

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



SEP 19 1969
WPA - 323
17

September 19, 1969

New Mexico Oil Conservation Commission (3)
P.O. Box 2088
Santa Fe, New Mexico 87501

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

Re: Atlantic Richfield Shugart Panco
Waterflood Project, Shugart Pool,
Eddy County, New Mexico

Gentlemen:

In accordance with Rule 701, Atlantic Richfield requests approval to complete the proposed Panco Federal No. 4 as a water injection well. The location of this proposed well (see attached plat) is 2310' FNL and 2310' FWL, Section 23, Township 18 South, Range 31 East. It is planned to set and cement 4 1/2" casing and inject into the Queen formation through perforations at approximately 3430 feet (see attached diagrammatic sketch). The injection is planned to be down 2 3/8" O.P. tubing with a packer set less than 100' above the perforations. Fluid, treated to prevent corrosion, will be placed in the annulus and the casing pressure will be monitored to detect possible leaks. The injection rate is expected to be about 300 BWPD at a surface pressure of 1700 psig. Injection water will be obtained from Double Eagle Corporation and from produced water on the Swearingen and Panco leases.

The Panco Waterflood Project, which was originally authorized by Order No. R-3743, has been expanded in recent months by the drilling and completion of the Panco No. 3 as a producer. It is now necessary to drill an injection well to the east of the Panco No. 3 in order to provide back-up for the waterflood to prevent the sweep of oil

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past the producers. It is equally important that injection begin soon at the proposed location so that the water banks from all injectors will arrive at the producers at approximately the same time. This should prevent waste by allowing a maximum amount of oil to be produced before the water cut becomes too high for continued economic operation. In addition, it is anticipated that this injector will sweep approximately 61.5 MBO of secondary reserves to existing producers that would not otherwise recover this oil. The location of this well is such that it will lead to effective development of the project area. The well is also ideally located to benefit possible future expansion of the project to the east.

Response to waterflooding has been experienced in the Panco No. 1 which directly offsets the location of the proposed injector (see attached form C-116 and production curve). The Panco No. 3, which also offsets the proposed injector, has not yet had time to respond to injection since the Panco No. 2 has been injecting only since June, 1969. Production rates from the Panco No. 1 have declined in recent months due to water break through and the lack of injection back-up to the south. The completion of the proposed well as an injector should increase this well's production rate to its former peak.

We would appreciate approval of this request at your earliest convenience. Please forward a copy of your approval letter to the United States Geological Survey. Upon receipt of your approval, we will submit the proper drilling permits for approval.

Yours very truly,


W.P. Tomlinson *W.P.*

cc: U.S.G.S., Artesia, Marathon Oil Co., Hobbs; Gulf Oil Corp., Roswell; Maxwell Oil Co., Fort Worth; Mr. B.M. Keohane, Roswell

PRODUCTION HISTORY
 PANCO FEDERAL NO.1
 GUARANTY QUEEN POOL
 SECTION T-13-S, R-31-E
 CODY CO. NEW MEXICO

PANCO NO.1 COMPLETED
 SWEARINGEN "B" NO.7 COMPLETED W/V

OIL

WATER

MONTHLY OIL AND WATER PRODUCTION — BARRELS

19 65
 19 66
 19 67

19 68

19 69

10,000

1,000

100

10

NEW MEXICO OIL CONSERVATION COMMISSION
GAS-OIL RATIO TESTS

C-116
Revised 1-1-65

Operator Atlantic Richfield Company		Pool Shugart Queen		County Eddy																																									
Address P. O. Box 1978, Roswell, New Mexico		TYPE OF TEST - (X)		Completion <input type="checkbox"/> Scheduled <input type="checkbox"/> Special <input checked="" type="checkbox"/>																																									
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU.FT./BBL.																																
		U	S	T						R	WATER BBLs.	GRAV. OIL		OIL BBLs.	GAS M.C.F.																														
Panco Federal	1	C	23	18S	31E	P	---	---	21	24	0	34.2	17	21	1235																														
																P	---	---	17	24	1	34.2	17	12	706																				
																										P	---	---	17	24	1	37.0	17	12	705										
																																				P	---	---	45	24	0	39.2	40	10	250

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

(Signature)

