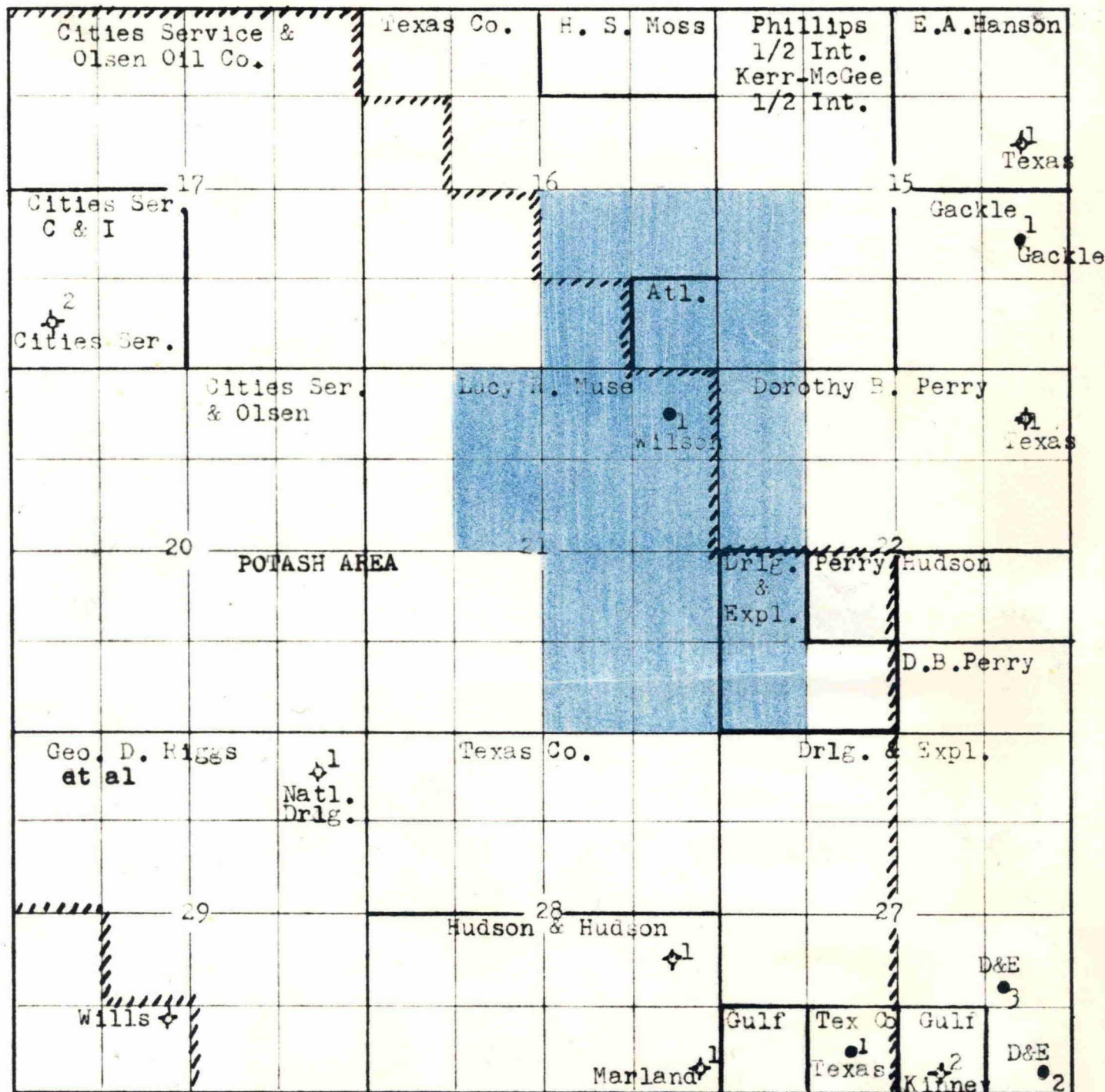


(SCALE 1 IN. = 2200 FT.) NINE-SECTION PLAT

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICOEXHIBIT No. 1

OWNERSHIP AND WELL PLAT ON PORTION OF TOWNSHIP

TOWNSHIP 20S RANGE 34E COUNTY LEA STATE NEW MEXICO

POTASH OWNERSHIP -

Potash Company of America- holds Federal permits with lease application filed on Sec. 15, 17, 20, 21, 22, 27, 29, and S/2 of Sec. 28.

