



# THE ATLANTIC REFINING COMPANY

INCORPORATED - 1870

## PETROLEUM PRODUCTS

August 6, 1964

MAIL OFFICE 000

NORTH AMERICAN PRODUCING DEPARTMENT  
ROCKY MOUNTAIN DISTRICT

S. L. SMITH, MANAGER  
C. M. BONAR, GEOLOGICAL  
FRANK P. CASTLEBERRY, LAND  
R. O. CHILDERS, DRILLING & PRODUCTION  
R. P. CURRY, ADMINISTRATIVE  
DAVID B. DAVIDSON, GEOPHYSICAL  
T. O. DAVIS, ENGINEERING

1964 AUG 11 PM 1:12  
SUITE 1500  
SECURITY LIFE BUILDING  
1616 GLENARM  
DENVER, COLORADO 80202  
266-3741

New Mexico Oil Conservation Commission (4)  
Attention: Mr. A. L. Porter, Jr.  
Post Office Box 871  
Santa Fe, New Mexico

Re: Many Rocks Pressure  
Maintenance Project No. 2  
San Juan County, New Mexico

Gentlemen:

In accordance with Rule 11 of the findings of Case No. 2948, Order No. R-2622, concerning the Many Rocks-Gallup Pressure Maintenance Project No. 2 in San Juan County, New Mexico, The Atlantic Refining Company requests approval to convert the following two wells to injection:

<u>Well No.</u>	<u>Former Operator</u>	<u>Former Well No.</u>	<u>Location</u>	<u>Present Status</u>	<u>Proposed Status</u>
12	Tidewater	Navajo B-1	1650' FSL & 1650' FWL Sec. 8, T-31-N, R-16-W	Producer	Injector for Upper & Lower Zones
16	Atlantic	Navajo 18-1	360' FNL & 855' FEL Sec. 18, T-31-N, R-16-W	Upper Zone Injector-Lower Zone Producer	Injector for Upper & Lower Zones

We propose to convert Well No. 12 to injection because of its proximity to the proposed location for injection Well No. 11 and because of the low primary recoveries along the northeastern side of the Project Area. Well No. 12, which was put on production in October, 1963, has produced a cumulative of 1316 barrels of oil. Wells Nos. 3, 6 and 10 have together produced 4800 barrels of oil to June, 1964, and are now together producing only about 7 BOPD. From this we believe that recoveries from water injection in this area will be low and that it is necessary for economic reasons that Well No. 11 not be drilled and that Well No. 12 be used as its replacement. We believe there will not be any loss in oil recovery resulting from this replacement.

August 6, 1964

Well No. 16 was approved in Order No. R-2622 for use as an injection well. The well was intended to be an upper zone injector - lower zone producer. We now propose to inject into both zones of this well and not drill Well No. 15, a proposed lower zone injector. This is a result of the finding that, to obtain a sufficient injection rate, it is necessary to move the proposed injection wells' locations slightly in toward the center of the reservoir as was done for Well No. 22. Moving the location of Well No. 15 in toward the center of the reservoir puts this well only a few hundred feet from Well No. 16.

Mobil Oil Company and Tidewater Oil Company are the only offset operations to Well No. 12. These companies are the only participants in the Project besides Atlantic, the operator, and it was necessary to get their approval for this proposal. We will ask Mobil and Tidewater to send you a wire of their waiver of objection to this proposal. Atlantic is the only offset operator to Well No. 16.

A schematic sketch of Well No. 12 and Well No. 16 is attached. Also attached is a plat showing the locations of these wells, all the wells in the Project, and offset operators and wells.

We would appreciate approval of these conversions at your earliest convenience as the installation of the project is rapidly nearing completion. If you need additional information, please let us know.

