1.(a) above)

(c) 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 (1-a) above.

VI. Locations 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 with the Oil Conservation Commission.

for consideration & decision

(no open hearing)

VII. Inspection of Drilling and Mining Operation: 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.

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

VIII. 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 potash-bearing horizon for each oil and gas well drilled during the year. 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: 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 - are herewith applicable to the areas described herein.

PROPOSED REGULATIONS TO GOVERN EXPLORATION FOR AND EXTRACTION OF OIL, GAS AND POTASH MINERALS ON NEW MEXICO STATE LANDS INCLUDED IN PROVEN OR POTENTIAL POTASH PRODUCTION AREAS

The objective of these regulations is to assure maximum conservation and economic recovery of oil, gas and potash minerals.

I. These regulations are applicable to the area shown on the accompanying map, hereinafter referred to as the "Defined Area." The lands within this area presently fall within one of the following classifications:

AREA "A" - Areas which are underlain by proven commercial potash deposits.

AREA "B" - Areas under which commercial potash deposits are indicated, but not delineated.

II. The following procedures shall apply to oil and gas exploration and extraction within the "Defined Area."

AREA "A"

Drilling for oil and gas shall not be permitted within this area, except upon leases where there is presently production in commercial quantities. Upon such leases future drilling shall only be conducted pursuant to the provisions of Paragraph 2, "Area B" herein, pertaining to deep wells.

Future leases may issue upon the lands within "Area A" but such leases shall contain the proviso that no drilling may be conducted thereon; however, the average embraced in such leases may be committed to unit agreements.

Where oil and gas wells are in production within this area, no mine opening shall be driven to within less than one hundred (100) feet of such wells so that pillar protection will be afforded.

AREA "B"

Spacing of oil and gas wells in this area shall be limited to one per quarter section. All such wells shall be located in the center of the quarter section unless relocated by mutual agreement of the oil and gas lessee, the potash lessee, and the State Land Commissioner.

All wells drilled within this area in exploration for and production of oil or gas shall be drilled, cased and cemented according to the following procedure: (2) Deep oil & gas test within Bldg. Casing & cementing program

III Wolfcamp test

~~Casing and cementing programs for rotary drilled oil and gas test wells in the "defined areas" in~~
Eddy and Lea Counties, New Mexico

(a) Surface Casing String For the purpose of these regulations the deep zone shall be 3000 feet or more

In order 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 and shall be cemented back to the ground surface or to the bottom of the cellar. to cover the surface of the ground

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 per square inch; second-hand and re-conditioned pipe shall be re-tested to 600 pounds per square inch before being run.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. Cement shall be allowed to stand a minimum of twelve (12) hours under

pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

This casing string shall be tested with a hydraulic pressure of six hundred (600) pounds per square inch. If a drop of one hundred (100) pounds per square inch or more should occur within 30 minutes, corrective measures shall be applied.

(b) Salt Protection String

A salt protection string shall be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe. New pipe shall have received a mill test of not less than 1000 pounds per square inch; second-hand and re-conditioned pipe shall be re-tested to 1000 pounds per square inch before being run.

Centralizers shall be used on at least every 150 feet of casing below surface casing.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. The ~~water~~ fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests. If the cement fails to reach the surface, the top of the cement shall be located by a temperature or gamma ray survey, and additional cement jobs done until cement is brought to the surface. ~~The Oil Conservation Commission shall be furnished with proof that the salt string is cemented to the surface either by having a commission repre-~~

sentative witness the job or by affidavits or logs filed with the Commission.

This casing string shall be tested with a hydraulic pressure of 1000 pounds per square inch. If a drop of 100 pounds per square inch or more should occur within 30 minutes, corrective measures shall be applied.

(c) Intermediate String

If the operator runs an intermediate string, this string may be a drilling protection string for deep drilling objectives or may be an oil string for testing medium depth zones.

1. If a drilling protection string, the casing shall be cemented with a sufficient volume of cement amply to protect ~~this~~ the casing and all shallow pay zones above the casing shoe, and in every instance ~~this~~ the string shall be cemented from a point one thousand (1000) feet below the salt string back to the surface. ~~The operator shall furnish proof to the Oil Conservation Commission that this cementing requirement has been fulfilled either by having a representative of the Commission witness the job or by affidavits or logs filed with the Oil Conservation Commission.~~ Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four hours before drilling the plugs or initiating tests. Casing shall be tested with a hydraulic pressure of 1000 pounds per square inch. If a drop of one hundred (100) pounds per square inch or more should occur within 30 minutes corrective measures shall be applied.

2. 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

W.N.M.C.F. MICROGRAPHICS

by circulating cement from the top of the original cement job to the surface and the Oil Conservation Commission satisfied that this requirement has been fulfilled either by a representative of the Commission witnessing the job or by affidavits or logs filed with the Commission. Cement time and testing rules shall apply similarly in the case of this string as is written for the above string.

(d) 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 (c-1) above. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests. Hydraulic pressure tests shall be applied to this string as above.

(e) 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.

~~Casing and cementing program~~ for shallow zone
Oil and gas test wells ~~in known potash areas.~~
in Eddy County

(a) Surface Casing String

(1) The shallow zone shall be defined as the interval from the surface of the ground to 2000 feet from the surface of the ground

In order 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 and shall be cemented back to the ground surface or to the bottom of the cellar.

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 per square inch; second-hand and re-conditioned pipe shall be re-tested to 600 pounds per square inch before being run.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

(b) Salt Protection String

A salt protection string shall be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturer's test specifications.

The string may be cemented with a nominal cement volume for testing purposes only, and if commercially productive, the string must be re-

cemented with not less than 150% of calculated volume necessary to circulate cement to surface. The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with proper amounts of calcium chloride.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (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 jobs done until cement is brought to that point. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

Test of casing shall vary with the drilling method. 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.

(c) Oil or Production String

This string may 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 salt protection casing shall have been run and commercial production obtained, that string shall be cemented to the surface as provided by (b) above or as provided by (c-1) ~~in Deep Well program~~ for drilling wells in the deep zone.

IV (d) 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.

~~IV~~ V All ~~holes~~ oil & gas wells which are abandoned shall be plugged in accordance with the following procedure:

~~V~~ 1. ~~Plugging of Holes Upon Abandonment~~

(a) 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 plug through the salt section and prevent liquids or gases from entering the hole above or below the salt section. ~~Details of the plugging procedure shall be approved in advance by the Oil-Potash Committee~~ Oil Cons. Comm.

(b) 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.

(c) 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 (1 a) above.

~~IV~~ VI Before drilling for oil and gas on lands within the ~~"Defined Area"~~ 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 State Land Commissioner and the potash lessee involved. If no objections to the location of the proposed well are made by the potash lessee in 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 with the ~~State Land Commissioner.~~ OCC

If the well operator and the potash lessee cannot agree on a suitable location for the proposed well, or on any other questions which may arise in connection with the application of these regulations, then either party may demand a hearing before the ~~State Land Commissioner~~ OCC who will decide the issues in dispute. Nothing herein shall prevent either party, if dissatisfied with the decision of the ~~State Land Commissioner,~~ OCC from appealing through applicable legal action.

VII 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.

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

VIII Each oil and gas lessee shall furnish to the ~~State Land Commissioner~~ OCC and to the potash lessees involved, certified directional surveys from the surface to a point below the lowest potash-bearing horizon for each oil and gas well drilled during the year. Each potash lessee shall advise the oil and gas lessee who is conducting drilling operations of the location of underground workings in the area adjacent to drilling locations.

VII. A bond of not less than ten thousand dollars ($10,000.00) payable to the State of New Mexico, shall be posted by the well operator, to be forfeited by him for any infraction of these regulations.

VIII. The State Land Commission shall add to the "Defined Area" any lands which subsequently are shown to be within a new potash area or an extension of the "Defined Area." Lands within the "Defined Area" shall be reclassified by the State Land Commissioner upon proper showing by the potash lessees that further commercial ore has been proven. If any lands are transferred to the "Area A" Classification, the "Area A" regulations shall automatically apply to such lands.

July 10, 1951

IX. Applicability of Statutes, Rules and Regulations

N. M. OIL & GAS ENGINEERING COMMITTEE
DRAWER I
HOBBS, NEW MEXICO

File

June 26, 1951

Mr. I. R. Trujillo
N. M. Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Ralph:

Thank you for sending us the four Exhibits that were presented at the Hearing of the Oil Conservation Commission in Santa Fe on June 21 and pertain to Case 278 and relate to the drilling for oil in the vicinity of the potash mines in Eddy County.

We appreciate your promptness very much and we are sending you the publication of this office.

Yours very truly,

Glenn Staley

Glenn Staley

GS/nm

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
JUN 29 19[illegible]

UNITED STATES POTASH COMPANY

INCORPORATED

GENERAL OFFICES
30 ROCKEFELLER PLAZA
NEW YORK 20, N. Y.

CARLSBAD, NEW MEXICO

September 21, 1951

Honorable Guy Shepard
Commissioner of Public Lands
Santa Fe, New Mexico

Dear Mr. Shepard:

I am enclosing the copy of the letter which was written to Mr. Dale E. Doty regarding the drilling of oil wells in the Potash Basin. The subject matter of the letter is self-explanatory. This letter states the joint position of the three potash companies now in production and two potash companies who are under construction.

Very truly yours,

T. M. Cramer

Vice President

TMC:ng
Encl.

Carlsbad, New Mexico
August 21, 1941

Honorable Julius A. Krug
Acting Secretary of the Interior
Department of the Interior
Washington, D. C.

Dear Mr. Secretary:

I have received, and wish to thank you for, your letter dated September 17, 1941 in the subject of drilling for oil and gas in the potash area of Eddy and Lea Counties, New Mexico.

In accordance with the request in your letter, arrangements are being made to have the following suggestions considered at the hearing to be held on October 28, 1941.

The potash industry represented by Mine Operators in Eddy County agrees to the removal of the withdrawal order of February 7, 1931 (4 F.R.1317) covering the lands currently operated by three of the potash companies, which comprises 15,360 acres of Federal land in the potash area in Eddy County, New Mexico, provided that the following suggested measures are accepted.

1. There shall be no drilling through a potash ore body known to be of a commercial quality. The determination as to whether a particular site is underlain by a commercial deposit of potash shall be by the Mining Branch of the United States Geological Survey.

2. In general there shall be no drilling in the area designated as Area "A" in the hearing of July 16th before the New Mexico Oil Conservation Commission, except in such places as have been clearly defined as barren and where there would obviously be no hazard to potash operations from drilling.

3. All oil and gas leases issued hereafter in the entire designated potash area shall contain a provision stating that the selection of an oil and gas drilling site is subject to the approval of the Mining Branch of the United States Geological Survey and that the Mining Branch has the authority to prohibit drilling in any area which it may designate as containing a commercial potash. They shall also contain the provision that the operations in such leases shall be subject to mitigation rules approved by the Department of the Interior.

- 2 -

4. In accordance with the [illegible] will follow the procedure outlined in the oil and gas operating regulations approved July 26, 1946.

The supplemental application submitted by your attorney the subject of oil and gas drilling in the potash area, has been interpreted as a step out of our position as to the major zone needed for the proper protection of a vital natural resource. If these assumptions are not entirely acceptable to principals, with the understanding that the language is not intended to be final, we should appreciate having you set a date for a hearing at which we might present additional information upon which our action.

The potash companies in the Carlsbad area have selected Mr. F. S. Davis, Vice President of Potash Company of America, as their spokesman in any matter which may be held on the matter covered in this letter.

Very truly yours,

For Duval Sulphur & Potash Company

For International Minerals & Chemical Corporation

For Potash Company of America

For Southwest Potash Corporation

For United States Potash Company

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 permitted 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.

(3) 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.

W.N.M.C.F. MICROGRAPHICS

(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 5% 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.

U. N. M. C. E. MICROGRAPHICS

(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.

(3) 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

U.N.M.C.E. MICROGRAPHICS

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

VII.

INSPECTION OF POTASH AND OIL AND GAS OPERATIONS

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

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

VIII.

FILING OF MAPS AND OTHER DATA

(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 PREVIOUS 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

PROPOSED RULES AND REGULATIONS FOR ISSUANCE

BY THE NEW MEXICO OIL CONSERVATION COMMISSION

[illegible]

I. [illegible]

The enactment of these rules and regulations is to prevent waste, prevent confusion and provide for the orderly development and economical recovery of oil, gas and potash minerals.

II. POTASH AREA:

(1) These rules and regulations are applicable to the proven and probable potash areas hereinafter defined as Area "A" and Area "B", as follows:

(a) Area "A":

T. 19 S., R. 30 E.,	Secs.	5, S½
	Secs.	4 and 9, all
	Sec.	8, SE¼
	Sec.	7, NE¼, S½
	Secs.	8, 9, and 10, all
	Sec.	11, W½
	Sec.	14, W½
	Secs.	15 to 18 incl., all
	Sec.	20, SE¼
	Sec.	21, S½
	Secs.	22 and 25, all
	Secs.	25 to 29 incl., all
	Secs.	32 to 36 incl., all
T. 20 S., R. 30 E.,	Secs.	1 to 27 incl., all
	Secs.	34, 35 and 36, all
T. 20 S., R. 31 E.,	Secs.	17 to 20 incl., all
	Secs.	29 to 32 incl., all
T. 21 S., R. 28 E.,	Secs.	1 and 2, all
	Sec.	10, E½
	Secs.	11 to 14 incl., all
	Sec.	15, E½
	Sec.	24, all
	Sec.	35, E½
	Sec.	36, all

Draft - August 15, 1951
2 copies forwarded to Mr. Spurrier
C/O Mayflower Hotel
Washington, D. C.

T. 21 S., R. 30 E., Secs. 4 to 9 incl., all
Secs. 15 to 18 incl., all
Sec. 21, all

T. 21 S., R. 29 E., Secs. 1 and 2, all
Sec. 3, $S\frac{1}{2}$
Secs. 10 to 15 incl., all
Secs. 22, 23 and 24, all

T. 23 S., R. 30 E., Secs. 6 and 7, all
Secs. 18 and 19, all

(b) Area "B"

T. 18 S., R. 30 E., Sec. 12, $S\frac{1}{2}$
Secs. 13 and 14, all
Sec. 15, $SE\frac{1}{4}$
Sec. 21, $SE\frac{1}{4}$
Secs. 22, 23 and 24, all
Sec. 25, $W\frac{1}{2}$
Secs. 26, 27 and 28, all
Sec. 29, $SE\frac{1}{4}$
Sec. 32, $NE\frac{1}{4}$, $S\frac{1}{2}$
Secs. 33 and 34, all
Sec. 35, $W\frac{1}{2}$

T. 18 S., R. 31 E., Sec. 18, $W\frac{1}{2}$

T. 19 S., R. 29 E., Sec. 11, $SE\frac{1}{4}$
Sec. 12, $S\frac{1}{2}$
Secs. 13 and 14, all
Sec. 23, $E\frac{1}{2}$
Sec. 24, $E\frac{1}{2}$

T. 19 S., R. 30 E., Sec. 2, all
Sec. 3, $N\frac{1}{2}$
Sec. 11, $E\frac{1}{2}$
Secs. 12 and 13, all
Sec. 14, $E\frac{1}{2}$
Sec. 19, all
Sec. 20, $N\frac{1}{2}$, $SW\frac{1}{4}$
Sec. 21, $N\frac{1}{2}$
Sec. 24, all
Secs. 29 and 30, all

T. 19 S., R. 31 E., Secs. 9 and 10, all
Sec. 13, $S\frac{1}{2}$
Sec. 14, $S\frac{1}{2}$
Secs. 16, 18 and 17, all
Secs. 19 to 22 incl., all
Sec. 26, $W\frac{1}{2}$
Sec. 35, $S\frac{1}{2}$
Secs. 26 to 36 incl., all

T. 19 S., R. 32 E., Sec. 28, $S\frac{1}{2}$
Secs. 24 to 27 incl., all
Sec. 28, $S\frac{1}{2}$
Sec. 31, $S\frac{1}{2}$
Sec. 32, $S\frac{1}{2}$
Secs. 33 to 36 incl., all

T. 19 S., R. 33 E., Secs. 19, 30 and 31, all

T. 20 S., R. 29 E., Sec. 12, $NE\frac{1}{4}SW\frac{1}{4}$, $S\frac{1}{2}SE\frac{1}{4}$
Sec. 13, $NE\frac{1}{4}$, $S\frac{1}{2}$
Secs. 22 to 27 incl., all
Secs. 34, 35 and 36, all

T. 20 S., R. 30 E., Secs. 26 to 35 incl., all

T. 20 S., R. 31 E., Secs. 1 to 16 incl., all
Secs. 21 to 28 incl., all
Secs. 33 to 36 incl., all

T. 20 S., R. 32 E., Secs. 1 to 36 incl., all

T. 20 S., R. 33 E., Secs. 5 to 9 incl., all
Secs. 16 to 23 incl., all
Secs. 25 to 36 incl., all

T. 20 S., R. 34 E., Sec. 31, all

T. 21 S., R. 29 E., Sec. 3, $S\frac{1}{2}$
Sec. 23, $N\frac{1}{2}$
Sec. 25, all

T. 21 S., R. 30 E., Secs. 1, 2 and 3, all
Secs. 10 and 11, all
Sec. 12, $S\frac{1}{2}$
Secs. 13, 14 and 15, all
Secs. 20, 21 and 22, all
Sec. 23, $N\frac{1}{2}$
Sec. 24, $N\frac{1}{2}$
Secs. 27 to 30 incl., all
Secs. 32 to 34 incl., all
Sec. 35, $S\frac{1}{2}$

(Cont'd.)

T. 21 S., R. 32 E.,	Sec. 1, W½ Sec. 2, E½ Sec. 4, W½ Secs. 5 and 6, all Sec. 18, S½ Sec. 19, W½
T. 21 S., R. 33 E.,	Secs. 1 to 17 incl., all Secs. 21 to 27 incl., all Secs. 35 and 36, all
T. 21 S., R. 34 E.,	Secs. 4 to 9 incl., all Secs. 16 to 21 incl., all Secs. 28 to 33 incl., all
T. 22 S., R. 29 E.,	Sec. 6, W½ Sec. 16, all Sec. 17, E½ Sec. 20, E½ Sec. 21, all Secs. 25 to 28 incl., all Secs. 33 to 36 incl., all
T. 22 S., R. 30 E.,	Secs. 1 to 3 incl., all Secs. 8 to 17 incl., all Secs. 20 to 24 incl., all Sec. 25, W½ Secs. 26 to 35 incl., all Sec. 36, W½
T. 22 S., R. 31 E.,	Secs. 4 to 9 incl., all Secs. 17 and 18, all Sec. 19, W½
T. 22 S., R. 33 E.,	Secs. 4, 5 and 6, all
T. 23 S., R. 29 E.,	Secs. 1, 2 and 3, all Sec. 4, S½ Sec. 9, E½ Secs. 10 to 15 incl., all Secs. 22 to 27 incl., all Secs. 34 to 36 incl., all
T. 23 S., R. 30 E.,	Sec. 1, S½ Secs. 2 to 36 incl., all

Area "B" (Cont.)

T. 23 S., R. 31 E., Sec. 7, all
Sec. 8, S½
Sec. 16, SW¼
Secs. 17 to 20 incl., all
Sec. 21, W½
Secs. 28 to 33 incl., all

T. 24 S., R. 30 E., Sec. 1, E½
Sec. 2, N½
Sec. 3, N½

T. 24 S., R. 31 E., Secs. 4, 5 and 6, all

(2) Areas "A" or "B" may be contracted or expanded from time to time as conditions may warrant by the Oil Conservation Commission after due notice and hearing.

XII 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, that oil and gas exploratory test wells shall not be drilled through any open potash mines or within 500 feet thereof unless agreed to in writing by the potash lessee involved.

(b) Any oil or gas leases hereafter issued for lands within Area "A" shall be subject to these regulations and no drilling shall be permitted 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 exploratory test wells in Area "A" shall be further subject to these rules and regulations.

(d) Where oil and gas wells are in production in Area "A", no potash mine opening shall be driven to within less than 100 feet of such wells so that protection of both can be afforded.

(2) Area "B"

(a) Oil and gas exploratory test wells may be drilled in Area "B" in accordance with these rules and regulations.

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

(4) Nothing herein shall be construed to prevent unitization agreements involving lands in Areas "A" or "B".

IV DRILLING AND CASING PROGRAM:

(1) For the purpose of the regulations and the drilling of oil and gas exploratory test wells, shallow and deep zones are defined as follows:

(a) The shallow zone shall include all formations above the base of the Delaware sand or above a depth of 6000 feet, whichever is the lesser.

(b) The deep zone shall include all formations below the base of the Delaware sand or below a depth of 6000 feet, whichever is the lesser.

(2) Surface Casing String:

(a) A surface casing string of new, second-hand or reconditioned pipe shall be set in the "Red Bed" section of the basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section, as determined necessary by the regulatory representative approving the drilling operations, and shall be cemented with not less than one hundred and fifty percent (150%) of calculated volume necessary to circulate cement to the ground surface.

(b) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(c) Casing and water shut-off tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measure shall be applied.

(ii) 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.

(d) The above requirements for the surface casing string shall be applicable to both the shallow and deep zones.

(3) Salt Protection String:

(a) A salt protection string of new, second-hand or reconditioned pipe shall be set not less than one hundred (100) feet nor more than two hundred (200) feet below the base of the salt section.

(b) The salt protection string shall be cemented as follows:

(i) For wells drilled to the shallow zone, the string may be cemented with a nominal volume of cement for testing purposes only. If the exploratory test well is completed as a productive well, the string shall be recemented with sufficient cement to fill the annular space back of the pipe from the top of the first cementing to the surface or to the bottom of the cellar, or may be cut and pulled if the production string is cemented to the surface as provided in sub-section IV (5), (a), (i) below.

(ii) For wells drilled to the deep zone, the string must be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(c) If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or gamma ray survey and additional cementing shall be done until the cement is brought to the point required.

(d) The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with three percent (3%) of calcium Chloride by weight of cement.

(c) Centralizers shall be spaced at intervals every one hundred fifty (150) feet of the salt protection string below the surface casing string.

(d) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(e) Casing tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of one thousand (1000) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measure shall be applied.

(ii) 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.

(h) The above requirements for the salt protection string shall be applicable to both the shallow and deep zones except for sub-section IV (3), (b), (i) and (ii) above.

(4) Intermediate String:

(a) In the drilling of oil and gas exploratory test wells to the deep zone an intermediate string shall be set at sufficient depth to case-off all formations in the shallow zone and shall be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(b) Cementing procedures and casing tests for the intermediate string shall be the same as provided under sub-sections IV (3) (c), (f), and (g) for the salt protection string.

(5) Production String:

(a) A production string shall be set on top or

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through the salt section and shall be cemented as follows:

(i) For wells drilled to the first sand the production string shall be cemented to the surface if the salt protection string has cemented back with a sufficient volume for casing purposes, which case the salt protection string can be cut and pulled before the production string is cemented; provided, that if the said protection string is not cemented to the surface, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone.

(ii) For wells drilled to the deep zone the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided that if no intermediate string shall have been run and cemented to the surface, the production string shall be cemented to the surface.

(b) Cementing procedure and casing tests for the production string shall be the same as provided under sub-sections IV (3) (e), (f), and (g) for the salt protection string.

V DRILLING FLUID FOR SALT SECTION

The fluid used while drilling the salt section 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 fluid by the operator in overcoming any specific problem. This requirement is specifically to prevent enlarged drill holes.

VI PLUGGING AND ABANDONMENT OF WELLS:

All wells heretofor and hereafter drilled within Areas "A" and "B" 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.

VII [illegible]:

Before drilling for oil or gas on lands in area "A" or "B", a map or plat showing the location of the proposed well shall be prepared by the well operator and copy sent to the potash lessee involved, if any. If no objection to the location of the proposed well is 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.

VIII INSPECTION OF DRILLING AND MINING OPERATIONS:

A representative of the potash lessee may be present during drilling, cementing, casing and plugging of all oil or gas wells on his lease to observe conformance with these regulations. Likewise, a representative of the oil and gas lessee may inspect mine workings on his lease to observe conformance with these regulations.

IX FILING OF WELL AND MINE SURVEYS:

Each oil and gas lessee shall furnish not later than January 31st of each year to the Oil Conservation Commission and to the potash lessee involved, certified directional surveys from the surface to a point below the lowest known potash-bearing horizon for each oil or gas well drilled in Area "A" during the preceding calendar year. Each potash lessee shall furnish not later than January 31st of each year to the Oil Conservation Commission and to each oil and gas lessee involved, certified plat of survey of the location of open mine workings underlying outstanding oil and gas leases.

X APPLICABILITY OF STATEWIDE RULES AND REGULATIONS:

All general statewide rules and regulations of the Oil Conservation Commission governing the development, operation and production of oil and gas in the State of New Mexico not inconsistent or in conflict herewith, are hereby adopted and made applicable to the areas described herein.

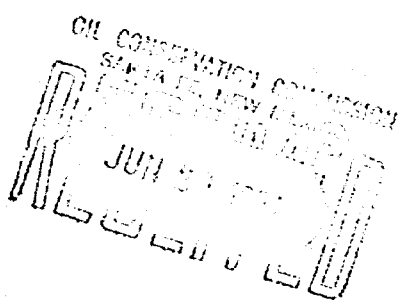
June 26, 1951

TO ALL MEMBERS OF THE NEW MEXICO OIL AND GAS ENGINEERING COMMITTEE:

Gentlemen:

Case No. 278 which relates to the drilling for oil in the vicinity of the potash mines in Eddy County, New Mexico, has been continued by the New Mexico Oil Conservation Commission from June 21 to July 10 at 10 o'clock A. M. A meeting of all members of this committee who plan on attending the above hearing will meet at the La Fonda Hotel, 4 o'clock P. M., July 9, 1951.

Glenn Staley



N. M. Oil and Gas Engineering Committee
Hobbs, New Mexico
June 26, 1951

PHILLIPS PETROLEUM COMPANY

Box 791
Midland, Texas
August 13, 1951

Mr. R. R. Spurrier
New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Re: Case No. 278

Dear Sir:

We acknowledge receipt of photocopies of two plats indicating outline of the two defined areas as requested in our letter of July 26, 1951. Thank you greatly for this courtesy.

Yours very truly,

John Parker
LAND DEPARTMENT

R F Rood

By: R. F. Rood

RFR:mr

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
AUG 1[illegible] 1951

PROPOSED

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

The objective of these rules and regulations is to assure maximum conservation and economic recovery of oil, gas and potash minerals.

I. These regulations are applicable to the potash areas as herein defined as: "Area "A" and Area "B".

Area "A" is hereby defined as follows:

19S-30E - Sections S 1/2 3, all 4, 5, E 1/2 and S 1/2 SW 1/4 6, all 7, 8, 9, 10, W 1/2 and W 1/2 E 1/2 11, W 1/2 and W 1/2 E 1/2 14, all 15 to 18 incl. SE 1/4 20, S 1/2 21, all 22, 23, all 25 to 29 incl. all 32 to 36 incl.

20S-29E - Sections E 1/2 SE 1/4 12,

20S-30E Sections - all Sec. 1 to 27 incl., all 34, 35, 36

20S-31E Sections all 19, 20, 29, 30, 31, 32.

21S-29E Sections All 1, 2, E 1/2 10, all 11, 12, 13, 14 E 1/2 15, all 24 E 1/2 35, all 36.

21S-30E - Sections all 4 to 9 incl, all 16 to 19 incl., all 31

22S-29E - Sections all 1, 2, S 1/2 3, all 10 to 15 incl., all 22, 23, 24.

22S-30E - Sections all 6, 7, 18 19

Area "B" is hereby defined as follows:

18S-30E	Sections S 1/2 12, all 13, 14, SE 1/4 15, SE 1/4 21, all 22, 23, 24, W 1/2 25, all 26, 27, 28, E 1/2 29, S 1/2 and NE 1/4 32, all 33, 34, W 1/2 35.
18S-31E	Sections W 1/2 18.
19S-29E	Sections SE 1/4 11, S 1/2 12, all 13, 14, N 1/2 23, N 1/2 24.
19S-30E	Sections all 2, N 1/2 3, E 1/2 NE 1/4 and E 1/2 SE 1/4 11, all 12, 13, E 1/2 NE 1/4 and E 1/2 SE 1/4 14, all 24.
19S-31E	Sections all 9, 10, W 1/2 11, W 1/2 14, all 15, 16, 17, all 19, 20, 21, 22, W 1/2 23, S 1/2 25, all 26 to 36 incl.
19S-32E	Sections S 1/2 23, all 24 to 27 incl., S 1/2 of 28, S 1/2 31, S 1/2 32, all 33 to 36 incl.
19S-33E	Sections all 19, 30, 31
20S-29E	Sections NE 1/4 and S 1/2 13, all 22 to 27 incl., all 34, 35, 36.
20S-30E	Sections all 28 to 33 Incl.
20S-31E	Sections all 1 to 18 incl., all 21 to 28 incl., all 33 to 36 incl.
20S-32E	Sections all 1 to 36 incl.
20S-33E	Sections all 5 to 9 incl., all 15 to 23 incl. all 25 to 36 ind.
20S-34E	Sections all 31.
21S-29E	Sections E 1/2 3, all 25.
21S-30E	Sections all 1, 2, 3, all 10, 11, S 1/2 12, all 13, 14, 15, all 20, 21, 22, N 1/2 23, N 1/2 24, all 27 to 30 incl., 32 to 34 incl., S 1/2 35.
21S-31E	Sections N 1/2 1, N 1/2 2, N 1/2 3, NE 1/4 and W 1/2 4, all 5, 6, 18.

21S-32E Sections all 1 to 17 incl., all 21 to 27 incl., all 35, 36.

21S-33E Sections all 4 to 9 incl., all 16 to 21 incl., all 28 to 33 incl.,.

22S-29E Sections E 1/2 9, all 16, E 1/2 17, E 1/2 20, all 21, all 25 to 28 incl., all 33 to 36 incl.

22S-30E Sections all 1 to 5 incl., all 8 to 17 incl., all 20 to 24 incl., W 1/2 25, all 26 to 35 incl., W 1/2 36.

22S 31E Sections all 4 to 9 incl., all 17, 18, N 1/2 19.

22S-33E Sections all 4, 5, 6.

23S-29E Sections all 1 to 3 incl., E 1/2 4, E 1/2 9, all 10 to 15 incl., all 22 to 27 incl., all 34 to 36 incl.,

23S-30E Sections S 1/2 1, all 2 to 36 incl.

23S-31E Sections all 7, S 1/2 8, SW 1/4 16, all 17 to 20 incl., W 1/2 21, all 28 to 33 incl.

24S-30E Sections N 1/2 1, N 1/2 2, N 1/2 3.

24S-31E Sections all 4, 5, 6.

Each of the above described areas may be contracted or expanded by the Oil Conservation Commission after due notice and hearing.

II. Exploration of Areas : - Area "A" - Drilling of oil and gas test wells shall not be permitted in Area "A" except upon leases outstanding as of the effective date of these regulations. Any oil or gas leases hereafter issued for lands within area "A" shall be subject to these regulations and no drilling shall be permitted thereon unless the expressed permission of the Oil Conservation Commission is first had and obtained after due notice and hearing.

All future drilling in area "A" shall be further subject to the Rules and Regulations pertaining to deep wells contained in paragraphs as hereinafter set forth. Where oil and gas wells are in production within this area no mine opening shall be driven to within less than 100' of such wells so that protection can be afforded.

Area "B". Area "B" is herein defined as the area in which oil and gas test wells may be drilled in accordance with the Rules and Regulations as hereinafter set forth. Nothing herein shall be construed to prevent unitization agreements.

Upon the discovery of oil or gas the Oil Conservation Commission shall, after due notice and hearing promulgate field or pool rules for the affected areas.

III. Drilling, Casing and Cementing Program For Potash Areas "A" and "B":

1. For Shallow Zone Oil and Gas Exploratory Test Wells:

(a) Surface Casing String: The shallow zone shall be defined as less than 5000 feet from the surface of the ground. In order 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 and shall be cemented back to the ground surface or to the bottom of the cellar.

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 per square inch; second-hand and re-conditioned pipe shall be re-tested to 600 pounds per square inch before being run.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

(b) Salt Protection String: A salt protection string shall be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturer's test specifications.

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 surface. The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with proper amounts of calcium chloride.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (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 jobs done until cement is brought to that point. One or more temperature

or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

Test of casing shall vary with the drilling method. 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.

(c) Oil or Production String: This string may 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 salt protection casing shall have been run and commercial production obtained, that string shall be cemented to the surface as provided by above or as provided by for drilling wells to the deep zone.

2. For the purpose of these regulations the deep zones shall be defined as more or less 5000' from the surface of the ground. The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and to which has been added proper amounts of calcium chloride (3% by weight).

(a) Oil or Production String: This string may 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 salt protection casing shall have been run and commercial production obtained, that string shall be cemented to the surface as provided by above or as provided by for drilling wells to the deep zone.

W.N.M.C.F. MICROGRAPHICS

(b) Surface Casing String: In order to prevent the intrusion of water, the surface casing string shall be set in the "Red Bed" beneath the surface of the ground section of the basal Russler formation immediately above the top of the salt section and shall be cemented back to the ground surface or to the bottom of the cellar.

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 per square inch; second-hand and re-conditioned pipe shall be re-tested to 600 pounds per square inch before being run.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

This casing string shall be tested with a hydraulic pressure of six hundred (600) pounds per square inch. If a drop of one hundred (100) pounds per square inch or more should occur within 30 minutes, corrective measures shall be applied.

(c) Salt Protection String: A salt protection string shall be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe. New pipe shall have received a mill test of not less than 1000 pounds per square inch; second-hand and re-conditioned pipe shall be re-tested to 1000 pounds per square inch before being run.

Centralizers shall be used on at least every 150 feet of casing below surface casing.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and to which has been added proper amounts of calcium chloride (3% by weight). Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests. If the cement fails to reach the surface, the top of the cement shall be located by a temperature or gamma ray survey, and additional cement jobs done until cement is brought to the surface.

This casing string shall be tested with a hydraulic pressure of 1000 pounds per square inch. If a drop of 100 pounds per square inch or more should occur within 30 minutes, corrective measures shall be applied.

(d) 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 one thousand (1000) feet below the salt string back to the surface.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four hours before drilling the plugs or initiating tests. Casing shall be tested with a hydraulic pressure of 1000 pounds per square inch. If a drop of one hundred (100) pounds per square inch or more should occur within 30 minutes corrective measures shall be applied.

DEPARTMENT OF THE INTERIOR

INFORMATION SERVICE

GEOLOGICAL SURVEY
BUREAU OF LAND MANAGEMENT

For Release OCTOBER 18, 1951

FEDERAL REGULATIONS GOVERNING DUAL DEVELOPMENT
OF OIL AND GAS, AND POTASH DEPOSITS IN NEW MEXICO

Secretary of the Interior Oscar L. Chapman, today announced that an order had been issued promulgating special rules to govern the leasing and development of oil and gas, and potash deposits on certain lands in Eddy and Lea Counties, New Mexico. The order also revokes the Department's order of February 6, 1939, which prohibited oil and gas leasing of 42,685.18 acres of such lands mainly covered by potash leases in Eddy County.

The special rules apply to Federal lands within a designated area proved or prospectively valuable for both potash and oil production and embracing some 300,000 acres. Such rules are being issued for the purpose of encouraging exploratory drilling to discover additional oil reserves which are sorely needed, and at the same time provide adequate protective measures to prevent damage to the Nation's only known important potash reserves. The protective measures prescribed are general in scope and detailed requirements are left to be worked out after consultation with State officials and members of the two industries.

The Federal lands within the designated potash area, except those covered by the order of February 6, 1939, are largely if not entirely covered by oil and gas leases or applications therefor. Of the lands included in the order, 40,925.18 acres will now be subject to noncompetitive oil and gas leasing and 200 acres will be subject to competitive leasing with the remainder embraced in outstanding leases or excluded from leasing because included in an outstanding potash reserve.

Noncompetitive oil and gas lease applications filed from October 16, 1951, to and including November 16, 1951, for Federal lands within the designated potash area must conform to the special requirements set forth in the new order.

The usual procedure in filing an offer for oil and gas lands must be followed, except applicants need file only one copy of the offer to lease and lease form (form No. 4-1158). The Bureau of Land Management also emphasizes that each offer can only apply to one section of land and must include the entire amount of Federal land in each section to be eligible for the drawing. Those not conforming will be rejected. Applications received between the dates mentioned will be regarded as simultaneously filed and a drawing, if necessary, will be held at 10 a.m. on November 20, 1951, at the Land and Survey Office of the Bureau of Land Management, Santa Fe, New Mexico.

Copies of the complete order, signed by Secretary Chapman on October 16, and scheduled to appear in the Federal Register of October 18, and applications to lease (Form No. 4-1158) may be obtained from the Bureau of Land Management, Department of the Interior, Washington 25, D. C., or from its offices in Albuquerque, Santa Fe, Denver, and Salt Lake City, or from the offices of the Geological Survey, Federal Building, Roswell, and 504½ North Canal, Carlsbad, New Mexico; and 239 Federal Building, Tulsa, Oklahoma.

x x x

EXHIBIT B
CASE 2281

CASING AND CEMENTING PROGRAM FOR SHALLOW OIL AND GAS TEST WELLS IN KNOWN POTASH AREAS

The following is a suggested casing program for wells above 5,000 feet and is, of necessity, only general rules for the whole designated potash area, whether designated as Area A, Area B or otherwise. Geological sections change so rapidly in this large, scattered area that individual portions of the area will present individual problems. It is therefore suggested as follows:

A. That the Oil Conservation Commission retain authority to vary this general casing and cementing program to meet a specific condition, without an open hearing before the Commission.

B. That the casing and cementing program herein suggested apply only to the areas embraced in proven commercial deposits of potash, the remainder of the designated potash area to be drilled in accordance with standard, existing practices.

C. The suggested casing and cementing program is as follows:

1. Surface Casing String

In order to protect the fresh water supply, if present, the surface casing string shall be set through the fresh water bearing horizons and cemented with a volume adequate to protect the fresh water and keep it from entering the salt formation.

The surface string may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturers test specifications.

W.N.M.C.F. MICROGRAPHICS

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string may be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturers test specifications.

The string may be cemented with a nominal cement volume for testing purposes only, and if commercially productive, the string must be re-cemented with not less than 150% of calculated volume necessary to circulate cement to surface.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (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 jobs done until cement is brought to that point. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

W.N.M.C.F. MICROGRAPHICS

Test of casing shall vary with the drilling method. 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.

3. Oil or Production String

This string may 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 salt protection casing shall have been run and commercial production obtained, that string shall be cemented to the surface as provided by 2 above or as provided by 3a in Deep Well program.

D. The undersigned operators, of Eddy County, New Mexico, approve the above and foregoing proposals and recommend its adoption by the Commission.

Respectfully Submitted,

American Republics Corp by William B. Macey
Boyd-Pleasants Drilling Co. By Tom Boyd
Buffalo Oil Co by Ralph L Gray
Perry R Stevenson
Grady Wright
E M Brock
Cheney Abbott
R E Collier
J H Brown
Jess Sears
Joe Mann
A L Redington Jr
Cameron & Co by E Dupree
Malco Refineries Inc by Donald B Aden
Bassett & Briney by Monty Yates
Dixon & Yates by Monty Yates
S P Yates
by J R Lund
Yates Brothers by S P Yates
Yates Oil Co by S P Yates
J R Lund for Robert E McKee

W.N.M.C.F. MICROGRAPHICS

Following is the "Defined Area" as submitted by the Potash Companies to the State Land Office.

T.18S, R.30E	All of Secs. 13,23,24. W/2 Sec. 25 All Secs. 26,27,33,34 W/2 Sec. 35
T.18S, R.31E	W/2 Sec. 18
T.19S, R.29E	S/2 Sec. 12 SE/4 Sec. 11 All Sec. 13 E/2 Sec. 14 NE/4 Sec. 23 N/2 Sec. 24
T.19S, R.30E	All of Twp. except all secs. 1 & 6 and N/2 Sec. 7
T.19S, R.31E	All Secs. 9 & 10 W/2 Sec. 11 W/2 Sec. 14 All Secs. 15,16,17,19,20,21,22 W/2 Sec. 23 S/2 Sec. 25 All Secs. 26 thru 36
T.19S, R.32E	S/2 Sec. 23 All Secs. 24,25,26 & 27 S/2 Sec. 28 S/2 Sec. 31 S/2 Sec. 32 All Secs. 33 thru 36
T.19S, R.33E	All Secs. 19,30 & 31
T.20S, R.29E	All Secs 22 thru 27 All Secs. 34,35 & 36
T.20S, R.30E	Entire township
T.20S, R.31E	Entire township
T.20S, R.32E	Entire township
T.20S, R.33E	All Secs. 5 thru 9 All Secs. 15 thru 23 All Secs. 25 thru 36
T.20S, R.34E	All Sec. 31
T.21S, R.30E	All Sec. 1 thru 11 N/2 Sec. 12 All Sec. 13 thru 22 N/2 Sec. 23 N/2 Sec. 24 All Secs. 27 thru 34 S/2 Sec. 35

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
RECEIVED
MAY 23 1951

"Defined Area" Cont'd.

T.21S, R.29E	All Sec. 1 & 2 E/2 Sec. 3 E/2 Sec. 10 All Sec. 11 thru 14 E/2 Sec. 15 N/2 Sec. 23 All Sec. 24 & 25 E/2 Sec. 35 All Sec. 36
T.21S, R.31E	N/2 Sec. 1 (Lots 1 thru 16) N/2 Sec. 2 (Lots 1 thru 16) W/2 Sec. 4 All Sec. 5 & 6 S/2 Sec. 18 N/2 Sec. 19
T.21S, R.32E	All Secs 1 thru 17 All Secs 21 thru 27 All Secs. 35 & 36
T.21S, R.33E	W/2 of the township
T.22S, R.29E	All Sec. 1 & 2 S/2 Sec. 3 E/2 Sec. 9 All Secs. 10 thru 16 E/2 Sec. 17 E/2 Sec. 20 All Secs. 21 thru 28 All Secs. 33 thru 36
T.22S, R.30E	All of township except E/2 Sec. 25 and E/2 Sec. 36
T.22S, R.31E	All Secs. 4 thru 9 All Secs. 17 & 18 N/2 Sec. 19
T.22S, R.33E	All Secs. 4,5 & 6
T.23S, R.29E	E/2 of township E/2 of Sec. 4 E/2 Sec. 9
T.23S, R.30E	All of township except N/2 Sec. 1
T.23S, R.31E	All Sec. 7 S/2 Sec. 8 SW/4 Sec. 16 All Secs. 17 thru 20 W/2 Sec. 21 All Secs. 28 thru 33
T.24S, R.30E	N/2 Sec. 1 N/2 Sec. 2 N/2 Sec. 3
T.24S, R.31E	All Secs. 4 thru 6

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

FOSTER WINDHAM
CASWELL F. NEAL

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 SW¼
	Sec. 12 S½
	Sec. 13 all
	Sec. 14 N½
	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 $E\frac{1}{2}$
	Sec. 13 to 22 incl., all
	Sec. 23 $N\frac{1}{2}$
	Sec. 24 $N\frac{1}{2}$
	Sec. 27 to 34 incl., all
	Sec. 35 $S\frac{1}{2}$
T 21 S-R 31 E	Sec. 1 $N\frac{1}{2}$
	Sec. 2 $N\frac{1}{2}$
	Sec. 4 $W\frac{1}{2}$
	Sec. 5, 6, all
	Sec. 18 $S\frac{1}{2}$
	Sec. 19 $W\frac{1}{2}$
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 $S\frac{1}{2}$
	Sec. 9 $E\frac{1}{2}$
	Sec. 10 to 16 incl., all
	Sec. 17 $E\frac{1}{2}$
	Sec. 20 $E\frac{1}{2}$
	Sec. 21 to 28 incl., all
	Sec. 33, 34, 35, 36, all
22S - 30E	All of Township except $E\frac{1}{2}$ Sec. 25 and $E\frac{1}{2}$ 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

file

O.C.C. copy

Carlsbad, New Mexico
June 28, 1951

Honorable Guy Shepard
Commissioner of Public Lands
State Land Office
Santa Fe, New Mexico

Dear Mr. Shepard:

Oil and Potash members of your Oil-Potash Committee met on June 28, in Carlsbad. Those present were Mr. John Kelley, Mr. Lamb (for Mr. Carper), T. M. Cramer and R. Haworth (for Mr. Davis), and Mr. Allport and Mr. Morrell of the U.S.G.S. attending as advisors.

The Oil Conservation Commission held a hearing on June 21 relating to the subject of casing procedure in areas known to contain potash. This hearing was continued to July 10th for further consideration of proposed rules. It is the suggestiong of the oil and potash representation on this committee that its report be deferred until the conclusions reached by the commission after this latter hearing are known, so that the committee may have the benefit of the findings.

The potash members of this committee wish to put information in your hands at this time to assist in any statement to be made on or before July 1st with respect to leases sold on May 10th in the potash area.

The following land in the tracts designated are proposed areas to be exoluded from drilling operations:

May 10 sale:

Tract 03

T-20S R-30E	Sec. 36 E½ of the NW¼	80 acres
T-20S R-31E	Sec. 16 SW¼, W½ of the NW¼	240 acres
	Sec. 32 W½ of the NE¼, SE¼ of the NE¼, N½ of the SE¼.	200 acres
	Sec. 36 S½, W½ of the NW¼, NE¼.	560 acres
T-21S R-30E	Sec. 2 Lot 2	35.97 acres
	Sec. 16 NW¼	160. acres
	Total tract 03	1275.97 acres

Tract 05

T-21S R-29E	Sec. 36 All	637.12 acres
T-22S R-29E	Sec. 2 E½, NW¼, N½ of the SW¼, SW¼ of the SW¼.	600.24 acres

(Tract 05 Cont.)

Sec. 11	S½ of the NW¼, N½ of the SW¼.	160 acres
Sec. 25	NW¼ of the NW¼	40 acres
Sec. 26	NE¼, E½ of the NW¼	240 acres
	Total tract 05	1,67[illegible].34 acres.

In Tract 03 the areas shown in the above tabulation contain either part of potash ore bodies now in process of mining or of development or are considered as reserves for early development.

In Tract 05 the areas in Section 36, T-21S-R29E are presently being mined and open mine workings cover a substantial part of the section.

T-22S-R-29E, Sec. 2 and 11 contain ore bodies which are extensions of the ore body being mined in Section 36 and lie close to an operating shaft.

T-22S-R-29E, Sections 25 and 26 are enclosed by important parts of larger immediate ore reserves.

In suggesting that the above area be closed to drilling, the potash members of your committee believe that the rules yet to be adopted regarding spacing of wells and drilling, casing and plugging regulation should apply to the balance of the areas within the recognized potash basin.

Respectfully submitted,

J. M. Cramer

R. Haworth

John M. Kelly

L. R. Jones

STATE OF NEW MEXICO
OFFICE OF STATE GEOLOGIST
SANTA FE, NEW MEXICO

July 19, 1951

COPY

Mr. Foster Morrell
United States Geological Survey
Box 997
Roswell, New Mexico

Dear Mr. Morrell:

This will acknowledge your letter of July 13, 1951, in which you say you desire three copies of the Oil Conservation Commission's proposed rules for the potash area. This is to advise that these proposed rules will be forwarded to your office for your suggestions, comment and correction and will not be adopted as official rules and regulations of the Commission until your comments and suggestions have been considered.

I feel, as you do, that a state of close cooperation between the Oil Commission and the USGS will result in a uniform set of rules for both federal and state lands, which will be helpful to all operators and will facilitate development of the area.

Very truly yours,

R. R. Spurrier
Secretary - Director

RRS:nr

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

P. O. Box 997
Roswell, New Mexico

July 13, 1951

Mr. R. R. Spurrier, Secretary
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Mr. Spurrier:

Reference is made to discussions during a conference which you and I had with Governor Edwin L. Mechem in Santa Fe on July 11 concerning proposed rules and regulations to be issued by the Oil Conservation Commission covering the drilling of wells for oil and gas within an area of known potash deposits.

This will confirm my understanding that upon completion of a preliminary draft of your proposed rules and regulations covering the drilling and plugging of exploretory test wells in the potash area, you will furnish this office with three copies for review and comments by the Geological Survey and the Department of Interior prior to promulgating said regulations. It is reasonable to expect that you should receive the comments and suggestions of the Department within two weeks of their receipt in Washington.

Our Washington office is being informed of this arrangement by copy of this letter.

Very truly yours,

Foster Morrell

FOSTER MORRELL
Oil and Gas Supervisor
Southwestern Region

JUL 16

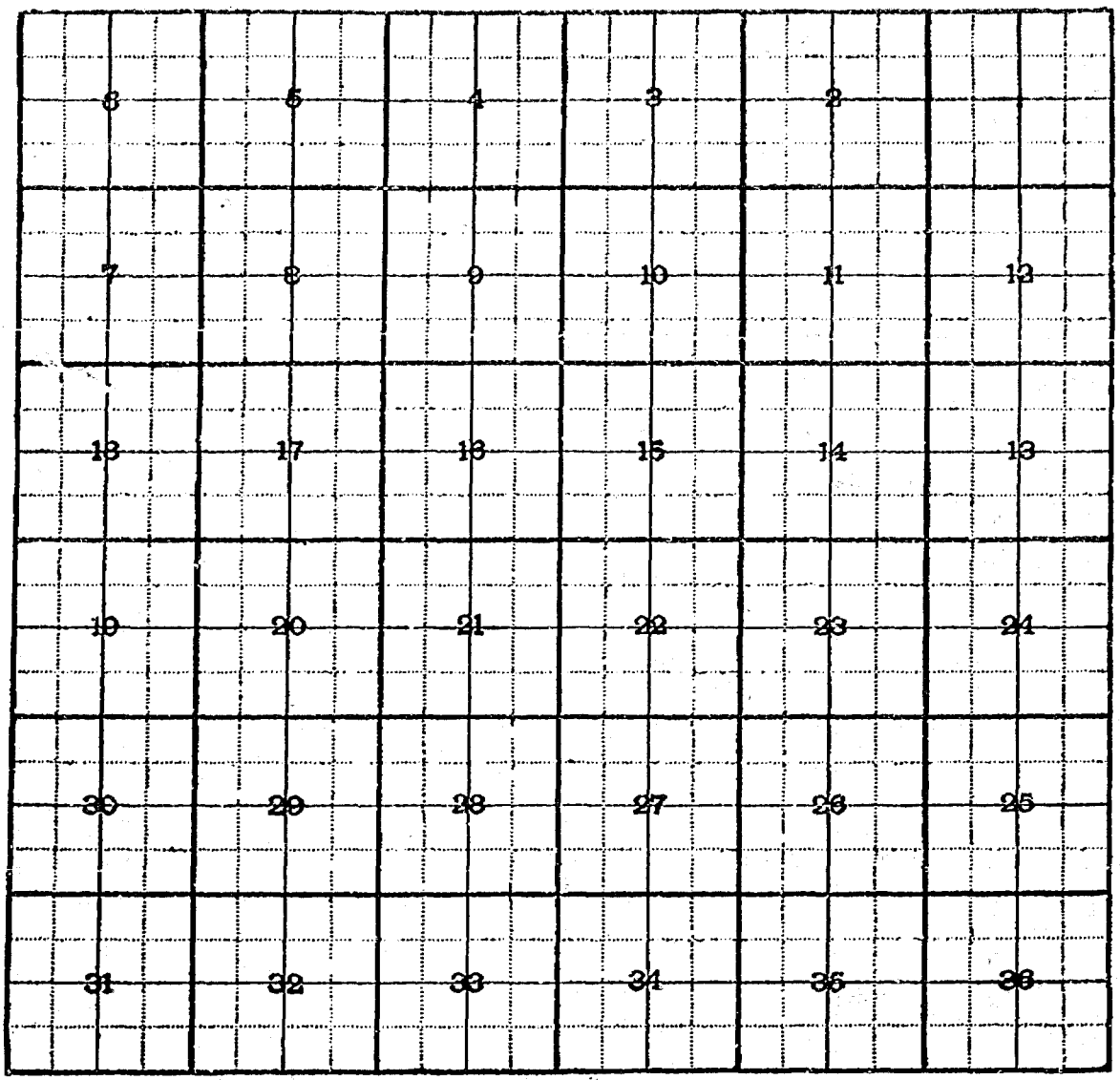
Area A

Township ..... *Range* ..... *County* .....

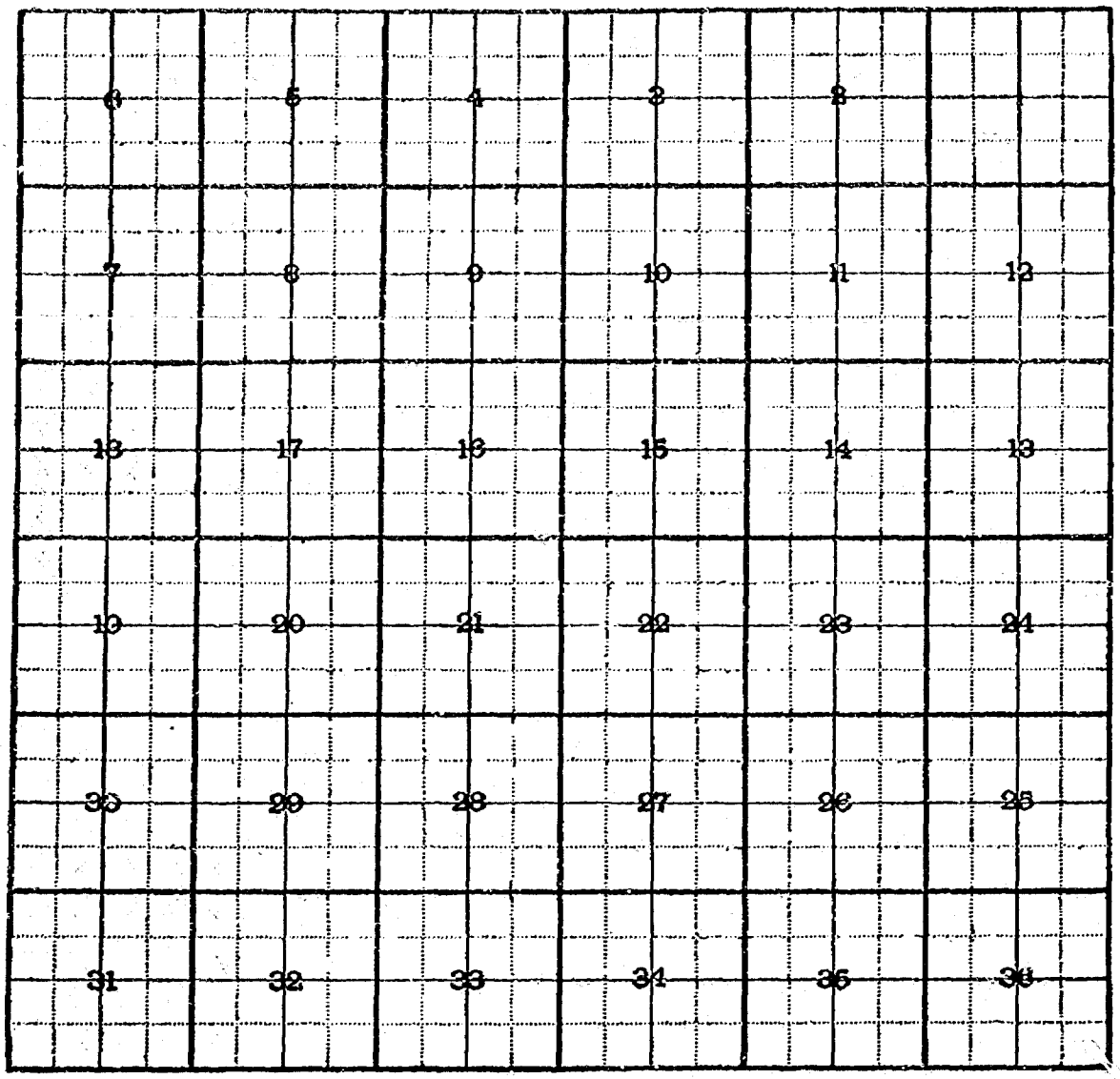
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7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

W.N.M.C.F. MICROGRAPHICS

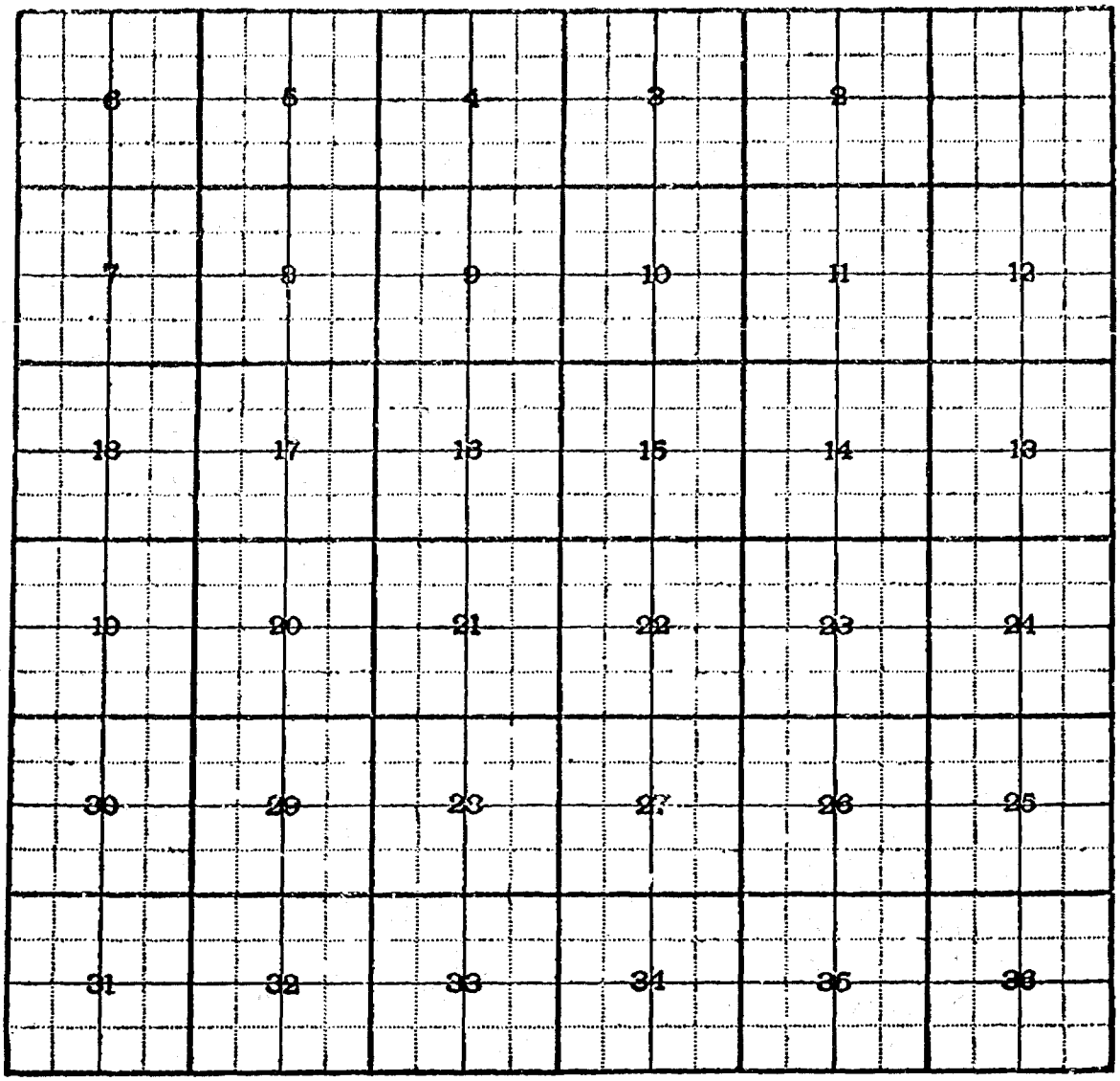
Township ..... *Range* ..... *County* .....



Township ..... *Range* ..... *County* .....



Township ..... *Range* ..... *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.

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(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

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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

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(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

_____

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_____

_____
Commissioner of Public Lands

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OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

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TRANSCRIPT OF RECORD

OIL-POTASH MEETING

Held at Santa Fe, New Mexico

Tuesday, February 27, 1951

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OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

OIL - POTASH MEETING

Held at Santa Fe, New Mexico, February 27, 1951

BEFORE: Hon. Guy Shepard, State Commissioner of Public Lands, Acting Chairman

Hon. R. R. Spurrier, Secretary and Director

Hon. George A. Graham, Attorney

REGISTER:

T. M. Cramer
United States Potash Company
Carlsbad, New Mexico

Oliver Seth
United States Potash Company
Santa Fe, New Mexico

R. H. Blackman, Jr.
Potash Company of America
Carlsbad, New Mexico

G. C. Weaver
Duval Sulphur and Potash Company
Carlsbad, New Mexico

M. W. Hayward
American Metal Company
61 Broadway
New York, New York

F. H. Stewart
Southwest Potash Corporation
Carlsbad, New Mexico

Thomas G. Moore
American Metal Company
61 Broadway
New York, New York

W. P. Morris
Duval Sulphur and Potash Company
Carlsbad, New Mexico

D. E. Protz
Potash Company of America
Carlsbad, New Mexico

J. B. Cummings
Potash Company of America
Carlsbad, New Mexico

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John M. Kelly
Independent Oil Operator
Roswell, New Mexico

L. B. Hodges
Independent Oil Operator
Roswell, New Mexico

Jack N. Campbell
Atwood, Malone & Campbell
Roswell, New Mexico

J. E. Hill
Richardson & Bass
Fort Worth, Texas

T. L. Dean
Oil Operator
Midland, Texas

K. C. Howard
Fort Worth, Texas

Ralph Nix
Artesia, New Mexico

Jerry Curtis
Artesia, New Mexico

CHAIRMAN SHEPARD: The meeting will please come to order. At the time this meeting was called we thought we would all get together in the office, but so many have come that we have moved down here. This is not a regularly called hearing, but an informal meeting where we want to try to work out the question whether oil and potash can work together. The procedure will be, first to hear from the potash interests why oil leases should not be issued at the same place where potash is being mined.

MR. SETH: The potash company we represent is willing to provide any information you may need which we can supply, and we welcome the opportunity to discuss the matter. There is no organization, so to speak, of the potash industry interests, but we thought we would come and offer such information

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as we have been able to gather, and to hear what the proposals from the various oil interests are with regard to the mining of potash and oil operations within the same area. They are seeking to bring about a change of policy on the part of the land office and we would like to hear what they have to offer and we will put forward such technical information as we can in response to their case. It would appear that they are asking for rather a radical change in the Land Office policy, which will have a very far reaching effect; and I think it should be borne in mind that there are still a great many unknown factors which will arise in connection with this matter and which will be subject to some considerable careful study by all concerned. There is a great deal yet to be known about migration of liquids and gases underground, and the mechanical problems of oil well drilling and cementing underground; and it would appear that, in view of all these aspects that the proponents should be prepared to demonstrate that they have virtually a fool-proof method of protecting the other interests in the land. Also, there are a number of different questions or approaches to the matter. In the first place, the policy of the Land Commissioner as to leasing and other questions; how to handle leases in the potash areas, and priorities as to potash and oil leases. Speaking more or less personally, and from what little I know about the situation, it would seem that the oil and gas people are in better position to demonstrate what precautions they propose to take in connection with their drilling methods, protection of the various beds, including water beds, during the processes of production and plugging of abandoned or dry holes. Technical problems and mechanical problems are those of the oil well drillers and the operators of the wells after production.

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We cannot make any intelligent suggestions or offer any constructive information in the matter until we know what the oil well drillers propose to do; and for that reason we are really not ready to present any formative showing, but we will be glad to have any suggestions the Commission may have after we know what the oil and gas companies propose, and if we do not have the information of any type you would like we will get it. We are more than anxious to present any information you may need in order to make your decision.

MR. CHAIRMAN: Perhaps it would be well to hear what the oil and gas men have to say, and find out what their proposals are.

MR. CAMPBELL: My name is Jack M. Campbell, representing Mr. Ralph Nix. The people in the oil industry are likewise here to furnish any information they can. From what we understand of the problem we see no reason why the two industries cannot operate in the same area. What we are seeking we do not consider is in opposition to the policy of the Commission in this area. While there are several potash operations in this area, we feel that before Mr. Nix submits to a withdrawal we should know what the necessity is for such withdrawal. We have no objection to putting on any testimony the Commission may require or desire. We feel that it behooves the State of New Mexico to proceed with the development of any oil lands, and I am sure these people will agree that if there is any way to do so it should be done. Mr. Chairman, is the testimony to be given under oath?

CHAIRMAN: It is not necessary; this is an informal meeting.

MR. CAMPBELL: I would like to have Mr. J. E. Hill take the stand.

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Q Please state your name.

A J. E. Hill.

Q By whom are you employed?

A Richardson & Bass of Fort Worth, Texas.

Q What is your position?

A Superintendent of drilling and operations.

Q What is your profession?

A My education - I am a graduate of Petroleum Engineering University of Oklahoma, 1929, and I have worked in the oil business for the last twenty-two years.

Q Are you familiar generally with the salt formation present in that area in Eddy County, New Mexico, where potash is being mined?

A Yes sir. I have read their reports of the process, geology and technique.

Q In connection with your work, have you in other areas had occasion to find salt formations of this type?

A In the Keystone Field in Winkler County, Texas, we have drilled 250 wells, dating from 1935, and in this field have penetrated some 1100 to 1200 feet of salt section, by both cable tool and rotary drilling. This salt section is overlain by a geologic formation called the Rustler which, I believe, overlays the salt section in the vicinity of these mining operations. The salt at the Keystone Field is some 700-750 feet deeper than it is in Eddy County, New Mexico, in the vicinity of this potash, but not quite so thick. It is my understanding that in Eddy County it is some 1600 feet thick, whereas in Winkler County it is some 1100 to 1200 feet thick. In our cable tool drilling, as well as rotary drilling, we cemented at the surface to protect the water sands, and after penetrating the salt section we set a second string and cemented it back to the surface. This second string is usually set at

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approximately 2300 to 3800 feet, depending on our location in that area. To insure the cementing of our strings we run temperature surveys to check the top of the cement, and if it has not reached the desired level we recement until we do get it to the surface. I see no reason why this method could not be applied with safety to oil well drilling in Eddy County.

Q You do not experience any communication after following this procedure in the salt area?

A We have never found any signs of communication and have further tested it in the last two years by liquified petroleum gas storage wells in the salt section. In this case we have set our casing strings at the very top of the salt section and, contrary to our ordinary drilling practice, which is the use of saturated brine solution to prevent washing out or dissolving of the salt -- in this case we use as pure water as we can to create storage space; and at the present time we have created as much as 300,000 bbls. of storage within the salt section; and by actual test we have found we were able to recover 100% of our liquified gases, which shows there is no communication within the salt section itself, and is a perfect traffic channel for fuels.

Q In your opinion there would be nothing to prevent the use of the salt formation for other purposes after a well were drilled through the salt layer?

A It would depend upon the location of your salt pillars and barriers within your mine. A core would have to be taken, of course, and holes drilled as nearly as vertical as possible. Advanced cementing techniques would have to be applied and mechanical devices used to aid in the protection of a cement job, like centralizers, etc.

Q With relation to the directional control of drilling, what

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precautions can be exercised under modern methods?

A I think wells in this formation can be limited definitely to a deviation under three degrees, and possibly one degree.

Q You think you can drill with that degree of accuracy?

A Yes sir, knowing the underground conditions and having accurate surface locations we can.

Q Do you have any reason to believe the operations which you have outlined would have any interference with potash mining operations?

A I cannot see how they would. I don't know what their techniques are, but under all the evidence I have seen until now I would say that it can be done.

CHAIRMAN: Do you care to ask any questions?

MR. SETH: It is very difficult to create underground storage areas. Does it take very long?

A It has taken as long as sixty days.

Q How big an area?

A Approximately 100,000 bbls., thirty foot diameter by about 700 foot column.

Q What type of salt?

A Primarily a Halite - I don't think a core analysis was made of the salt section as such. Anhydrite fingers and ledges were necessarily inserted in the section.

Q What about overlying water getting into the salt base?

A We definitely preclude any migration of overlying waters by our cement technique. We drill wells through the salt section and definitely have no trouble.

Q You believe you have by using all the technical devices available now. But have you made any underground investigation?

A No, I have made no personal underground investigation, but by studies of wells and drilling of storage wells in the center of a four-spot group of oil wells, and by injection of liquified gas, if there should be any communication we think

it would have been in evidence by now.

Q You say your recovery of liquified gas is 100%?

A Supposedly, yes.

Q What would your opinion be as to the life of the cement?

A I think definitely as long as the field would produce.

Q In years - how long?

A This field is presently 17 years old and I would say would produce another 35 to 50 years. I know of a few abandoned wells where casing damage and deterioration is definitely caused by bad planning and improper cement protection.

A Are there any chemical problems in cementing through the various salt beds?

A I am not qualified to answer that question, but I think a test with various brines and Portland cement would determine it, and I definitely see no reason why effective cementing could not be done in this potash area.

Q As I see it, success depends on the amount of circulation you are able to secure behind the casings, and success is also dependent on the life of the cement?

A Yes sir, that is right.

MR. GRAHAM: Suppose you were to drill a well right through a mine where there was potash work going on?

A I do not think that type of drilling would be attempted. There must be complete cooperation between the potash operators and the oil and gas companies.

Q You mean some sort of agreement between them?

A Yes sir; and if not by friendly agreement between themselves, then by rules and regulations issued by your office whereby such cooperation is absolutely necessary under the requirements.

Q What sort of column or pillar would the potash company have to leave around a well drilled on one of their leases?

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A I do not think it would require any greater pillar or column than they now leave. In some of the plans and reports I have seen they will leave as high as 250 feet, and in others as high as 25 to 40 feet.

MR. SETH: You don't feel you could drill through a 25-40 foot pillar?

A I think so, yes sir.

Q Do you think you could protect it?

A I think so, with the use of core drilling methods. This would be where cooperation would come in. These cores are obtained without any leaching or demolition.

Q At a thousand feet below the surface would you have any column of mud, or what solutions would you have?

A With a rotary you would necessarily have a column of fluid.

Q How much would it weigh?

A About 4.5 pounds per foot of depth.

Q The pressure alone, disregarding any solution, would destroy the pillar, would it not?

A I don't think so. Of course this is just a discussion -- in my opinion it would be dependent upon the surface or location. I would say definitely it would be incumbent upon us to set a 20" Rustler string.

Q As to the problem of gas: Suppose gas was encountered below the salt beds; what would be the extent of migration during the drilling operation?

A I don't think any, with correct casing program. Unless there is an accumulation of gas within the salt section. We would immediately case the well after the penetration of the salt section with casing not less than 13-3/8" and that would be cemented back to the surface. I also think it would be entirely protected by sound and modern cementing techniques.

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MR. GRAHAM: In case you drilled an oil well in the potash area and the potash company then developed in that direction, what actual information would be necessary for the potash company so as to leave the necessary column around the well?

A That would have to be determined.

MR. SETH: What would be the effect of a well subsidence of 25 to 30 feet?

A My first guess would be that your well could be destroyed - at least your outer surface strings could be sheared and the thing to do would be to pump your well full of cement.

MR. GRAHAM: Would a spacing program be of any benefit?

A At the present time you could not make a spacing plan, but there could be - I cannot see any good reason why certain areas would require larger than forty-acre spacing, depending on mine conditions.

MR. SETH: Would it be possible to cement a hole down to the first point where there was a shear, and beyond that point lose your control?

A No; because of the multiple strings in your well and different sizes of tubing, I cannot see any reason why each of these strings would be sheared.

Q In case of a lateral movement of three or four feet, everything would be sheared, would it not?

A I cannot feature this type of bed having that kind of a movement.

MR. MOORE: You have mentioned cooperation of the potash and oil industries, and the possibility of working together. I think we are all conservation minded, perhaps the potash industry to a somewhat greater extent. This discussion between Mr. Seth and Mr. Hill has indicated that there

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is a certain strong possibility that any subsidence that would damage the casings you would put in would consequently permit the intrusion of either oil, gas or water from the outside of the casing. At the present time the mines are Roman (?) pillar mines. Large percentages of the potash in that area are in pillars. In fact a considerable percentages of the developed potash in the United States are in pillars. It certainly cannot be long before some of that potash in pillars must be recovered to supply the United States with potash. A program of having wells in pillars would appear to me from this questioning to condition the further winning of potash of now developed reserves of potash from the existing mines. That is not a technical question to you. But it is in answer to your mention of the conservation point of view in which we are all concerned.

MR. HILL: Let me make this answer: In the removal of your pillars -- and I cannot prove this -- but generally I would say that should subsidence occur when the pillars are removed, that the one surrounding the well would not have to be removed; The chances of subsidence, I think, would be in direct ratio to the underground condition and, of course, your overburden there is necessarily going to fall vertically when it does make its movement, but with your casing strong I think it would be fairly safe. Another thing - this modern completion of oil wells usually calls for the packing of the annulus between the tubing and the outer string, and this annulus is ordinarily left filled with mud or water. Should subsidence occur and shearing take place in the well, the mine would not be affected.

MR. MOORE: You have pointed up, I think, the real problem regarding the one well. It would be one pillar which

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supports this well, and you have so conditioned the problem. I do not think that any of us can answer this problem at this time. I do think, however, that if you are experimenting with the potash mining of the United States, you cannot be faced with pillars which cannot be extracted. You must allow each to go gradually. The problem is one that will take study and is now being worked on.

MR. HILL: What is the normal height of a mine level?

A Fourteen feet with distances of 25 feet.

MR. HILL: You would not expect subsidence in that distance. I cannot see that a gradual subsidence, or even a sudden subsidence of 14 feet could damage materially an oil well that had efficient casing protection.

MR. CRAMER: The Bureau of Mines in studying the extraction of pillars has recommended a flexure of beds above the mine. The idea was to leave the lateral relationship of these beds intact. They could be brought down gradually with filling of the edges ten or twelve feet without breaking up of the areas above to any great extent. The point Mr. Moore mentions, of a pillar standing in there, would absolutely defeat the matter of bringing down these upper beds by flexure, and would mean a very sudden coming down, which I doubt if the Bureau of Mines would look upon with favor. Potash companies hold leases as a matter of trust. We work under the direction of the United States Geological Survey and we are held responsible for the maximum extraction of the pptash. We have shaft pillars in our mines which are of 500 feet radius, a solid block of material which is going to be left there with a minimum amount of breaking up of the underground foundation, as a protection to the mine. I have recently been in Europe where they operate with the Longwell (?) method of extraction. The roof does come down and subsidence is evident on the surface; and those mines are 2,000 feet deep.

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MR. MOORE: Have you any idea about projecting into the future?

MR. CRAMER: Every operator will be limited to the acreage which he can mine.

MR. CAMPBELL: Approximately how much area is actually being mined as distinguished from leases?