Potash Company of America- holds State prospecting permit on Section 16.

Unknown - North half Section 28, Patented land ownership unknown.

CASING RECORD - T20S-R34E, Lea County

	(Section)		(Completion		(Total		(Casing)											
	Date)		Depth)															
Lang & Schlachter #1 Federal	3	5-2-56	3759	13-3/8	126	Set	10-3/4	747	Set	8	1300	Set						
Texas Production Co. #1 Jackson	4	10-6-27	4031	15-1/2	430	Set	12-1/2	552	Set				8-1/4	3174	Set			
The Texas Company #1 Swearingin	8	1-31-35	3909	15-1/2	304	Set	10	775	Set				8-1/4	1527	75	7	3828	Set
The Texas Company #2 Swearingin	9	12-4-44	4769	13	300	300	10-3/4	735	Set				8-5/8	1560	100	7	4426	Set
The Texas Company #1 L. E. Elliott	11	6-18-40	3861	15-1/2	240	200							10-3/4	1658	75	7-5/8	3577	75
Albert Gackle #1 Hanson Fed. B	14	1-7-57	4145	8-5/8	375	225												
The Texas Company #1 J. S. Lea	14	7-10-34	3688				10	1578	75				6-1/4	3536	75			
The Texas Company #3 J. S. Lea	14	8-10-38	3807	13	221	200							8-5/8	1581	75	7	3529	60
The Texas Company (2 J. S. Lea	15	8-2-37	3703	13	206	200							8-5/8	1665	75	7	3332	75
Albert Gackle #1-A Hanson Fed.	15	1-25-57	3768	8-5/8	342	250							5-1/2	3768	1500			
Cities Service #2 Jewett McDonald AA	17	3-3-42	3633	13	560	Set	10	915	Set				8-1/4	1568	125	5-1/2	3368	125
Henderson & Dexter #1 McDonald Jewett	18	7-11-29	3612				10	825	Set				8-1/4	3160	Set			

J. Don Hudgens, Inc. #1 Federal	18	8-1-54	3825	9-5/8	60	Set			7	3492	900sx
Cities Service #2-A Jewett McDonald	19	9-24-44	3655	13	591	Set	10	800	Set	8-5/8	1560 150
The Texas Company #1 Elliott	22	1-15-35	3815	12	74	Set		8-1/4	1650	Set	7 3690 Set
Drilleco #1 Gorman	25	5-21-45	3825	16 13	190 564	Set Set	10-3/4	907	Set	8-1/4	1798 100
Drilling & Exploration #2 Fletcher A Federal	27	1-21-57	3699	13-3/8	70	Set	10	734	Set	8-5/8	1283 Set 5-1/2 3648 1700
E. E. Kenney #2 Gulf Federal	27	10-18-54	3341	13-3/8	100	50		8-5/8	1208	Set	
Drilling & Exploration #3 Fletcher A Federal	27			13-3/8	70	50	10-3/4	716	Set	8-5/8	1233 Set
The Texas Company #2-B Lynch	27	8-1-34	3750	12-1/2	148	Set		8-1/4	1607	100	
Continental Oil Co. #1 Flint	28	8-22-29	3840	20 15-1/2	25 585	Set Set	12	945	Set	10	1675 Set 8-1/4 3435 Set
National Drilg & Prod. #1 H. A. Flint	29	7-27-43	3772	12-1/2	291	Set		8-1/4	1681	100	6-5/8 3618 Set
Wills et al #2 Flint	29	6-24-46	3368					8-5/8	1575	50	
W. H. Black #1 Welch-Federal	30	7-2-54	3600	13-3/8	75	Set	10-3/4	625	Set	8-5/8	1145 Set
Lang & Unger #1 Willis-Federal	30	9-27-56	3192					8-5/8	1494	400	
Neil H. Wills #1 Flint	30	7-26-45	3547	13	550	Set	10	882	Set	8	1555 Set
E. E. Kinney #1 Gulf Federal	34	5-21-54	3771				10	710	Set	8-5/8	1275 Set