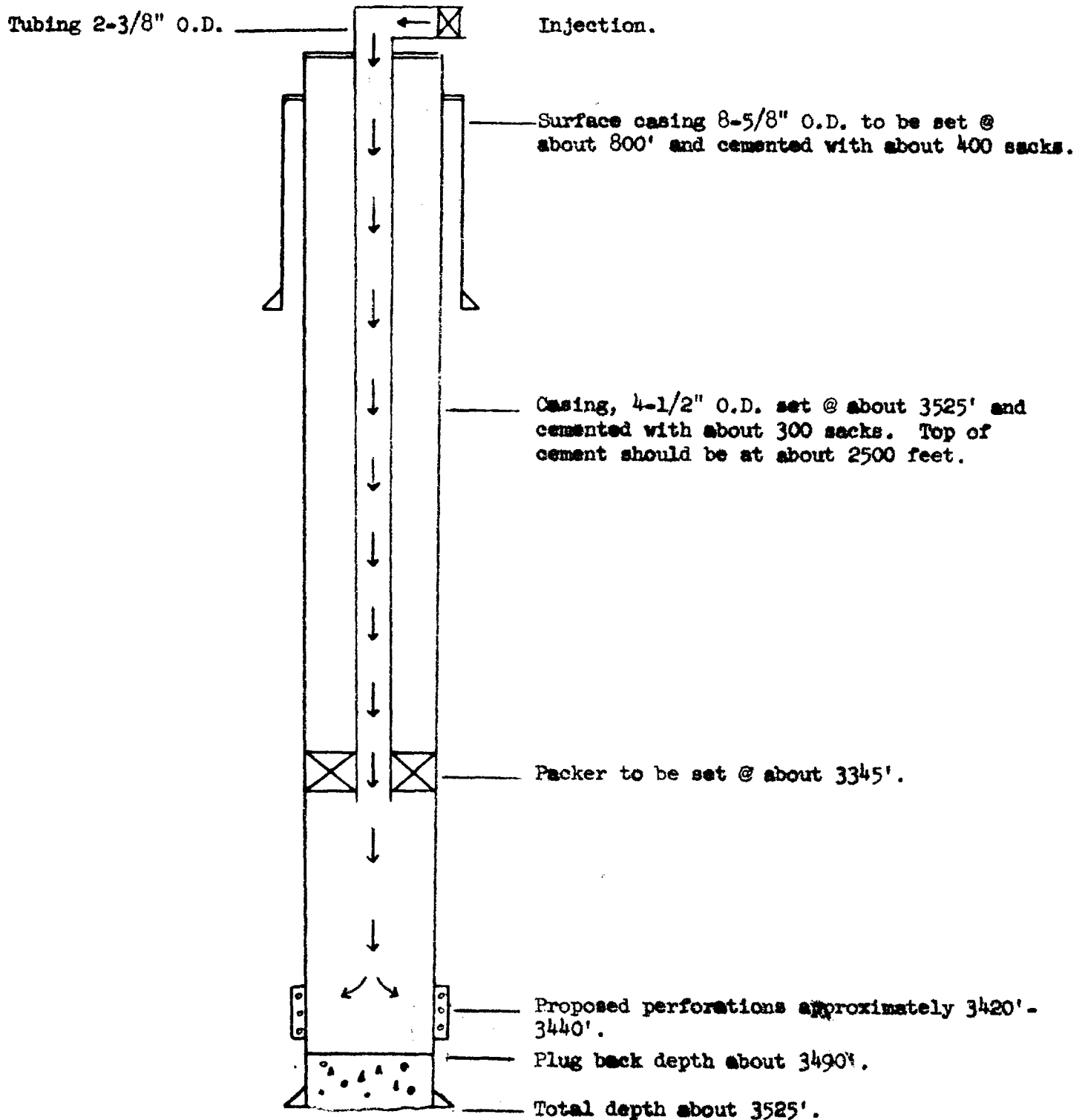
District Engineer

(Title)

September 18, 1969

(Date)

ATLANTIC RICHFIELD COMPANY
 SCHEMATIC DRAWING
 PROPOSED PANCO FEDERAL NO. 4
 SHUGART FIELD
 EDDY COUNTY, NEW MEXICO
 EXHIBIT NO. ____



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