



BEFORE THE OIL AND GAS CONSERVATION COMMISSION  
OF THE STATE OF COLORADO

IN THE MATTER OF THE APPLICATION  
OF CHAMPLIN PETROLEUM COMPANY, AS UNIT  
OPERATOR OF THE WEST FORK FIELD, WASHINGTON  
COUNTY, COLORADO, IN BEHALF OF ALL INTERESTED  
PARTIES, FOR AN ORDER FROM THE OIL AND GAS  
CONSERVATION COMMISSION OF THE STATE OF  
COLORADO APPROVING BOTH A UNIT AGREEMENT AND  
A WATERFLOOD PROJECT IN THE WEST FORK FIELD,  
WASHINGTON COUNTY, COLORADO

CAUSE NO. 165

A P P L I C A T I O N

COMES NOW the Applicant CHAMPLIN PETROLEUM COMPANY, a Delaware corporation, authorized to do and doing business in the State of Colorado, and respectfully requests the Oil and Gas Conservation Commission of the State of Colorado to enter an order approving a Unit Agreement and a waterflood project for secondary recovery purposes for the West Fork Field, Washington County, Colorado, and in support of this application, Applicant states:

1. That a copy of the Unit Agreement for West Fork Field, Washington County, Colorado, is enclosed herewith and further identified as Exhibit "F" to this application.

2. That said Unit Agreement for West Fork Field, Washington County, Colorado, provides for unit operations in the "J" Sand underlying said West Fork Field Unit and further that pursuant to Article 4 of said Unit Agreement, Applicant has been designated the Unit Operator for such Unit and in such capacity Applicant is authorized to represent all parties to said Unit in

seeking approval of said Unit Agreement and approval of the proposed waterflood project.

3. That the Unit Area, as defined in Article 1 of said Unit Agreement, covers the following described lands:

Township 3 South, Range 55 West

Section 19: W/2 and NE/4  
Section 30: N/2

Township 3 South, Range 56 West

Section 24: SE/4 of NE/4 and SE/4  
Section 25: N/2 of NE/4

containing 1,080 acres, more or less, in Washington County, Colorado, hereinafter called "Unit Area," the boundary thereof being shown as a wide shaded line on the plat marked "Exhibit 'A'", attached hereto and by this reference made a part hereof.

4. That pursuant to Rule 401 of the Rules and Regulations of this Commission, Applicant alleges that the following lands are within one-half (1/2) mile of any proposed intake well:

Township 3 South, Range 55 West

Section 17: S/2  
Section 18: S/2  
Section 19: ALL  
Section 20: ALL  
Section 30: ALL except E/2 of SE/4

Township 3 South, Range 56 West

Section 13: SE/4  
Section 24: ALL  
Section 25: N/2 and N/2 of S/2

containing 3,760 acres, more or less, said lands being hereinafter referred to as "notice area," said notice area being those lands within the dashed line shown on Exhibit "A".

5. Exhibit "A" shows the location of all wells, including drilling wells, and dry and abandoned wells located within the Unit Area, and the wells proposed by Applicant to be used for injection of water into the "J" Sand underlying the Unit Area. The names and addresses of all owners of record, within at least one-half (1/2) mile of any proposed intake well, the outer boundary of the notice area having been determined at a point which is at least one-half (1/2) mile from any well proposed for use as an intake well, are shown on Applicant's Exhibit "B" attached hereto and by this reference made a part hereof.

6. Pursuant to Rule 403 of the Rules and Regulations of the Commission, each owner of record, within at least one-half (1/2) mile of any proposed intake well has been mailed a copy of this application with attached exhibits, at the addresses on the lists being a part of Exhibit "B".

7. A full description of the waterflood operation for which the Applicant seeks approval is as follows:

The West Fork Field was discovered in July of 1956, and since that time 16 producing wells have been completed within the productive limits of the "J" Sand. The producing mechanism of the "J" Sand reservoir is expansion of the solution gas plus limited water encroachment. The original reservoir pressure was 1250 PSIG. The pressure quickly declined to the estimated bubble point pressure of 310 PSIG and has since further declined to less than 100 PSIG as of September 1964. The cumulative production from the reservoir as of September 1, 1964 has been 1,943,959 stock tank barrels.