The Texas Company #6 B. Lynch "A"	35	8-1-52	3726	13-3/8	132	Set	10-3/4	782	Set	8-5/8	1311	Set	5-1/2	3666	2700 SX
The Texas Company #7 B. Lynch Federal	35	12-19-52	3707	13	105	Set	10-3/4	764	Set	8-5/8	1303	Set	5-1/2	3670	3670 sx
Wilson Oil Company #1 Muse	21	5-13-57	3691	13-3/8	69	Set	10-3/4	669	Set	8-5/8	1217	Set	5-1/2	3555	800 sx
Phillips Petroleum Co. #1 Cruces	26	4-19-57	3705	8-5/8	171	125 sx							5-1/2	3643	450 sx
Phillips Petroleum Co. #2 Cruces	26	6-14-57	3718	8-5/8	157	150 sx.							5-1/2	3668	1710 sx
Drilling & Exploration #3 Fletcher "A"	27	3-25-57	3691	12-3/8	70	50 sx.	10-3/4	716	Set	8-5/8	1233	Set	5-1/2	3640	1680 sx
Hudson & Hudson #1 Hover Federal	28	6-28-57	3736	13-3/8	72	Set	10-3/4	683	Set	8-5/8	1235	Set	7	3475	Set

CABLE TOOLS

NEW POOL TWP 20 S RGE 34 E
LEA COUNTY, NEW MEXICO


Case 1277

7-10-57 NRL

63


Casing to be set in
Top "Red Beds"- shut off
surface waters.

Surf Csg.

13 3/8" 


Casing to be set at about
600 feet in Chinle- Shut off
"Dry Cave" & Water Zones.

Cone Csg.

10 3/4" 

Casing to be set at about
1200' to shut off
Santa Rosa water zone.

Water shut off Csg.

8 5/8" 

ILLEGIBLE

RECENT, Caliche &
Water Sands

CHINLE, Red Beds
some rotten
and
Water Sands

SANTA ROSA, Red Beds
Water Sands

DEWEY LAKE, Competent
Silt Stone
and Shales

RUSTLER- Anhydrite

SALADO - Salt, Potash
& Anhydrite

Production String be set at
least 100' below Salado
but above possible Seven
Rivers producing zone

*production string to
total depth in Yates
to be tested and it
can be determined whether
any production has been
obtained. If so 5 1/2"
production string to
be set and all other
strings may be pulled.*

TANSIL- Anhydrite &
Dolomite

YATES -Dolomite,
Anhydrite &
Sand beds

SEVEN RIVERS-
Dolomite &
Sand Beds

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

EXHIBIT No. 3

CASE 1277

Casing Indicated in Suggested sizes

DIAGRAM OF PROPOSED CASING PROGRAM
ROTARY TOOLS
NEW POOL TWP 20 S RGE 34 E
LEA COUNTY, NEW MEXICO

6 27

Case 1277

7-10-57 NRL

Casing to be set in
Top "Red Beds"- shut off
surface waters. Cemented to surface

8 5/8"
9 5/8"



RECENT, Caliche &
Water Sands

CHINLE, Red Beds
some rotten
and
Water Sands

SANTA ROSA, Red Beds
Water Sands

DEWEY LAKE, Competent
Silt Stone
and Shales

RUSTLER- Anhydrite

SALADO - Salt, Potas.
& Anhydrite

TANSIL- Anhydrite &
Dolomite

YATES -Dolomite,
Anhydrite &
Sand beds

SEVEN RIVERS-
Dolomite &
Sand Beds

Production String be set at
least 100' below Salado
but above possible Seven
Rivers producing zone

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Wilson EXHIBIT No. 4
CASE 1277

5 1/2"
7"



Halliburton OIL WELL CEMENTING COMPANY

DUNCAN, OKLAHOMA

Box 8
Livingston, N. M.
July 13, 1957

Mr. Raymond Lamb
Wilson Oil Company
Box 1436
Artesia, N. M.