MR. CRAMER: I have not figured on that, Mr. Campbell, but of the areas Mr. Nix has applied for, two of them are directly over our mines. We extend something over a mile in every direction - not less than two miles in diameter. We have made extractions as low as 40. We have gone as high as 70 and left 30 behind. But it has never been our idea that we would not get all of it before we get through.

MR. MORRIS: I would like to supplement -- that subsidence could not be anticipated in any of the Eddy County mines. A great deal of preliminary work has been done in connection with pillars in mines. But very little actual work has been done on it up to date. However all that has been done has indicated that before any second mining can take place on any scale other than a limited one, potash would have to be extracted by the Roman pillar system, leaving the shaft area as the last to be worked. Preliminary plans on such a program would indicate that subsidence would have to be handled very carefully to prevent breakage through the zones being mined. Probably a large area would have to be opened up and pillars gradually cut down, so as to prevent vertical breakage. It has been assumed that the major production would have to come from the first mining.

MR. GRAHAM: Can some of the engineers tell us the ton volume of potash in a 500 foot diameter column, say ten

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feet high? Just as a matter of relative values of potash and oil?

MR. CRAMER: About 500,000 tons of ore. Let me say that to make an estimate of relative value in dollars might be skating on thin ice. During the first war it was $500 a ton, and last year, $20 a ton, and it has not been inflated, which I think should not be counted against us.

MR. GRAHAM: How would you estimate the whole field?

MR. CRAMER: This area represents more than 85% of the whole United States. I think it should be looked upon as an increasing requirement of agriculture.

MR. GRAHAM: What would be your estimate of the value of 40 acres of oil land?

MR. HILL: There is no way to predict what the production would be; but on an acre foot basis, assuming 4,000 bbls., taken at a value of $2.50 per bbl., it would be $10,000 per acre foot, gross.

MR. WEAVER: I would just like to mention that one bad casing job or one slip can lose a mine.

MR. SETH: In relation to the discussion of subsidence and flexing; in drilling after the flexing had occurred, the pillars withdrawn, and the mines closed, what would be your operation?

MR. HILL: I think you would definitely have to test out and possibly improve your foundation condition by some method.

Q It would be a mechanical problem?

A Yes.

MR. PROTZ: I would like to bring to your attention a problem we ran into in driving a tunnel to the south of our

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present operation. After driving about a third of the distance on a calculated slope, we ran into a definite occurrence of oil in the beds. It occurred, of course, after the men went back into the face to clean out the material of that particular round. In running into that of course the whole problem presented itself instantaneously, you might say. It was a complete surprise, excepting as we had encountered very slight oil stains in other areas. In testing a little bit further with a small drill we ran into a show of oil that ran almost full. It was, of course, plugged immediately. We did not go on in that place, but backed up and made other calculations in order to go around. The thoughts in connection with this were in relation to the tremendous volumes of water above the salt. I just did want to mention that the oil did traverse the beds in that area. In fact, in going off on a slant to go round this area we ran into another seep in other beds overlying the potash beds in that area. It does show a very definite threat of oil, gas and water.

MR. CAMPBELL: Did you determine the source?

MR. PROTZ: It was coming from an abandoned, dry oil and gas test, so reported, located about 1500 feet away, at which we encountered a little seep. We are quite definitely satisfied that this was the source after having explored the possibilities. That is a relatively small volume of oil, and it does give specific evidence as to the distance of migration within the salt section. The plugging record on this well appears to be very good. They seem to have taken proper precautions and at least met the requirements of government regulations before it was abandoned. The well was drilled in 1930-1931. It could have been because of the highly corrosive nature of the solutions occurring near the top of

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the salt that there was a hole in the casing.

MR. SETH: Would you discuss the course of the water above the salt there?

A We encountered the first water in the PCA area at depths of 50 to 100 feet. The operation was abandoned because of the high flow of water and the nature of it, making it inadvisable to proceed further. We were pumping at right about 1200 gallons a minute and just barely keeping even. We did not know but that we might encounter tremendous volumes of water. The vertical distance was 400 feet and when you compare that with the small volume of our mine workings it is very evident that a sufficient volume, once it started entering the mine, would be impossible to pump out.

Q What system did you use to plug the water?

A We used a system impossible in oil and gas operations. We poured solid cement plug through another salt section, with a wooden plug driven in at the top of the salt section, as full protection, and then plugged through each water horizon above that. This was done for two purposes: As a safeguard against seepage, and also to separate saline water from fresh water.

MR. HILL: You say it is impossible to create the same condition in an oil well?

A We have a solid cement plug, where you have cement merely on the outside of the casing.

Q Your production could be coming from a third string inside.

A You still have an opening for production, I don't care whether there are four or five strings. In other words, we have a solid cement plug as against one on the outside of the casing.

Q Is your core test confined to pillar locations?

A No, not necessarily confined to the pillar arrangement. We leave 100 ft. radius around core tests.

MR. SETH: The test hole is completely filled?

A Yes.

MR. HILL: That would depend on the location.

MR. PROTZ: We do know we can get migration from 1500 feet, and how far beyond we do not know. We are dealing not with oil, but water from above us.

MR. HILL: This 1500 foot migration - you do not know whether it was due to communication within the salt mass or faulting?

A We know we have shearing within certain beds in the salt section. They will shear and make very good migration.

Q Is there absolutely impervious covering over your salt after you leave the Rustler?

A I would not say impervious.

Q There must be some lack of communication.

A The beds are a relatively average regional dip of about 90 feet per mile.

Q Do you have any other cases of so-called proven migration?

A Not in our part of the area. I have been told of at least one other case where oil was encountered in the vicinity of Hobbs, but that I have been told was due to a faulty casing job. As to the distance, I don't know.

MR. HILL: Of course, not only drilling and casing techniques have improved in the past 22 years; and this job you mention was probably cable tool drilled in 1931. Rules in those times called for relatively meagre cementing. But today we study all subsurface waters and those formations have to be protected. Also, those plugged wells 20 years ago contained just mud solutions, as against cement now.

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MR. PROTZ: This well was drilled after the potash area was established and under the same regulations as today.

(Mr. Hill, cont.): When was that well abandoned?

A I believe in the early thirties.

Q Do you know that the oil migrated 1500 feet?

A Yes. we are satisfied that it did, and all geological evidence points to that as being the source of the oil.

MR. GRAHAM: In that potash area not all of the land has potash. Is this on federal or state land?

A It is on federal land.

Q It is true there are state lands within that area isn't it?

A Yes, there are producing wells on state lands in that area.

MR. MORRIS: By way of further explanation: An operator has many problems other than just production. Possibly the first three major problems are protection of the mine, protection of the men, and protection of the equipment, the last being the least of the three. In our mines in the Carlsbad area our main fear is water, because we know of no way to control water if it were to enter the worked out areas. In hard rock or coal you can build bulkheads. In a potash mine bulkheads would be useless because when water was trapped behind them and came in contact with the materials, it would just be a matter of time until some openings occurred and the water would work around, and the bulkhead would no longer serve the purpose for which it was erected. We therefore take a very cautious position with respect to any circumstance which might permit water to enter the mines. As to the second consideration, the protection of the men: Some of the greatest catastrophies have occurred as a result of the explosion of gases in such concentrations as might occur in nature or otherwise. As far as equipment is concerned, it is a minor problem, although it is lost in a mine under water. I might just amplify for a moment the (p.18

question about plugging of wells. It seems to me that an abandoned core test, properly plugged, in case of lateral displacement would afford proper protection, whereas a producing well with an opening in it, if you do have lateral displacement, and if there is any room at the point of lateral displacement, would naturally permit fluids to come out into the open area at the point of displacement.

Q Does it occur to you Mr. Hill, that with proper cooperation and control, drilling can be done in these areas with safety?

MR. HILL: I am still of the definite opinion that it can be achieved.

MR. GRAHAM: Can any one give us a line on the attitude of the federal government?

MR. CRAMER: These discussions have brought out quite clearly the fact that these two large industries are each in possession of a great deal of technical knowledge of which the other has only a smattering. In the state there is the State Bureau of Mines and the Oil Conservation Commission, and in the federal government under the Department of the Interior the Department of Mines and the United States Geological Survey. These four are able to bring together the knowledge of the entire problem. It would be our thought that the state and federal government agencies cooperate in assembling this information, and that no move be taken until it was possible to take advantage of this information. I think this policy might develop some very constructive conclusions. As you know, the particular purpose of the federal government is the protection of this 85% of the potash deposits in this country which is found in this small area.

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MR. GRAHAM: Can you say what is the attitude of the United States Geological Survey?

A Of course the federal government holds ten times the area held by the state. I know what their attitude was fifteen to twenty years ago, and whether their ideas have crystalized I could not say.

MR. BLACKMAN: My impression is that they do not want any drilling. So fas as I know, there is not any information on subsidence in that field. However, there is considerable literature on the northern Colorado coal fields, where there is somewhat the same situation. That information can be readily available, and I would be very glad to have it sent to you if you desire. Subsidence doesn't occur straight up and down, but goes out; to a considerable extent that depends on the overburden, but at several thousand feet depth you would not have a pillar on the surface -- only a cone. As I have said, I would be very glad to have that information sent to you.

MR. CAMPBELL: This particular application of Mr. Nix does not cover federal land; and if all of the lands are to be withdrawn from oil and gas development, it seems to me a very serious problem. It occurs to us there is no particular reason why, under proper cooperation and control, it should not be developed by drilling.

MR. CRAMER: As I understand it, Mr. Nix is particularly interested in Tract 23. This is not only part of our mine, but part of it is federal land. I mean part was land we were mining under federal lease.

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MR. GRAHAM: Does the Southwest Potash Corporation care to discuss this application made last November?

MR. MOORE: We would like to know what the State feels in regard to it.

MR. GRAHAM: Some of that land is held by production and some under lease that pre-dates your lease. You have some oil wells right on your lease.

A Of course, in Section 16 there is a producing well.

MR. GRAHAM: The policy on that one well might work out for the entire area, if we could be in position where we could rule on that.

MR. MOORE: We have been talking about the production of oil and potash on the same acreage. There would have to be some thought given as to what that policy might be.

MR. GRAHAM: We feel that the State would prefer not to make a decision with which the federal government might not agree.

MR. CAMPBELL: It seems to me the state is depriving itself of considerable revenue.

MR. SETH: Looking at it from the point of view of the state, there is apparently no serious difficulty in drilling an area after the potash has been removed, and from the state's point of view it seems to me it could wait for a few years until the potash could be removed. Oil will be here, but the potash industry would be gone. The technical aspects are subject to considerable study.

MR. KELLY: I think the question has resolved itself into two phases. One is the overall development of southern Eddy County. It is my understanding that potash

interests not only hold leases around the mines but control those of other companies. If oil wells cannot be drilled on land that is prospective potash land, then the State of New Mexico and the federal government will lose considerable revenue. The Delaware Basin area is one of the few in the country with very great oil reserves. Is it the request of the potash companies to withdraw them from oil development?

MR. SETH: It goes both ways, doesn't it John?

A We are not trying to prevent the mining of potash. I think the fact we drill there helps the potash industry.

MR. SETH: The state is not going to lose it.

A Yes, I think we can lose it in the same manner the coal fields in New Mexico have been lost. The state is not getting anything from it.

Q Is it an economic prognostication you want?

A It is a question of considerable importance as to public lands.

MR. GRAHAM: Is it a geological assumption that oil is there in marketable quantities?

A Yes sir. I think the gentlemen from the major oil companies could answer better on account of their research staffs.

MR. HILL: I think it is a purely practical matter, whether it can be done. We think it can.

MR. SETH: Don't you think it is a matter of time?

MR. HILL: We know that both of the resources are desperately needed, and compared on that basis it doesn't seem to me that potash production outweighs that of oil.

Q But you will admit that the area of potential production of oil is many times greater than potential potash production.

A But the potential reserves of oil are getting smaller

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and smaller all the time.

MR. GRAHAM: Is potash only known in the Carlsbad area?

MR. CRAMER: We don't say that -- but 85% of the potash in the country is there. There is an old brine lake in California, but I don't know what the potash content is.

MR. GRAHAM: I meant in the state.

A I don't know of any other. I want the record to show that the state and federal workings in our mine are not only contiguous but open, and if our state operations are jeopardized the federal mine area would be jeopardized to a greater extent because the greater part is on federal land.

MR. HILL: If the state land put up had been a township away from where you are working would you have taken the same position?

MR. CRAMER: We have not taken a position. If it became necessary to spend a few thousand dollars to protect our mine, we would not hesitate. The company in the past has had certain federal oil permits, as I recall, which we gladly relinquished at the time of the creation of the reserve. We hold some oil leases at the present time on top of the potash areas and we saw fit to get both the oil and potash leases, and it was our intention to protect the potash when we did so. We did feel the state had a policy with respect to the area. With men underground even a 1 degree or a 3 degree tangent means much more than the thickness of one of our pillars.

MR. GRAHAM: The Southwest Potash Corporation also had the lease, but there were preexisting oil and gas leases on the land.

MR. NIX: They took the lease when oil operators had a

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right to drill, and we are only asking the same in return.

MR. GRAHAM: All I can say is that this is an actual written application for a regulation in that area.

MR. KELLY: Mr. Cramer stated his company holds oil and gas permits and that the permits were taken to protect the potash mining operation. What is the intent of his company at this time?

MR. CRAMER: I did not mean to state that we hold any federal permits at the present time. We did in the early days and as I recall, from memory, we relinquished them.

MR. KELLY: At the present time doesn't the potash industry hold tremendous acreage outside of the present known fields?

A Yes.

Q Is it their intention to request that that land be restricted to potash mining?

A I don't think so.

MR. GRAHAM now read the following petition of the Southwest Potash Corporation:

Southwest Potash Corporation
61 Broadway
New York 6, New York

November 10, 1950

To: Commissioner of Public Lands
State of New Mexico
Santa Fe, New Mexico

Sir:

The undersigned SOUTHWEST POTASH CORPORATION, a Delaware corporation, duly authorized to transact business in New Mexico, and having offices at 61 Broadway, New York 6, New York and at Carlsbad, New Mexico, hereby submits the following:

(1) The undersigned is the owner and holder of

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Potash Mining Lease No. M-2657 issued by the State of New Mexico and dated March 30, 1948.

(2) Extensive drilling by the undersigned has demonstrated the existence of a commercial potash ore body on the following portions of the lands covered by the above lease:

(A) T. 19 S., R. 29 E.
Section 11, SE 1/4
Section 12, S 1/2
Section 13, All
Section 14, All

(B) T. 19 S., R. 30 E.
Section 16, All

(3) In the above lands the said potash ore body is at a depth of approximately 750 feet. The ore occurs as a flat-lying bed averaging approximately 52 inches in thickness.

(4) The undersigned contemplates the expenditure of approximately $10,000,000 in mine development and the construction of a plant to process its potash ores in New Mexico, of which the ores contained in the above mentioned tracts are a part.

(5) There are presently in effect oil and gas leases issued by the State of New Mexico covering the above described lands.

To the best of the undersigned's knowledge, there have been no oil or gas discoveries within the lands listed under (A) above, but Tract (B), Section 16 of Township 19 S., R. 30 E. contains a producing oil field.

(6) Exploitation of the potash ores and drilling for oil and gas on the same lands are not compatible for the following reasons:

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A. It is necessary to leave large pillars (at least 100 ft. in radius) around oil and gas holes in areas where potash ores are to be mined. Such pillars can never be recovered and result in the permanent loss of potash, a national resource of limited quantity.

B. The leaving of pillars because of oil and gas wells interferes with the laying out of the underground mine workings, the mine development, and extraction of the ore, all of which must be planned in advance and carried out by methods which will assure maximum recovery of the potash ores.

C. Oil and gas wells in potash ore bodies are a hazard to the orderly and complete extraction of the potash ores because water may enter the mine workings through the oil and gas wells and dissolve the potash and salt. This is dangerous and can result in serious damage to the mine and loss of a national resource.

(7) The existence of the potash is known. In contrast there are no known oil or gas deposits beneath said lands, except in Tract (B).

WHEREFORE, the undersigned respectfully requests that the appropriate body, agency or authority of the State of New Mexico, in order to protect and prevent waste and damage to the potash ore bodies already discovered and developed by the undersigned on lands

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listed herein forthwith issue such orders, rules, regulations and directives as will:

(a) Withdraw and exclude the above described lands from the issuance of State oil and gas leases.

(b) Provide that any and all existing non-producing oil and gas leases on said lands be not renewed or extended.

Respectfully submitted,
SOUTHWEST POTASH CORPORATION

By (Sgnd) JOHN PAYNE, Jr.
Vice President

(CORPORATE SEAL)

ATTEST:

(Sgnd) H. COHEN
Asst. Secretary

MR. GRAHAM: Within that particular area seem to lie all of the problems we have discussed.

(Recess)

CHAIRMAN: The meeting will please come to order. As I recall, you were going to make some comments, Mr. Campbell.

MR. CAMPBELL: Are you now mining what you consider to be the only commercial vein on your properties, or are there others?

MR. WEAVER: There are other and higher elevations.

Q You would not take the pillars out?

A That all depends. There are so many things to be considered. There is another mine opened up by the International

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Chemical at three levels.

Q Where you take out your pillars, is that pretty well controlled? You can tell pretty well where you will have subsidence under normal conditions?

A We know where we would expect it to be. However, there is a lot of research work to be done in this basin. We don't know exactly.

Q Do you work out your core drilling operations -- how frequently -- or some pattern?

A Some companies operate on a pattern of about every 160 acres -- or one based on the center of each pillar.

Q You leave a pillar around a hole of 100 foot radius?

A Yes, that is right.

CHAIRMAN: Has any one else any further questions?

MR. SETH: I do not think there are any further questions. We would like to make a request. I would just like to say that we are glad of this opportunity to have the benefit of Mr. Hill's testimony; but we would like to do some more research work ourselves and give the matter a little more thought, not only as to mechanical and technical matters, but also matters of policy. This is the first opportunity we have had for full discussion, and to hear the problems of the oil people presented. As somebody has already mentioned, each of us has a lot to learn about the other's business, and, of course, I have a lot to learn about both. We would like, if the Commissioner sees fit to do so, to have another hearing, when we would be in better position to present a little more engineering data and to be able to answer direct questions which have been put in regard to matters of policy, engineering, etc. This is of

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very great consequence to the state and to the potash companies, who have already made their very large investigations in this area. We will not only get information on the specific problems already presented, but if the Commissioner desires to go into any other aspects of the matter we will be most happy to do so, and try to gather additional data on any subject involved that you wish.

MR. CAMPBELL: One thing I would like to stress is that of the time element. Applying for and winning this lease does not contemplate any drilling immediately. Getting the lease and drilling are not only far apart -- but we do not even know that we will drill. We did not even seek this land originally, but do feel that it is to our interest to have it disposed of, at least, as soon as you can. We, too, appreciate the chance to present our views on this matter. It does have material consequence beyond this application, and we think it very wise of the Commissioner to call a hearing.

CHAIRMAN: Any one else? If not, I would like to say that I think this thing is going to have a far reaching effect, probably for a long time to come. So, I am going to hold this open for any additional testimony or information until the 9th of March ** and we will hold another hearing at 10:00 o'clock on the morning of that day in this room, and I hope at that time to be able to make a decision within a day or two.

NOTE: ** The Commissioner later designated another date - the 29th of March instead of the one first set.

MR. BLACKMAN: I think it would be very beneficial

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to all concerned to hear the testimony of some representative of the Bureau of Mines and the Geological Survey, and I believe it might be a matter which would have to be decided in Washington to let them testify at such a hearing as this.

CHAIRMAN: I notified Mr. Morrell of this hearing, and some others, but heard nothing from him.

Meeting adjourned.

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BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

CASE NO. 278
Order No. R-111-A

THE APPLICATION OF THE OIL CONSERVATION COMMISSION UPON ITS OWN MOTION FOR AN ORDER REVISING ORDER R-111 ISSUED IN CASE 278, PERTAINING TO THE POTASH-OIL AREAS OF EDDY AND LEA COUNTIES, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a. m. on July 14, 1955, August 17, 1955 and September 15, 1955, at Santa Fe, New Mexico, before the Oil Conservation Commission, hereinafter referred to as the "Commission".

NOW, on this 13th day of October, 1955, the Commission, a quorum being present, having considered the records and testimony adduced, and being fully advised in the premises;

FINDS:

(1) That due notice of the time and place of hearing and the purpose thereof having been given as required by law, the Commission has jurisdiction of this case and the subject matter thereof.

(2) That the delineation of an area including and containing potential oil and gas reserves, within which are commercial potash deposits, and the promulgation of rules and regulations for the orderly development of oil and gas resources in such area known to be productive of potash is within the authority of the Commission for the protection of correlative rights, the promotion of conservation, and the prevention of waste.

IT IS THEREFORE ORDERED:

That this order shall be known as The Rules and Regulations Governing the Exploration of Oil and Gas in Certain Areas Herein Defined, which are Known to contain Potash Reserves.

I.

OBJECTIVE

The objective of these Rules and Regulations is to prevent waste, protect correlative rights, assure maximum conservation of the oil, gas and potash

resources of New Mexico, and permit the economic recovery of oil, gas and potash minerals in the area hereinafter defined.

II.

THE POTASH-OIL AREA

(1) The Potash-Oil Area, as outlined in Exhibit A attached hereto and made a part hereof, represents the area in various part of which potash mining operations are now in progress, or in which core tests indicate commercial potash reserves.

(2) The Potash-Oil Area, as outlined herein, may be revised by the Commission after due notice and hearing.

III.

DRILLING IN THE POTASH AREA

(1) All drilling of oil and gas wells in the Potash Area shall be subject to these Rules and Regulations.

(2) No wells will be drilled for oil or gas at a location which, in the opinion of the Commission or its duly authorized representative, would result in undue waste of potash deposits or constitute a hazard to or interfere unduly with potash deposits.

No mining operations will be conducted in the Potash Area that would, in the opinion of the Commission or its duly authorized representative, constitute a hazard to oil or gas production, or that would unreasonably interfere with the orderly development and production from any oil or gas pool.

(3) Upon discovery of oil or gas in the Potash Area, the Oil Conservation Commission shall promulgate pool rules for the affected area after due notice and hearing.

IV.

DRILLING AND CASING PROGRAM

(1) For the purpose of the regulations and the drilling of oil and gas exploratory test wells, shallow and deep zones are defined, as follows:

(a) The 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) The 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) Surface Casing String:

(a) A surface casing string of new or used oil field casing in good condition shall be set in the "Red Bed" section of the basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section, as determined necessary by the regulatory representative approving the drilling operations, and shall be cemented with not less than one hundred and fifty percent (150) percent of calculated volume necessary to circulate cement to the ground surface.

(b) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(c) Casing and water-shut-off tests shall be made both before and after drilling the plug and below the casing seat as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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.

(d) The above requirements for the surface casing string shall be applicable to both the shallow and deep zones.

(3) Salt Protection String:

(a) A salt protection string of new or used oil field casing in good condition shall be set not less than one hundred (100) feet nor more than six hundred (600) feet below the base of the salt section; provided that such string shall not be set below the top of the highest known oil or gas zone.

(b) The salt protection string shall be cemented, as follows:

(i) For wells drilled to the shallow zone, the string may be cemented with a nominal volume of cement for testing purposes only. If the exploratory test well is completed as a productive well, the string shall be re-cemented with sufficient cement to fill the annular space back of the pipe from the top of the first cementing to the surface or to the bottom of the cellar, or may be cut and pulled if the production string is cemented to the surface as provided in sub-section IV (5), (i) below.

(ii) For wells drilled to the deep zone, the string must be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar; however, where the base of the Delaware Mountain Group is definable the casing rules in (IV) (3b) (i) shall apply even if the depth of the bottom of the Delaware Mountain Group is greater than 5,000 feet. For the purpose of identification, the base of the Delaware Mountain Group is hereby identified as the equivalent of the base of such formation as found at a depth of 7h85 feet in the Richardson and Bass No. 1

Rodka Hill in Section 27, Township 20 South, Range 31 East, NMPM, Lea County, New Mexico, immediately overlying the Rone Canyon formation.

(c) If the cement fails to reach the surface or the bottom of the cellar, as required, the top of the cement shall be located by a temperature or other survey and additional cementing shall be done until the cement is brought to the point required.

(d) The fluid used to mix with the cement shall be saturated with salt common to the zones penetrated and with suitable proportions but not less than 5% of calcium chloride by weight of cement.

(e) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(f) Casing tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of one thousand (1000) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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) The Commission, or its duly authorized representative, may require the use of centralizers on the salt protection string when in their judgment the use of such centralizers would offer further protection to the salt section.

(h) The above requirements for the salt protection string shall be applicable to both the shallow and deep zones except for sub-section IV (3), (b), (i) and (ii) above.

(4) Intermediate String:

(a) In the drilling of oil and gas exploratory test wells to the deep zone, the operator shall have the option of running an intermediate string of pipe, unless the Commission requires an intermediate string.

(b) Cementing procedures and casing tests for the intermediate string shall be the same as provided under sub-sections IV (3), (c), (e) and (f) for the salt protection string.

(5) Production String:

(a) A production string shall be set on top or through the oil or gas pay zone and shall be cemented as follows:

(i) For wells drilled to the shallow zone the

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production string shall be cemented to the surface if the salt protection string was cemented only with a nominal volume for testing purposes, in which case the salt protection string can be cut and pulled before the production string is cemented; provided, that if the salt protection string was cemented to the surface, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone.

(ii) For wells drilled to the deep zone, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided, that if no intermediate string shall have been run and cemented to the surface, the production string shall be cemented to the surface.

(b) Cementing procedures and casing tests for the production string shall be the same as provided under sub-section IV (3), (c) (o) and (f) for the salt protection string; however if high pressure oil or gas production is discovered in any area, the Commission shall promulgate the necessary rules to prevent the charging of the salt section.

V.

DRILLING FLUID FOR SALT SECTION

The fluid used while drilling the salt section 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 fluid by the operator in overcoming any specific problem. This requirement is specifically intended to prevent enlarged drill holes.

VI.

PLUGGING AND ABANDONMENT OF WELLS

(1) All wells heretofore and hereafter drilled within the Potash Area shall be plugged in a manner and in accordance with field rules established by the Commission that will provide a solid cement plug through the salt section and any water bearing horizon and prevent liquids or gases from entering the hole above or below the salt section.

(2) The fluid used to mix the cement shall be saturated with the salts common to the salt section penetrated and with suitable proportions but not more than three (3) percent of calcium chloride by weight of cement being considered the desired mixture whenever possible.

VII.

LOCATION FOR WELLS

Before commencing drilling operations for oil or gas on any lands within the Potash Area, the well operator shall prepare a map or plat showing the location of

the proposed well, said map or plat to accompany each copy of the Notice of Intention to Drill. In addition to the number of copies required by the Commission, the well operator shall send one copy by registered mail to all potash operators holding potash leases within a radius of one mile of the proposed well, as reflected by the plats submitted under paragraph IX (2).

The well operator shall furnish proof of the fact that said potash operators were notified by registered mail of his intent by attaching return receipt to the copies of the Notice of Intention to Drill and plats furnished the Commission.

The Commission, or its authorized representative, may approve such Notice of Intention to Drill if no objection to the location of the proposed well is made by a potash operator within ten days after receipt. If the location of the proposed well is objected to by the potash operator, the matter shall be referred to the Secretary-Director of the Commission for arbitration. If a satisfactory settlement cannot be reached, the Secretary-Director of the Commission shall refer the matter to a hearing before the Commission after due notice and a decision either approving or denying the operator's plans to drill shall be entered by the Commission.

VIII.

INSPECTION OF DRILLING AND MINING OPERATIONS

A representative of the potash operator may be present during drilling, cementing, casing, and plugging of all oil or gas wells within a radius of one mile of the well location to observe conformance with these regulations. Likewise, a representative of the oil and gas lessee may inspect mine workings on his lease to observe conformance with these regulations.

IX.

FILING OF WELL SURVEYS, MINE SURVEYS AND POTASH DEVELOPMENT PLANS

(1) Directional Surveys:

The Commission may require an operator to file a certified directional survey from the surface to a point below the lowest known potash bearing horizon on all wells drilled within the Potash Area. These surveys may be required where, in the Commission's judgment, the exact location of the well-bore must be determined in order to aid mining operations.

(2) Mine Surveys:

Within 30 days after the adoption of this order, and thereafter on or before January 31st of each year, each potash operator shall furnish two copies of a plat of a survey of the location of his leaseholdings and all of his open mine workings, which plat shall be available for public inspection.

(3) Potash Development Plan:

Within 30 days after adoption of this order and thereafter on or before January 31st of each year, each potash operator shall furnish two copies of a projection of development plans in the form of a plat, which plat shall be for the confidential use of the Commission and for inspection by any affected oil or gas operator. The projection shall cover not less than 3 nor more than a 5 year development program.

X.

APPLICABILITY OF STATEWIDE RULES AND REGULATIONS

All general statewide rules and regulations of the Oil Conservation Commission governing the development, operation, and production of oil and gas in the State of New Mexico not inconsistent or in conflict herewith, are hereby adopted and made applicable to the areas described herein.

EXHIBIT "A"

NORTH-OIL AREA

TOWNSHIP 18 SOUTH, RANGE 30 EAST
Section 13: SW/4
Section 14: S/2, NW/4, W/2 NE/4
Section 15: SE/4
Section 22: E/2, E/2 W/2
Section 23: All
Section 24: NW/4
Section 26: N/2
Section 27: N/2 NE/4

TOWNSHIP 19 SOUTH, RANGE 29 EAST
Section 11: SE/4
Section 12: S/2, S/2 NE/4
Section 13: N/2, N/2 S/2, S/2 SW/4
Section 14: E/2, E/2 W/2
Section 23: N/2 NE/4

TOWNSHIP 19 SOUTH, RANGE 30 EAST
Section 3: S/2
Section 4: S/2, NW/4, SW/4 NE/4
Section 5: E/2, E/2 W/2, SW/4 SW/4
Section 7: S/2, S/2 N/2, N/2 NE/4
Section 8: All
Section 9: All
Section 10: All
Section 11: SW/4, W/2 SE/4
Section 14: W/2, W/2 SE/4
Section 15: All
Section 16: All
Section 17: All
Section 18: E/2, NW/4
Section 19: NE/4
Section 20: N/2, SE/4 SE/4
Section 21: All
Section 22: All
Section 23: W/2
Section 26: W/2, SE/4
Section 27: All
Section 28: All
Section 29: E/2
Section 32: SE/4, NE/4 NE/4
Section 33: All
Section 34: All
Section 35: All
Section 36: SW/4, S/2 NW/4, S/2 SE/4

TOWNSHIP 19 SOUTH, RANGE 31 EAST
Section 36: SE/4

TOWNSHIP 19 SOUTH, RANGE 32 EAST
Section 31: W/2 SW/4
Section 33: SE/4, E/2 SW/4
Section 34: S/2
Section 35: S/2
Section 36: SW/4, SE/4 SE/4

TOWNSHIP 19 SOUTH, RANGE 33 EAST
Section 22: SE/4 SE/4
Section 23: SW/4
Section 25: SW/4
Section 26: All
Section 27: E/2
Section 31: S/2
Section 32: SW/4
Section 34: NE/4 NE/4
Section 35: All
Section 36: S/2, NW/4 W/2 NE/4

TOWNSHIP 19 SOUTH, RANGE 34 EAST
Section 31: SW/4 SW/4

TOWNSHIP 20 SOUTH, RANGE 29 EAST
Section 13: SW/4 SW/4
Section 14: SE/4 SE/4
Section 22: SE/4, S/2 NE/4
Section 23: S/2, NE/4
Section 24: W/2, W/2 SE/4
Section 25: N/2, N/2 S/2
Section 26: All
Section 27: E/2
Section 34: NE/4, N/2 SE/4
Section 35: NW/4

TOWNSHIP 20 SOUTH, RANGE 30 EAST
Section 1: All
Section 2: All
Section 3: All
Section 4: All
Section 5: S/2, NE/4
Section 6: S/2, S/2 NE/4
Section 7: NW/4, E/2
Section 8: All
Section 9: All
Section 10: All
Section 11: All
Section 12: All
Section 13: All
Section 14: All
Section 15: All
Section 16: All
Section 17: All
Section 18: E/2
Section 19: E/2

EXHIBIT "A" (Continued)

TOWNSHIP 20 SOUTH, RANGE 30 EAST (continued)

Section 20: All
Section 21: All
Section 22: All
Section 23: All
Section 24: All
Section 25: All
Section 26: All
Section 27: All
Section 28: All
Section 29: All
Section 30: All
Section 31: E/2
Section 32: All
Section 33: All
Section 34: All
Section 35: All
Section 36: All

TOWNSHIP 20 SOUTH, RANGE 31 EAST

Section 1: E/2, E/2 W/2
Section 6: SW/4, S/2 NW/4, W/2 SE/4
Section 7: W/2, SE/4, W/2 NE/4
Section 8: S/2, S/2 N/2
Section 9: SW/4, S/2 NW/4
Section 11: SE/4, E/2 SW/4
Section 12: All
Section 13: All
Section 14: E/2, SW/4, E/2 NW/4
Section 16: W/2
Section 17: All
Section 18: All
Section 19: All
Section 20: All
Section 21: NW/4, S/2
Section 22: S/2, S/2 NE/4
Section 23: All
Section 24: All
Section 25: All
Section 26: All
Section 27: All
Section 28: All
Section 29: All
Section 30: All
Section 31: All
Section 32: All
Section 33: All
Section 34: All
Section 35: All
Section 36: All

TOWNSHIP 20 SOUTH, RANGE 32 EAST

Section 1: All
Section 2: All
Section 3: All
Section 4: E/2, SW/4, E/2 NW/4

(continued)

TOWNSHIP 20 SOUTH, RANGE 32 EAST, (continued)

Section 5: S/2 S/2
Section 6: W/2, SW/4 SE/4
Section 7: All
Section 8: All
Section 9: All
Section 10: All
Section 11: All
Section 12: All
Section 13: All
Section 14: All
Section 15: All
Section 16: All
Section 17: All
Section 18: All
Section 19: All
Section 20: All
Section 21: All
Section 22: All
Section 23: All
Section 24: All
Section 25: All
Section 26: All
Section 27: All
Section 28: All
Section 29: All
Section 30: All
Section 31: All
Section 32: All
Section 33: All
Section 34: All
Section 35: All
Section 36: All

TOWNSHIP 20 SOUTH, RANGE 33 EAST

Section 1: All
Section 2: E/2, E/2 W/2
Section 5: W/2
Section 6: All
Section 7: All
Section 8: W/2, SW/4 NE/4, SE/4
Section 9: S/2 S/2, NW/4 SW/4
Section 10: S/2
Section 11: E/2, E/2 NW/4, SW/4
Section 12: All
Section 13: All
Section 14: All
Section 15: All
Section 16: All
Section 17: All
Section 18: All
Section 19: All
Section 20: All
Section 21: W/2 SW/4, NW/4, N/2 NE/4

...(Continued)

...RANGE 33 EAST, (Continued)
...
Section 23: N/2 N/2, SW/4 NE/4
Section 27: ...; N/2 NE/4, SE/4 SE/4
Section 29: E/2; NE/4, N/2 SE/4, SW/4 SE/4
Section 32: E/2
Section 33: All
Section 34: N/2, N/2 SW/4

...SOUTH, RANGE 34 EAST
Section 6: W/2, W/2 SE/4
Section 7: All
Section 8: SW/4
Section 16: SE/4, SW/4 NW/4, SW/4 SE/4
Section 17: All
Section 18: All
Section 19: All
Section 20: All
Section 21: All
Section 22: SW/4
Section 27: W/2
Section 28: All
Section 29: N/2, SE/4, NE/4 SW/4
Section 30: NE/4 NW/4, N/2 NE/4, SE/4 NE/4
Section 32: N/2 NW/4, SE/4 NE/4
Section 33: N/2, SE/4, N/2 SW/4, SE/4 SW/4
Section 34: W/2

TOWNSHIP 21 SOUTH, RANGE 29 EAST
Section 1: All
Section 2: Lots 1 - 16, incls., SE/4, NE/4 SW/4
Section 3: Lots 1 - 9, incl.
Section 4: Lots 1 - 8, incl., Lots 10 and 11
Section 11: E/2, E/2 SW/4
Section 12: All
Section 13: All
Section 14: E/2, E/2 W/2, SW/4 NW/4, NW/4 SW/4
Section 15: SE/4 NE/4, NE/4 SE/4
Section 23: N/2 NE/4
Section 24: NE/4, NE/4 SE/4, N/2 NW/4, SE/4 NW/4
Section 35: S/2 NE/4, SE/4, E/2 SW/4
Section 36: S/2 SW/4, SE/4, S/2 NE/4, NE/4 NE/4

TOWNSHIP 21 SOUTH, RANGE 30 EAST
Section 1: All
Section 2: All
Section 3: All
Section 4: All
Section 5: All
Section 6: All
Section 7: All
Section 8: All
Section 9: N/2, SW/4
Section 10: N/2, SE/4, N/2 SW/4, SE/4 SW/4
Section 11: All
Section 12: All
Section 13: All

RANGE 29 E. (continued)

TOWNSHIP 21 SOUTH, RANGE 30 EAST (continued)
Section 11: All
Section 13: [illegible] NE/4, N/2 SE/4, SE/4 SE/4
Section 15: [illegible] NW/4
Section 17: All
Section 18: All
Section 19: All
Section 20: E/2, N/2 NE/4
Section 21: W/2 E/2
Section 23: All
Section 24: All
Section 25: N/2, SE/4, N/2 SW/4, SE/4 SW/4
Section 26: N/2, N/2 S/2
Section 27: NE/4, N/2 SE/4, SE/4 SE/4
Section 29: NE/4, N/2 SW/4
Section 30: E/2, E/2 W/2
Section 31: All
Section 32: S/2, NE/4, NW/4 NE/4, S/2 NE/4
Section 36: E/2

TOWNSHIP 21 SOUTH, RANGE 31 EAST
Section 1: All
Section 2: All
Section 3: All
Section 4: All
Section 5: All
Section 6: All
Section 7: All
Section 8: All
Section 9: All
Section 10: W/2
Section 12: N/2, SE/4, N/2 SW/4, SE/4 SW/4
Section 13: N/2 NE/4
Section 15: W/2
Section 16: E/2, NW/4, E/2 SW/4
Section 18: NW/4, W/2 NE/4, NE/4 NE/4, W/2 SW/4 NE/4 SW/4
Section 21: E/2, NE/4 NW/4
Section 22: W/2
Section 27: W/2, SW/4 NE/4, W/2 SE/4
Section 28: E/2
Section 30: SW/4, W/2 NW/4, SE/4 NW/4
Section 31: W/2
Section 33: NE/4 NE/4
Section 34: NW/4, NW/4 NE/4

TOWNSHIP 21 SOUTH, RANGE 32 EAST
Section 6: Lots 1 - 7 incls., Lots 10 - 15, inclus., SW/4
Section 7: W/2
Section 22: E/2
Section 23: All
Section 24: All

Section 31: [illegible] E/2 SW/4
Section 32: [illegible] E/2 W/2
Section 33: [illegible] E/2 W/2, [illegible]

[illegible]
Section 4: [illegible] NE/4, SW/4 NE/4, W/2 SW/4
Section 5: [illegible] NW/4, W/2 NE/4, NW/4 SE/4
Section 6: [illegible]
Section 28: [illegible]
Section 29: [illegible], NE/4 NE/4, NE/4 SW/4
Section 30: E/2 NE/4, SE/4, NE/4
Section 31: E/2 W/2
Section 32: W/2 W/2

TOWNSHIP 21 SOUTH, RANGE 31 EAST
Section 19: W/2

TOWNSHIP 22 SOUTH, RANGE 29 EAST
Section 1: All
Section 2: W/2, E/2 NW/4, SW/4
Section 3: S/2 SE/4, NE/4 SE/4
Section 10: E/2, E/2 W/2, SW/4 SW/4
Section 11: All
Section 12: All
Section 13: All
Section 14: All
Section 15: All
Section 16: SE/4, SE/4 NE/4, SE/4 SW/4
Section 20: E/2 E/2
Section 21: All
Section 22: All
Section 23: All
Section 24: All
Section 25: All
Section 26: All
Section 27: All
Section 28: NE/4, N/2 NW/4, SE/4 NW/4, SE/4
Section 33: NE/4 NE/4
Section 34: NW/4, W/2 E/2, N/2 SW/4, SE/4 SW/4
Section 35: E/2, SW/4, SE/4 NW/4
Section 36: All

TOWNSHIP 22 SOUTH, RANGE 30 EAST
Section 1: E/2
Section 5: N/2, N/2 S/2, SW/4 SW/4
Section 6: All
Section 7: W/2, W/2 E/2, SE/4 SE/4
Section 8: S/2 SW/4
Section 12: NE/4 NE/4
Section 13: NW/4, N/2 SW/4, SW/4 SW/4
Section 14: SE/4, S/2 NE/4, E/2 SW/4, SW/4 SW/4
Section 17: NW/4
Section 18: All
Section 19: All

Section 22: E/2, E/2 W/2
Section 23: W/2 W/2
Section 26: W/2 W/2, NE/4 NW/4
Section 27: NE/4
Section 34: N/2 NE/4, SW/4 NE/4, N/2 SW/4
Section 35: NW/4, N/2 SE/4, SW/4 SE/4
Section 36: All

TOWNSHIP 21 SOUTH, RANGE 34 EAST
Section 19: W/2

TOWNSHIP 22 SOUTH, RANGE 29 EAST
Section 1: All
Section 2: E/2, E/2 NW/4, SW/4
Section 3: S/2 SE/4, NE/4 SE/4
Section 10: E/2, E/2 W/2, SW/4 SW/4
Section 11: All
Section 12: All
Section 13: All
Section 14: All
Section 15: All
Section 16: SE/4, SE/4 NE/4, SE/4 SW/4
Section 20: E/2 E/2
Section 21: All
Section 22: All
Section 23: All
Section 24: All
Section 25: All
Section 26: All
Section 27: All
Section 28: NE/4, N/2 NW/4, SE/4 NW/4, SE/4
Section 33: NE/4 NE/4
Section 34: NW/4, W/2 E/2, N/2 SW/4, SE/4 SW/4
Section 35: E/2, SW/4, SE/4 NW/4
Section 36: All

TOWNSHIP 22 SOUTH, RANGE 30 EAST
Section 1: E/2
Section 5: N/2, N/2 S/2, SW/4 SW/4
Section 6: All
Section 7: W/2, W/2 E/2, SE/4 SE/4
Section 8: S/2 SW/4
Section 12: NE/4 NE/4
Section 13: NW/4, N/2 SW/4, SW/4 SW/4
Section 14: SE/4, S/2 NE/4, E/2 SW/4, SW/4 SW/4
Section 17: NW/4
Section 18: All
Section 19: All

Case No. R-111-A

EXHIBIT "A" (continued)

TOWNSHIP 22 SOUTH, RANGE 30 EAST (continued)
Section 21: All
Section 22: S/2, SW/4 NW/4
Section 23: S/2, S/2 N/2, NE/4 NE/4
Section 26: W/2 W/2
Section 27: All
Section 28: All
Section 29: All
Section 30: All
Section 31: All
Section 32: All
Section 33: All
Section 34: All
Section 35: W/2

TOWNSHIP 22 SOUTH, RANGE 31 EAST
Section 6: W/2, W/2 NE/4, NW/4 SE/4
Section 7: N/2 NW/4

TOWNSHIP 23 SOUTH, RANGE 29 EAST
Section 1: All
Section 2: E/2, NW/4, NE/4 SW/4
Section 11: NE/4 NE/4
Section 12: N/2 N/2

TOWNSHIP 23 SOUTH, RANGE 30 EAST
Section 2: NW/4
Section 3: All
Section 4: All
Section 5: All
Section 6: All
Section 7: NE/4, N/2 NW/4, SE/4 NW/4
Section 8: N/2 N/2, S/2 NE/4
Section 9: N/2, NE/4 SW/4, N/2 SE/4
Section 10: N/2, SW/4

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JOHN F. SIMMS, Chairman

E. S. WALKER, Member

W. B. MACEY, Member & Secretary

S E A L

da

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

W.N.M.C.E. MICROGRAPHICS

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

W.N.M.C.F. MICROGRAPHICS

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

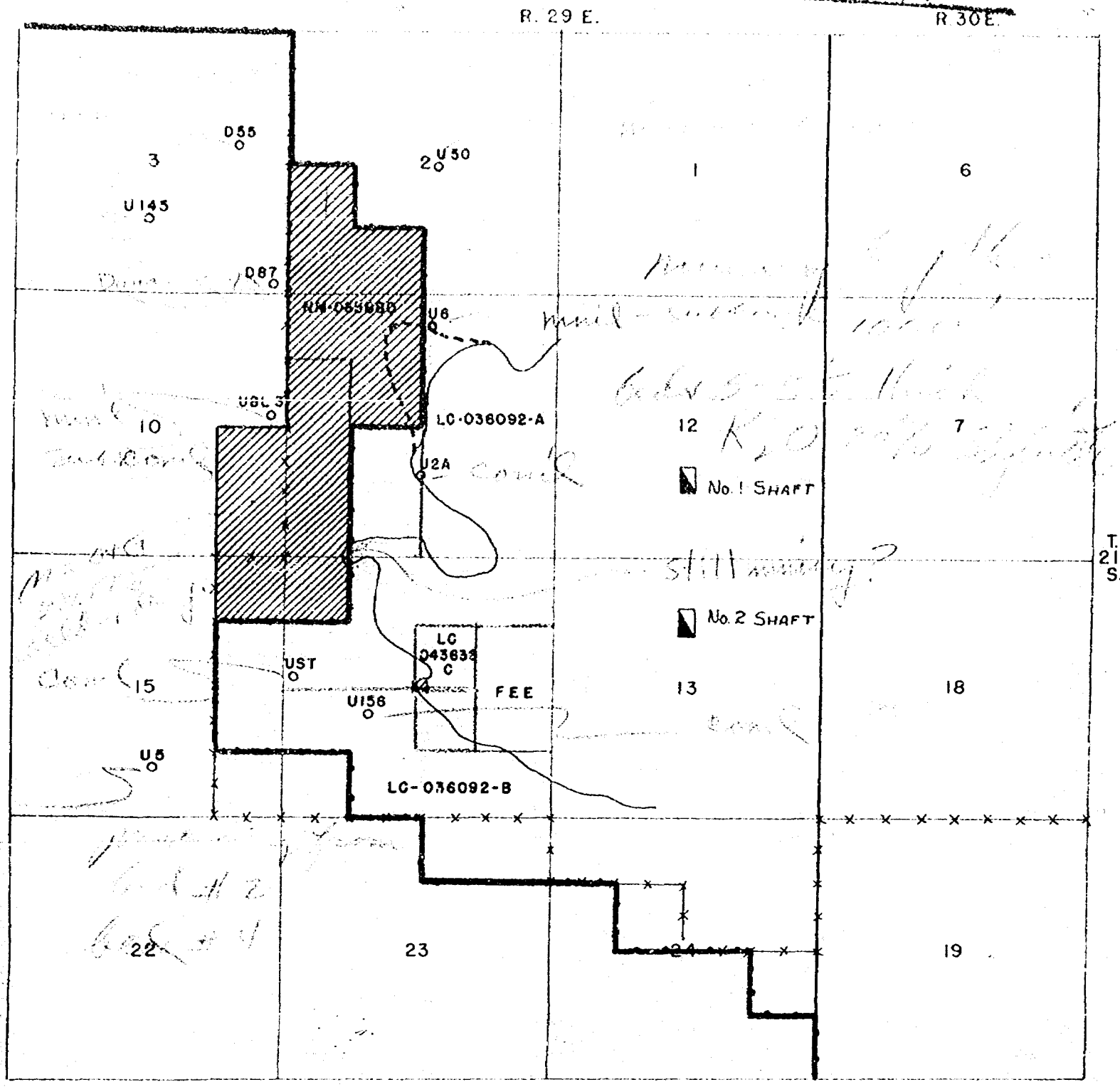
MURRAY E. MORGAN, Member

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

lcr/

W.N.M.C.F. MICROGRAPHICS

OIL CONSERVATION COMMISSION
Exhibit No. 2
CASE 278



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

POTASH - OIL LINE (R-111-A)

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

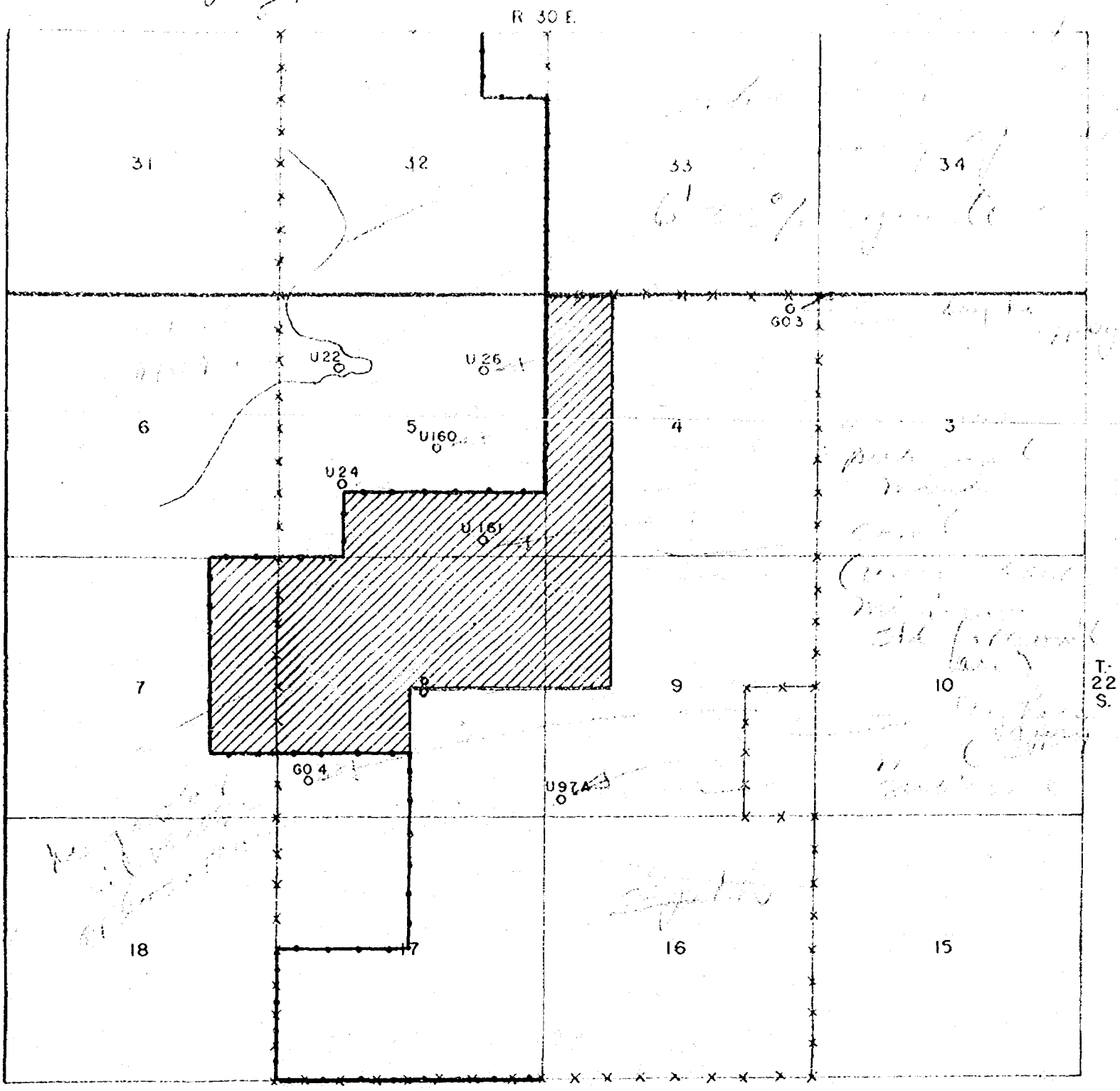
APPROX. PRESENT LIMIT OF OPEN MINE WORKINGS

PROPOSED MINE EXTENSION

M-651 STATE LEASE

FEDERAL LEASE

U87 CORE TEST



PROPOSED EXTENSION TO (R-III-A)

PRESENT (R-III-A) BOUNDRY

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

M-651 STATE LEASE

APPROX. PRESENT LIMIT OF OPEN MINE

U26 / 5 CORE TEST

Unit 14

AREA WEST OF USP MINE

Well No.	Date Completed	Ore Status Bed 2	Bed 2A	Bed 4
U-50	8-20-40	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.(see 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

Exh. 3

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-

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
9-4-59

DRAFT
FHF:lcr
August 27

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 FOR~~ 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 _____ 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

W.N.M.C.F. MICROGRAPHICS

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

... are in Eddy County, New Mexico

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 13: SE/4 SW/4

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

Section 24: W/2

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

W.N.M.C.E. MICROGRAPHICS

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 .....

W.N.M.C.F. MICROGRAPHICS

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. ROSER, 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.

BOOK 15 - PAGE 378 - OIL & GAS RECORDS

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 Lee 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.), entitled "An Act to Promote the Mining of Coal, Phosphate, Oil, Oil Shale, Gas, on the Public Domain," hereinafter referred to as the act, which is made a , WITNESSETH:

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

N½ NW¼, W½ Sec. 21, W½ W½ Sec. 22, N½ NE¼ Sec. 28, T. 18 S., R. 30 E., N.M.P.M., containing 640 acres,

together with the right to construct and maintain thereupon all works, buildings, plants, waterways, roads, telegraph or telephone lines, pipe lines, reservoirs, tanks, pumping stations, or other structures necessary to the full enjoyment thereof, for a period of twenty (20) years, with the preferential right in the lessee to renew this lease for successive periods of ten (10) years, upon such reasonable terms and conditions as may be prescribed by the lessor, unless otherwise provided by law at the time of the expiration 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 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 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 operating 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 approved 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,

provided shall be paid on both of such values.

When paid in value, such royalties shall be due and payable monthly on the 15th day of the calendar month following the calendar month in which produced, to the Register of the land district in which the land is situated; when paid in kind, such royalty oil shall be delivered in tanks provided by the lessee on the premises where produced, unless otherwise agreed to by the parties hereto, at such times as may be required by the lessor: Provided, That the lessee shall not be required to hold such royalty oil in storage longer than thirty days after the end of the calendar month in which said oil is produced: And provided further, That the said lessee shall be in no manner responsible or held liable for the loss or destruction of such oil in storage from causes over which the lessee has no control; 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 day, if in the judgment of the lessor the wells can not be successfully operated upon the royalties fixed herein.

(d) Sales contracts. To file with the Secretary of the Interior copies of all sales contracts for the disposition of oil and gas produced hereunder except for production purposes on the land leased, and in the event the United States shall elect to take its 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 or other method first approved by the Secretary of the Interior.

"A" Lease

(e) Monthly statements. To furnish monthly statements in detail in such form as may be 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 the 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, with 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 cost 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 leased 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 employees; to plug securely any well before abandoning the same so as to effectually shut off 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 [illegible] lands have been patented or the title thereto otherwise vested in private owners; to [illegible] [illegible] and all mining, drilling, and related productive operations subject to the [illegible] 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 [illegible] and safety of workmen, and on failure so to do the lessor shall have the right to enter 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 [illegible] or cessation occasioned by causes beyond lessee's control.

(i) Taxes 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 thereunder, if the lands embraced herein have been or shall hereafter be disposed of under the laws 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, nor sublet any portion of the leased premises, except with the consent in writing of the Secretary of the Interior first had and obtained.

(l) Deliver premises in cases of forfeiture. To deliver up the premises leased, with all permanent improvements thereon, in good order and condition in case of forfeiture of this lease; but this shall not be construed to prevent the removal, alteration, or 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 is embraced in a reservation 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.

"A" Lease

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, 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 for 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 [illegible]

(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, and 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 lessor 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 provided 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 purchaser 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 extraction 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 terms and conditions the lessee may surrender any legal subdivisions of the area included herein.

SEC. 5. Purchase of materials, etc., on termination of lease. Upon the termination 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 after the termination of the lease purchase all materials, tools, machinery, appliances, structures, and equipment placed in or upon the land by the lessee, and in use thereon as a necessary or useful part of an operating or producing plant, on the payment to the lessee of such sum as may be fixed as a reasonable price therefor by a board of three appraisers, one of whom shall be chosen by the lessor, one by the lessee, and the other by the two so chosen: Provided, That pending such election all equipment shall remain in normal position. If the lessor, after such election, shall not, within six months, elect to purchase all or any part of such materials, machinery, appliances, structures, and equipment, the lessee shall have a reasonable time, within ninety days, to remove from the premises all the materials,

tools, machinery, appliances, structures, and equipment which the lessor shall not have elected to purchase, save and except casing in wells and other equipment or apparatus necessary for the preservation of the well or wells.

"A" Lease

SEC. 6. Judicial proceedings in case of default. If the lessee shall fail to comply with the provisions of the act, or make default in the performance or observance of 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 after service of written notice thereof by the lessor, then the lessor may institute appropriate judicial 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 Lazenby
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. 1940, at 10:20 o'clock A. M.

Mrs. R. A. Wiest
County Clerk.

_____
Deputy

- - -





4-1-77 63

UNITED STATES

DEPARTMENT OF THE INTERIOR

GENERAL LAND OFFICE

(Sec. 14-13)

Serial Las Cruces 028978 (b)

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

[illegible], entered into, in triplicate, as of the 22nd day of [illegible],

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

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

SW¼ Sec. 21, E½ NW¼, S½ NE¼, S½ Sec. 28, W½ Sec. 27, all Sec. 33, and 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, plants, waterways, roads, telegraph or telephone lines, pipe lines, reservoirs, tanks, pumping stations or other structures necessary to the full enjoyment thereof, for a period of twenty (20) years with the preferential right in the lessee to renew this lease for successive periods of ten (10) years, upon such reasonable terms and conditions as may be prescribed by the lessor, unless otherwise provided by law at the time of the expiration of such periods.

"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 or 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---------- 12 1/2 [illegible]

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 [illegible] 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----------

For all oil produced of less than 30° Baumé:

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---------- 20 per cent.

On that portion of the average production per well of more than 200 barrels per day for the calendar month---------- 25 per cent.

Only wells which have a commercial production during at least part of the month shall be considered in ascertaining the average production above provided for; and the Secretary of the Interior shall determine what are commercially productive wells under the provision.

("B" Lease

(3) On gas and casing-head gasoline:

On gas, whether same shall be gas from which the casing-head gasoline has been extracted or otherwise, 12½ per cent of the value thereof in the field where produced where the average production per day for the calendar month from the land leased is less than 3,000,000 cubic feet, and 16 2/3 per cent where the average daily production is 3,000,000 cubic feet or over.

On casing-head gasoline, 16 2/3 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 operating 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 approved sales contract or other method as provided in subdivision (d) of this section, shall be as fixed by the Secretary of the Interior.

In cases where the gas produced and sold has a value both for casing-head gasoline content and as dry gas from which the casing-head gasoline has been extracted, then the royalties above provided shall be paid on both of such values.

When paid in value, such royalties shall be due and payable monthly on the 15th of each calendar month following the calendar month in which produced, to the Register of the land district in which the land is situated; when paid in kind, such royalty oil shall be delivered in tanks provided by the lessee on the premises where produced, unless otherwise agreed to by the parties hereto, at such times as may be required by the lessor: PROVIDED, That the lessee shall not be required to hold such royalty oil in storage longer than thirty days after the end of the calendar month in which said oil is produced: AND PROVIDED FURTHER, That the said lessee shall be in no manner responsible or held liable for the loss or destruction of such oil in storage from causes over which the lessee has no control; such royalties, either 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 day, if in the judgment of the lessor the wells can not be successfully operated upon the royalties fixed herein.

(d) SALES CONTRACTS.--To file with the Secretary of the Interior copies of all sales contracts for the disposition of oil and gas produced hereunder except for production purposes of the land leased, and in the event the United States shall elect to take its royalties in part or all in oil or gas, not to sell or otherwise dispose of the products of the land except in accordance with a sales contract or other method first approved by the Secretary of the Interior.

(e) MONTHLY STATEMENTS.--To furnish monthly statements in detail in such form as may be prescribed by the lessor, showing the amount, quality, and value of all oil and gas produced and saved during the preceding calender month as the basis for computing the royalty due the 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, with 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 cost 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 laws 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 [illegible]

W.N.M.C.F. MICROGRAPHICS

of the leased premises, except with the consent in writing of the Secretary of the Interior first had and obtained.

(l) DELIVER PREMISES in cases of forfeiture.--To deliver up the premises leased, with all permanent improvements thereon, in good order and condition in case of forfeiture of this lease; but this shall not be construed to prevent the removal, alteration, or 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 is embraced in a reservation 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 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 erect, upon the residue shall be returned to the lessee with no substantial delay in the gas produced from the well to the purchaser thereof: PROVIDED, That the lessee, as a result of the operation in this paragraph

of value of the gas from which the helium has been extracted

W.N.M.C.F. MICROGRAPHICS

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, and operate any and all reduction works and other equipment necessary for the extraction 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 and upon like terms the lessee may surrender any legal subdivisions of the area included herein.

SEC. 5. PURCHASE OF MATERIALS, ETC., ON TERMINATION OF LEASE.--Upon the expiration 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 from the termination of the lease purchase all materials, tools, machinery, appliances, structures, and equipment placed in or upon the land by the lessee, and in use thereon as a necessary or useful part of an operating or producing plant, on the payment to the lessee of such sum as may be fixed as a reasonable price therefor by a board of three appraisers, one of whom shall be chosen by the lessor, one by the lessee, and the other by the two so chosen; pending such election all equipment shall remain in normal position. If the lessor, or another lessee, shall not, within six months, elect to purchase all or any part of such materials, tools, machinery, appliances, structures, and equipment, the lessee shall have the right at any time, within ninety days, to remove from the premises all the materials, tools, machinery, appliances, structures, and equipment which the lessor shall not have elected to purchase, save and except casing in wells and other equipment or apparatus necessary for the preservation of the well or wells.

SEC. 6. JUDICIAL PROCEEDINGS IN CASE OF DEFAULT.--If the lessee shall fail to comply with the provisions of the act, or make default in the performance or observance of 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 after service of written notice thereof by the lessor, then the lessor may institute appropriate judicial 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 an Act of the Penal Laws of the United States approved March 4, 1909 (35 Stat. [illegible]

covenants, enter into and form a part of this 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 to signature of all Lessees:

Frances Fitzsimmons

Suelene Lazenby

Lois Morgan

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. 1940 at 10:20 o'clock A. M.

R A Wilson
Deputy

R A Wilson
County Clerk

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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

No. 29-

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.

pj/

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
BOYCE 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

Set for August Hearing

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.

4. Applicant is engaged in experimental work and other activities on its potash leases, preparatory to the mining and refining of potash and related minerals from the lands it has leases on. In order to prevent waste, protect correlative rights and insure maximum conservation of the oil and gas and potash resources of New Mexico, it is necessary and advisable that the above described lands be included within the boundaries of the Potash-Oil Area established in this case. Provision for the inclusion of additional acreage is made in Paragraph II of Order No. R-111-A.

5. The names and addresses of all persons owning oil and gas leases or Federal potash prospecting permits on the lands described above are as follows:

Charlie W. Hicks, 1004 Orchard Lane, Carlsbad, New Mexico
The Texas Company, P. O. Box 1720, Fort Worth 1, Texas
Sid W. Richardson and Perry R. Bass,
Fort Worth National Bank Building, Fort Worth, Texas
Continental Oil Company, 1710 Fair Building, Fort Worth, Texas
Shell Oil Company, Midland, Texas
Paul C. Bagley, 2416 Iowa, Carlsbad, New Mexico
Santa Fe - Pacific Railway Co., Land Department,
Albuquerque, New Mexico

6. Applicant desires a hearing on this application before the Commission.

WHEREFORE APPLICANT PRAYS:

1. That the Commission set this matter down for hearing.

2. That the Commission give notice of such hearing in the manner required by its rules.

3. Upon such hearing that an order be entered adding the lands described in Paragraph 2 of this application to the Potash-Oil Area established by Order No. R-111-A in this case.

Dated this 11th day of July, 1959.

REESE, McCORMICK, LUSK and PAINE

By: Don G. McCormick
Don G. McCormick
Attorneys for Applicant

Docket Mailed 8-3 ltr to All Potash Companies

Copy also to Chas. White 7-4-59

Aug 12 / Commission

Case No. ____ Application of [illegible] Sulphur and Potash Corp. for an extension of the Potash Oil Area created by 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 include additional acreage in Townships 12, 22 and 23 South, Range 30 East, Eddy County, New Mexico.

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Ada Dearnley, President
Marianna Meier, Sec.-Treas.

Paul Denny
Soveida Gonzales
Laura Moreno
Thomas T. Tomko
Joseph A. Trujillo

Executive Secretary:
Rachel Sheffield

Specializing In:
DEPOSITIONS
HEARINGS
STATEMENTS
EXPERT TESTIMONY
DAILY COPY
CONVENTIONS

March 4, 1960

Dear Ida,

We are returning Case 278 which we received from you today. This is the same transcript which we had before and which Mr. Page returned to us. It seems that he wants the portion pertaining to U. S. Borax and Chemical Co. and we sure would appreciate it if you would send it to us.

Would you also please send us copies of Case No. 1569 "No Flare" heard at the March Regular session, 1959 - the portion containing the testimony of Charles R. Marshall only.

Also please send us copies of Cases 1632 and 1633.

Thanks very much.

Ada

Transcripts to Ada mailed 3/7/60
Returned Case 1573, 1632, 1633 (consolidated) (carbon copy)
Returned Case 278 Aug 13 1959 U.S. Borax (carbon copy)
Returned Case 1569 June 9, 1959 (carbon copy)

Our Experience Assures Superior Service

AFFIDAVIT OF PUBLICATION

State of New Mexico,

County of Lea.

I, _____

_____

Of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not in a supplement thereof for a period of _____ weeks.

beginning with the issue dated _____, 19__

and ending with the issue dated _____, 19__

Publisher.

Sworn and subscribed to before me this _____ day of _____, 19__

Notary Public.

My commission expires _____

_____, 19__

(Seal)

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

LEGAL NOTICE
June 1, 1951

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
OIL CONSERVATION
COMMISSION

The State of New Mexico by its Oil Conservation Commission hereby gives notice pursuant to law and the rules and regulations of said Commission promulgated thereunder in the following public hearing to be held June 21, 1951, beginning at 10 o'clock A. M. on that day in the City of Santa Fe, New Mexico, in the Council Chamber of the City Hall.

STATE OF NEW MEXICO TO:

All interested parties in the following case and notice to the public:

Case 278:

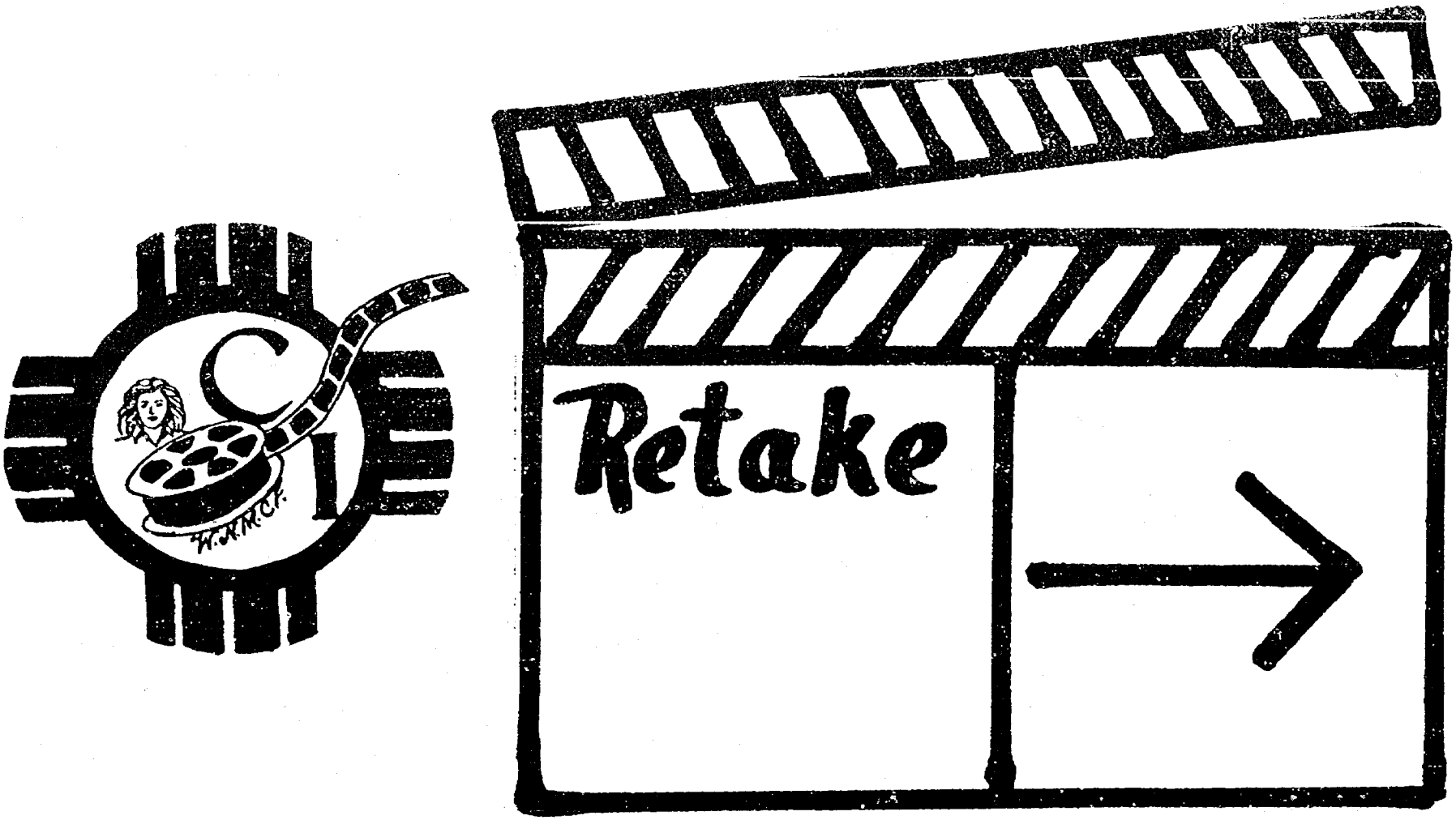
In the matter of the application of Guy Shepard as Commissioner of Public Lands of the State of New Mexico for an order establishing a casing program for oil wells and for other special procedural regulations as may be proper for the development of said area both for potash and oil within:

Townships 18, 19, 20, 21, 22, 23 and 24 South, Ranges 29, 30, 31, 32, 33 and 34 East, N. M. P. M., Eddy and Lea Counties, New Mexico.

Given under the seal of the Oil Conservation Commission of New Mexico at Santa Fe, New Mexico, on May 28, 1951

STATE OF NEW MEXICO
OIL CONSERVATION
COMMISSION
R. R. Spurrier

(SEAL)


Retake

AFFIDAVIT OF PUBLICATION

State of New Mexico,

County of Lea.

I, [illegible]

[illegible]

Of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not in a supplement thereof for a period of ___ [illegible] weeks.

beginning with the issue dated ___ [illegible], 1951

and ending with the issue dated ___ [illegible], 1951

Publisher.

Robert L. Summers

Sworn and subscribed to before me this ___ day of ___ [illegible], 1951

Notary Public.

My commission expires ___ [illegible], 1952

(Seal)

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

LEGAL NOTICE
June 1, 1951

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

The State of New Mexico by its Oil Conservation Commission hereby gives notice pursuant to law and the rules and regulations of said Commission promulgated thereunder in the following public hearing to be held June 21, 1951, beginning at 10 o'clock A. M. on that day in the City of Santa Fe, New Mexico, in the Council Chamber of the City Hall.

STATE OF NEW MEXICO TO:
All interested parties in the following case and notice to the public:

Case 278:
In the matter of the application of Guy Shepard as Commissioner of Public Lands of the State of New Mexico for an order establishing a casing program for oil wells and for other special procedural regulations as may be proper for the development of said area both for potash and oil within:

Townships 18, 19, 20, 21, 22, 23 and 24 South, Ranges 29, 30, 31, 32, 33 and 34 East, N. M. P. M., Eddy and Lea Counties, New Mexico.

Given under the seal of the Oil Conservation Commission of New Mexico at Santa Fe, New Mexico, on May 28, 1951

STATE OF NEW MEXICO
OIL CONSERVATION
COMMISSION
R. R. Spurrier

(SEAL)

LEGAL ADVERTISING

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

The State of New Mexico by its Oil Conservation Commission hereby gives notice pursuant to law and the rules and regulations of said Commission promulgated thereunder in the following public hearing to be held June 21, 1951, beginning at 10 o'clock A. M., on that day in the City of Santa Fe, New Mexico, in the Council Chamber of the City Hall.

STATE OF NEW MEXICO TO:

All interested parties in the following case and notice to the public:

CASE 278—

In the matter of the application of Guy Shepard as Commissioner of Public Lands of the State of New Mexico for an order establishing a casing program for oil wells and for other special procedural regulations as may be proper for the development of said area both for potash and oil within:

Townships 18, 19, 20, 21, 22, 23 and 24 South, Ranges 29, 30, 31, 32, 33 and 34 East, N. M. P. M., Eddy and Lea Counties, New Mexico.

Given under the seal of the Oil Conservation Commission of New Mexico at Santa Fe, New Mexico, on May 29, 1951.

State of New Mexico
Oil Conservation Commission
(SEAL) R. R. SPURRIER.
(Pub. May 31, 1951).

Affidavit of Publication

State of New Mexico)
County of Santa Fe) ss.

I, Will Harrison, being first duly sworn, declare and say that I am the ~~(Business Manager)~~ (Editor) of the Santa Fe New Mexican, a daily newspaper, published in the English Language, and having a general circulation in the City and County of Santa Fe, State of New Mexico, and being a newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 of the Session Laws of 1937; that the publication, a copy which is hereto attached, was published in said paper once ~~each week~~ for 1 time ~~consecutive weeks, and on the same day of each week~~ in the regular issue of the paper during the time of publication, and that the notice was published in the newspaper proper, and not in any supplement, once ~~each week~~ for 1 time ~~weeks consecutively~~, the first publication being on the 31st day of May, 1951, ~~and the last publication on the day of~~, ~~19~~; that payment for said advertisement has been (duly made), or (assessed as court costs); that the undersigned has personal knowledge of the matters and things set forth in this affidavit.

Will Harrison
Editor-~~Manager~~

Subscribed and sworn to before me this 31st day of May, A.D., 1951

Odessa R. Arnade
Notary Public

My Commission expires June 14, 1953

PUBLISHER'S BILL

36 lines, one time at $ 3.60

lines, times, $

Tax $

Total . . . . . $ 3.60

Received payment,

By

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

The State of New Mexico by its Oil Conservation Commission hereby gives notice pursuant to law and the rules and regulations of said Commission promulgated thereunder in the following public hearing to be held June 21, 1951, beginning at 10 o'clock A. M. on that day in the City of Santa Fe, New Mexico, in the Council Chamber of the City Hall.

