

Atlantic Richfield Company North American Producing Division
New Mexico-Arizona District
Post Office Box 1978
Roswell, New Mexico 88201
Telephone 505 622 4041

W. P. Tomlinson
District Engineer

August 23, 1967

New Mexico Oil Conservation Commission (4)
P. O. Box 2088
Santa Fe, New Mexico

Attention: Mr. A. L. Porter, Jr.

Re: Swearingen Waterflood Project
Shugart Pool
Eddy County, New Mexico

Gentlemen:

These data are supplemental to our request dated August 8, 1967, to convert to water injection the previously plugged Panco Federal No. 1 located 1980' FWL and 660' FNL, Section 23, Township 18 South, Range 31 East. The request is in accordance with Order No. R-2969, concerning the Swearingen Waterflood Project in Eddy County, New Mexico. Included is a log of the well, a schematic drawing of our proposed completion of the well, a plat of the area and test data for diagonal offset wells Swearingen "B" No. 5 and Swearingen "B" No. 6.

Originally the three locations in the southwest part of the Swearingen Lease were not drilled and the extent of the sand development was not known. In order to develop the Swearingen Lease for maximum recovery we drilled the Swearingen "B" No. 6 located 990' FSL and 990' FWL, Section 14, Township 18 South, Range 31 East. This well was completed on March 31, 1967, for 30 BOPD with no water and is presently making 40 BOPD. With the completion of this well and the knowledge that the productive limits extend into this area, it became evident that additional injection is needed here to recover secondary reserves. Therefore, we requested an extension of the waterflood by converting Panco Federal No. 1 to injection.

There are no direct offsets to the Panco Federal No. 1. However, the Swearingen "B" No. 5 and the recently completed No. 6 are both diagonal offsets which have responded to water injection. The attached tests show the production for Swearingen "B" No. 5 increasing from 16 BOPD on November 4, 1965, just before injection was started to a high of 132 BOPD on March 31, 1967,



12
11
10
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6
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1
AUG 25 1967

WFX-270

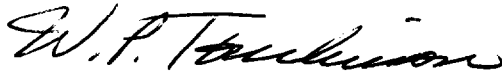
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NMOCC
August 23, 1967
Page 2

after four months of injection.

If any additional information is desired please advise.

Yours very truly,

A handwritten signature in cursive script, appearing to read "W. P. Tomlinson".

W. P. Tomlinson

WPT:jcb

Attachments

cc: USGS, P. O. Drawer "U", Artesia, New Mexico
State Engineer, State Capital Building, Santa Fe, New Mexico
Gulf Oil Corp., P. O. Box 1938, Roswell, New Mexico
Marathon Oil Company, P. O. Box 220, Hobbs, New Mexico
Hudson & Hudson, 1510 1st Nat'l. Bank Bldg., Fort Worth, Texas
Mr. B. M. Keohane, 500 N. Main, Roswell, New Mexico
Maxwell Oil Company, 2017 Continental Nat'l. Bank Bldg.,
Fort Worth, Texas