Yours very truly,

*J. O. Davis*

T. O. Davis, Chairman  
Many Rocks Operators' Committee

EMP:lb  
Attachments

cc: Socony Mobil Oil Company, Inc.  
Attention: Mr. D. G. Kingman  
Post Office Box 2122, Terminal Annex  
Los Angeles 54, California

Tidewater Oil Company  
Attention: Mr. R. H. Coe  
Post Office Box 1231  
Midland, Texas

State Engineer  
Post Office Box 1079  
Santa Fe, New Mexico



## Mobil Oil Company

A Division of Socony Mobil Oil Company, Inc.  
10737 SO. SHQEMAKER ROAD, SANTA FE SPRINGS, CALIF.  
~~PO BOX 1231~~

August 13, 1964

New Mexico Oil Conservation Commission  
Attention: Mr. A. L. Porter, Jr.  
Post Office Box 871  
Santa Fe, New Mexico

RE: MANY ROCKS PRESSURE  
MAINTENANCE PROJECT NO. 2  
SAN JUAN COUNTY, NEW MEXICO

Gentlemen:

Please refer to the request submitted on August 6, 1964 by the Atlantic Refining Company, Operator of the project, requesting your approval to convert Wells No. 12 and No. 16 to water injection.

Socony Mobil Oil Company, an offset operator to Well No. 12, has no objections to this proposal.

Very truly yours,

FMBurback/rf

cc:  
Atlantic Refining Company  
Atten: Mr. T. O. Davis  
Security Life Bldg.  
1616 Glenarm  
Denver, Colorado

Tidewater Oil Company  
Attention: Mr. R. H. Coe  
Post Office Box 1231  
Midland, Texas

By

H. H. Carrick, Jr.  
Producing Superintendent  
Santa Fe Springs District

**CLASS OF SERVICE**

This is a fast message unless its deferred character is indicated by the proper symbol.

# WESTERN UNION

## TELEGRAM

W. P. MARSHALL, PRESIDENT

**SYMBOLS**

DL=Day Letter

NL=Night Letter

LT=International Letter Telegram

(12) 1201 (4-60)

The filing time shown in the date line on domestic telegrams is LOCAL TIME at point of origin. Time of receipt is LOCAL TIME at point of destination

LA131 DA406

1964 AUG 14 PM 3 54

D MDA140 PD 7 EXTRA=MIDLAND TEX 14 406P CST=

NEW MEXICO OIL CONSERVATION COMMISSION=

SANTA FE NMEX=

ATTN MR. A L PORTER JR, TIDEWATER OIL COMPANY APPROVES  
THE USE OF WELL NUMBERS 12 AND 16 FOR INJECTION INTO  
BOTH ZONES IN THE MANY ROCKS GALLUP PROJECT NUMBER 2  
IN SAN JUAN COUNTY NEW MEXICO THIS WILL CONSTITUTE  
TIDEWATER OIL CO WAIVER OF OBJECTION FOR THE ATLANTIC  
REFINERY COMPANY PROPOSAL TO CONVERT THE TWO WELLS TO  
INJECTION=

RH COE DISTRICT PRODUCTION MANAGER TIDEWATER OIL  
CO BOX 1231 MIDLAND TEX=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE



STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS  
STATE ENGINEER

August 26, 1964

MAIN OFFICE 000

1964 AUG 26 PM 1:33

ADDRESS CORRESPONDENCE TO:  
STATE CAPITOL  
SANTA FE, N. M.

87501

Mr. A. L. Porter, Jr.  
Secretary-Director  
Oil Conservation Commission  
Santa Fe, N. M.

Dear Mr. Porter:

I have reviewed the application of Atlantic Refining Company which seeks to make changes in their waterflood plan in the Many Rocks Pressure Maintenance Project No. 2 in San Juan County.

After reviewing the applications and exhibits and obtaining additional information from Mr. Davis, it appears that no threat of contamination to the fresh waters which may exist in the area will occur. Therefore, this office offers no objection to the granting of this application.

Yours truly,

S. E. Reynolds  
State Engineer

FEI/ma  
cc-Atlantic Refining Co.

encl. Copy of Mr. Irby's letter of  
Aug. 18th  
Copy of Mr. Davis' letter of  
Aug. 25th

By: *Frank E. Irby*  
Frank E. Irby  
Chief  
Water Rights Div.



**THE ATLANTIC REFINING COMPANY**

INCORPORATED - 1870

**PETROLEUM PRODUCTS**

August 25, 1964

OFFICE 000  
AUG 26 AM 9:30  
STATE ENGINEER OFFICE  
SANTA FE, N.M.