STATE OF NEW MEXICO TO:

All interested parties in the following case and notice to the public:

Case 278:

In the matter of the application of Guy Shepard as Commissioner of Public Lands of the State of New Mexico for an order establishing a casing program for oil wells and for other special procedural regulations as may be proper for the development of said area both for potash and oil within:

Townships 18, 19, 20, 21, 22, 23 and 24 South,
Ranges 29, 30, 31, 32, 33 and 34 East, N.M.P.M.,
Eddy and Lea Counties, New Mexico.

Given under the seal of the Oil Conservation Commission of New Mexico at Santa Fe, New Mexico, on May 28, 1951.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION
R. R. SPURRIER

(SEAL)

W.N.M.C.E. MICROGRAPHICS

NATIONAL POTASH COMPANY

P. O. BOX 731
CARLSBAD, NEW MEXICO

November 10, 1955

Mr. W. B. Marcy, Secretary
Oil Conservation Commission
Santa Fe, New Mexico

Dear Mr. Macy:

In accordance with the requirements of Order No. R-111-A Sec. IX, Parts, 2 and 3, we are enclosing the following plats:

2 copies of a plat showing leaseholdings and present mine workings.

2 copies of a plat showing the five year mining projection.

On these plats, we have also shown a permit area that we may take into lease within the near future.

Very truly yours,

Robert T. Reeder

Robert T. Reeder
Mining Engr.

4 enc.

SOUTHWEST POTASH CORPORATION

CARLSBAD, NEW MEXICO
November 9, 1955

EXECUTIVE OFFICES
61 BROADWAY
NEW YORK 6, N. Y.

PLEASE REPLY TO
P. O. BOX 472
CARLSBAD, NEW MEXICO

Mr. W. R. Macey, Secretary-Director
Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

In compliance with the provisions of Order No. R-111-A, IX (2), we enclose two copies of a plat showing the location of our leaseholdings and our open mine workings on November 1, 1955.

Very truly yours,

SOUTHWEST POTASH CORPORATION

F. H. Stewart
Vice President and
General Manager

kgb

Encs.

SOUTHWEST POTASH CORPORATION

CARLSBAD, NEW MEXICO
November 9, 1955

EXECUTIVE OFFICES
61 BROADWAY
NEW YORK 6, N. Y.

PLEASE REPLY TO
P. O. BOX 472
CARLSBAD, NEW MEXICO

Mr. W. B. Macey, Secretary-Director
Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Sir:

In compliance with the provisions of Order No. R-111-A, IX (3), we enclose two copies of a plat showing a projection of our development plans to October 31, 1960, as now estimated. It is understood that this plan will be for the confidential use of the Commission and for inspection by any affected oil or gas operator.

Very truly yours,

SOUTHWEST POTASH CORPORATION

F. H. Stewart

F. H. Stewart
Vice President and
General Manager

kgb

Encs.

UNITED STATES POTASH COMPANY

INCORPORATED

GENERAL OFFICES
30 ROCKEFELLER PLAZA
NEW YORK 20, N. Y.

CARLSBAD, NEW MEXICO

November 11, 1955

Mr. William B. Macey, Director
Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Mr. Macey:

United States Potash Company received the new OCC Order R-111-A on November 8, 1955 which was approved by the New Mexico Oil Conservation Commission on October 13, 1955.

Compliance is made to OCC Order R-111-A and enclosed are mine survey plats and potash development plats required in Paragraphs 2 and 3 under Section 9 of the order.

Very truly yours,

UNITED STATES POTASH COMPANY

D. L. Libley

AIR MAIL

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

November 14, 1955

COPY

Mr. H. J. Duncan, Chief
Conservation Division
U. S. Geological Survey
3243 GSA Building
Washington, D. C.

Dear Mr. Duncan:

In accordance with your request, I am enclosing a copy of our Order No. R-111-A pertaining to the potash - oil area of Eddy and Lea County, New Mexico.

Very truly yours,

W. B. Macey
Secretary - Director

WBM:brp
Enclosure

POTASH COMPANY OF AMERICA

GENERAL SALES OFFICES 1625 EYE STREET N.W. WASHINGTON 6 D.C.
SOUTHERN SALES OFFICE 408-9 CANDLER BLDG. ATLANTA GA.
MIDWESTERN SALES OFFICE FIRST NATIONAL BANK BLDG. PEORIA ILL.



REPLY TO: EXECUTIVE OFFICES
MINES AND REFINERY
CARLSBAD · NEW MEXICO

November 11, 1955

Mr. W. B. Macey
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Mr. Macey:

Enclosed are two copies of a plat showing our open mine workings and leaseholdings as required in Section IX-(2) of Order R-111-A and two copies of a plat showing a projection of development plans for our mine as required in Section IX-(3) of same order.

If there are any questions regarding these plats, please feel free to call on me.

Yours very truly,

DEProtz

D. E. Protz
Chief of Exploration

DEP/mmg
Enclosures

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 862
Order No. R-646

THE APPLICATION OF THE COMMISSION
UPON ITS OWN MOTION FOR AN ORDER
CREATING AND DESIGNATING A NEW POOL
TO BE KNOWN AS THE NORTH BENSON-
QUEEN OIL POOL FOR THE PRODUCTION
OF OIL FROM THE QUEEN FORMATION,
SUCH POOL TO CONSIST OF THE E/2 OF
SECTION 33 AND THE W/2 OF SECTION 34,
TOWNSHIP 18 SOUTH, RANGE 30 EAST,
NMPM, EDDY COUNTY, NEW MEXICO, AND
FOR THE ESTABLISHMENT OF RULES AND
REGULATIONS FOR THE NEW POOL IN
ACCORDANCE WITH THE PROVISIONS OF
COMMISSION ORDER R-111.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This matter came on for hearing at 9 o'clock a.m. on March 16, 1955, and was continued until April 20, 1955, at Santa Fe, New Mexico, before the Oil Conservation Commission, hereinafter referred to as the "commission".

NOW, on this 13th., day of June, 1955, the Commission, a quorum being present, having considered the record and the testimony adduced 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 Simms and Reese Oil Company did complete the McClay No. 1 Well located 1980 feet FSL and 660 feet FEL of Section 33, Township 18 South, Range 30 East, Eddy County, New Mexico, as the discovery well for a new source of supply in this area.

(3) That said well initially produced oil in commercial quantities from the Queen sand below a depth of 2,844 feet.

(4) That a second well known as Simms and Reese Oil Company's McClay No. 2 Well, located 1980 feet FNL and 660 feet FEL of Section 33, Township 18 South, Range 30 East, Eddy County, New Mexico, has been completed in this new source of supply and is producing commercial quantities of oil from the Queen sand in the depth interval 3,036 to 3,061 feet.

(5) That sufficient evidence was presented to the Commission as to the probable areal extent and directional trend of the newly discovered common source of supply to justify the creation of the new pool as contemplated.

(6) That, in conformity with previous practices of the Commission, a pool should be created, defined and classified, and should include such surface acreage as appears to cover the newly discovered common source of supply.

(7) That such a pool should be designated as the North Benson-Queen Pool, should be classified as an oil pool, and described as:

TOWNSHIP 18 SOUTH, RANGE 30 EAST, NMPM
Section 33: E/2
Section 34: W/2

and that such pool as described above should be subject to additions or deletions after notice and hearing as development and further information may direct or indicate.

(8) That said pool is situated within the horizontal limits of the so-called "potash-oil" area and that operations within that area are governed by the provisions of Commission Order R-111 entered on November 9, 1951.

(9) That no evidence was entered at said hearing which would indicate that the provisions of Order R-111 should be abrogated in establishing rules and regulations for the conduct of drilling and producing operations in this pool.

IT IS THEREFORE ORDERED:

(1) That there is hereby created an oil pool, designated as the North Benson-Queen pool, and described as follows:

TOWNSHIP 18 SOUTH, RANGE 30 EAST, NMPM
Section 33: E/2
Section 34: W/2

(2) That drilling and production operations in said pool shall comply with the provisions of those rules of the Commission which may be applicable, and that such operations shall further comply with the provisions of Commission Order R-111, as such provisions now dictate, or as such provisions may be modified by future order of the Commission.

DONE at Santa Fe, New Mexico on the day and year hereinabove designated. Signed by: John F. Simms, Chairman; E. S. Walker, Member; W. B. Macey, Member and Secretary.

ir/

JACK SITTON PUBLIC RELATIONS
HARRIS BUILDING
PHONE 5-3210 -- P. O. BOX 1068
CARLSBAD, NEW MEXICO

June 1, 1955

Oil Conservation Commission
State of New Mexico
Capitol Building
Santa Fe, New Mexico

Gentlemen:

Will you please send me a copy of your Commission Order No. R-111, Case No. 278, "In the matter of defining boundaries of potential Oil producing areas in Eddy and Lea counties, within which Potash minerals are being produced or potential Potash producing lands are located."

Sincerely yours,

Jack Sitton

Jack Sitton

JS/st.

NEVILLE G. PENROSE, INC.
FAIR BUILDING
FORT WORTH 2, TEXAS

September 7, 1955

Mr. W. B. Macey, Secretary-Director
New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Re: Suggested Revised Order No. R-111, Case 278

Dear Bill:

I have just read over the suggested revision to the above order and find one matter concerning cementing which I feel should be brought to your attention.

It is my interpretation of this proposed revision that when an intermediate string of casing is set through the salt section in the area described as the "Potash Oil Area" that it will be necessary to circulate the cement back to the cellar. Further, if no intermediate string is set on a deep well, it will be necessary to circulate cement behind the production string all the way back to the surface. As you are well aware, in drilling through the salt section considerable erosion usually takes place leaving a large cavity which is difficult to fill with cement.

Sometime ago I recall that Mr. Soyster who was then in charge of the Hobbs office of the U.S.G.S. was concerned about the protection of the Potash in southeast New Mexico. He made a requirement similar to the one set forth in the proposed revision concerning cementing practices. However, as an alternate he allowed operators to set a two-stage cementing tool above the salt section in order to assure that cement was placed between the salt and any potable surface waters.

Although at this time our company does not propose to do any drilling in the Potash oil area, it seems to me that it would be to the industry's advantage to amend the proposed revision in order to eliminate the necessity for excessive and expensive cement jobs on intermediate strings. As you know, perforating and squeeze cementing is quite an expensive operation. If operators knew in advance that they would be required to cover the salt with cement, my guess is they would prefer to run two-stage tools on their production string.

Very truly yours,

John P. McNaughton

mb

SUGGESTIONS BY OIL AND GAS COMMITTEE
REVISING STATE ORDER NO. R-111

I.
OBJECTIVE

The objective of these Rules and Regulations is to prevent waste, protect correlative rights, assure maximum conservation of oil and gas resources of New Mexico and permit the simultaneous economic recovery of potash minerals in the area hereinafter defined.

II.

THE POTASH - OIL AREA

(1) These rules and regulations are applicable to oil and gas operations and to exploration for and production of oil and gas in proven or potential potash and oil areas.

(2) The Potash-Oil Area represents the area in various parts of which potash mining operations are now in progress, or in which core tests indicate potential potash reserves. The POTASH AREA shall be described as including the area outlined by the Secretary of the Interior in his Order of October 16, 1951, covering "Oil and gas, and potash leasing and development within the Potash Area".

III.

EXPLORATION OF POTASH AREA

2 (1) Drilling of oil and gas exploratory test wells shall be permitted in the Potash Area provided, that oil and gas exploratory test wells shall not be drilled through any open potash mines or within 1320 feet thereof unless agreed to in writing by the potash lessee involved.

(2) Any oil or gas leases hereafter issued for lands within the Potash Area shall be subject to these regulations.

(1) ~~(3)~~ All future drilling of oil and gas exploratory test wells in the Potash Area shall be subject to these rules and regulations.

(4) Where oil and gas wells are in production in the Potash Area, no potash mine opening shall be driven to within less than 100 feet of such wells so that protection of both wells and mine can be afforded.

(5) Proposals to unitize with respect to land within the Potash Area, as heretofore defined and described, will be considered on their merits.

(6) Upon discovery ~~hereafter~~ of oil and gas in the Potash Area, the Oil Conservation Commission shall promulgate field or pool rules for the affected area after due notice and hearing.

(7) ~~Nothing herein shall be con~~strued to prevent unitization agreements involving lands in the Potash Area.

IV.

DRILLING AND CASING PROGRAM

(1) For the purpose of the regulations and the drilling of oil and gas exploratory test wells, shallow and deep zones are defined, as follows:

(a) The 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) The 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) Surface Casing String:

(a) A surface casing string of new, second-hand, or reconditioned pipe shall be set in the "Red Bed" section of the basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section, as determined necessary by the regulatory representative approving the drilling operations and shall be cemented with not less than one hundred and fifty percent (150) percent of calculated volume necessary to circulate cement to the ground surface.

(b) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(c) Casing and water-shut-off tests shall be made both before and after drilling the plug and below the casing seat as follows:
(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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.

(d) The above requirements for the surface casing string shall be applicable to both the shallow and deep zones.

(3) Salt Protection String:

(a) A salt protection string of new, second-hand, or reconditioned pipe shall be set not less than one hundred (100) feet nor more than six hundred (600) feet below the base of the salt section.

(b) The salt protection string shall be cemented, as follows:

(i) For wells drilled to the shallow zone, the string may be cemented with a nominal volume of cement for testing purposes only. If the exploratory test well is completed as a productive well, the string shall be recemented with sufficient cement to fill the annular space back of the pipe from the top of the first cementing to the surface or to the bottom of the cellar, or may be cut and pulled if the production string is cemented to the surface as provided in sub-section IV (5), (a), (i) below.

(ii) For wells drilled to the deep zone, the string must be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(c) If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or gamma ray survey and additional cementing shall be done until the cement is brought to the point required.

(d) The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with three (3 percent) of calcium chloride by weight of cement.

(e) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(f) Casing tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of one thousand (1000) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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) The above requirements for the salt protection string shall be applicable to both the shallow and deep zones except for sub-section IV (3), (b), (i) and (ii) above.

(4) Intermediate String:

(a) In the drilling of oil and gas exploratory test wells to the deep zone, the operator shall have the option of running an intermediate string of pipe, unless the State or Federal regulatory body having jurisdiction should require an intermediate string.

(b) Cementing procedures and casing tests for the intermediate string shall be the same as provided under sub-sections IV (3), (c), (e) and (f) for the salt protection string.

(5) Production String:

(a) A production string shall be set on top or through the oil or gas pay zone and shall be cemented as follows:

(i) For wells drilled to the shallow zone the production string shall be cemented to the surface if the salt protection string was cemented only with a nominal volume for testing purposes, in which case the salt protection string can be cut and pulled before the production string is cemented; provided, that if the salt protection string was cemented to the surface, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone.

(ii) For wells drilled to the deep zone, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided, that if no intermediate string shall have been run and cemented to the surface, the production string shall be cemented to the surface.

(b) Cementing procedures and casing tests for the production string shall be the same as provided under sub-sections IV (3), (c), (e) and (f) for the salt protection string.

V.

DRILLING FLUID FOR SALT SECTION

The fluid used while drilling the salt section 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 fluid by the operator in overcoming any specific problem. This requirement is specifically intended to prevent enlarged drill holes.

VI.

PLUGGING AND ABANDONMENT OF WELLS

All wells heretofore and hereafter drilled within the Potash Area 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.

VII.

LOCATION FOR TEST WELLS

Before drilling for oil or gas on lands in the Potash Area, a map or plat showing the location of the proposed well shall be prepared by the well operator and copy sent by registered mail to the potash lessee involved, if any. Upon proper showing of such notice and if no objection to the location of the proposed well is 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 within ten days for consideration and decision by the Oil Conservation Commission.

VIII.

INSPECTION OF DRILLING AND MINING OPERATIONS

A representative of the potash lessee may be present during drilling, cementing, casing, and plugging of all oil or gas wells on his lease to observe conformance with these regulations. Likewise, a representative of the oil and gas lessee may inspect mine workings on his lease to observe conformance with these regulations.

IX.

FILING OF WELL AND MINE SURVEYS

Each oil and gas lessee shall furnish not later than January 31st of each year 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 or gas well drilled in the Potash Area during the preceding calendar year. Each potash lessee shall furnish not later than January 31st of each year to the Oil Conservation Commission and to each oil and gas lessee involved, certified plat of survey of the location of open mine workings underlying outstanding oil and gas leases.

X.

APPLICABILITY OF STATEWIDE RULES AND REGULATIONS

All general statewide rules and regulations of the Oil Conservation Commission governing the development, operation, and production of oil and gas in the State of New Mexico not inconsistent or in conflict herewith, are hereby adopted and made applicable to the areas described herein.

June 25, 1951

TO ALL MEMBERS OF THE NEW MEXICO OIL AND GAS ENGINEERING COMMITTEE:

Gentlemen:

Attached, hereto, you will find four Exhibits that were presented at the Hearing of the Oil Conservation Commission in Santa Fe, New Mexico, June 21, 1951 and pertain to Case 273 and relate to the drilling for oil in the vicinity of the potash mines in Eddy County, New Mexico.

These Exhibits are as follows:

Exhibit "A" - Casing Program proposed by Committee of the New Mexico Oil and Gas Engineering Committee.

Exhibit "B" - Casing Program for shallow wells above 5000', proposed by American Republics Corporation, Boyd-Plemons Drilling Company, Buffalo Oil Company, Burnham Oil Company, Malco Refineries, Inc., Yates, Robert E. McKee and others.

Exhibit "C" - Casing Program for shallow wells down to 6000', proposed by Jones and Watkins Oil Company, Miller and Miller, and Stanley L. Jones.

Exhibit "D" - Telegram from Phillips Petroleum Company protesting temperature surveys on salt string where cement is circulated. Specify centralizers should be spaced certain distance apart instead of saying every third joint.

In order that the operators may have a clear understanding of each others views pertaining to the above Exhibits and any changes or additions that any operator feels should be presented to the Commission, a meeting of all members of this organization and such others as wish to attend will be held in Santa Fe, New Mexico at 4:00 o'clock P. M., La Fonda Hotel on July 9, 1951.

Respectfully submitted,

Glenn Staley
Director

N.M. Oil & Gas Engineering Committee
Hobbs, New Mexico
June 25, 1951

CASING AND CEMENTING PROGRAMS FOR

OIL AND GAS TEST WELLS IN THE "DEFINED AREAS" IN EDDY COUNTY, NEW MEXICO

1. Surface Casing String

In order to protect the fresh water supply, 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 and shall be cemented back to the ground surface or to the bottom of the cellar.

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 per square inch; second-hand and re-conditioned pipe shall be re-tested to 600 pounds per square inch before being run.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
JUN 23 19
RECEIVED

2. Salt Protection String

The salt protection string shall be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe. New pipe shall have received a mill test of now less than 1000 pounds per square inch; second-hand and re-conditioned pipe shall be re-tested to 1000 pounds per square inch before being run.

Centralizers shall be used on at least every third joint below surface casing.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. (The water used to mix with the cement shall be saturated with the salts common to the zones penetrated.) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests. If the cement fails to reach the surface, the salt protection casing shall be perforated just above the top of the cement and additional cement jobs done until cement is brought to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

Tests of casing shall vary with the drilling method. 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.

3. Intermediate String

This string may be a drilling protection string for deep drilling objectives or may be an oil string for testing medium depth zones.

a. If a drilling protection string, the casing shall be cemented with a sufficient volume of cement amply to protect this casing and all shall pay zones above the casing shoe, and in every instance this string shall be cemented from a point one thousand (1000) feet below the salt string back to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

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 recemented 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.

CASING AND CEMENTING
PROGRAM FOR SHALLOW
OIL AND GAS TEST WELLS IN
KNOWN POTASH AREAS

CASE NO. 278
EXHIBIT B

The following is a suggested casing program for wells above 5,000 feet and is, of necessity, only general rules for the whole designated potash area, whether designated as Area A, Area B or otherwise. Geological sections change so rapidly in this large, scattered area that individual portions of the area will present individual problems. It is therefore suggested as follows:

A. That the Oil Conservation Commission retain authority to vary this general casing and cementing program to meet a specific condition, without an open hearing before the Commission.

B. That the casing and cementing program herein suggested apply only to the areas embraced in proven commercial deposits of potash, the remainder of the designated potash area to be drilled in accordance with standard, existing practices.

C. The suggested casing and cementing program is as follows:

1. Surface Casing String

In order to protect the fresh water supply, if present, the surface casing string shall be set through the fresh water bearing horizons and cemented with a volume adequate to protect the fresh water and keep it from entering the salt formation.

The surface string may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturers test specifications.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiatin tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string may be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturers test spefifications.

The string may be cemented with a nominal cement volume for testing purposes only, and if commercially productive, the string must be re-cemented with not less than 150% of calculated volume necessary to circulate cement to surface.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (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 jobs done until cement is brought to that point. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

Test of casing shall vary with the drilling method. 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.

3. Oil Or Production String

This string may 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 salt protection casing shall have been run and commercial production obtained, that string shall be cemented to the surface as provided by 2 above or as provided by 3a in Deep Well program.

D. The undersigned operators, of Eddy County, New Mexico, approve the above and foregoing proposals and recommend its adoption by the Commission.

Respectfully submitted

American Republics Corp. by William B. Macey; Boyd-Plemons Drilling Company by Tom Boyd; Buffalo Oil Company by Ralph L. Gray; Guy Stevenson; J. Grady Wright; E. N. Brock; G. Kelley Stout; (Illegible;) Paton Bros. by H. R. Paton; R. D. Collier; J. W. Berry; Ross Sears; Joe Nunn; J. E. Bedingfield; Burnham Oil Company By E. Jeffers; Malco Refineries, Inc. by Donald E. Anderson; Bassett & Birney by Martin Yates III; Dixon & Yates by Martin Yates III; S. P. Yates; Yates Brothers by S. P. Yates; Resler Oil Company by S. P. Yates; J. R. Lund for Robert E. McKee.

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DRAWER "EYE"
HOBBS, NEW MEXICO
JUNE 25, 1951

CASING AND CEMENTING
PROGRAM FOR SHALLOW
OIL AND GAS TEST WELLS IN
PROSPECTIVE POTASH AREAS

CASE NO. 278
EXHIBIT C

The following program is a suggestive program for the cementing of pipe and the protecting of the prospective potash horizon from water, oil and gas contamination. This program shall pertain to oil and gas test or wells drilled for the purpose of securing oil and gas, down to a depth of 6000 feet. There should be rules set up for particular areas, naturally based on the amount of surface water and the amount of potash in the salt section, which will be penetrated during the drilling of the proposed oil test. The geological features on the oil structures will call for different programs from time to time. Especially in the districts where potash is present. The commercial potash districts according to geological features and subsurface information that has been secured from oil oil test that have been drilled in the past. Also addition information has been secured from districts from recent wells drilled in the various districts. There has also been a considerable amount of coring done by the various companies. All of this information should supply sufficient knowledge to derive at a pipe program satisfactory for all concerned. It is therefore suggested as follows:

1. That the Oil and Gas Conservation Commission retain authorization to issue a pipe program according to the area and district. A program that is sufficient to protect the potash strates at the present and future.

2. A suggestive pipe program for the general area should be as follows:

A. Surface Casing

The surface casing should be set at the top of the salt section. The size should be determined by the operator. The number one suggestion is that the pipe be mudded to the surface by pumping mud around the shoe and behind the pipe to the surface. Allow pipe to set eight hours. Then bale hole dry and test for at least two hours. If water is completely shut off, then the operator shall continue his drilling until he has reached the anhydrite formation. Then the operator should run either number one used pipe or new pipe through the potash and salt section. The operator should then be allowed to pull the surface pipe from the hole. The operator should then be permitted to cement the pipe from the bottom of the salt section to the surface, by circulating cement behind the pipe to the surface, or in such quantities recommended by the cementing concerns and the Oil Conservation Commission. The operator should then be allowed to drill his well and set his production string as he sees fit. He should be allowed to set the size of casing and at a depth he recommends, so long as he uses number one used pipe or new pipe. The amount of cement run behind the production string should be sufficient to come up at least 500 feet above the shoe. This will be adequate cement to protect the oil and gas zones and the formations behind the production string.

B. The next pipe program is recommended as follows:

The surface pipe should be set through the surface water, and cemented by circulating cement behind the pipe to the surface, or else there should be sufficient amount of cement pumped in and around the pipe to come to the surface, under ordinarily conditions. The cement should be allowed to set under pressure not less than 48 hours before drilling same and testing for water. The operator must test for water at least 2 hours. In case there is no water present, he shall then be allowed to carry on drilling operations until he reaches the casing point necessary to set the production string. At this time the potash and salt is protected from

all water hazards. The only hazards existing at this time is the possibility of contaminating the potash with oil and gas. Therefore, the operator should run nothing but A-1 used pipe or new pipe, tonging each joint up as tight as possible to prevent leakage. He shall then be allowed, to pump heavy acquagel mud behind the pipe sufficient to reach and come above the salt and potash section. Then the operator should pump enough cement behind the pipe to come up at least 500 feet behind it, which would be sufficient to seal off any possible chances of oil and gas working its way up behind it. The production string shall be allowed to be set threw or above the oil producing sections as the operator may see fit. The reason for this is that the different known producing zones are treated differently.

Most of the wells are drilled through-out Eddy County by the cable tool method. Which has the advantages of being able to identify the formations immediately upon topping them and the exact thickness. We are also able to detect immediately the different changes in the formations that takes place. We are also able to test our water zones as to the amount of water and the thickness of the zones. Therefore it is necessary to have a different type of pipe program for this type of drilling than for rotary drilling. The above recommendation are based on cable tool drilling.

These recommendations or suggestions are based on past experience and present drilling operations being carried on in one or more districts. The oil and gas producers of New Mexico are fortunate enough to have the Oil and Gas Conservation Commission to assist us in our problems. They have accumulated information sufficient to guide them in any section of Eddy County, New Mexico. They are known to work and cooperate with the United States Geological Department all times.

The undersigned operator or operators of Eddy County, New Mexico approve whole heartedly the above and foregoing proposals and do hereby recommend these adoptions by the State Land Commission as well as the United States Land Commission.

Respectfully submitted,

/s/ Jones & Watkins Oil Company, Artesia, New Mexico, by Stanley L. Jones; Inc.

/s/ Miller & Miller, Artesia, New Mexico, by Stanley L. Jones,

/s/ Stanley L. Jones, Inc.

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NEW MEXICO OIL AND GAS ENGINEERING COMMITTEE
DRAWER "EYE"
HOBBS, NEW MEXICO.
JUNE 25, 1951

TELEGRAM
BARTLESVILLE, OKLAHOMA
JUNE 21, 1951

CASE NO. 278
EXHIBIT D.

R. R. SPURRIER, SECY.
NEW MEXICO OIL CONSERVATION COMMISSION - SANTA FE, NEW MEXICO.

RE CASE 278 FOR AN ORDER ESTABLISHING A CASING PROGRAM WITHIN THE SO CALLED POTASH AREA OF EDDY AND LEA COUNTIES. PHILLIPS PETROLEUM COMPANY HAS STUDIED PROPOSALS OF VARIOUS OPERATORS WHICH WOULD REQUIRE TEMPERATURE SURVEYS WHERE SALT STRING IS CEMENTED TO SURFACE. IN OUR OPINION CURCULATION SHOULD BE SUFFICIENT EVIDENCE AND WE OBJECT TO THE REQUIREMENT OF TEMPERATURE SURVEYS BECAUSE SUCH SURVEYS WILL NOT REVEAL ADDITIONAL INFORMATION. ALSO IN OUR OPINION, ON SHALLOW WELLS, IF NO INTERMEDIATE STRING, IS RUN THE OIL STRING SHOULD BE REQUIRED TO BE CEMENTED SOLID TO THE SURFACE TO AVOID POSSIBLE LEAKS AND IN THIS CASE WE ALSO OBJECT TO REQUIREMENT OF GAMMA RAY OR TEMPERATURE LOGS FOR SAME REASON THAT THEY SHOW NO MORE THAN IS INDICATED BY OBTAINING CIRCULATION OF CEMENT.

OPERATORS SUGGESTION THAT CENTRALIZERS BE PLACED ON EVERY THIRD JOINT OF SALT STRING SHOULD BE AMENDED TO PROVIDE LENGTH OF SUCH JOINTS OR CENTRALIZERS SHOULD BE SPACED CERTAIN DISTANCE APART. OTHERWISE PHILLIPS PETROLEUM COMPANY CONCURS WITH PROPOSALS OF OTHER OPERATORS AS SET FORTH IN RECENT MEMORANDUM OF NEW MEXICO OIL AND GAS ENGINEERING COMMITTEE.

C. P. DIMIT

PHILLIPS PETROLEUM COMPANY

DISTRIBUTED BY:
NEW MEXICO OIL AND GAS ENGINEERING COMMITTEE
DRAWER "EYE"
HOBBS, NEW MEXICO.
JUNE 25, 1951

OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

June 26, 1951

COPY

Mr. Guy Shepard
State Commissioner of Public Lands
State Capitol
SANTA FE, NEW MEXICO

Dear Guy:

Copies of the attached exhibits relative to Case 278 (Casing and Cementing Program for Shallow Oil and Gas Test Wells in Known Potash Areas) have been sent to the entire mailing list of the Oil Conservation Commission - a total of 726.

Envelopes were addressed separately to each of the following:

Mr. F. O. Davis
Potash Co. of America, Carlsbad

Mr. T. M. Cramer
U. S. Potash Co., Carlsbad

Mr. John Kelly, Roswell

Mr. Emery Carper, Artesia

Mr. R. H. Allport
USGS, Carlsbad

Mr. Foster Morell
USGS, Roswell

Very truly yours,

R. R. Spurrier,
Committee Member

RRS:nr

CASING AND CEMENTING PROGRAM FOR SHALLOW OIL AND GAS TEST WELLS IN KNOWN POTASH AREAS

CASE NO. 278
EXHIBIT B

The following is a suggested casing program for wells above 5,000 feet and is, of necessity, only general rules for the whole designated potash area, whether designated as Area A, Area B or otherwise. Geological sections change so rapidly in this large, scattered area that individual portions of the area will present individual problems. It is therefore suggested as follows:

A. That the Oil Conservation Commission retain authority to vary this general casing and cementing program to meet a specific condition, without an open hearing before the Commission.

B. That the casing and cementing program herein suggested apply only to the areas embraced in proven commercial deposits of potash, the remainder of the designated potash area to be drilled in accordance with standard, existing practices.

C. The suggested casing and cementing program is as follows:

1. Surface Casing String

In order to protect the fresh water supply, if present, the surface casing string shall be set through the fresh water bearing horizons and cemented with a volume adequate to protect the fresh water and keep it from entering the salt formation.

The surface string may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturers test specifications.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string may be set at lease one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string

CASE NO. 278
EXHIBIT A

Tests of casing shall vary with the drilling method. 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.

3. Intermediate String

This string may be a drilling protection string for deep drilling objectives or may be an oil string for testing medium depth zones.

a. If a drilling protection string, the casing shall be cemented with a sufficient volume of cement amply to protect this casing and all shallow pay zones above the casing shoe, and in every instance the string shall be cemented from a point one thousand (1000) feet below the salt string back to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

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.

CASING AND CEMENTING PROGRAM FOR SHALLOW OIL AND GAS TEST WELLS IN KNOWN POTASH AREAS

CASE NO. 278
EXHIBIT B

The following is a suggested casing program for wells above 5,000 feet and is, of necessity, only general rules for the whole designated potash area, whether designated as Area A, Area B or otherwise. Geological sections change so rapidly in this large, scattered area that individual portions of the area will present individual problems. It is therefore suggested as follows:

A. That the Oil Conservation Commission retain authority to vary this general casing and cementing program to meet a specific condition, without an open hearing before the Commission.

B. That the casing and cementing program herein suggested apply only to the areas embraced in proven commercial deposits of potash, the remainder of the designated potash area to be drilled in accordance with standard, existing practices.

C. The suggested casing and cementing program is as follows:

1. Surface Casing String

In order to protect the fresh water supply, if present, the surface casing string shall be set through the fresh water bearing horizons and cemented with a volume adequate to protect the fresh water and keep it from entering the salt formation.

The surface string may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturers test specifications.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string may be set at lease one hundred (100) feet and not more than two hundred (200)feet below the base of the salt section. This string

may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturer's test specifications.

The string may be cemented with a nominal cement volume for testing purposes only, and if commercially productive, the string must be re-cemented with not less than 150% of calculated volume necessary to circulate cement to surface.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (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 jobs done until cement is brought to that point. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

Test of casing shall vary with the drilling method. 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.

3. Oil or Production String

This string may 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 salt protection casing shall have been run and commercial production obtained, that string shall be cemented to the surface as provided by 2 above or as provided by 3a in Deep Well program.

D. The undersigned operators, of Eddy County, New Mexico, approve the above and foregoing proposals and recommend its adoption by the Commission.

Respectfully submitted,

American Republics Corp. by William B. Macey; Boyd-Plemons Drilling Company by Tom Boyd; Buffalo Oil Company by Ralph L. Gray; Guy Stevenson; J. Grady Wright; E. N. Brock; G. Kelley Stout; (Illegible) Paton Bros. by H. R. Paton; R. D. Collier; J. W. Berry; Ross Sears; Joe Nunn; J. E. Bedingfield; Burnham Oil Company by E. Jeffers; Malco Refineries, Inc. by Donald E. Anderson; Bassatt & Birney by Martin Yates III; Dixon & Yates by Martin Yates III, S. P. Yates; Yates Brothers by S. P. Yates; Resler Oil Company by S. P. Yates; J. R. Lund for Robert E. McKee.

CASING AND CEMENTING PROGRAM FOR SHALLOW OIL AND GAS TEST WELLS IN PROSPECTIVE POTASH AREAS

CASE No. 278
EXHIBIT C

The following program is a suggestive program for the cementing of pipe and the protecting of the prospective potash horizon from water, oil and gas contamination. This program shall pertain to oil and gas test or wells drilled for the purpose of securing oil and gas, down to a depth of 6000 feet. There should be rules set up for particular areas, naturally based on the amount of surface water and the amount of potash in the salt section, which will be penetrated during the drilling of the proposed oil test. The geological features on the oil structures will call for different programs from time to time. Especially in the districts where potash is present. The commercial potash districts according to geological features and subsurface information that has been secured from old oil test that have been drilled in the past. Also addition information has been secured from districts from recent wells drilled in the various districts. There has also been a considerable amount of coring done by the various companies. All of this information should supply sufficient knowledge to derive at a pipe program satisfactory for all concerned. It is therefore suggested as follows:

1. That the Oil and Gas Conservation Commission retain authorization to issue a pipe program according to the area and district. A program that is sufficient to protect the potash strates at the present and future.

2. A suggestive pipe program for the general area should be as follows:

A. Surface Casing

The surface casing should be set at the top of the salt section. The size should be determined by the operator. The number one suggestion is that the pipe be mudded to the surface by pumping mud around the shoe and behind the pipe to the surface. Allow pipe to set eight hours. Then bale hole dry and test for at least two hours. If water is completely shut off, then the operator shall continue his drilling until he has reached the anhydrite formation. Then the operator should run either number one used pipe or new pipe through the potash and salt section. The operator should then be allowed to pull the surface pipe from the hole. The operator should then be permitted to cement the pipe from the bottom of the salt section to the surface, by circulating cement behind the pipe to the surface, or in such quantities recommended by the cementing concerns and the Oil Conservation Commission. The operator should then be allowed to drill his well and set his production string as he sees fit. He should be allowed to set the size of casing and at a depth he recommends, so long as he uses number one used pipe or new pipe. The amount of cement run behind the production string should be sufficient to come up at least 500 feet above the shoe. This will be adequate cement to protect the oil and gas zones and the formations behind the production string.

W.N.M.C.F. MICROGRAPHICS

may consist of new, second-hand or re-conditioned pipe capable of meeting the manufacturer's test specifications.

The string may be cemented with a nominal cement volume for testing purposes only, and if commercially productive, the string must be re-cemented with not less than 150% of calculated volume necessary to circulate cement to surface.

Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (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 jobs done until cement is brought to that point. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

Test of casing shall vary with the drilling method. 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.

3. Oil or Production String

This string may 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 salt protection casing shall have been run and commercial production obtained, that string shall be cemented to the surface as provided by 2 above or as provided by 3a in Deep Well program.

D. The undersigned operators, of Eddy County, New Mexico, approve the above and foregoing proposals and recommend its adoption by the Commission.

Respectfully submitted,

American Republics Corp. by William B. Macey; Boyd-Plemons Drilling Company by Tom Boyd; Buffalo Oil Company by Ralph L. Gray; Guy Stevenson; J. Grady Wright; E. N. Brock; G. Kelley Stout; (Illegible;) Paton Bros. by H. R. Paton; R. D. Collier; J. W. Berry; Ross Sears; Joe Nunn; J. E. Bedingfield; Burnham Oil Company by E. Jeffers; Malco Refineries, Inc. by Donald E. Anderson; Bassatt & Birney by Martin Yates III; Dixon & Yates by Martin Yates III; S. P. Yates; Yates Brothers by S. P. Yates; Resler Oil Company by S. P. Yates; J. R. Lund for Robert E. McKee.

Telegram -
Bartlesville, Oklahoma
June 21, 1951 - - - - -

CASE NO. 278
EXHIBIT D

R. R. SPURRIER, SECY.
NEW MEXICO OIL CONSERVATION COMMISSION - SANTA FE, NEW MEXICO

RE CASE 278 FOR AN ORDER ESTABLISHING A CASING PROGRAM WITHIN THE SO CALLED POTASH AREA OF EDDY AND LEA COUNTIES. PHILLIPS PETROLEUM COMPANY HAS STUDIED PROPOSALS OF VARIOUS OPERATORS WHICH WOULD REQUIRE TEMPERATURE SURVEYS WHERE SALT STRING IS CEMENTED TO SURFACE. IN OUR OPINION CIRCULATION SHOULD BE SUFFICIENT EVIDENCE AND WE OBJECT TO THE REQUIREMENT OF TEMPERATURE SURVEYS BECAUSE SUCH SURVEYS WILL NOT REVEAL ADDITIONAL INFORMATION. ALSO IN OUR OPINION, ON SHALLOW WELLS, IF NO INTERMEDIATE STRING IS RUN THE OIL STRING SHOULD BE REQUIRED TO BE CEMENTED SOLID TO THE SURFACE TO AVOID POSSIBLE LEAKS AND IN THIS CASE WE ALSO OBJECT TO REQUIREMENT OF GAMMA RAY OR TEMPERATURE LOGS FOR SAME REASON THAT THEY SHOW NO MORE THAN IS INDICATED BY OBTAINING CIRCULATION OF CEMENT.

OPERATORS SUGGESTION THAT CENTERALIZERS BE PLACED ON EVERY THIRD JOINT OF SALT STRING SHOULD BE AMENDED TO PROVIDE LENGTH OF SUCH JOINTS OR CENTRALIZERS SHOULD BE SPACED CERTAIN DISTANCE APART. OTHERWISE PHILLIPS PETROLEUM COMPANY CONCURS WITH PROPOSALS OF OTHER OPERATORS AS SET FORTH IN RECENT MEMORANDUM OF NEW MEXICO OIL AND GAS ENGINEERING COMMITTEE.

C. P. DIMIT

PHILLIPS PETROLEUM COMPANY

UNITED STATES POTASH COMPANY
INCORPORATED

GENERAL OFFICES
30 ROCKEFELLER PLAZA
NEW YORK 20, N. Y.



CARLSBAD, NEW MEXICO

August 24, 1955

Mr. W. B. Macey, Secretary - Director
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Mr. Macey:

Your letter of August 22, 1955 together with the six copies of the proposed rules for the Potash - Oil Area is acknowledged and appreciated.

Very truly yours,

UNITED STATES POTASH COMPANY

T. M. Cramer

TMC:db

SUGGESTED REVISED ORDER NO. R-111

I.

OBJECTIVE

The objective of these Rules and Regulations is to prevent waste, protect correlative rights, assure maximum conservation of the oil, gas and potash resources of New Mexico and permit the economic recovery of oil, gas and potash minerals in the area hereinafter defined.

II.

THE POTASH - OIL AREA

(1) The Potash - Oil Area, as outlined in Exhibit A attached hereto and made a part hereof, represents the area in various parts of which potash mining operations are now in progress, or in which core tests indicate commercial potash reserves.

(2) The Potash - Oil Area, as outlined herein, may be revised by the Commission after due notice and hearing.

III.

DRILLING IN THE POTASH AREA

(1) All drilling of oil and gas wells in the POTASH AREA shall be subject to these rules and regulations.

(2) No wells will be drilled for oil or gas at a location, which in the opinion of the Commission or its duly authorized representative, would result in undue waste of potash deposits or constitute a hazard to or interfere unduly with potash deposits.

No mining operations will be conducted in the POTASH AREA that would, in the opinion of the Commission or its duly authorized representative, constitute a hazard to oil or gas production, or that would unreasonably interfere with the orderly development and production from any oil or gas pool.

(3) Upon discovery of oil or gas in the POTASH AREA, the Oil Conservation Commission shall promulgate pool rules for the affected area after due notice and hearing.

IV.

DRILLING AND CASING PROGRAM

(1) For the purpose of the regulations and the drilling of oil and gas exploratory test wells, shallow and deep zones are defined, as follows:

W.N.M.C.F. MICROGRAPHICS

(a) The 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) The 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) Surface Casing String:

(a) A surface casing string of new or used oil field casing in good condition shall be set in the "Red Bed" section of the basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section, as determined necessary by the regulatory representative approving the drilling operations and shall be cemented with not less than one hundred and fifty percent (150) percent of calculated volume necessary to circulate cement to the ground surface.

(b) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(c) Casing and water-shut-off tests shall be made both before and after drilling the plug and below the casing seat as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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.

(d) The above requirements for the surface casing string shall be applicable to both the shallow and deep zones.

W.N.M.C.E. MICROGRAPHICS

(3) Salt Protection String:

(a) A salt protection string of new or used oil field casing in good condition shall be set not less than one hundred (100) feet nor more than six hundred (600) feet below the base of the salt section; provided that such string shall not be set below the top of the highest known oil or gas zone.

(b) The salt protection string shall be cemented, as follows:

(i) For wells drilled to the shallow zone, the string may be cemented with a nominal volume of cement for testing purposes only. If the exploratory test well is completed as a productive well, the string shall be re-cemented with sufficient cement to fill the annular space back of the pipe from the top of the first cementing to the surface or to the bottom of the cellar, or may be cut and pulled if the production string is cemented to the surface as provided in sub-section IV (5), (a), (i) below.

(ii) For wells drilled to the deep zone, the string must be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar. However, where the base of the Delaware sand is definable the casing rules in (IV) (3b) (i) shall apply even if the depth of the bottom of the Delaware Sand is greater than 5000'.

(c) If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or gamma ray survey and additional cementing shall be done until the cement is brought to the point required.

W.N.M.C.E. MICROGRAPHICS

(d) The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with suitable proportions but not less than 1% of calcium chloride by weight of cement.

(e) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(f) Casing tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of one thousand (1000) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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) The Commission, or its duly authorized representative, may require the use of centralizers on the salt protection string when in their judgment the use of such centralizers would offer further protection to the salt section.

(h) The above requirements for the salt protection string shall be applicable to both the shallow and deep zones except for sub-section IV (3), (b), (i) and (ii) above.

(4) Intermediate String:

(a) In the drilling of oil and gas exploratory test wells to the deep zone, the operator shall have the option of running an intermediate string of pipe,

W.N.M.C.F. MICROGRAPHICS



unless the Commission requires an intermediate string.

(b) Cementing procedures and casing tests for the intermediate string shall be the same as provided under sub-sections IV (3), (c), (e) and (f) for the salt protection string.

(5) Production String:

(a) A production string shall be set on top or through the oil or gas pay zone and shall be cemented as follows:

(i) For wells drilled to the shallow zone the production string shall be cemented to the surface if the salt protection string was cemented only with a nominal volume for testing purposes, in which case the salt protection string can be cut and pulled before the production string is cemented; provided, that if the salt protection string was cemented to the surface, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone.

(ii) For wells drilled to the deep zone, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided, that if no intermediate string shall have been run and cemented to the surface, the production string shall be cemented to the surface.

(b) Cementing procedures and casing tests for the production string shall be the same as provided under sub-section IV (3), (c), (e) and (f) for the salt

W.N.M.C.F. MICROGRAPHICS

protection string, however if high pressure oil or gas production is discovered in any area the Commission shall promulgate the necessary rules to prevent the charging of the salt section.

V.

DRILLING FLUID FOR SALT SECTION

The fluid used while drilling the salt section 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 fluid by the operator in overcoming any specific problem. This requirement is specifically intended to prevent enlarged drill holes.

VI.

PLUGGING AND ABANDONMENT OF WELLS

(a) All wells heretofore and hereafter drilled within the Potash Area shall be plugged in a manner and in accordance with field rules established by the Commission that will provide a solid cement plug through the salt section and any water bearing horizon and prevent liquids or gases from entering the hole above or below the salt section.

(b) The fluid used to mix the cement shall be saturated with the salts common to the salt section penetrated and with suitable proportions but not more than three (3) percent of calcium chloride by weight of cement being considered the desired mixture whenever possible

VII.

LOCATION FOR WELLS

Before commencing drilling operations for oil or gas on any lands within the POTASH AREA, the well operator shall prepare a map or plat showing the

W.N.M.C.F. MICROGRAPHICS

location of the proposed well, said map or plat to accompany each copy of the Notice of Intention to Drill. In addition to the number of copies required by the Commission, the well operator shall send one copy by registered mail to all potash operators holding potash leases within a radius of one mile of the proposed well, as reflected by the plats submitted under paragraph IX (b).

The well operator shall furnish proof of the fact that said potash operators were notified by registered mail of his intent by attaching return receipts to the copies of the Notice of Intention to Drill and plats furnished the Commission.

The Commission, or its authorized representative, may approve such Notice of Intention to Drill if no objection to the location of the proposed well is made by a potash operator within ten days after receipt. If the location of the proposed well is objected to by the potash operator, the matter shall be referred to the Secretary-Director of the Commission for arbitration. If a satisfactory settlement cannot be reached, the Secretary - Director of the Commission shall refer the matter to a hearing before the Commission after due notice and a decision either approving or denying the operator's plans to drill shall be entered by the Commission.

VIII.

INSPECTION OF DRILLING AND MINING OPERATIONS

A representative of the potash operator may be present during drilling, cementing, casing, and plugging of all oil or gas wells within 1320 feet of his lease to observe conformance with these regulations. Likewise, a representative of the oil and gas lessee may inspect mine workings on his lease to observe conformance with these regulations.

IX.

FILING OF WELL SURVEYS, MINE SURVEYS AND POTASH DEVELOPMENT PLANS

(a) Directional Surveys:

The Commission may require an operator to file a certified directional survey from the surface to a point below the lowest known potash

bearing horizon on all wells drilled within the POTASH AREA. These surveys may be required where, in the Commission's judgment, the exact location of the wellbore must be determined in order to aid mining operations.

(b) Mine Surveys:

On or before January 31st of each year, each potash operator shall furnish two copies of a plat of a survey of the location of his leaseholdings and all of his open mine workings, which plat shall be available for public inspection.

(c) Potash Development Plan

Within 30 days after the adoption of this order and thereafter, on or before January 31st of each year, each potash operator shall furnish two copies of a five-year projection of development plans in the form of a plat, which plat shall be for the confidential use of the Commission and for inspection by any affected oil or gas operator. The projection shall cover not less than 3 nor more than a 5 year development program.

X.

APPLICABILITY OF STATEWIDE RULES AND REGULATIONS

All general statewide rules and regulations of the Oil Conservation Commission governing the development, operation, and production of oil and gas in the State of New Mexico not inconsistent or in conflict herewith, are hereby adopted and made applicable to the areas described herein.

Feb 8 '18

Please Register

Patrick Oil Committee Meeting

Harvey E Yates

Edward B Yates

Jos. A. Frost

Julius Caldwell

P O Davis

R H Sheffield

Jack Diffee

Henry H. Brubaker

D. L. Libbey

Wm A. Herbert

E A Arnold Jr.

L. A. Hanson O.C.C. Artesia

W. G. Abbott, Amarado

W. A. Roberts, Phillips - Hobbs

W. W. Lindsey Jr. National Petrol - Hobbs

Jerry Long OCC

We want in also.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF DEFINING BOUNDARIES OF POTENTIAL OIL PRODUCING AREAS IN EDDY AND LEA COUNTIES, NEW MEXICO, WITHIN WHICH POTASH MINERALS ARE BEING PRODUCED OR POTENTIAL POTASH PRODUCING LANDS ARE LOCATED.

CASE No. 278
ORDER No. R-111

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," on June 21, 1951, and for further hearing on July 10, 1951, and the Commission, a quorum being present, having considered the testimony adduced and the exhibits introduced in evidence and arguments presented and being fully advised in the premises,

FINDS, (1) That due notice having been given, according to law, and all interested parties having appeared, the Commission has jurisdiction of this cause, and the subject matter thereof.

(2) That an area defining potential oil and gas reserves within which are proved and potential potash deposits, and the promulgation of rules and regulations for the orderly development of oil and gas resources in such an area known to be productive of potash is within the authority of the Commission for the protection of correlative rights, the promotion of conservation, and the prevention of waste.

IT IS THEREFORE ORDERED:

That this order shall be known as THE RULES AND REGULATIONS GOVERNING THE EXPLORATION AND PRODUCTION OF OIL AND GAS IN CERTAIN AREAS AND SUB-AREAS HEREIN DEFINED AND KNOWN TO CONTAIN PROVED AND SEMI-PROVED POTASH MINERALS IN THE AREA AND SUB-AREAS HEREINAFTER SET OUT.

I
OBJECTIVE

The objective of these Rules and Regulations is to prevent waste, protect correlative rights, assure maximum conservation of the oil and gas resources of New Mexico and permit the simultaneous economic recovery of potash minerals in the area hereinafter defined.

II
THE POTASH - OIL AREAS

(1) These Rules and Regulations are applicable to oil and gas operations and to exploration for and production of oil and gas in proven or potential Potash-Oil areas herein defined as "Area A" and "Area B."

(a) The potash-oil area represents the area in various parts of which potash mining operations are now in progress, or in which core tests indicate potential potash reserves are located and is described, as follows:

W.N.M.C.F. MICROGRAPHICS

T. 19 S, R. 29 E
Sec. 11 - SE/4
Sec. 12 - S/2
Sec. 13 and 14 - all
Sec. 23 - N/2
Sec. 24 - N/2

T. 20 S, R. 29 E
Sec. 12 - NE/4 SE/4 and S/2 SE/4
Sec. 13 - NE/4 and S/2
Sec. 22 to 27, inclusive
Sec. 34 to 36, inclusive

T. 21 S, R. 29 E
Sec. 1 and 2, all
Sec. 3 - E/2
Sec. 10 - E/2
Sec. 11 to 14, inclusive
Sec. 15 - E/2
Sec. 23 - N/2
Sec. 24 and 25 - all
Sec. 35 - E/2
Sec. 36 - all

T. 22 S, R. 29 E
Sec. 1 and 2 - all
Sec. 3 - S/2
Sec. 9 - E/2
Sec. 10 to 16, inclusive
Sec. 17 - E/2
Sec. 20 - E/2
Sec. 21 to 28, inclusive
Sec. 33 to 36, inclusive

T. 23 S, R. 29 E
Sec. 1 to 3, inclusive
Sec. 4 - E/2
Sec. 9 - E/2
Sec. 10 to 15, inclusive
Sec. 22 to 27, inclusive
Sec. 34 to 36, inclusive

T. 18 S. R. 30 E
Sec. 12 - S/2
Sec. 13 and 14 - all
Sec. 15 - SE/4
Sec. 21 - SE/4
Sec. 22 to 24, inclusive
Sec. 25 - W/2
Sec. 26 to 28, inclusive
Sec. 29 - SE/4
Sec. 32 - SW/4 and E/2
Sec. 33 and 34 - all
Sec. 35 - W/2

T. 19 S, R. 30 E
Sec. 2 to 5, inclusive
Sec. 6 - SE/4
Sec. 7 - NE/4 and S/2
Sec. 8 to 30, inclusive
Sec. 32 to 36, inclusive

T. 20 S, R. 30 E
Sec. 1 to 36, inclusive

T. 21 S, R. 30 E
Sec. 1 to 11, inclusive
Sec. 12 - S/2
Sec. 13 to 22, inclusive
Sec. 23, - N/2
Sec. 24 - N/2
Sec. 27 to 34, inclusive
Sec. 35 - S/2

T. 22 S, R. 30 E
Sec. 1 to 24, inclusive
Sec. 25 - W/2
Sec. 26 to 35, inclusive
Sec. 36 - W/2

T. 23 S, R. 30 E
Sec. 1 - S/2
Sec. 2 to 36, inclusive

T. 24 S, R. 30 E
Sec. 1 - N/2
Sec. 2 - N/2
Sec. 3 - N/2

T. 18 S, R. 31 E
Sec. 18 - W/2

T. 19 S, R. 31 E
Sec. 9 and 10 - all
Sec. 11 - W/2
Sec. 14 - W/2
Sec. 15 to 17, inclusive
Sec. 19 to 22, inclusive
Sec. 23 - W/2
Sec. 25 - S/2
Sec. 26 to 36, inclusive

T. 20 S, R. 31 E
Sec. 1 to 36, inclusive

T. 21 S, R. 31 E
Sec. 1 - N/2
Sec. 2 - N/2
Sec. 4 - W/2
Sec. 5 and 6 - all
Sec. 18 - S/2
Sec. 19 - N/2

T. 22 S, R. 31 E
Sec. 4 to 9, inclusive
Sec. 17 and 18 - all
Sec. 19 - N/2

T. 23 S, R. 31 E
Sec. 7 - all
Sec. 8 - S/2
Sec. 16 - SW/4
Sec. 17 to 20, inclusive
Sec. 21 - W/2
Sec. 28 to 33, inclusive

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T. 24 S, R. 31 E
Sec. 4 to 6, inclusive

T. 19 S, R. 32 E
Sec. 23, S/2
Sec. 24 to 27, inclusive
Sec. 28 - S/2
Sec. 31 - S/2
Sec. 32 - S/2
Sec. 33 to 36, inclusive

T. 20 S, R. 32 E
Sec. 1 to 36, inclusive

T. 21 S, R. 32 E
Sec. 1 to 17, inclusive
Sec. 21 to 27, inclusive
Sec. 35 and 36 - all

T. 19 S, R. 33 E
Sec. 19 - all
Sec. 30 and 31 - all

T. 20 S, R. 33 E
Sec. 5 to 9, inclusive
Sec. 15 to 23, inclusive
Sec. 25 to 36, inclusive

T. 21 S, R. 33 E
Sec. 4 to 9, inclusive
Sec. 16 to 21, inclusive
Sec. 28 to 33, inclusive

T. 22 S, R. 33 E
Sec. 4 to 6, inclusive

T. 20 S, R. 34 E
Sec. 31 - all

(b) Area "A" represents the area in various parts of which potash mining operations are now in progress and is described, as follows:

T. 19 S, R. 30 E
Sec. 9 - SE/4 NW/4, E/2 SW/4, S/2 NE/4, SE/4
Sec. 10 - SW/4 NW/4, W/2 SW/4
Sec. 15 - NW/4 NW/4
Sec. 16 - N/2 NE/4, NE/4 NW/4
Sec. 26 - S/2 NW/4, SW/4 NE/4, W/2 SE/4, SW/4
Sec. 27 - S/2 NE/4, SE/4 NW/4, NE/4 SW/4, S/2 SW/4, SE/4
Sec. 28 - SE/4 SE/4
Sec. 33 - SE/4 NW/4, NE/4 NE/4, S/2 NE/4, E/2 SW/4, SE/4
Sec. 34 - all
Sec. 35 - NW/4, W/2 NE/4, NW/4 SE/4, N/2 SW/4, SW/4 SW/4

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T. 20 S, R. 30 E
Sec. 2 - W/2 NW/4, NW/4 SW/4
Sec. 3 - N/2, SW/4, N/2 SE/4, SW/4 SE/4
Sec. 4 - E/2, SW/4, E/2 NW/4, SW/4 NW/4
Sec. 5 - SE/4 NE/4, E/2 SE/4, SW/4 SE/4, SE/4 SW/4
Sec. 7 - SE/4 SE/4
Sec. 8 - E/2, E/2 NW/4, E/2 SW/4, SW/4 SW/4
Sec. 9 - N/2, SW/4, N/2 SE/4, SW/4 SE/4
Sec. 10 - NW/4, W/2 NE/4, NW/4 SE/4, N/2 SW/4
Sec. 16 - N/2 NW/4, NW/4 NE/4
Sec. 17 - W/2, N/2 NE/4, SW/4 NE/4, W/2 SE/4
Sec. 18 - E/2 NE/4, E/2 SE/4
Sec. 19 - NE/4 NE/4
Sec. 20 - N/2 NW/4, NW/4 NE/4
Sec. 25 - SW/4 SW/4
Sec. 26 - SE/4 SW/4, S/2 SE/4
Sec. 35 - E/2 NW/4, NE/4, N/2 SE/4, NE/4 SW/4
Sec. 36 - W/2 NW/4, NW/4 SW/4

T. 21 S, R. 29 E
Sec. 1 - SE/4, S/2 NE/4, SE/4 NW/4, NE/4 SW/4, S/2 SW/4
Sec. 2 - SE/4 SE/4
Sec. 11 - NE/4 NE/4, S/2 NE/4, SE/4 NW/4, E/2 SW/4, SE/4
Sec. 12 - all
Sec. 13 - N/2, SE/4, N/2 SW/4, SE/4 SW/4
Sec. 14 - E/2 NW/4, NE/4, NE/4 SW/4, N/2 SE/4
Sec. 24 - NE/4 NW/4, N/2 NE/4
Sec. 25 - SE/4 SW/4, S/2 SE/4
Sec. 36 - E/2 NW/4, E/2 SW/4, E/2

T. 22 S, R. 29 E
Sec. 1 - E/2 NW/4, SW/4 NW/4, SW/4, E/2
Sec. 2 - SE/4 NE/4, E/2 SE/4
Sec. 11 - E/2 NE/4, NE/4 SE/4
Sec. 12 - N/2, N/2 SW/4, N/2 SE/4

T. 21 S, R. 30 E
Sec. 6 - SW/4 NW/4, W/2 SW/4
Sec. 7 - NW/4 NW/4, S/2 NW/4, SW/4 NE/4, SW/4, W/2 SE/4
Sec. 18 - NW/4, W/2 NE/4, N/2 SW/4, SW/4 SW/4, NW/4 SE/4
Sec. 19 - NW/4 NW/4

T. 21 S, R. 30 E
Sec. 29 - SW/4 SW/4
Sec. 30 - S/2 SW/4, S/2 SE/4
Sec. 31 - all
Sec. 32 - W/2 NW/4, W/2 SW/4

T. 22 S, R. 30 E
Sec. 5 - W/2 NW/4, NW/4 SW/4
Sec. 6 - N/2, SW/4, N/2 SE/4, SW/4 SE/4
Sec. 7 - N/2 NW/4, SW/4 NW/4, NW/4 NE/4, NW/4 SW/4

(c) Area "B" is defined as that area in which core tests indicate potential potash reserves and includes the entire potash-oil area as described under "The Potash-Oil Areas" Sec. (1) (a), of this order, except and excluding lands defined and described as area "A" in "The Potash-Oil Areas," Sec. (1) (b) of this order.

(2) Area "A" and "B" as hereinabove defined may be contracted or expanded by the Commission from time to time as circumstances or conditions may warrant, after due notice and hearing.

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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, that oil and gas exploratory test wells shall not be drilled through any open potash mines or within 1,320 feet thereof unless agreed to in writing by the potash lessee involved.

(b) Any oil or gas leases hereafter issued for lands within Area "A" shall be subject to these regulations.

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

(d) Where oil and gas wells are in production in Area "A," no potash mine opening shall be driven to within less than 100 feet of such wells so that protection of both wells and mine can be afforded.

(e) Proposals to unitize with respect to land within Area "A", as herein defined and described, will be considered on their merits.

(2) Area "B"

(a) Oil and gas exploratory test wells may be drilled in Area "B" in accordance with these rules and regulations.

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

(4) Nothing herein shall be construed to prevent unitization agreements involving lands in Areas "A" or "B", or both.

IV
DRILLING AND CASING PROGRAM

(1) For the purpose of the regulations and the drilling of oil and gas exploratory test wells, shallow and deep zones are defined, as follows:

(a) The 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) The 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) Surface Casing String:

(a) A surface casing string of new, second-hand, or reconditioned pipe shall be set in the "Red Bed" section of the basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section, as determined necessary by the regulatory representative approving the drilling operations and shall be cemented with not less than one hundred and fifty percent (150 percent) of calculated volume necessary to circulate cement to the ground surface.

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(b) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(c) Casing and water-shut-off tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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

(d) The above requirements for the surface casing string shall be applicable to both the shallow and deep zones.

(3) Salt Protection String:

(a) A salt protection string of new, second-hand, or reconditioned pipe shall be set not less than one hundred (100) feet nor more than two hundred (200) feet below the base of the salt section.

(b) The salt protection string shall be cemented, as follows:

(i) For wells drilled to the shallow zone, the string may be cemented with a nominal volume of cement for testing purposes only. If the exploratory test well is completed as a productive well, the string shall be recemented with sufficient cement to fill the annular space back of the pipe from the top of the first cementing to the surface or to the bottom of the cellar, or may be cut and pulled if the production string is cemented to the surface as provided in sub-section IV (5), (a), (i) below.

(ii) For wells drilled to the deep zone, the string must be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(c) If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or gamma ray survey and additional cementing shall be done until the cement is brought to the point required.

(d) The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with three (3 percent) percent of calcium chloride by weight of cement.

(e) Centralizers shall be spaced on at least every one hundred fifty (150) feet of the salt protection string below the surface casing string.

(f) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

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(g) Casing tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of one thousand (1000) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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.

(h) The above requirements for the salt protection string shall be applicable to both the shallow and deep zones except for sub-section IV (3), (b), (i) and (ii) above.

(4) Intermediate String:

(a) In the drilling of oil and gas exploratory test wells to the deep zone, an intermediate string shall be set at sufficient depth to case-off all formations in the shallow zone and shall be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(b) Cementing procedures and casing tests for the intermediate string shall be the same as provided under sub-sections IV (3), (c), (f) and (g) for the salt protection string.

(5) Production String:

(a) A production string shall be set on top or through the oil or gas pay zone and shall be cemented as follows:

(i) For wells drilled to the shallow zone the production string shall be cemented to the surface if the salt protection string was cemented only with a nominal volume for testing purposes, in which case the salt protection string can be cut and pulled before the production string is cemented; provided, that if the salt protection string was cemented to the surface, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone.

(ii) For wells drilled to the deep zone, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided, that if no intermediate string shall have been run and cemented to the surface, the production string shall be cemented to the surface.

(b) Cementing procedures and casing tests for the production string shall be the same as provided under sub-sections IV (3) (c), (f) and (g) for the salt protection string.

V
DRILLING FLUID FOR SALT SECTION

The fluid used while drilling the salt section 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 fluid by the operator in overcoming any specific problem. This requirement is specifically intended to prevent enlarged drill holes.

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VI
PLUGGING AND ABANDONMENT OF WELLS

All wells heretofor and hereafter drilled within Areas "A" and "B" 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.

VII
LOCATIONS FOR TEST WELLS

Before drilling for oil or gas on lands in Areas "A" or "B", a map or plat showing the location of the proposed well shall be prepared by the well operator and copy sent by registered mail to the potash lessee involved, if any. Upon proper showing of such notice and if no objection to the location of the proposed well is 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 within ten days for consideration and decision by the Oil Conservation Commission.

VIII
INSPECTION OF DRILLING AND MINING OPERATIONS

A representative of the potash lessee may be present during drilling, cementing, casing, and plugging of all oil or gas wells on his lease to observe conformance with these regulations. Likewise, a representative of the oil and gas lessee may inspect mine workings on his lease to observe conformance with these regulations.

IX
FILING OF WELL AND MINE SURVEYS

Each oil and gas lessee shall furnish not later than January 31st of each year 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 or gas well drilled in Area "A" during the preceding calendar year. Each potash lessee shall furnish not later than January 31st of each year to the Oil Conservation Commission and to each oil and gas lessee involved, certified plat of survey of the location of open mine workings underlying outstanding oil and gas leases.

X
APPLICABILITY OF STATEWIDE RULES AND REGULATIONS

All general statewide rules and regulations of the Oil Conservation Commission governing the development, operation, and production of oil and gas in the State of New Mexico not inconsistent or in conflict herewith, are hereby adopted and made applicable to the areas described herein.

XI
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 November, 1951.

DONE at Santa Fe, New Mexico, this 9th day of November, 1951.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Edwin L. Mechem
EDWIN L. MECHEM, Chairman

Guy Shepard
GUY SHEPARD, Member

R. R. Spurrier
R. R. SPURRIER, Secretary

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

Guy Shepard
GUY SHEPARD
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 THE STATE OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

CASE NO. 278
Order No. R-111-A

THE APPLICATION OF THE OIL CONSERVATION COMMISSION UPON ITS OWN MOTION FOR AN ORDER REVISING ORDER R-111 ISSUED IN CASE 278, PERTAINING TO THE POTASH-OIL AREAS OF EDDY AND LEA COUNTIES, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on July 14, 1955, August 17, 1955 and September 15, 1955, at Santa Fe, New Mexico, before the Oil Conservation Commission, hereinafter referred to as the "Commission".

NOW, on this 13th day of October, 1955, the Commission, a quorum being present, having considered the records and testimony adduced, and being fully advised in the premises;

FINDS:

(1) That due notice of the time and place of hearing and the purpose thereof having been given as required by law, the Commission has jurisdiction of this case and the subject matter thereof.

(2) That the delineation of an area including and containing potential oil and gas reserves, within which are commercial potash deposits, and the promulgation of rules and regulations for the orderly development of oil and gas resources in such an area known to be productive of potash is within the authority of the Commission for the protection of correlative rights, the promotion of conservation, and the prevention of waste.

IT IS THEREFORE ORDERED:

That this order shall be known as The Rules and Regulations Governing the Exploration of Oil and Gas in Certain Areas Herein Defined, which are Known to Contain Potash Reserves.

I.

OBJECTIVE

The objective of these Rules and Regulations is to prevent waste, protect correlative rights, assure maximum conservation of the oil, gas and potash resources of New Mexico, and permit the economic recovery of oil, gas and potash minerals in the area hereinafter defined.

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II.

THE POTASH-OIL AREA

(1) The Potash-Oil Area, as outlined in Exhibit A attached hereto and made a part hereof, represents the area in various parts of which potash mining operations are now in progress, or in which core tests indicate commercial potash reserves.

(2) The Potash-Oil Area, as outlined herein, may be revised by the Commission after due notice and hearing.

III.

DRILLING IN THE POTASH AREA

(1) All drilling of oil and gas wells in the Potash Area shall be subject to these Rules and Regulations.

(2) No wells will be drilled for oil or gas at a location which, in the opinion of the Commission or its duly authorized representative, would result in undue waste of potash deposits or constitute a hazard to or interfere unduly with potash deposits.

No mining operations will be conducted in the Potash Area that would, in the opinion of the Commission or its duly authorized representative, constitute a hazard to oil or gas production, or that would unreasonably interfere with the orderly development and production from any oil or gas pool.

(3) Upon discovery of oil or gas in the Potash Area, the Oil Conservation Commission shall promulgate pool rules for the affected area after due notice and hearing.

IV.

DRILLING AND CASING PROGRAM

(1) For the purpose of the regulations and the drilling of oil and gas exploratory test wells, shallow and deep zones are defined, as follows:

(a) The 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) The 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) Surface Casing String:

(a) A surface casing string of new or used oil field casing in good condition shall be set in the "Red Bed" section of the basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section, as determined necessary by the regulatory representative approving the drilling operations, and shall be cemented with not less than one hundred and fifty percent (150) percent of calculated volume necessary to circulate cement to the ground surface.

(b) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(c) Casing and water-shut-off tests shall be made both before and after drilling the plug and below the casing seat as follows:

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(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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.

(d) The above requirements for the surface casing string shall be applicable to both the shallow and deep zones.

(3) Salt Protection String:

(a) A salt protection string of new or used oil field casing in good condition shall be set not less than one hundred (100) feet nor more than six hundred (600) feet below the base of the salt section; provided that such string shall not be set below the top of the highest known oil or gas zone.

(b) The salt protection string shall be cemented, as follows:

(i) For wells drilled to the shallow zone, the string may be cemented with a nominal volume of cement for testing purposes only. If the exploratory test well is completed as a productive well, the string shall be re-cemented with sufficient cement to fill the annular space back of the pipe from the top of the first cementing to the surface or to the bottom of the cellar, or may be cut and pulled if the production string is cemented to the surface as provided in sub-section IV (5), (i) below.

(ii) For wells drilled to the deep zone, the string must be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar; however, where the base of the Delaware Mountain Group is definable the casing rules in (IV) (3b) (i) shall apply even if the depth of the bottom of the Delaware Mountain Group is greater than 5000 feet. For the purpose of identification, the base of the Delaware Mountain Group is hereby identified as the equivalent of the base of such formation as found at a depth of 7485 feet in the Richardson and Bass No. 1 Rodke well in Section 27, Township 20 South, Range 31 East, NMPM, Lea County, New Mexico, immediately overlying the Bone Springs formation.

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(c) If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or gamma ray survey and additional cementing shall be done until the cement is brought to the point required.

(d) The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with suitable proportions but not less than 1% of calcium chloride by weight of cement.

(e) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(f) Casing tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of one thousand (1000) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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) The Commission, or its duly authorized representative, may require the use of centralizers on the salt protection string when in their judgement the use of such centralizers would offer further protection to the salt section.

(h) The above requirements for the salt protection string shall be applicable to both the shallow and deep zones except for sub-section IV (3), (b), (i) and (ii) above.

(4) Intermediate String:

(a) In the drilling of oil and gas exploratory test wells to the deep zone, the operator shall have the option of running an intermediate string of pipe, unless the Commission requires an intermediate string.

(b) Cementing procedures and casing tests for the intermediate string shall be the same as provided under sub-sections IV (3), (c), (e) and (f) for the salt protection string.

(5) Production String:

(a) A production string shall be set on top or through the oil or gas pay zone and shall be cemented as follows:

(i) For wells drilled to the shallow zone the production string shall be cemented to the surface if the salt protection string was cemented only with a nominal volume for testing purposes, in which case the salt protection string can be cut and pulled

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before the production string is cemented; provided, that if the salt protection string was cemented to the surface, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone.

(ii) For wells drilled to the deep zone, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided, that if no intermediate string shall have been run and cemented to the surface, the production string shall be cemented to the surface.

(b) Cementing procedures and casing tests for the production string shall be the same as provided under sub-section IV (3), (c), (e) and (f) for the salt protection string; however if high pressure oil or gas production is discovered in any area, the Commission shall promulgate the necessary rules to prevent the charging of the salt section.

V.

DRILLING FLUID FOR SALT SECTION

The fluid used while drilling the salt section 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 fluid by the operator in overcoming any specific problem. This requirement is specifically intended to prevent enlarged drill holes.

VI.

PLUGGING AND ABANDONMENT OF WELLS

(1) All wells heretofore and hereafter drilled within the Potash Area shall be plugged in a manner and in accordance with field rules established by the Commission that will provide a solid cement plug through the salt section and any water bearing horizon and prevent liquids or gases from entering the hole above or below the salt section.

(2) The fluid used to mix the cement shall be saturated with the salts common to the salt section penetrated and with suitable proportions but not more than three (3) percent of calcium chloride by weight of cement being considered the desired mixture whenever possible.

VII.

LOCATION FOR WELLS

Before commencing drilling operations for oil or gas on any lands within the Potash Area, the well operator shall prepare a map or plat showing the location of the proposed well, said map or plat to accompany each copy of the Notice of Intention to Drill. In addition to the number of copies required by the Commission, the well operator shall send one copy by registered mail to all potash operators holding potash leases within a radius of one mile of the proposed well, as reflected by the plats submitted under paragraph IX (2).

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The well operator shall furnish proof of the fact that said potash operators were notified by registered mail of his intent by attaching return receipts to the copies of the Notice of Intention to Drill and plats furnished the Commission.

The Commission, or its authorized representative, may approve such Notice of Intention to Drill if no objection to the location of the proposed well is made by a potash operator within ten days after receipt. If the location of the proposed well is objected to by the potash operator, the matter shall be referred to the Secretary-Director of the Commission for arbitration. If a satisfactory settlement cannot be reached, the Secretary-Director of the Commission shall refer the matter to a hearing before the Commission after due notice and a decision either approving or denying the operator's plans to drill shall be entered by the Commission.

VIII.

INSPECTION OF DRILLING AND MINING OPERATIONS

A representative of the potash operator may be present during drilling, cementing, casing, and plugging of all oil or gas wells within a radius of one mile of the well location to observe conformance with these regulations. Likewise, a representative of the oil and gas lessee may inspect mine workings on his lease to observe conformance with these regulations.

IX.

FILING OF WELL SURVEYS, MINE SURVEYS AND POTASH DEVELOPMENT PLANS

(1) Directional Surveys:

The Commission may require an operator to file a certified directional survey from the surface to a point below the lowest known potash bearing horizon on all wells drilled within the Potash Area. These surveys may be required where, in the Commission's judgment, the exact location of the wellbore must be determined in order to aid mining operations.

(2) Mine Surveys:

Within 30 days after the adoption of this order, and thereafter on or before January 31st of each year, each potash operator shall furnish two copies of a plat of a survey of the location of his leaseholdings and all of his open mine workings, which plat shall be available for public inspection.

(3) Potash Development Plan

Within 30 days after the adoption of this order and thereafter on or before January 31st of each year, each potash operator shall furnish two copies of a projection of development plans in the form of a plat, which plat shall be for the confidential use of the Commission and for inspection by any affected oil or gas operator. The projection shall cover not less than 3 nor more than a 5 year development program.

X.

APPLICABILITY OF STATEWIDE RULES AND REGULATIONS

All general statewide rules and regulations of the Oil Conservation Commission governing the development, operation, and production of oil and gas in the State of New Mexico not inconsistent or in conflict herewith, are hereby adopted and made applicable to the areas described herein.