Dear Sir:

I received your recent letter requesting a recommendation on cementing oil strings from surface to total depth of 3700' in wells near Section 21-T20S-R34E in Lea County. You requested that the following conditions be met:

1. Protect oil and gas bearing formations
2. Protect possible potash bearing formations at approximately 2000-2200 feet.
3. The cement must adhere to the salt formations (900'-2000') as well as to the potash formations.
4. The maximum pressure on the oil and gas bearing formations should not exceed 3000 psi.

A salt saturated 50-50 Pozmix "S"-Portland cement-1% Gel used to cover the salt and potash formations will give adequate strength and adhere to the formations. The neat cement that you plan to use to cover the oil and gas zones will certainly give adequate protection.

If the oil string is cemented in one operation, the pressure exerted at 3700' will exceed 3000 psi. It could easily reach 3500 to 4000 psi. In order to reduce the pressure on the oil and gas zones to less than 3000 psi., a D. V. tool can be used at approximately 3100'. The D.V. tool should be placed opposite a tight formation such as limestone, anhydrite, or sandstone formation. By using such a tool, the maximum pressure on the formation at 3700' would not exceed 2100 psi. This is assuming that the mud weight would not exceed 9#. Enough regular neat cement should be used on the first stage to cover the D.V. tool. After opening the ports in the D.V. tool, circulation should be maintained for at least four hours before running the second stage.

If there is any additional information that you need, or any way that I can help you, please let me know and I shall be glad to do so.

Sincerely yours,

Richard W. Robirds

Richard W. Robirds
Field Engineer

RWR

cc: Mr. W. L. Hughes
Mr. J. B. Livingston
Mr. Joe W. Jones
Mr. S. P. Arledge

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
Hilson Co. EXHIBIT No. 5
CASE 1277

E 6

E. W. SAMPSON
SUPERINTENDENT

RICHARDSON AND BASS
DISTRICT OFFICE
MONAHANS, TEXAS

S. J. SCARBOROUGH
CHIEF CLERK

July 6, 1957

Mr. N. Raymond Lamb
Wilson Oil Company
Box 1436
Artesia, New Mexico

Dear Sir:

Reference is hereby made to your letter of June 17, 1957 and our telephone conversation of July 5, 1957 concerning your proposed casing and cementing program for the Yates Sand area in Section 21, T20S, R34E, Lea County, New Mexico.

We endorse your proposed casing and cementing program for this area and understand that you will present such program to the New Mexico Conservation Commission at a hearing on July 17, 1957 at which time testimony will be taken for the promulgation of field rules.

Yours very truly,

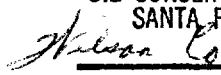
RICHARDSON & BASS

BY-


S. J. SCARBOROUGH

SJS/wja

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

 EXHIBIT No. 6
CASE 1277

DRILLING AND EXPLORATION COMPANY, INC.

P. O. BOX 2075

HOBBS, NEW MEXICO

July 1, 1957

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
Wilson Co. EXHIBIT No. 7
CASE 1277

Wilson Oil Company
Box 1436
Artesia, New Mexico

Attention: Mr. N. Raymond Lamb

Gentlemen:

We have your letter of June 17, 1957 requesting our recommendations for possible field rules in the Potash Area. We are of the opinion that the casing program as set forth in Commission Order R-968 is adequate for cable tool operations.

With regards to rotary drilling at this depth, we are of the opinion that adequate protection can be given the potash deposits without the use of a salt string with the use of salt saturated water for a drilling fluid and provided that the oil string is cemented back to the surface. It might be well to provide that a caliper survey be run prior to running the oil string and that casing centralizers be spaced throughout the salt section.

In instances where the oil string is set in a dense limestone above the pay section and cemented to the surface, we feel that the salt section is given as much protection as is obtained by use of a salt string with the oil string "tacked" on bottom.

We have not inquired into the bottom hole pressure existing in your Muse No. 1, but the pressures encountered in our Fletcher "A" wells in the Lynch field are so low that migration of fluids would appear to be improbable.

Please feel free to call on us for any information or assistance that you may need.

Yours very truly,

DRILLING & EXPLORATION COMPANY, INC.