NORTH AMERICAN PRODUCING DEPARTMENT  
ROCKY MOUNTAIN DISTRICT  
S. L. SMITH, MANAGER  
C. M. BONAR, GEOLOGICAL  
FRANK P. CASTLEBERRY, LAND  
R. O. CHILDERS, DRILLING & PRODUCTION  
R. P. CURRY, ADMINISTRATIVE  
DAVID B. DAVIDSON, GEOPHYSICAL  
T. O. DAVIS, ENGINEERING

SUITE 1500  
SECURITY LIFE BUILDING  
1616 GLENARM  
DENVER, COLORADO 80202  
266-3741

State of New Mexico  
State Engineer Office  
State Capitol  
Santa Fe, New Mexico

Attention: Frank E. Irby, Chief Water Rights Division

Gentlemen:

In reply to your letter of August 18, 1964, concerning the conversion to injection status of Many Rocks Wells Nos. 12 and 16, the following is submitted:

- 1) On what date was the 4½ inch production casing set in each of the subject wells? - Well No. 12, September 27, 1963, Well No. 16, February 6, 1963.
- 2) Was the casing new when installed in each case? - Well No. 12 casing was new when run. Well No. 16 casing consisted of 35 joints of 9.5# per ft. new casing and 20 joints of 11.6# per ft. casing which was run once in a dry hole. The 11.6# casing was in excellent condition when set in Well No. 16. There was no corrosion present and the original paint was still in tact. The 9.5# casing is on the top and the 11.6# casing is probably all covered with cement. It should be noted that the entire casing string was tested to 2500# for 30 minutes without detection of a leak.
- 3) In the event that a casing leak occurs, how can injection water be prevented from entering permeable formations between depths 100 feet and 750 feet in Well No. 12, and between depths 99 feet and 1160 feet in Well No. 16? - The formations in the intervals in question are primarily shale and impermeable. If a casing leak should occur, it would be detected immediately by a leak at the bradenhead. Once a leak is detected, it would be repaired by means of cementing or in an extreme case running a liner inside the production casing. We feel that a casing leak is improbable as all injected water will be inhibited for corrosion. The inhibition program is now in effect for the other wells in this project now on injection.

State of New Mexico  
State Engineer Office - 2

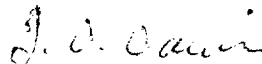
August 25, 1964

- 4) What will the maximum injection pressure be on the fluid being injected down the annulus between the  $4\frac{1}{2}$  inch casing and the  $2\frac{3}{8}$  inch tubing in each case? - At the present time we expect the maximum injection pressure on either of the wells to be about 600 psig at the surface. This pressure may by necessity be raised to approximately 800 psig in the future.
- 5) What is the anticipated life of the project? - We expect the water injection project to be in operation until approximately 1975.

We hope that the foregoing information is sufficient for your needs; however, should you need additional information, please do not hesitate to let us know.

Yours very truly,

THE ATLANTIC REFINING COMPANY



T. O. Davis

TOD:sue

MIN OFFICE OCC

1964 AUG 25 PM 1:33

August 18, 1964

Atlantic Refining Company  
Security Life Building  
1616 Glenarm  
Denver, Colorado 80202

Attn. Mr. T. O. Davis, Chairman

Dear Mr. Davis:

Reference is made to your application to the New Mexico Oil Conservation Commission which seeks to make changes in your water flood plan in the Many Rocks Pressure Maintenance Project No. 2 in San Juan County, New Mexico. The information set forth in your application is not sufficient for me to determine what the position of the State Engineer should be. I would appreciate receiving the following information:

1. On what date was the 4½ inch production casing set in each of the subject wells?
2. Was the casing new when installed in each case?
3. In the event that a casing leak occurs, how can injection water be prevented from entering permeable formations between depths 100 feet and 750 feet in Well No. 12, and between depths 99 feet and 1160 feet in well No. 16?
4. What will the maximum injection pressure be on the fluid being injected down the annulus between the 4½ inch casing and the 2 3/8 inch tubing in each case?
5. What is the anticipated life of the project?



I will advise you and the Oil Conservation Commission of the position of this office as early as possible after receipt of the information requested.