W.N.M.C.F. MICROGRAPHICS

EXHIBIT "A"

POTASH-OIL AREA:

TOWNSHIP 18 SOUTH, RANGE 30 EAST

Section 13:	SW/4
Section 14:	S/2, NW/4, W/2 NE/4
Section 15:	SE/4
Section 22:	E/2, E/2 W/2
Section 23:	All
Section 24:	NW/4
Section 26:	N/2
Section 27:	N/2 NE/4

TOWNSHIP 19 SOUTH, RANGE 29 EAST

Section 11:	SE/4
Section 12:	S/2, S/2 NE/4
Section 13:	N/2, N/2 S/2, S/2 SW/4
Section 14:	E/2, E/2 W/2
Section 23:	N/2 NE/4

TOWNSHIP 19 SOUTH, RANGE 30 EAST

Section 3:	S/2
Section 4:	S/2, NW/4, SW/4 NE/4
Section 5:	E/2, E/2 W/2, SW/4 SW/4
Section 7:	S/2, S/2 N/2, N/2 NE/4
Section 8:	All
Section 9:	All
Section 10:	All
Section 11:	SW/4, W/2 SE/4
Section 14:	W/2, W/2 SE/4
Section 15:	All
Section 16:	All
Section 17:	All
Section 18:	E/2, NW/4
Section 19:	NE/4
Section 20:	N/2, SE/4 SE/4
Section 21:	All
Section 22:	All
Section 23:	W/2
Section 26:	W/2, SE/4
Section 27:	All
Section 28:	All
Section 29:	E/2
Section 32:	SE/4, NE/4 NE/4
Section 33:	All
Section 34:	All
Section 35:	All
Section 36:	SW/4, S/2 NW/4, S/2 SE/4

TOWNSHIP 19 SOUTH, RANGE 31 EAST

Section 36:	SE/4

W.N.M.C.F. MICROGRAPHICS

EXHIBIT "A" (continued)

TOWNSHIP 19 SOUTH, RANGE 32 EAST

Section 31:	W/2 SW/4
Section 33:	SE/4, E/2 SW/4
Section 34:	S/2
Section 35:	S/2
Section 36:	SW/4, SE/4 SE/4

TOWNSHIP 19 SOUTH, RANGE 33 EAST

Section 22:	SE/4 SE/4
Section 23:	SW/4
Section 25:	SW/4
Section 26:	All
Section 27:	E/2
Section 31:	S/2
Section 32:	SW/4
Section 34:	NE/4 NE/4
Section 35:	All
Section 36:	S/2, NW/4, W/2 NE/4

TOWNSHIP 19 SOUTH, RANGE 34 EAST

Section 31:	SW/4 SW/4

TOWNSHIP 20 SOUTH, RANGE 29 EAST

Section 13:	SW/4 SW/4
Section 14:	SE/4 SE/4
Section 22:	SE/4, S/2 NE/4
Section 23:	S/2, NE/4
Section 24:	W/2, W/2 SE/4
Section 25:	N/2, N/2 S/2
Section 26:	All
Section 27:	E/2
Section 34:	NE/4, N/2 SE/4
Section 35:	NW/4

TOWNSHIP 20 SOUTH, RANGE 30 EAST

Section 1:	All
Section 2:	All
Section 3:	All
Section 4:	All
Section 5:	S/2,NE/4
Section 6:	S/2, S/2 NE/4
Section 7:	NW/4, E/2
Section 8:	All
Section 9:	All
Section 10:	All
Section 11:	All
Section 12:	All
Section 13:	All
Section 14:	All
Section 15:	All
Section 16:	All
Section 17:	All
Section 18:	E/2
Section 19:	E/2

W.N.M.C.F. MICROGRAPHICS

EXHIBIT "A" (continued)

TOWNSHIP 20 SOUTH, RANGE 30 EAST (continued)

Section 20:	All
Section 21:	All
Section 22:	All
Section 23:	All
Section 24:	All
Section 25:	All
Section 26:	All
Section 27:	All
Section 28:	All
Section 29:	All
Section 30:	All
Section 31:	E/2
Section 32:	All
Section 33:	All
Section 34:	All
Section 35:	All
Section 36:	All

TOWNSHIP 20 SOUTH, RANGE 31 EAST

Section 1:	E/2, E/2 W/2
Section 6:	SW/4, S/2 NW/4, W/2 SE/4
Section 7:	W/2, SE/4, W/2 NE/4
Section 8:	S/2, S/2 N/2
Section 9:	SW/4, S/2 NW/4
Section 11:	SE/4, E/2 SW/4
Section 12:	All
Section 13:	All
Section 14:	E/2, SW/4, E/2 NW/4
Section 16:	W/2
Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	All
Section 21:	NW/4, S/2
Section 22:	S/2, S/2 NE/4
Section 23:	All
Section 24:	All
Section 25:	All
Section 26:	All
Section 27:	All
Section 28:	All
Section 29:	All
Section 30:	All
Section 31:	All
Section 32:	All
Section 33:	All
Section 34:	All
Section 35:	All
Section 36:	All

TOWNSHIP 20 SOUTH, RANGE 32 EAST

Section 1:	All
Section 2:	All
Section 3:	All
Section 4:	E/2, SW/4, E/2 NW/4

EXHIBIT "A" (continued)

TOWNSHIP 20 SOUTH, RANGE 32 EAST, (Continued)

Section 5:	S/2 SE/4
Section 6:	W/2, SW/4 SE/4
Section 7:	All
Section 8:	All
Section 9:	All
Section 10:	All
Section 11:	All
Section 12:	All
Section 13:	All
Section 14:	All
Section 15:	All
Section 16:	All
Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	All
Section 21:	All
Section 22:	All
Section 23:	All
Section 24:	All
Section 25:	All
Section 26:	All
Section 27:	All
Section 28:	All
Section 29:	All
Section 30:	All
Section 31:	All
Section 32:	All
Section 33:	All
Section 34:	All
Section 35:	All
Section 36:	All

TOWNSHIP 20 SOUTH, RANGE 33 EAST

Section 1:	All
Section 2:	E/2, E/2 W/2
Section 5:	W/2
Section 6:	All
Section 7:	All
Section 8:	W/2, SW/4 NE/4, SE/4
Section 9:	S/2 S/2, NW/4 SW/4
Section 10:	S/2
Section 11:	E/2, E/2 NW/4, SW/4
Section 12:	All
Section 13:	All
Section 14:	All
Section 15:	All
Section 16:	All
Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	All
Section 21:	W/2 SW/4, NW/4, N/2 NE/4
Section 22:	N/2 N/2

EXHIBIT "A" (continued)

TOWNSHIP 20 SOUTH, RANGE 33 EAST (continued)

Section 23:	N/2 N/2, SE/4 NE/4
Section 24:	N/2, N/2 SE/4, SE/4 SE/4
Section 29:	W/2, NE/4, N/2 SE/4, SW/4 SE/4
Section 30:	All
Section 31:	N/2, W/2 SW/4

TOWNSHIP 20 SOUTH, RANGE 34 EAST

Section 6:	W/2, W/2 SE/4
Section 7:	All
Section 8:	SW/4
Section 16:	SW/4, SW/4 NW/4, SW/4 SE/4
Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	All
Section 21:	All
Section 22:	SW/4
Section 27:	W/2
Section 28:	All
Section 29:	N/2, SE/4, NE/4 SW/4
Section 30:	NE/4 NW/4, N/2 NE/4, SE/4 NE/4
Section 32:	N/2 NE/4, SE/4 NE/4
Section 33:	N/2, SE/4, N/2 SW/4, SE/4 SW/4
Section 34:	W/2

TOWNSHIP 21 SOUTH, RANGE 29 EAST

Section 1:	All
Section 2:	Lots 1-16, incl., SE/4, NE/4 SW/4
Section 3:	Lots 1-9, incl.
Section 4:	Lots 1-8, incl., Lots 10 and 11
Section 11:	E/2, E/2 SW/4
Section 12:	All
Section 13:	All
Section 14:	E/2, E/2 W/2, SW/4 NW/4, NW/4 SW/4
Section 15:	SE/4 NE/4, NE/4 SE/4
Section 23:	N/2 NE/4
Section 24:	NE/4, NE/4 SE/4, N/2 NW/4, SE/4 NW/4
Section 35:	S/2 NE/4, SE/4, E/2 SW/4
Section 36:	S/2 SW/4, SE/4, S/2 NE/4, NE/4 NE/4

TOWNSHIP 21 SOUTH, RANGE 30 EAST

Section 1:	All
Section 2:	All
Section 3:	All
Section 4:	All
Section 5:	All
Section 6:	All
Section 7:	All
Section 8:	All
Section 9:	N/2, SW/4
Section 10:	N/2, SE/4, N/2 SW/4, SE/4 SW/4
Section 11:	All
Section 12:	All
Section 13:	All
Section 14:	All
Section 15:	NE/4, NE/4 NW/4, N/2 SE/4, SE/4 SE/4

W.N.M.C.F. MICROGRAPHICS

EXHIBIT "A" (continued)

TOWNSHIP 21 SOUTH, RANGE 30 EAST (continued)

Section 16:	NW/4 NW/4
Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	NW/4, N/2 NE/4
Section 22:	E/2 E/2
Section 23:	All
Section 24:	All
Section 25:	N/2, SE/4, N/2 SW/4, SE/4 SW/4
Section 26:	N/2, N/2 S/2
Section 27:	NE/4, N/2 SE/4, SE/4 SE/4
Section 29:	NW/4, N/2 SW/4
Section 30:	E/2, E/2 W/2
Section 31:	All
Section 32:	S/2, NW/4, NW/4 NE/4, S/2 NE/4
Section 36:	E/2

TOWNSHIP 21 SOUTH, RANGE 31 EAST

Section 1:	All
Section 2:	All
Section 3:	All
Section 4:	All
Section 5:	All
Section 6:	All
Section 7:	All
Section 8:	All
Section 9:	All
Section 10:	W/2
Section 12:	N/2, SE/4, N/2 SW/4, SE/4 SW/4
Section 13:	N/2 NE/4
Section 15:	W/2
Section 16:	E/2, NW/4, E/2 SW/4
Section 18:	NW/4, W/2 NE/4, NE/4 NE/4, W/2 SW/4 NE/4 SW/4
Section 21:	E/2, NE/4 NW/4
Section 22:	W/2
Section 27:	W/2, SW/4 NE/4, W/2 SE/4
Section 28:	E/2
Section 30:	SW/4, W/2 NW/4, SE/4 NW/4
Section 31:	W/2
Section 33:	NE/4 NE/4
Section 34:	NW/4, NW/4 NE/4

TOWNSHIP 21 SOUTH, RANGE 32 EAST

Section 6:	Lots 1-7 incls., Lots 10-15, incl., SW/4
Section 7:	W/2
Section 22:	E/2
Section 23:	All
Section 24:	All

TOWNSHIP 21 SOUTH, RANGE 33 EAST

Section 3:	Lots 1, 2, 3
Section 17:	S/2 S/2
Section 18:	SE/4 SE/4
Section 19:	All
Section 20:	All

W.N.M.C.F. MICROGRAPHICS

EXHIBIT "A" (continued)

TOWNSHIP 21 SOUTH, RANGE 33 EAST (continued)

Section 21:	W/2, SE/4, S/2 NE/4
Section 22:	S/2, S/2 N/2
Section 23:	S/2, S/2 N/2, NE/4 NE/4
Section 24:	All
Section 25:	NW/4, N/2 NE/4, SW/4 NE/4, N/2 SW/4
Section 26:	W/2, NE/4, N/2 SE/4, SW/4 SE/4
Section 27:	All
Section 28:	All
Section 29:	N/2, SE/4, NE/4 SW/4
Section 30:	N/2 NE/4, SE/4 NE/4
Section 33:	N/2 N/2
Section 34:	N/2 N/2

TOWNSHIP 21 SOUTH, RANGE 34 EAST

Section 19:	W/2

TOWNSHIP 22 SOUTH, RANGE 29 EAST

Section 1:	All
Section 2:	E/2, E/2 NW/4, SW/4
Section 3:	S/2 SE/4, NE/4 SE/4
Section 10:	E/2, E/2 W/2, SW/4 SW/4
Section 11:	All
Section 12:	All
Section 13:	All
Section 14:	All
Section 15:	All
Section 16:	SE/4, SE/4 NE/4, SE/4 SW/4
Section 20:	E/2 E/2
Section 21:	All
Section 22:	All
Section 23:	All
Section 24:	All
Section 25:	All
Section 26:	All
Section 27:	All
Section 28:	NE/4, N/2 NW/4, SE/4 NW/4, SE/4
Section 33:	NE/4 NE/4
Section 34:	NW/4, W/2 E/2, N/2 SW/4, SE/4 SW/4
Section 35:	E/2, SW/4, SE/4 NW/4
Section 36:	All

TOWNSHIP 22 SOUTH, RANGE 30 EAST

Section 1:	E/2
Section 5:	N/2, N/2 S/2, SW/4 SW/4
Section 6:	All
Section 7:	W/2, W/2 E/2, SE/4 SE/4
Section 8:	S/2 SW/4
Section 12:	NE/4 NE/4
Section 13:	NW/4, N/2 SW/4, SW/4 SW/4
Section 14:	SE/4, S/2 NE/4, E/2 SW/4, SW/4 SW/4
Section 17:	NW/4
Section 18:	All
Section 19:	All
Section 20:	All

W.N.M.C.F. MICROGRAPHICS

EXHIBIT "A" (continued)

TOWNSHIP 22 SOUTH, RANGE 30 EAST (continued)

Section 21:	S/2, SW/4 NW/4
Section 22:	S/2, S/2 N/2, NE/4 NE/4
Section 23:	W/2, W/2 NE/4, NE/4 NE/4
Section 26:	W/2 W/2
Section 27:	All
Section 28:	All
Section 29:	All
Section 30:	All
Section 31:	All
Section 32:	All
Section 33:	All
Section 34:	All
Section 35:	W/2

TOWNSHIP 22 SOUTH, RANGE 31 EAST

Section 6:	W/2, W/2 NE/4, NW/4 SE/4
Section 7:	N/2 NW/4

TOWNSHIP 23 SOUTH, RANGE 29 EAST

Section 1:	All
Section 2:	E/2, NW/4, NE/4 SW/4
Section 11:	NE/4 NE/4
Section 12:	N/2 N/2

TOWNSHIP 23 SOUTH, RANGE 30 EAST

Section 2:	NW/4
Section 3:	All
Section 4:	All
Section 5:	All
Section 6:	All
Section 7:	NE/4, N/2 NW/4, SE/4 NW/4
Section 8:	N/2 N/2, S/2 NE/4
Section 9:	N/2, NE/4 SW/4, N/2 SE/4
Section 10:	N/2, SW/4

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JOHN F. SIMMS, Chairman

E. S. WALKER, Member

W. B. MACEY, Member and Secretary

jh

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

July 6, 1955

Case # 278

COPY

The Texas Company
P. O. Box 1720
Fort Worth 1, Texas

Attention: Mr. E. P. Munson, Jr.

Re: Extensions NMOCC Order R-111
Potash-Oil Cases
Eddy and Lea Counties, N. M.

Gentlemen:

Reference is made to your letter entitled Misc. 2002-3, dated June 21, 1955.

You requested to be advised of the area involved in the three cases as extensions to New Mexico Oil Conservation Commission Order No. R-111. Very likely you have reference to Cases Nos. 889, 890, and 891, that have been continued to the August 17, 1955 regular Commission hearing. Also you may wish to know that two additional Cases (No. 926 and No. 927) are on the docket for the July 14, 1955 hearing, but will likely be continued to the August 17, 1955 regular hearing.

Attached is a description of the extensions requested by the five different Potash Companies in Case Nos. 889, 890, 891, and 927. I believe that your Petroleum Engineering Department has a copy of Order R-111, dated November 9, 1951 which is in full effect and has not been amended up until the present time. Case No. 278 which was the basis for Order R-111 has been re-advertised for the July 14, 1955 hearing, but likewise may be continued to the August 17, 1955 hearing.

Very truly yours,

W. B. Macey
Secretary-Director

WBM:jh

THE TEXAS COMPANY

TEXACO PETROLEUM PRODUCTS

PRODUCING DEPARTMENT
WEST TEXAS DIVISION

P. O. BOX 1720
FORT WORTH 1, TEXAS

June 21, 1955

Misc. 2002-3 - New Mexico Oil & Gas Association

Oil Conservation Commission
State of New Mexico
Santa Fe, New Mexico

Gentlemen:

We understand there are three applications pending for extension of potash "A" areas as defined in OCC Order No. R-111.

We would appreciate knowing the contents of these applications in order that we may determine if any of our holdings are affected and would like to have a photo copy of the plats filed with the applications, or a description of the new extensions being requested. We will be glad to pay for the expense involved in furnishing this material.

Very truly yours,

E. P. Munson, Jr.
Division Land and Leaseman

EPMJr-ECW

CASE NO. 889 Extend Area "A" at request of Southwest Potash Corporation:

TOWNSHIP 19 SOUTH, RANGE 30 EAST

SW/4 Sec. 3 ; SE/4 Sec. 4 ,
N/2 NE/4, NE/4, N/2 NW/4, SE/4 NW/4, E/2 SW/4 and SE/4 of Sec. 10 ,
NE/4, E/2 NW/4, and SW/4NW/4 of Sec. 15; N/2 NE/4 Sec. 9 .

CASE NO. 890 Extend Area "A" at request of International Minerals & Chemicals Corp.:

TOWNSHIP 21 SOUTH, RANGE 29 EAST

SE/4 Sec. 35 ; W/2 SW/4 Sec. 36

TOWNSHIP 22 SOUTH, RANGE 29 EAST

NW/4 NW/4 Sec. 1 ; W/2, N/2 NE/4, SW/4 NE/4, and W/2 SE/4 of Sec. 2 ;
All of Sections 10, 14, 15, 22, 23, 25, 26, and 36;
W/2, W/2 NE/4, W/2 SE/4, SE/4 SE/4 of Sec. 11 ;
W/2 SW/4 Sec. 13 ; W/2 Sec. 24 ; N/2 Sec. 27 .

CASE NO. 891 Extend Area "A" at request of Duval Sulpher and Potash Company:

TOWNSHIP 18 SOUTH, RANGE 30 EAST

All of Sections 14, 22, and 23; SW/4 Sec. 13 ; SE/4 Sec. 15 ;
NW/4, W/2 SW/4 Sec. 24 ; NW/4 NW/4 Sec. 25 ; N/2 Sec. 26 ; NE/4 Sec. 27.

TOWNSHIP 20 SOUTH, RANGE 29 EAST

S/2 Sec. 36 .

TOWNSHIP 20 SOUTH, RANGE 30 EAST

All of Sections 1 and 27 ; NE/4, and N/2 SE/4 Sec. 11; N/2 SW/4 Sec. 12;
S/2 Sec. 22 ; S/2 Sec. 23 ; N/2, N/2 SE/4, N/2 SW/4, SW/4 SW/4 Sec. 26;
N/2 Sec. 34 ; W/2 NW/4 Sec. 35 .

TOWNSHIP 20 SOUTH, RANGE 31 EAST

All of Section 6 .

TOWNSHIP 21 SOUTH, RANGE 29 EAST

N/2 SE/4 Sec. 24 .

TOWNSHIP 21 SOUTH, RANGE 30 EAST

Lots 6 & 7, SE/4, and E/2 SW/4 Sec. 19 ; SW/4 Sec. 20 ;
Lots 1, 2, 3, and 4 , NE/4, N/2 SE/4 and E/2 NW/4 Sec. 30 .

TOWNSHIP 22 SOUTH, RANGE 30 EAST

All of Sections 27, 28, 29, 32, 33, 34, and 36 ; W/2 Sec. 26 ;
SE/4 Sec. 30 ; E/2 Sec. 31 ; W/2 Sec. 35 .

TOWNSHIP 23 SOUTH, RANGE 30 EAST

All of Sections 2 and 3 ; NE/4 NE/4 (Lot 1) of Sec. 4 .

CASE NO. 926: (a) Extend Area "A" at request of National Farmers Service Union Corporation:

TOWNSHIP 20 SOUTH, RANGE 32 EAST

S/2, S/2 N/2, and NE/4 NE/4 of Sec. 32 ; All of Sections 33 and 34 .

TOWNSHIP 21 SOUTH, RANGE 31 EAST

All of Sections 2 through 5 ; All of Sections 7 through 10 ; All of Sec. 16 .

(b) Extend Area "B" at request of National Farmers Service Union Corporation:

TOWNSHIP 21 SOUTH, RANGE 30 EAST

All of Sections 25, 26, and 36 ; N/2 Sec. 12 ; S/2 Sec. 23 ;
S/2 Sec. 24 ; N/2 Sec. 35 .

TOWNSHIP 22 SOUTH, RANGE 30 EAST

E/2 Sec. 25 ; E/2 Sec. 36 .

TOWNSHIP 21 SOUTH, RANGE 31 EAST

All of Sections 7 through 17 , and 20 through 36; All sec 3 ;
S/2 Sec. 1 ; S/2 Sec. 2 ; E/2 Sec. 4 ; N/2 Sec. 18 ; S/2 Sec. 19 .

TOWNSHIP 22 SOUTH, RANGE 31 EAST

All of Sections 1 through 3 , 10 through 16 , and 20 through 36 ;
S/2 Sec. 19 .

CASE NO. 927: Extend AReа "A" at request of United States Potash Company:

TOWNSHIP 20 SOUTH, RANGE 30 EAST

SE/4 Sec. 12 ; N/2 and SE/4 Sec. 13 ; S/2 and NE/4 Sec. 24 ;
N/2 , SE/4 , N/2 SW/4 , and SE/4 SW/4 Sec. 25;
E/2 NW/4 , NE/4 , SE/4 , S/2 SW/4 , and NE/4 SW/4 Sec. 36 .

TOWNSHIP 21 SOUTH, RANGE 29 EAST

N/2 NE/4 , N/2 NW/4 , SW/4 NW/4 and NW/4 SW/4 Sec. 1 ; SW/4 SW/4 Sec. 13 ;
N/2 , SW/4 , N/2 SE/4 , and SW/4 SE/4 Sec. 2 ; E/2 E/2 Sec. 15 ;
W/2 SW/4 , NW/4 NE/4 , and SW/4 NW/4 Sec. 11 ; S/2 NE/4 , and NW/4 NW/4 Sec24;
S/2 S/2 , W/2 NW/4 and NW/4 SW/4 Sec. 14 .

TOWNSHIP 20 SOUTH, RANGE 31 EAST

W/2 , and W/2 E/2 Sec. 7 ; SW/4 , W/2 SE/4, and W/2 NW/4 Sec 17 ;
All of Sections 16 , 18 , 19 , 20 , 28 , 29 , 30 , 31 , 32 , and 33 .

TOWNSHIP 21 SOUTH, RANGE 30 EAST

Lots 3,4,5,6,11,12,13 and 14 , and N/2 SW/4 Sec. 3 ; W/2 Sec. 9 ;
All of Sections 4, 5, 8 and 16 ; N/2 and N/2 S/2 Sec. 17 ;
E/2 , E/2 SW/4 , N/2 NW/4 and SE/4 NW/4 Sec. 6 ;
N/2 NE/4 , SE/4 NE/4 , E/2 SE/4 , NE/4 NW/4 Sec. 7 ;
E/2 NE/4 , S/2 SE/4 , NE/4 SE/4 and SE/4 SW/4 Sec. 18 .

POTASH COMPANY OF AMERICA

GENERAL SALES OFFICES 1625 EYE STREET N.W. WASHINGTON 6 D.C.
SOUTHERN SALES OFFICE 408 9 CANDLER BLDG. ATLANTA GA.
MIDWESTERN SALES OFFICE FIRST NATIONAL BANK BLDG. PEORIA ILL.

P.C.A. SALT OF THE EARTH RED MURIATE

Tel. 5-2111

R. H. BLACKMAN, JR.
RESIDENT COUNSEL

REPLY TO: EXECUTIVE OFFICES
MINES AND REFINERY
CARLSBAD · NEW MEXICO

July 5, 1955

Mr. W. B. Macey
Secretary Director
State Oil Conservation Commission
Mabry Hall
Santa Fe, New Mexico

Re: Case No. 278-R.111

Dear Mr. Macey:

Potash Company of America has prepared an application for the extension of Area A as described in Part II, Section (1)(b) of Order R-111, dated November 9, 1951. Since it is understood that Case No. 278 will be reopened by the Commission for the purpose of revising Order R-111, both as to area and as to regulations, we presume that such an application for revision of area as it pertains to Potash Company of America is not necessary at this time. Therefore, we do not intend to file such an application, unless the Commission deems it necessary or desirable.

Very truly yours,

R. H. Blackman, Jr.

RHBJr/mmg

(iv) The Oil and Gas Supervisor of the Geological Survey in any action taken under item 1 (e) (i) (ii) and (iii) shall take into consideration recommendations of the Mining Supervisor of the Geological Survey and applicable conservation rules and regulations of the State of New Mexico.

DEPARTMENT OF THE INTERIOR

Office of the Secretary

EDDY AND LEA COUNTIES, NEW MEXICO

OIL AND GAS, AND POTASH LEASING AND DEVELOPMENT WITHIN POTASH AREA

1. For the purpose of providing for concurrent operations in the prospecting for and the development and production of oil and gas and potash deposits owned by the United States within the area herein described and designated as "Potash Area" (see Schedule A), and for the purpose of opening to oil and gas leasing certain lands (see Schedule B) which have heretofore been withheld from such leasing and, subject to valid existing rights as to leases heretofore issued, it is ordered as follows:

1. *Oil and gas leases for that part of Potash Area covered by order of February 6, 1939.* (a) The order of the Secretary of the Interior dated February 6, 1939 (4 F. R. 1012), withholding certain lands in New Mexico from application or lease under the oil and gas provisions of the Mineral Leasing Act of February 25, 1920 (41 Stat. 437), as amended, is hereby revoked.

(b) The lands described in the order dated February 6, 1939 (except the E½SE¼, sec. 24, and the E½E½, W½SE¼, S½SW¼, sec. 25, T. 20 S., R. 29 E., N. M. M., which were withdrawn from all forms of entry by Public Land Order No. 569, 14 F. R. 1086), shall be open for oil and gas leasing as of the date of this notice, and offers on form No. 4–1158, Second Edition, received up to and including November 16, 1951, at the Land and Survey Office, Bureau of Land Management, Santa Fe, New Mexico, for lands subject to noncompetitive leasing under section 17 of the Mineral Leasing Act, as amended, shall be regarded as simultaneously filed.

(c) During the period from the date of this order to and including November 16, 1951, the following rules must be followed in applying for oil and gas leases:

(i) Each offer must cover all the Federal land subject to noncompetitive oil and gas leasing contained in a particular section and must not cover more than one section.

(ii) All offers of any offeror shall be rejected if the offeror's interests, direct and indirect, in oil and gas leases and offers and applications therefor on Federal lands in the State of New Mexico, including the offers filed pursuant to this notice exceed 15,360 chargeable acres. Where a corporation, or association, files an application for the Federal lands in a section, no person who owns an interest of 10 percent or more in such corporation or association shall be eligible to file an offer for the same area.

(iii) It will be necessary to file only one copy of each offer to lease and lease form for each section. If the offeror is successful, the Manager will execute the form and arrange to obtain the additional copies.

(iv) Each offer, accompanied by two separate checks or money orders, must be enclosed in a separate sealed envelope. One check or money order must be for $10 to cover the filing fee. The second check or money order must cover the first year's rental (50 cents per acre).

(v) The front of each envelope must be marked to show the nature of the contents and the section involved as follows:

Oil and Gas Offer, Potash Area
Sec. ------ T. ------, R. ------

(vi) Any offer filed during the prescribed period that does not conform to all the requirements of this notice shall be rejected.

(d) If necessary, a drawing will be held to determine the successful offeror for each section. Such drawing will commence at 10 a. m., m. s. t., November 20, 1951, at the Land and Survey Office, Santa Fe, New Mexico.

(e) Each successful applicant for a noncompetitive oil and gas lease, and any party awarded a competitive lease, for lands included in schedule B will be required, as a condition to the issuance of such lease, to execute a stipulation agreeing that:

(i) No wells will be drilled for oil or gas in formations above the base of the Delaware sand, or above a depth of 5,000 feet, whichever is the lesser, except upon approval of the Director of the Geological Survey, it being understood that drilling for production to these formations will be permitted only in the event that it is satisfactorily established that such drilling will not interfere with the mining and recovery of potash deposits or the interest of the United States would best be subserved thereby.

(ii) No wells will be drilled for oil or gas in formations below the base of the Delaware sand, or below a depth of 5,000 feet, whichever is the lesser, except pursuant to a unit plan approved by the Director of the Geological Survey, unless drilling is otherwise required or approved by the Director to protect the lease from drainage.

(iii) No wells will be drilled for oil or gas at a location which, in the opinion of the Oil and Gas Supervisor of the Geological Survey, would result in undue waste of potash deposits or constitute a hazard to or unduly interfere with mining operations being conducted for the extraction of potash deposits.

(iv) The drilling or the abandonment of any well on said lease shall be done in accordance with applicable oil and gas operating regulations including such requirements as the Oil and Gas Supervisor of the Geological Survey may prescribe as necessary to prevent the infiltration of oil, gas, or water into formations containing potash deposits or into mines or workings being utilized in the extraction of such deposits.

2. *Oil and gas leases for lands in Potash Area not covered by order of February 6, 1939.* (a) As a condition to the issuance of either a non-competitive or a competitive lease, or the granting of any renewal or extension of any existing lease, embracing such lands, the applicant, the successful bidder, or the lessee, as the case may be, will be required to execute a stipulation identical to that specified in item 1 (e) hereof.

(b) Upon the discovery hereafter of any oil or gas pool or field embracing all or part of any nonunitized oil and gas lease heretofore issued, unit operation will be required under the applicable unitization provisions of the lease and the Mineral Leasing Act of 1920, as amended, unless it is shown to the satisfaction of the Secretary of the Interior that independent operation will not jeopardize maximum economic recovery of the natural resources of the area.

3. *Potash leases.* All potash permits and leases hereafter issued or existing potash leases hereafter renewed for federal lands within the Potash Area, shall be subject to a requirement, either to be included in the lease or permit or imposed as a stipulation, to the effect that no mining or exploratory operations will be conducted that, in the opinion of the Mining Supervisor of the Geological Survey, would constitute a hazard to oil or gas production, or that would unreasonably interfere with the orderly development and production under any oil or gas lease issued for the same land.

4. *Maps and surveys.* (a) Well records and survey plats that an oil and gas lessee must file, pursuant to applicable operating regulations (30 CFR Part 221), shall be available for inspection at the office of the Oil and Gas Supervisor, to any party holding a potash permit or lease on the land on which the well is situated insofar as such records are pertinent to the mining and protection of potash deposits.

(b) Maps of mine workings and surface installations, and records of core analyses that a potash lessee must file pursuant to applicable operating regulations (30 CFR Part 231), shall be available for inspection at the office of the Mining Supervisor, to any party holding an oil and gas lease on the same land insofar as such maps or records are pertinent to the development and protection of oil and gas deposits.

5. *Unit plans.* Any unit plan hereafter approved or prescribed that includes oil and gas leases covered by this notice shall include a provision embodying in substance the requirements set forth in items 1 (e) (ii) and (iii) and 4 (a), hereof.

6. *Definition.* The word "potash" as used herein shall be deemed to embrace potassium and associated minerals as specified in the act of February 7, 1927 (44 Stat. 1057).

II. Except to the extent herein modified the general regulations contained in 43 CFR, Parts 191 and 192, governing the leasing and development of oil and gas and in 43 CFR, Part 194, governing the leasing and development of potash deposits shall be applicable to the lands covered hereby. Copies of this notice and copies of form No. 4–1158, Second Edition, titled "Offer to Lease and Lease for Oil and Gas" can be obtained from the Land and Survey Office, Bureau of Land Management, Santa Fe, N. Mex.

SCHEDULE A

DESIGNATED POTASH AREA

New Mexico Principal Meridian

T. 19 S., R. 29 E.,
Sec. 11, SE¼;
Sec. 12, S½;
Secs. 13, and 14;
Sec. 23, N½;
Sec. 24, N½.
T. 20 S., R. 29 E.,
Sec. 12, NE¼SE¼, and S½SE¼;
Sec. 13, NE¼, and S½;
Sec. 24, N½;
Sec. 36.
T. 21 S., R. 29 E.,
Secs. 1 and 2;
Sec. 3, E½;
Sec. 10, E½;
Sec. 11 to 15 inclusive;
Sec. 22, N½N½;
Sec. 23, N½;
Secs. 24 and 25;
Sec. 35, E½;
Sec. 36.
T. 22 S., R. 29 E.,
Secs. 1 and 2;
Sec. 3, S½;
Sec. 9, E½;
Secs. 10 to 16 inclusive;
Sec. 17, E½;
Sec. 20, E½;
Secs. 21 to 28 inclusive;
Secs. 33 to 36 inclusive.
T. 23 S., R. 29 E.,
Secs. 1 to 3 inclusive;
Secs. 4, E½;
Sec. 9, E½;
Secs. 10 to 15 inclusive;
Secs. 22 to 27 inclusive;
Secs. 34 to 36 inclusive.
T. 18 S., R. 30 E.,
Sec. 12, S½;
Secs. 13 and 14;
Sec. 15, SE¼;
Sec. 21, SE¼;
Secs. 22 to 24 inclusive;
Sec. 25, W½;
Secs. 26 to 28 inclusive;
Sec. 29, SE¼;
Sec. 32, NE¼, and S½;
Secs. 33 and 34;
Sec. 35, W½.
T. 19 S., R. 30 E.,
Secs. 2 to 5 inclusive;
Sec. 6, SE¼;
Sec. 7, NE¼, and S½;
Secs. 8 to 36 inclusive.
T. 20 S., R. 30 E.;
T. 21 S., R. 30 E.,
Secs. 1 to 11 inclusive;
Sec. 12, S½;
Secs. 13 to 22 inclusive;
Sec. 23, N½;
Sec. 24, N½;
Secs. 27 to 34 inclusive;
Sec. 35, S½.
T. 22 S., R. 30 E.,
Secs. 1 to 24 inclusive;
Sec 25, W½;
Secs. 26 to 35 inclusive;
Sec. 36, W½.
T. 23 S., R. 30 E.,
Sec. 1, S½;
Secs. 2 to 36 inclusive.
T. 24 S., R. 30 E.,
Sec. 1, N½;
Sec. 2, N½;
Sec. 3, N½.
T. 18 S., R. 31 E.,
Sec. 18, W½.
T. 19 S., R. 31 E.,
Secs. 9 and 10;
Sec. 11, W½;
Sec. 14, W½;
Secs. 15 to 17 inclusive;
Secs. 19 to 22 inclusive;
Sec. 23, W½;
Sec. 25, S½;
Secs. 26 to 36 inclusive.
T. 20 S., R. 31 E;
T. 21 S., R. 31 E.,
Sec. 1, lots 1 to 16 inclusive;
Sec. 2, lots 1 to 16 inclusive;
Sec. 4, W½;
Secs. 5 and 6;
Sec. 18, S½;
Sec. 19, N½.
T. 22 S., R. 31 E.,
Secs. 4 to 9 inclusive;
Secs. 17 and 18;
Sec. 19, N½.
T. 23 S., R. 31 E.,
Sec. 7;
Sec. 8, S½;
Sec. 16, SW¼;
Secs. 17 to 20 inclusive;
Sec. 21, W½;
Secs. 28 to 33 inclusive.
T. 24 S., R. 31 E.,
Secs. 4 to 6 inclusive.
T. 19 S., R. 32 E.,
Sec. 23, S½;
Secs. 24 to 27 inclusive;
Sec. 28, S½;
Sec. 31, S½;
Sec. 32, S½;
Secs. 33 to 36 inclusive.
T. 20 S., R. 32 E.;
T. 21 S., R. 32 E.,
Secs. 1 to 17 inclusive;
Secs. 21 to 27 inclusive;
Secs. 35 and 36.
T. 19 S., R. 33 E.,
Secs. 10, 30 and 31.
T. 20 S., R. 33 E.,
Secs. 5 to 9 inclusive;
Secs. 15 to 23 inclusive;
Secs. 25 to 36 inclusive.
T. 21 S., R. 33 E.,
Secs. 4 to 9 inclusive;
Secs. 16 to 21 inclusive;
Secs. 28 to 33 inclusive.
T. 22 S., R. 33 E.,
Secs. 4 to 6 inclusive.
T. 20 S., R. 34 E.,
Sec. 31.

The area described, including both public and nonpublic lands, aggregates approximately 298,345 acres.

SCHEDULE B

LANDS COVERED BY ORDER OF FEBRUARY 6, 1939, WITHIN POTASH AREA [1]

T. 20 S., R. 29 E.,
Sec. 12, SE¼SE¼;
Sec. 13, E½E½, and NW¼NE¼;
Sec. 24, E½NE¼;
Sec. 36.
T. 21 S., R. 29 E.,
Sec. 1;
Sec. 11, N½NE¼, SW¼NE¼, N½NW¼, SE¼NW¼, and SE¼;
Sec. 12;
Sec. 13, E½, and S½SW¼;
Sec. 14, SW¼NE¼, SW¼, and S½SE¼;
Sec. 15, NE¼, NE¼NW¼, S½NW¼, and S½;
Sec. 22, N½N½;
Sec. 23, N½N½;
Sec. 24, NE¼, and N½NW¼.
T. 22 S., R. 29 E.,
Sec. 1;
Sec. 11, E½, N½NW¼, and S½SW¼;
Secs. 12 to 14, inclusive;
Secs. 23 and 24;
Sec. 25, NE¼, NE¼NW¼, S½NW¼, and S½;
Sec. 26, W½NW¼, and S½;
Sec. 35, NE¼.

[1] Of the lands included in this schedule, the following tracts are covered by outstanding leases or are within the limits of a known geologic structure of a producing oil or gas field: E½NE¼, sec. 24, T. 20 S., R. 29 E., S½NE¼, SE¼, sec. 9, W½SE¼, SW¼, SE¼SE¼, sec. 10, sec. 15 (all), N½NE¼, sec. 21, T. 20 S., R. 30 E. The SE¼NE¼, sec. 11, T. 21 S., R. 29 E., is included in the order of February 6, 1939, but is omitted from this schedule because it is state land.

T. 19 S., R. 30 E.,
Sec. 22, S½;
Sec. 23, S½N½, and S½;
Sec. 24;
Sec. 25, NE¼, NE¼NW¼, S½NW¼, and S½;
Secs. 26 and 27;
Sec. 28, SE¼;
Secs. 33 to 35 inclusive.
T. 20 S., R. 30 E.,
Sec. 3, lots 2, 3, and 4, S½N½, and S½;
Sec. 4;
Sec. 5, lots 1, 2, 3, and 4, S½N½, N½SW¼, SE¼SW¼, and SE¼;
Sec. 6, E½SE¼;
Sec. 7, lots 3 and 4, NE¼NE¼, S½NE¼, SE¼NW¼, E½SW¼, and SE¼;
Secs. 8 to 10 inclusive;
Sec. 13, SE¼;
Sec. 14, NW¼NE¼, S½NE¼, NW¼, and S½;
Sec. 15;
Sec. 21, N½NE¼;
Sec. 22, N½;
Sec. 23, N½;
Sec. 24, NW¼;
Sec. 25, NE¼, and S½;
Sec. 31, lots 1, 2, 3, and 4, E½W½;
Sec. 35, S½.
T. 21 S., R. 30 E.,
Sec. 3, lots 3, 4, 5, 6, 11, 12, 13, and 14, SW¼;
Secs. 4 to 7 inclusive;
Sec. 8, NE¼, NE¼NW¼, S½NW¼, and S½;
Sec. 9;
Sec. 10, W½;
Secs. 17 and 18;
Sec. 19, lots 1, 2, 3, and 4, NE¼, and E½NW¼;
Sec. 20, N½N½;
Sec. 31.
T. 22 S., R. 30 E.,
Secs. 6 and 7;
Secs. 18 to 20 inclusive;
Sec. 21, W½E½, and W½;
Secs. 28 and 29;
Sec. 30, lots 1, 2, 3, and 4, N½NE¼, SE¼NE¼, E½W½, and SE¼;
Sec. 31, lot 1.
T. 19 S., R. 31 E.,
Secs. 19, 30, and 31.
T. 20 S., R. 31 E.,
Secs. 28 to 31 inclusive;
Sec. 33.

The areas described aggregate 42,245.18 acres.

Dated: October 16, 1951.

OSCAR L. CHAPMAN,
Secretary of the Interior.

[F. R. Doc. 51-12547; Filed, Oct. 18, 1951; 8:46 a. m.]

Published in 16 F.R. 10669 of October 18, 1951

INT.-DUP. SEC., WASH., D.C. 68 / 3

P. O. Box 6721
Roswell, New Mexico

August 31, 1954

Memorandum

To: Chief, Oil and Gas Leasing Branch

From: Oil and Gas Supervisor, Roswell, New Mexico

Subject: Potash area oil and gas lease stipulations, regulations of October 13, 1951 (16 F. R. 10449, 10/16/51), State Order #111-A.

In accordance with your request of June 3, I have discussed with the Regional Mining Supervisor at Carlsbad possible revision of the subject potash regulations and stipulations to simplify the procedure established thereunder and to conform the stipulations and procedure to the provisions of Oil Conservation Commission Order No. R-111-A.

Mr. Fulton has advised me that the potash operators will protest any reduction in the potash area described in Schedule "A" of the potash regulations inasmuch as future mining operations are contemplated in certain portions of the area described in Schedule "A" which are not included in the lands to which Order No. R-111-A is applicable. We recommend, therefore, that the area described in Schedule "A" be not reduced but instead be extended to include certain lands in T. 19 S., R. 33 E., T. 20 S., Rs. 29, 33, and 34 E., and T. 21 S., Rs., 29, 30, 31, 33, and 34 E., which are included in Order No. R-111-A.

We believe that certain changes should be made in potash stipulations Item 1 (c) (i) (ii) and 5 in order to simplify action to be taken on applications to drill for oil and gas within the potash area, and to permit closer cooperation with the Oil Conservation Commission in its administration of Order No. R-111-A. Item 2 (b) seems to us to be superfluous inasmuch as it adds nothing not already in the leases.

Our proposed changes and additions have been made on the two enclosed copies of the potash regulations and stipulations. I have discussed these changes with Regional Mining Supervisor Fulton and I believe that they are acceptable to him and also will be acceptable to the potash operators and the oil and gas operators. Mr. Fulton plans to report to the Chief of the Mining Branch on the proposed changes.

JOE A. ANDERSON

Copy to: Washington

Mining Supervisor, Carlsbad (2)
Artesia
Hobbs

HOWARD W. JENNINGS
WHITE BUILDING
ROSWELL, NEW MEXICO

ADDRESS
POST OFFICE BOX 450

TELEPHONE
3302

September 22, 1955

A I R M A I L

Mr. W. B. Macey
Oil Conservation Commission
Santa Fe, New Mexico

Dear Bill,

Reference is made to our conversation regarding the revision of the Potash rules insofar as the salt protection string of casing. I have had a conference today with Mr. John Anderson and Mr. Tom Stipp of the U. S. G. S. and the following is the suggested wording of Paragraph (IV)(3b) (ii):

"For wells drilled to the deep zone, the string must be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar; however, where the base of the Delaware Mountain Group is definable the casing rules (IV) (3b) (i) shall apply even if the depth of the base of the Delaware Mountain Group is greater than 5,000 feet. For the purpose of identification the base of the Delaware Mountain Group is hereby identified as the equivilent of the base of such formation as found at a depth of 7485 feet in the Richardson and Bass #1 Rodke well in Section 27, Township 20 South, Range 31 East, N.M.P.M., immediately overlying the Bone Springs formation."

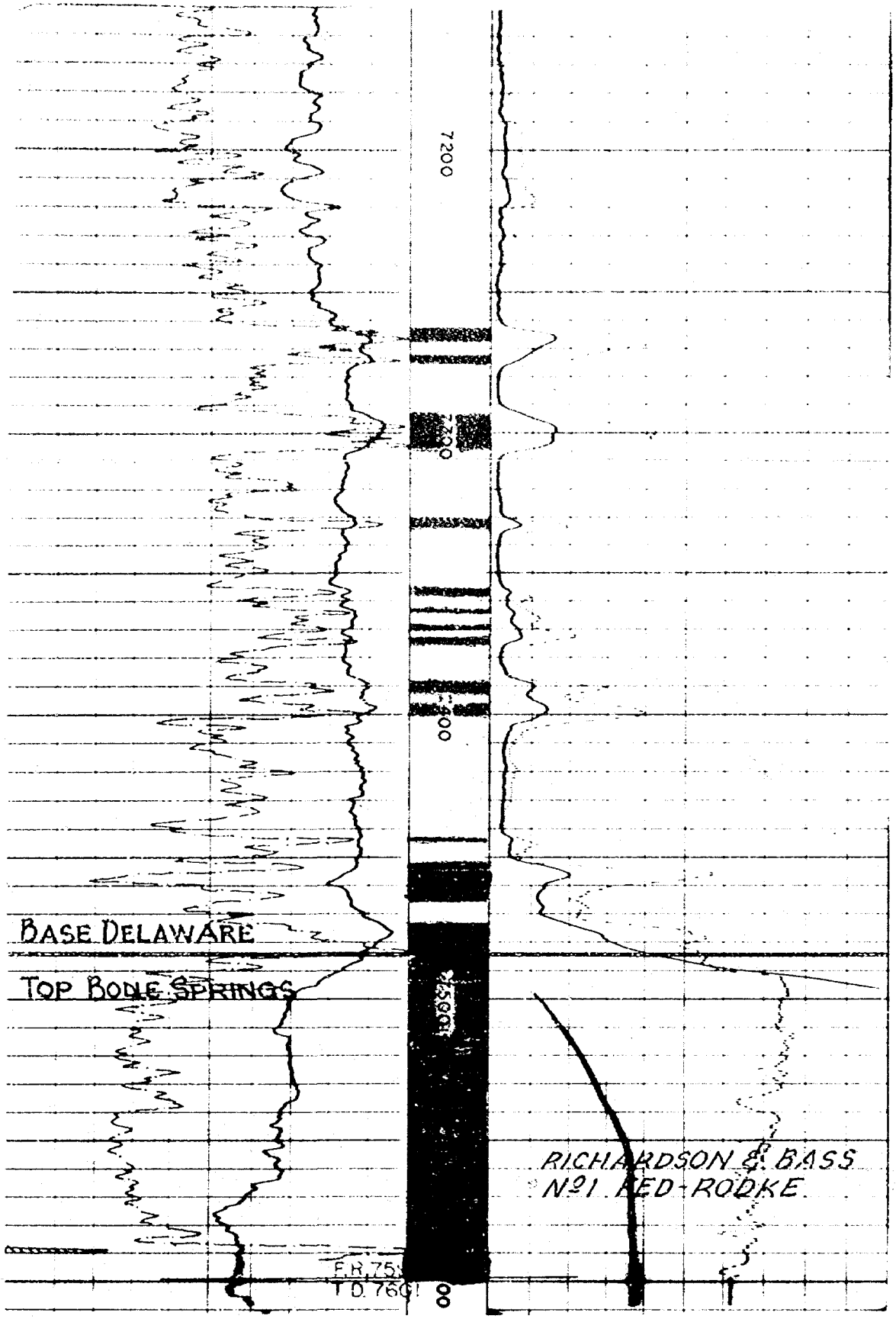
As you will note, they suggested changing the phraseology from Delaware Sand to Delaware Mountain Group as it was their idea that this would be much more definable by all geologists. If you have any questions concerning same it would be appreciated if you would call me or call Mr. Anderson, as you prefer. We are enclosing a portion of the electric log on the #1 Rodke which clearly reflects the base of the Delaware and the top of the Bone Springs formation. This log is for your information only as it was thought that possibly you might like to see how this break in the formation is shown on electrical logs.

Sincerely yours,

Howard W. Jennings

HWJ:wmb

Enclosure


7200
7300
7400
BASE DELAWARE
TOP BONE SPRINGS
7500'
RICHARDSON & BASS
No 1 RED-RODKE
F.R. 75
T.D. 760'

Final Revision 8/1/55

CASE 278

SUGGESTED REVISED ORDER NO. R-111

I.

OBJECTIVE

The objective of these Rules and Regulations is to prevent waste, protect correlative rights, assure maximum conservation of the oil, gas and potash resources of New Mexico and permit the economic recovery of oil, gas and potash minerals in the area hereinafter defined.

II.

THE POTASH - OIL AREA

(1) The Potash - Oil Area, as outlined in Exhibit A attached hereto and made a part hereof, represents the area in various parts of which potash mining operations are now in progress, or in which core tests indicate commercial potash reserves.

(2) The Potash - Oil Area, as outlined herein, may be revised by the Commission after due notice and hearing.

III.

DRILLING IN THE POTASH AREA

(1) All drilling of oil and gas wells in the POTASH AREA shall be subject to these rules and regulations.

(2) No wells will be drilled for oil or gas at a location, which in the opinion of the Commission or its duly authorized representative, would result in undue waste of potash deposits or constitute a hazard to or interfere unduly with potash deposits.

No mining operations will be conducted in the POTASH AREA that would, in the opinion of the Commission or its duly authorized representative, constitute a hazard to oil or gas production, or that would unreasonably interfere with the orderly development and production from any oil or gas pool,

(3) Upon discovery of oil or gas in the POTASH AREA, the Oil Conservation Commission shall promulgate pool rules for the affected area after due notice and hearing.

IV.

DRILLING AND CASING PROGRAM

(1) For the purpose of the regulations and the drilling of oil and gas exploratory test wells, shallow and deep zones are defined, as follows:

W.N.M.C.F. MICROGRAPHICS

(a) The 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) The 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) Surface Casing String:

(a) A surface casing string of new or used oil field casing in good condition shall be set in the "Red Bed" section of the basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section. as determined necessary by the regulatory representative approving the drilling operations and shall be cemented with not less than one hundred and fifty percent (150) percent of calculated volume necessary to circulate cement to the ground surface.

(b) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(c) Casing and water-shut-off tests shall be made both before and after drilling the plug and below the casing seat as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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.

(d) The above requirements for the surface casing string shall be applicable to both the shallow and deep zones.

W.N.M.C.F. MICROGRAPHICS

(3) Salt Protection String:

(a) A salt protection string of new or used oil field casing in good condition shall be set not less than one hundred (100) feet nor more than six hundred (600) feet below the base of the salt section; provided that such string shall not be set below the top of the highest known oil or gas zone.

(b) The salt protection string shall be cemented, as follows:

(i) For wells drilled to the shallow zone, the string may be cemented with a nominal volume of cement for testing purposes only. If the exploratory test well is completed as a productive well, the string shall be re-cemented with sufficient cement to fill the annular space back of the pipe from the top of the first cementing to the surface or to the bottom of the cellar, or may be cut and pulled if the production string is cemented to the surface as provided in sub-section IV (5), (a), (i) below.

(ii) For wells drilled to the deep zone, the string must be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar. However, where the base of the Delaware sand is definable the casing rules in (IV) (3b) (i) shall apply even if the depth of the bottom of the Delaware Sand is greater than 5000'.

(c) If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or gamma ray survey and additional cementing shall be done until the cement is brought to the point required.

W.N.M.C.F. MICROGRAPHICS

(d) The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with suitable proportions but not less than 1% of calcium chloride by weight of cement.

(e) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(f) Casing tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of one thousand (1000) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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) The Commission, or its duly authorized representative, may require the use of centralizers on the salt protection string when in their judgment the use of such centralizers would offer further protection to the salt section.

(h) The above requirements for the salt protection string shall be applicable to both the shallow and deep zones except for sub-section IV (3), (b), (i) and (ii) above.

(4) Intermediate String:

(a) In the drilling of oil and gas exploratory test wells to the deep zone, the operator shall have the option of running an intermediate string of pipe,

W.N.M.C.F. MICROGRAPHICS

unless the Commission requires an intermediate string.

(b) Cementing procedures and casing tests for the intermediate string shall be the same as provided under sub-sections IV (3), (c), (e) and (f) for the salt protection string.

(5) Production String:

(a) A production string shall be set on top or through the oil or gas pay zone and shall be cemented as follows:

(i) For wells drilled to the shallow zone the production string shall be cemented to the surface if the salt protection string was cemented only with a nominal volume for testing purposes, in which case the salt protection string can be cut and pulled before the production string is cemented; provided, that if the salt protection string was cemented to the surface, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone.

(ii) For wells drilled to the deep zone, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided, that if no intermediate string shall have been run and cemented to the surface, the production string shall be cemented to the surface.

(b) Cementing procedures and casing tests for the production string shall be the same as provided under sub-section IV (3), (c), (e) and (f) for the salt

W.N.M.C.F. MICROGRAPHICS

protection string, however if high pressure oil or gas production is discovered in any area the Commission shall promulgate the necessary rules to prevent the charging of the salt section.

V.

DRILLING FLUID FOR SALT SECTION

The fluid used while drilling the salt section 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 fluid by the operator in overcoming any specific problem. This requirement is specifically intended to prevent enlarged drill holes.

VI.

PLUGGING AND ABANDONMENT OF WELLS

(a) All wells heretofore and hereafter drilled within the Potash Area shall be plugged in a manner and in accordance with field rules established by the Commission that will provide a solid cement plug through the salt section and any water bearing horizon and prevent liquids or gases from entering the hole above or below the salt section.

(b) The fluid used to mix the cement shall be saturated with the salts common to the salt section penetrated and with suitable proportions but not more than three (3) percent of calcium chloride by weight of cement being considered the desired mixture whenever possible

VII.

LOCATION FOR WELLS

Before commencing drilling operations for oil or gas on any lands within the POTASH AREA, the well operator shall prepare a map or plat showing the

W.N.M.C.F. MICROGRAPHICS



location of the proposed well, said map or plat to accompany each copy of the Notice of Intention to Drill. In addition to the number of copies required by the Commission, the well operator shall send one copy by registered mail to all potash operators holding potash leases within a radius of one mile of the proposed well, as reflected by the plats submitted under paragraph IX (b).

The well operator shall furnish proof of the fact that said potash operators were notified by registered mail of his intent by attaching return receipts to the copies of the Notice of Intention to Drill and plats furnished the Commission.

The Commission, or its authorized representative, may approve such Notice of Intention to Drill if no objection to the location of the proposed well is made by a potash operator within ten days after receipt. If the location of the proposed well is objected to by the potash operator, the matter shall be referred to the Secretary-Director of the Commission for arbitration. If a satisfactory settlement cannot be reached, the Secretary - Director of the Commission shall refer the matter to a hearing before the Commission after due notice and a decision either approving or denying the operator's plans to drill shall be entered by the Commission.

VIII.

INSPECTION OF DRILLING AND MINING OPERATIONS

A representative of the potash operator may be present during drilling, cementing, casing, and plugging of all oil or gas wells within 1320 feet of his lease to observe conformance with these regulations. Likewise, a representative of the oil and gas lessee may inspect mine workings on his lease to observe conformance with these regulations.

IX.

FILING OF WELL SURVEYS, MINE SURVEYS AND POTASH DEVELOPMENT PLANS

(a) Directional Surveys:

The Commission may require an operator to file a certified directional survey from the surface to a point below the lowest known potash

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bearing horizon on all wells drilled within the POTASH AREA. These surveys may be required where, in the Commission's judgment, the exact location of the wellbore must be determined in order to aid mining operations.

(b) Mine Surveys:

On or before January 31st of each year, each potash operator shall furnish two copies of a plat of a survey of the location of his leaseholdings and all of his open mine workings, which plat shall be available for public inspection.

(c) Potash Development Plan

Within 30 days after the adoption of this order and thereafter, on or before January 31st of each year, each potash operator shall furnish two copies of a five-year projection of development plans in the form of a plat, which plat shall be for the confidential use of the Commission and for inspection by any affected oil or gas operator. The projection shall cover not less than 3 nor more than a 5 year development program.

X.

APPLICABILITY OF STATEWIDE RULES AND REGULATIONS

All general statewide rules and regulations of the Oil Conservation Commission governing the development, operation, and production of oil and gas in the State of New Mexico not inconsistent or in conflict herewith, are hereby adopted and made applicable to the areas described herein.

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1st Revision Given out on 8/17/55

CASE 278

SUGGESTED REVISED ORDER NO. R-111

I.

OBJECTIVE

The objective of these Rules and Regulations is to prevent waste, protect correlative rights, assure maximum conservation of the oil, gas and potash resources of New Mexico and permit the economic recovery of oil, gas and potash minerals in the area hereinafter defined.

II.

THE POTASH - OIL AREA

(1) The Potash - Oil Area, as outlined in Exhibit A attached hereto and made a part hereof, represents the area in various parts of which potash mining operations are now in progress, or in which core tests indicate potential potash reserves.

(2) The Potash - Oil Area, as outlined herein, may be revised by the Commission after due notice and hearing.

III.

DRILLING IN THE POTASH AREA

(1) All drilling of oil and gas wells in the POTASH AREA shall be subject to these rules and regulations.

(2) No wells will be drilled for oil or gas at a location, which in the opinion of the Commission or its duly authorized representative, would result in undue waste of potash deposits or constitute a hazard to or interfere unduly with potash deposits.

No mining operations will be conducted in the POTASH AREA that would constitute a hazard to oil or gas production, or that would unreasonably interfere with the orderly development and production from any oil or gas pool.

(3) Upon discovery of oil or gas in the POTASH AREA, the Oil Conservation Commission shall promulgate pool rules for the affected area after due notice and hearing.

IV.

DRILLING AND CASING PROGRAM

(1) For the purpose of the regulations and the drilling of oil and gas exploratory test wells, shallow and deep zones are defined, as follows:

(a) The 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.

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(b) The 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) Surface Casing String:

(a) A surface casing string of new or used oil field casing in good condition shall be set in the "Red Bed" section of the basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section, as determined necessary by the regulatory representative approving the drilling operations and shall be cemented with not less than one hundred and fifty percent (150) percent of calculated volume necessary to circulate cement to the ground surface.

(b) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(c) Casing and water-shut-off tests shall be made both before and after drilling the plug and below the casing seat as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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.

(d) The above requirements for the surface casing string shall be applicable to both the shallow and deep zones.

(3) Salt Protection String:

(a) A salt protection string of new or used oil field casing in good condition shall be set not less than one hundred (100) feet nor more than six hundred

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(600) feet below the base of the salt section.

(b) The salt protection string shall be cemented, as follows:

(i) For wells drilled to the shallow zone, the string may be cemented with a nominal volume of cement for testing purposes only. If the exploratory test well is completed as a productive well, the string shall be re-cemented with sufficient cement to fill the annular space back of the pipe from the top of the first cementing to the surface or to the bottom of the cellar, or may be cut and pulled if the production string is cemented to the surface as provided in sub-section IV (5), (a), (i) below.

(ii) For wells drilled to the deep zone, the string must be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(c) If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or gamma ray survey and additional cementing shall be done until the cement is brought to the point required.

(d) The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with three (3 percent) of calcium chloride by weight of cement.

(e) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(f) Casing tests shall be made both before and after drilling the plug and below the casing seat, as follows:

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(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of one thousand (1000) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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) The Commission, or its duly authorized representative,, may require the use of centralizers on the salt protection string when in their judgment the use of such centralizers would offer further protection to the salt section.

(h) The above requirements for the salt protection string shall be applicable to both the shallow and deep zones except for sub-section IV (3), (b), (i) and (ii) above.

(4) Intermediate String:

(a) In the drilling of oil and gas exploratory test wells to the deep zone, the operator shall have the option of running an intermediate string of pipe, unless the Commission requires an intermediate string.

(b) Cementing procedures and casing tests for the intermediate string shall be the same as provided under sub-sections IV (3), (c), (e) and (f) for the salt protection string.

(5) Production String:

(a) A production string shall be set on top or through the oil or gas pay zone and shall be cemented as follows:

(i) For wells drilled to the shallow zone the production string shall be cemented to the surface if the salt protection string was cemented only with a nominal volume for testing purposes, in which case the salt protection string can be cut and pulled before the production string is cemented; provided, that if the salt

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protection string was cemented to the surface, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone.

(ii) For wells drilled to the deep zone, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided, that if no intermediate string shall have been run and cemented to the surface, the production string shall be cemented to the surface.

(b) Cementing procedures and casing tests for the production string shall be the same as provided under sub-sections IV (3), (c), (e) and (f) for the salt protection string.

V.
DRILLING FLUID FOR SALT SECTION

The fluid used while drilling the salt section 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 fluid by the operator in overcoming any specific problem. This requirement is specifically intended to prevent enlarged drill holes.

VI.
PLUGGING AND ABANDONMENT OF WELLS

(a) All wells heretofore and hearafter drilled within the Potash Area shall be plugged in a manner that will provide a solid cement plug through the salt section and prevent liquids of gases from entering the hole above or below the salt section.

(b) The fluid used to mix the cement shall be saturated with the salts common to the salt section penetrated and with three (3) percent of calcium chloride by weight of cement.

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VII.

LOCATION FOR WELLS

Before commencing drilling operations for oil or gas on any lands within the POTASH AREA, the well operator shall prepare a map or plat showing the location of the proposed well, said map or plat to accompany each copy of the Notice of Intention to Drill. In addition to the number of copies required by the Commission, the well operator shall send one copy by registered mail to all potash lessees within 1320 feet of the proposed well.

The well operator shall furnish proof of the fact that said potash lessees were notified by registered mail of his intent by attaching return receipts to the copies of the Notice of Intention to Drill and plats furnished the Commission.

The Commission, or its authorized representative, may approve such Notice of Intention to Drill if no objection to the location of the proposed well is made by a potash lessee within ten days after receipt. If the location of the proposed well is objected to by the potash lessee, the matter shall be referred to the Secretary - Director of the Commission for arbitration. If a satisfactory settlement cannot be reached, the Secretary - Director of the Commission shall refer the matter to a hearing before the Commission after due notice and a decision either approving or denying the operator's plans to drill shall be entered by the Commission.

VIII.

INSPECTION OF DRILLING AND MINING OPERATONS

A representative of the potash lessee may be present during drilling, cementing, casing, and plugging of all oil or gas wells within 1320 feet of his lease to observe conformance with these regulations. Likewise, a representative of the oil and gas lessee may inspect mine workings on his lease to observe conformance with these regulations.

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IX.
FILING OF WELL SURVEYS, MINE SURVEYS AND POTASH DEVELOPMENT PLANS

(a) Directional Surveys:

The Commission may require an operator to file a certified directional survey fromthe surface to a point below the lowest known potash bearing horizon on all wells drilled within the POTASH AREA. These surveys may be required where, in the Commission's judgment, the exact location of the wellbore must be determined in order to aid mining operations.

(b) Mine Surveys:

On or before January 31st of each year, each potash lessee shall furnish two copies of a certified plat of a survey of the location of all of his open mine workings.

(c) Potash Development Plan

On or before January 31st of each year, each potash lessee shall furnish two copies of a five-year projection of development plans in the form of a plat, which plat shall be available for public inspection.

X.
APPLICABILITY OF STATEWIDE RULES AND REGULATIONS

All general statewide rules and regulations of the Oil Conservation Commission governing the development, operation, and production of oil and gas in the State of New Mexico not inconsistent or in conflict herewith, are hereby adopted and made applicable to the areas described herein.

EXHIBIT "A"

PROPOSED POTASH OIL AREA

TOWNSHIP 18 SOUTH, RANGE 30 EAST

Section 13:	SW/4
Section 14:	S/2, NW/4, W/2 NE/4
Section 15:	SE/4
Section 22:	E/2, E/2 W/2
Section 23:	All
Section 24:	NW/4
Section 26:	N/2
Section 27:	N/2 NE/4

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EXHIBIT "A" (continued)

TOWNSHIP 19 SOUTH, RANGE 29 EAST

Section 11:	SE/4
Section 12:	S/2, S/2 NE/4
Section 13:	N/2, N/2 S/2, S/2 SW/4
Section 14:	E/2, E/2 W/2
Section 23:	N/2 NE/4

TOWNSHIP 19 SOUTH, RANGE 30 EAST

Section 3:	S/2
Section 4:	S/2, NW/4, SW/4 NE/4
Section 5:	E/2, E/2 W/2, SW/4 SW/4
Section 7:	S/2, S/2 N/2, N/2 NE/4
Section 8:	All
Section 9:	All
Section 10:	All
Section 11:	SW/4, W/2 SE/4
Section 14:	W/2, W/2 SE/4
Section 15:	All
Section 16:	All
Section 17:	All
Section 18:	E/2, NW/4
Section 19:	NE/4
Section 20:	N/2, SE/4 SE/4
Section 21:	All
Section 22:	All
Section 23:	W/2
Section 26:	W/2, SE/4
Section 27:	All
Section 28:	All
Section 29:	E/2
Section 32:	SE/4, NE/4 NE/4
Section 33:	All
Section 34:	All
Section 35:	All
Section 36:	SW/4, S/2 NW/4, S/2 SE/4

TOWNSHIP 19 SOUTH, RANGE 31 EAST

Section 36:	SE/4

TOWNSHIP 19 SOUTH, RANGE 32 EAST

Section 31:	W/2 SW/4
Section 33:	SE/4, E/2 SW/4
Section 34:	S/2
Section 35:	S/2
Section 36:	SW/4, SE/4 SE/4

TOWNSHIP 19 SOUTH, RANGE 33 EAST

Section 22:	SE/4 SE/4
Section 23:	SW/4
Section 25:	SW/4
Section 26:	All
Section 27:	E/2
Section 31:	S/2
Section 32:	SW/4
Section 34:	NE/4 NE/4
Section 35:	All
Section 36:	S/2, NW/4, W/2 NE/4

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EXHIBIT "A" (continued)

TOWNSHIP 19 SOUTH, RANGE 34 EAST	
Section 31:	SW/4 SW/4

TOWNSHIP 20 SOUTH, RANGE 29 EAST	
Section 13:	SW/4 SW/4
Section 14:	SE/4 SE/4
Section 22:	SE/4, S/2 NE/4
Section 23:	S/2, NE/4
Section 24:	W/2, W/2 SE/4
Section 25:	N/2, N/2 S/2
Section 26:	All
Section 27:	E/2
Section 34:	NE/4, N/2 SE/4
Section 35:	NW/4

TOWNSHIP 20 SOUTH, RANGE 30 EAST	
Section 1:	All
Section 2:	All
Section 3:	All
Section 4:	All
Section 5:	S/2, NE/4
Section 6:	S/2, S/2 NE/4
Section 7:	NW/4, E/2
Section 8:	All
Section 9:	All
Section 10:	All
Section 11:	All
Section 12:	All
Section 13:	All
Section 14:	All
Section 15:	All
Section 16:	All
Section 17:	All
Section 18:	E/2
Section 19:	E/2
Section 20:	All
Section 21:	All
Section 22:	All
Section 23:	All
Section 24:	All
Section 25:	All
Section 26:	All
Section 27:	All
Section 28:	All
Section 29:	All
Section 30:	All
Section 31:	E/2
Section 32:	All
Section 33:	All
Section 34:	All
Section 35:	All
Section 36:	All

TOWNSHIP 20 SOUTH, RANGE 31 EAST	
Section 1:	E/2, E/2 W/2
Section 6:	SW/4, S/2 NW/4, W/2 SE/4
Section 7:	W/2, SE/4, W/2 NE/4

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EXHIBIT "A" (continued)

TOWNSHIP 20 SOUTH, RANGE 31 EAST (continued)

Section 8:	S/2, S/2 N/2
Section 9:	SW/4, S/2 NW/4
Section 11:	SE/4, E/2 SW/4
Section 12:	All
Section 13:	All
Section 14:	E/2, SW/4, E/2 NW/4
Section 16:	W/2
Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	All
Section 21:	NW/4, S/2
Section 22:	S/2, S/2 NE/4
Section 23:	All
Section 24:	All
Section 25:	All
Section 26:	All
Section 27:	All
Section 28:	All
Section 29:	All
Section 30:	All
Section 31:	All
Section 32:	All
Section 33:	All
Section 34:	All
Section 35:	All
Section 36:	All

TOWNSHIP 20 SOUTH, RANGE 32 EAST

Section 1:	All
Section 2:	All
Section 3:	All
Section 4:	E/2, SW/4, E/2 NW/4
Section 5:	S/2 SE/4
Section 6:	W/2, SW/4 SE/4
Section 7:	All
Section 8:	All
Section 9:	All
Section 10:	All
Section 11:	All
Section 12:	All
Section 13:	All
Section 14:	All
Section 15:	All
Section 16:	All
Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	All
Section 21:	All
Section 22:	All
Section 23:	All

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EXHIBIT "A" (continued)

TOWNSHIP 20 SOUTH, RANGE 32 EAST (continued)

Section 24:	All
Section 25:	All
Section 26:	All
Section 27:	All
Section 28:	All
Section 29:	All
Section 30:	All
Section 31:	All
Section 32:	All
Section 33:	All
Section 34:	All
Section 35:	All
Section 36:	All

TOWNSHIP 20 SOUTH, RANGE 33 EAST

Section 1:	All
Section 2:	E/2, E/2 W/2
Section 5:	W/2
Section 6:	All
Section 7:	All
Section 8:	W/2, SW/4 NE/4, SE/4
Section 9:	S/2 S/2, NW/4 SW/4
Section 10:	S/2
Section 11:	E/2, E/2 NW/4, SW/4
Section 12:	All
Section 13:	All
Section 14:	All
Section 15:	All
Section 16:	All
Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	All
Section 21:	W/2 SW/4, NW/4, N/2 NE/4
Section 22:	N/2 N/2
Section 23:	N/2 N/2, SE/4 NE/4
Section 24:	N/2, N/2 SE/4, SE/4 SE/4
Section 29:	W/2, NE/4, N/2 SE/4, SW/4 SE/4
Section 30:	All
Section 31:	N/2, W/2 SW/4

TOWNSHIP 20 SOUTH, RANGE 34 EAST

Section 6:	W/2, W/2 SE/4
Section 7:	All
Section 8:	SW/4
Section 16:	SW/4, SW/4 NW/4, SW/4 SE/4
Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	All
Section 21:	All
Section 22:	SW/4
Section 27:	W/2
Section 28:	All

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EXHIBIT "A" (continued)

TOWNSHIP 20 SOUTH, RANGE 34 EAST (continued)

Section 29:	N/2, SE/4, NE/4 SW/4
Section 30:	NE/4 NW/4, N/2 NE/4, SE/4 NE/4
Section 32:	N/2 NE/4, SE/4 NE/4
Section 33:	N/2, SE/4, N/2 SW/4, SE/4 SW/4
Section 34:	W/2

TOWNSHIP 21 SOUTH, RANGE 29 EAST

Section 1:	All
Section 2:	Lots 1 - 16, incl., SE/4, NE/4 SW/4
Section 3:	Lots 1 - 9, incl.
Section 4:	Lots 1 - 8, incl., Lots 10 and 11
Section 11:	E/2, E/2 SW/4
Section 12:	All
Section 13:	All
Section 14:	E/2, E/2 W/2, SW/4 NW/4, NW/4 SW/4
Section 15:	SE/4 NE/4, NE/4 SE/4
Section 23:	N/2 NE/4
Section 24:	NE/4, NE/4 SE/4, N/2 NW/4, SE/4 NW/4
Section 35:	S/2 NE/4, SE/4, E/2 SW/4
Section 36:	S/2 SW/4, SE/4, S/2 NE/4, NE/4 NE/4

TOWNSHIP 21 SOUTH, RANGE 30 EAST

Section 1:	All
Section 2:	All
Section 3:	All
Section 4:	All
Section 5:	All
Section 6:	All
Section 7:	All
Section 8:	All
Section 9:	N/2, SW/4
Section 10:	N/2, SE/4, N/2 SW/4, SE/4 SW/4
Section 11:	All
Section 12:	All
Section 13:	All
Section 14:	All
Section 15:	NE/4, NE/4 NW/4, N/2 SE/4, SE/4 SE/4
Section 16:	NW/4 NW/4
Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	NW/4, N/2 NE/4
Section 22:	E/2 E/2
Section 23:	All
Section 24:	All
Section 25:	N/2, SE/4, N/2 SW/4, SE/4 SW/4
Section 26:	N/2, N/2 S/2
Section 27:	NE/4, N/2 SE/4, SE/4 SE/4
Section 29:	NW/4, N/2 SW/4
Section 30:	E/2, E/2 W/2
Section 31:	All
Section 32:	S/2, NW/4, NW/4 NE/4, S/2 NE/4
Section 36:	E/2

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EXHIBIT "A" (continued)

TOWNSHIP 21 SOUTH, RANGE 31 EAST

Section 1:	All
Section 2:	All
Section 3:	All
Section 4:	All
Section 5:	All
Section 6:	All
Section 7:	All
Section 8:	All
Section 9:	All
Section 10:	W/2
Section 12:	N/2, SE/4, N/2 SW/4, SE/4 SW/4
Section 13:	N/2 NE/4
Section 15:	W/2
Section 16:	E/2, NW/4, E/2 SW/4
Section 18:	NW/4, W/2 NE/4, NE/4 NE/4, W/2 SW/4, NE/4 SW/4
Section 21:	E/2, NE/4 NW/4
Section 22:	W/2
Section 27:	W/2, SW/4 NE/4, W/2 SE/4
Section 28:	E/2
Section 30:	SW/4, W/2 NW/4, SE/4 NW/4
Section 31:	W/2
Section 33:	NE/4 NE/4
Section 34:	NW/4, NW/4 NE/4

TOWNSHIP 21 SOUTH, RANGE 32 EAST

Section 6:	Lots 1 - 7 incl., Lots 10 - 15, incl., SW/4
Section 7:	W/2
Section 22:	E/2
Section 23:	All
Section 24:	All

TOWNSHIP 21 SOUTH, RANGE 33 EAST

Section 3:	Lots 1, 2, 3
Section 17:	S/2 S/2
Section 18:	SE/4 SE/4
Section 19:	All
Section 20:	All
Section 21:	W/2, SE/4, S/2 NE/4
Section 22:	S/2, S/2 N/2
Section 23:	S/2, S/2 N/2, NE/4 NE/4
Section 24:	All
Section 25:	NW/4, N/2 NE/4, SW/4 NE/4, N/2 SW/4
Section 26:	W/2, NE/4, N/2 SE/4, SW/4 SE/4
Section 27:	All
Section 28:	All
Section 29:	N/2, SE/4, NE/4 SW/4
Section 30:	N/2 NE/4, SE/4 NE/4
Section 33:	N/2 N/2
Section 34:	N/2 N/2

EXHIBIT "A" (continued)

TOWNSHIP 21 SOUTH, RANGE 34 EAST

Section 19:	W/2

TOWNSHIP 22 SOUTH, RANGE 29 EAST

Section 1:	All
Section 2:	E/2, E/2 NW/4, SW/4
Section 3:	S/2 SE/4, NE/4 SE/4
Section 10:	E/2, E/2 W/2, SW/4 SW/4
Section 11:	All
Section 12:	All
Section 13:	All
Section 14:	All
Section 15:	All
Section 16:	SE/4, SE/4 NE/4, SE/4 SW/4
Section 20:	E/2 E/2
Section 21:	All
Section 22:	All
Section 23:	All
Section 24:	All
Section 25:	All
Section 26:	All
Section 27:	All
Section 28:	NE/4, N/2 NW/4, SE/4 NW/4, SE/4
Section 33:	NE/4 NE/4
Section 34:	NW/4, W/2 E/2, N/2 SW/4, SE/4 SW/4
Section 35:	E/2, SW/4, SE/4 NW/4
Section 36:	All

TOWNSHIP 22 SOUTH, RANGE 30 EAST

Section 1:	E/2
Section 5:	N/2, N/2 S/2, SW/4 SW/4
Section 6:	All
Section 7:	W/2, W/2 E/2, SE/4 SE/4
Section 8:	S/2 SW/4
Section 12:	NE/4 NE/4
Section 13:	NW/4, N/2 SW/4, SW/4 SW/4
Section 14:	SE/4, S/2 NE/4, E/2 SW/4, SW/4 SW/4
Section 17:	NW/4
Section 18	All
Section 19:	All
Section 20:	All
Section 21:	S/2, SW/4 NW/4
Section 22:	S/2, S/2 N/2, NE/4 NE/4
Section 23:	W/2, W/2 NE/4, NE/4 NE/4
Section 26:	W/2 W/2
Section 27:	All
Section 28:	All
Section 29:	All
Section 30:	All
Section 31:	All
Section 32:	All
Section 33:	All
Section 34:	All
Section 35:	W/2

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EXHIBIT "A" (continued)

TOWNSHIP 22 SOUTH, RANGE 31 EAST	
Section 6:	W/2, W/2 NE/4, NW/4 SE/4
Section 7:	N/2 NW/4
TOWNSHIP 23 SOUTH, RANGE 29 EAST	
Section 1:	All
Section 2:	E/2, NW/4, NE/4 SW/4
Section 11:	NE/4 NE/4
Section 12:	N/2 N/2
TOWNSHIP 23 SOUTH, RANGE 30 EAST	
Section 2:	NW/4
Section 3:	All
Section 4:	All
Section 5:	All
Section 6:	All
Section 7:	NE/4, N/2 NW/4, SE/4 NW/4
Section 8:	N/2 N/2, S/2 NE/4
Section 9:	N/2, NE/4 SW/4, N/2 SE/4
Section 10:	N/2, SW/4

August 16, 1955
/ir

W.N.M.C.F. MICROGRAPHICS

last revision

CASE 278

SUGGESTED REVISED ORDER NO. R-111

I.