DISTRICT 64

RECORD
OF
PRODUCTION TESTS

FIELD SHUGART

WELL NO	DATE	WELL DATA	STATUS BEFORE TEST		ACTUAL TEST DATA										24 HOUR RATES									
			TEST HRS OR DAYS	TEST	TIME	LENGTH OF TEST HRS MIN	NET OIL BARRELS	GRAVITY	TOTAL GAS MCF	WATER BARRELS	POWER OIL MCF	INJECTED GOR SCF/BBL	SEP. PRESS	CLOCK		TO. IN. STROKE TO. IN.	CY. IN. STARTING CY. IN. ENDING	CY. IN. ENDING	NET OIL BARRELS	NET GAS MCF	NET GOR SCF-BBL	WATER %		
														1	2								3	4
7	9-19-66	PUM0230	P	18D	3	P24		125	39.6	26			18	16	86	1750			125	26	208	2		
7	10-24-66	PUM0230	P	7D	1	S24		184	39.8	35			22	16	84	1781			184	35	190	18		
7	11-10-66	PUM0230	P	24D	3	S24		184	39.8	7	33		22	16	84	1781			184	7	38	14		
7	11-22-66	PU 230	P	24D	3	S24		163	39.8		26		50	16	86	1750			163					
SWEARINGEN R																								
1	4-14-66	PUM0012	P	13D	3	P24		12	34.6	17			8	12	28	1500			12	17	1417			
1	6-07-66	PUM0012	P	6D	3	P24		6	35.8	19			7	14	34	1500			6	19	3167			
1	7-29-66	PUM0012	P	28D	3	S24		8	36.8				6	13	34	1500			8					
1	9-05-66	PUM0012	P	4D	3	S24		8	36.4				10	16	27	1500			8					
1	9-22-66	PUM0012	P	21D	3	P23	15	8	38.4	15			16	16	27	1500			8	15	1875			
1	10-23-66	PUM0012	P	23D	3	S24		7	37.0	4			20	13	34	1500			7	4	571			
1	11-07-66	PUM0012	P	24D	3	S24		7	37.0	22			9	16	34	1500			7	22	3143	8		
2	4-15-66	PUM0012	P	14D	3	P24		12	34.6	7			8	17	27	1500			12	7	583			
2	5-05-66	PUM0012	P	4D	3	P23	20	5	34.8	3			8	16	27	1500			5	3	600			
2	6-02-66	PUM0012	P	1D	3	P24		21	35.8	10			8	16	27	1500			21	10	476			
2	7-26-66	PUM0025	P	25D	3	P24		20	36.5	6			12	16	27	1500			20	6	300			
2	9-02-66	PUM0025	P	1D	3	P24		19	38.2	1			15	16	27	1500			19	1	53			
2	9-18-66	PUM0025	P	14D	3	P24	15	20	39.4	8			17	16	27	1500			20	8	400			
2	11-25-66	PUM0025	P	24D	3	P24		24	36.4		1		30	16	36	1500						4		
5	3-02-66	PUM0055	P	1D	3	P24		48	34.8	24			12	11	34	1500			48	24	500			
5	3-31-66	PUR0055	P	30D	3	P23		132	36.0	29			8	12	54	1750			138	30	220			
5	5-23-66	PUM0132	P	22D	3	P24		78	37.5	32			16	16	86	1750			78	32	410			
5	6-17-66	PUM0132	P	16D	3	P24		81	38.6	36			15	16	86	1750			81	36	444			
5	7-14-66	PUM0132	P	13D	3	P24		82	39.4	45			16	16	86	1750			82	45	549			
5	9-12-66	PUM0132	P	11D	3	P24		80	38.8	2			20	16	86	1750			80	2	25			
5	9-16-66	PUM0132	P	15D	3	P24		81	39.6	41			20	16	86	1750			81	41	506			
5	10-21-66	PUM0132	P	7D	1	S24		73	39.6	69			22	16	86	1750			73	69	945			

RECORD
OF
PRODUCTION TESTS

FIELD SHUGART

WELL NO.	DATE OF TEST	MOD DAY	ALLOWABLE	STATUS BEFORE TEST			ACTUAL TEST DATA			24 HOUR RATES									
				TEST	OR	SI	7	8	9	NET OIL	NET GAS	NET CO ₂	WATER	NET OIL	NET GAS	NET CO ₂	WATER	NET OIL	NET GAS
				HRS	OR	SI	1	2	3	4	5	6	7	8	9	10	11	12	13

WELL NO.	DATE OF TEST	MOD DAY	ALLOWABLE	TEST	OR	SI	7	8	9	NET OIL	NET GAS	NET CO ₂	WATER	NET OIL	NET GAS	NET CO ₂	WATER	NET OIL	NET GAS
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	6-03-67	PUM0005	P	24H	3	P23	30	17	39.5	3									
2	6-09-67	PUM0010	P	24H	3	P24		8	39.0	1	4								
4	6-10-67	PUM0005	P	24H	3	P24		9	39.1	1	1								
7	6-15-67	PUM0230	P	24H	3	P24		82	39.1	8	122								
1	SWEARINGEN 6-17-67	PUM0007	P	24H	3	P24		19	39.0	1									
2	6-04-67	PUM0021	P	24H	3	P24		19	39.1	3	15								
5	6-14-67	PUM0060	P	24H	3	P24		62	39.2	11	17								
6	6-18-67	PUM0047	P	24H	3	P24		40	39.0	87									

FIELD SHUGART

DISTRICT 64

[illegible]

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New Mexico-Arizona District
Post Office Box 1978
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W. P. Tomlinson
District Engineer

August 23, 1967

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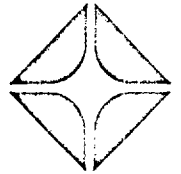
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STILL

117

JEK



67 SEP 8 AM 8 40

*Xerox note to Santa Fe
4-7-67. No objection
to this application.
J. P. L.*

LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE

Elevation of Ground Level 3693'.