Yours truly,

S. E. Reynolds  
State Engineer

FEI/ma

By:  
Frank E. Irby  
Chief  
Water Rights Division

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

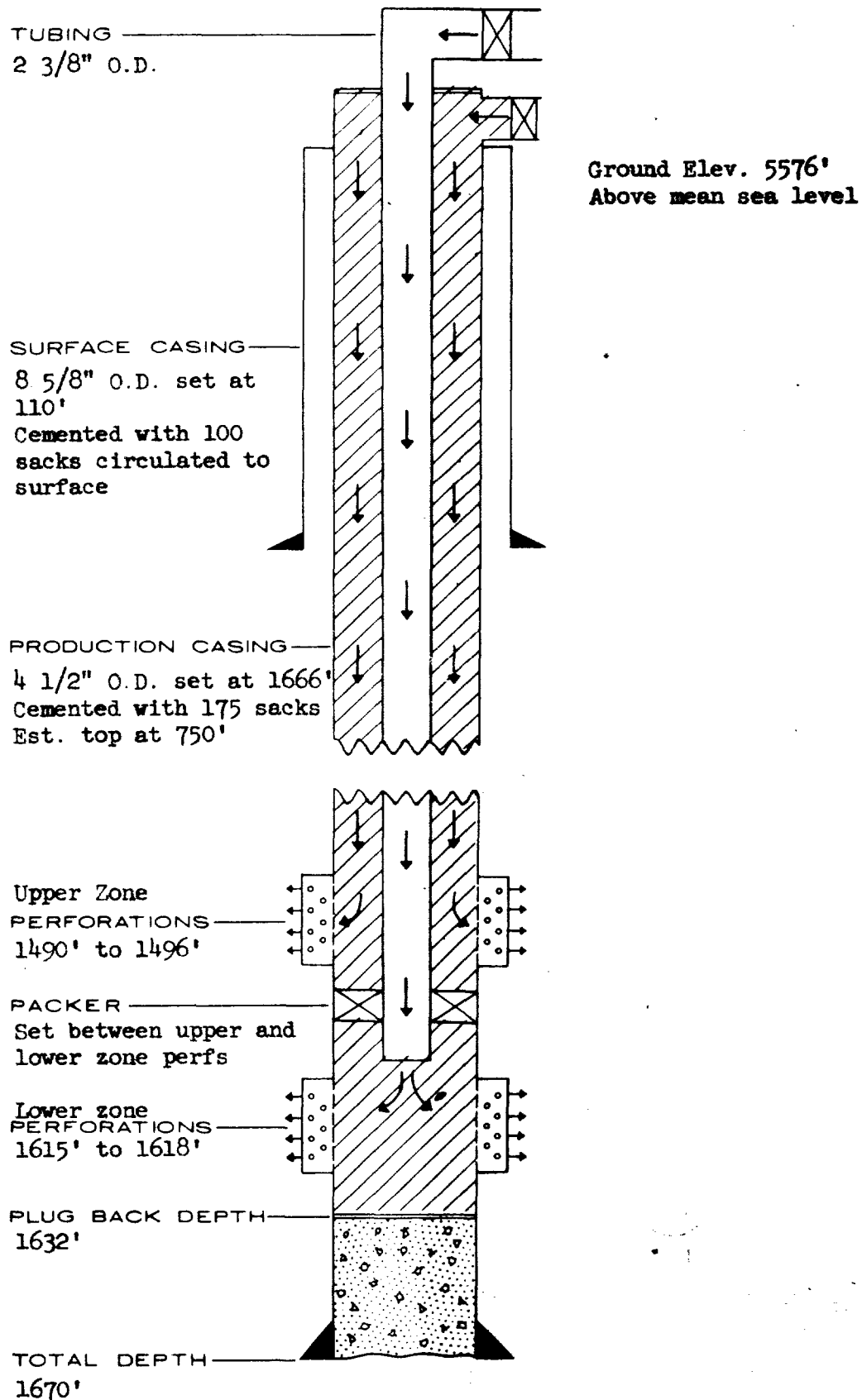
# THE ATLANTIC REFINING COMPANY

SCHEMATIC DRAWING

WELL NO. 12

MANY ROCKS-GALLUP PRESSURE MAINTENANCE PROJECT NO. 2

SAN JUAN COUNTY, NEW MEXICO



Plan to inject approximately 150 BWPD into each zone. Water source is the Project Water Source Well No. 1 now completed in the Entrada Formation.