OBJECTIVE

The objective of these Rules and Regulations is to prevent waste, protect correlative rights, assure maximum conservation of the oil, gas and potash resources of New Mexico and permit the economic recovery of oil, gas and potash minerals in the area hereinafter defined.

II.

THE POTASH - OIL AREA

(1) The Potash - Oil Area, as outlined in Exhibit A attached hereto and made a part hereof, represents the area in various parts of which potash mining operations are now in progress, or in which core tests indicate potential potash reserves.

(2) The Potash - Oil Area, as outlined herein, may be revised by the Commission after due notice and hearing.

III.

DRILLING IN THE POTASH AREA

(1) All drilling of oil and gas wells in the POTASH AREA shall be subject to these rules and regulations.

(2) No wells will be drilled for oil or gas at a location, which in the opinion of the Commission or its duly authorized representative, would result in undue waste of potash deposits or constitute a hazard to or interfere unduly with potash deposits.

No mining operations will be conducted in the POTASH AREA that would constitute a hazard to oil or gas production, or that would unreasonably interfere with the orderly development and production from any oil or gas pool.

(3) Upon discovery of oil or gas in the POTASH AREA, the Oil Conservation Commission shall promulgate pool rules for the affected area after due notice and hearing.

IV.

DRILLING AND CASING PROGRAM

(1) For the purpose of the regulations and the drilling of oil and gas exploratory test wells, shallow and deep zones are defined, as follows:

(a) The 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.

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(b) The 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) Surface Casing String:

(a) A surface casing string of new or used oil field casing in good condition shall be set in the "Red Bed" section of the basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section, as determined necessary by the regulatory representative approving the drilling operations and shall be cemented with not less than one hundred and fifty percent (150) percent of calculated volume necessary to circulate cement to the ground surface.

(b) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(c) Casing and water-shut-off tests shall be made both before and after drilling the plug and below the casing seat as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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.

(d) The above requirements for the surface casing string shall be applicable to both the shallow and deep zones.

(3) Salt Protection String:

(a) A salt protection string of new or used oil field casing in good condition shall be set not less than one hundred (100) feet nor more than six hundred

W.N.M.C.F. MICROGRAPHICS

(600) feet below the base of the salt section.

(b) The salt protection string shall be cemented, as follows:

(i) For wells drilled to the shallow zone, the string may be cemented with a nominal volume of cement for testing purposes only. If the exploratory test well is completed as a productive well, the string shall be re-cemented with sufficient cement to fill the annular space back of the pipe from the top of the first cementing to the surface or to the bottom of the cellar, or may be cut and pulled if the production string is cemented to the surface as provided in sub-section IV (5), (a), (i) below.

(ii) For wells drilled to the deep zone, the string must be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(c) If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or gamma ray survey and additional cementing shall be done until the cement is brought to the point required.

(d) The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with three (3 percent) of calcium chloride by weight of cement.

(e) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(f) Casing tests shall be made both before and after drilling the plug and below the casing seat, as follows:

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(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of one thousand (1000) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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) The Commission, or its duly authorized representative, may require the use of centralizers on the salt protection string when in their judgment the use of such centralizers would offer further protection to the salt section.

(h) The above requirements for the salt protection string shall be applicable to both the shallow and deep zones except for sub-section IV (3), (b), (i) and (ii) above.

(4) Intermediate String:

(a) In the drilling of oil and gas exploratory test wells to the deep zone, the operator shall have the option of running an intermediate string of pipe, unless the Commission requires an intermediate string.

(b) Cementing procedures and casing tests for the intermediate string shall be the same as provided under sub-sections IV (3), (c), (e) and (f) for the salt protection string.

(5) Production String:

(a) A production string shall be set on top or through the oil or gas pay zone and shall be cemented as follows:

(i) For wells drilled to the shallow zone the production string shall be cemented to the surface if the salt protection string was cemented only with a nominal volume for testing purposes, in which case the salt protection string can be cut and pulled before the production string is cemented; provided, that if the salt

W.N.M.C.F. MICROGRAPHICS

protection string was cemented to the surface, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone.

(ii) For wells drilled to the deep zone, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided, that if no intermediate string shall have been run and cemented to the surface, the production string shall be cemented to the surface.

(b) Cementing procedures and casing tests for the production string shall be the same as provided under sub-sections IV (3), (c), (e) and (f) for the salt protection string.

V.
DRILLING FLUID FOR SALT SECTION

The fluid used while drilling the salt section 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 fluid by the operator in overcoming any specific problem. This requirement is specifically intended to prevent enlarged drill holes.

VI.
PLUGGING AND ABANDONMENT OF WELLS

(a) All wells heretofore and hearafter drilled within the Potash Area shall be plugged in a manner that will provide a solid cement plug through the salt section and prevent liquids of gases from entering the hole above or below the salt section.

(b) The fluid used to mix the cement shall be saturated with the salts common to the salt section penetrated and with three (3) percent of calcium chloride by weight of cement.

W.N.M.C.F. MICROGRAPHICS

VII.

LOCATION FOR WELLS

Before commencing drilling operations for oil or gas on any lands within the POTASH AREA, the well operator shall prepare a map or plat showing the location of the proposed well, said map or plat to accompany each copy of the Notice of Intention to Drill. In addition to the number of copies required by the Commission, the well operator shall send one copy by registered mail to all potash lessees within 1320 feet of the proposed well.

The well operator shall furnish proof of the fact that said potash lessees were notified by registered mail of his intent by attaching return receipts to the copies of the Notice of Intention to Drill and plats furnished the Commission.

The Commission, or its authorized representative, may approve such Notice of Intention to Drill if no objection to the location of the proposed well is made by a potash lessee within ten days after receipt. If the location of the proposed well is objected to by the potash lessee, the matter shall be referred to the Secretary - Director of the Commission for arbitration. If a satisfactory settlement cannot be reached, the Secretary - Director of the Commission shall refer the matter to a hearing before the Commission after due notice and a decision either approving or denying the operator's plans to drill shall be entered by the Commission.

VIII.

INSPECTION OF DRILLING AND MINING OPERATONS

A representative of the potash lessee may be present during drilling, cementing, casing, and plugging of all oil or gas wells within 1320 feet of his lease to observe conformance with these regulations. Likewise, a representative of the oil and gas lessee may inspect mine workings on his lease to observe conformance with these regulations.

W.N.M.C.F. MICROGRAPHICS

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SECRETARY
WASHINGTON

MAR [illegible]

My dear Mr. Shepard:

I have been advised that you have scheduled a hearing in Santa Fe for 10 a. m., March 29 to consider the problem of leasing and exploring for oil the area in southeast New Mexico within which the potash mines are located. At this hearing, which is a continuation of the one held on February 27, you hope all interested parties in oil and potash will present testimony pertinent to the problem so that you may make a ruling and dispose of the matter.

Opening of the presently withdrawn area to oil and gas leasing or the extension of the withdrawn area to lands under potash lease to the Southwest Potash Corporation involves an important question of future state and Federal policy and appears to be directly related to our national economy.

I have instructed the Director, U. S. Geological Survey, to have in attendance at the hearing both the mining supervisor and the oil and gas supervisor for New Mexico as observers and to furnish such technical advice as may be necessary in presenting the operating conditions incident to dual development of acreage by mining and drilling on Federal lands in the potash area.

The Secretary at this early date does not have any technical information or recommendation from his staff for review and urges that you withhold issuing a formal decision until he has studied the problem. The potash companies jointly have recommended that a government, state, and industry committee be established to formulate policy and protective measures to the end that the interests of both the oil and gas and the potash industries will be recognized and protected. I believe such a committee or advisory board has merit and will assist both of us in developing a satisfactory solution on future policy. Its adoption will delay, of course, a final decision, but the problem is of such national interest as to warrant detailed study.

The Department will be pleased to receive any comments or suggestions you may care to make to protect the interests of both the potash and the petroleum interests. You can be assured of our

cooperation in reaching a satisfactory solution affecting both the state and Federal acreage.

Sincerely yours,

(SGD) [illegible]

Assistant Secretary of the Interior

Hon. Guy Shepard
Commissioner of Public Lands
State Land Office
Santa Fe, New Mexico

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

February 3, 1956

COPY

Mr. E. C. Skinner
International Minerals & Chemical Corp.
P.O. Box 71
Carlsbad, New Mexico

Dear Mr. Skinner:

Reference is made to your letter of February 1st and to your geologist, Mr. Mitterer's report pertaining to the potash-oil area and the regulations contained in our Order R-111-A.

At the time of the committee meetings pertaining to these proposed rules, the question of the one-mile zone around the outer boundaries of the known potash reserves was discussed. It was at that time generally agreed upon that the rules should apply only to the potash-oil area, that area being the area of known commercial potash bearing ore. We did not keep any transcript or minutes of the meetings; however, I do recall that at the time the point was mentioned the oil industry representatives pointed out that the additional one-mile area would include an additional forty to fifty thousand acres. If you or any of the other potash companies feel that this matter is of extreme importance, we can probably call the committee together again and attempt to work out something in the way of a change in the rules.

In the meantime, I will discuss the problem with our inspectors in Southeast New Mexico and also with Mr. Anderson of the U. S. Geological Survey, and we will make every effort to make absolutely sure that any well drilled within this one-mile zone is properly plugged, although I doubt very seriously, in the absence of any specific rules, that we can require a solid column of cement through the salt section.

Very truly yours,

W. B. Macey
Secretary - Director

WBM:brp

INTERNATIONAL

MINERALS & CHEMICAL CORPORATION

GENERAL OFFICES · 20 NORTH WACKER DRIVE · CHICAGO 6

P. O. BOX 71
CARLSBAD, NEW MEXICO

February 1, 1956

Mr. W. B. Macey
Secretary-Director
Oil Conservation Commission
Santa Fe, New Mexico

Dear Mr. Macey:

We are enclosing a copy of a report from our Geologist, Mr. Mitterer, with reference to several wells for oil and gas exploration which have been drilled lately on our Lea County potash leases. Mr. Mitterer raises the question as to the interpretation which should be put on the rule in R-111-A as to the distance such oil and gas exploration holes should be kept from the boundary of the potash area. Since I was not a member of the committee which studied this question, I am not aware of all the implications which went with the ruling. However, it appears to me that the question Mr. Mitterer raises in the second and third paragraphs on page 2 of his report should be gone into with some thoroughness because, obviously, there is a chance for a great deal of conflict between the potash and oil people the way the matter now stands.

We would very greatly appreciate your advice in this matter.

Very truly yours,

E. C. Skinner

E. C. Skinner
Manager

ECS:lp
encl.

January 30, 1956

To: W. O. Skinner

From: Adolph V. Hibbard

Subject: Lea County Oil Wells on International Potash Leases

Dear Sir:

Within the past few weeks we have received information on the drilling of a shallow oil well in section 32, T19S R33E, which is a part of our state potash lease K-2945 in Lea County, New Mexico. I have perused the matter further and now have the following new information.

In summary:

1. Edward E. Kinney has drilled a new test in section 32. The well was started at the end of November and was plugged and abandoned December 21. (see map)

2. Sinclair is now drilling a test in section 29.

3. Both of these tests were located and drilled after the effective date of the oil and gas commission's new R-111-A and the Kinney test is located within a one-mile radius from the potash-oil area boundary. Neither of the tests violates the rule's provisions with regard to locations and notices.

4. Three other tests have been drilled previously; one of these reported potash mineralization.

In the Spring of 1954, International entered into an agreement with Ed E. Kinney of Artesia, whereby we participated in the cost of drilling his Ed E. Kinney, Magnolia-State No. 1 test in section 32. In return for our participation we were permitted to recover a core from the potash horizon. The core from this test is identified as International's core test 193. No commercial mineralization was discovered.

Kinney completed the well as a discovery test on July 9, 1954 and since that time he has enjoyed a modest production from the well.

The location of this test as shown on our records is incorrect. The actual location as shown on the plat of survey filed with the Oil and Gas Commission is 660 feet from the North line and 1980 feet from the East line of section 32. Our records have been changed to show the correct location.

Kinney's new test, Ed E. Kinney-Reynolds-Davis No. 2, was drilled on his state oil lease B-11290, 1650 from North line and 990 from West line of section 32. The notice of intent to drill was dated December 16, 1955. The test was started December 20, and was bottomed at 2259 feet before December 21, by the Pennsylvania Drilling Company. The test was plugged and abandoned December 21.

This test is located 1,000 feet outside the boundary of the potash oil area as defined in R-111-A. Kinney did not notify us of this test, nor was he required to do so under the provisions of paragraph VII of R-111-A. He also did not plug the test as provided in paragraph VI so as to provide a solid cement plug through the salt section.

Even though the rule did not require Kinney to notify us of the location and to take extra care in plugging because his well was outside the limits of the potash oil area, I believe that it was the intention of the Potash Representatives who participated in writing the ruling that the one-mile"d ue-of-interest" idea should apply also to the one-mile marginal strip outside the boundary as well as to the potash-oil area itself.

I suggest that we ask the commission for its interpretation of this situation.

With regard to the wells in section 29: The new test now being drilled is the Sinclair-Federal-Carder No. 1, located 660 from North line and 660 from West line of section 29. The notice of intent to drill was dated Dec. 1, 1955.

W. H. Black-Federal-B-1, is located 980 from North line and 1980 from East line. It was started in November, 1953, and bottomed at 3330 in January. Three potash horizons were reported in this well: 1855-1955; 2020-2060; 2465-2540. This well was plugged and abandoned January 7, 1954.

American Republics Corp. -Federal No. 1- is located 23- from South line and 1980 from East line. It was drilled, bottomed, plugged, and abandoned in November and December 1954. Total depth was 3280.

Section 29 formerly was covered by one of the Archibald permits which expired in 1953. There is no permit now issued on the land.

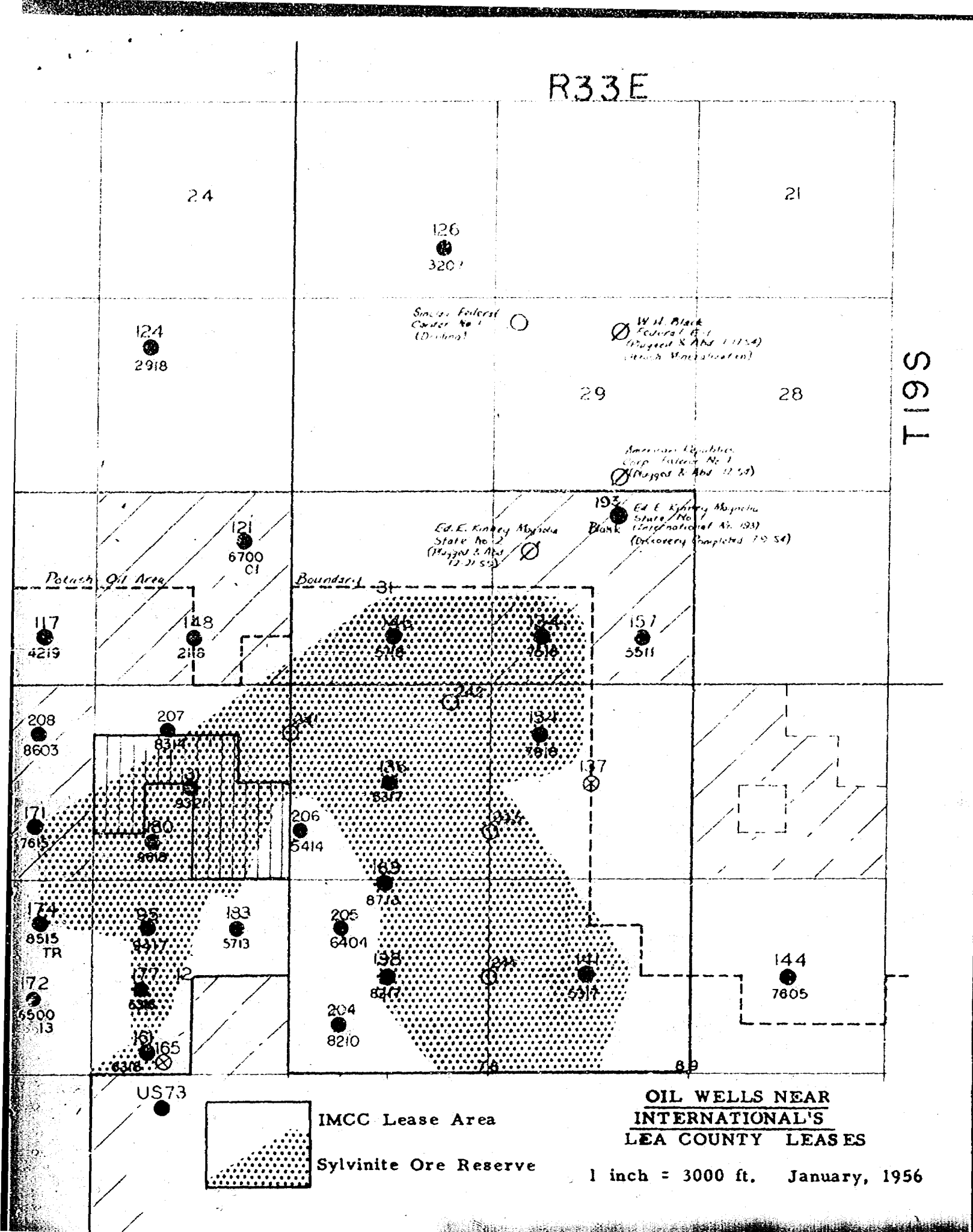
In view of the reported potash in the in the Black well, it might be worth while for us to seek prospecting permits on some of these lands which border our lease area.

Very truly yours,

Adolph V. Mitterer

Adolph V. Mitterer
Geologist

AVM:dp
Enc.


R33E
T19S
24
21
29
28
126
320'
124
2918
121
6700
01
Potash Oil Area
Boundary
117
4219
118
2118
151
5511
208
8603
207
8314
171
7615
206
5414
174
8515
TR
183
5713
205
6404
172
6500
13
204
8210
144
7605
US73
IMCC Lease Area
Sylvinite Ore Reserve
OIL WELLS NEAR
INTERNATIONAL'S
LEA COUNTY LEASES
1 inch = 3000 ft. January, 1956

Committee met 4-17-51 3 p.m. in Guy Shepard's office, recessed until morning session 4-18-51

April 5, 1951

COPY

Mr. Guy Shepard
State Land Office
Santa Fe, New Mexico

Dear Guy:

I have your letter of March 30, 1951, in which you list my appointment to the committee to recommend regulations for the proper exploration and development of state lands within the Delaware Basin, Eddy County, New Mexico, by both the potash and oil industries.

I shall be glad to serve on this committee with the other members you have named, and I am sure that all of us will make every effort to understand the problems of the two industries.

Sincerely,

R. R. Spurrier

RRS:nr

STATE LAND OFFICE

Santa Fe, New Mexico

GUY SHEPARD
COMMISSIONER OF PUBLIC LANDS

March 30, 1951

Following the hearing March 29, 1951, I, as Commissioner of Public Lands, announced that I would appoint a Committee to recommend regulations for the proper exploration and development of the State lands within the Delaware basin, Eddy County, New Mexico, simultaneously by both the Potash and Oil Industries. In keeping with this announcement, I have appointed:

Mr. Fred O. Davis, a Director of Potash Company of America, Carlsbad, New Mexico,

Mr. Emory Carper, President, New Mexico Oil and Gas Association, Artesia, New Mexico,

Mr. Tom Cramer, Vice-President, United States Potash Company, Carlsbad, New Mexico,

Mr. John M. Kelly, Independent Oil Operator, Roswell, New Mexico, and

Mr. R. R. Spurrier, Director, New Mexico Oil Conservation Commission, Santa Fe, New Mexico.

May I ask that each of you advise me at your earliest convenience of your willingness to serve on this Committee. It is my intention that such Committee meet at the earliest possible time and submit its recommendations to me.

I would be grateful, because of the considerable Federal Acreage in the area, if Messrs. Foster Morrell and R. H. Allport of the United States Geological Survey would sit in an advisory or unofficial capacity with the Committee if they may do so under regulations.

I sincerely trust that each of you will accept and make reasonable recommendations to me in order that I may the sooner promulgate and publish regulations as required by law.

Very truly yours,

Guy Shepard

GUY SHEPARD
Commissioner of Public Lands

BEFORE THE OIL COMMISSION
STATE OF NEW MEXICO, SANTA FE, NEW MEXICO

IN RE: APPLICATION OF GUY SHEPARD, COMMISSIONER OF PUBLIC LANDS, FOR AN ORDER ESTABLISHING AND SETTING UP A CASING PROGRAM AND OTHER PROCEDURAL REQUIREMENTS FOR THE DRILLING OF OIL WELLS IN THE POTASH AREA IN EDDY COUNTY COMPRISING STATE OWNED LANDS IN TRACTS 0-2, 0-3, 0-4, 0-5 and 0-6 AS SET FORTH IN THE MAY 10, 1951 NOTICE OF PUBLIC SALE, COPY OF WHICH IS HERETO ATTACHED.

CASE NO. 278

ORDER NO. _____

APPLICATION

Comes now Guy Shepard as Commissioner of Public Lands for the State of New Mexico and makes application for the establishment of a casing program for oil wells within the heretofore established potash area in Eddy County, New Mexico and for other special procedural regulations in such area as may be proper for the development of said area, both for potash and oil.

That the applicant herein requests the Oil Commission to set a date for a hearing and after such testimony as may be adduced, issue its proper order as aforesaid.

Guy Shepard

GUY SHEPARD
Commissioner of Public Lands
State of New Mexico

W.N.M.C.F. MICROGRAPHICS

	Sec.	Twp.	Rge.	Acres
Tract No. 35				
S½NE¼, N½, N½SW¼, SE¼SW¼,	16	29N	SW	80.00
E½SE¼, N½NE¼, SE¼NE¼,	32	29N	SW	320.00
N½SW¼	36	29N	SW	200.00

Total Acreage 800.00
Minimum Rental 25c per acre
Filing fee $5.00

	Sec.	Twp.	Rge.	Acres
Tract No. 36				
NW¼SW¼	2	22S	35E	40.00

Total Acreage 40.00
Minimum rental 25c per acre
Filing fee $5.00

FURTHER PUBLIC NOTICE is hereby given that, pursuant to the rules and regulations of the State Land Office, the Commissioner of Public Lands of the State of New Mexico will hold a sale at PUBLIC AUCTION of oil and gas leases as described hereinbelow, at his office in the Capitol Building, Santa Fe, New Mexico, immediately at the conclusion of the sale of Tracts offered at sealed bid.

This sale will be governed by the provisions of Chapter 8-1110, New Mexico Statutes, Compilation of 1931, being an Act of the Legislature of New Mexico, approved March 10, 1931, and the rules and regulations of the State Land Office, pertaining to sale of oil and gas leases upon State Lands.

No sealed bids will be received, accepted or considered in the disposition of the hereinbelow described tracts. The Commissioner of Public Lands reserve the right to reject any and all bids.

	Sec.	Twp.	Rge.	Acres
Tract 0-1				
SW¼SW¼	3	14S	33E	40.00
W½W½	11	14S	33E	160.00

Total Acreage 200.00
Minimum Rental 25c per acre
Filing fee $5.00

Tract 0-2				
All	36	22S	30E	610.00
Lots 1, 2, 3, 4, S½N½, N½SE¼, S½SW¼,				
NW¼SW¼	2	23S	30E	520.56
All	16	23S	30E	610.00
Lots 1, 2, 3, 4, SE¼NW¼, E½SW¼	19	23S	30E	280.80
NE¼NE¼, E½NW¼, NE¼SW¼	21	23S	30E	160.00
S½, NW¼, S½NE¼,	22	23S	30E	600.00
NW¼NE¼	28	23S	30E	40.00
NE¼NE¼	30	23S	30E	321.36
Lots 1, 2, 3, 4, E½W½	31	23S	30E	322.72
Lots 1, 2, 3, 4, E½W½	32	23S	30E	640.00
All	36	23S	30E	640.00
All	2	24S	30E	640.66

Total Acreage 5,446.10
Minimum Rental 25c per acre
Filing fee $5.00

Tract 0-3				
NW¼, W½NE¼, S½SE¼	2	20S	31E	315.66
SW¼, W½NW¼	16	20S	31E	240.00
W½NE¼, SE¼NE¼, N½SE¼	32	20S	31E	260.00
S½, W½NW¼, NE¼	36	20S	31E	560.00
NW¼, E½NE¼	16	20S	32E	240.00
All	32	20S	32E	640.00
E½NW¼	36	20S	30E	80.00
Lot 2	2	21S	30E	35.97
SE¼NE¼, SE¼, S½SW¼	14	21S	30E	280.00
N½, SW¼, N½SE¼	16	21S	30E	560.00
NE¼SE¼	20	21S	30E	40.00
E½	21	21S	30E	320.00
All	22	21S	30E	640.00
N½	23	21S	30E	320.00
NW¼	24	21S	30E	160.00
N½	27	21S	30E	320.00
NE¼, NW¼NW¼, S½NW¼, SW¼, S½SE¼, NE¼ SE¼	28	21S	30E	560.00
N½, SE¼, NE¼SW¼	36	19S	31E	520.00

Total Acreage 6,031.63
Minimum Rental 25c per acre
Filing fee $5.00

Tract 0-1				
Lots 1, 4, SW¼NW¼, N½SW¼	2	20S	32E	199.80
NE¼	13	20S	32E	160.00
E½NE¼, N½SE¼, SE¼SE¼, SW¼	36	20S	32E	360.00
Lots 3, 4, S½NW¼, SW¼NE¼, SW¼, N½SE¼	4	20S	33E	460.92
Lots 1, 2, 3, 4, E½W½, S½SE¼	18	20S	33E	399.88
W½NE¼	19	20S	33E	80.00
Lot 1, NE¼NW¼, N½NE¼, SE¼NE¼, NE¼SE¼	31	20S	33E	240.26
S½	2	21S	31E	320.00
N½, E½SE¼, E½SW¼	32	21S	31E	480.00

Total Acreage 2,640.86
Minimum Rental 25c per acre
Filing fee $5.00

Tract 0-5				
SW¼SW¼, S½NE¼, NW¼NE¼	16	21S	28E	160.00
SW¼NW¼	18	21S	28E	39.67
S½NE¼, SE¼NW¼, S½SE¼, SE¼SW¼	32	21S	28E	240.00
All	36	21S	28E	640.00
N½, N½SE¼	32	21S	29E	400.00
All	36	21S	29E	637.12
E½, NW¼, N½SW¼, SW¼SW¼	2	22S	29E	600.24
S½NW¼, N½SW¼	11	22S	29E	160.00
All	16	22S	29E	640.00
NW¼NW¼	25	22S	29E	40.00
NE¼, E½NW¼	26	22S	29E	240.00
All	32	22S	29E	640.00
All	36	22S	29E	640.00
All	2	23S	29E	638.78

Total Acreage 5,715.81
Minimum Rental 25c per acre
Filing Fee $5.00

Tract 0-6				
Lots 9, 10, SE¼	2	21S	29E	240.00
SE¼NE¼, SW¼NW¼, SW¼	11	21S	29E	240.00
N½NW¼, SE¼NW¼, NE¼SW¼	13	21S	29E	160.00
NW¼, N½NE¼, NW¼SE¼	14	21S	29E	280.00
SW¼NE¼, SW¼SE¼	16	21S	29E	80.00
NW¼NW¼	8	21S	30E	40.00

Total Acreage 1,040.00
Minimum Rental 25c per acre
Filing fee $5.00

U-68-m

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

CASE NO. 278
Order No. R-111-A

THE APPLICATION OF THE OIL CONSERVATION COMMISSION UPON ITS OWN MOTION FOR AN ORDER REVISING ORDER R-111 ISSUED IN CASE 278, PERTAINING TO THE POTASH-OIL AREAS OF EDDY AND LEA COUNTIES, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on July 14, 1955, August 17, 1955 and September 15, 1955, at Santa Fe, New Mexico, before the Oil Conservation Commission, hereinafter referred to as the "Commission".

NOW, on this 13th day of October, 1955, the Commission, a quorum being present, having considered the records and testimony adduced, and being fully advised in the premises;

FINDS:

(1) That due notice of the time and place of hearing and the purpose thereof having been given as required by law, the Commission has jurisdiction of this case and the subject matter thereof.

(2) That the delineation of an area including and containing potential oil and gas reserves, within which are commercial potash deposits, and the promulgation of rules and regulations for the orderly development of oil and gas resources in such an area known to be productive of potash is within the authority of the Commission for the protection of correlative rights, the promotion of conservation, and the prevention of waste.

IT IS THEREFORE ORDERED:

That this order shall be known as The Rules and Regulations Governing the Exploration of Oil and Gas in Certain Areas Herein Defined, which are Known to Contain Potash Reserves.

I.

OBJECTIVE

The objective of these Rules and Regulations is to prevent waste, protect correlative rights, assure maximum conservation of the oil, gas and potash resources of New Mexico, and permit the economic recovery of oil, gas and potash minerals in the area hereinafter defined.

II.

THE POTASH-OIL AREA

(1) The Potash-Oil Area, as outlined in Exhibit A attached hereto and made a part hereof, represents the area in various parts of which potash mining operations are now in progress, or in which core tests indicate commercial potash reserves.

(2) The Potash-Oil Area, as outlined herein, may be revised by the Commission after due notice and hearing.

III.

DRILLING IN THE POTASH AREA

(1) All drilling of oil and gas wells in the Potash Area shall be subject to these Rules and Regulations.

(2) No wells will be drilled for oil or gas at a location which, in the opinion of the Commission or its duly authorized representative, would result in undue waste of potash deposits or constitute a hazard to or interfere unduly with potash deposits.

No mining operations will be conducted in the Potash Area that would, in the opinion of the Commission or its duly authorized representative, constitute a hazard to oil or gas production, or that would unreasonably interfere with the orderly development and production from any oil or gas pool.

(3) Upon discovery of oil or gas in the Potash Area, the Oil Conservation Commission shall promulgate pool rules for the affected area after due notice and hearing.

IV.

DRILLING AND CASING PROGRAM

(1) For the purpose of the regulations and the drilling of oil and gas exploratory test wells, shallow and deep zones are defined, as follows:

(a) The 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) The 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) Surface Casing String:

(a) A surface casing string of new or used oil field casing in good condition shall be set in the "Red Bed" section of the basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section, as determined necessary by the regulatory representative approving the drilling operations, and shall be cemented with not less than one hundred and fifty percent (150) percent of calculated volume necessary to circulate cement to the ground surface.

(b) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(c) Casing and water-shut-off tests shall be made both before and after drilling the plug and below the casing seat as follows:

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(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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.

(d) The above requirements for the surface casing string shall be applicable to both the shallow and deep zones.

(3) Salt Protection String:

(a) A salt protection string of new or used oil field casing in good condition shall be set not less than one hundred (100) feet nor more than six hundred (600) feet below the base of the salt section; provided that such string shall not be set below the top of the highest known oil or gas zone.

(b) The salt protection string shall be cemented, as follows:

(i) For wells drilled to the shallow zone, the string may be cemented with a nominal volume of cement for testing purposes only. If the exploratory test well is completed as a productive well, the string shall be re-cemented with sufficient cement to fill the annular space back of the pipe from the top of the first cementing to the surface or to the bottom of the cellar, or may be cut and pulled if the production string is cemented to the surface as provided in sub-section IV (5), (i) below.

(ii) For wells drilled to the deep zone, the string must be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar; however, where the base of the Delaware Mountain Group is definable the casing rules in (IV) (3b) (i) shall apply even if the depth of the bottom of the Delaware Mountain Group is greater than 5000 feet. For the purpose of identification, the base of the Delaware Mountain Group is hereby identified as the equivalent of the base of such formation as found at a depth of 7485 feet in the Richardson and Bass No. 1 Rodke well in Section 27, Township 20 South, Range 31 East, NMPM, Lea County, New Mexico, immediately overlying the Bone Springs formation.

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(c) If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or gamma ray survey and additional cementing shall be done until the cement is brought to the point required.

(d) The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with suitable proportions but not less than 1% of calcium chloride by weight of cement.

(e) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(f) Casing tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of one thousand (1000) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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) The Commission, or its duly authorized representative, may require the use of centralizers on the salt protection string when in their judgement the use of such centralizers would offer further protection to the salt section.

(h) The above requirements for the salt protection string shall be applicable to both the shallow and deep zones except for sub-section IV (3), (b), (i) and (ii) above.

(4) Intermediate String:

(a) In the drilling of oil and gas exploratory test wells to the deep zone, the operator shall have the option of running an intermediate string of pipe, unless the Commission requires an intermediate string.

(b) Cementing procedures and casing tests for the intermediate string shall be the same as provided under sub-sections IV (3), (c), (e) and (f) for the salt protection string.

(5) Production String:

(a) A production string shall be set on top or through the oil or gas pay zone and shall be cemented as follows:

(i) For wells drilled to the shallow zone the production string shall be cemented to the surface if the salt protection string was cemented only with a nominal volume for testing purposes, in which case the salt protection string can be cut and pulled

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before the production string is cemented; provided, that if the salt protection string was cemented to the surface, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone.

(ii) For wells drilled to the deep zone, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided, that if no intermediate string shall have been run and cemented to the surface, the production string shall be cemented to the surface.

(b) Cementing procedures and casing tests for the production string shall be the same as provided under sub-section IV (3), (c), (e) and (f) for the salt protection string; however if high pressure oil or gas production is discovered in any area, the Commission shall promulgate the necessary rules to prevent the charging of the salt section.

V.

DRILLING FLUID FOR SALT SECTION

The fluid used while drilling the salt section 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 fluid by the operator in overcoming any specific problem. This requirement is specifically intended to prevent enlarged drill holes.

VI.

PLUGGING AND ABANDONMENT OF WELLS

(1) All wells heretofore and hereafter drilled within the Potash Area shall be plugged in a manner and in accordance with field rules established by the Commission that will provide a solid cement plug through the salt section and any water bearing horizon and prevent liquids or gases from entering the hole above or below the salt section.

(2) The fluid used to mix the cement shall be saturated with the salts common to the salt section penetrated and with suitable proportions but not more than three (3) percent of calcium chloride by weight of cement being considered the desired mixture whenever possible.

VII.

LOCATION FOR WELLS

Before commencing drilling operations for oil or gas on any lands within the Potash Area, the well operator shall prepare a map or plat showing the location of the proposed well, said map or plat to accompany each copy of the Notice of Intention to Drill. In addition to the number of copies required by the Commission, the well operator shall send one copy by registered mail to all potash operators holding potash leases within a radius of one mile of the proposed well, as reflected by the plats submitted under paragraph IX (2).

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The well operator shall furnish proof of the fact that said potash operators were notified by registered mail of his intent by attaching return receipts to the copies of the Notice of Intention to Drill and plats furnished the Commission.

The Commission, or its authorized representative, may approve such Notice of Intention to Drill if no objection to the location of the proposed well is made by a potash operator within ten days after receipt. If the location of the proposed well is objected to by the potash operator, the matter shall be referred to the Secretary-Director of the Commission for arbitration. If a satisfactory settlement cannot be reached, the Secretary-Director of the Commission shall refer the matter to a hearing before the Commission after due notice and a decision either approving or denying the operator's plans to drill shall be entered by the Commission.

VIII.

INSPECTION OF DRILLING AND MINING OPERATIONS

A representative of the potash operator may be present during drilling, cementing, casing, and plugging of all oil or gas wells within a radius of one mile of the well location to observe conformance with these regulations. Likewise, a representative of the oil and gas lessee may inspect mine workings on his lease to observe conformance with these regulations.

IX.

FILING OF WELL SURVEYS, MINE SURVEYS AND POTASH DEVELOPMENT PLANS

(1) Directional Surveys:

The Commission may require an operator to file a certified directional survey from the surface to a point below the lowest known potash bearing horizon on all wells drilled within the Potash Area. These surveys may be required where, in the Commission's judgment, the exact location of the wellbore must be determined in order to aid mining operations.

(2) Mine Surveys:

Within 30 days after the adoption of this order, and thereafter on or before January 31st of each year, each potash operator shall furnish two copies of a plat of a survey of the location of his leaseholdings and all of his open mine workings, which plat shall be available for public inspection.

(3) Potash Development Plan

Within 30 days after the adoption of this order and thereafter on or before January 31st of each year, each potash operator shall furnish two copies of a projection of development plans in the form of a plat, which plat shall be for the confidential use of the Commission and for inspection by any affected oil or gas operator. The projection shall cover not less than 3 nor more than a 5 year development program.

X.

APPLICABILITY OF STATEWIDE RULES AND REGULATIONS

All general statewide rules and regulations of the Oil Conservation Commission governing the development, operation, and production of oil and gas in the State of New Mexico not inconsistent or in conflict herewith, are hereby adopted and made applicable to the areas described herein.

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EXHIBIT "A"

POTASH-OIL AREA:

TOWNSHIP 18 SOUTH, RANGE 30 EAST

Section 13:	SW/4
Section 14:	S/2, NW/4, W/2 NE/4
Section 15:	SE/4
Section 22:	E/2, E/2 W/2
Section 23:	All
Section 24:	NW/4
Section 26:	N/2
Section 27:	N/2 NE/4

TOWNSHIP 19 SOUTH, RANGE 29 EAST

Section 11:	SE/4
Section 12:	S/2, S/2 NE/4
Section 13:	N/2, N/2 S/2, S/2 SW/4
Section 14:	E/2, E/2 W/2
Section 23:	N/2 NE/4

TOWNSHIP 19 SOUTH, RANGE 30 EAST

Section 3:	S/2
Section 4:	S/2, NW/4, SW/4 NE/4
Section 5:	E/2, E/2 W/2, SW/4 SW/4
Section 7:	S/2, S/2 N/2, N/2 NE/4
Section 8:	All
Section 9:	All
Section 10:	All
Section 11:	SW/4, W/2 SE/4
Section 14:	W/2, W/2 SE/4
Section 15:	All
Section 16:	All
Section 17:	All
Section 18:	E/2, NW/4
Section 19:	NE/4
Section 20:	N/2, SE/4 SE/4
Section 21:	All
Section 22:	All
Section 23:	W/2
Section 26:	W/2, SE/4
Section 27:	All
Section 28:	All
Section 29:	E/2
Section 32:	SE/4, NE/4 NE/4
Section 33:	All
Section 34:	All
Section 35:	All
Section 36:	SW/4, S/2 NW/4, S/2 SE/4

TOWNSHIP 19 SOUTH, RANGE 31 EAST

Section 36:	SE/4

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EXHIBIT "A" (continued)

TOWNSHIP 19 SOUTH, RANGE 32 EAST	
Section 31:	W/2 SW/4
Section 33:	SE/4, E/2 SW/4
Section 34:	S/2
Section 35:	S/2
Section 36:	SW/4, SE/4 SE/4
TOWNSHIP 19 SOUTH, RANGE 33 EAST	
Section 22:	SE/4 SE/4
Section 23:	SW/4
Section 25:	SW/4
Section 26:	All
Section 27:	E/2
Section 31:	S/2
Section 32:	SW/4
Section 34:	NE/4 NE/4
Section 35:	All
Section 36:	S/2, NW/4, W/2 NE/4
TOWNSHIP 19 SOUTH, RANGE 34 EAST	
Section 31:	SW/4 SW/4
TOWNSHIP 20 SOUTH, RANGE 29 EAST	
Section 13:	SW/4 SW/4
Section 14:	SE/4 SE/4
Section 22:	SE/4, S/2 NE/4
Section 23:	S/2, NE/4
Section 24:	W/2, W/2 SE/4
Section 25:	N/2, N/2 S/2
Section 26:	All
Section 27:	E/2
Section 34:	NE/4, N/2 SE/4
Section 35:	NW/4
TOWNSHIP 20 SOUTH, RANGE 30 EAST	
Section 1:	All
Section 2:	All
Section 3:	All
Section 4:	All
Section 5:	S/2,NE/4
Section 6:	S/2, S/2 NE/4
Section 7:	NW/4, E/2
Section 8:	All
Section 9:	All
Section 10:	All
Section 11:	All
Section 12:	All
Section 13:	All
Section 14:	All
Section 15:	All
Section 16:	All
Section 17:	All
Section 18:	E/2
Section 19:	E/2

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EXHIBIT "A" (continued)

TOWNSHIP 20 SOUTH, RANGE 30 EAST (continued)

Section 20:	All
Section 21:	All
Section 22:	All
Section 23:	All
Section 24:	All
Section 25:	All
Section 26:	All
Section 27:	All
Section 28:	All
Section 29:	All
Section 30:	All
Section 31:	E/2
Section 32:	All
Section 33:	All
Section 34:	All
Section 35:	All
Section 36:	All

TOWNSHIP 20 SOUTH, RANGE 31 EAST

Section 1:	E/2, E/2 W/2
Section 6:	SW/4, S/2 NW/4, W/2 SE/4
Section 7:	W/2, SE/4, W/2 NE/4
Section 8:	S/2, S/2 N/2
Section 9:	SW/4, S/2 NW/4
Section 11:	SE/4, E/2 SW/4
Section 12:	All
Section 13:	All
Section 14:	E/2, SW/4, E/2 NW/4
Section 16:	W/2
Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	All
Section 21:	NW/4, S/2
Section 22:	S/2, S/2 NE/4
Section 23:	All
Section 24:	All
Section 25:	All
Section 26:	All
Section 27:	All
Section 28:	All
Section 29:	All
Section 30:	All
Section 31:	All
Section 32:	All
Section 33:	All
Section 34:	All
Section 35:	All
Section 36:	All

TOWNSHIP 20 SOUTH, RANGE 32 EAST

Section 1:	All
Section 2:	All
Section 3:	All
Section 4:	E/2, SW/4, E/2 NW/4

W.N.M.C.F. MICROGRAPHICS

EXHIBIT "A" (continued)

TOWNSHIP 20 SOUTH, RANGE 32 EAST, (Continued)

Section 5:	S/2 SE/4
Section 6:	W/2, SW/4 SE/4
Section 7:	All
Section 8:	All
Section 9:	All
Section 10:	All
Section 11:	All
Section 12:	All
Section 13:	All
Section 14:	All
Section 15:	All
Section 16:	All
Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	All
Section 21:	All
Section 22:	All
Section 23:	All
Section 24:	All
Section 25:	All
Section 26:	All
Section 27:	All
Section 28:	All
Section 29:	All
Section 30:	All
Section 31:	All
Section 32:	All
Section 33:	All
Section 34:	All
Section 35:	All
Section 36:	All

TOWNSHIP 20 SOUTH, RANGE 33 EAST

Section 1:	All
Section 2:	E/2, E/2 W/2
Section 5:	W/2
Section 6:	All
Section 7:	All
Section 8:	W/2, SW/4 NE/4, SE/4
Section 9:	S/2 S/2, NW/4 SW/4
Section 10:	S/2
Section 11:	E/2, E/2 NW/4, SW/4
Section 12:	All
Section 13:	All
Section 14:	All
Section 15:	All
Section 16:	All
Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	All
Section 21:	W/2 SW/4, NW/4, N/2 NE/4
Section 22:	N/2 N/2

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EXHIBIT "A" (continued)

TOWNSHIP 20 SOUTH, RANGE 33 EAST (continued)

Section 23:	N/2 N/2, SE/4 NE/4
Section 24:	N/2, N/2 SE/4, SE/4 SE/4
Section 29:	W/2, NE/4, N/2 SE/4, SW/4 SE/4
Section 30:	All
Section 31:	N/2, W/2 SW/4

TOWNSHIP 20 SOUTH, RANGE 34 EAST

Section 6:	W/2, W/2 SE/4
Section 7:	All
Section 8:	SW/4
Section 16:	SW/4, SW/4 NW/4, SW/4 SE/4
Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	All
Section 21:	All
Section 22:	SW/4
Section 27:	W/2
Section 28:	All
Section 29:	N/2, SE/4, NE/4 SW/4
Section 30:	NE/4 NW/4, N/2 NE/4, SE/4 NE/4
Section 32:	N/2 NE/4, SE/4 NE/4
Section 33:	N/2, SE/4, N/2 SW/4, SE/4 SW/4
Section 34:	W/2

TOWNSHIP 21 SOUTH, RANGE 29 EAST

Section 1:	All
Section 2:	Lots 1 - 16, incl., SE/4, NE/4 SW/4
Section 3:	Lots 1 - 9, incl.
Section 4:	Lots 1 - 8, incl., Lots 10 and 11
Section 11:	E/2, E/2 SW/4
Section 12:	All
Section 13:	All
Section 14:	E/2, E/2 W/2, SW/4 NW/4, NW/4 SW/4
Section 15:	SE/4 NE/4, NE/4 SE/4
Section 23:	N/2 NE/4
Section 24:	NE/4, NE/4 SE/4, N/2 NW/4, SE/4 NW/4
Section 35:	S/2 NE/4, SE/4, E/2 SW/4
Section 36:	S/2 SW/4, SE/4, S/2 NE/4, NE/4 NE/4

TOWNSHIP 21 SOUTH, RANGE 30 EAST

Section 1:	All
Section 2:	All
Section 3:	All
Section 4:	All
Section 5:	All
Section 6:	All
Section 7:	All
Section 8:	All
Section 9:	N/2, SW/4
Section 10:	N/2, SE/4, N/2 SW/4, SE/4 SW/4
Section 11:	All
Section 12:	All
Section 13:	All
Section 14:	All
Section 15:	NE/4, NE/4 NW/4, N/2 SE/4, SE/4 SE/4

EXHIBIT "A" (continued)

TOWNSHIP 21 SOUTH, RANGE 30 EAST (continued)

Section 16:	NW/4 NW/4
Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	NW/4, N/2 NE/4
Section 22:	E/2 E/2
Section 23:	All
Section 24:	All
Section 25:	N/2, SE/4, N/2 SW/4, SE/4 SW/4
Section 26:	N/2, N/2 S/2
Section 27:	NE/4, N/2 SE/4, SE/4 SE/4
Section 29:	NW/4, N/2 SW/4
Section 30:	E/2, E/2 W/2
Section 31:	All
Section 32:	S/2, NW/4, NW/4 NE/4, S/2 NE/4
Section 36:	E/2

TOWNSHIP 21 SOUTH, RANGE 31 EAST

Section 1:	All
Section 2:	All
Section 3:	All
Section 4:	All
Section 5:	All
Section 6:	All
Section 7:	All
Section 8:	All
Section 9:	All
Section 10:	W/2
Section 12:	N/2, SE/4, N/2 SW/4, SE/4 SW/4
Section 13:	N/2 NE/4
Section 15:	W/2
Section 16:	E/2, NW/4, E/2 SW/4
Section 18:	NW/4, W/2 NE/4, NE/4 NE/4, W/2 SW/4 NE/4 SW/4
Section 21:	E/2, NE/4 NW/4
Section 22:	W/2
Section 27:	W/2, SW/4 NE/4, W/2 SE/4
Section 28:	E/2
Section 30:	SW/4, W/2 NW/4, SE/4 NW/4
Section 31:	W/2
Section 33:	NE/4 NE/4
Section 34:	NW/4, NW/4 NE/4

TOWNSHIP 21 SOUTH, RANGE 32 EAST

Section 6:	Lots 1-7 incls., Lots 10-15, incl., SW/4
Section 7:	W/2
Section 22:	E/2
Section 23:	All
Section 24:	All

TOWNSHIP 21 SOUTH, RANGE 33 EAST

Section 3:	Lots 1, 2, 3
Section 17:	S/2 S/2
Section 18:	SE/4 SE/4
Section 19:	All
Section 20:	All

W.N.M.C.E. MICROGRAPHICS

EXHIBIT "A" (continued)

TOWNSHIP 21 SOUTH, RANGE 33 EAST (continued)

Section 21:	W/2, SE/4, S/2 NE/4
Section 22:	S/2, S/2 N/2
Section 23:	S/2, S/2 N/2, NE/4 NE/4
Section 24:	All
Section 25:	NW/4, N/2 NE/4, SW/4 NE/4, N/2 SW/4
Section 26:	W/2, NE/4, N/2 SE/4, SW/4 SE/4
Section 27:	All
Section 28:	All
Section 29:	N/2, SE/4, NE/4 SW/4
Section 30:	N/2 NE/4, SE/4 NE/4
Section 33:	N/2 N/2
Section 34:	N/2 N/2

TOWNSHIP 21 SOUTH, RANGE 34 EAST

Section 19:	W/2

TOWNSHIP 22 SOUTH, RANGE 29 EAST

Section 1:	All
Section 2:	E/2, E/2 NW/4, SW/4
Section 3:	S/2 SE/4, NE/4 SE/4
Section 10:	E/2, E/2 W/2, SW/4 SW/4
Section 11:	All
Section 12:	All
Section 13:	All
Section 14:	All
Section 15:	All
Section 16:	SE/4, SE/4 NE/4, SE/4 SW/4
Section 20:	E/2 E/2
Section 21:	All
Section 22:	All
Section 23:	All
Section 24:	All
Section 25:	All
Section 26:	All
Section 27:	All
Section 28:	NE/4, N/2 NW/4, SE/4 NW/4, SE/4
Section 33:	NE/4 NE/4
Section 34:	NW/4, W/2 E/2, N/2 SW/4, SE/4 SW/4
Section 35:	E/2, SW/4, SE/4 NW/4
Section 36:	All

TOWNSHIP 22 SOUTH, RANGE 30 EAST

Section 1:	E/2
Section 5:	N/2, N/2 S/2, SW/4 SW/4
Section 6:	All
Section 7:	W/2, W/2 E/2, SE/4 SE/4
Section 8:	S/2 SW/4
Section 12:	NE/4 NE/4
Section 13:	NW/4, N/2 SW/4, SW/4 SW/4
Section 14:	SE/4, S/2 NE/4, E/2 SW/4, SW/4 SW/4
Section 17:	NW/4
Section 18:	All
Section 19:	All
Section 20:	All

N M C E MICROGRAPHICS

EXHIBIT "A" (continued)

TOWNSHIP 22 SOUTH, RANGE 30 EAST (continued)

Section 21:	S/2, SW/4 NW/4
Section 22:	S/2, S/2 N/2, NE/4 NE/4
Section 23:	W/2, W/2 NE/4, NE/4 NE/4
Section 26:	W/2 W/2
Section 27:	All
Section 28:	All
Section 29:	All
Section 30:	All
Section 31:	All
Section 32:	All
Section 33:	All
Section 34:	All
Section 35:	W/2

TOWNSHIP 22 SOUTH, RANGE 31 EAST

Section 6:	W/2, W/2 NE/4, NW/4 SE/4
Section 7:	N/2 NW/4

TOWNSHIP 23 SOUTH, RANGE 29 EAST

Section 1:	All
Section 2:	E/2, NW/4, NE/4 SW/4
Section 11:	NE/4 NE/4
Section 12:	N/2 N/2

TOWNSHIP 23 SOUTH, RANGE 30 EAST

Section 2:	NW/4
Section 3:	All
Section 4:	All
Section 5:	All
Section 6:	All
Section 7:	NE/4, N/2 NW/4, SE/4 NW/4
Section 8:	N/2 N/2, S/2 NE/4
Section 9:	N/2, NE/4 SW/4, N/2 SE/4
Section 10:	N/2, SW/4

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JOHN F. SIMMS, Chairman

E. S. WALKER, Member

W. B. MACEY, Member and Secretary

SEAL

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W.N.M.C.F. MICROGRAPHICS

SUGGESTED REVISED ORDER NO. R-111

I.

OBJECTIVE

The objective of these Rules and Regulations is to prevent waste, protect correlative rights, assure maximum conservation of the oil, gas and potash resources of New Mexico and permit the economic recovery of oil, gas and potash minerals in the area hereinafter defined.

II.

THE POTASH - OIL AREA

(1) The Potash - Oil Area, as outlined in Exhibit A attached hereto and made a part hereof, represents the area in various parts of which potash mining operations are now in progress, or in which core tests indicate commercial potash reserves.

(2) The Potash - Oil Area, as outlined herein, may be revised by the Commission after due notice and hearing.

III.

DRILLING IN THE POTASH AREA

(1) All drilling of oil and gas wells in the POTASH AREA shall be subject to these rules and regulations.

(2) No wells will be drilled for oil or gas at a location, which in the opinion of the Commission or its duly authorized representative, would result in undue waste of potash deposits or constitute a hazard to or interfere unduly with potash deposits.

No mining operations will be conducted in the POTASH AREA that would, in the opinion of the Commission or its duly authorized representative, constitute a hazard to oil or gas production, or that would unreasonably interfere with the orderly development and production from any oil or gas pool.

(3) Upon discovery of oil or gas in the POTASH AREA, the Oil Conservation Commission shall promulgate pool rules for the affected area after due notice and hearing.

IV.

DRILLING AND CASING PROGRAM

(1) For the purpose of the regulations and the drilling of oil and gas exploratory test wells, shallow and deep zones are defined, as follows:

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(a) The 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) The 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) Surface Casing String:

(a) A surface casing string of new or used oil field casing in good condition shall be set in the "Red Bed" section of the basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section, as determined necessary by the regulatory representative approving the drilling operations and shall be cemented with not less than one hundred and fifty percent (150) percent of calculated volume necessary to circulate cement to the ground surface.

(b) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(c) Casing and water-shut-off tests shall be made both before and after drilling the plug and below the casing seat as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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.

(d) The above requirements for the surface casing string shall be applicable to both the shallow and deep zones.

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(3) Salt Protection String:

(a) A salt protection string of new or used oil field casing in good condition shall be set not less than one hundred (100) feet nor more than six hundred (600) feet below the base of the salt section; provided that such string shall not be set below the top of the highest known oil or gas zone.

(b) The salt protection string shall be cemented, as follows:

(i) For wells drilled to the shallow zone, the string may be cemented with a nominal volume of cement for testing purposes only. If the exploratory test well is completed as a productive well, the string shall be re-cemented with sufficient cement to fill the annular space back of the pipe from the top of the first cementing to the surface or to the bottom of the cellar, or may be cut and pulled if the production string is cemented to the surface as provided in sub-section IV (5), (a), (i) below.

(ii) For wells drilled to the deep zone, the string must be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar. However, where the base of the Delaware sand is definable the casing ruies in (IV) (3b) (i) shall apply even if the depth of the bottom of the Delaware Sand is greater than 5000'.

(c) If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or gamma ray survey and additional cementing shall be done until the cement is brought to the point required.

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(d) The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with suitable proportions but not less than 1% of calcium chloride by weight of cement.

(e) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(f) Casing tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of one thousand (1000) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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) The Commission, or its duly authorized representative, may require the use of centralizers on the salt protection string when in their judgment the use of such centralizers would offer further protection to the salt section.

(h) The above requirements for the salt protection string shall be applicable to both the shallow and deep zones except for sub-section IV (3), (b), (i) and (ii) above.

(4) Intermediate String:

(a) In the drilling of oil and gas exploratory test wells to the deep zone, the operator shall have the option of running an intermediate string of pipe,

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unless the Commission requires an intermediate string.

(b) Cementing procedures and casing tests for the intermediate string shall be the same as provided under sub-sections IV (3), (c), (e) and (f) for the salt protection string.

(5) Production String:

(a) A production string shall be set on top or through the oil or gas pay zone and shall be cemented as follows:

(i) For wells drilled to the shallow zone the production string shall be cemented to the surface if the salt protection string was cemented only with a nominal volume for testing purposes, in which case the salt protection string can be cut and pulled before the production string is cemented; provided, that if the salt protection string was cemented to the surface, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone.

(ii) For wells drilled to the deep zone, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided, that if no intermediate string shall have been run and cemented to the surface, the production string shall be cemented to the surface.

(b) Cementing procedures and casing tests for the production string shall be the same as provided under sub-section IV (3), (c), (e) and (f) for the salt

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protection string, however if high pressure oil or gas production is discovered in any area the Commission shall promulgate the necessary rules to prevent the charging of the salt section.

V.

DRILLING FLUID FOR SALT SECTION

The fluid used while drilling the salt section 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 fluid by the operator in overcoming any specific problem. This requirement is specifically intended to prevent enlarged drill holes.

VI.

PLUGGING AND ABANDONMENT OF WELLS

(a) All wells heretofore and hereafter drilled within the Potash Area shall be plugged in a manner and in accordance with field rules established by the Commission that will provide a solid cement plug through the salt section and any water bearing horizon and prevent liquids or gases from entering the hole above or below the salt section.

(b) The fluid used to mix the cement shall be saturated with the salts common to the salt section penetrated and with suitable proportions but not more than three (3) percent of calcium chloride by weight of cement being considered the desired mixture whenever possible

VII.

LOCATION FOR WELLS

Before commencing drilling operations for oil or gas on any lands within the POTASH AREA, the well operator shall prepare a map or plat showing the

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location of the proposed well, said map or plat to accompany each copy of the Notice of Intention to Drill. In addition to the number of copies required by the Commission, the well operator shall send one copy by registered mail to all potash operators holding potash leases within a radius of one mile of the proposed well, as reflected by the plats submitted under paragraph IX (b).

The well operator shall furnish proof of the fact that said potash operators were notified by registered mail of his intent by attaching return receipts to the copies of the Notice of Intention to Drill and plats furnished the Commission.

The Commission, or its authorized representative, may approve such Notice of Intention to Drill if no objection to the location of the proposed well is made by a potash operator within ten days after receipt. If the location of the proposed well is objected to by the potash operator, the matter shall be referred to the Secretary-Director of the Commission for arbitration. If a satisfactory settlement cannot be reached, the Secretary - Director of the Commission shall refer the matter to a hearing before the Commission after due notice and a decision either approving or denying the operator's plans to drill shall be entered by the Commission.

VIII.

INSPECTION OF DRILLING AND MINING OPERATIONS

A representative of the potash operator may be present during drilling, cementing, casing, and plugging of all oil or gas wells within 1320 feet of his lease to observe conformance with these regulations. Likewise, a representative of the oil and gas lessee may inspect mine workings on his lease to observe conformance with these regulations.

IX.

FILING OF WELL SURVEYS, MINE SURVEYS AND POTASH DEVELOPMENT PLANS

(a) Directional Surveys:

The Commission may require an operator to file a certified directional survey from the surface to a point below the lowest known potash

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bearing horizon on all wells drilled within the POTASH AREA. These surveys may be required where, in the Commission's judgment, the exact location of the wellbore must be determined in order to aid mining operations.

(b) Mine Surveys:

On or before January 31st of each year, each potash operator shall furnish two copies of a plat of a survey of the location of his leaseholdings and all of his open mine workings, which plat shall be available for public inspection.

(c) Potash Development Plan

Within 30 days after the adoption of this order and thereafter, on or before January 31st of each year, each potash operator shall furnish two copies of a ~~five-year~~ projection of development plans in the form of a plat, which plat shall be for the confidential use of the Commission and for inspection by any affected oil or gas operator. The projection shall cover not less than 3 nor more than a 5 year development program.

X.

APPLICABILITY OF STATEWIDE RULES AND REGULATIONS

All general statewide rules and regulations of the Oil Conservation Commission governing the development, operation, and production of oil and gas in the State of New Mexico not inconsistent or in conflict herewith, are hereby adopted and made applicable to the areas described herein.

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CASE 278

Final SUGGESTED REVISED ORDER NO. R-111 1955

I.

OBJECTIVE

The objective of these Rules and Regulations is to prevent waste, protect correlative rights, assure maximum conservation of the oil, gas and potash resources of New Mexico and permit the economic recovery of oil, gas and potash minerals in the area hereinafter defined.

II.

THE POTASH - OIL AREA

(1) The Potash - Oil Area, as outlined in Exhibit A attached hereto and made a part hereof, represents the area in various parts of which potash mining operations are now in progress, or in which core tests indicate potential potash reserves.

(2) The Potash - Oil Area, as outlined herein, may be revised by the Commission after due notice and hearing.

III.

DRILLING IN THE POTASH AREA

(1) All drilling of oil and gas wells in the POTASH AREA shall be subject to these rules and regulations.

(2) No wells will be drilled for oil or gas at a location, which in the opinion of the Commission or its duly authorized representative, would result in undue waste of potash deposits or constitute a hazard to or interfere unduly with potash deposits.

No mining operations will be conducted in the POTASH AREA that would constitute a hazard to oil or gas production, or that would unreasonably interfere with the orderly development and production from any oil or gas pool.

(3) Upon discovery of oil or gas in the POTASH AREA, the Oil Conservation Commission shall promulgate pool rules for the affected area after due notice and hearing.

IV.

DRILLING AND CASING PROGRAM

(1) For the purpose of the regulations and the drilling of oil and gas exploratory test wells, shallow and deep zones are defined, as follows:

(a) The 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.

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(b) The 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) Surface Casing String:

(a) A surface casing string of new or used oil field casing in good condition shall be set in the "Red Bed" section of the basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section, as determined necessary by the regulatory representative approving the drilling operations and shall be cemented with not less than one hundred and fifty percent (150) percent of calculated volume necessary to circulate cement to the ground surface.

(b) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(c) Casing and water-shut-off tests shall be made both before and after drilling the plug and below the casing seat as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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.

(d) The above requirements for the surface casing string shall be applicable to both the shallowand deep zones.

(3) Salt Protection String:

(a) A salt protection string of new or used oil field casing in good condition shall be set not less than one hundred (100) feet nor more than six hundred

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(600) feet below the base of the salt section.

(b) The salt protection string shall be cemented, as follows:

(i) For wells drilled to the shallow zone, the string may be cemented with a nominal volume of cement for testing purposes only. If the exploratory test well is completed as a productive well, the string shall be re-cemented with sufficient cement to fill the annular space back of the pipe from the top of the first cementing to the surface or to the bottom of the cellar, or may be cut and pulled if the production string is cemented to the surface as provided in sub-section IV (5), (a), (i) below.

(ii) For wells drilled to the deep zone, the string must be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(c) If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or gamma ray survey and additional cementing shall be done until the cement is brought to the point required.

(d) The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with three (3 percent) of calcium chloride by weight of cement.

(e) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(f) Casing tests shall be made both before and after drilling the plug and below the casing seat, as follows:

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(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of one thousand (1000) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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) The Commission, or its duly authorized representative,, may require the use of centralizers on the salt protection string when in their judgment the use of such centralizers would offer further protection to the salt section.

(h) The above requirements for the salt protection string shall be applicable to both the shallow and deep zones except for sub-section IV (3), (b), (i) and (ii) above.

(4) Intermediate String:

(a) In the drilling of oil and gas exploratory test wells to the deep zone, the operator shall have the option of running an intermediate string of pipe, unless the Commission requires an intermediate string.

(b) Cementing procedures and casing tests for the intermediate string shall be the same as provided under sub-sections IV (3), (c), (e) and (f) for the salt protection string.

(5) Production String:

(a) A production string shall be set on top or through the oil or gas pay zone and shall be cemented as follows:

(i) For wells drilled to the shallow zone the production string shall be cemented to the surface if the salt protection string was cemented only with a nominal volume for testing purposes, in which case the salt protection string can be cut and pulled before the production string is cemented; provided, that if the salt

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protection string was cemented to the surface, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone.

(ii) For wells drilled to the deep zone, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided, that if no intermediate string shall have been run and cemented to the surface, the production string shall be cemented to the surface.

(b) Cementing procedures and casing tests for the production string shall be the same as provided under sub-sections IV (3), (c), (e) and (f) for the salt protection string.

V.
DRILLING FLUID FOR SALT SECTION

The fluid used while drilling the salt section 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 fluid by the operator in overcoming any specific problem. This requirement is specifically intended to prevent enlarged drill holes.

VI.
PLUGGING AND ABANDONMENT OF WELLS

(a) All wells heretofore and hearafter drilled within the Potash Area shall be plugged in a manner that will provide a solid cement plug through the salt section and prevent liquids of gases from entering the hole above or below the salt section.

(b) The fluid used to mix the cement shall be saturated with the salts common to the salt section penetrated and with three (3) percent of calcium chloride by weight of cement.

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VII.

LOCATION FOR WELLS

Before commencing drilling operations for oil or gas on any lands within the POTASH AREA, the well operator shall prepare a map or plat showing the location of the proposed well, said map or plat to accompany each copy of the Notice of Intention to Drill. In addition to the number of copies required by the Commission, the well operator shall send one copy by registered mail to all potash lessees within 1320 feet of the proposed well.

The well operator shall furnish proof of the fact that said potash lessees were notified by registered mail of his intent by attaching return receipts to the copies of the Notice of Intention to Drill and plats furnished the Commission.

The Commission, or its authorized representative, may approve such Notice of Intention to Drill if no objection to the location of the proposed well is made by a potash lessee within ten days after receipt. If the location of the proposed well is objected to by the potash lessee, the matter shall be referred to the Secretary - Director of the Commission for arbitration. If a satisfactory settlement cannot be reached, the Secretary - Director of the Commission shall refer the matter to a hearing before the Commission after due notice and a decision either approving or denying the operator's plans to drill shall be entered by the Commission.

VIII.

INSPECTION OF DRILLING AND MINING OPERATONS

A representative of the potash lessee may be present during drilling, cementing, casing, and plugging of all oil or gas wells within 1320 feet of his lease to observe conformance with these regulations. Likewise, a representative of the oil and gas lessee may inspect mine workings on his lease to observe conformance with these regulations.

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IX.
FILING OF WELL SURVEYS, MINE SURVEYS AND POTASH DEVELOPMENT PLANS

(a) Directional Surveys:

The Commission may require an operator to file a certified directional survey fromthe surface to a point below the lowest known potash bearing horizon on all wells drilled within the POTASH AREA. These surveys may be required where, in the Commission's judgment, the exact location of the wellbore must be determined in order to aid mining operations.

(b) Mine Surveys:

On or before January 31st of each year, each potash lessee shall furnish two copies of a certified plat of a survey of the location of all of his open mine workings.

(c) Potash Development Plan

On or before January 31st of each year, each potash lessee shall furnish two copies of a five-year projection of development plans in the form of a plat, which plat shall be available for public inspection.

X.
APPLICABILITY OF STATEWIDE RULES AND REGULATIONS

All general statewide rules and regulations of the Oil Conservation Commission governing the development, operation, and production of oil and gas in the State of New Mexico not inconsistent or in conflict herewith, are hereby adopted and made applicable to the areas described herein.

