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P. O. Box 1343 Artesia, New Mexico April 4, 1964

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

Re: Order #R-1538, Leonard Nichols

Water Flood

Gentlemen:

Order R-1538 authorized a water flood program in the Maljamar Pool, Lea County, New Mexico, with certain wells authorized as injection wells as shown on the attached plat and in the Order. The project is subject to Rule 701.

Application is made for administrative approval of an expansion of this project under Rule 701-E-5.

The attached plat shows in red the present injection wells. The application is for approval to convert the one well shown in yellow from producer to injector.

This well is offset by producing wells which have experienced response from the water flood. Forms C-116 are enclosed showing well tests on these wells. Also attached are well data on the proposed injection well. You will notice that this is a relatively new well drilled within the past year. Surface casing is set through any shallow water which might be present and cemented to the surface. The production casing is 5-1/2" and is cemented with 350 sacks. The calculated top of the cement is shown. This casing was mill tested to 3000 pst and has been pressured to 4000 pst during sand-frac operations. It is planned to inject down the casing into the Grayburg formation. The wells are not in a declared water basin.

A copy of this letter has been sent to Cima Capitan and Texam Oil Corporation, the offset operators. Also a copy has been sent to the State Engineer.

We agree, as in Administrative Order No. 150,

2. 2. 175-32E

New Mexico Oil Conservation Commission April 4, 1964

to inject only fresh water down the casing, and other than fresh water below a packer.

The expansion of this project is an extension of the original pattern and will result in an efficient recovery of secondary reserves and will be in the interest of conservation.

We would appreciate your prompt attenuion to this application.

Very truly yours,

LEONARD NICHOLS

H. C. Porter

Agent

HCP: jb

cc: State Engineer

### NEW MEXICO OIL CONSERVATION COMMISSION

# GAS-OIL RATIO REPORT

OPERATOR	LEONARD NICHOLS	POOL	Maljamar			
ADDRESS BOX	1343, Artesia, N. Mex.	. MONTH O				
SCHEDULED TES	TCOMPLETION TEST		SPECIAL TEST	X (Check One)		
(See Instructions on Reverse Side)						

	Wall	Data of	P-dui- Chal-	Chalco	T D	Daily	Production During Test		GOR	
Lease	Lease Well No. Date of Producing Choke Size Hours	Hours	Allowable Bbls.	Water Bbls.	Oil Bbls.	Gas MCF	Cu. Ft. Per Bbl.			
Iles-Fed.	10	3-22	Pump		24	25	No	26	4680	160
Iles-Fed.	31	3-21	<b>P</b> ump		24	39	No	42	17748	455
Iles-Fed.	32	3 <b>-</b> 23	Pump		24	21	No	9	1899	211
Iles-Fed.	14	3 <b>-</b> 25	Pump		24	10	4	12	14229	1185
				11						
					<u> </u> 					

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 degrees F. Specific gravity base will be 0.60.

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 certify that the information given is true and complete to the best of my knowledge.)

Datc	<b>A</b> pril 1, 1964	Leonard Nichols
Date		By Halfall

Hal Porter, Agent

Title

P. O. Box 1343 Artesia, New Mexico April 3, 1964

State Engineer
P. O. Box 1079
Santa Fe, New Mexico

Attention: Mr. Frank Irby

Dear Mr. Irby:

I am enclosing a copy of our application to convert one well to injection. Well names and locations are shown in the exhibits.

We plan to inject down the casing, if possible. We are doing so in all the other wells shown, with one exception, which was a re-entry job.

We agree, as in Administrative Order WFX No. 150, to inject only fresh water down the casing, and other than fresh water below tubing and a packer.

Please give this your consideration, and if you need further information, please call me.

Very truly yours,

LEONARD NICHOLS

H. C. Porter

Agent

HCP: jb Enc. n de la compaña de la comp La compaña de la compaña d

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LLONARD NICHOLS

H. G. Bordur A**g**ong

Survey of the su

# LEONARD NICHOLS

Iles #32

# Well Data

Location: L - 3-17-32, Maljamar Pool, Lea County.

Surface Casing: 8 + 5/8" @ 373! with 225 sacks.

Casing: 5-1/2" @ 4149 with 350 sacks.

Elevation: 4190.

Completion Date: 10-16-63.

Perforations: 3986-96 and 4104-16.

Total Depth: 4149.

Calculated Top Cement: 13701.

Top Salt: 1150:

Frac Treatment: 20,000 gallons oil and 40,000 pounds sand.

P. O. Box 1343 Artesia, New Mexico April 10, 1964

Texam Oil Corporation c/o Santiago Oil & Gas Company P.O. Box 1563 Midland, Texas

Gentlemen:

I am enclosing an application for administrative approval to convert our lies #32 well to water injection. This well is located in NW/4 SW/4 of Section 3, Tl7s, R32E, Lea County, New Mexico.

In the event you have any objection to this application, please notify the Oil Conservation Commission in Santa Pe immediately.

Very truly yours,

LEONARD NICHOLS

By

H. C. Poster Agent

HCP: jb Enc.

P. O. Box 1343 Artesia, New Mexico April 10, 1964

Cima Capitan, Inc. P. O. Box 1343 Artesia, New Mexico

Gentlemen:

I am enclosing an application for administrative approval to convert our Iles #32 well to water injection. This well is located in NW/4 SW/4 of Section 3, Tl7S, R32E, Lea County, New Mexico.

In the event you have any objection to this application, please notify the Oil Conservation Commission in Santa Fe immediately.

Very truly yours,

LEONARD NICHOLS

H. C. Porter, Agent

HCP: jb

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(N.S.L.)

310 BOOKER BUILDING POST OFFICE DRAWER 1343

## ARTESIA, NEW MEXICO

AREA CODE 505 TELEPHONE 748-1177

11 April 1964

New Mexico Oil Conservation Commission Box 871 Santa Fe, New Mexico

Gentlemen:

We have recently purchased the NW/4 Section 3, T17S, R32E, from H. L. Brinson.

We have been notified by Mr. Leonard Nichols of his application to convert his Iles No. 32 to water injection.

As offset operator, we have no objection to the application.

Very truly yours

CIMA CAPITAN, INC. (NSL)

Louis C. Baker Secretary-Treasurer



# STATE ENGINEER OFFICE SANTA FE

S. E. REYNOLDS STATE ENGINEER

April 13, 1964

ADDRESS CORRESPONDENCE TO:

XXXXXXXXXXXXXX

SANTA FE, N. M.

State Capitol Bldq.

Mr. A. L. Porter, Jr. Secretary-Director Oil Conservation Commission Santa Fe, New Mexico

Dear Mr. Porter:

Reference is made to the application of Leonard Nichols which seeks to expand his water flood project by converting a well shown on the map in yellow. As shown on the map, the well has been given No. 32 and it is situated in the  $NW^{1}_{4}$  of the  $SW^{1}_{4}$  of Section 3, Township 17 South, Range 32 East.

This office offers no objection to the granting of the application to inject water down the casing this well so long as the injected fluid is fresh, non-corrosive water and further provided that this office be notified 15 days in advance of any plan to inject produced water which must be injected through tubing under packer. Furthermore, this project shall be opened to inspection by the State Engineer staff at all times.

My file shows 3 different owners or operations and I would be interested to know if you can tell me which one actually is in control of this project. The three indicated are: Waterflood Associates, Boller & Nichols and Leonard Nichols.

Yours truly,

FEI/ma cc-H. C. Porter F. H. Hennighausen

S. E. Reynolds State Engineer

Frank E. Irby

Chief

Water Rights Div.

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