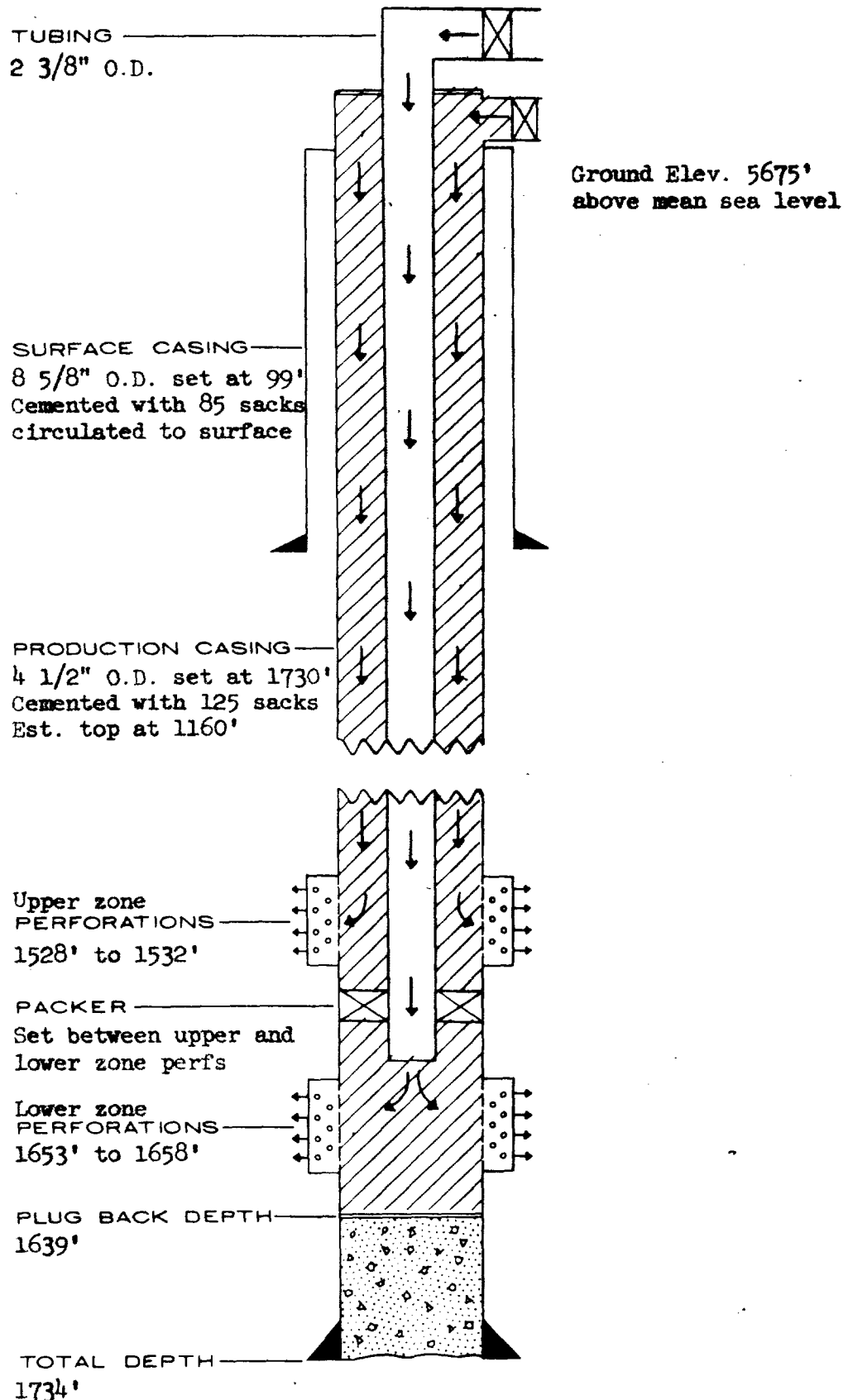
# THE ATLANTIC REFINING COMPANY

SCHEMATIC DRAWING

WELL NO. 16

MANY ROCKS-GALLUP PRESSURE MAINTENANCE PROJECT NO. 2

SAN JUAN COUNTY, NEW MEXICO



Plan to inject approximately 150 BWPD into each zone. Water source is the Project Water Source Well No. 1 now completed in the Entrada Formation.