EXHIBIT "A"

PROPOSED POTASH OIL AREA

TOWNSHIP 18 SOUTH, RANGE 30 EAST

Section 13:	SW/4
Section 14:	S/2, NW/4, W/2 NE/4
Section 15:	SE/4
Section 22:	E/2, E/2 W/2
Section 23:	All
Section 24:	NW/4
Section 26:	N/2
Section 27:	N/2 NE/4

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EXHIBIT "A" (continued)

TOWNSHIP 19 SOUTH, RANGE 29 EAST	
Section 11:	SE/4
Section 12:	S/2, S/2 NE/4
Section 13:	N/2, N/2 S/2, S/2 SW/4
Section 14:	E/2, E/2 W/2
Section 23:	N/2 NE/4

TOWNSHIP 19 SOUTH, RANGE 30 EAST	
Section 3:	S/2
Section 4:	S/2, NW/4, SW/4 NE/4
Section 5:	E/2, E/2 W/2, SW/4 SW/4
Section 7:	S/2, S/2 N/2, N/2 NE/4
Section 8:	All
Section 9:	All
Section 10:	All
Section 11:	SW/4, W/2 SE/4
Section 14:	W/2, W/2 SE/4
Section 15:	All
Section 16:	All
Section 17:	All
Section 18:	E/2, NW/4
Section 19:	NE/4
Section 20:	N/2, SE/4 SE/4
Section 21:	All
Section 22:	All
Section 23:	W/2
Section 26:	W/2, SE/4
Section 27:	All
Section 28:	All
Section 29:	E/2
Section 32:	SE/4, NE/4 NE/4
Section 33:	All
Section 34:	All
Section 35:	All
Section 36:	SW/4, S/2 NW/4, S/2 SE/4

TOWNSHIP 19 SOUTH, RANGE 31 EAST	
Section 36:	SE/4

TOWNSHIP 19 SOUTH, RANGE 32 EAST	
Section 31:	W/2 SW/4
Section 33:	SE/4, E/2 SW/4
Section 34:	S/2
Section 35:	S/2
Section 36:	SW/4, SE/4 SE/4

TOWNSHIP 19 SOUTH, RANGE 33 EAST	
Section 22:	SE/4 SE/4
Section 23:	SW/4
Section 25:	SW/4
Section 26:	All
Section 27:	E/2
Section 31:	S/2
Section 32:	SW/4
Section 34:	NE/4 NE/4
Section 35:	All
Section 36:	S/2, NW/4, W/2 NE/4

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EXHIBIT "A" (continued)

TOWNSHIP 19 SOUTH, RANGE 34 EAST	
Section 31:	SW/4 SW/4

TOWNSHIP 20 SOUTH, RANGE 29 EAST	
Section 13:	SW/4 SW/4
Section 14:	SE/4 SE/4
Section 22:	SE/4, S/2 NE/4
Section 23:	S/2, NE/4
Section 24:	W/2, W/2 SE/4
Section 25:	N/2, N/2 S/2
Section 26:	All
Section 27:	E/2
Section 34:	NE/4, N/2 SE/4
Section 35:	NW/4

TOWNSHIP 20 SOUTH, RANGE 30 EAST	
Section 1:	All
Section 2:	All
Section 3:	All
Section 4:	All
Section 5:	S/2, NE/4
Section 6:	S/2, S/2 NE/4
Section 7:	NW/4, E/2
Section 8:	All
Section 9:	All
Section 10:	All
Section 11:	All
Section 12:	All
Section 13:	All
Section 14:	All
Section 15:	All
Section 16:	All
Section 17:	All
Section 18:	E/2
Section 19:	E/2
Section 20:	All
Section 21:	All
Section 22:	All
Section 23:	All
Section 24:	All
Section 25:	All
Section 26:	All
Section 27:	All
Section 28:	All
Section 29:	All
Section 30:	All
Section 31:	E/2
Section 32:	All
Section 33:	All
Section 34:	All
Section 35:	All
Section 36:	All

TOWNSHIP 20 SOUTH, RANGE 31 EAST	
Section 1:	E/2, E/2 W/2
Section 6:	SW/4, S/2 NW/4, W/2 SE/4
Section 7:	W/2, SE/4, W/2 NE/4

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EXHIBIT "A" (continued)

TOWNSHIP 20 SOUTH, RANGE 31 EAST (continued)

Section 8:	S/2, S/2 N/2
Section 9:	SW/4, S/2 NW/4
Section 11:	SE/4, E/2 SW/4
Section 12:	All
Section 13:	All
Section 14:	E/2, SW/4, E/2 NW/4
Section 16:	W/2
Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	All
Section 21:	NW/4, S/2
Section 22:	S/2, S/2 NE/4
Section 23:	All
Section 24:	All
Section 25:	All
Section 26:	All
Section 27:	All
Section 28:	All
Section 29:	All
Section 30:	All
Section 31:	All
Section 32:	All
Section 33:	All
Section 34:	All
Section 35:	All
Section 36:	All

TOWNSHIP 20 SOUTH, RANGE 32 EAST

Section 1:	All
Section 2:	All
Section 3:	All
Section 4:	E/2, SW/4, E/2 NW/4
Section 5:	S/2 SE/4
Section 6:	W/2, SW/4 SE/4
Section 7:	All
Section 8:	All
Section 9:	All
Section 10:	All
Section 11:	All
Section 12:	All
Section 13:	All
Section 14:	All
Section 15:	All
Section 16:	All
Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	All
Section 21:	All
Section 22:	All
Section 23:	All

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EXHIBIT "A" (continued)

TOWNSHIP 20 SOUTH, RANGE 32 EAST (continued)

Section 24:	All
Section 25:	All
Section 26:	All
Section 27:	All
Section 28:	All
Section 29:	All
Section 30:	All
Section 31:	All
Section 32:	All
Section 33:	All
Section 34:	All
Section 35:	All
Section 36:	All

TOWNSHIP 20 SOUTH, RANGE 33 EAST

Section 1:	All
Section 2:	E/2, E/2 W/2
Section 5:	W/2
Section 6:	All
Section 7:	All
Section 8:	W/2, SW/4 NE/4, SE/4
Section 9:	S/2 S/2, NW/4 SW/4
Section 10:	S/2
Section 11:	E/2, E/2 NW/4, SW/4
Section 12:	All
Section 13:	All
Section 14:	All
Section 15:	All
Section 16:	All
Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	All
Section 21:	W/2 SW/4, NW/4, N/2 NE/4
Section 22:	N/2 N/2
Section 23:	N/2 N/2, SE/4 NE/4
Section 24:	N/2, N/2 SE/4, SE/4 SE/4
Section 29:	W/2, NE/4, N/2 SE/4, SW/4 SE/4
Section 30:	All
Section 31:	N/2, W/2 SW/4

TOWNSHIP 20 SOUTH, RANGE 34 EAST

Section 6:	W/2, W/2 SE/4
Section 7:	All
Section 8:	SW/4
Section 16:	SW/4, SW/4 NW/4, SW/4 SE/4
Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	All
Section 21:	All
Section 22:	SW/4
Section 27:	W/2
Section 28:	All

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EXHIBIT "A" (continued)

TOWNSHIP 20 SOUTH, RANGE 34 EAST (continued)

Section 29:	N/2, SE/4, NE/4 SW/4
Section 30:	NE/4 NW/4, N/2 NE/4, SE/4 NE/4
Section 32:	N/2 NE/4, SE/4 NE/4
Section 33:	N/2, SE/4, N/2 SW/4, SE/4 SW/4
Section 34:	W/2

TOWNSHIP 21 SOUTH, RANGE 29 EAST

Section 1:	All
Section 2:	Lots 1 - 16, incl., SE/4, NE/4 SW/4
Section 3:	Lots 1 - 9, incl.
Section 4:	Lots 1 - 8, incl., Lots 10 and 11
Section 11:	E/2, E/2 SW/4
Section 12:	All
Section 13:	All
Section 14:	E/2, E/2 W/2, SW/4 NW/4, NW/4 SW/4
Section 15:	SE/4 NE/4, NE/4 SE/4
Section 23:	N/2 NE/4
Section 24:	NE/4, NE/4 SE/4, N/2 NW/4, SE/4 NW/4
Section 35:	S/2 NE/4, SE/4, E/2 SW/4
Section 36:	S/2 SW/4, SE/4, S/2 NE/4, NE/4 NE/4

TOWNSHIP 21 SOUTH, RANGE 30 EAST

Section 1:	All
Section 2:	All
Section 3:	All
Section 4:	All
Section 5:	All
Section 6:	All
Section 7:	All
Section 8:	All
Section 9:	N/2, SW/4
Section 10:	N/2, SE/4, N/2 SW/4, SE/4 SW/4
Section 11:	All
Section 12:	All
Section 13:	All
Section 14:	All
Section 15:	NE/4, NE/4 NW/4, N/2 SE/4, SE/4 SE/4
Section 16:	NW/4 NW/4
Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	NW/4, N/2 NE/4
Section 22:	E/2 E/2
Section 23:	All
Section 24:	All
Section 25:	N/2, SE/4, N/2 SW/4, SE/4 SW/4
Section 26:	N/2, N/2 S/2
Section 27:	NE/4, N/2 SE/4, SE/4 SE/4
Section 29:	NW/4, N/2 SW/4
Section 30:	E/2, E/2 W/2
Section 31:	All
Section 32:	S/2, NW/4, NW/4 NE/4, S/2 NE/4
Section 36:	E/2

W.N.M.C.E. MICROGRAPHICS

EXHIBIT "A" (continued)

TOWNSHIP 21 SOUTH, RANGE 31 EAST

Section 1:	All
Section 2:	All
Section 3:	All
Section 4:	All
Section 5:	All
Section 6:	All
Section 7:	All
Section 8:	All
Section 9:	All
Section 10:	W/2
Section 12:	N/2, SE/4, N/2 SW/4, SE/4 SW/4
Section 13:	N/2 NE/4
Section 15:	W/2
Section 16:	E/2, NW/4, E/2 SW/4
Section 18:	NW/4, W/2 NE/4, NE/4 NE/4, W/2 SW/4, NE/4 SW/4
Section 21:	E/2, NE/4 NW/4
Section 22:	W/2
Section 27:	W/2, SW/4 NE/4, W/2 SE/4
Section 28:	E/2
Section 30:	SW/4, W/2 NW/4, SE/4 NW/4
Section 31:	W/2
Section 33:	NE/4 NE/4
Section 34:	NW/4, NW/4 NE/4

TOWNSHIP 21 SOUTH, RANGE 32 EAST

Section 6:	Lots 1 - 7 incl., Lots 10 - 15, incl., SW/4
Section 7:	W/2
Section 22:	E/2
Section 23:	All
Section 24:	All

TOWNSHIP 21 SOUTH, RANGE 33 EAST

Section 3:	Lots 1, 2, 3
Section 17:	S/2 S/2
Section 18:	SE/4 SE/4
Section 19:	All
Section 20:	All
Section 21:	W/2, SE/4, S/2 NE/4
Section 22:	S/2, S/2 N/2
Section 23:	S/2, S/2 N/2, NE/4 NE/4
Section 24:	All
Section 25:	NW/4, N/2 NE/4, SW/4 NE/4, N/2 SW/4
Section 26:	W/2, NE/4, N/2 SE/4, SW/4 SE/4
Section 27:	All
Section 28:	All
Section 29:	N/2, SE/4, NE/4 SW/4
Section 30:	N/2 NE/4, SE/4 NE/4
Section 33:	N/2 N/2
Section 34:	N/2 N/2

W.N.M.C.F. MICROGRAPHICS

EXHIBIT "A" (continued)

TOWNSHIP 21 SOUTH, RANGE 34 EAST	
Section 19:	W/2
TOWNSHIP 22 SOUTH, RANGE 29 EAST	
Section 1:	All
Section 2:	E/2, E/2 NW/4, SW/4
Section 3:	S/2 SE/4, NE/4 SE/4
Section 10:	E/2, E/2 W/2, SW/4 SW/4
Section 11:	All
Section 12:	All
Section 13:	All
Section 14:	All
Section 15:	All
Section 16:	SE/4, SE/4 NE/4, SE/4 SW/4
Section 20:	E/2 E/2
Section 21:	All
Section 22:	All
Section 23:	All
Section 24:	All
Section 25:	All
Section 26:	All
Section 27:	All
Section 28:	NE/4, N/2 NW/4, SE/4 NW/4, SE/4
Section 33:	NE/4 NE/4
Section 34:	NW/4, W/2 E/2, N/2 SW/4, SE/4 SW/4
Section 35:	E/2, SW/4, SE/4 NW/4
Section 36:	All
TOWNSHIP 22 SOUTH, RANGE 30 EAST	
Section 1:	E/2
Section 5:	N/2, N/2 S/2, SW/4 SW/4
Section 6:	All
Section 7:	W/2, W/2 E/2, SE/4 SE/4
Section 8:	S/2 SW/4
Section 12:	NE/4 NE/4
Section 13:	NW/4, N/2 SW/4, SW/4 SW/4
Section 14:	SE/4, S/2 NE/4, E/2 SW/4, SW/4 SW/4
Section 17:	NW/4
Section 18	All
Section 19:	All
Section 20:	All
Section 21:	S/2, SW/4 NW/4
Section 22:	S/2, S/2 N/2, NE/4 NE/4
Section 23:	W/2, W/2 NE/4, NE/4 NE/4
Section 26:	W/2 W/2
Section 27:	All
Section 28:	All
Section 29:	All
Section 30:	All
Section 31:	All
Section 32:	All
Section 33:	All
Section 34:	All
Section 35:	W/2

W.N.M.C.E. MICROGRAPHICS

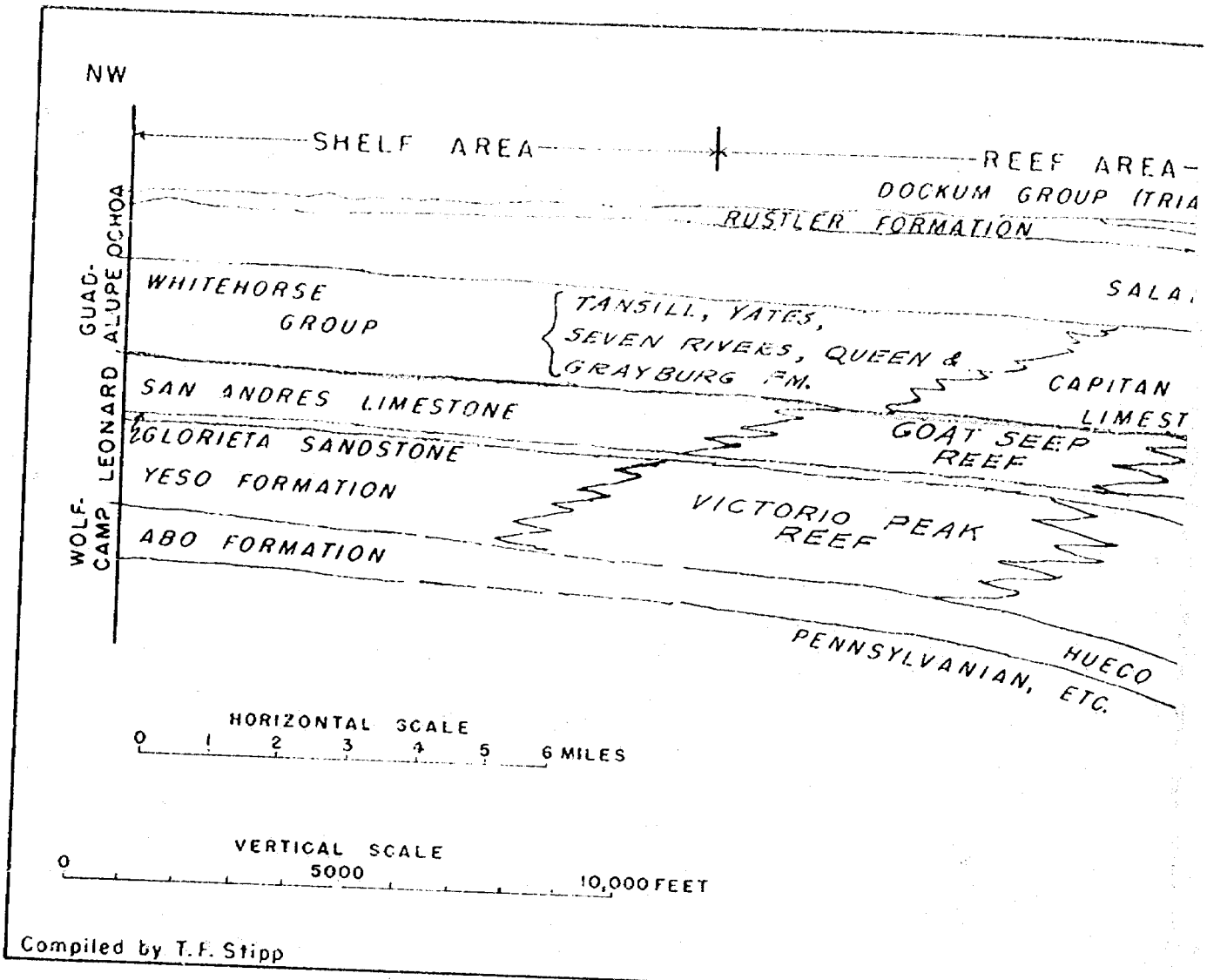
Suggested Revised Order No. R-111

EXHIBIT "A" (continued)

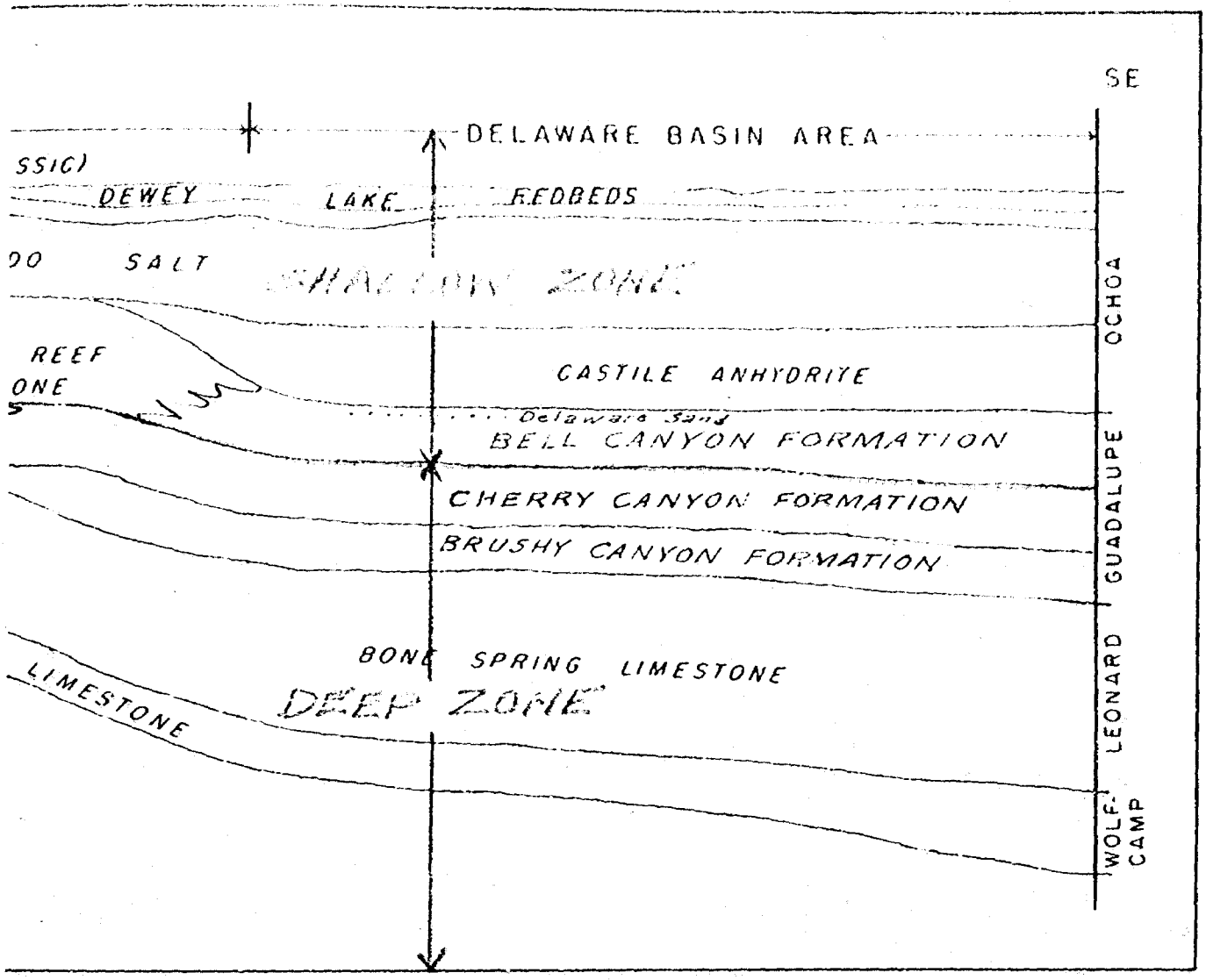
TOWNSHIP 22 SOUTH, RANGE 31 EAST	
Section 6:	W/2, W/2 NE/4, NW/4 SE/4
Section 7:	N/2 NW/4
TOWNSHIP 23 SOUTH, RANGE 29 EAST	
Section 1:	All
Section 2:	E/2, NW/4, NE/4 SW/4
Section 11:	NE/4 NE/4
Section 12:	N/2 N/2
TOWNSHIP 23 SOUTH, RANGE 30 EAST	
Section 2:	NW/4
Section 3:	All
Section 4:	All
Section 5:	All
Section 6:	All
Section 7:	NE/4, N/2 NW/4, SE/4 NW/4
Section 8:	N/2 N/2, S/2 NE/4
Section 9:	N/2, NE/4 SW/4, N/2 SE/4
Section 10:	N/2, SW/4

August 16, 1955
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W.N.M.C.F. MICROGRAPHICS



SECTION ACROSS CAPITAN REEF IN CENTRAL
OF FACIES IN F



EDDY COUNTY, NEW MEXICO SHOWING CHANGE
'ERMIAN STRATA

CASE 278

SUGGESTED REVISED ORDER NO. R-111

I.

OBJECTIVE

The objective of these Rules and Regulations is to prevent waste, protect correlative rights, assure maximum conservation of the oil, gas and potash resources of New Mexico and permit the economic recovery of oil, gas and potash minerals in the area hereinafter defined.

II.

THE POTASH - OIL AREA

(1) The Potash - Oil Area, as outlined in Exhibit A attached hereto and made a part hereof, represents the area in various parts of which potash mining operations are now in progress, or in which core tests indicate potential potash reserves.

(2) The Potash - Oil Area, as outlined herein, may be revised by the Commission after due notice and hearing.

III.

DRILLING IN THE POTASH AREA

(1) All drilling of oil and gas wells in the POTASH AREA shall be subject to these rules and regulations.

(2) No wells will be drilled for oil or gas at a location, which in the opinion of the Commission or its duly authorized representative, would result in undue waste of potash deposits or constitute a hazard to or interfere unduly with potash deposits.

No mining operations will be conducted in the POTASH AREA that would constitute a hazard to oil or gas production, or that would unreasonably interfere with the orderly development and production from any oil or gas pool.

(3) Upon discovery of oil or gas in the POTASH AREA, the Oil Conservation Commission shall promulgate pool rules for the affected area after due notice and hearing.

IV.

DRILLING AND CASING PROGRAM

(1) For the purpose of the regulations and the drilling of oil and gas exploratory test wells, shallow and deep zones are defined, as follows:

(a) The 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.

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(b) The 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) Surface Casing String:

(a) A surface casing string of new or used oil field casing in good condition shall be set in the "Red Bed" section of the basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section, as determined necessary by the regulatory representative approving the drilling operations and shall be cemented with not less than one hundred and fifty percent (150) percent of calculated volume necessary to circulate cement to the ground surface.

(b) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(c) Casing and water-shut-off tests shall be made both before and after drilling the plug and below the casing seat as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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.

(d) The above requirements for the surface casing string shall be applicable to both the shallowand deep zones.

(3) Salt Protection String:

(a) A salt protection string of new or used oil field casing in good condition shall be set not less than one hundred (100) feet nor more than six hundred

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(600) feet below the base of the salt section.

(b) The salt protection string shall be cemented, as follows:

(i) For wells drilled to the shallow zone, the string may be cemented with a nominal volume of cement for testing purposes only. If the exploratory test well is completed as a productive well, the string shall be re-cemented with sufficient cement to fill the annular space back of the pipe from the top of the first cementing to the surface or to the bottom of the cellar, or may be cut and pulled if the production string is cemented to the surface as provided in sub-section IV (5), (a), (i) below.

(ii) For wells drilled to the deep zone, the string must be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(c) If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or gamma ray survey and additional cementing shall be done until the cement is brought to the point required.

(d) The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with three (3 percent) of calcium chloride by weight of cement.

(e) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(f) Casing tests shall be made both before and after drilling the plug and below the casing seat, as follows:

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(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of one thousand (1000) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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) The Commission, or its duly authorized representative,, may require the use of centralizers on the salt protection string when in their judgment the use of such centralizers would offer further protection to the salt section.

(h) The above requirements for the salt protection string shall be applicable to both the shallow and deep zones except for sub-section IV (3), (b), (i) and (ii) above.

(4) Intermediate String:

(a) In the drilling of oil and gas exploratory test wells to the deep zone, the operator shall have the option of running an intermediate string of pipe, unless the Commission requires an intermediate string.

(b) Cementing procedures and casing tests for the intermediate string shall be the same as provided under sub-sections IV (3), (c), (e) and (f) for the salt protection string.

(5) Production String:

(a) A production string shall be set on top or through the oil or gas pay zone and shall be cemented as follows:

(i) For wells drilled to the shallow zone the production string shall be cemented to the surface if the salt protection string was cemented only with a nominal volume for testing purposes, in which case the salt protection string can be cut and pulled before the production string is cemented; provided, that if the salt

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protection string was cemented to the surface, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone.

(ii) For wells drilled to the deep zone, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided, that if no intermediate string shall have been run and cemented to the surface, the production string shall be cemented to the surface.

(b) Cementing procedures and casing tests for the production string shall be the same as provided under sub-sections IV (3), (c), (e) and (f) for the salt protection string.

V.
DRILLING FLUID FOR SALT SECTION

The fluid used while drilling the salt section 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 fluid by the operator in overcoming any specific problem. This requirement is specifically intended to prevent enlarged drill holes.

VI.
PLUGGING AND ABANDONMENT OF WELLS

(a) All wells heretofore and hearafter drilled within the Potash Area shall be plugged in a manner that will provide a solid cement plug through the salt section and prevent liquids of gases from entering the hole above or below the salt section.

(b) The fluid used to mix the cement shall be saturated with the salts common to the salt section penetrated and with three (3) percent of calcium chloride by weight of cement.

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VII.

LOCATION FOR WELLS

Before commencing drilling operations for oil or gas on any lands within the POTASH AREA, the well operator shall prepare a map or plat showing the location of the proposed well, said map or plat to accompany each copy of the Notice of Intention to Drill. In addition to the number of copies required by the Commission, the well operator shall send one copy by registered mail to all potash lessees within 1320 feet of the proposed well.

The well operator shall furnish proof of the fact that said potash lessees were notified by registered mail of his intent by attaching return receipts to the copies of the Notice of Intention to Drill and plats furnished the Commission.

The Commission, or its authorized representative, may approve such Notice of Intention to Drill if no objection to the location of the proposed well is made by a potash lessee within ten days after receipt. If the location of the proposed well is objected to by the potash lessee, the matter shall be referred to the Secretary - Director of the Commission for arbitration. If a satisfactory settlement cannot be reached, the Secretary - Director of the Commission shall refer the matter to a hearing before the Commission after due notice and a decision either approving or denying the operator's plans to drill shall be entered by the Commission.

VIII.

INSPECTION OF DRILLING AND MINING OPERATONS

A representative of the potash lessee may be present during drilling, cementing, casing, and plugging of all oil or gas wells within 1320 feet of his lease to observe conformance with these regulations. Likewise, a representative of the oil and gas lessee may inspect mine workings on his lease to observe conformance with these regulations.

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IX.
FILING OF WELL SURVEYS, MINE SURVEYS AND POTASH DEVELOPMENT PLANS

(a) Directional Surveys:

The Commission may require an operator to file a certified directional survey fromthe surface to a point below the lowest known potash bearing horizon on all wells drilled within the POTASH AREA. These surveys may be required where, in the Commission's judgment, the exact location of the wellbore must be determined in order to aid mining operations.

(b) Mine Surveys:

On or before January 31st of each year, each potash lessee shall furnish two copies of a certified plat of a survey of the location of all of his open mine workings.

(c) Potash Development Plan

On or before January 31st of each year, each potash lessee shall furnish two copies of a five-year projection of development plans in the form of a plat, which plat shall be available for public inspection.

X.
APPLICABILITY OF STATEWIDE RULES AND REGULATIONS

All general statewide rules and regulations of the Oil Conservation Commission governing the development, operation, and production of oil and gas in the State of New Mexico not inconsistent or in conflict herewith, are hereby adopted and made applicable to the areas described herein.

EXHIBIT "A"

PROPOSED POTASH OIL AREA

TOWNSHIP 18 SOUTH, RANGE 30 EAST	
Section 13:	SW/4
Section 14:	S/2, NW/4, W/2 NE/4
Section 15:	SE/4
Section 22:	E/2, E/2 W/2
Section 23:	All
Section 24:	NW/4
Section 26:	N/2
Section 27:	N/2 NE/4

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EXHIBIT "A" (continued)

TOWNSHIP 19 SOUTH, RANGE 29 EAST

Section 11:	SE/4
Section 12:	S/2, S/2 NE/4
Section 13:	N/2, N/2 S/2, S/2 SW/4
Section 14:	E/2, E/2 W/2
Section 23:	N/2 NE/4

TOWNSHIP 19 SOUTH, RANGE 30 EAST

Section 3:	S/2
Section 4:	S/2, NW/4, SW/4 NE/4
Section 5:	E/2, E/2 W/2, SW/4 SW/4
Section 7:	S/2, S/2 N/2, N/2 NE/4
Section 8:	All
Section 9:	All
Section 10:	All
Section 11:	SW/4, W/2 SE/4
Section 14:	W/2, W/2 SE/4
Section 15:	All
Section 16:	All
Section 17:	All
Section 18:	E/2, NW/4
Section 19:	NE/4
Section 20:	N/2, SE/4 SE/4
Section 21:	All
Section 22:	All
Section 23:	W/2
Section 26:	W/2, SE/4
Section 27:	All
Section 28:	All
Section 29:	E/2
Section 32:	SE/4, NE/4 NE/4
Section 33:	All
Section 34:	All
Section 35:	All
Section 36:	SW/4, S/2 NW/4, S/2 SE/4

TOWNSHIP 19 SOUTH, RANGE 31 EAST

Section 36:	SE/4

TOWNSHIP 19 SOUTH, RANGE 32 EAST

Section 31:	W/2 SW/4
Section 33:	SE/4, E/2 SW/4
Section 34:	S/2
Section 35:	S/2
Section 36:	SW/4, SE/4 SE/4

TOWNSHIP 19 SOUTH, RANGE 33 EAST

Section 22:	SE/4 SE/4
Section 23:	SW/4
Section 25:	SW/4
Section 26:	All
Section 27:	E/2
Section 31:	S/2
Section 32:	SW/4
Section 34:	NE/4 NE/4
Section 35:	All
Section 36:	S/2, NW/4, W/2 NE/4

W.N.M.C.F. MICROGRAPHICS

EXHIBIT "A" (continued)

TOWNSHIP 19 SOUTH, RANGE 34 EAST	
Section 31:	SW/4 SW/4

TOWNSHIP 20 SOUTH, RANGE 29 EAST	
Section 13:	SW/4 SW/4
Section 14:	SE/4 SE/4
Section 22:	SE/4, S/2 NE/4
Section 23:	S/2, NE/4
Section 24:	W/2, W/2 SE/4
Section 25:	N/2, N/2 S/2
Section 26:	All
Section 27:	E/2
Section 34:	NE/4, N/2 SE/4
Section 35:	NW/4

TOWNSHIP 20 SOUTH, RANGE 30 EAST	
Section 1:	All
Section 2:	All
Section 3:	All
Section 4:	All
Section 5:	S/2, NE/4
Section 6:	S/2, S/2 NE/4
Section 7:	NW/4, E/2
Section 8:	All
Section 9:	All
Section 10:	All
Section 11:	All
Section 12:	All
Section 13:	All
Section 14:	All
Section 15:	All
Section 16:	All
Section 17:	All
Section 18:	E/2
Section 19:	E/2
Section 20:	All
Section 21:	All
Section 22:	All
Section 23:	All
Section 24:	All
Section 25:	All
Section 26:	All
Section 27:	All
Section 28:	All
Section 29:	All
Section 30:	All
Section 31:	E/2
Section 32:	All
Section 33:	All
Section 34:	All
Section 35:	All
Section 36:	All

TOWNSHIP 20 SOUTH, RANGE 31 EAST	
Section 1:	E/2, E/2 W/2
Section 6:	SW/4, S/2 NW/4, W/2 SE/4
Section 7:	W/2, SE/4, W/2 NE/4

W.N.M.C.F. MICROGRAPHICS



EXHIBIT "A" (continued)

TOWNSHIP 20 SOUTH, RANGE 31 EAST (continued)

Section 8:	S/2, S/2 N/2
Section 9:	SW/4, S/2 NW/4
Section 11:	SE/4, E/2 SW/4
Section 12:	All
Section 13:	All
Section 14:	E/2, SW/4, E/2 NW/4
Section 16:	W/2
Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	All
Section 21:	NW/4, S/2
Section 22:	S/2, S/2 NE/4
Section 23:	All
Section 24:	All
Section 25:	All
Section 26:	All
Section 27:	All
Section 28:	All
Section 29:	All
Section 30:	All
Section 31:	All
Section 32:	All
Section 33:	All
Section 34:	All
Section 35:	All
Section 36:	All

TOWNSHIP 20 SOUTH, RANGE 32 EAST

Section 1:	All
Section 2:	All
Section 3:	All
Section 4:	E/2, SW/4, E/2 NW/4
Section 5:	S/2 SE/4
Section 6:	W/2, SW/4 SE/4
Section 7:	All
Section 8:	All
Section 9:	All
Section 10:	All
Section 11:	All
Section 12:	All
Section 13:	All
Section 14:	All
Section 15:	All
Section 16:	All
Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	All
Section 21:	All
Section 22:	All
Section 23:	All

W.N.M.C.F. MICROGRAPHICS

EXHIBIT "A" (continued)

TOWNSHIP 20 SOUTH, RANGE 32 EAST (continued)

Section 24:	All
Section 25:	All
Section 26:	All
Section 27:	All
Section 28:	All
Section 29:	All
Section 30:	All
Section 31:	All
Section 32:	All
Section 33:	All
Section 34:	All
Section 35:	All
Section 36:	All

TOWNSHIP 20 SOUTH, RANGE 33 EAST

Section 1:	All
Section 2:	E/2, E/2 W/2
Section 5:	W/2
Section 6:	All
Section 7:	All
Section 8:	W/2, SW/4 NE/4, SE/4
Section 9:	S/2 S/2, NW/4 SW/4
Section 10:	S/2
Section 11:	E/2, E/2 NW/4, SW/4
Section 12:	All
Section 13:	All
Section 14:	All
Section 15:	All
Section 16:	All
Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	All
Section 21:	W/2 SW/4, NW/4, N/2 NE/4
Section 22:	N/2 N/2
Section 23:	N/2 N/2, SE/4 NE/4
Section 24:	N/2, N/2 SE/4, SE/4 SE/4
Section 29:	W/2, NE/4, N/2 SE/4, SW/4 SE/4
Section 30:	All
Section 31:	N/2, W/2 SW/4

TOWNSHIP 20 SOUTH, RANGE 34 EAST

Section 6:	W/2, W/2 SE/4
Section 7:	All
Section 8:	SW/4
Section 16:	SW/4, SW/4 NW/4, SW/4 SE/4
Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	All
Section 21:	All
Section 22:	SW/4
Section 27:	W/2
Section 28:	All

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EXHIBIT "A" (continued)

TOWNSHIP 20 SOUTH, RANGE 34 EAST (continued)

Section 29:	N/2, SE/4, NE/4 SW/4
Section 30:	NE/4 NW/4, N/2 NE/4, SE/4 NE/4
Section 32:	N/2 NE/4, SE/4 NE/4
Section 33:	N/2, SE/4, N/2 SW/4, SE/4 SW/4
Section 34:	W/2

TOWNSHIP 21 SOUTH, RANGE 29 EAST

Section 1:	All
Section 2:	Lots 1 - 16, incl., SE/4, NE/4 SW/4
Section 3:	Lots 1 - 9, incl.
Section 4:	Lots 1 - 8, incl., Lots 10 and 11
Section 11:	E/2, E/2 SW/4
Section 12:	All
Section 13:	All
Section 14:	E/2, E/2 W/2, SW/4 NW/4, NW/4 SW/4
Section 15:	SE/4 NE/4, NE/4 SE/4
Section 23:	N/2 NE/4
Section 24:	NE/4, NE/4 SE/4, N/2 NW/4, SE/4 NW/4
Section 35:	S/2 NE/4, SE/4, E/2 SW/4
Section 36:	S/2 SW/4, SE/4, S/2 NE/4, NE/4 NE/4

TOWNSHIP 21 SOUTH, RANGE 30 EAST

Section 1:	All
Section 2:	All
Section 3:	All
Section 4:	All
Section 5:	All
Section 6:	All
Section 7:	All
Section 8:	All
Section 9:	N/2, SW/4
Section 10:	N/2, SE/4, N/2 SW/4, SE/4 SW/4
Section 11:	All
Section 12:	All
Section 13:	All
Section 14:	All
Section 15:	NE/4, NE/4 NW/4, N/2 SE/4, SE/4 SE/4
Section 16:	NW/4 NW/4
Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	NW/4, N/2 NE/4
Section 22:	E/2 E/2
Section 23:	All
Section 24:	All
Section 25:	N/2, SE/4, N/2 SW/4, SE/4 SW/4
Section 26:	N/2, N/2 S/2
Section 27:	NE/4, N/2 SE/4, SE/4 SE/4
Section 29:	NW/4, N/2 SW/4
Section 30:	E/2, E/2 W/2
Section 31:	All
Section 32:	S/2, NW/4, NW/4 NE/4, S/2 NE/4
Section 36:	E/2

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EXHIBIT "A" (continued)

TOWNSHIP 21 SOUTH, RANGE 31 EAST

Section 1:	All
Section 2:	All
Section 3:	All
Section 4:	All
Section 5:	All
Section 6:	All
Section 7:	All
Section 8:	All
Section 9:	All
Section 10:	W/2
Section 12:	N/2, SE/4, N/2 SW/4, SE/4 SW/4
Section 13:	N/2 NE/4
Section 15:	W/2
Section 16:	E/2, NW/4, E/2 SW/4
Section 18:	NW/4, W/2 NE/4, NE/4 NE/4, W/2 SW/4, NE/4 SW/4
Section 21:	E/2, NE/4 NW/4
Section 22:	W/2
Section 27:	W/2, SW/4 NE/4, W/2 SE/4
Section 28:	E/2
Section 30:	SW/4, W/2 NW/4, SE/4 NW/4
Section 31:	W/2
Section 33:	NE/4 NE/4
Section 34:	NW/4, NW/4 NE/4

TOWNSHIP 21 SOUTH, RANGE 32 EAST

Section 6:	Lots 1 - 7 incl., Lots 10 - 15, incl., SW/4
Section 7:	W/2
Section 22:	E/2
Section 23:	All
Section 24:	All

TOWNSHIP 21 SOUTH, RANGE 33 EAST

Section 3:	Lots 1, 2, 3
Section 17:	S/2 S/2
Section 18:	SE/4 SE/4
Section 19:	All
Section 20:	All
Section 21:	W/2, SE/4, S/2 NE/4
Section 22:	S/2, S/2 N/2
Section 23:	S/2, S/2 N/2, NE/4 NE/4
Section 24:	All
Section 25:	NW/4, N/2 NE/4, SW/4 NE/4, N/2 SW/4
Section 26:	W/2, NE/4, N/2 SE/4, SW/4 SE/4
Section 27:	All
Section 28:	All
Section 29:	N/2, SE/4, NE/4 SW/4
Section 30:	N/2 NE/4, SE/4 NE/4
Section 33:	N/2 N/2
Section 34:	N/2 N/2

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EXHIBIT "A" (continued)

TOWNSHIP 21 SOUTH, RANGE 34 EAST

Section 19:	W/2

TOWNSHIP 22 SOUTH, RANGE 29 EAST

Section 1:	All
Section 2:	E/2, E/2 NW/4, SW/4
Section 3:	S/2 SE/4, NE/4 SE/4
Section 10:	E/2, E/2 W/2, SW/4 SW/4
Section 11:	All
Section 12:	All
Section 13:	All
Section 14:	All
Section 15:	All
Section 16:	SE/4, SE/4 NE/4, SE/4 SW/4
Section 20:	E/2 E/2
Section 21:	All
Section 22:	All
Section 23:	All
Section 24:	All
Section 25:	All
Section 26:	All
Section 27:	All
Section 28:	NE/4, N/2 NW/4, SE/4 NW/4, SE/4
Section 33:	NE/4 NE/4
Section 34:	NW/4, W/2 E/2, N/2 SW/4, SE/4 SW/4
Section 35:	E/2, SW/4, SE/4 NW/4
Section 36:	All

TOWNSHIP 22 SOUTH, RANGE 30 EAST

Section 1:	E/2
Section 5:	N/2, N/2 S/2, SW/4 SW/4
Section 6:	All
Section 7:	W/2, W/2 E/2, SE/4 SE/4
Section 8:	S/2 SW/4
Section 12:	NE/4 NE/4
Section 13:	NW/4, N/2 SW/4, SW/4 SW/4
Section 14:	SE/4, S/2 NE/4, E/2 SW/4, SW/4 SW/4
Section 17:	NW/4
Section 18	All
Section 19:	All
Section 20:	All
Section 21:	S/2, SW/4 NW/4
Section 22:	S/2, S/2 N/2, NE/4 NE/4
Section 23:	W/2, W/2 NE/4, NE/4 NE/4
Section 26:	W/2 W/2
Section 27:	All
Section 28:	All
Section 29:	All
Section 30:	All
Section 31:	All
Section 32:	All
Section 33:	All
Section 34:	All
Section 35:	W/2

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EXHIBIT "A" (continued)

TOWNSHIP 22 SOUTH, RANGE 31 EAST	
Section 6:	W/2, W/2 NE/4, NW/4 SE/4
Section 7:	N/2 NW/4

TOWNSHIP 23 SOUTH, RANGE 29 EAST	
Section 1:	All
Section 2:	E/2, NW/4, NE/4 SW/4
Section 11:	NE/4 NE/4
Section 12:	N/2 N/2

TOWNSHIP 23 SOUTH, RANGE 30 EAST	
Section 2:	NW/4
Section 3:	All
Section 4:	All
Section 5:	All
Section 6:	All
Section 7:	NE/4, N/2 NW/4, SE/4 NW/4
Section 8:	N/2 N/2, S/2 NE/4
Section 9:	N/2, NE/4 SW/4, N/2 SE/4
Section 10:	N/2, SW/4

August 16, 1955
/ir

W.N.M.C.E. MICROGRAPHICS

SUGGESTED REVISED ORDER NO. R-111

I.

OBJECTIVE

The objective of these Rules and Regulations is to prevent waste, protect correlative rights, assure maximum conservation of the oil, gas and potash resources of New Mexico and permit the economic recovery of oil, gas and potash minerals in the area hereinafter defined.

II.

THE POTASH - OIL AREA

(1) The Potash - Oil Area, as outlined in Exhibit A attached hereto and made a part hereof, represents the area in various parts of which potash mining operations are now in progress, or in which core tests indicate commercial potash reserves.

(2) The Potash - Oil Area, as outlined herein, may be revised by the Commission after due notice and hearing.

III.

DRILLING IN THE POTASH AREA

(1) All drilling of oil and gas wells in the POTASH AREA shall be subject to these rules and regulations.

(2) No wells will be drilled for oil or gas at a location, which in the opinion of the Commission or its duly authorized representative, would result in undue waste of potash deposits or constitute a hazard to or interfere unduly with potash deposits.

No mining operations will be conducted in the POTASH AREA that would, in the opinion of the Commission or its duly authorized representative, constitute a hazard to oil or gas production, or that would unreasonably interfere with the orderly development and production from any oil or gas pool.

(3) Upon discovery of oil or gas in the POTASH AREA, the Oil Conservation Commission shall promulgate pool rules for the affected area after due notice and hearing.

IV.

DRILLING AND CASING PROGRAM

(1) For the purpose of the regulations and the drilling of oil and gas exploratory test wells, shallow and deep zones are defined, as follows:

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(a) The 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) The 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) Surface Casing String:

(a) A surface casing string of new or used oil field casing in good condition shall be set in the "Red Bed" section of the basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section, as determined necessary by the regulatory representative approving the drilling operations and shall be cemented with not less than one hundred and fifty percent (150) percent of calculated volume necessary to circulate cement to the ground surface.

(b) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(c) Casing and water-shut-off tests shall be made both before and after drilling the plug and below the casing seat as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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.

(d) The above requirements for the surface casing string shall be applicable to both the shallow and deep zones.

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(3) Salt Protection String:

(a) A salt protection string of new or used oil field casing in good condition shall be set not less than one hundred (100) feet nor more than six hundred (600) feet below the base of the salt section; provided that such string shall not be set below the top of the highest known oil or gas zone.

(b) The salt protection string shall be cemented, as follows:

(i) For wells drilled to the shallow zone, the string may be cemented with a nominal volume of cement for testing purposes only. If the exploratory test well is completed as a productive well, the string shall be re-cemented with sufficient cement to fill the annular space back of the pipe from the top of the first cementing to the surface or to the bottom of the cellar, or may be cut and pulled if the production string is cemented to the surface as provided in sub-section IV (5), (a), (i) below.

(ii) For wells drilled to the deep zone, the string must be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar. However, where the base of the Delaware sand is definable the casing rules in (IV) (3b) (i) shall apply even if the depth of the bottom of the Delaware Sand is greater than 5000'.

(c) If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or gamma ray survey and additional cementing shall be done until the cement is brought to the point required.

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(d) The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with suitable proportions but not less than 1% of calcium chloride by weight of cement.

(e) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(f) Casing tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of one thousand (1000) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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) The Commission, or its duly authorized representative, may require the use of centralizers on the salt protection string when in their judgment the use of such centralizers would offer further protection to the salt section.

(h) The above requirements for the salt protection string shall be applicable to both the shallow and deep zones except for sub-section IV (3), (b), (i) and (ii) above.

(4) Intermediate String:

(a) In the drilling of oil and gas exploratory test wells to the deep zone, the operator shall have the option of running an intermediate string of pipe,

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unless the Commission requires an intermediate string.

(b) Cementing procedures and casing tests for the intermediate string shall be the same as provided under sub sections IV (3), (c), (e) and (f) for the salt protection string.

(5) Production String:

(a) A production string shall be set on top or through the oil or gas pay zone and shall be cemented as follows:

(i) For wells drilled to the shallow zone the production string shall be cemented to the surface if the salt protection string was cemented only with a nominal volume for testing purposes, in which case the salt protection string can be cut and pulled before the production string is cemented; provided, that if the salt protection string was cemented to the surface, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone.

(ii) For wells drilled to the deep zone, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided, that if no intermediate string shall have been run and cemented to the surface, the production string shall be cemented to the surface.

(b) Cementing procedures and casing tests for the production string shall be the same as provided under sub-section IV (3), (c), (e) and (f) for the salt

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protection string, however if high pressure oil or gas production is discovered in any area the Commission shall promulgate the necessary rules to prevent the charging of the salt section.

V.

DRILLING FLUID FOR SALT SECTION

The fluid used while drilling the salt section 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 fluid by the operator in overcoming any specific problem. This requirement is specifically intended to prevent enlarged drill holes.

VI.

PLUGGING AND ABANDONMENT OF WELLS

(a) All wells heretofore and hereafter drilled within the Potash Area shall be plugged in a manner and in accordance with field rules established by the Commission that will provide a solid cement plug through the salt section and any water bearing horizon and prevent liquids or gases from entering the hole above or below the salt section.

(b) The fluid used to mix the cement shall be saturated with the salts common to the salt section penetrated and with suitable proportions but not more than three (3) percent of calcium chloride by weight of cement being considered the desired mixture whenever possible

VII.

LOCATION FOR WELLS

Before commencing drilling operations for oil or gas on any lands within the POTASH AREA, the well operator shall prepare a map or plat showing the

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location of the proposed well, said map or plat to accompany each copy of the Notice of Intention to Drill. In addition to the number of copies required by the Commission, the well operator shall send one copy by registered mail to all potash operators holding potash leases within a radius of one mile of the proposed well, as reflected by the plats submitted under paragraph IX (b).

The well operator shall furnish proof of the fact that said potash operators were notified by registered mail of his intent by attaching return receipts to the copies of the Notice of Intention to Drill and plats furnished the Commission.

The Commission, or its authorized representative, may approve such Notice of Intention to Drill if no objection to the location of the proposed well is made by a potash operator within ten days after receipt. If the location of the proposed well is objected to by the potash operator, the matter shall be referred to the Secretary-Director of the Commission for arbitration. If a satisfactory settlement cannot be reached, the Secretary - Director of the Commission shall refer the matter to a hearing before the Commission after due notice and a decision either approving or denying the operator's plans to drill shall be entered by the Commission.

VIII.

INSPECTION OF DRILLING AND MINING OPERATIONS

A representative of the potash operator may be present during drilling, cementing, casing, and plugging of all oil or gas wells within 1320 feet of his lease to observe conformance with these regulations. Likewise, a representative of the oil and gas lessee may inspect mine workings on his lease to observe conformance with these regulations.

IX.

FILING OF WELL SURVEYS, MINE SURVEYS AND POTASH DEVELOPMENT PLANS

(a) Directional Surveys:

The Commission may require an operator to file a certified directional survey from the surface to a point below the lowest known potash

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bearing horizon on all wells drilled within the POTASH AREA. These surveys may be required where, in the Commission's judgment, the exact location of the wellbore must be determined in order to aid mining operations.

(b) Mine Surveys:

On or before January 31st of each year, each potash operator shall furnish two copies of a plat of a survey of the location of his leaseholdings and all of his open mine workings, which plat shall be available for public inspection.

(c) Potash Development Plan

Within 30 days after the adoption of this order and thereafter, on or before January 31st of each year, each potash operator shall furnish two copies of a ~~five-year~~ projection of development plans in the form of a plat, which plat shall be for the confidential use of the Commission and for inspection by any affected oil or gas operator. The projection shall cover not less than 3 nor more than a 5 year development program.

X.

APPLICABILITY OF STATEWIDE RULES AND REGULATIONS

All general statewide rules and regulations of the Oil Conservation Commission governing the development, operation, and production of oil and gas in the State of New Mexico not inconsistent or in conflict herewith, are hereby adopted and made applicable to the areas described herein.

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CASING AND CEMENTING PROGRAMS FOR

OIL AND GAS TEST WELLS IN THE "DEFINED AREAS" IN EDDY COUNTY, NEW MEXICO

1. Surface Casing String

In order to protect the fresh water supply, 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 and shall be cemented back to the ground surface or to the bottom of the cellar.

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 per square inch; second-hand and re-conditioned pipe shall be re-tested to 600 pounds per square inch before being run.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (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.

2. Salt Protection String

The salt protection string shall be set at least one hundred (100) feet and not more than two hundred (200) feet below the base of the salt section. This string may consist of new, second-hand or re-conditioned pipe. New pipe shall have received a mill test of not less than 1000 pounds per square inch; second-hand and re-conditioned pipe shall be re-tested to 1000 pounds per square inch before being run.

Centralizers shall be used on at least every third joint below surface casing.

Sufficient cement shall be used to fill the annular space back of the pipe from the casing point to the surface of the ground or to the bottom of the cellar. (The water used to mix with the cement shall be saturated with the salts common to the zones penetrated.) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests. If the cement fails to reach the surface, the salt protection casing shall be perforated just above the top of the cement and additional cement jobs done until cement is brought to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

Tests of casing shall vary with the drilling method. 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.

3. Intermediate String

This string may be a drilling protection string for deep drilling objectives or may be an oil string for testing medium depth zones.

a. If a drilling protection string, the casing shall be cemented with a sufficient volume of cement amply to protect this casing and all shallow pay zones above the casing shoe, and in every instance this string shall be cemented from a point one thousand (1000) feet below the salt string back to the surface. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

CLASS OF SERVICE

This is a full-rate Telegram or Cablegram unless its deferred character is indicated by a suitable symbol above or preceding the address.

WESTERN UNION

1201

(18)

W. P. MARSHALL, PRESIDENT

SYMBOLS

DL=Day Letter

NL=Night Letter

LT=Int'l Letter Telegram

VLT=Int'l Victory Ltr.

The filing time shown in the date line on telegrams and day letters is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

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1951 JUL 10 AM 9 44

K TUA274 PD=WUX TULSA OKLA 10 1006A=

R R SPURRIER, SECRETARY NEW MEXICO OIL CONSERVATION

COMMISSION=SANTA FE NMEX=

WE ARE AIRMAILING TODAY OUR OBJECTIONS TO CASING PROGRAM PROPOSED IN CASE NO. 278 BEING HEARD BY THE COMMISSION TODAY=

SINCLAIR OIL AND GAS CO T H HAMMETT=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

Sinclair Oil & Gas Company

SINCLAIR BUILDING

TULSA, OKLAHOMA

T. H. HAMMETT
VICE PRESIDENT

July 10, 1951

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
RECEIVED
JUL 11 1951

Mr. R. R. Spurrier
Secretary
New Mexico Oil Conservation Commission
Santa Fe, New Mexico

In Re: Proposed Casing Programs -
Case No. 278, Exhibits A,
B & C

Dear Sir:

With respect to the proposals referred to above, we advise:

1. As to Exhibit A, Item 2, "Salt Protection String," we do not believe that conditions justify the requirement that centralizers be used on every third joint below surface casing, and accordingly object to such requirement. We feel that centralizers should be used at the option of the operator.

Also, under Item 2, with respect to the requirement that temperature or gamma ray surveys supporting complete cementation be filed with the Commission, we feel that such surveys should not be required on casing where the cement is circulated to the surface.

2. With respect to Exhibit B, Item 2, "Salt Protection String," we make the same objection to the requirement with respect to temperature or gamma ray surveys as is stated under Exhibit A above, in cases where cement is run to the top of the surface.

3. As to Exhibit C, Item 2 A, "Surface Casing," our practice is to cement surface casing back to the surface so as to adequately protect fresh waters encountered. The use of one string of pipe, the intermediate string, could be used for protective and surface casing but should be cemented to the surface.

4. We understand that the New Mexico Oil Conservation Commission is not required to follow rules and regulations promulgated by the United States Geological Survey, but in view of the fact that large areas of land in New Mexico are owned by the United States, and upon which oil and gas operations are conducted under rules and regulations

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promulgated by the USGS, we feel that before final rules and regulations as contemplated by Case No. 278 are adopted that the Commission and the Survey, in the interest of simplified operations, should work out rules acceptable to both jurisdictions.

Other than as set forth above, we have no objection to the proposals set forth in Exhibits A, B and C, referred to.

Will you, therefore, please have this letter made a part of the record in the above case so that the Commission will consider the same in arriving at a final decision.

Very truly yours,

T. H. Hammett

THH/is

STATE LAND OFFICE

Santa Fe, New Mexico

GUY SHEPARD
COMMISSIONER OF PUBLIC LANDS

March 30, 1951

Following the hearing March 29, 1951, I, as Commissioner of Public Lands, announced that I would appoint a Committee to recommend regulations for the proper exploration and development of the State lands within the Delaware basin, Eddy County, New Mexico simultaneously by both the Potash and Oil Industries. In keeping with this announcement, I have appointed:

Mr. Fred O. Davis, a Director of Potash Company of America, Carlsbad, New Mexico,

Mr. Emory Carper, President, New Mexico Oil and Gas Association, Artesia, New Mexico,

Mr. Tom Cramer, Vice-President, United States Potash Company, Carlsbad, New Mexico

Mr. John M. Kelly, Independent Oil Operator, Roswell, New Mexico, and

Mr. R. R. Spurrier, Director, New Mexico Oil Conservation Commission, Santa Fe, New Mexico.

May I ask that each of you advise me at your earliest convenience of your willingness to serve on this Committee. It is my intention that such Committee meet at the earliest possible time and submit its recommendations to me.

I would be grateful, because of the considerable Federal Acreage in the area, if Messrs. Foster Morrell and R. H. Allport of the United States Geological Survey would sit in an advisory or unofficial capacity with the Committee if they may do so under regulations.

I sincerely trust that each of you will accept and make reasonable recommendations to me in order that I may the sooner promulgate and publish regulations as required by law.

Very truly yours,

Guy Shepard

GUY SHEPARD
Commissioner of Public Lands

[illegible]

[illegible]
[illegible]
[illegible]

Dear Mr. [illegible]:

[illegible] condition, following a meeting in [illegible] on May 4, wishes to announce that prior to the sale on May 16, 1951 of oil and gas leases for tracts [illegible] listed in your advertisement, the following announcement is made:

(1) The leases will be subject to special rules and regulations to be adopted by the Commissioner and the Oil Conservation Commission, governing the drilling for oil and gas within the designated known potash area, including, but not limited to, the following provisions:

(a) No wells for oil and gas shall be drilled through mine workings or in such additional areas as designated hereafter by the Commissioner.

(b) Special rules will however be adopted for the spacing, casing and completing of wells drilled for oil and gas within the designated potash area.

(2) There shall be no drilling for oil and gas on tract [illegible]. However, the acreage may be committed to any unit plan that may be approved in the future. On tracts [illegible], [illegible], [illegible], and [illegible] the special rules and regulations will govern and certain acreage therein may be restricted as to drilling.

(3) The special rules and regulations are being worked out by the Land Office in connection with a study under way by a special Oil-Potash Committee and the regulations which will govern in these lease areas will be made available for adoption by July 1, 1951.

(4) The successful bidders on leases sold at the sale of May 16 will be delayed until the special rules and regulations are adopted by the Commissioner and the Oil and Gas Commission. A successful bidder has the right of refund of the amount of the bid if he does not desire to execute the lease after announcement

-3-

of the special rules and regulations ...

In further witness that the parties above named have hereunto set their hands and seals, at said office this 4th day of May A.D. 1911.

John McKelly
Asst. Secty. Corp.

J. M. Cairns

Cloe 278

Mr. [illegible] Fuller
Mr. Reed [illegible] Davis
Carlsbad, New Mexico

Gentlemen:

As per our [illegible] at the last meeting of the Oil-Potash Committee, I am enclosing herewith the "Geology and Secondary Recovery of Oil and Gas Wells in the Refuse Area in Eddy County, New Mexico". Please distribute these papers to the operating Potash Companies for their study and comments.

To date I have not received from you an outline of the areas that the Potash Companies consider as critical and in which areas the Potash Companies will request that drilling for oil and gas be prohibited.

It is my opinion that the next meeting of the Oil-Potash Committee be held 10 days after you submit for study by the oil representatives the above described area map. In no case should the next meeting be later than June 10, 1961.

I will appreciate receiving your comments on both the above mining program and my suggestions as to the time of the next meeting.

Kindest personal regards

John M. Kelly

John M. Kelly

cc: Mr. Guy Shepard
Mr. [illegible] Spurrier
Mr. Emory Carper
Mr. Foster Morrell
Mr. H. H. Allport

BEFORE THE

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

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TRANSCRIPTION OF HEARING

CASE NO. 278

10 July, 1951
(Date)

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

Case 278: (Continued from the June 21, 1951, hearing.)

BEFORE: Hon. Ed. L. Mechem, Chairman
Hon. R. R. Spurrier, Member

R E G I S T E R:

Dwight H. Blackard, New Mexico Miners Association, Albuquerque, N. M.

G. R. Griswold, Mining Engineer, Albuquerque, N. M.

Homer Dailey, Continental Oil Co., Midland, Texas.

M. A. Sherwood, Shell Oil Co., Midland, Texas.

G. E. Cameron, Humble Oil & Refining Co., Houston, Texas.

J. W. House, do. do. , Midland, Texas.

Emery Carper, Carper Drilling Co., Artesia, N. M.

W. H. Jones, Stanolind Oil & Gas Co., Lubbock, Texas.

Ralph L. Gray, Buffalo Oil Co., Artesia, N. M.

Harvey E. Yates, do. do. do. do.

H. S. Cave, Phillips Petroleum Co., Roswell, N. M.

S. B. Christy, Sun Oil Co., Roswell, N. M.

E. L. Shafer, Continental Oil Co., Hobbs, N. M.

Charles C. Lawless, Jr., New Mexico Oil & Gas Association, Roswell, N. M.

F. O. Davis, Potash Company of America, Carlsbad, N. M.

T. M. Cramer, U. S. Potash Co., Carlsbad, N. M.

Oliver Seth, U. S. Potash Co., Santa Fe, N. M.

G. D. Beaver, Duval Sulphur & Potash Co., Carlsbad, N.M.

W. R. Morris, do. do. do.

M. L. Gardner, International Minerals & Chemical Corp., Carlsbad, N. M.

J. D. Hill, Richardson and Bass, Fort Worth, Texas.

R. H. Steinart, Southwest Potash Corporation, Carlsbad, N. M.

Claude E. Upchurch, Gulf Oil Corporation, Fort Worth, Texas.

Foster Morrell, U.S.G.S., Roswell, N. M.

R. S. Fulton, U.S.G.S., Carlsbad, N. M.

R. H. Allport, U.S.G.S., Carlsbad, N. M.

R. L. Ross, Gulf Oil Corporation, Roswell, N. M.

P. D. Grommon, Jr., The Texas Co., Fort Worth, Texas.

G.R. Brown, The Texas Co., Midland, Texas.

Harve H. Mayfield, Magnolia Petroleum Co., Midland, Texas.

E. E. Kinney, New Mexico Bureau of Mines, Artesia, N. M.

Glenn Staley, New Mexico Oil and Gas Engineering Committee, Hobbs, N. M.

Justin Newman, O.C.C., Artesia, N. M.

George W. Selinger, Skelly Oil Co., Tulsa, Okla.

Jack M. Campbell, Richardson and Bass, Roswell, N.M.

L. C. White, O.C.C., Santa Fe, N. M.

George Graham, O.C.C., Santa Fe, N. M.

MR. SPURRIER: The meeting will come to order, gentlemen. This is a continuation from the last hearing of this case. And I believe that Judge Seth, or an attorney representing the potash people, were to put their case on at this time.

MR. CAMPBELL: Mr. Commissioner, it might be a little more orderly -- we have a few suggested changes in the casing program that was submitted the last time. And in order to complete our presentation, it might be proper for us to make those suggested changes at this time so that the potash people know what we have in mind. If we could just put Mr. Hill back on again, and have him get into the record those changes, and then go ahead with the potash presentation.

MR. SPURRIER: Is that agreeable with the potash people?

A VOICE: Yes.

J. E. HILL, having been sworn at the prior hearing on June 21, 1951, testified as follows:

DIRECT EXAMINATION BY MR. CAMPBELL:

MR. SPURRIER: You are reminded you have been sworn, Mr. Hill.

MR. HILL: Yes, sir.

Q (By Mr. Campbell) You are Mr. J. E. Hill? ---A. Yes, sir.

Q Employed by Richardson and Bass, Fort Worth, Texas? ---A. Yes, sir.

Q You previously testified in this hearing? ---A. Yes, sir.

Q At the time you testified previously, Mr. Hill, I believe you put into the record Exhibit A, which was a casing program suggested by a subcommittee of the New Mexico Oil and Gas Engineering Committee, is that correct? ---A. That is correct, sir.

Q And since that hearing do you have any suggestions to make as to proposed changes in that suggested casing and cementing program shown as Exhibit A in the record here? ---A. We have, sir.

Q Would you state to the Commission for the record what those changes are? ---A. In Exhibit A, par. 4 of the No. 1 section, title "Subsurface Casing String", we propose the following change to be made, and that par. 4 begin with the following sentence: "This casing string shall be tested with a hydraulic pressure of 600 lbs psi. If a drop of 100 lbs psi or more should occur within 30 minutes, corrective measures should be applied." That is our recommended 4th paragraph under Section 1. And in doing that we have deleted any reference to cable tools and the testing of a string under a cable-tool method.

Under Section 2, title "Salt Protection String", we propose that the first word of par. 1 be changed to "a", to read, "A salt protection string shall be set at least 100 ft. and not more than 200 ft. below the base of the salt section. This string may consist of new, secondhand, or reconditioned pipe. New pipe shallhave received a mill test of not less than 1,000 lbs psi; secondhand and reconditioned pipe shall be retested to 1,000 lbs psi before being run." We also propose that par. 2, which is a single sentence, be changed to read as follows: "Centralizers shall be used on at least every 150 ft. of casing below the surface casing." This change was made at the instance of a telegram that was received at the last hearing which called for a definite distance between centralizers on the salt protection string. Par. 3 of Section 2 will be the same for the first sentence. The parentheses sentence and the third sentence. We propose to change the fourth sentence of that paragraph to read as follows: "If the cement fails to reach the surface, the top of the cement shall be located by a temperature or gamma ray survey; and additional cement jobs done until cement is brought to the surface."

Q Will you state the reason for that? ---A. The reason for that change was that if we did have full circulation under the previous written rule there would be no reason to run a gamma ray or temperature survey, and this just clarifies the responsibility if the cement does fail to reach the surface.

Q Isn't it true it gives the operator some option as to the method he shall use in seeing it does reach the surface? ---A. That's right.

We propose the fifth sentence be deleted from the original third paragraph to read as follows -- be deleted and this

sentence inserted, "The Oil Conservation Commission shall be furnished with proof that the salt string is cemented to the surface; either by having a Commission representative witness the job or by affidavits or logs filed with the Commission."

In par. 4 of Section 2 we propose to eliminate the first two sentences and substitute this sentence, "This casing string shall be tested with a hydraulic pressure of 1,000 lbs psi." The third sentence shall remain as written; which is, "If a drop of 100 lbs psi or more should occur within thirty minutes, corrective measures shall be applied." We propose to delete the next sentence, which begins with, "If cable tools are used ....."

Section 3, "Intermediate String." We propose to introduce the first paragraph with this portion of a sentence, "If the operator runs an intermediate string, this string may be a drilling protection string for deep drilling objectives or may be an oil string for testing medium depth zones."

This sub "a" under par. 3, the first sentence is to be left as written and the next sentence deleted, and this substitute sentence added, "The operator shall furnish proof to the Oil Conservation Commission that this cementing requirement has been fulfilled, either by having a representative of the Commission witness the job or by affidavits or logs filed with the Oil Conservation Commission." And this sentence shall be added -- these two sentences are to be added under subsection "a" of this Section 3 -- "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. Casing shall be tested with a hydraulic pressure of 1,000 lbs. psi. If a drop of 100 lbs psi or more should occur within 30 minutes, corrective measures shall be applied."

Sub-paragraph "b" under Section 3. The first sentence of "b" shall read the same; with the addition at the end of the sentence of this statement, "... and the Oil Conservation Commission satisfied that this requirement has been fulfilled either by a representative of the Commission witnessing the job or by affidavits or logs filed with the Commission. Cement time and testing rules shall apply similarly in the case of this string as is written for the above string." The last sentence of sub-par. "b" under 3 is deleted.

Sec. 4, " Oil and Production Strings (deep wells)" There

is no change in this section with the exception that the following sentence is recommended to be added: "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."

Section 5, "Drilling Fluid for Salt Section," remains the same.

Q Mr. Hill, are these suggested changes concurred in by the members of the subcommittee who formed the original suggestions? ---A. Yes, sir.

Q And in your opinion does this proposed program with the changes that you have suggested give adequate protection to the salt section, which we are seeking here to protect? ---A. We believe it does, yes, sir.

Q This recommendation remains that of the individual members of this subcommittee, is that correct? ---A. That is true; and also as the recommendation of Richardson and Bass as an individual operator.

Q As far as your company is concerned, you are willing to comply with this particular casing and cementing program in a critical potash area, is that correct? ---A. Yes, sir.

Q Mr. Hill, I believe you testified in the previous hearing that your company owned leases in this area, and you were prepared to drill deep tests in the general area. Can you state whether your company, whether there are any areas, which your company would not consider drilling oil wells in? ---A. We do not anticipate drilling on any of the lands presently being worked by the potash companies; specifically, in or on their mine workings areas, or in any of the areas in which they plan to explore in the future. And as a normal distance, we believe that one-half mile outside of the known or contemplated workings should be restricted.

Q And in that regard, would you be willing to give consideration to the fact that there are two new companies in that area now drilling shafts? ---A. Yes, sir.

Q And be willing to give consideration to the fact that they have not as yet undertaken any mine workings in determining

the area in which you would not drill? ---A. That is true.

MR. CAMPBELL: I believe that is all.

MR. SPURRIER: Does anyone have any question of this witness? Mr. Morrell.

MR. MORRELL: Mr. Spurrier, I would like to ask Mr. Hill one question with the thought of clarifying the record for the Commission. Section No. 3 refers to testing medium depth or medium depth zones. I think probably that should be defined by a depth or formation so that there will be a distinction between that and the reference to the cable tool Exhibit B to shallow.

MR. CAMPBELL: Mr. Hill, did the committee consider that at the time Section 3 was prepared? ---A. This section, of course, refers to either a drilling protection string for deep drilling objectives, or maybe an oil string for testing medium-depth zones. I would say that a medium depth zone as far as depth is concerned would be approximately a 5,000 ft. depth, or it could be 4,000 ft.

MR. MORRELL: I was merely noting that Exhibit B spoke of shallow wells above 5,000 ft.

MR. HILL: I think 5,000 ft. could be a critical depth point to clarify both jobs.

MR. MORRELL: Your medium depth zone would be below 5,000?

MR. HILL: Above 5,000.

MR. MORRELL: So, it would be synonymous to shallow?

MR. HILL: Yes, sir.

MR. MORRELL: That is all.

MR. SPURRIER: Thank you. Anyone else?

MR. SETH: May I ask one question? About the rule for plugging. Will that be considered separately or does this cover that?

MR. HILL: The Engineering Committee did not write up

any rules for plugging or abandonment of wells. But I think they can be set up and agreed to mutually very easily. And I would suggest, as your potash companies have certain rules for abandonment, they be presented, and they statements can be made and suggestions or criticism. I would suggest that be entered into the record as part of this thing, as to the rules, or a discussion can be had on it.

MR. SETH: That is part of the picture, isn't it?

MR. HILL: Definitely, but we haven't --

MR. SETH: Have you prepared any recommendations for plugging or abandonment? ---A. No, sir, but I am prepared to approve any you might submit with reasonable good operating practice. And I would be willing to approve them or discuss them as they are presented.

MR. SETH: May we have a copy of these proposed changes? Do you have any, Jack?

MR. CAMPBELL: We have, unfortunately, only one which has been interlined. You may have it to make a copy. We do not have a full set of the changes. Mr. Hill, in connection with the plugging and abandonment matter, could you state generally insofar as your company is concerned what procedure you follow normally in the salt areas in the plugging or abandonment of wells? ---A. Under the conditions of these casing rules, there would be no effort made to recover any of the strings now; surface, salt protection string, or intermediate string or drilling protection string. Because they will have been cemented to the surface, and the drilling protection string will have been cemented from 1,000 ft. below the bottom of the salt protection string to the surface. Any known or discovered shows below a protection string would normally be cemented off by cement placed at least 100 ft below to a point at least 100 ft. above; and the normal practice would be to set a plug from 500 ft. below the protection string on up into the protection string some 2 to 300 ft. That would preclude any possible migration. And with your casing remaining intact, an upper plug of some 1,000 ft. could be set in the upper part of the hole, or it wouldn't be impractical to even put a column of cement equal to your salt section in the last, or your smallest string, left in the well.

MR. SPURRIER: The Commission would like to remind

those present that Mr. Hill is available at this time for cross-examination, and I presume he will be later.

MR. CAMPBELL: Yes. He will be here throughout the hearing for questions he can answer.

MR. SMITH: If you desire to cross-examine, now is the time to do it; before the potash people put on their testimony. Are there any more questions? If not, the witness may be excused.

(Witness excused.)

MR. CAMPBELL: Mr. Commissioner, that is all at this time. It may be we may want to call additional witnesses following presentation of some information by the potash industry.

MR. SMITH: Well, it occurs to me that the changes you have made here -- you and Mr. Hill have read into the record -- may be quite difficult to follow, and some of these people may have either comment or questions after they have been able to see exactly what those changes are.

MR. CAMPBELL: Mr. Hill will be available all day, and if they can go over the changes sometime during the course of the day, he will be available for the discussion of them.

MR. HILL: The changes are actually of no material moment. Just more for clarification and for testing some of the strings presented in the original rules. For example, one of the changes just directly places the centralizer rather than leaves it at the free joints.

MR. YATES: Mr. Commissioner, I would like to know in advance if it is clearly understood this program he is presenting is for rotary only, for deep-well zones.

MR. SMITH: Mr. Hill, can you answer that?

MR. HILL: That is the way that the -- I think the rules that were first introduced were for -- may I have that copy just a second? Oil and gas casing and cementing programs for oil and gas test wells in the defined areas in Eddy County, N. M. And the point brought up by Mr. Yates referring to cable tools. We purposely deleted any reference to cable-tool

methods and testing, and as a consequence the entire set of rules refers only to rotary drilling.

MR. SHUMAKER: Does that answer the question?

MR. YATES: That's right.

A VOICE: Pardon me, Mr. Hill. Does that say only Eddy County? The area shown on the map goes into Lea County.

MR. HILL: It should be applied to Lea County then.

A VOICE: You removed all reference to cable-tool drilling. Why was that?

MR. HILL: It was suggested by cable-tool drillers and shallow operators, inasmuch as we were attempting to describe rules for deeper drilling, particularly on the rotary drilling, and they preferred it should be confined to that under this particular program.

A VOICE: Is it contemplated there be a separate set of regulations for cable-tool drilling?

MR. HILL: There were separate rules presented at the last meeting, marked Exhibit B and Exhibit C, which covered as I believe medium depth tests -- well, by rotary or cable tool-- and then one exclusively cable tools. And we didn't feel we could speak for every operator in the state, and we didn't feel the responsibility of attempting to secure casing and cementing programs for deeper test wells in this general area, and as a consequence we couldn't see how we, as individual operators, could force every body to drill different type wells to follow the same set of rules.

MR. MORRELL: In that connection, the heading as now printed says, "Casing and Cementing Programs for Oil and Gas Test Wells." Following your expression just now, would it clarify it to insert "rotary-drilled" before "test Wells"?

MR. HILL: That would be all right, sir.

MR. MORRELL: In the defined areas of Eddy and Lea Counties.

MR. CAMPBELL: I would like to have the record show that Exhibit A, B, and C were offered in evidence, and that the

suggested amendments were -- to Exhibit A -- were also offered in evidence.

MR. SPURRIER: Did everyone hear that? These exhibits A, B, C, and D have been offered in evidence, and without objection they will be accepted.

MR. CAMPBELL: Exhibit A is amended.

MR. SPURRIER: That includes the Exhibit A as amended this morning. Does anyone have any further question or comment before the potash people put their testimony on? If not, Mr. Seth, will you proceed?

MR. SETH: Well, Mr. Commissioner, I am here not as a spokesman for all the industry. I came for U. S. Potash. And as far as they are concerned these proposed regulations are acceptable to them for all wells drilled. This Exhibit A, as amended by the testimony of Mr. Hill this morning. I think the other companies would like to make a comment on it.

MR. DAVIS: We will concur in that, and we have no objections to the amendments to Exhibit A. And Southwestern Potash, and Potash Company of America, and the International Minerals and Chemical Corporation, and Duvall Sulphur and Potash all concur in the fact that we have no objections to the amendments proposed in Exhibit A.

MR. SPURRIER: Now, is there another company? Are there any more potash companies?

MR. DAVIS: We both represent them all. Mr. Seth spoke for U.S. Potash Co. And that represents the five companies who are involved. Mr. Cramer raises the point, Mr. Commissioner, that there are other companies who have been or are drilling in the area, and we, of course, do not speak for them. Exploratory work that may be going on or carried on by independents or others. But they are not present at this hearing.

MR. SETH: We represent all the established operators.

MR. SPURRIER: One more question. To make the record clear now; does any potash company have any testimony to present at this time on this case?

MR. SETH. As I understand the procedural situation at

this time, we will consider Exhibit A, as modified, which is limited to rotary drilling. And we stand ready to hear any proposals that may be presented for cable-tool drilling. The testimony Mr. Hill has presented this morning has split the thing into two questions now. We have the rotary regulations and we have the cable regulations. That was done by these amendments. And we stand ready to hear the proposals on the cable tools.

(Off the record discussion.)

MR. CAMPBELL: Mr. Commissioner, I believe at the last hearing a proposal was presented -- I do not represent the people that presented it -- but there is in the record a proposal for cable-tool-medium-depth well protection which was submitted at the last hearing. I presume that is the recommendation of the cable-tool operators.

MR. SETH: Are they standing on that proposal?

MR. CAMPBELL: That I don't know. I presume they have representatives here.

MR. YATES: We have submitted the program. If there is any objection -- we submitted that program at the last hearing -- and if the potash companies have objections to it, we would like to hear them.

MR. SPURRIER: The way the Commission understands it, now is the time for the potash people, or anyone else, to object to the cable-tool proposal. This is the one which was signed by several operators.

MR. SETH: I believe there are two of them in the record.

MR. SPURRIER: Yes. This one was signed by the representatives of several companies.

MR. CRAMER: Weren't there two proposals submitted at the last meeting by the cable-tool operators?

MR. SPURRIER: Yes, sir, there were. I am merely trying to take one at a time. I have another one which I will bring up when we see what is going to happen to this one. We have one here that is in effect signed by Stanley Jones. But I am talking about the one that is signed by American Republics, Buffalo, and on down the list.

MR. SETH: That is Exhibit B?

MR. SPURRIER: That is Exhibit B.

MR. CRAMER: I believe the potash companies are of the opinion there was to be one set of casing and regulatory rules having to do with drilling. At this time, this division having been made, it puts the potash companies where they would have to do some talking among themselves to see where the second group would fit. It didn't occur to us there would be two sets of rules.

(Off the record discussion.)

MR. SETH: May we have a short recess and talk this over among ourselves? This was split up by the testimony of Mr. Hill.

MR. SPURRIER: You may have that time I think. Before you take that time, I would like to say these exhibits have been on file, one as long as the other. And the Commission is bound to consider all of them. And the Commission will consider all of them. What we are trying to get is the objections of the potash people to any of them.

MR. SETH: Of course, the matter started originally with recommendations of the committee, which presumably covered all casing programs, no matter how drilled and to what depth.

MR. SPURRIER: Yes.

MR. SETH: And we have devoted our attention to that. That has been amended this morning by Mr. Hill, and the situation is quite different this morning. We would like to talk it over. Maybe we can arrive at a satisfactory conclusion.

MR. CAMPBELL: When this Exhibit A was presented Mr. Hill definitely testified it was to apply to deep-test wells in a defined area. And I think that was made somewhat clear, although there were some references previously to cable tools in that Exhibit A. It is definitely in the record it was to apply only to deep-test wells.

MR. SPURRIER: Well, let's say for clarification from the Commission's point of view that we will have to issue one set of rules or regulations for drilling in this area, which will necessarily include both types of drilling, rotary or cable.

MR. CRAMER: Mr. Commissioner, speaking as a member of the committee, the casing and cementing program as it was worked out by a sub-committee made up of engineers of the oil industry was considered by the appointed committee and approved by it. Now these various things that are being done modifies the approved committee action. So that it is somewhat of a change. We had thought, in the first place, that one set of rules could cover all types of drilling. And the committee, as such, has not made recommendations on any of the modifications.

MR. SETH: To clarify the record, I believe on behalf of U.S. Potash we accepted Exhibit A, as amended, for all drilling, no matter what type or what depth. Now if I can, to review the situation a little bit, at the end of the last hearing, the potash companies were confronted by this division also in the oil industry. There are three separate and distinct proposals, and which, as originally presented, are not consistent with one another. The testimony of Mr. Hill has taken one group out of it. For that reason we are put at a little disadvantage in meeting this exhibit which was put forward as a minority report more or less.

(Off the record discussion.)

MR. SETH. There is one question involved in here. Some of these regulations as far as we are concerned are applicable to certain areas and others are not. We have that additional fact to consider. We would like before very long to read into the record a written proposal which includes the variations in methods in different areas. That might clarify the procedural situation.

(Off the record discussion.)

MR. CRAMER: Mr. Commissioner, speaking as a member of the commettee and also as a representative of the Potash Company of America, there would be one very pronounced objection to Exhibit B which would have to be clarified, I am sure, before we could get together on the thing. That is what is designated as par."b"of Exhibit B, reading as follows: That the casing and cementing program herein suggested apply only to the areas embraced in proven commercial deposits of potash. The remainder are designated potash areas to be drilled in accordance with standard existing practices. That is the end of the quotation. Up to this time all the discussion before the committee, before your Commission, and before the Land

Office has been to the effect that there would be certain acreage within a broad defined area in which drilling would be completely barred, and that the intent of any drilling regulations within that defined area is to protect the state and the potash operators in the event of any future finds of deposits of potash minerals in the delineated area. And it would appear that Exhibit B, as proposed here, would throw wide open the actual presently operating area.

(Off the record discussion.)

