Drawer "D"
Hobbs, New Mexico

January 4, 1949

Re: Case #157
Order #801

N. M. Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

In compliance with order #801 of the N. M. Conservation Commission, the following report is submitted on the procedure used in dually completing Skelly Oil Company's Mexico "D" #1, located 1980' from South and East line of Section 36, Township 23 South, Range 36 East, N.M.P.M., Lea County, New Mexico.

GENERAL:

Rotary tools:	Surface to 3400'
Cable tools :	3400' to 3590'

CASING:

Size	Depth	Amount Cement
9-5/8"	1175	300 sacks
7"	3400	250 "

GEOLOGICAL DATA:

Elevation - 3328'.

Formations	Depth
Top Anhydrite	1140
Top Yates	2900
Top Seven Rivers	3100
Total Depth	3590

EFFECTIVE PAY (oil)

Depth	Character	Thickness
3440-50	dol.& ls.	10'
3455-85	dol.& ls.	30'
3515-35	dol.& ls.	20'
		60'

EFFECTIVE PAY (gas)

Formation	Interval	Character	Thickness
Yates	2955-70	Sand & dol.	15'
Yates	2980-95	Sand & dol.	15'
Yates	3010-30	Sand & dol.	20'
			50'

COMPLETION DATA:

Well was drilled to a depth of 3400', 7" casing set and cemented with 250 sacks 2% aquagel cement; 50 sacks around shoe and 200 sacks through Halliburton two-stage tool set at 2828'. Cable tools then were moved in and after stipulated wait for setting of cement, casing was tested for leaks, plug was drilled, and 1000 psi pressure applied on casing for 1 hour. The pressure remained constant, indicating effective cement shut-off. Well was then drilled to a total depth of 3590', shot with 284 quarts nitroglycerine from 3440' to 3580'. Well was cleaned out and on initial production test after shot, flowed 38 barrels pipe line oil/24 hours through 2" tubing, 1/2" choke.

In order to effect dual completion of this well, the lower pay (Seven Rivers formation) was killed with mud, tubing pulled and 7" casing perforated from 2900' to 3000' with 260 shots. 2" tubing was run to a depth of 3426', perforations at 3423-3426, Guiberson G-2 packer set at 3126' and Otis landing nipple and side door choke at 3105'. The side door choke assembly is a specialized tool consisting chiefly of the landing nipple, side door choke, check valve, and standing valve. Arrangements of check valve, standing valve, and perforated or blank packing mandrel, in conjunction with a casing packer, effects a complete separation of fluids and gases from any two horisons, permits accurate determination of bottom hole pressures, oil and/or gas production, and gas-oil ratios from the two zones separately.

The choke assembly first was equipped with a packing mandrel perforated with two 1/4" holes, a check valve and a standing valve. The tool so equipped effected a complete separation of fluids or gases from the 2 formations, yet allowed the entrance of drilling fluid and gas in the casing annulus into the tubing through the perforated packing mandrel. With the choke equipped in this manner and set in the seating nipple, the well was swabbed through the 2" tubing until first show of gas appeared at surface. The tubing then was shut in, and casinghead opened until annulus had cleaned itself of mud. On IP, gas tested 25,000 MCF/day.

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[illegible]

[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

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[illegible]

The side door choke was then pulled and equipped with blank packing mandrel, the check valve and standing valve being omitted. The tool so equipped confined the gas being produced from the Yates formation to the casing annulus and fluid from the Seven Rivers formation to be confined to the tubing. After swabbing tubing, the well cleaned itself & flowed 36 barrels pipe line oil/24 hours through 1/2" choke with a tubing pressure of 60#, gas measuring 1000 MCF/day. The well was then shut in for a 24 hour period. Tubing pressure built up to 600#, and Casing pressure 1250#. At the present time the flowing tubing pressure is 50#, and shut-in casing pressure 1250#. The shut-in casing pressure remaining constant whether the tubing choke is opened or closed indicates an effective shut-off of the Seven Rivers and Yates formations.

Yours very truly,

JMD:cmh