

GOVERNOR
DAVID F. CARGO
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
GUYTON B. HAYS
MEMBER

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

P. O. BOX 2088
SANTA FE

November 19, 1968

Mr. Jason Kellahin
Kellahin & Fox
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

Re: Case No. 3942
 3944 ✓
Order No. R-3570 & R-3571
Applicant:
Cities Service & Sun Oil Co.

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC

Aztec OCC

Other State Engineer Office

SUN OIL COMPANY

McFARLAND AND McFARLAND "A" LEASES

ROOSEVELT COUNTY, NEW MEXICO

Estimated Reservoir Pressure = 1000 psi ✓
Oil Gravity = 25° API
Gas Gravity = .7 (estimated)
Reservoir Temperature = 110° F
From Correlation Charts:
Solution GOR at present = 140
Formation Volume Factor at present = 1.066

Reservoir Voidage Based on June, 1968 Production from McFarland and
McFarland "A" Leases:

Oil Produced = 4942 Barrels X 1.066 = 5268 Res. Bbls
Gas Produced = [5083 MCF - (4942 X .140 MCF)] 2.45 = 10758 Res. Bbls
Water Produced = 4374 Barrels = 4374 Res. Bbls

Estimated Total Reservoir Voidage = 20,400 Res. Bbls

SUN OIL COMPANY

PRODUCTION DATA

JAMES McFARLAND "A" LEASE

		<u>No.</u> <u>Wells</u>	<u>Oil,</u> <u>BBLS</u>	<u>Gas,</u> <u>MCF</u>	<u>Water,</u> <u>BBLS</u>
1966	Feb.	1	757	1794	0
	Mar.	2	2072	566	499
	Apr.	4	2981	728	1098
	May	4	5254	2088	1778
	June	4	4840	1300	2636
	July	4	4797	2703	1945
	Aug.	4	5663	3130	1475
	Sept.	4	4600	3219	1890
	Oct.	4	6012	2531	2115
	Nov.	4	6177	1768	1539
	Dec.	4	6512	2463	2736
1967	Jan.	4	7045	3547	3941
	Feb.	4	5997	2790	4732
	Mar.	4	6333	2749	4393
	Apr.	4	5776	3851	3738
	May	4	5580	2450	4550
	June	4	5664	2701	3262
	July	4	6003	4485	3672
	Aug.	4	6710	3379	3788
	Sept.	4	7001	2255	3750
	Oct.	4	6586	3234	2239
	Nov.	4	6149	4720	4170
	Dec.	4	4189	4269	2187
1968	Jan.	4	3600	3558	1730
	Feb.	4	3184	3718	2190
	Mar.	4	3344	3258	2387
	Apr.	4	3967	6824	2737
	May	4	3627	4109	3344
	June	4	<u>3179</u>	<u>2446</u>	<u>2668</u>
Cum. 7-1-68			<u>143599</u>	<u>86633</u>	<u>77189</u>

*Handed prod (4400)
175 BBL
110 FWH*

JAMES McFARLAND LEASE

		<u>No. Wells</u>	<u>Oil, BBLs</u>	<u>Gas, MCF</u>	<u>Water, BBLs</u>
1966	Mar.	1	1452	488	115
	Apr.	2	2245	450	517
	May	3	3470	1373	400
	June	3	4173	1941	681
	July	3	4060	5366	450
	Aug.	4	4454	3831	2420
	Sept.	4	5017	4353	2385
	Oct.	4	5991	4032	2388
	Nov.	4	5064	5619	2195
	Dec.	4	5346	4852	3795
1967	Jan.	4	5504	6472	4770
	Feb.	4	4859	6281	4982
	Mar.	4	4368	5385	4845
	Apr.	4	4244	6210	3295
	May	4	4674	3289	3456
	June	4	4602	4000	1923
	July	4	4880	7757	1638
	Aug.	4	5335	7509	2340
	Sept.	4	5020	4181	2218
	Oct.	4	4860	6160	980
	Nov.	4	4171	8595	1033
	Dec.	4	3744	8525	1631
1968	Jan.	4	3205	6961	1194
	Feb.	4	2353	6190	629
	Mar.	4	2667	5259	676
	Apr.	4	2372	4928	420
	May	4	2166	4325	764
	June	4	<u>1763</u>	<u>2737</u>	<u>1706</u>
Cum. 7-1-68			<u>112,079</u>	<u>136,969</u>	<u>53,846</u>

WELL NAME: James McFarland #4

DOWN HOLE SUMMARY

(MILNESAND - SAN ANDRES, TOP @ 4133', BTM @ ?)

PERFS #1 @ 4151', 56', 74', 77', 86', 4221', 26 $\frac{1}{2}$ ', 45', 54', 60', 72', 79', & 4284 $\frac{1}{2}$ ' w/ 1 JS @ ea. Int. 5/18/66.

Acid Trtmt #1, Pfs. #1 w/ 2000 gals 15% acid w/ ball sealers.

Test: 5 hrs. Swbd 10 BLW, FL @ 3850'.

Frac Trtmt #1: w/ 40,000 gals gelled forma. wtr., 40,000# sd, BDP 2200#, FP 3000#. 5/21/66.

Test: Unsuccessfully, 5/22 thru 7/26/66

Sqzd Perfs #1 @ 4151 & 56 in 2 stages w/ 250 sks lcor, FP 4000#.

Plug: 4314 cmt., 8/2/66

Perfs #2 @ 4174', 77', 86', 4221', 26 $\frac{1}{2}$ ', 45', 54', 4266 $\frac{1}{2}$ ', 72', & 79' w/ 1 JSPF.

Acid Trtmt #2: Pfs #2 @ 4174/4279 @ Int., Pfs #1 @ 4284 $\frac{1}{2}$, w/ 2000 gals, w/ ball sealers, 8/5/66.

Test: 11 $\frac{1}{2}$ hrs. Swbd 3 B0, 19 BW, FL @ 3000'.

Frac Trtmt #2 (Pfs #2 @ 4174/4279 @ Int. & Pfs #1 @ 4284 $\frac{1}{2}$) w/ 40,000 gals lse wtr, 40,000 sd, FP 4350#.

I. P.: 24 hrs. P 47 B0, 61 BLW, GOR 112/1, Grav of Oil 24.3. 8/24/66

Csg. Seat (No Cond)
Size

Csg. Seat 375'
Size 8-5/8", 5/5/66

Top of Cement behind Oil String

Actual 3520 (Temp Surv)
Calc.

Tbg. Btm. 4172'
Size 2"

Wt. 4.70#
Grade J-55 SS
Thd. 8R EUE
Date Run 8-10-66

SN @ 4136.02', (1-25/32" ID, 1.10' lg)

PN @ 4137.12', (1.995" ID, 3.14' lg)

Btm tbg bull plugged w/ collar

Fluid above

Packer -

Top of Plug in Csg. 4314'

Pkr. Depth None

Length

Kind

Tbg. Stop

Kind

Csg. Seat 4340'
Size 4-1/2", 5/15/66
T.D. 4343', 5/13/66

Pipe Diagram not to Scale

PERFORATIONS