MR. CAMPBELL: Mr. Commissioner, in connection with this area, may I state we would be delighted to have the potash industry present whatever suggestions they have as to the areas in whatever rules the Commission promulgates will apply. Insofar as this division of rotary and cable tools, may I state our position on that? The Commission has power under the statute to issue rules and regulations for the drilling of any oil wells in any area in New Mexico, dependent upon particular conditions. There are now three suggestions; one of which applies solely to deeptest rotary wells, and two of which apply to cable-tool shallow wells. I take it that the potash industry feels Exhibit A should apply to all wells, whether cable tool or rotary, deep or shallow. Of course, that is a position they are entitled to take. There is in the record, however, two suggestions by people who drill shallow wells. And if the Commission, in its order, wishes to follow the potash industry suggestion and apply Exhibit A to all wells, they can do so; but if they desire to differentiate, they can do so. It seems to me objections to Exhibit A shouldn't be offered on shallow wells. Since they were offered at the last hearing. It may be the proper thing to do would be to present the data as to areas, which would clarify some of the matters objected to in Exhibit B. I don't represent those people, but in order to keep the matter straight, there is certainly no intention to mislead as to what they have to offer based on the presentation of these two programs because they were both presented at the last hearing. And I thought it was made clear this proposal in Exhibit B was the proposal of the shallow-well people, to be incorporated in whatever the Commission puts out insofar as those particular wells are concerned.

MR. SPURRIER: Well, you have asked for a recess. Do you still want the recess ?

MR. SETH: Yes. Let us discuss it among ourselves for a few minutes, and we will also present our proposal which includes

the plugging.

MR. SPURRIER: The Commission is just about prepared to give you until 1:30 or 2 o'clock to get your discussion over and be prepared to present -- to outline the area when you come back. Is there an objection to that time?

MR. SETH: One thirty would be fine.

MR. SPURRIER: Mr. Morrell?

MR. MORRELL: Mr. Commissioner, I think it might be appropriate at this point to read into the record an attempted definition of shallow and deep, since that is the procedure that is appearing to be worked out this morning. For the benefit of the Commission, I would like to read into the record an interpretation that is now currently being used by the Geological Survey. We have been called on to define what is shallow and what is deep. And we find that a depth figure alone is not entirely satisfactory, because of the differences in depths within the designated area. Possibly the potash companies would like to consider this in connection with the matters they want to take up under advisement during recess. A Survey report reads as -- to Washington from Roswell -- reads as follows:

> "Definitions of shallow and deep zones are essential to the present discussion. The area is complex stratigraphically inasmuch as it extends from north to south from the shelf or back-reef area across the Capitan Reef into the Delaware Basin. The permian Tansill, Yates, Seven Rivers, Queen, and Grayburg formations, comprising the White Horse group of the back reef are transitional into and equivalent in age to the Capitan limestone of the reef. The Capitan limestone is in turn transitional into the Bell Canyon formation of the Delaware Basin. The base of the shallow zone and top of the deep zone is, for practical purposes, defined as the base of the Grayburg, Capitan, or Bell Canyon formation, depending on the location. The shallow zone production includes that of the Tansill, Yates, Seven Rivers, Queen and Grayburg formations of the back reef area. And the so-called Delaware sand near the top of the Bell Canyon formation of the Delaware Basin. The Capitan limestone is untested in this area, and has so far yielded no production. The maximum depth of the shallow zone in the northern

part of the area is from 1,600 to 3,500 feet. The shallow zone in the Delaware portion of the area has not yet been found productive, and few wells have been drilled to it. The base of the shallow zone is here estimated at from 4 to 5000 feet. The deep zone so defined includes the older permian formations below those of the shallow zone and the Capitan-permian formations down to the granitic basement."

I thought it might be helpful to have that in your record.

MR. SPURRIER: Thank you, Mr. Morrell. As a matter for the record, these exhibits A and B were offered in evidence at the last hearing by Mr. Campbell and were accepted at that time. The Commission, as I said before, is bound to consider them when it promulgates the casing rules. So if the potash people find objections to Exhibit B, I suggest you offer them as such. Although I understand that by saying you accept the conditions of Exhibit A that you automatically register a protest against B.

MR. SETH: We will prepare our comments on B and C also. They were presented as alternatives. There were three alternatives presented.

MR. SPURRIER: All right, gentlemen, we will recess until 1:30.

(Noon recess.)

(Note: Full Commission present for the afternoon session.)

MR. SPURRIER: The meeting will come to order, please. Mr. Seth.

MR. SETH: We appreciate the opportunity of having the recess and we have modified our written proposal in accordance with the matters developed by Mr. Hill, and set up two separate categories. Mr. Davis will read the modified proposal into the record. And as soon as possible we will prepare complete copies, and have 25 or 30 in the hands of the Commission for distribution. The modifications were necessary by reason of the situation which developed this morning. If Mr. Davis may come forward, he will read it into the record. If the Com-

mission please, this is a statement to be read into the record. Mr. Davis, if there are questions to be asked, will be sworn and we will provide also Mr. Weaver, a geologist and engineer, to answer questions.

MR. DAVIS: In that connection, in order not to confuse the record, because this jumps around, I think it would be clearer if notes could be made and the questions not asked while the statement is being read.

This is a statement captioned, "PROPOSED REGULATIONS TO GOVERN EXPLORATION FOR AND EXTRACTION OF OIL AND GAS AND POTASH MINERALS ON NEW MEXICO STATE LANDS INCLUDED IN PROVEN OR POTENTIAL POTASH PRODUCTION AREAS." The objective of these regulations is to assure maximum conservation and economic recovery of oil, gas and potash minerals.

"I. These regulations are applicable to the area shown on the accompanying map." (Off the record.)

At the moment, we have only one copy of the map. Additional copies will be supplied at the time copies of the text is given to you.

MR. SETH: We offer that as an exhibit, if the Commission please.

MR. SPURRIER: Without objection, this may will be accepted as Exhibit A.

MR. DAVIS: " .... hereinafter referred to as the 'defined area.' The lands within this area presently fall within one of the following classifications:

"AREA A. Areas which are underlain by proven commercial potash deposits.

"AREA B. Areas under which commercial potash deposits are indicated but not delineated.

"II. The following procedures shall apply to oil and gas exploration and extraction within the defined area:

"AREA A. Drilling for oil and gas shall not be permitted within this area except upon leases where there is presently production in commercial quantities. Upon such leases, further drilling shall only be conducted pursuant to the provisions of

paragraph 2,AREA B herein, covering deep wells.

"Further leases may issue upon lands within the A area, but such leases shall contain the proviso that no drilling may be conducted thereon; however, the acreage included in such leases may be committed to unit agreements. Where oil and gas wells are in production within this area, no mine opening shall be driven to within less than 100 ft. of such wells so that pillar protection will be afforded.

"AREA B. Spacing of oil and gas wells in this area shall be limited to one per quarter-section. All such wells shall be located in the center of the quarter-section unless relocated by mutual agreement of the oil and gas lessee, the potash lessee, and the State Land Commissioner. All wells drilled within this area in exploration for and production of oil or gas shall be drilled, cased, and cemented according to the following procedure:

"Deep Drilling." At this point we would like to incorporate by reference the provisions covering drilling as read into the record this morning by Mr. Hill, or as amended by him, from a previous filing. This morning we agreed to Mr. Hill's setup, but it should be subject to plugging requirements, which will be brought in at a later time.

"Shallow Drilling. The suggested casing and cementing program is as follows:

"(1) Surface Casing String. In order to protect against intrusion of water, the surface casing string shall be set in the 'red bed' section of the basal Rustler formation immediately above the top of the salt section; and shall be cemented back to the ground surface or to the bottom of the cellar.

"The surface string shall consist of new, secondhand, or reconditioned pipe. New pipe shall have received a mill test of not less than 600 lbs psi; secondhand or reconditioned pipe shall be retested to 600 lbs psi before being run.

"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.

"Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution, and a hydraulic pressure of 600 lbs psi shall be applied. If a drop of 100 lbs psi

or more shall 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 doesn't remain dry for a period of one hour, corrective measures shall be applied.

"(2) Salt Protection String. The salt protection string shall be set at least 100 ft. and not more than 200 ft. below the base of the salt section. This string may consist of new, secondhand or reconditioned pipe capable of meeting the manufacturer's test specifications.

"The string may be cemented with a normal cement volume for testing purposes only; and if commercially productive, the string must be recemented with not less than 150 per cent of the 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 proper amounts of calcium chloride.

"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 jobs done until cement is brought to that point. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

"Tests of casing shall vary with the drilling method. If rotary is used, the mud shall be displaced with water and a hydraulic pressure of 1,000 lbs psi shall be applied. If a drop of 100 lbs psi 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.

"(3) Oil or Production String. This string may 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 salt protection casing shall have been run and commercial production obtained, that string shall be cemented to the surface as provided by (2) above or as provided by 3, a, in the deep well program.

"(4) 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. Off the record for just a moment. (Off the record.)

"All holes drilled either under the deep or shallow-well programs which are abandoned shall be plugged in accordance with the following procedure:

"(a) 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 plug through the salt section and prevent liquids or gases from entering the hole above or below the salt section. Details of the plugging procedure shall be approved in advance by the Oil-Potash Committee.

"(b) 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.

"(c) 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 (a) above."

To digress for a moment here. What has just been read covers the specific casing and cementing requirements for both the deep and shallow drilling. In the main, the proposed regulations for shallow drilling are the same as those proposed by the group of operators and submitted to the Commission as Exhibit B. The balance of the material which will now be read would apply to the area restrictions and would be applicable to both deep and shallow drilling.

"III. Before drilling for oil and gas on lands within the "defined area" a map showing the location of the proposed well shall be prepared by the well operator and copies shall be sent to the State Land Commissioner and the potash lessee involved. If no objections to the location of the proposed well are made by the potash lessee in ten days, a drilling permit may be issued and the work may proceed. However, if 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 with the State Land Commissioner. If the well operator and the potash lessee cannot agree on a suitable location for the proposed well, or on any other questions which may arise in connection with the application of these regulations, then either party may demand a hearing before the State Land Commissioner, who will decide the issues in dispute. Nothing herein shall prevent either party -- strike that.

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

"A representative of the oil and gas lessee may inspect mine workings on his lease to observe conformance with these regulations.

"Each oil and gas lessee shall furnish to the State Land Commissioner and to the potash lessee involved certified directional surveys from the surface to a point below the lowest potash-bearing horizon for each oil and gas well drilled during the year. Each potash lessee shall advise the oil and gas lessee who is conducting drilling operations of the location of underground workings in the area adjacent to drilling locations.

"A bond of not less than $10,000, payable to the State of New Mexico, shall be posted by the well operator, to be forfeited by him for any infraction of these regulations.

"The State Land Commissioner shall add to the "defined area" any lands which subsequently are shown to be within a new potash area or an extension of the presently classified "defined area". Lands within the "defined area" shall be reclassified by the State Land Commissioner upon proper showing by the potash lessee that further commercial ore has been proven. If any lands are transferred to the AREA A classification, the AREA A regulations, contained herein, shall automatically apply to such lands."

That, Mr. Commissioner, is the end of our proposal. In our consideration of the drilling and casing regulations, it having been stated this morning that there were three proposals before the Commission, it was our belief that the Exhibit B more probably reflected the feeling of the majority of the small operators, or those who are interested in shallow drilling. And we slightly modified that exhibit, and are suggesting it as

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being proper to cover shallow drilling. That, in our opinion, would automatically bar Exhibit C as it was filed at the previous hearing.

MR. SELINGER: Mr. Davis, are you through with your statement?

MR. DAVIS: Yes.

MR. SELINGER: Back up in AREA A in which you stated no drilling in AREA A unless the lease is now on production, and then you said something about further leases may be issued. Would you mind repeating that one sentence? I didn't get it.

MR. DAVIS: "Further leases may issue upon the lands within the AREA A, but such leases shall contain the proviso that no drilling may be conducted thereon; however, the acreage embraced in such leases may be committed to unit agreements." The purpose of that is to permit any operator who is now gathering acreage together to include in such acreage the lands within the AREA A. So that any oil or gas lying thereunder may be extracted, or at least the area will be protected to the operator who is undertaking the drilling operation at that point.

MR. CAMPBELL: I have a few questions I would like to ask Mr. Davis.

MR. SETH: I believe that is all of the statement. Mr. Davis will be sworn if he is going to be a witness. That presents our proposal.

MR. DAVIS: I would like to say one more thing, Mr. Spurrier, before I go on with that. It had been the intention of the potash members of the Oil-Potash Committee that this general statement and the provisions therein be submitted as a recommendation of the full committee. Because of the way the thing came around today, it was hardly possible to do that; and this really represents the feeling or the consensus of the potash group. It is my intention following this meeting to bring this up before our complete Oil-Potash Committee for its study.

MR. SPURRIER: You have no more direct?

MR. SETH: No.

MR. P. O. DAVIS, having been first duly sworn, testified as follows:

CROSS-EXAMINATION BY MR. CAMPBELL:

Q. Mr. Davis, would you state for the record approximately the size of AREA A? ---A. May I digress just a moment again there, Mr. Campbell? I just thought of something. AREA A, as it is shaded in on this map presented to the Commission, is slightly different from the legal description which was presented to the Commission at the last hearing. At that time, you may recall, we put that in by metes and bounds. When we started putting in the actual land holdings of each company which they considered AREA A, it extended slightly outside that metes and bounds description to the northwest.

Q I don't believe you put it in in the hearing before this Commission. There may have been some evidence submitted to the Land Commissioner hearing, but to my knowledge it wasn't here. I believe this is the first presentation of an area to the Oil and Gas Conservation Commission. ---A. Then there may be no question of a conflict. The heavily bordered area on the map presented as an exhibit should govern and not the metes and bounds description, which may be kicking around the territory somewhere.

Q Is that smaller than this particular area? ---A. Only by a few hundred acres. It is just a matter of straightening out some corners. To answer the question, Mr. Campbell, the area within the AREA A, as shaded on the map, is something in the neighborhood of 80,000 acres.

Q Does that correspond generally, Mr. Davis, with the external boundaries of the area which has previously been withdrawn from oil and gas leasing on federal lands plus the leases of the two new companies that are coming into the area? ---A. Yes. Plus certain state lands which have not previously been withdrawn.

Q And how large is AREA B? ---A. I was told this morning by someone who had scaled off the entire map that it was 300,000 acres -- within the outline. So that would leave AREA B approximately 220,000 acres.

Q Now, how did you arrive at the size of AREA A generally? ---A. Generally, it represents areas of each of the companies where extensive core testing has been done and the presence of

a commercial body of potash ore determined.

Q And it includes all of the present mine workings, of course, of the various companies? ---A. It represents the present mine workings plus the proposed workings of the two new companies who are presently contemplating entry into the field.

Q Did you undertake to or did you project your future plans on any yearly basis or anything of that kind in arriving at this area A? ---A. Broadly, I would say it probably takes in our known plans for the next 6 or 8 years. It does not take in any highly speculative territory whatsoever. It is what we consider commercially proven territory.

Q And you have extensively cored all of AREA A to your knowledge? ---A. Yes, sir.

Q How dense, normally, are your cores in those areas? ---A. When we get into an area where we find what appears to be commercial ore, we will drill several core tests to a section.

Q By several do you mean one every 160 acres or one to every 30 acres? ---A. There is no general rule on it. It could be as many as 6 or 8 to a section. But the probability is it is more likely to be in the neighborhood of 3 or 4.

Q How did you arrive at AREA B? ---A. The AREA B outlinewas prepared by representatives of the U.S. Geological Survey in a meeting of the Oil-Potash Committee in Carlsbad a few weeks ago. And it was based upon information in the hands of Mr. Allport of the U.S.G.S.; which incorporates material received from all sources and from all companies over the years. The area, therefore, represents what I believe he called the area of great promise insofar as possible potash possibilities are concerned.

Q But you have not cored that AREA B extensively? ---A. Not extensively. It has been cored. At least four companies to my knowledge, including my own company, have put down a number of holes, and the result of those holes has been attractive enough that some of us are continuing with rather expensive programs there to see if we can delineate another body of ore in connection with AREA B.

Q It is my understanding your proposal is: any oil operator desiring to drill anywhere within that 220,000 acres must file

a map with the Land Commissioner, and potash lessee, indicating the proposed location? --- A. Yes.

Q And if the potash lessee doesn't agree or if they cannot come to terms, then it will have to be heard in hearing, and then at that time you will undertake to establish there should be no oil or gas well in that particular spot. Is that correct? ---A. Roughly, Mr. Campbell, but not exactly.

Q Wherein am I wrong? That is a very important point and I would like to know what it is. ---A. The proposed regulation there states, "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 ... " Now, if through an error in the records of the Commission or through an error in surveying or something of that sort, it would be determined that the location of the well was placed in an area that is not in accordance with the regulations, we could then object. We could only object, the way this is worded, on that basis.

Q You could only object, assuming the Commission's order complying with your suggestion that there be one well in the center of each 160-acre tract. If it was elsewhere, you could object? ---A. Yes.

Q Or any other provision of the Commission's order? ---A. That's right.

Q You couldn't object just because there was potash below? ---A. That, or we couldn't object just captiously.

Q The only purpose of the provision is to satisfy you there hasn't been an erroneous survey or an improper location under the Commission's order, whatever it may be? --- A. That is correct. It is assumed if we in our future work find other areas of potash, we will apply to the Commissioner to reclassify that as A, which would undoubtedly involve rather comprehensive examination by the Commissioner before he would recognize it. The mere fact we thought there was some potash underlying a B area would not give us the right to such.

Q So far as oil and gas operators are concerned, under your suggestion, provided he complies with casing and cementing programs, suggested as Exhibit A, there will be no restriction on hil drilling in AREA B except non-compliance with the Commission's order? --- A. That's right.

Q In other words, you are not asking the potash (?) lessee be called upon to prove the drilling of a well in AREA B? ---A. Not at all.

Q Now, there is one point I want to get straight about AREA A. Am I correct in my understanding that your suggestion is that the potash industry doesn't object to the leasing for oil and gas in that area, provided there is no drilling and provided it is committed to a unit plan? ---A. That was our thought in suggesting that provision.

Q May I ask if that just applies to federal as well as state lands in AREA A? ---A. I should think so. But we gave that no consideration, of course. We were here in a state hearing.

Q I realize that, but, of course, in the over-all problem we have got to consider they are contiguous. But that would be your general position as to AREA A? ---A. I should think so. As far as I could personally state. I haven't talked to the other members.

Q Then you are not in a position to state as part of your report? ---A. No, not the report.

Q That it would apply to federal areas. What was the reason, Mr. Davis, for attempting to establish a spacing program at this stage of the game, that 160-acres, one well in the center of each 160 acres? ---A. That is a follow-up on a discussion that has been carried on in every meeting held to date; whether it was the first meeting called by the Land Commissioner or the meeting held in his office subsequently or the meeting of the Oil-Potash Committee. The matter of spacing has been brought up on each occasion. And it was the consensus that the spacing should probably be a wide one. It would seem that the time to set it up is in the initial stages rather than later.

Q You don't feel, once you obtain production if you do, is the proper time, depending upon pool conditions, to determine what spacing should be? Wouldn't you be satisfied with such an arrangement as that if you had an opportunity to be heard on the spacing program? ---A. Well, we would certainly not like to contemplate the fact that we would look forward in future years to potash mining under some of the very close spacing that has been permitted in certain oil fields in the past. Not necessarily in New Mexico, but in many oil fields.

Q But you don't feel you would be satisfied with a hearing on that question at the time a discovery is made? ---A. Offhand I wouldn't like to answer the question without discussing it with the rest of the industry members.

Q You can see, can you not, that as far as the oil and gas operator is concerned that is a considerable commitment insofar as doesn't know at this time what reservoir conditions may be in a particular pool discovered. It may result in waste since he doesn't know what the condition will be until it arrives. There is a problem that bears consideration by the potash industry. ---A. Yes.

Q It is my understanding, from listening to your recommendations, that you suggest that this casing and cementing program as to the deeper wells and to the shallow wells, which you have read into the record here, shall apply both to test wells and producing wells? ---A. In the matter of the deep wells, what we have done consistently is to accept the recommendation of the oil industry itself. In the previous filing of a few weeks ago we said that was acceptable. This morning we said that the recommended program for deep drilling was as proposed by the industry itself, the oil industry itself, was acceptable.

Q I appreciate that fact, Mr. Davis, what I am asking you -- I don't believe you understand -- the casing program suggested today and one suggested previously was labeled "Test Wells and Exploratory Wells in the Area." ---A. Yes.

Q And your reading led me to believe that you intended to apply that to all wells? In other words, there would be no modification within this B area on a field rule basis once a discovery was made by an exploratory well? ---A. That's right.

Q You take the position it should apply to all wells within AREA B, exploratory or producing, is that right? ---A. Actually, the proposed program for shallow wells differentiates between a non-producer and a producer.

Q I am not referring to a non-producer or a producer. ---A. Or exploratory.

Q I am referring to a wildcat well, a test well. Exhibit A was originally intended to apply to that well with the possibility if production was obtained and a field discovered, then as is the customary procedure, field rules could be developed.

It could be the rules would need to be more stringent, perhaps less. But I would like to understand clearly what your position is on that particular phase of the matter. ---A. It is our belief that the need for the stringent casing regulations would occur if a deposit of oil or gas was found at any depth. And that the regulations that are proposed here are the minimum that should apply under any conditions.

Q To an exploratory or any other well in the area? ---A. Yes, sir.

Q Now, for just a moment on your abandonment program. I believe you stated you have drilled a considerable number of core holes in this A and some in the D area? ---A. Yes.

Q Is it your feeling that the abandoned core holes should be treated in the same manner by way of plugging regulations as an abandoned oil well, Mr. Davis? ---A. Mr. Weaver, who I think will follow me here, has had personal contact with the plugging of dozens or perhaps hundreds of our core tests, and I think he is much more competent to pass on matters there than I am.

Q Now, one other question, Mr. Davis. In connection with this request for a bond, are you acquainted with the bonds that are presently required under state leases in New Mexico? ---A. Not particularly, no.

Q Was your recommendation on the assumption that there is none, or do you feel there should be additional bond? As a matter of fact, I believe there is a $5,000 per well and a $10,000 blanket bond on state leases already. ---A. It was my understanding there was a plugging bond.

Q What is your recommendation? ---A. This would be a separate and distinct bond requiring compliance with the regulations and which would be forfeitable --

Q If it were true that the bond presently required in the amount of $5,000 per well and $10,000 for the -- $10,000 statewide blanket bond --- applied to all violations of any regulation of the State of New Mexico, would that change your views in connection with the bond? ---A. That would suffice, in our opinion, although we think possibly the penalty should be greater than $5,000. In that connection I would like to state it isn't our thought that there should be anything punitive here insofar as the potash companies are concerned. To us

five, ten, 25, or 50 thousand dollars would be of no value to us if anything happened to harm the potash deposits.

Q Are you required to furnish any bond on your state potash leases? ---A. We not only furnish bonds, we have to escrow cash or an equivalent of cash. We have to escrow government bonds.

Q For what purpose? ---A. For compliance with the lease provisions insofar as federal is concerned.

Q I was referring to state. ---A. We have a state bond, don't we, Mr. Shepard?

Q Do you have any bond in connection with the sinking of core holes? ---A. No, we do not have that. I don't think we want to get particularly afield as to the distinction between our core holes and the holes drilled by oil operators. In our particular case we naturally are extremely interested in what we ourselves do, and we are the only ones that could be harmed. So we take whatever steps are necessary to protect ourselves. We could not conceivably in drilling into the salt bed do anything that would harm the deposits of the oil operator whose values lie anything from one or two or ten thousand feet below the salt beds. The only reason for specifically referring to plugging regulations here upon abandonment for oil wells is the fact those holes do penetrate the potash zone and could harm it.

Q The only place then you feel where you could damage an oil and gas operator would be in extending your shafts into an area where there happened to be existing oil and gas wells? ---A. Yes. And I think there should be every reasonable care to protect the oil operator.

Q You maintain a bond, I presume, for that purpose, that is one of the purposes? ---A. I could not say. It has been 15 years since I have seen the bond. Mr. Shepard may be able to tell you.

MR. SHEPARD: I don't know. I haven't read it.

MR. CAMPBELL: I think that is all.

MR. SPURRIER: Does anyone else have a question of this witness?

MR. YATES: I wonder if I could have Mr. Davis read that back about drilling on presently existing oil and gas leases in A area.

MR. DAVIS: Drilling for oil and gas shall not be permitted within this area -- the A AREA -- except upon leases where there is presently production in commercial quantities. Upon such leases further drilling shall only be conducted pursuant to the provisions of paragraph 2, AREA B, contained herein, for deep wells. The thought there is that wheredrilling is continued in AREA A under existing leases, that the casing requirements for deep drilling should be required for shallow holes also in the A AREA.

MR. YATES: That doesn't sound like what you read. Will you read it again.

(Whereupon Mr. Davis read the language again.)

MR. YATES: What is your proposal on existing oil and gas leases on which there isn't commercial drilling?

MR. DAVIS: There is no provision for drilling them.

MR. YATES: Don't you think that is kind of in conflict with the existing oil and gas leases? Wherein the operator is given a specific right there?

MR. DAVIS: I will let you answer that, Mr. Seth.

MR. SETH: That is really a legal question for the Land Commissioner to decide. I don't know the answer myself.

A VOICE: Mr. Davis, did I understand correctly A AREA is about 800,000 acres?

MR. DAVIS: I didn't get your question.

A VOICE: Did I understand correctly that A AREA is about 800,000 acres?

MR. DAVIS: No, about 80,000 acres.

A VOICE: About 80,000 acres?

MR. DAVIS: Yes. I haven't scaled that off. I just roughly counted the sections here at noon. But it is in that

neighborhood.

A VOICE: And you also stated, I believe, that your company and others involved there would probably mine that area in 6 to 8 years?

MR. DAVIS: No, I didn't say that. Mr. Campbell's question in that connection was as to what determined our selection of that area. And I stated that it covered the area that we reasonably expect to get into within the next 6 to 8 years. We certainly hope we don't have it all mined out in 6 or 8 years because we will be disappointed in our reserves.

BY MR. MARTIN YATES III:

Q (By Mr. Yates) You say there is 80,000 acres in this AREA A. How long do you think it will take you to mine out the 80,000 acres? ---A. That is a rather difficult question to answer. But it will be several decades.

Q That is what I thought. Well, I for one would like to go on record protesting your proposal whereby you do not permit any drilling in the A AREA, whether it is under an existing oil and gas lease that has production or is without production. I think that that is confiscation. I certainly object. ---A. I would like to make a little explanation, it having been brought up once before when Mr. Campbell tried to show 500 years around here. When you say it takes several decades to completely deplete a mining property, that doesn't mean that you may not be in every section of your mine within 5 or 6 years. Your natural program of mining is to drift out, very often to the extreme outline of your deposits, and to do your working from there; so that this is an area we reasonably expect we will be operating in to some degree within this coming decade.

Q Here is the difference between your lease and ours. Once you establish commercial production, you can perpetrate your lease, but our lease, where we don't have production, is only for 5 years; and so long thereafter as oil and gas is produced. If we are not permitted to drill on our leases in the A AREA, we will lose those leases. We don't have a chance to ever perpetrate by production. ---A. That same requirement is in the potash lease. That only perpetrates in the event you continue operating in commercial production.

Q But under your proposal we are not permitted to operate ours.

I don't believe that is right. I think that the potash company has a right, and I think the oil company has a right. Both are sale leases, and I don't believe one should be precluded from operating their oil and gas lease while the other is permitted to operate potash.

MR. HARVEY YATES: I would like to register my disapproval. I am opposed to confiscation whether in the United States or Russia.

MR. WHITE: What proportion does your present mine operation bear to the total 80,000 acres?

MR. DAVIS: I can speak only for my own company, Mr. White. I would say that presently we have an area that extends approximately 4 miles north and south by something in the neighborhood of 3 miles east and west; which, if you squared it off, is 12 square miles, or 12 sections. Our immediate plans for the next two years contemplate the entry into about 4 more sections to the south. Our total holdings under both state and federal leases within this area that is covered here is something in the neighborhood of 20,000 acres on the part of our company. So that our present workings would be roughly in the neighborhood of one-half of the A AREA set down on the map by our company.

MR. CAMPBELL: You include in your description of areas you now mine or contemplate mining areas that might be -- where you might be having to drift out to a new mining area?

MR. DAVIS: That is correct.

MR. CAMPBELL: And you include those within those 80,000 acres?

MR. DAVIS: Yes.

MR. CAMPBELL: Where there is a possibility it drifts out to take in a deposit?

MR. DAVIS: Yes.

MR. YATES: I wonder if we could see that may, please, Exhibit A?

MR. SPURRIER: Does anyone have a question of this witness?

BY MR. MORRELL:

Q Mr. Davis, I would like to ask one or two questions for clarification of the presentation you have made on the proposed regulations. Following them, Mr. Davis, they appear to be based on the ones previously prepared by the potash operators. ---A. Primarily so; modified slightly in the light of the discussion this morning.

Q As I recall your presentation, you refer to the water to be mixed with the cement, that it shall be saturated with salts common to the zone penetrated with proper amounts of calcium chloride added. I have heard it informally discussed and I was wondering if it wouldn't be informative to ask of the other parties present at this hearing if they have any suggestions as to what the proper amount of calcium chloride additive should be? ---A. A bit earlier I suggested anything having to do with plugging could be better covered by Mr. Weaver.

Q It merely referred to proper amounts, and I wanted to get your idea. ---A. I believe in the neighborhood of three per cent, but Mr. Weaver can tell you definitely.

Q He will enlarge on that. That is three per cent of the volume and weight of cement? ---A. Yes.

Q We would like to have that clarified. The next point I have; you referred to a map to be prepared by the well operator. I was wondering if you would be willing to have a slight modification of that to provide for a map or plat of survey of the well location? ---A. I would think that would be all we meant by that.

Q The oil operators are now furnishing that to the Commission. ---A. That is all we require, is the location.

Q Is a survey of the location? ---A. Yes.

Q With respect to the point Mr. Campbell raised on your suggestion that exploratory wells be drilled in the center of each quarter-section, I would like to raise a little objection to that specific wording, inasmuch as within your defined area there are state lands that do not comprise an entire quarter-section. I gathered that your intention is you would like to limit exploratory development to rate or number of one per quarter-section? ---A. Yes. And for the reason the location

is, if you will notice, isn't inflexible in here. So that future plans of development could be worked out by the potash operators in the event that additional potash ore was found in that area and they wouldn't have to corkscrew around a bunch of holes placed hit or miss over an entire district.

Q That same result could be accomplished by merely stating exploratory wells would be limited to one well per quarter-section without specifying the location. I mention that because we do not approve wells in the center of a quarter-section on federal acreage, and present regulations of the Oil Conservation Commission do not. ---A. As a non-operating official, I wouldn't think it would occasion any difficulty as long as we reasonably in advance knew where it was. We can skirt any known hole if we know it far enough in advance, which we would do.

Q My thought was to take out the specific reference to a particular location to avoid that complication. ---A. I don't think it would cause any difficulty at all.

BY MR. CAMPBELL:

Q Did I understand you before as to this well in the center of 160 acres, that it applies only to exploratory wells? I didn't understand it that way. ---A. I don't think it stated that. I believe Mr. Morrell --

Q That is a considerable difference, of course. The original exploratory well, the spacing and location, is all different than it is in a developing well. ---A. That really isn't our proposal.

Q You thought it should apply to all wells? ---A. Yes.

Q That is the basis on which I questioned you. ---A. Yes, sir.

MR. SPURRIER: Do you also intend that this applies only to state land?

MR. DAVIS: In connection with the original purpose of the hearings and the establishment of a group to study this, it was our thought that very probably this would continue on to cover both federal and state lands. And as you know, there have been representatives of the federal government here at all discussions.

Q (By Mr. Campbell) You understand, don't you, Mr. Davis, that the Oil Conservation Commission issues rules and regulations which govern both state and federal lands within New Mexico? ---A. That is my understanding, regardless of the ownership --

Q They have the right to issue operating rules? ---A. Yes.

BY MR. GROMMON:

Q Mr. Davis, I believe you stated that in AREA A you recommended no development whatsoever. ---A. Yes.

Q In this 220,000 acres, AREA B, the proposal A that was submitted by the committee, engineer committee, was for test wells, exploratory wells, and it was my thought, as a representative of the operators, that that casing program was very rigid and should be reviewed if a discovery was found, and the field rules set up for the new field. I think that should apply to the spacing rule as well. In other words, this casing program presented today, which you and the other potash people presented thismorning, should apply to exploratory wells and new wells; and if an oil field is discovered, the Commission should hold a hearing to consider proper spacing for the development of the field and a proper casing program. In all probability, in my opinion, the proper casing program would include the two strings of pipe above and below the salt. But for proper development of an oil field, it might be advisable to alternate any casing program below that. It should be considered in view of the information and knowledge of the oil field at that time. ---A. Well, that is the first time I have heard any distinction made between exploratory wells and subsequently developing wells, let us say. Again, to reiterate, the casing and drilling program as stated to be acceptable to us was developed by the oil industry itself. I believe that, without change, the potash industry at the last hearing stated that the sub-committee's recommendation for a drilling and casing program was acceptable to the potash companies. This morning, as you know, we stated that the modifications as proposed by Mr. Hill were acceptable. So we have felt that right along it was the oil industry's own idea of what it took to properly protect its own wells and the potash deposits. And until Mr. Campbell started asking questions about exploratory wells, I didn't know there was any distinction.

MR. SETH: May I make a comment on that point? I think a hearing of this nature is all we can do now. Is do the best we can, knowing the circumstances. The Commission is always

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open to anyone to come in at a later date and seek a modification of orders. We can't anticipate everything at this point. All we can do is to do the best we can on what we know of the situation. If something develops during the program, and might at a later date, any person that has sufficient interest can come in and seek a modification upon the basis of the facts as they are then known. That would certainly be true in this case, wouldn't it, Mr. Spurrier?

MR. SPURRIER: Certainly.

MR. GROMMON: I believe it would be impossible for the Commission at this time to write proper regulations for oil development in a field that they wouldn't know whether it was 5, 7 or 10 thousand feet deep and about a spacing and casing program below a salt development.

MR. SETH: To think of spacing in connection with reservoir conditions and drainage. But you have here an agency in between those wells that has to guard its underground workings and has to leave pillars or a certain size. You have to take into consideration this new and additional factor in spacing. It isn't spacing only for drainage of the oil, it is spacing to conserve the potash reserve also there. If you get oil wells too close together in the section, there won't be any room for anybody else to work underground. You have to consider someone else in there.

MR. GROMMON: Of course, we have never had what we consider real close spacing in New Mexico. 40 acres. You would have no objection to a rehearing if a discovery was made to consider proper regulations for the field?

MR. SETH: I don't think there is any question about it.

MR. GROMMON: Very well, that is all I have.

(Recess.)

MR. SPURRIER: Does anyone have any further question of Mr. Davis?

BY MR. YATES:

Q Mr. Chairman, I would like to ask Mr. Davis about this 80,000 acres in the A district. Just how many acres have you mined by the various potash companies in the last 25 years?

Can you answer that? ---A. I don't believe you could answer the question directly, Mr. Yates. It has very little bearing on what determines the outline of the 80,000 acres. As I stated previously, the amount of acreage that you have actually mined out doesn't determine the area of your mine workings. You may have mine workings under 10 square miles and have mined out only one square mile completely.

Q Wasn't it previously testified at one of these hearings there has been approximately 10,000 acres mined in the last 25 years by the various potash companies? ---A. I don't recall that. But for one thing your American potash industry today is about 10 times as big as it was 12 or 14 years ago. The first potash operation I think got into -- got going commercially -- in 1929. The second operation didn't get in there until 1935. The third operation didn't get started until 1940; and each one of them started on a fraction of the basis it now operates under. So, anything that occurred in the past would be no criteria as to what might come in the future. Past performance on the removal of ore has nothing really to do with the case.

Q I kind of think it might have something to do with it. It looks to me, just from a layman's viewpoint, to that 80,000 acres I believe it will take anywhere from 150 to 200 years to mine out the rest of the potash ore. I think that is an unreasonable length of time. ---A. Unfortunately, Mr. Yates, you are not familiar with the potash properties or potash authorities or potash reserves. I can state unequivocally right now insofar as any known potash reserves occur down there there is nothing like 150 years of ore. Or insofar as I know today no one can positively state that at the present rate of production there is 50 years of ore supply.

Q All right. Now, isn't it likely -- as I understand it, the potash companies are continuing to core and they are prospecting from time to time -- isn't it likely they will make more discoveries? ---A. We certainly hope so.

Q Then I think in view, in the light of that, it is unreasonable for the potash companies to try and set aside an area that large and expect the oilman not to drill wells in those areas. This thing will keep growing and growing. ---A. Relatively, the area is infinitesimal, as I think you will agree when you spot it down on a map of the state or county, as the case may be. And it is the only place known in New Mexico where potash occurs, and it is something of vital importance to the state and to the nation.

Q I agree it is vital to the state and the nation, and I think the potash companies should be permitted to mine; but at the same time, I think the oil companies could protect the potash beds, and I think both could work in cooperation in the same areas at the same time. ---A. In the event now you speak of the entire defined area, in the event you should find oil deposits in the B AREA and develop the B AREA, it wouldn't make any difference what the potash companies found in the next 10 to 20 years. It would still be concurrent production of oil and potash.

Q But you set one area aside and don't permit any drilling, and permit drilling in B. Suppose a man has a lease in the B and A AREAS, which we have. All right. Then we have some neighbors that have offset leases that offset our lease in the A AREA. We couldn't protect ourselves from drainage where a man drills an offset to our 80 acres. We would have to wait, if your proposal went through, and have the oil go out from under us even though we could perpetrate our lease in the A and B AREA through production on the B AREA. That would certainly be an unjust case. (No response from the witness.)

MR. YATES: Mr. Chairman, I would like to register a complaint against the proposal made here just a minute ago, and that is on the spacing of 160 acres. As I understand it, their proposal is on the B AREA. It has been established by precedent, generally speaking, that the spacing in New Mexico has been one well to 40 acres. And I don't think one to 160 acres is just and right. I don't believe it is to the interest of the state or the federal government either.

MR. SPURRIER: Does anyone have a question of Mr. Davis? Or a comment? If not, the witness may be excused.

(Witness excused.)

MR. SPURRIER: Do you have another witness?

G. C. WEAVER, having been first duly sworn, testified as follows:

DIRECT EXAMINATION BY MR. SETH:

Q Will you state your name, please? ---A. G. C. Weaver.

Q With which company are you associated, Mr. Weaver, and in what capacity? ---A. I am a consultant for Duval Sulphur and

Potash.

Q Would you state briefly your qualifications? ---A. I graduated from Colorado School of Mines in 1926. I have been in the mining game ever since. I have had eight years with the Potash Company of America, four with International Minerals and Chemical, and I have done consulting work for the last five years.

Q Have you examined and considered the proposed regulations as presented to the Commission by Mr. Davis? ---A. I have.

Q Would you wish to make any comments on them, generally, or anything specific for the benefit of the Commission? ---A. I think the major point to be considered in any approach that we take to this problem is conservation; conservation of both oil and gas and potash.

Q As far as the casing requirements are concerned, both for the deep wells and shallow wells, what comments do you have to make on those?---A. Well, these regulations that are set forth now I don't believe should be construed as final. If there is an oil and gas discovery made, the casing program will have to be worked out after the pool has been discovered. These regulations that we have here are a starting point. But it is provided for in these regulations to alternate the programs after due consideration has been given by the Commission and others concerned.

Q Now, as far as specific questions are concerned, I believe Mr. Foster Morrell asked about the fluid to be mixed with the cement, as to the proportion of calcium chloride. What do you recommend? ---A. The normal practice is to use three per cent clacium chloride, three per cent of the weight of the cement used.

Q You believe that would be a reasonable requirement in this connection? ---A. Yes. There has been considerable research work done on that.

Q The question was also asked as to the method of plugging core holes drilled by the potash companies in their exploratory work. What recommendation for closing core holes do you have? ---A. The practice followed in plugging core holes is to cement through the salt section with Portland cement and three per cent calcium chloride and mixed with saturated sodium chloride and potassium chloride brine. It is a continuous plug all

through the salt section.

Q That would be comparable to the plugging requirement recommended in this proposal? ---A. Yes.

Q There has been some discussion about the spacing as proposed in these recommendations? What comments would you have to make on the spacing as an initial proposal, knowing what we know about reservoir conditions at the present time? ---A. I don't think it was the purpose or intent to insist that wells be drilled in the center of each quarter. The thing in mind there was to limit the number of holes per section so that too many pillars wouldn't have to be left upon the extraction of potash.

Q These proposals contemplate that no workings will be driven to within a distance of less than 100 ft. from any such wells. That would mean you would have to leave a pillar with a radius of 100 ft. around each well? ---A. That, or adequate support, yes.

Q As the density of the wells increased in the section, it would mean substantial reduction in the recoverable potash in the area? ---A. Yes, that's right.

Q In your opinion, is that a reasonable requirement as recommended for a starting place, at least? ---A. Yes. There again, I believe it takes into consideration and is set up in this proposal where that spacing can be changed.

Q Is there anything else of general comment on technical matters you would like to bring out? ---A. I may say this. I can appreciate the position of the operator in wanting to recover all casing possible. And it would be my opinion that the potash companies would not object to recovering all that casing in case of a dry hole.

Q These regulations, do they not contemplate on the shallow wells that the salt protection string be recovered if the well isn't a producing well? ---A. That's right.

Q Is there anything else you would like to comment on? ---A. No, I believe not.

MR. SETH: That is all the direct questioning.

CROSS-EXAMINATION BY MR. CAMPBELL:

Q Mr. Weaver, I believe you stated that you felt the primary consideration of everybody in this matter was conservation. I presume by that you mean the production of these resources under proper conservation practices? ---A. Yes, sir.

Q We are all concerned with producing both oil and gas and potash? ---A. That is correct.

Q And making it available. I have one question to ask you about the spacing matter. Do you have a particular objection to presenting your views with regard to spacing of these wells before this Commission at such time as a discovery is made? And your advice would be the same then, and the Commission's consideration of those views be better balanced at that time than it would be at this time? ---A. Yes, I think you are correct. No one knows where a discovery is going to be made.

Q That's right. ---A. And I don't think there is anyone here that can foresee where alarge salt horse would enter in. And I think that if that could be handled on its own merits, it would be very satisfactory that way.

Q There is one other thing that has come up in our discussions with reference to your proposal about the use of the various brines in the plug. ---A. Yes.

Q I believe your porposal, which I think is taken from the one suggested by the sub-committee of the engineering committee of the oil and gas operators ... ? ---A. Yes.

Q Uses the terms "salts common to the area." ---A. Yes, sir.

Q Would the suggestion you made with reference to your three per cent solution there plus the other ingredients eliminate the necessity of that provision? In other words, some of the operators raise the question as to whether you might in all cases be able to determine with accuracy the salt common to that particular area. Would that be a particular problem so far as you are concerned? ---A. No. I am sure in plugging any of those wells that the potash companies would cooperate fully in furnishing a saturated brine for the mixing.

Q It would be to their advantage to do it? ---A. Yes, certainly.

Q If they had it available? ---A. Yes, certainly.

MR. CAMPBELL: That is all.

MR. SPURRIER: Does anyone have a question of this witness? If not, the witness may be excused.

(Witness excused.)

MR. CAMPBELL: If the Commission please, I would like to call one witness for a very brief presentation, and I would like to explain the reason for the presentation of this evidence. It isn't to minimize the understanding of most of the oil operators. The necessity of using every effort to have a proper program of casing and cementing in this area, but to make clear to the Commission the background of oil and gas drilling in this area so that they may evaluate the problem involved in connection with this casing and cementing. And I would like to call for that purpose Mr. H. S. Cave.

H. S. CAVE, having been first duly sworn, testified as follows:

DIRECT EXAMINATION BY MR. CAMPBELL:

Q State your name, please. ---A. H. S. Cave.

Q By whom are you employed? ---A. Phillips Petroleum Co.

Q Where are you stationed? ---A. Roswell, N. M.

Q In what capacity are you employed? ---A. Well, just senior geologist.

Q Will you state for the Commission very briefly your professional background? ---A. I did undergraduate work in geology at the University of Missouri; one year of postgraduate work in geology at the University of Missouri; and two years postgraduate work at Harvard University; two field seasons with the U.S. Geological Survey; a year and a half with the Geological Survey of Georgia; subsequent to that time, with the exception of time in the service, I have been engaged in geological work for oil companies and industries.

Q Mr. Cave, when did you first become acquainted with the geological situation in the area that is here under discussion? ---A. That was very late in 1926 or early in 1927, at which time I was employed by the Bisbee Oil Co., at which time said company acquired state leases for potash exploration in

the amount of approximately 49,000 acres.

Q What was your connection with that -- in exploratory work? ---A. Subsequent to that, in order to validate those leases and to see what we might have gotten, we drilled four core holes, and at that time it was my duty to check such cores and describe them, and that was done in conjunction with Walter Lang of the U. S. Geological Survey, who was in charge of potash investigation for the Survey and hence for the Department of the Interior in New Mexico.

Q You, yourself, assisted in the analysis of those cores? ---A. Yes, sir.

Q Mr. Cave, through the course of the years since that time have you had occasion to obtain records concerning the drilling of oil wells in this particular area? ---A. Yes, sir, I have.

Q And have you recently made a study of wells which were drilled and have been drilled in that area since the initial discovery of oil? ---A. I have made a compilation of the date pertaining to those wells.

Q What area does the compilation cover? ---A. It primarily covers Township 19S, Range 29 and 30E; Township 20S, Range 29 and 30E; Township 21S, Range 29 and 30E; and Township 22S, Range 29E.

Q That is six townships, is that correct? ---A. Yes, sir. Seven townships.

Q Seven townships in the immediate area under consideration here? ---A. Yes, sir.

Q And what did your compilation show as to the number of oil and gas wells which have already been drilled in that area? ---A. These records were taken from the status sheets of the Geological Survey and set forth in T. 19S, 29E to have been a total of 45 test holes drilled. In total depths these ranged from 503 ft. to 3,096 ft. Through their range in years for this drilling they range from 1925 into the year 1951. In T. 19S, R. 30E, as of approximately one month ago, 22 tests had been drilled, with a range in total depth with a minimum of 1,722 ft. to a maximum of 4,022 ft. In years, range from 1929 up until a period of about one month ago in the current year 1951. In T. 20S, R. 29E during the same dates there have been drilled a total of 30 wells that range in total depth

from a minimum of 505 ft. to a maximum of 6,683 ft. In years, they range from 1925 to 1948. In T. 20S, R. 30E, a total of 47 wells, with ranges in total depth from 1,250ft. to 3,500 ft. In years, the range covers from 1925 to 1948. That gave in those four townships, for which we were supposedly reaching, a total of 144 tests. In T. 21S, R. 29E there have been drilled 2 tests, one to 430 ft. in the year '41 and one to a total depth of 3,334 ft. in the year 1950. In T. 21S, R. 30E there have been a total of 5 holes drilled. They range in total depth from 503 ft. to a maximum depth of 1,934 ft. They were drilled between the years 1925 to 1934. In T. 22S, R. 29E 2 tests have been drilled. One to a total depth of 3,322 ft. The other to a total depth of 3,260 ft. The former was drilled in 1937 and the latter in the year 1926. It gives within the general area under discussion a total of 153 tests of one class or another that have been drilled.

Q And these records you obtained from the reports of the U.S. Geological Survey? ---A. Yes.

Q And those are available, as to location, and all the information is available at that source? ---A. Yes, they are. I might add, on this current gological survey the accurate location is shown, and I merely tabulated this to give more concrete figures.

Q To your knowledge, within that area where those 153 wells between 1925 to date have been drilled, do you know of any instances in that particular area where there have been complaints as to leakage and so forth? ---A. Personally, I do not. But I have no record what damage the potash people might have suffered, if any.

Q But this area we are referring to isn't virgin country so far as oil and gas holes are concerned? ---A. By no means. It is one of the oldest areas for prospecting in the state as far as southeastern New Mexico is concerned.

MR. CAMPBELL: That is all.

MR. SPURRIER: Does anyone have a question of this witness?

MR. SETH: We have no questions.

MR. CAMPBELL: That is all we have.

MR. SPURRIER: Do you have any other witnesses, Mr. Seth?

MR. SETH: We, we have no further testimony.

MR. SPURRIER: Do you have anything further, Mr. Campbell?

MR. CAMPBELL: Mr. Commissioner, just this. I think this hearing today has brought the problem here into focus more than any we have previously had, and so far as Richardson and Bass, whom I represent, are concerned, we wish to state we appreciate the information furnished by the potash companies and we feel, based on the information that has been furnished and their recommendations and our recommendations that, speaking for that company, we feel that the matter can definitely be worked out to our satisfaction, and we hope to the satisfaction of the potash companies.

MR. SETH: On behalf of the potash companies, I would just like to express our appreciation for this additional hearing that was had after the recess this noon. We feel that the matter is one of some substantial importance to the state and it should be decided on the basis of the interest of the state itself. The potash deposits, as has been testified several times during these previous hearings, are probably the only ones in the western hemisphere. The state should look at the proposition with a long-range view. The potash beds can be developed in the immediate future, and they should be. It is just a matter of time. The oil will be there when the potash is mined out. And I believe the matter, as the witness has stated, is one of conservation. It not only means production and realization of these resources, but it means protection of the adjoining ones. If the oil can be produced in a manner to protect the potash beds, that is all we are interested in. The state, in the potash, has a unique resource that is in need of protection and is in considerable danger of damage, and I think the matter as presented during the several hearings has brought that out much better than I can state it. It transcends any interest of any individual or any individual company. In a situation of this nature, just as in these condemnation cases on the bombing range and other things that have happened in the state, someone is bound to get hurt. It happens when the state takes into consideration an action like this. A decision has to be made which will insure to the state the best realization of this resource. We will be very happy to furnish any additional maps or information that the Commission may wish at any time.

MR. SPURRIER: Thank you. The meeting is adjourned, gentlemen.

STATE OF NEW MEXICO

ss

COUNTY OF BERNALILLO

I HEREBY CERTIFY That the foregoing transcript of hearing before the Oil Conservation Commission in Santa Fe on July 10, 1951, is a true record of the same to the best of my knowledge, skill, and ability.

DONE at Albuquerque, N. M., this_____day of July, 1951.

E. E. Greeson
Notary Public - Court Reporter

My Commission Expires: 3-4-52

Mailed:
July 20, 1951

BEFORE THE

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

TRANSCRIPTION OF HEARING

CASE NO. 228

10 July 51

(DATE)

E. E. GREESON
COURT REPORTER
UNITED STATES COURT HOUSE
TELEPHONE 3-0672
ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

Case 278: (Continued from the June 21, 1951, hearing.)

BEFORE: Hon. E. L. Mechem, Chairman
Hon. R. R. Spurrier, Member

R E G I S T E R:

Dwight H. Blackard, New Mexico Miners Association, Albuquerque, N. M.

G. R. Griswold, Mining Engineer, Albuquerque, N. M.

Homer Dailey, Continental Oil Co., Midland, Texas.

L. A. Sherwood, Shell Oil Co., Midland, Texas.

G. C. Cameron, Humble Oil & Refining Co., Houston, Texas.

J. W. House, do. do. , Midland, Texas.

Emery Carper, Carper Drilling Co., Artesia, N. M.

W. H. Jones, Stanolind Oil & Gas Co., Lubbock, Texas.

Ralph L. Gray, Buffalo Oil Co., Artesia, N. M.

Harvey E. Yates, do. do. do. do.

H. S. Cave, Phillips Petroleum Co., Roswell, N. M.

S. B. Christy, Sun Oil Co., Roswell, N. M.

E. L. Shafer, Continental Oil Co., Hobbs, N. M.

Charles C. Lawless, Jr., New Mexico Oil & Gas Association, Roswell, N. M.

F. O. Davis, Potash Company of America, Carlsbad, N. M.

T. M. Cramer, U. S. Potash Co., Carlsbad, N. M.

Oliver Seth, U. S. Potash Co., Santa Fe, N. M.

G. C. Weaver, Duval Sulphur & Potash Co., Carlsbad, N.M.

W. R. Morris, do. do. do.

H. L. Gardner, International Minerals & Chemical Corp., Carlsbad, N. M.

J. E. Hill, Richardson and Bass, Fort Worth, Texas.

R. H. Steinart, Southwest Potash Corporation, Carlsbad, N. M.

Claude E. Upchurch, Gulf Oil Corporation, Fort Worth, Texas.

Foster Morrell, U.S.G.S., Roswell, N. M.

R. S. Fulton, U.S.G.S., Carlsbad, N. M.

R. H. Allport, U.S.G.S., Carlsbad, N. M.

R. L. Boss, Gulf Oil Corporation, Roswell, N. M.

P. D. Grommon, Jr., The Texas Co., Fort Worth, Texas.

G.R. Brown, The Texas Co., Midland, Texas.

Harve H. Mayfield, Magnolia Petroleum Co., Midland, Texas.

E. E. Kinney, New Mexico Bureau of Mines, Artesia, N. M.

Glenn Staley, New Mexico Oil and Gas Engineering Committee, Hobbs, N. M.

Justin Newman, O.C.C., Artesia, N. M.

George W. Selinger, Skelly Oil Co., Tulsa, Okla.

Jack M. Campbell, Richardson and Bass, Roswell, N.M.

L. C. White, O.C.C., Santa Fe, N. M.

George Graham, O.C.C., Santa Fe, N. M.

MR. SPURRIER: The meeting will come to order, gentlemen. This is a continuation from the last hearing of this case. And I believe that Judge Seth, or an attorney representing the potash people, were to put their case on at this time.

MR. CAMPBELL: Mr. Commissioner, it might be a little more orderly -- we have a few suggested changes in the casing program that was submitted the last time. And in order to complete our presentation, it might be proper for us to make those suggested changes at this time so that the potash people know what we have in mind. If we could just put Mr. Hill back on again, and have him get into the record those changes, and then go ahead with the potash presentation.

MR. SPURRIER: Is that agreeable with the potash people?

A VOICE: Yes.

J. E. HILL, having been sworn at the prior hearing on June 21, 1951, testified as follows:

DIRECT EXAMINATION BY MR. CAMPBELL:

MR. SPURRIER: You are reminded you have been sworn, Mr. Hill.

MR. HILL: Yes, sir.

Q (By Mr. Campbell) You are Mr. J. E. Hill? ---A. Yes, sir.

Q Employed by Richardson and Bass, Fort Worth, Texas? ---A. Yes, sir.

Q You previously testified in this hearing? ---A. Yes, sir.

Q At the time you testified previously, Mr. Hill, I believe you put into the record Exhibit A, which was a casing program suggested by a subcommittee of the New Mexico Oil and Gas Engineering Committee, is that correct? ---A. That is correct, sir.

Q And since that hearing do you have any suggestions to make as to proposed changes in that suggested casing and cementing program shown as Exhibit A in the record here? ---A. We have, sir.

Q Would you state to the Commission for the record what those changes are? ---A. In Exhibit A, par. 4 of the No. 1 section, title "Subsurface Casing String", we propose the following change to be made, and that par. 4 begin with the following sentence: "This casing string shall be tested with a hydraulic pressure of 600 lbs psi. If a drop of 100 lbs psi or more should occur within 30 minutes, corrective measures should be applied." That is our recommended 4th paragraph under Section 1. And in doing that we have deleted any reference to cable tools and the testing of a string under a cable-tool method.

Under Section 2, title "Salt Protection String", we propose that the first word of par. 1 be changed to "a", to read, "A salt protection string shall be set at least 100 ft. and not more than 200 ft. below the base of the salt section. This string may consist of new, secondhand, or reconditioned pipe. New pipe shallhave received a mill test of not less than 1,000 lbs psi; secondhand and reconditioned pipe shall be retested to 1,000 lbs psi before being run." We also propose that par. 2, which is a single sentence, be changed to read as follows: "Centralizers shall be used on at least every 150 ft. of casing below the surface casing." This change was made at the instance of a telegram that was received at the last hearing which called for a definite distance between centralizers on the salt protection string. Par. 3 of Section 2 will be the same for the first sentence. The parentheses sentence and the third sentence. We propose to change the fourth sentence of that paragraph to read as follows: "If the cement fails to reach the surface, the top of the cement shall be located by a temperature or gamma ray survey; and additional cement jobs done until cement is brought to the surface."

Q Will you state the reason for that? ---A. The reason for that change was that if we did have full circulation under the previous written rule there would be no reason to run a gamma ray or temperature survey, and this just clarifies the responsibility if the cement does fail to reach the surface.

Q Isn't it true it gives the operator some option as to the method he shall use in seeing it does reach the surface? ---A. That's right.

We propose the fifth sentence be deleted from the original third paragraph to read as follows -- be deleted and this

sentence inserted, "The Oil Conservation Commission shall be furnished with proof that the salt string is cemented to the surface; either by having a Commission representative witness the job or by affidavits or logs filed with the Commission."

In par. 4 of Section 2 we propose to eliminate the first two sentences and substitute this sentence, "This casing string shall be tested with a hydraulic pressure of 1,000 lbs psi." The third sentence shall remain as written; which is, "If a drop of 100 lbs psi or more should occur within thirty minutes, corrective measures shall be applied." We propose to delete the next sentence, which begins with, "If cable tools are used ....."

Section 3, "Intermediate String." We propose to introduce the first paragraph with this portion of a sentence, "If the operator runs an intermediate string, this string may be a drilling protection string for deep drilling objectives or may be an oil string for testing medium depth zones."

This sub "a" under par. 3, the first sentence is to be left as written and the next sentence deleted, and this substitute sentence added, "The operator shall furnish proof to the Oil Conservation Commission that this cementing requirement has been fulfilled, either by having a representative of the Commission witness the job or by affidavits or logs filed with the Oil Conservation Commission." And this sentence shall be added -- these two sentences are to be added under subsection "a" of this Section 3 -- "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. Casing shall be tested with a hydraulic pressure of 1,000 lbs. psi. If a drop of 100 lbs psi or more should occur within 30 minutes, corrective measures shall be applied."

Sub-paragraph "b" under Section 3. The first sentence of "b" shall read the same; with the addition at the end of the sentence of this statement, "... and the Oil Conservation Commission satisfied that this requirement has been fulfilled either by a representative of the Commission witnessing the job or by affidavits or logs filed with the Commission. Cement time and testing rules shall apply similarly in the case of this string as is written for the above string." The last sentence of sub-par. "b" under 3 is deleted.

Sec. 4, " Oil and Production Strings (deep wells)" There

is no change in this section with the exception that the following sentence is recommended to be added: "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."

Section 5, "Drilling Fluid for Salt Section," remains the same.

Q Mr. Hill, are these suggested changes concurred in by the members of the subcommittee who formed the original suggestions? ---A. Yes, sir.

Q And in your opinion does this proposed program with the changes that you have suggested give adequate protection to the salt section, which we are seeking here to protect? ---A. We believe it does, yes, sir.

Q This recommendation remains that of the individual members of this subcommittee, is that correct? ---A. That is true; and also as the recommendation of Richardson and Dass as an individual operator.

Q As far as your company is concerned, you are willing to comply with this particular casing and cementing program in a critical potash area, is that correct? ---A. Yes, sir.

Q Mr. Hill, I believe you testified in the previous hearing that your company owned leases in this area, and you were prepared to drill deep tests in the general area. Can you state whether your company, whether there are any areas, which your company would not consider drilling oil wells in? ---A. We do not anticipate drilling on any of the lands presently being worked by the potash companies; specifically, in or on their mine workings areas, or in any of the areas in which they plan to explore in the future. And as a normal distance, we believe that one-half mile outside of the known or contemplated workings should be restricted.

Q And in that regard, would you be willing to give consideration to the fact that there are two new companies in that area now drilling shafts? ---A. Yes, sir.

Q And be willing to give consideration to the fact that they have not as yet undertaken any mine workings in determining

the area in which you would not drill? ---A. That is true.

MR. CAMPBELL: I believe that is all.

MR. SPURRIER: Does anyone have any question of this witness? Mr. Morrell.

MR. MORRELL. Mr. Spurrier, I would like to ask Mr. Hill one question with the thought of clarifying the record for the Commission. Section No. 3 refers to testing medium depth or medium depth zones. I think probably that should be defined by a depth or formation so that there will be a distinction between that and the reference to the cable tool Exhibit B to shallow.

MR. CAMPBELL: Mr. Hill, did the committee consider that at the time Section 3 was prepared? ---A. This section, of course, refers to either a drilling protection string for deep drilling objectives, or maybe an oil string for testing medium-depth zones. I would say that a medium depth zone as far as depth is concerned would be approximately a 5,000 ft. depth, or it could be 4,000 ft.

MR. MORRELL: I was merely noting that Exhibit B spoke of shallow wells above 5,000 ft.

MR. HILL: I think 5,000 ft. could be a critical depth point to clarify both jobs.

MR. MORRELL: Your medium depth zone would be below 5,000?

MR. HILL: Above 5,000.

MR. MORRELL: So, it would be synonymous to shallow?

MR. HILL: Yes, sir.

MR. MORRELL: That is all.

MR. SPURRIER: Thank you. Anyone else?

MR. SETH: May I ask one question? About the rule for plugging. Will that be considered separately or does this cover that?

MR. HILL: The Engineering Committee did not write up

any rules for plugging or abandonment of wells. But I think they can be set up and agreed to mutually very easily. And I would suggest, as your potash companies have certain rules for abandonment, they be presented, and they statements can be made and suggestions or criticism. I would suggest that be entered into the record as part of this thing, as to the rules, or a discussion can be had on it.

MR. SETH: That is part of the picture, isn't it?

MR. HILL: Definitely, but we haven't --

MR. SETH: Have you prepared any recommendations for plugging or abandonment? ---A. No, sir, but I am prepared to approve any you might submit with reasonable good operating practice. And I would be willing to approve them or discuss them as they are presented.

MR. SETH: May we have a copy of these proposed changes? Do you have any, Jack?

MR. CAMPBELL: We have, unfortunately, only one which has been interlined. You may have it to make a copy. We do not have a full set of the changes. Mr. Hill, in connection with the plugging and abandonment matter, could you state generally insofar as your company is concerned what procedure you follow normally in the salt areas in the plugging or abandonment of wells? ---A. Under the conditions of these casing rules, there would be no effort made to recover any of the strings now; surface, salt protection string, or intermediate string or drilling protection string. Because they will have been cemented to the surface, and the drilling protection string will have been cemented from 1,000 ft. below the bottom of the salt protection string to the surface. Any known or discovered shows below a protection string would normally be cemented off by cement placed at least 100 ft below to a point at least 100 ft. above; and the normal practice would be to set a plug from 500 ft. below the protection string on up into the protection string some 2 to 300 ft. That would preclude any possible migration. And with your casing remaining intact, an upper plug of some 1,000 ft. could be set in the upper part of the hole, or it wouldn't be impractical to even put a column of cement equal to your salt section in the last, or your smallest string, left in the well.

MR. SPURRIER: The Commission would like to remind

those present that Mr. Hill is available at this time for cross-examination, and I presume he will be later.

MR. CAMPBELL: Yes. He will be here throughout the hearing for questions he can answer.

MR. SPURRIER: If you desire to cross-examine, now is the time to do it; before the potash people put on their testimony. Are there any more questions? If not, the witness may be excused.

(Witness excused.)

MR. CAMPBELL: Mr. Commissioner, that is all at this time. It may be we may want to call additional witnesses following presentation of some information by the potash industry.

MR. SPURRIER: Well, it occurs to me that the changes you have made here -- you and Mr. Hill have read into the record -- may be quite difficult to follow, and some of these people may have either comment or questions after they have been able to see exactly what those changes are.

MR. CAMPBELL: Mr. Hill will be available all day, and if they can go over the changes sometime during the course of the day, he will be available for the discussion of them.

MR. HILL: The changes are actually of no material moment. Just more for clarification and for testing some of the strings presented in the original rules. For example, one of the changes just directly places the centralizer rather than leaves it at the free joints.

MR. YATES: Mr. Commissioner, I would like to know in advance if it is clearly understood this program he is presenting is for rotary only, for deep-well zones.

MR. SPURRIER: Mr. Hill, can you answer that?

MR. HILL: That is the way that the -- I think the rules that were first introduced were for -- may I have that copy just a second? Oil and gas casing and cementing programs for oil and gas test wells in the defined areas in Eddy County, N. M. And the point brought up by Mr. Yates referring to cable tools. We purposely deleted any reference to cable-tool

methods and testing, and as a consequence the entire set of rules refers only to rotary drilling.

MR. SPURRIER: Does that answer the question?

MR. YATES: That's right.

A VOICE: Pardon me, Mr. Hill. Does that say only Eddy County? The area shown on the map goes into Lea County.

MR. HILL: It should be applied to Lea County then.

A VOICE: You removed all reference to cable-tool drilling. Why was that?

MR. HILL: It was suggested by cable-tool drillers and shallow operators, inasmuch as we were attempting to describe rules for deeper drilling, particularly on the rotary drilling, and they preferred it should be confined to that under this particular program.

A VOICE: Is it contemplated there be a separate set of regulations for cable-tool drilling?

MR. HILL: There were separate rules presented at the last meeting, marked Exhibit B and Exhibit C, which covered as I believe medium depth tests -- well, by rotary or cable tool-- and then one exclusively cable tools. And we didn't feel we could speak for every operator in the state, and we didn't feel the responsibility of attempting to secure casing and cementing programs for deeper test wells in this general area, and as a consequence we couldn't see how we, as individual operators, could force every body to drill different type wells to follow the same set of rules.

MR. MORRELL: In that connection, the heading as now printed says, "Casing and Cementing Programs for Oil and Gas Test Wells." Following your expression just now, would it clarify it to insert "rotary-drilled" before "test Wells"?

MR. HILL: That would be all right, sir.

MR. MORRELL: In the defined areas of Eddy and Lea Counties.

MR. CAMPBELL: I would like to have the record show that Exhibit A, B, and C were offered in evidence, and that the

suggested amendments were -- to Exhibit A -- were also offered in evidence.

MR. SPURRIER: Did everyone hear that? These exhibits A, B, C, and D have been offered in evidence, and without objection they will be accepted.

MR. CAMPBELL: Exhibit A is amended.

MR. SPURRIER: That includes the Exhibit A as amended this morning. Does anyone have any further question or comment before the potash people put their testimony on? If not, Mr. Seth, will you proceed?

MR. SETH: Well, Mr. Commissioner, I am here not as a spokesman for all the industry. I came for U. S. Potash. And as far as they are concerned these proposed regulations are acceptable to them for all wells drilled. This Exhibit A, as amended by the testimony of Mr. Hill this morning. I think the other companies would like to make a comment on it.

MR. DAVIS: We will concur in that, and we have no objections to the amendments to Exhibit A. And Southwestern Potash, and Potash Company of America, and the International Minerals and Chemical Corporation, and Duvall Sulphur and Potash all concur in the fact that we have no objections to the amendments proposed in Exhibit A.

MR. SPURRIER: Now, is there another company? Are there any more potash companies?

MR. DAVIS: We both represent them all. Mr. Seth spoke for U.S. Potash Co. And that represents the five companies who are involved. Mr. Cramer raises the point, Mr. Commissioner, that there are other companies who have been or are drilling in the area, and we, of course, do not speak for them. Exploratory work that may be going on or carried on by independents or others. But they are not present at this hearing.

MR. SETH: We represent all the established operators.

MR. SPURRIER: One more question. To make the record clear now; does any potash company have any testimony to present at this time on this case?

MR. SETH: As I understand the procedural situation at

this time, we will consider Exhibit A, as modified, which is limited to rotary drilling. And we stand ready to hear any proposals that may be presented for cable-tool drilling. The testimony Mr. Hill has presented this morning has split the thing into two questions now. We have the rotary regulations and we have the cable regulations. That was done by these amendments. And we stand ready to hear the proposals on the cable tools.

(Off the record discussion.)

MR. CAMPBELL: Mr. Commissioner, I believe at the last hearing a proposal was presented -- I do not represent the people that presented it -- but there is in the record a proposal for cable-tool-medium-depth well protection which was submitted at the last hearing. I presume that is the recommendation of the cable-tool operators.

MR. SETH: Are they standing on that proposal?

MR. CAMPBELL: That I don't know. I presume they have representatives here.

MR. YATES: We have submitted the program. If there is any objection -- we submitted that program at the last hearing -- and if the potash companies have objections to it, we would like to hear them.

MR. SPURRIER: The way the Commission understands it, now is the time for the potash people, or anyone else, to object to the cable-tool proposal. This is the one which was signed by several operators.

MR. SETH: I believe there are two of them in the record.

MR. SPURRIER: Yes. This one was signed by the representatives of several companies.

MR. CRAMER: Weren't there two proposals submitted at the last meeting by the cable-tool operators?

MR. SPURRIER: Yes, sir, there were. I am merely trying to take one at a time. I have another one which I will bring up when we see what is going to happen to this one. We have one here that is in effect signed by Stanley Jones. But I am talking about the one that is signed by American Republics, Buffalo, and on down the list.

MR. SETH: That is Exhibit B?

MR. SPURRIER: That is Exhibit B.

MR. CRAMER: I believe the potash companies are of the opinion there was to be one set of casing and regulatory rules having to do with drilling. At this time, this division having been made, it puts the potash companies where they would have to do some talking among themselves to see where the second group would fit. It didn't occur to us there would be two sets of rules.

(Off the record discussion.)

MR. SETH: May we have a short recess and talk this over among ourselves? This was split up by the testimony of Mr. Hill.

MR. SPURRIER: You may have that time I think. Before you take that time, I would like to say these exhibits have been on file, one as long as the other. And the Commission is bound to consider all of them. And the Commission will consider all of them. What we are trying to get is the objections of the potash people to any of them.

MR. SETH: Of course, the matter started originally with recommendations of the committee, which presumably covered all casing programs, no matter how drilled and to what depth.

MR. SPURRIER: Yes.

MR. SETH: And we have devoted our attention to that. That has been amended this morning by Mr. Hill, and the situation is quite different this morning. We would like to talk it over. Maybe we can arrive at a satisfactory conclusion.

MR. CAMPBELL: When this Exhibit A was presented Mr. Hill definitely testified it was to apply to deep-test wells in a defined area. And I think that was made somewhat clear, although there were some references previously to cable tools in that Exhibit A. It is definitely in the record it was to apply only to deep-test wells.

MR. SPURRIER: Well, let's say for clarification from the Commission's point of view that we will have to issue one set of rules or regulations for drilling in this area, which will necessarily include both types of drilling, rotary or cable.

MR. CRAMER: Mr. Commissioner, speaking as a member of the committee, the casing and cementing program as it was worked out by a sub-committee made up of engineers of the oil industry was considered by the appointed committee and approved by it. Now these various things that are being done modifies the approved committee action. So that it is somewhat of a change. We had thought, in the first place, that one set of rules could cover all types of drilling. And the committee, as such, has not made recommendations on any of the modifications.

MR. SETH: To clarify the record, I believe on behalf of U.S. Potash we accepted Exhibit A, as amended, for all drilling, no matter what type or what depth. Now if I can, to review the situation a little bit, at the end of the last hearing, the potash companies were confronted by this division also in the oil industry. There are three separate and distinct proposals, and which, as originally presented, are not consistent with one another. The testimony of Mr. Hill has taken one group out of it. For that reason we are put at a little disadvantage in meeting this exhibit which was put forward as a minority report more or less.

(Off the record discussion.)

MR. SETH. There is one question involved in here. Some of these regulations as far as we are concerned are applicable to certain areas and others are not. We have that additional fact to consider. We would like before very long to read into the record a written proposal which includes the variations in methods in different areas. That might clarify the procedural situation.

(Off the record discussion.)

MR. CRAMER: Mr. Commissioner, speaking as a member of the commettee and also as a representative of the Potash Company of America, there would be one very pronounced objection to Exhibit B which would have to be clarified, I am sure, before we could get together on the thing. That is what is designated as par."b"of Exhibit B, reading as follows: That the casing and cementing program herein suggested apply only to the areas embraced in proven commercial deposits of potash. The remainder are designated potash areas to be drilled in accordance with standard existing practices. That is the end of the quotation. Up to this time all the discussion before the committee, before your Commission, and before the Land

Office has been to the effect that there would be certain acreage within a broad defined area in which drilling would be completely barred, and that the intent of any drilling regulations within that defined area is to protect the state and the potash operators in the event of any future finds of deposits of potash minerals in the delineated area. And it would appear that Exhibit B, as proposed here, would throw wide open the actual presently operating area.

(Off the record discussion.)

MR. CAMPBELL: Mr. Commissioner, in connection with this area, may I state we would be delighted to have the potash industry present whatever suggestions they have as to the areas in whatever rules the Commission promulgates will apply. Insofar as this division of rotary and cable tools, may I state our position on that? The Commission has power under the statute to issue rules and regulations for the drilling of any oil wells in any area in New Mexico, dependent upon particular conditions. There are now three suggestions; one of which applies solely to deeptest rotary wells, and two of which apply to cable-tool shallow wells. I take it that the potash industry feels Exhibit A should apply to all wells, whether cable tool or rotary, deep or shallow. Of course, that is a position they are entitled to take. There is in the record, however, two suggestions by people who drill shallow wells. And if the Commission, in its order, wishes to follow the potash industry suggestion and apply Exhibit A to all wells, they can do so; but if they desire to differentiate, they can do so. It seems to me objections to Exhibit A shouldn't be offered on shallow wells. Since they were offered at the last hearing. It may be the proper thing to do would be to present the data as to areas, which would clarify some of the matters objected to in Exhibit B. I don't represent those people, but in order to keep the matter straight, there is certainly no intention to mislead as to what they have to offer based on the presentation of these two programs because they were both presented at the last hearing. And I thought it was made clear this proposal in Exhibit B was the proposal of the shallow-well people, to be incorporated in whatever the Commission puts out insofar as those particular wells are concerned.

MR. SPURRIER: Well, you have asked for a recess. Do you still want the recess ?

MR. SETH: Yes. Let us discuss it among ourselves for a few minutes, and we will also present our proposal which includes

the plugging.

MR. SPURRIER: The Commission is just about prepared to give you until 1:30 or 2 o'clock to get your discussion over and be prepared to present -- to outline the area when you come back. Is there an objection to that time?

MR. SETH: One thirty would be fine.

MR. SPURRIER: Mr. Morrell?

MR. MORRELL: Mr. Commissioner, I think it might be appropriate at this point to read into the record an attempted definition of shallow and deep, since that is the procedure that is appearing to be worked out this morning. For the benefit of the Commission, I would like to read into the record an interpretation that is now currently being used by the Geological Survey. We have been called on to define what is shallow and what is deep. And we find that a depth figure alone is not entirely satisfactory, because of the differences in depths within the designated area. Possibly the potash companies would like to consider this in connection with the matters they want to take up under advisement during recess. A Survey report reads as -- to Washington from Roswell -- reads as follows:

> "Definitions of shallow and deep zones are essential to the present discussion. The area is complex stratigraphically inasmuch as it extends from north to south from the shelf or back-reef area across the Capitan Reef into the Delaware Basin. The permian Tansill, Yates, Seven Rivers, Queen, and Grayburg formations, comprising the White Horse group of the back reef are transitional into and equivalent in age to the Capitan limestone of the reef. The Capitan limestone is in turn transitional into the Bell Canyon formation of the Delaware Basin. The base of the shallow zone and top of the deep zone is, for practical purposes, defined as the base of the Grayburg, Capitan, or Bell Canyon formation, depending on the location. The shallow zone production includes that of the Tansill, Yates, Seven Rivers, Queen and Grayburg formations of the back reef area. And the so-called Delaware sand near the top of the Bell Canyon formation of the Delaware Basin. The Capitan limestone is untested in this area, and has so far yielded no production. The maximum depth of the shallow zone in the northern

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part of the area is from 1,600 to 3,500 feet. The shallow zone in the Delaware portion of the area has not yet been found productive, and few wells have been drilled to it. The base of the shallow zone is here estimated at from 4 to 5000 feet. The deep zone so defined includes the older permian formations below those of the shallow zone and the Capitan-permian formations down to the granitic basement."