2-3/8" O.D. Tubing.

8-5/8" Surface Casing shot off
and pulled @ 618'.

7" Surface Casing to be set @
approximately 800' and cemented
to surface.

8-5/8" O.D. Surface Casing set at
808' and cemented with 50 sacks.
Cement top at about 636' (Calcu-
lated).

✓ Packer to be set at approximately
3400'.

Queen perforation to be
3444' to 3456'.

4-1/2" casing to be set at 3600'
and cemented to 2600'.

Cement to 3700'.

T.D. 5184'.

ATLANTIC RICHFIELD COMPANY
SCHEMATIC DRAWING
PROPOSED COMPLETION
PANCO FEDERAL NO. 1
SHUGART POOL, EDDY COUNTY, NEW MEXICO

EXHIBIT NO. 1

ILLEGIBLE

COMPANY Penroc Oil Corporation Well Panco-Federal # 1 FIELD Wildcat County Eddy State N. M.	COMPANY <u>PENROC OIL CORPORATION</u>																																																																								
	WELL <u>PANCO-FEDERAL # 1</u>																																																																								
	FIELD <u>WILDCAT</u>																																																																								
	COUNTY <u>EDDY</u>	STATE <u>NEW MEXICO</u>																																																																							
	Location <u>1980' FWL 660' FNL</u>																																																																								
Sec <u>23</u> Two <u>18-S</u> Pge <u>31-E</u>		Other Services:																																																																							
Permanent Datum <u>Ground Level</u> Elev. <u>3693</u>		Elev. <u>3705</u>																																																																							
Log Measured from <u>12 Ft. Above Perm. Datum</u>		D.F. <u>3.01</u>																																																																							
Drilling Measured From <u>Kelly Bushing</u>		G.L. <u>3693</u>																																																																							
Date	<u>6-14-64</u>	<u>6-14-64</u>																																																																							
Run No.	<u>- One -</u>	<u>- One -</u>																																																																							
Type Log	<u>Gamma</u>	<u>Neutron</u>																																																																							
Depth- Driller	<u>5184</u>	<u>5184</u>																																																																							
Depth- Welx	<u>5185</u>	<u>5185</u>																																																																							
Bottom Logged Interval	<u>5175</u>	<u>5185</u>																																																																							
Top Logged Interval	<u>40</u>	<u>50</u>																																																																							
Type Fluid in Hole	<u>Mud</u>	<u>Mud</u>																																																																							
Salinity, PPM Cl.																																																																									
Density																																																																									
Level	<u>120</u>	<u>120</u>																																																																							
Max. rec. temp., deg. F.																																																																									
Operating Rig Time																																																																									
Recorded By	<u>G. Kimble</u>																																																																								
Witnessed by	<u>Mr. Castle</u>																																																																								
<table border="1"> <thead> <tr> <th colspan="4">BORE-HOLE RECORD</th> <th colspan="4">CUTTING RECORD</th> </tr> <tr> <th>RUN</th> <th>Bit</th> <th>From</th> <th>To</th> <th>Size</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td></td> <td>8"</td> <td>-</td> <td>3836</td> <td>8-5/8"</td> <td>0</td> <td>808</td> </tr> <tr> <td></td> <td>7-7/8"</td> <td>3836</td> <td>5184</td> <td></td> <td></td> <td></td> </tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>			BORE-HOLE RECORD				CUTTING RECORD				RUN	Bit	From	To	Size	From	To		8"	-	3836	8-5/8"	0	808		7-7/8"	3836	5184																																													
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ATLANTIC RICHFIELD COMPANY
 LOG OF PANCO FEDERAL NO. 1
 SHUGART POOL
 EDDY COUNTY, NEW MEXICO

EXHIBIT NO. 2

August 15, 1967

Atlantic Richfield Company
P. O. Box 1978
Roswell, N. M. 88201

Attn. Mr. W. P. Tomlinson

Gentlemen:

Reference is made to your application to the Oil Conservation Commission which seeks to expand the Swearingen Waterflood Project by converting a plugged and abandoned well, Panco Federal No. 1, to water injection.

I note that a plat of the area is the only exhibit submitted in compliance with Oil Conservation Commission Rule 701.B.

FEI/ma
cc-Oil Conservation Comm.

Yours truly,

S. E. Reynolds
State Engineer

By:

Frank E. Irby
Chief
Water Rights Div.

SEP 11 1967
'67 AUG 16 AM 8 03