D. C. Webb

D. C. Webb
Division Production Superintendent

DH

4.8

THE TEXAS COMPANY

TEXACO PETROLEUM PRODUCTS



PRODUCING DEPARTMENT
WEST TEXAS DIVISION

P. O. BOX 1720
FORT WORTH 1, TEXAS

July 10, 1957

Wilson Oil Company
Box 1436
Artesia, New Mexico

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
Wilson Co EXHIBIT No. *8*
CASE *1777*

Attention: Mr. N. Raymond Lamb

Gentlemen:

Reference is made to your letter dated June 17, 1957, addressed to our Mr. George Sleeper, wherein you requested certain information concerning the establishment of an adequate casing program for wells to be drilled in the vicinity of your Muse No. 1, NE/4 NE/4, Section 21, T-20S, R-34E, Lea County, New Mexico.

The Texas Company concurs with the cable tool casing program which you employed in drilling your No. 1 Muse, whereby you mudded in your 13-3/8", 10-3/4", and 8-5/8" casing strings and pulled all three after setting and cementing the 5-1/2" string at a depth of 3555 feet.

For rotary drilling we recommend a two-string casing program consisting of approximately 300 feet of surface casing set into the redbeds and cemented to the surface and a production string set through the pay and also cemented to the surface. In order to employ this casing program, it will be necessary, of course, to keep the drilling fluid completely saturated at all times with salts common to the salt section while drilling below the surface string. The mudding off of the fresh water sands and the maintenance of a completely saturated drilling fluid should afford adequate protection to the salt section equivalent to that obtained in the casing program approved by the Commission in Order No. R-968 for drilling with cable tools.

With regard to your comments concerning the holding of a minimum hydrostatic head of cementing materials, we have no definite information on this point; however, in the event it is desirable to reduce slurry weight, we recommend that this be achieved by the use of Perlites rather than the use of gel cements, as the cement placed behind the production string should be saturated with salts common to the zones penetrated, and with suitable proportions, but not less than one percent of calcium chloride by weight of cement, as is

July 10, 1957

outlined in Order No. R-111-A for cementing opposite the salt section.

If these recommendations meet with your approval and seem to follow the ideas which you may have gathered from other companies, there would seem to be no reason for a meeting of the operators prior to your July 17, 1957, hearing. In any event, however, The Texas Company would appreciate being informed prior to the hearing of the recommendations which Wilson Oil Company plans to make to the Commission concerning these matters.

Yours very truly,

THE TEXAS COMPANY

A handwritten signature in dark ink, appearing to read 'W. C. Lenz', written in a cursive style.

W. C. Lenz
General Superintendent,
Drilling and Production

HNW-JEB

629

POTASH COMPANY OF AMERICA
Carlsbad, New Mexico

July 12, 1957

Re: Case No. 1277

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

Attention: Mr. A. L. Porter, Jr.
Secretary-Director

Gentlemen:

Potash Company of America hereby wishes to state that it offers no objection to whatever pool rules the Oil Conservation Commission will deem necessary under an amendment to R-111-A and incorporating the orders set in O.C.C. No. R-968, dated March 22, 1957.

The proposal of the applicant has been discussed with Mr. R. Lamb and we feel that in this particular area their evidence and request are adequate and reasonable.

Yours very truly,

/s/ D. E. Prots

D. E. Prots
Chief of Exploration

DEP:nina

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P
Y

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
Wilson EXHIBIT No. 9
CASE 1277

POTASH COMPANY OF AMERICA

CARLSBAD, NEW MEXICO

Ex 9

RECEIVED JUL 11 1957

July 12, 1957

Re: Case No. 1277

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

Attention: Mr. A. L. Porter, Jr.
Secretary-Director

Gentlemen:

Potash Company of America hereby wishes to state that it offers no objection to whatever pool rules the Oil Conservation Commission will deem necessary under an amendment to R-111-A and incorporating the orders set in O. C. C. No. R-988, dated March 23, 1957.

The proposal of the applicant has been discussed with Mr. R. Lamb and we feel that in this particular area their evidence and request are adequate and reasonable.

Yours very truly,

D. E. Prots
D. E. Prots
Chief of Exploration

DEP. nine

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
Wilson Co. EXHIBIT No. 9
CASE 1277

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