I thought it might be helpful to have that in your record.

MR. SPURRIER: Thank you, Mr. Morrell. As a matter for the record, these exhibits A and B were offered in evidence at the last hearing by Mr. Campbell and were accepted at that time. The Commission, as I said before, is bound to consider them when it promulgates the casing rules. So if the potash people find objections to Exhibit B, I suggest you offer them as such. Although I understand that by saying you accept the conditions of Exhibit A that you automatically register a protest against B.

MR. SETH: We will prepare our comments on B and C also. They were presented as alternatives. There were three alternatives presented.

MR. SPURRIER: All right, gentlemen, we will recess until 1:30.

(Noon recess.)

(Note: Full Commission present for the afternoon session.)

MR. SPURRIER: The meeting will come to order, please. Mr. Seth.

MR. SETH: We appreciate the opportunity of having the recess and we have modified our written proposal in accordance with the matters developed by Mr. Hill, and set up two separate categories. Mr. Davis will read the modified proposal into the record. And as soon as possible we will prepare complete copies, and have 25 or 30 in the hands of the Commission for distribution. The modifications were necessary by reason of the situation which developed this morning. If Mr. Davis may come forward, he will read it into the record. If the Com-

mission please, this is a statement to be read into the record. Mr. Davis, if there are questions to be asked, will be sworn and we will provide also Mr. Weaver, a geologist and engineer, to answer questions.

MR. DAVIS: In that connection, in order not to confuse the record, because this jumps around, I think it would be clearer if notes could be made and the questions not asked while the statement is being read.

This is a statement captioned, "PROPOSED REGULATIONS TO GOVERN EXPLORATION FOR AND EXTRACTION OF OIL AND GAS AND POTASH MINERALS ON NEW MEXICO STATE LANDS INCLUDED IN PROVEN OR POTENTIAL POTASH PRODUCTION AREAS." The objective of these regulations is to assure maximum conservation and economic recovery of oil, gas and potash minerals.

"I. These regulations are applicable to the area shown on the accompanying map." (Off the record.)

At the moment, we have only one copy of the map. Additional copies will be supplied at the time copies of the text is given to you.

MR. SETH: We offer that as an exhibit, if the Commission please.

MR. SPURRIER: Without objection, this may will be accepted as Exhibit A.

MR. DAVIS: " .... hereinafter referred to as the 'defined area.' The lands within this area presently fall within one of the following classifications:

"AREA A. Areas which are underlain by proven commercial potash deposits.

"AREA B. Areas under which commercial potash deposits are indicated but not delineated.

"II. The following procedures shall apply to oil and gas exploration and extraction within the defined area:

"AREA A. Drilling for oil and gas shall not be permitted within this area except upon leases where there is presently production in commercial quantities. Upon such leases, further drilling shall only be conducted pursuant to the provisions of

paragraph 2,AREA B herein, covering deep wells.

"Further leases may issue upon lands within the A area, but such leases shall contain the proviso that no drilling may be conducted thereon; however, the acreage included in such leases may be committed to unit agreements. Where oil and gas wells are in production within this area, no mine opening shall be driven to within less than 100 ft. of such wells so that pillar protection will be afforded.

"AREA B. Spacing of oil and gas wells in this area shall be limited to one per quarter-section. All such wells shall be located in the center of the quarter-section unless relocated by mutual agreement of the oil and gas lessee, the potash lessee, and the State Land Commissioner. All wells drilled within this area in exploration for and production of oil or gas shall be drilled, cased, and cemented according to the following procedure:

"Deep Drilling." At this point we would like to incorporate by reference the provisions covering drilling as read into the record this morning by Mr. Hill, or as amended by him, from a previous filing. This morning we agreed to Mr. Hill's setup, but it should be subject to plugging requirements, which will be brought in at a later time.

"Shallow Drilling. The suggested casing and cementing program is as follows:

"(1) Surface Casing String. In order to protect against intrusion of water, the surface casing string shall be set in the 'red bed' section of the basal Rustler formation immediately above the top of the salt section; and shall be cemented back to the ground surface or to the bottom of the cellar.

"The surface string shall consist of new, secondhand, or reconditioned pipe. New pipe shall have received a mill test of not less than 600 lbs psi; secondhand or reconditioned pipe shall be retested to 600 lbs psi before being run.

"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.

"Tests of casing shall vary with drilling method. If rotary is used, the mud shall be displaced with water or with the proposed saturated water solution, and a hydraulic pressure of 600 lbs psi shall be applied. If a drop of 100 lbs psi

or more shall occur within 30 minutes, corrective measures shall be applied. If cable tools are used, the mud shall be bailed fro. the hole, and if the hole doesn't remain dry for a period of one hour, corrective measures shall be applied.

"(2) Salt Protection String. The salt protection string shall be set at least 100 ft. and not more than 200 ft. below the base of the salt section. This string may consist of new, secondhand or reconditioned pipe capable of meeting the manufacturer's test specifications.

"The string may be cemented with a normal cement volume for testing purposes only; and if commercially productive, the string must be recemented with not less than 150 per cent of the 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 proper amounts of calcium chloride.

"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 jobs done until cement is brought to that point. One or more temperature or gamma ray surveys supporting complete cementation shall be filed with the Oil Conservation Commission.

"Tests of casing shall vary with the drilling method. If rotary is used, the mud shall be displaced with water and a hydraulic pressure of 1,000 lbs psi shall be applied. If a drop of 100 lbs psi 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.

"(3) Oil or Production String. This string may 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 salt protection casing shall have been run and commercial production obtained, that string shall be cemented to the surface as provided by (2) above or as provided by 3, a, in the deep well program.

"(4) Drilling Fluid for Salt Section. This fluid shall consist of water to which has been added sufficient salts of a

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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. Off the record for just a moment. (Off the record.)

"All holes drilled either under the deep or shallow-well programs which are abandoned shall be plugged in accordance with the following procedure:

"(a) Upon completion of production from wells which were drilled prior to the date upon which these regulations become effective, such wells shall be plugged in a manner that will provide a solid plug through the salt section and prevent liquids or gases from entering the hole above or below the salt section. Details of the plugging procedure shall be approved in advance by the Oil-Potash Committee.

"(b) 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.

"(c) 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 (a) above."

To digress for a moment here. What has just been read covers the specific casing and cementing requirements for both the deep and shallow drilling. In the main, the proposed regulations for shallow drilling are the same as those proposed by the group of operators and submitted to the Commission as Exhibit B. The balance of the material which will now be read would apply to the area restrictions and would be applicable to both deep and shallow drilling.

"III. Before drilling for oil and gas on lands within the "defined area" a map showing the location of the proposed well shall be prepared by the well operator and copies shall be sent to the State Land Commissioner and the potash lessee involved. If no objections to the location of the proposed well are made by the potash lessee in ten days, a drilling permit may be issued and the work may proceed. However, if 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 with the State Land Commissioner. If the well operator and the potash lessee cannot agree on a suitable location for the proposed well, or on any other questions which may arise in connection with the application of these regulations, then either party may demand a hearing before the State Land Commissioner, who will decide the issues in dispute. Nothing herein shall prevent either party -- strike that.

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

"A representative of the oil and gas lessee may inspect mine workings on his lease to observe conformance with these regulations.

"Each oil and gas lessee shall furnish to the State Land Commissioner and to the potash lessee involved certified directional surveys from the surface to a point below the lowest potash-bearing horizon for each oil and gas well drilled during the year. Each potash lessee shall advise the oil and gas lessee who is conducting drilling operations of the location of underground workings in the area adjacent to drilling locations.

"A bond of not less than $10,000, payable to the State of New Mexico, shall be posted by the well operator, to be forfeited by him for any infraction of these regulations.

"The State Land Commissioner shall add to the "defined area" any lands which subsequently are shown to be within a new potash area or an extension of the presently classified "defined area". Lands within the "defined area" shall be reclassified by the State Land Commissioner upon proper showing by the potash lessee that further commercial ore has been proven. If any lands are transferred to the AREA A classification, the AREA A regulations, contained herein, shall automatically apply to such lands."

That, Mr. Commissioner, is the end of our proposal. In our consideration of the drilling and casing regulations, it having been stated this morning that there were three proposals before the Commission, it was our belief that the Exhibit B more probably reflected the feeling of the majority of the small operators, or those who are interested in shallow drilling. And we slightly modified that exhibit, and are suggesting it as

being proper to cover shallow drilling. That, in our opinion, would automatically bar Exhibit C as it was filed at the previous hearing.

MR. SELINGER: Mr. Davis, are you through with your statement?

MR. DAVIS: Yes.

MR. SELINGER: Back up in AREA A in which you stated no drilling in AREA A unless the lease is now on production, and then you said something about further leases may be issued. Would you mind repeating that one sentence? I didn't get it.

MR. DAVIS: "Further leases may issue upon the lands within the AREA A, but such leases shall contain the proviso that no drilling may be conducted thereon; however, the acreage embraced in such leases may be committed to unit agreements." The purpose of that is to permit any operator who is now gathering acreage together to include in such acreage the lands within the AREA A. So that any oil or gas lying thereunder may be extracted, or at least the area will be protected to the operator who is undertaking the drilling operation at that point.

MR. CAMPBELL: I have a few questions I would like to ask Mr. Davis.

MR. SETH: I believe that is all of the statement. Mr. Davis will be sworn if he is going to be a witness. That presents our proposal.

MR. DAVIS: I would like to say one more thing, Mr. Spurrier, before I go on with that. It had been the intention of the potash members of the Oil-Potash Committee that this general statement and the provisions therein be submitted as a recommendation of the full committee. Because of the way the thing came around today, it was hardly possible to do that; and this really represents the feeling or the consensus of the potash group. It is my intention following this meeting to bring this up before our complete Oil-Potash Committee for its study.

MR. SPURRIER: You have no more direct?

MR. SETH: No.

MR. P. O. DAVIS, having been first duly sworn, testified as follows:

CROSS-EXAMINATION BY MR. CAMPBELL:

Q. Mr. Davis, would you state for the record approximately the size of AREA A? ---A. May I digress just a moment again there, Mr. Campbell? I just thought of something. AREA A, as it is shaded in on this map presented to the Commission, is slightly different from the legal description which was presented to the Commission at the last hearing. At that time, you may recall, we put that in by metes and bounds. When we started putting in the actual land holdings of each company which they considered AREA A, it extended slightly outside that metes and bounds description to the northwest.

Q I don't believe you put it in in the hearing before this Commission. There may have been some evidence submitted to the Land Commissioner hearing, but to my knowledge it wasn't here. I believe this is the first presentation of an area to the Oil and Gas Conservation Commission. ---A. Then there may be no question of a conflict. The heavily bordered area on the map presented as an exhibit should govern and not the metes and bounds description, which may be kicking around the territory somewhere.

Q Is that smaller than this particular area? ---A. Only by a few hundred acres. It is just a matter of straightening out some corners. To answer the question, Mr. Campbell, the area within the AREA A, as shaded on the map, is something in the neighborhood of 80,000 acres.

Q Does that correspond generally, Mr. Davis, with the external boundaries of the area which has previously been withdrawn from oil and gas leasing on federal lands plus the leases of the two new companies that are coming into the area? ---A. Yes. Plus certain state lands which have not previously been withdrawn.

Q And how large is AREA B? ---A. I was told this morning by someone who had scaled off the entire map that it was 300,000 acres -- within the outline. So that would leave AREA B approximately 220,000 acres.

Q How, how did you arrive at the size of AREA A generally? ---A. Generally, it represents areas of each of the companies where extensive core testing has been done and the presence of

a commercial body of potash ore determined.

Q And it includes all of the present mine workings, of course, of the various companies? ---A. It represents the present mine workings plus the proposed workings of the two new companies who are presently contemplating entry into the field.

Q Did you undertake to or did you project your future plans on any yearly basis or anything of that kind in arriving at this area A? ---A. Broadly, I would say it probably takes in our known plans for the next 6 or 8 years. It does not take in any highly speculative territory whatsoever. It is what we consider commercially proven territory.

Q And you have extensively cored all of AREA A to your knowledge? ---A. Yes, sir.

Q How dense, normally, are your cores in those areas? ---A. When we get into an area where we find what appears to be commercial ore, we will drill several core tests to a section.

Q By several do you mean one every 160 acres or one to every 30 acres? ---A. There is no general rule on it. It could be as many as 6 or 8 to a section. But the probability is it is more likely to be in the neighborhood of 3 or 4.

Q How did you arrive at AREA B? ---A. The AREA B outlinewas prepared by representatives of the U.S. Geological Survey in a meeting of the Oil-Potash Committee in Carlsbad a few weeks ago. And it was based upon information in the hands of Mr. Allport of the U.S.G.S.; which incorporates material received from all sources and from all companies over the years. The area, therefore, represents what I believe he called the area of great promise insofar as possible potash possibilities are concerned.

Q But you have not cored that AREA B extensively? ---A. Not extensively. It has been cored. At least four companies to my knowledge, including my own company, have put down a number of holes, and the result of those holes has been attractive enough that some of us are continuing with rather expensive programs there to see if we can delineate another body of ore in connection with AREA B.

Q It is my understanding your proposal is: any oil operator desiring to drill anywhere within that 220,000 acres must file

a map with the Land Commissioner, and potash lessee, indicating the proposed location? --- A. Yes.

Q And if the potash lessee doesn't agree or if they cannot come to terms, then it will have to be heard in hearing, and then at that time you will undertake to establish there should be no oil or gas well in that particular spot. Is that correct? ---A. Roughly, Mr. Campbell, but not exactly.

Q Wherein am I wrong? That is a very important point and I would like to know what it is. ---A. The proposed regulation there states, "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 ... " Now, if through an error in the records of the Commission or through an error in surveying or something of that sort, it would be determined that the location of the well was placed in an area that is not in accordance with the regulations, we could then object. We could only object, the way this is worded, on that basis.

Q You could only object, assuming the Commission's order complying with your suggestion that there be one well in the center of each 160-acre tract. If it was elsewhere, you could object? ---A. Yes.

Q Or any other provision of the Commission's order? ---A. That's right.

Q You couldn't object just because there was potash below? ---A. That, or we couldn't object just captiously.

Q The only purpose of the provision is to satisfy you there hasn't been an erroneous survey or an improper location under the Commission's order, whatever it may be? --- A. That is correct. It is assumed if we in our future work find other areas of potash, we will apply to the Commissioner to reclassify that as A, which would undoubtedly involve rather comprehensive examination by the Commissioner before he would recognize it. The mere fact we thought there was some potash underlying a B area would not give us the right to such.

Q So far as oil and gas operators are concerned, under your suggestion, provided he complies with casing and cementing programs, suggested as Exhibit A, there will be no restriction on hil drilling in AREA B except non-compliance with the Commission's order? --- A. That's right.

Q In other words, you are not asking the potash (?) lessee be called upon to prove the drilling of a well in AREA B? --- A. Not at all.

Q Now, there is one point I want to get straight about AREA A. Am I correct in my understanding that your suggestion is that the potash industry doesn't object to the leasing for oil and gas in that area, provided there is no drilling and provided it is committed to a unit plan? ---A. That was our thought in suggesting that provision.

Q May I ask if that just applies to federal as well as state lands in AREA A? ---A. I should think so. But we gave that no consideration, of course. We were here in a state hearing.

Q I realize that, but, of course, in the over-all problem we have got to consider they are contiguous. But that would be your general position as to AREA A? ---A. I should think so. As far as I could personally state. I haven't talked to the other members.

Q Then you are not in a position to state as part of your report? ---A. No, not the report.

Q That it would apply to federal areas. What was the reason, Mr. Davis, for attempting to establish a spacing program at this stage of the game, that 160-acres, one well in the center of each 160 acres? ---A. That is a follow-up on a discussion that has been carried on in every meeting held to date; whether it was the first meeting called by the Land Commissioner or the meeting held in his office subsequently or the meeting of the Oil-Potash Committee. The matter of spacing has been brought up on each occasion. And it was the consensus that the spacing should probably be a wide one. It would seem that the time to set it up is in the initial stages rather than later.

Q You don't feel, once you obtain production if you do, is the proper time, depending upon pool conditions, to determine what spacing should be? Wouldn't you be satisfied with such an arrangement as that if you had an opportunity to be heard on the spacing program? ---A. Well, we would certainly not like to contemplate the fact that we would look forward in future years to potash mining under some of the very close spacing that has been permitted in certain oil fields in the past. Not necessarily in New Mexico, but in many oil fields.

Q But you don't feel you would be satisfied with a hearing on that question at the time a discovery is made? ---A. Offhand I wouldn't like to answer the question without discussing it with the rest of the industry members.

Q You can see, can you not, that as far as the oil and gas operator is concerned that is a considerable commitment insofar as doesn't know at this time what reservoir conditions may be in a particular pool discovered. It may result in waste since he doesn't know what the condition will be until it arrives. There is a problem that bears consideration by the potash industry. ---A. Yes.

Q It is my understanding, from listening to your recommendations, that you suggest that this casing and cementing program as to the deeper wells and to the shallow wells, which you have read into the record here, shall apply both to test wells and producing wells? ---A. In the matter of the deep wells, what we have done consistently is to accept the recommendation of the oil industry itself. In the previous filing of a few weeks ago we said that was acceptable. This morning we said that the recommended program for deep drilling was as proposed by the industry itself, the oil industry itself, was acceptable.

Q I appreciate that fact, Mr. Davis, what I am asking you -- I don't believe you understand -- the casing program suggested today and one suggested previously was labeled "Test Wells and Exploratory Wells in the Area." ---A. Yes.

Q And your reading led me to believe that you intended to apply that to all wells? In other words, there would be no modification within this B area on a field rule basis once a discovery was made by an exploratory well? ---A. That's right.

Q You take the position it should apply to all wells within AREA B, exploratory or producing, is that right? ---A. Actually, the proposed program for shallow wells differentiates between a non-producer and a producer.

Q I am not referring to a non-producer or a producer. ---A. Or exploratory.

Q I am referring to a wildcat well, a test well. Exhibit A was originally intended to apply to that well with the possibility if production was obtained and a field discovered, then as is the customary procedure, field rules could be developed.

It could be the rules would need to be more stringent, perhaps less. But I would like to understand clearly what your position is on that particular phase of the matter. ---A. It is our belief that the need for the stringent casing regulations would occur if a deposit of oil or gas was found at any depth. And that the regulations that are proposed here are the minimum that should apply under any conditions.

Q To an exploratory or any other well in the area? ---A. Yes, sir.

Q Now, for just a moment on your abandonment program. I believe you stated you have drilled a considerable number of core holes in this A and some in the B area? ---A. Yes.

Q Is it your feeling that the abandoned core holes should be treated in the same manner by way of plugging regulations as an abandoned oil well, Mr. Davis? ---A. Mr. Weaver, who I think will follow me here, has had personal contact with the plugging of dozens or perhaps hundreds of our core tests, and I think he is much more competent to pass on matters there than I am.

Q Now, one other question, Mr. Davis. In connection with this request for a bond, are you acquainted with the bonds that are presently required under state leases in New Mexico? ---A. Not particularly, no.

Q Was your recommendation on the assumption that there is none, or do you feel there should be additional bond? As a matter of fact, I believe there is a $5,000 per well and a $10,000 blanket bond on state leases already. ---A. It was my understanding there was a plugging bond.

Q What is your recommendation? ---A. This would be a separate and distinct bond requiring compliance with the regulations and which would be forfeitable --

Q If it were true that the bond presently required in the amount of $5,000 per well and $10,000 for the -- $10,000 statewide blanket bond --- applied to all violations of any regulation of the State of New Mexico, would that change your views in connection with the bond? ---A. That would suffice, in our opinion, although we think possibly the penalty should be greater than $5,000. In that connection I would like to state it isn't our thought that there should be anything punitive here insofar as the potash companies are concerned. To us

five, ten, 25, or 50 thousand dollars would be of no value to us if anything happened to harm the potash deposits.

Q Are you required to furnish any bond on your state potash leases? ---A. We not only furnish bonds, we have to escrow cash or an equivalent of cash. We have to escrow government bonds.

Q For what purpose? ---A. For compliance with the lease provisions insofar as federal is concerned.

Q I was referring to state. ---A. We have a state bond, don't we, Mr. Shepard?

Q Do you have any bond in connection with the sinking of core holes? ---A. No, we do not have that. I don't think we want to get particularly afield as to the distinction between our core holes and the holes drilled by oil operators. In our particular case we naturally are extremely interested in what we ourselves do, and we are the only ones that could be harmed. So we take whatever steps are necessary to protect ourselves. We could not conceivably in drilling into the salt bed do anything that would harm the deposits of the oil operator whose values lie anything from one or two or ten thousand feet below the salt beds. The only reason for specifically referring to plugging regulations here upon abandonment for oil wells is the fact those holes do penetrate the potash zone and could harm it.

Q The only place then you feel where you could damage an oil and gas operator would be in extending your shafts into an area where there happened to be existing oil and gas wells? ---A. Yes. And I think there should be every reasonable care to protect the oil operator.

Q You maintain a bond, I presume, for that purpose, that is one of the purposes? ---A. I could not say. It has been 15 years since I have seen the bond. Mr. Shepard may be able to tell you.

MR. SHEPARD: I don't know. I haven't read it.

MR. CAMPBELL: I think that is all.

MR. SPURRIER: Does anyone else have a question of this witness?

MR. YATES: I wonder if I could have Mr. Davis read that back about drilling on presently existing oil and gas leases in A area.

MR. DAVIS: Drilling for oil and gas shall not be permitted within this area -- the A AREA -- except upon leases where there is presently production in commercial quantities. Upon such leases further drilling shall only be conducted pursuant to the provisions of paragraph 2, AREA B, contained herein, for deep wells. The thought there is that wheredrilling is continued in AREA A under existing leases, that the casing requirements for deep drilling should be required for shallow holes also in the A AREA.

MR. YATES: That doesn't sound like what you read. Will you read it again.

(Whereupon Mr. Davis read the language again.)

MR. YATES: What is your proposal on existing oil and gas leases on which there isn't commercial drilling?

MR. DAVIS: There is no provision for drilling them.

MR. YATES: Don't you think that is kind of in conflict with the existing oil and gas leases? Wherein the operator is given a specific right there?

MR. DAVIS: I will let you answer that, Mr. Seth.

MR. SETH: That is really a legal question for the Land Commissioner to decide. I don't know the answer myself.

A VOICE: Mr. Davis, did I understand correctly A AREA is about 800,000 acres?

MR. DAVIS: I didn't get your question.

A VOICE: Did I understand correctly that A AREA is about 800,000 acres?

MR. DAVIS: No, about 80,000 acres.

A VOICE: About 80,000 acres?

MR. DAVIS: Yes. I haven't scaled that off. I just roughly counted the sections here at noon. But it is in that

neighborhood.

A VOICE: And you also stated, I believe, that your company and others involved there would probably mine that area in 6 to 8 years?

MR. DAVIS: No, I didn't say that. Mr. Campbell's question in that connection was as to what determined our selection of that area. And I stated that it covered the area that we reasonably expect to get into within the next 6 to 8 years. We certainly hope we don't have it all mined out in 6 or 8 years because we will be disappointed in our reserves.

BY MR. MARTIN YATES III:

Q (By Mr. Yates) You say there is 80,000 acres in this AREA A. How long do you think it will take you to mine out the 80,000 acres? ---A. That is a rather difficult question to answer. But it will be several decades.

Q That is what I thought. Well, I for one would like to go on record protesting your proposal whereby you do not permit any drilling in the A AREA, whether it is under an existing oil and gas lease that has production or is without production. I think that that is confiscation. I certainly object. ---A. I would like to make a little explanation, it having been brought up once before when Mr. Campbell tried to show 500 years around here. When you say it takes several decades to completely deplete a mining property, that doesn't mean that you may not be in every section of your mine within 5 or 6 years. Your natural program of mining is to drift out, very often to the extreme outline of your deposits, and to do your working from there; so that this is an area we reasonably expect we will be operating in to some degree within this coming decade.

Q Here is the difference between your lease and ours. Once you establish commercial production, you can perpetrate your lease, but our lease, where we don't have production, is only for 5 years; and so long thereafter as oil and gas is produced. If we are not permitted to drill on our leases in the A AREA, we will lose those leases. We don't have a chance to ever perpetrate by production. ---A. That same requirement is in the potash lease. That only perpetrates in the event you continue operating in commercial production.

Q But under your proposal we are not permitted to operate ours.

I don't believe that is right. I think that the potash company has a right, and I think the oil company has a right. Both are sale leases, and I don't believe one should be precluded from operating their oil and gas lease while the other is permitted to operate potash.

MR. HARVEY YATES: I would like to register my disapproval. I am opposed to confiscation whether in the United States or Russia.

MR. WHITE: What proportion does your present mine operation bear to the total 80,000 acres?

MR. DAVIS: I can speak only for my own company, Mr. White. I would say that presently we have an area that extends approximately 4 miles north and south by something in the neighborhood of 3 miles east and west; which, if you squared it off, is 12 square miles, or 12 sections. Our immediate plans for the next two years contemplate the entry into about 4 more sections to the south. Our total holdings under both state and federal leases within this area that is covered here is something in the neighborhood of 20,000 acres on the part of our company. So that our present workings would be roughly in the neighborhood of one-half of the A AREA set down on the map by our company.

MR. CAMPBELL: You include in your description of areas you now mine or contemplate mining areas that might be -- where you might be having to drift out to a new mining area?

MR. DAVIS: That is correct.

MR. CAMPBELL: And you include those within those 80,000 acres?

MR. DAVIS: Yes.

MR. CAMPBELL: Where there is a possibility it drifts out to take in a deposit?

MR. DAVIS: Yes.

MR. YATES: I wonder if we could see that may, please, Exhibit A?

MR. SPURRIER: Does anyone have a question of this witness?

BY MR. MORRELL:

Q Mr. Davis, I would like to ask one or two questions for clarification of the presentation you have made on the proposed regulations. Following them, Mr. Davis, they appear to be based on the ones previously prepared by the potash operators. ---A. Primarily so; modified slightly in the light of the discussion this morning.

Q As I recall your presentation, you refer to the water to be mixed with the cement, that it shall be saturated with salts common to the zone penetrated with proper amounts of calcium chloride added. I have heard it informally discussed and I was wondering if it wouldn't be informative to ask of the other parties present at this hearing if they have any suggestions as to what the proper amount of calcium chloride additive should be? ---A. A bit earlier I suggested anything having to do with plugging could be better covered by Mr. Weaver.

Q It merely referred to proper amounts, and I wanted to get your idea. ---A. I believe in the neighborhood of three per cent, but Mr. Weaver can tell you definitely.

Q He will enlarge on that. That is three per cent of the volume and weight of cement? ---A. Yes.

Q We would like to have that clarified. The next point I have; you referred to a map to be prepared by the well operator. I was wondering if you would be willing to have a slight modification of that to provide for a map or plat of survey of the well location? ---A. I would think that would be all we meant by that.

Q The oil operators are now furnishing that to the Commission. ---A. That is all we require, is the location.

Q Is a survey of the location? ---A. Yes.

Q With respect to the point Mr. Campbell raised on your suggestion that exploratory wells be drilled in the center of each quarter-section, I would like to raise a little objection to that specific wording, inasmuch as within your defined area there are state lands that do not comprise an entire quarter-section. I gathered that your intention is you would like to limit exploratory development to rate or number of one per quarter-section? ---A. Yes. And for the reason the location

is, if you will notice, isn't inflexible in here. So that future plans of development could be worked out by the potash operators in the event that additional potash ore was found in that area and they wouldn't have to corkscrew around a bunch of holes placed hit or miss over an entire district.

Q That same result could be accomplished by merely stating exploratory wells would be limited to one well per quarter-section without specifying the location. I mention that because we do not approve wells in the center of a quarter-section on federal acreage, and present regulations of the Oil Conservation Commission do not. ---A. As a non-operating official, I wouldn't think it would occasion any difficulty as long as we reasonably in advance knew where it was. We can skirt any known hole if we know it far enough in advance, which we would do.

Q My thought was to take out the specific reference to a particular location to avoid that complication. ---A. I don't think it would cause any difficulty at all.

BY MR. CAMPBELL:

Q Did I understand you before as to this well in the center of 160 acres, that it applies only to exploratory wells? I didn't understand it that way. ---A. I don't think it stated that. I believe Mr. Morrell --

Q That is a considerable difference, of course. The original exploratory well, the spacing and location, is all different than it is in a developing well. ---A. That really isn't our proposal.

Q You thought it should apply to all wells? ---A. Yes.

Q That is the basis on which I questioned you. ---A. Yes, sir.

MR. SPURRIER: Do you also intend that this applies only to state land?

MR. DAVIS: In connection with the original purpose of the hearings and the establishment of a group to study this, it was our thought that very probably this would continue on to cover both federal and state lands. And as you know, there have been representatives of the federal government here at all discussions.

Q (By Mr. Campbell) You understand, don't you, Mr. Davis, that the Oil Conservation Commission issues rules and regulations which govern both state and federal lands within New Mexico? ---A. That is my understanding, regardless of the ownership --

Q They have the right to issue operating rules? ---A. Yes.

BY MR. GROMON:

Q Mr. Davis, I believe you stated that in AREA A you recommended no development whatsoever. ---A. Yes.

Q In this 220,000 acres, AREA B, the proposal A that was submitted by the committee, engineer committee, was for test wells, exploratory wells, and it was my thought, as a representative of the operators, that that casing program was very rigid and should be reviewed if a discovery was found, and the field rules set up for the new field. I think that should apply to the spacing rule as well. In other words, this casing program presented today, which you and the other potash people presented thismorning, should apply to exploratory wells and new wells; and if an oil field is discovered, the Commission should hold a hearing to consider proper spacing for the development of the field and a proper casing program. In all probability, in my opinion, the proper casing program would include the two strings of pipe above and below the salt. But for proper development of an oil field, it might be advisable to alternate any casing program below that. It should be considered in view of the information and knowledge of the oil field at that time. ---A. Well, that is the first time I have heard any distinction made between exploratory wells and subsequently developing wells, let us say. Again, to reiterate, the casing and drilling program as stated to be acceptable to us was developed by the oil industry itself. I believe that, without change, the potash industry at the last hearing stated that the sub-committee's recommendation for a drilling and casing program was acceptable to the potash companies. This morning, as you know, we stated that the modifications as proposed by Mr. Hill were acceptable. So we have felt that right along it was the oil industry's own idea of what it took to properly protect its own wells and the potash deposits. And until Mr. Campbell started asking questions about exploratory wells, I didn't know there was any distinction.

MR. SETH: May I make a comment on that point? I think a hearing of this nature is all we can do now. Is do the best we can, knowing the circumstances. The Commission is always

open to anyone to come in at a later date and seek a modification of orders. We can't anticipate everything at this point. All we can do is to do the best we can on what we know of the situation. If something develops during the program, and might at a later date, any person that has sufficient interest can come in and seek a modification upon the basis of the facts as they are then known. That would certainly be true in this case, wouldn't it, Mr. Spurrier?

MR. SPURRIER: Certainly.

MR. GROMMON: I believe it would be impossible for the Commission at this time to write proper regulations for oil development in a field that they wouldn't know whether it was 5, 7 or 10 thousand feet deep and about a spacing and casing program below a salt development.

MR. SETH: To think of spacing in connection with reservoir conditions and drainage. But you have here an agency in between those wells that has to guard its underground workings and has to leave pillars or a certain size. You have to take into consideration this new and additional factor in spacing. It isn't spacing only for drainage of the oil, it is spacing to conserve the potash reserve also there. If you get oil wells too close together in the section, there won't be any room for anybody else to work underground. You have to consider someone else in there.

MR. GROMMON: Of course, we have never had what we consider real close spacing in New Mexico. 40 acres. You would have no objection to a rehearing if a discovery was made to consider proper regulations for the field?

MR. SETH: I don't think there is any question about it.

MR. GROMMON: Very well, that is all I have.

(Recess.)

MR. SPURRIER: Does anyone have any further question of Mr. Davis?

BY MR. YATES:

Q Mr. Chairman, I would like to ask Mr. Davis about this 80,000 acres in the A district. Just how many acres have you mined by the various potash companies in the last 25 years?

Can you answer that? ---A. I don't believe you could answer the question directly, Mr. Yates. It has very little bearing on what determines the outline of the 80,000 acres. As I stated previously, the amount of acreage that you have actually mined out doesn't determine the area of your mine workings. You may have mine workings under 10 square miles and have mined out only one square mile completely.

Q Wasn't it previously testified at one of these hearings there has been approximately 10,000 acres mined in the last 25 years by the various potash companies? ---A. I don't recall that. But for one thing your American potash industry today is about 10 times as big as it was 12 or 14 years ago. The first potash operation I think got into -- got going commercially -- in 1929. The second operation didn't get in there until 1935. The third operation didn't get started until 1940; and each one of them started on a fraction of the basis it now operates under. So, anything that occurred in the past would be no criteria as to what might come in the future. Past performance on the removal of ore has nothing really to do with the case.

Q I kind of think it might have something to do with it. It looks to me, just from a layman's viewpoint, to that 80,000 acres I believe it will take anywhere from 150 to 200 years to mine out the rest of the potash ore. I think that is an unreasonable length of time. ---A. Unfortunately, Mr. Yates, you are not familiar with the potash properties or potash authorities or potash reserves. I can state unequivocally right now insofar as any known potash reserves occur down there there is nothing like 150 years of ore. Or insofar as I know today no one can positively state that at the present rate of production there is 50 years of ore supply.

Q All right. Now, isn't it likely -- as I understand it, the potash companies are continuing to core and they are prospecting from time to time -- isn't it likely they will make more discoveries? ---A. We certainly hope so.

Q Then I think in view, in the light of that, it is unreasonable for the potash companies to try and set aside an area that large and expect the oilman not to drill wells in those areas. This thing will keep growing and growing. ---A. Relatively, the area is infinitesimal, as I think you will agree when you spot it down on a map of the state or county, as the case may be. And it is the only place known in New Mexico where potash occurs, and it is something of vital importance to the state and to the nation.

Q I agree it is vital to the state and the nation, and I think the potash companies should be permitted to mine; but at the same time, I think the oil companies could protect the potash beds, and I think both could work in cooperation in the same areas at the same time. ---A. In the event now you speak of the entire defined area, in the event you should find oil deposits in the B AREA and develop the B AREA, it wouldn't make any difference what the potash companies found in the next 10 to 20 years. It would still be concurrent production of oil and potash.

Q But you set one area aside and don't permit any drilling, and permit drilling in B. Suppose a man has a lease in the B and A AREAS, which we have. All right. Then we have some neighbors that have offset leases that offset our lease in the A AREA. We couldn't protect ourselves from drainage where a man drills an offset to our 80 acres. We would have to wait, if your proposal went through, and have the oil go out from under us even though we could perpetrate our lease in the A and B AREA through production on the B AREA. That would certainly be an unjust case. (No response from the witness.)

MR. YATES Mr. Chairman, I would like to register a complaint against the proposal made here just a minute ago, and that is on the spacing of 160 acres. As I understand it, their proposal is on the B AREA. It has been established by precedent, generally speaking, that the spacing in New Mexico has been one well to 40 acres. And I don't think one to 160 acres is just and right. I don't believe it is to the interest of the state or the federal government either.

MR. SPURRIER: Does anyone have a question of Mr. Davis? Or a comment? If not, the witness may be excused.

(Witness excused.)

MR. SPURRIER: Do you have another witness?

G. C. WEAVER, having been first duly sworn, testified as follows:

DIRECT EXAMINATION BY MR. SETH:

Q Will you state your name, please? ---A. G. C. Weaver.

Q With which company are you associated, Mr. Weaver, and in what capacity? ---A. I am a consultant for Duval Sulphur and

Potash.

Q Would you state briefly your qualifications? ---A. I graduated from Colorado School of Mines in 1926. I have been in the mining game ever since. I have had eight years with the Potash Company of America, four with International Minerals and Chemical, and I have done consulting work for the last five years.

Q Have you examined and considered the proposed regulations as presented to the Commission by Mr. Davis? ---A. I have.

Q Would you wish to make any comments on them, generally, or anything specific for the benefit of the Commission? ---A. I think the major point to be considered in any approach that we take to this problem is conservation; conservation of both oil and gas and potash.

Q As far as the casing requirements are concerned, both for the deep wells and shallow wells, what comments do you have to make on those?---A. Well, these regulations that are set forth now I don't believe should be construed as final. If there is an oil and gas discovery made, the casing program will have to be worked out after the pool has been discovered. These regulations that we have here are a starting point. But it is provided for in these regulations to alternate the programs after due consideration has been given by the Commission and others concerned.

Q Now, as far as specific questions are concerned, I believe Mr. Foster Morrell asked about the fluid to be mixed with the cement, as to the proportion of calcium chloride. What do you recommend? ---A. The normal practice is to use three per cent clacium chloride, three per cent of the weight of the cement used.

Q You believe that would be a reasonable requirement in this connection? ---A. Yes. There has been considerable research work done on that.

Q The question was also asked as to the method of plugging core holes drilled by the potash companies in their exploratory work. What recommendation for closing core holes do you have? ---A. The practice followed in plugging core holes is to cement through the salt section with Portland cement and three per cent calcium chloride and mixed with saturated sodium chloride and potassium chloride brine. It is a continuous plug all

through the salt section.

Q That would be comparable to the plugging requirement recommended in this proposal? ---A. Yes.

Q There has been some discussion about the spacing as proposed in these recommendations? What comments would you have to make on the spacing as an initial proposal, knowing what we know about reservoir conditions at the present time? ---A. I don't think it was the purpose or intent to insist that wells be drilled in the center of each quarter. The thing in mind there was to limit the number of holes per section so that too many pillars wouldn't have to be left upon the extraction of potash.

Q These proposals contemplate that no workings will be driven to within a distance of less than 100 ft. from any such wells. That would mean you would have to leave a pillar with a radius of 100 ft. around each well? ---A. That, or adequate support, yes.

Q As the density of the wells increased in the section, it would mean substantial reduction in the recoverable potash in the area? ---A. Yes, that's right.

Q In your opinion, is that a reasonable requirement as recommended for a starting place, at least? ---A. Yes. There again, I believe it takes into consideration and is set up in this proposal where that spacing can be changed.

Q Is there anything else of general comment on technical matters you would like to bring out? ---A. I may say this. I can appreciate the position of the operator in wanting to recover all casing possible. And it would be my opinion that the potash companies would not object to recovering all that casing in case of a dry hole.

Q These regulations, do they not contemplate on the shallow wells that the salt protection string be recovered if the well isn't a producing well? ---A. That's right.

Q Is there anything else you would like to comment on? ---A. No, I believe not.

MR. SETH: That is all the direct questioning.

CROSS-EXAMINATION BY MR. CAMPBELL:

Q Mr. Weaver, I believe you stated that you felt the primary consideration of everybody in this matter was conservation. I presume by that you mean the production of these resources under proper conservation practices? ---A. Yes, sir.

Q We are all concerned with producing both oil and gas and potash? ---A. That is correct.

Q And making it available. I have one question to ask you about the spacing matter. Do you have a particular objection to presenting your views with regard to spacing of these wells before this Commission at such time as a discovery is made? And your advice would be the same then, and the Commission's consideration of those views be better balanced at that time than it would be at this time? ---A. Yes, I think you are correct. No one knows where a discovery is going to be made.

Q That's right. ---A. And I don't think there is anyone here that can foresee where alarge salt horse would enter in. And I think that if that could be handled on its own merits, it would be very satisfactory that way.

Q There is one other thing that has come up in our discussions with reference to your proposal about the use of the various brines in the plug. ---A. Yes.

Q I believe your porposal, which I think is taken from the one suggested by the sub-committee of the engineering committee of the oil and gas operators ... ? ---A. Yes.

Q Uses the terms "salts common to the area." ---A. Yes, sir.

Q Would the suggestion you made with reference to your three per cent solution there plus the other ingredients eliminate the necessity of that provision? In other words, some of the operators raise the question as to whether you might in all cases be able to determine with accuracy the salt common to that particular area. Would that be a particular problem so far as you are concerned? ---A. No. I am sure in plugging any of those wells that the potash companies would cooperate fully in furnishing a saturated brine for the mixing.

Q It would be to their advantage to do it? ---A. Yes, certainly.

Q If they had it available? ---A. Yes, certainly.

MR. CAMPBELL: That is all.

MR. SPURRIER: Does anyone have a question of this witness? If not, the witness may be excused.

(Witness excused.)

MR. CAMPBELL: If the Commission please, I would like to call one witness for a very brief presentation, and I would like to explain the reason for the presentation of this evidence. It isn't to minimize the understanding of most of the oil operators. The necessity of using every effort to have a proper program of casing and cementing in this area, but to make clear to the Commission the background of oil and gas drilling in this area so that they may evaluate the problem involved in connection with this casing and cementing. And I would like to call for that purpose Mr. H. S. Cave.

H. S. CAVE, having been first duly sworn, testified as follows:

DIRECT EXAMINATION BY MR. CAMPBELL:

Q State your name, please. ---A. H. S. Cave.

Q By whom are you employed? ---A. Phillips Petroleum Co.

Q Where are you stationed? ---A. Roswell, N. M.

Q In what capacity are you employed? ---A. Well, just senior geologist.

Q Will you state for the Commission very briefly your professional background? ---A. I did undergraduate work in geology at the University of Missouri; one year of postgraduate work in geology at the University of Missouri; and two years postgraduate work at Harvard University; two field seasons with the U.S. Geological Survey; a year and a half with the Geological Survey of Georgia; subsequent to that time, with the exception of time in the service, I have been engaged in geological work for oil companies and industries.

Q Mr. Cave, when did you first become acquainted with the geological situation in the area that is here under discussion? ---A. That was very late in 1926 or early in 1927, at which time I was employed by the Bisbee Oil Co., at which time said company acquired state leases for potash exploration in

the amount of approximately 49,000 acres.

Q What was your connection with that -- in exploratory work? ---A. Subsequent to that, in order to validate those leases and to see what we might have gotten, we drilled four core holes, and at that time it was my duty to check such cores and describe them, and that was done in conjunction with Walter Lang of the U. S. Geological Survey, who was in charge of potash investigation for the Survey and hence for the Department of the Interior in New Mexico.

Q You, yourself, assisted in the analysis of those cores? ---A. Yes, sir.

Q Mr. Cave, through the course of the years since that time have you had occasion to obtain records concerning the drilling of oil wells in this particular area? ---A. Yes, sir, I have.

Q And have you recently made a study of wells which were drilled and have been drilled in that area since the initial discovery of oil? ---A. I have made a compilation of the date pertaining to those wells.

Q What area does the compilation cover? ---A. It primarily covers Township 19S, Range 29 and 30E; Township 20S, Range 29 and 30E; Township 21S, Range 29 and 30E; and Township 22S, Range 29E.

Q That is six townships, is that correct? ---A. Yes, sir. Seven townships.

Q Seven townships in the immediate area under consideration here? ---A. Yes, sir.

Q And what did your compilation show as to the number of oil and gas wells which have already been drilled in that area? ---A. These records were taken from the status sheets of the Geological Survey and set forth in T. 19S, 29E to have been a total of 45 test holes drilled. In total depths these ranged from 503 ft. to 3,096 ft. Through their range in years for this drilling they range from 1925 into the year 1951. In T. 19S, R. 30E, as of approximately one month ago, 22 tests had been drilled, with a range in total depth with a minimum of 1,722 ft. to a maximum of 4,022 ft. In years, range from 1929 up until a period of about one month ago in the current year 1951. In T. 20S, R. 29E during the same dates there have been drilled a total of 30 wells that range in total depth

from a minimum of 505 ft. to a maximum of 6,683 ft. In years, they range from 1925 to 1948. In T. 20S, R. 30E, a total of 47 wells, with ranges in total depth from 1,250ft. to 3,500 ft. In years, the range covers from 1925 to 1948. That gave in those four townships, for which we were supposedly reaching, a total of 144 tests. In T. 21S, R. 29E there have been drilled 2 tests, one to 430 ft. in the year '41 and one to a total depth of 3,334 ft. in the year 1950. In T. 21S, R. 30E there have been a total of 5 holes drilled. They range in total depth from 503 ft. to a maximum depth of 1,934 ft. They were drilled between the years 1925 to 1934. In T. 22S, R. 29E 2 tests have been drilled. One to a total depth of 3,322 ft. The other to a total depth of 3,260 ft. The former was drilled in 1937 and the latter in the year 1926. It gives within the general area under discussion a total of 153 tests of one class or another that have been drilled.

Q And these records you obtained from the reports of the U.S. Geological Survey? ---A. Yes.

Q And those are available, as to location, and all the information is available at that source? ---A. Yes, they are. I might add, on this current gological survey the accurate location is shown, and I merely tabulated this to give more concrete figures.

Q To your knowledge, within that area where those 153 wells between 1925 to date have been drilled, do you know of any instances in that particular area where there have been complaints as to leakage and so forth? ---A. Personally, I do not. But I have no record what damage the potash people might have suffered, if any.

Q But this area we are referring to isn't virgin country so far as oil and gas holes are concerned? ---A. By no means. It is one of the oldest areas for prospecting in the state as far as southeastern New Mexico is concerned.

MR. CAMPBELL: That is all.

MR. SPURRIER: Does anyone have a question of this witness?

MR. SETH: We have no questions.

MR. CAMPBELL: That is all we have.

MR. SPURRIER: Do you have any other witnesses, Mr. Seth?

MR. SETH: We, we have no further testimony.

MR. SPURRIER: Do you have anything further, Mr. Campbell?

MR. CAMPBELL: Mr. Commissioner, just this. I think this hearing today has brought the problem here into focus more than any we have previously had, and so far as Richardson and Bass, whom I represent, are concerned, we wish to state we appreciate the information furnished by the potash companies and we feel, based on the information that has been furnished and their recommendations and our recommendations that, speaking for that company, we feel that the matter can definitely be worked out to our satisfaction, and we hope to the satisfaction of the potash companies.

MR. SETH: On behalf of the potash companies, I would just like to express our appreciation for this additional hearing that was had after the recess this noon. We feel that the matter is one of some substantial importance to the state and it should be decided on the basis of the interest of the state itself. The potash deposits, as has been testified several times during these previous hearings, are probably the only ones in the western hemisphere. The state should look at the proposition with a long-range view. The potash beds can be developed in the immediate future, and they should be. It is just a matter of time. The oil will be there when the potash is mined out. And I believe the matter, as the witness has stated, is one of conservation. It not only means production and realization of these resources, but it means protection of the adjoining ones. If the oil can be produced in a manner to protect the potash beds, that is all we are interested in. The state, in the potash, has a unique resource that is in need of protection and is in considerable danger of damage, and I think the matter as presented during the several hearings has brought that out much better than I can state it. It transcends any interest of any individual or any individual company. In a situation of this nature, just as in these condemnation cases on the bombing range and other things that have happened in the state, someone is bound to get hurt. It happens when the state takes into consideration an action like this. A decision has to be made which will insure to the state the best realization of this resource. We will be very happy to furnish any additional maps or information that the Commission may wish at any time.

MR. SPURRIER: Thank you. The meeting is adjourned, gentlemen.

STATE OF NEW MEXICO

ss

COUNTY OF BERNALILLO

I HEREBY CERTIFY That the foregoing transcript of hearing before the Oil Conservation Commission in Santa Fe on July 10, 1951, is a true record of the same to the best of my knowledge, skill, and ability.

DONE at Albuquerque, N. M., this 23rd day of July, 1951.

E. E. Greeson

E. E. Greeson
Notary Public - Court Reporter

My Commission Expires: 3-4-52

Mailed:
July 20, 1951

ROCKY MOUNTAIN OIL AND GAS ASSOCIATION

LLOYD MADSEN, WESTERN DIVISION MANAGER • EMPIRE 4-7969

WESTERN DIVISION
430 EMPIRE BUILDING
SALT LAKE CITY 11, UTAH

May 9, 1960

Dan S. Nutter
Chief Engineer
New Mexico Oil Conservation Commission
State Capitol Building
Santa Fe, New Mexico

Dear Dan:

Enclosed are the two transcripts I borrowed from your records. Thank you very much for your help and co-operation. If I may ever be of service to you please do not hesitate to contact me.

My best regards.

Lloyd

LLOYD MADSEN

LM/cj

POTASH COMPANY OF AMERICA
MINE AND REFINERY: P. O. BOX 31 • CARLSBAD, NEW MEXICO • TU 5-2111

R. H. BLACKMAN
RESIDENT COUNSEL

June 12, 1961

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

Attention: Miss Ida Rodriguez

Dear Ida:

Thank you very much for loaning me the transcript of the hearing of May 13, 1959 in Case No. 278. I return the transcript herewith.

With best personal wishes,

Sincerely,

Roy Blackman

RHB/b
Enc.

P.C.A. SALT of the EARTH RED MURIATE

MEMBER: AMERICAN POTASH INSTITUTE

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF DEFINING BOUNDARIES OF POTENTIAL OIL PRODUCING AREAS IN EDDY AND LEA COUNTIES, NEW MEXICO, WITHIN WHICH POTASH MINERALS ARE BEING PRODUCED OR POTENTIAL POTASH PRODUCING LANDS ARE LOCATED.

CASE No. 278
ORDER No. R-111

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," on June 21, 1951, and for further hearing on July 10, 1951, and the Commission, a quorum being present, having considered the testimony adduced and the exhibits introduced in evidence and arguments presented and being fully advised in the premises,

FINDS, (1) That due notice having been given, according to law, and all interested parties having appeared, the Commission has jurisdiction of this cause, and the subject matter thereof.

(2) That an area defining potential oil and gas reserves within which are proved and potential potash deposits, and the promulgation of rules and regulations for the orderly development of oil and gas resources in such an area known to be productive of potash is within the authority of the Commission for the protection of correlative rights, the promotion of conservation, and the prevention of waste.

IT IS THEREFORE ORDERED:

That this order shall be known as THE RULES AND REGULATIONS GOVERNING THE EXPLORATION AND PRODUCTION OF OIL AND GAS IN CERTAIN AREAS AND SUB-AREAS HEREIN DEFINED AND KNOWN TO CONTAIN PROVED AND SEMI-PROVED POTASH MINERALS IN THE AREA AND SUB-AREAS HEREINAFTER SET OUT.

I
OBJECTIVE

The objective of these Rules and Regulations is to prevent waste, protect correlative rights, assure maximum conservation of the oil and gas resources of New Mexico and permit the simultaneous economic recovery of potash minerals in the area hereinafter defined.

II
THE POTASH - OIL AREAS

(1) These Rules and Regulations are applicable to oil and gas operations and to exploration for and production of oil and gas in proven or potential Potash-Oil areas herein defined as "Area A" and "Area B."

(a) The potash-oil area represents the area in various parts of which potash mining operations are now in progress, or in which core tests indicate potential potash reserves are located and is described, as follows:

W.N.M.C.F. MICROGRAPHICS

T. 19 S, R. 29 E
Sec. 11 - SE/4
Sec. 12 - S/2
Sec. 13 and 14 - all
Sec. 23 - N/2
Sec. 24 - N/2

T. 20 S, R. 29 E
Sec. 12 - NE/4 SE/4 and S/2 SE/4
Sec. 13 - NE/4 and S/2
Sec. 22 to 27, inclusive
Sec. 34 to 36, inclusive

T. 21 S, R. 29 E
Sec. 1 and 2, all
Sec. 3 - E/2
Sec. 10 - E/2
Sec. 11 to 14, inclusive
Sec. 15 - E/2
Sec. 23 - N/2
Sec. 24 and 25 - all
Sec. 35 - E/2
Sec. 36 - all

T. 22 S, R. 29 E
Sec. 1 and 2 - all
Sec. 3 - S/2
Sec. 9 - E/2
Sec. 10 to 16, inclusive
Sec. 17 - E/2
Sec. 20 - E/2
Sec. 21 to 28, inclusive
Sec. 33 to 36, inclusive

T. 23 S, R. 29 E
Sec. 1 to 3, inclusive
Sec. 4 - E/2
Sec. 9 - E/2
Sec. 10 to 15, inclusive
Sec. 22 to 27, inclusive
Sec. 34 to 36, inclusive

T. 18 S. R. 30 E
Sec. 12 - S/2
Sec. 13 and 14 - all
Sec. 15 - SE/4
Sec. 21 - SE/4
Sec. 22 to 24, inclusive
Sec. 25 - W/2
Sec. 26 to 28, inclusive
Sec. 29 - SE/4
Sec. 32 - SW/4 and E/2
Sec. 33 and 34 - all
Sec. 35 - W/2

T. 19 S, R. 30 E
Sec. 2 to 5, inclusive
Sec. 6 - SE/4
Sec. 7 - NE/4 and S/2
Sec. 8 to 30, inclusive
Sec. 32 to 36, inclusive

T. 20 S, R. 30 E
Sec. 1 to 36, inclusive

T. 21 S, R. 30 E
Sec. 1 to 11, inclusive
Sec. 12 - S/2
Sec. 13 to 22, inclusive
Sec. 23, - N/2
Sec. 24 - N/2
Sec. 27 to 34, inclusive
Sec. 35 - S/2

T. 22 S, R. 30 E
Sec. 1 to 24, inclusive
Sec. 25 - W/2
Sec. 26 to 35, inclusive
Sec. 36 - W/2

T. 23 S, R. 30 E
Sec. 1 - S/2
Sec. 2 to 36, inclusive

T. 24 S, R. 30 E
Sec. 1 - N/2
Sec. 2 - N/2
Sec. 3 - N/2

T. 18 S, R. 31 E
Sec. 18 - W/2

T. 19 S, R. 31 E
Sec. 9 and 10 - all
Sec. 11 - W/2
Sec. 14 - W/2
Sec. 15 to 17, inclusive
Sec. 19 to 22, inclusive
Sec. 23 - W/2
Sec. 25 - S/2
Sec. 26 to 36, inclusive

T. 20 S, R. 31 E
Sec. 1 to 36, inclusive

T. 21 S, R. 31 E
Sec. 1 - N/2
Sec. 2 - N/2
Sec. 4 - W/2
Sec. 5 and 6 - all
Sec. 18 - S/2
Sec. 19 - N/2

T. 22 S, R. 31 E
Sec. 4 to 9, inclusive
Sec. 17 and 18 - all
Sec. 19 - N/2

T. 23 S, R. 31 E
Sec. 7 - all
Sec. 8 - S/2
Sec. 16 - SW/4
Sec. 17 to 20, inclusive
Sec. 21 - W/2
Sec. 28 to 33, inclusive

T. 24 S, R. 31 E
Sec. 4 to 6, inclusive

T. 19 S, R. 32 E
Sec. 23, S/2
Sec. 24 to 27, inclusive
Sec. 28 - S/2
Sec. 31 - S/2
Sec. 32 - S/2
Sec. 33 to 36, inclusive

T. 20 S, R. 32 E
Sec. 1 to 36, inclusive

T. 21 S, R. 32 E
Sec. 1 to 17, inclusive
Sec. 21 to 27, inclusive
Sec. 35 and 36 - all

T. 19 S, R. 33 E
Sec. 19 - all
Sec. 30 and 31 - all

T. 20 S, R. 33 E
Sec. 5 to 9, inclusive
Sec. 15 to 23, inclusive
Sec. 25 to 36, inclusive

T. 21 S, R. 33 E
Sec. 4 to 9, inclusive
Sec. 16 to 21, inclusive
Sec. 28 to 33, inclusive

T. 22 S, R. 33 E
Sec. 4 to 6, inclusive

T. 20 S, R. 34 E
Sec. 31 - all

(b) Area "A" represents the area in various parts of which potash mining operations are now in progress and is described, as follows:

T. 19 S, R. 30 E
Sec. 9 - SE/4 NW/4, E/2 SW/4, S/2 NE/4, SE/4
Sec. 10 - SW/4 NW/4, W/2 SW/4
Sec. 15 - NW/4 NW/4
Sec. 16 - N/2 NE/4, NE/4 NW/4
Sec. 26 - S/2 NW/4, SW/4 NE/4, W/2 SE/4, SW/4
Sec. 27 - S/2 NE/4, SE/4 NW/4, NE/4 SW/4, S/2 SW/4, SE/4
Sec. 28 - SE/4 SE/4
Sec. 33 - SE/4 NW/4, NE/4 NE/4, S/2 NE/4, E/2 SW/4, SE/4
Sec. 34 - all
Sec. 35 - NW/4, W/2 NE/4, NW/4 SE/4, N/2 SW/4, SW/4 SW/4

T. 20 S., R. 30 E
Sec. 2 - W/2 NW/4, NW/4 SW/4
Sec. 3 - N/2, SW/4, N/2 SE/4, SW/4 SE/4
Sec. 4 - E/2, SW/4, E/2 NW/4, SW/4 NW/4
Sec. 5 - SE/4 NE/4, E/2 SE/4, SW/4 SE/4, SE/4 SW/4
Sec. 7 - SE/4 SE/4
Sec. 8 - E/2, E/2 NW/4, E/2 SW/4, SW/4 SW/4
Sec. 9 - N/2, SW/4, N/2 SE/4, SW/4 SE/4
Sec. 10 - NW/4, W/2 NE/4, NW/4 SE/4, N/2 SW/4
Sec. 16 - N/2 NW/4, NW/4 NE/4
Sec. 17 - W/2, N/2 NE/4, SW/4 NE/4, W/2 SE/4
Sec. 18 - E/2 NE/4, E/2 SE/4
Sec. 19 - NE/4 NE/4
Sec. 20 - N/2 NW/4, NW/4 NE/4
Sec. 25 - SW/4 SW/4
Sec. 26 - SE/4 SW/4, S/2 SE/4
Sec. 35 - E/2 NW/4, NE/4, N/2 SE/4, NE/4 SW/4
Sec. 36 - W/2 NW/4, NW/4 SW/4

T. 21 S., R. 29 E
Sec. 1 - SE/4, S/2 NE/4, SE/4 NW/4, NE/4 SW/4, S/2 SW/4
Sec. 2 - SE/4 SE/4
Sec. 11 - NE/4 NE/4, S/2 NE/4, SE/4 NW/4, E/2 SW/4, SE/4
Sec. 12 - all
Sec. 13 - N/2, SE/4, N/2 SW/4, SE/4 SW/4
Sec. 14 - E/2 NW/4, NE/4, NE/4 SW/4, N/2 SE/4
Sec. 24 - NE/4 NW/4, N/2 NE/4
Sec. 25 - SE/4 SW/4, S/2 SE/4
Sec. 36 - E/2 NW/4, E/2 SW/4, E/2

T. 22 S., R. 29 E
Sec. 1 - E/2 NW/4, SW/4 NW/4, SW/4, E/2
Sec. 2 - SE/4 NE/4, E/2 SE/4
Sec. 11 - E/2 NE/4, NE/4 SE/4
Sec. 12 - N/2, N/2 SW/4, N/2 SE/4

T. 21 S., R. 30 E
Sec. 6 - SW/4 NW/4, W/2 SW/4
Sec. 7 - NW/4 NW/4, S/2 NW/4, SW/4 NE/4, SW/4, W/2 SE/4
Sec. 18 - NW/4, W/2 NE/4, N/2 SW/4, SW/4 SW/4, NW/4 SE/4
Sec. 19 - NW/4 NW/4

T. 21 S., R. 30 E
Sec. 29 - SW/4 SW/4
Sec. 30 - S/2 SW/4, S/2 SE/4
Sec. 31 - all
Sec. 32 - W/2 NW/4, W/2 SW/4

T. 22 S., R. 30 E
Sec. 5 - W/2 NW/4, NW/4 SW/4
Sec. 6 - N/2, SW/4, N/2 SE/4, SW/4 SE/4
Sec. 7 - N/2 NW/4, SW/4 NW/4, NW/4 NE/4, NW/4 SW/4

(c) Area "B" is defined as that area in which core tests indicate potential potash reserves and includes the entire potash-oil area as described under "The Potash-Oil Areas" Sec. (1) (a), of this order, except and excluding lands defined and described as area "A" in "The Potash-Oil Areas," Sec. (1) (b) of this order.

(2) Area "A" and "B" as hereinabove defined may be contracted or expanded by the Commission from time to time as circumstances or conditions may warrant, 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, that oil and gas exploratory test wells shall not be drilled through any open potash mines or within 1,320 feet thereof unless agreed to in writing by the potash lessee involved.

(b) Any oil or gas leases hereafter issued for lands within Area "A" shall be subject to these regulations.

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

(d) Where oil and gas wells are in production in Area "A," no potash mine opening shall be driven to within less than 100 feet of such wells so that protection of both wells and mine can be afforded.

(e) Proposals to unitize with respect to land within Area "A", as herein defined and described, will be considered on their merits.

(2) Area "B"

(a) Oil and gas exploratory test wells may be drilled in Area "B" in accordance with these rules and regulations.

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

(4) Nothing herein shall be construed to prevent unitization agreements involving lands in Areas "A" or "B", or both.

IV
DRILLING AND CASING PROGRAM

(1) For the purpose of the regulations and the drilling of oil and gas exploratory test wells, shallow and deep zones are defined, as follows:

(a) The 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) The 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) Surface Casing String:

(a) A surface casing string of new, second-hand, or reconditioned pipe shall be set in the "Red Bed" section of the basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section, as determined necessary by the regulatory representative approving the drilling operations and shall be cemented with not less than one hundred and fifty percent (150 percent) of calculated volume necessary to circulate cement to the ground surface.

(b) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(c) Casing and water-shut-off tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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

(d) The above requirements for the surface casing string shall be applicable to both the shallow and deep zones.

(3) Salt Protection String:

(a) A salt protection string of new, second-hand, or reconditioned pipe shall be set not less than one hundred (100) feet nor more than two hundred (200) feet below the base of the salt section.

(b) The salt protection string shall be cemented, as follows:

(i) For wells drilled to the shallow zone, the string may be cemented with a nominal volume of cement for testing purposes only. If the exploratory test well is completed as a productive well, the string shall be recemented with sufficient cement to fill the annular space back of the pipe from the top of the first cementing to the surface or to the bottom of the cellar, or may be cut and pulled if the production string is cemented to the surface as provided in sub-section IV (5), (a), (i) below.

(ii) For wells drilled to the deep zone, the string must be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(c) If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or gamma ray survey and additional cementing shall be done until the cement is brought to the point required.

(d) The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with three (3 percent) percent of calcium chloride by weight of cement.

(e) Centralisers shall be spaced on at least every one hundred fifty (150) feet of the salt protection string below the surface casing string.

(f) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(g) Casing tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of one thousand (1000) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) 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.

(h) The above requirements for the salt protection string shall be applicable to both the shallow and deep zones except for sub-section IV (3), (b), (i) and (ii) above.

(4) Intermediate String:

(a) In the drilling of oil and gas exploratory test wells to the deep zone, an intermediate string shall be set at sufficient depth to case-off all formations in the shallow zone and shall be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(b) Cementing procedures and casing tests for the intermediate string shall be the same as provided under sub-sections IV (3), (c), (f) and (g) for the salt protection string.

(5) Production String:

(a) A production string shall be set on top or through the oil or gas pay zone and shall be cemented as follows:

(i) For wells drilled to the shallow zone the production string shall be cemented to the surface if the salt protection string was cemented only with a nominal volume for testing purposes, in which case the salt protection string can be cut and pulled before the production string is cemented; provided, that if the salt protection string was cemented to the surface, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone.

(ii) For wells drilled to the deep zone, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided, that if no intermediate string shall have been run and cemented to the surface, the production string shall be cemented to the surface.

(b) Cementing procedures and casing tests for the production string shall be the same as provided under sub-sections IV (3) (c), (f) and (g) for the salt protection string.

V
DRILLING FLUID FOR SALT SECTION

The fluid used while drilling the salt section 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 fluid by the operator in overcoming any specific problem. This requirement is specifically intended to prevent enlarged drill holes.

VI
PLUGGING AND ABANDONMENT OF WELLS

All wells heretofor and hereafter drilled within Areas "A" and "B" 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.

VII
LOCATIONS FOR TEST WELLS

Before drilling for oil or gas on lands in Areas "A" or "B", a map or plat showing the location of the proposed well shall be prepared by the well operator and copy sent by registered mail to the potash lessee involved, if any. Upon proper showing of such notice and if no objection to the location of the proposed well is 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 within ten days for consideration and decision by the Oil Conservation Commission.

VIII
INSPECTION OF DRILLING AND MINING OPERATIONS

A representative of the potash lessee may be present during drilling, cementing, casing, and plugging of all oil or gas wells on his lease to observe conformance with these regulations. Likewise, a representative of the oil and gas lessee may inspect mine workings on his lease to observe conformance with these regulations.

IX
FILING OF WELL AND MINE SURVEYS

Each oil and gas lessee shall furnish not later than January 31st of each year 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 or gas well drilled in Area "A" during the preceding calendar year. Each potash lessee shall furnish not later than January 31st of each year to the Oil Conservation Commission and to each oil and gas lessee involved, certified plat of survey of the location of open mine workings underlying outstanding oil and gas leases.

X
APPLICABILITY OF STATEWIDE RULES AND REGULATIONS

All general statewide rules and regulations of the Oil Conservation Commission governing the development, operation, and production of oil and gas in the State of New Mexico not inconsistent or in conflict herewith, are hereby adopted and made applicable to the areas described herein.

XI
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 November, 1951.

DONE at Santa Fe, New Mexico, this 9th day of November, 1951.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Edwin L. Mechem

EDWIN L. MECHEM, Chairman

Guy Shepard

GUY SHEPARD, Member

R. R. Spurrier

R. R. SPURRIER, Secretary

Guy Shepard

GUY SHEPARD
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-B

APPLICATION OF FARM CHEMICAL
RESOURCES DEVELOPMENT CORPORATION
AND NATIONAL POTASH COMPANY FOR AN
AMENDMENT OF ORDER R-111-A TO
INCLUDE ADDITIONAL ACREAGE IN THE
POTASH-OIL AREA OF LEA AND EDDY
COUNTIES, NEW MEXICO

ORDER OF THE COMMISSION

BY THE COMMISSION:

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

NOW, on this 5th day of June, 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 applicants, Farm Chemical Resources Development Corporation and National Potash Company, are the owners of certain Federal and State potash leases in Townships 19, 20, and 21 South, Ranges 29, 31, and 32 East, NMPM, Lea and Eddy Counties, New Mexico.

(3) That the applicants seek an amendment of Order No. R-111-A to extend the Potash-Oil Area as set forth in said Order to include the following-described acreage:

TOWNSHIP 19 SOUTH, RANGE 31 EAST	
Section 36:	N/2 and SW/4
TOWNSHIP 19 SOUTH, RANGE 32 EAST	
Section 33:	N/2 and W/2 SW/4
Section 34:	N/2
TOWNSHIP 20 SOUTH, RANGE 29 EAST	
Section 25:	S/2 S/2

TOWNSHIP 20 SOUTH, RANGE 31 EAST

Section 1:	W/2 W/2
Section 2:	All
Section 3:	All
Section 11:	N/2 and W/2 SW/4
Section 14:	W/2 NW/4

TOWNSHIP 20 SOUTH, RANGE 32 EAST

Section 4:	W/2 NW/4
Section 5:	N/2, SW/4 and N/2 SE/4
Section 6:	NE/4, N/2 SE/4, and SE/4 SE/4

TOWNSHIP 21 SOUTH, RANGE 31 EAST

Section 10:	E/2
Section 11:	All
Section 12:	SW/4 SW/4
Section 13:	W/2
Section 14:	All
Section 15:	E/2
Section 16:	W/2 SW/4
Section 17:	All
Section 18:	SE/4 NE/4, SE/4, and SE/4 SW/4
Section 19:	All
Section 20:	All
Section 21:	NW/4 NW/4, S/2 NW/4, and SW/4
Section 22:	E/2
Section 23:	N/2
Section 24:	NW/4
Section 27:	E/2 E/2 and NW/4 NE/4
Section 34:	E/2 NE/4 and SW/4 NE/4

(4) That the evidence presented indicates that the above-described acreage contains potash deposits in commercial quantities.

(5) That to promote orderly development of the natural resources in the area, Order No. R-111-A should be amended to include the above-described acreage in the Potash-Oil Area.

IT IS THEREFORE ORDERED:

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

TOWNSHIP 19 SOUTH, RANGE 31 EAST

Section 36:	N/2 and SW/4

TOWNSHIP 19 SOUTH, RANGE 32 EAST

Section 33:	N/2 and W/2 SW/4
Section 34:	N/2

TOWNSHIP 20 SOUTH, RANGE 29 EAST	
Section 25:	S/2 S/2
TOWNSHIP 20 SOUTH, RANGE 31 EAST	
Section 1:	W/2 W/2
Section 2:	All
Section 3:	All
Section 11:	N/2 and W/2 SW/4
Section 14:	W/2 NW/4
TOWNSHIP 20 SOUTH, RANGE 32 EAST	
Section 4:	W/2 NW/4
Section 5:	N/2, SW/4, and N/2 SE/4
Section 6:	NE/4, N/2 SE/4, and SE/4 SE/4
TOWNSHIP 21 SOUTH, RANGE 31 EAST	
Section 10:	E/2
Section 11:	All
Section 12:	SW/4 SW/4
Section 13:	W/2
Section 14:	All
Section 15:	E/2
Section 16:	W/2 SW/4
Section 17:	All
Section 18:	SE/4 NE/4, SE/4, and SE/4 SW/4
Section 19:	All
Section 20:	All
Section 21:	NW/4 NW/4, S/2 NW/4, and SW/4
Section 22:	E/2
Section 23:	N/2
Section 24:	NW/4
Section 27:	E/2 E/2 and NW/4 NE/4
Section 34:	E/2 NE/4 and SW/4 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

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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-D

APPLICATION OF UNITED STATES
BORAX & CHEMICAL CORPORATION
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, United States Borax & Chemical Corporation, is the owner of certain potash leases in Townships 21 and 22 South, Ranges 29 and 30 East, NMPM, Eddy County, New Mexico.

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

Township 21 South, Range 29 East, NMPM	
Section 2:	S/2 SW/4, NW/4 SW/4
Section 10:	E/2 SE/4
Section 11:	NW/4, W/2 SW/4
Section 14:	NW/4 NW/4
Section 15:	NE/4 NE/4

Township 22 South, Range 30 East, NMPM	
Section 4:	W/2 W/2
Section 5:	S/2 SE/4, SE/4 SW/4
Section 7:	E/2 NE/4, NE/4 SE/4
Section 8:	N/2, N/2 SW/4
Section 9:	W/2 NW/4

(4) That the evidence presented indicates that the above-described acreage contains potash deposits in commercial quantities.

(5) That to promote orderly development of the natural resources in the area, Order No. R-111-A should be amended to include the above-described acreage in the Potash-oil Area.

IT IS THEREFORE ORDERED:

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

Township 21 South, Range 29 East, NMPM	
Section 2:	S/2 SW/4, NW/4 SW/4
Section 10:	E/2 SE/4
Section 11:	NW/4, W/2 SW/4
Section 14:	NW/4 NW/4
Section 15:	NE/4 NE/4

Township 22 South, Range 30 East, NMPM	
Section 4:	W/2 W/2
Section 5:	S/2 SE/4, SE/4 SW/4
Section 7:	E/2 NE/4, NE/4 SE/4
Section 8:	N/2, N/2 SW/4
Section 9:	W/2 NW/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

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

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. 2112
Order No. R-111-B

APPLICATION OF POTASH COMPANY
OF AMERICA 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 November 2, 1960, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 16th day of November, 1960, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, 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, Potash Company of America, seeks an amendment of Order No. R-111-A extending the Potash-Oil Area as set forth in said order to include the following-described acreage covered by a Potash Prospecting Permit held by it from the Federal Government:

TOWNSHIP 20 SOUTH, RANGE 29 EAST, NMPM,
EDDY COUNTY, NEW MEXICO

Section 14:	S/2 NW/4, SW/4, W/2 SE/4, NE/4 SE/4, SW/4 NE/4
Section 15:	E/2 SE/4
Section 22:	NE/4 NE/4
Section 23:	NW/4

(3) That the evidence presented indicates that portions of the above-described acreage contains potash in commercial quantities, but there is insufficient evidence at this time to justify extension of the Potash-Oil Area to include all of the above-described acreage.

(4) That to promote orderly development of the natural resources in the Potash-Oil Area, Order No. R-111-A should be amended to include the following-described area:

TOWNSHIP 20 SOUTH, RANGE 29 EAST, NMPM	
Section 14:	SE/4 NW/4, SW/4, W/2 SE/4, and SW/4 NE/4
Section 15:	SE/4 SE/4
Section 22:	NE/4 NE/4
Section 23:	NW/4

IT IS THEREFORE ORDERED:

That Order No. R-111-A be and the same is hereby amended to include the following-described acreage within the Potash-Oil Area in Lea and Eddy Counties, New Mexico:

TOWNSHIP 20 SOUTH, RANGE 29 EAST, NMPM, EDDY COUNTY, NEW MEXICO	
Section 14:	SE/4 NW/4, SW/4, W/2 SE/4, and SW/4 NE/4
Section 15:	SE/4 SE/4
Section 22:	NE/4 NE/4
Section 23:	NW/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

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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. 2241
Order No. R-111-F

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

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m., on April 13, 1961, at Hobbs, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 21st day of April, 1961, the Commission, a quorum being present, having considered the testimony 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, Potash Company of America, seeks an amendment of Order No. R-111-A, to extend the Potash-Oil Area as set forth in said order to include the following-described acreage covered by a lease and Potash Prospecting Permits held by it from the Federal government:

TOWNSHIP 20 SOUTH, RANGE 29 EAST, NMPM
Section 13: SW/4 NW/4, NW/4 SW/4
Section 14: SE/4 NE/4, NE/4 SE/4

in Eddy County, New Mexico.

(3) That the evidence presented indicates that the above-described acreage contains potash deposits in commercial quantities.

(4) That to promote the orderly development of the natural resources in the potash-oil area, Order No. R-111-A should be amended to include the above-described acreage in the Potash-Oil Area.

IT IS THEREFORE ORDERED:

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

TOWNSHIP 20 SOUTH, RANGE 29 EAST, NMPM
Section 13: SW/4 NW/4, NW/4 SW/4
Section 14: SE/4 NE/4, NE/4 SE/4

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

EDWIN L. MECHEM, Chairman

E. S. WALKER, Member

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

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