It is estimated that water will be injected at 2,500 barrels per day throughout the life of the flood and that a period of eight (8) years will be required to complete the waterflood project.

The pattern proposed is a peripheral pattern as shown on Exhibit "A".

Applicant's Exhibit "E" attached hereto and by this reference made a part hereof gives data on all existing wells including proposed intake wells.

8. Applicant's waterflood project will be conducted pursuant to the terms and provisions of the Unit Agreement previously referred to as Exhibit "F" attached hereto and made a part hereof and the Unit Operating Agreement for the West Fork Field.

9. Logs of the existing wells which Applicant plans to use as intake wells are attached hereto marked "Exhibits 'D-1' through 'D-4'" and by this reference made a part hereof. The location of these wells is shown on Exhibit "A".

10. Exhibit "C" attached hereto and by this reference made a part hereof shows a list of the Applicant's proposed injection wells, one of which is yet to be drilled, and describes the casing and cementing record in the existing wells and the proposed casing and cementing program of the well to be drilled. The casing in the injection wells shall be pressure tested. The existing wells to be utilized as intake wells have all been drilled within the last eight (8) years or less. It is believed by Applicant that the casing in these wells is still in good condition and Applicant will comply with Rule 404, pertaining to casing and cementing of injection wells, of the Rules and Regulations of this Commission.

11. The substance to be injected is water. Injection water will be purchased from Vaughey and Vaughey. This water will be produced from wells in Township 3 North, Range 54 and 55 West, Morgan and Washington Counties, Colorado and transported to West Fork Field by pipeline. Injection water will be produced from a fresh water sand at an average depth of 120'. Applicant believes and therefore alleges that Vaughey and Vaughey have taken all appropriate legal measures to insure that this supply of water will be available for injection if Applicant's application is approved.

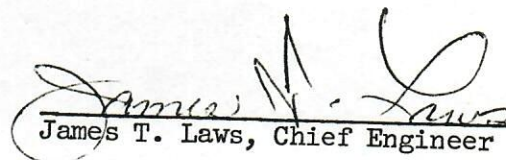
12. Any correspondence pertinent to this project should be addressed to Champlin Petroleum Company, attention of Unit Operations Department, P. O. Box 9365, Fort Worth, Texas 76107 and further that Applicant will operate this project from its offices located in Sidney, Nebraska.

13. It is the belief of the Applicant and other parties signatory to the Unit Agreement that the proposed waterflood project is in the public interest, promoting conservation, preventing waste and will result in a greater ultimate recovery of oil and that this Commission should enter an order approving the said Unit Agreement and waterflood project for the West Fork Field, Washington County, Colorado.

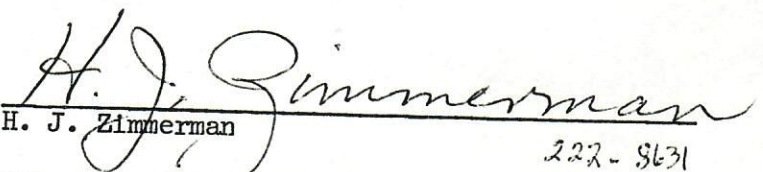
WHEREFORE, Applicant seeks that this matter be set down for hearing, that notice hereof be given as required by law, and that upon such hearing this Commission enter its order approving Applicant's waterflood project and Unit Agreement as set forth herein covering the "J" Sand underlying the Unit Area, West Fork Field, Washington County, Colorado.

Respectfully submitted,

CHAMPLIN PETROLEUM COMPANY

  
James T. Laws, Chief Engineer

GORSUCH, KIRGIS, CAMPBELL, WALKER AND GROVER

By:   
H. J. Zimmerman 222-5631  
Attorneys for Applicant  
19th Floor, Security Life Building  
Denver, Colorado

RECEIVED

JAN 8 1974

CENTENNIAL OIL & GAS COMS COMM.



DIVISION LABORATORY  
Box 2400 Casper, Wyoming 82601

Centennial Oil Company  
1015 Midland Savings Bldg

Date January 4, 1974

To Mr. Al Goodwin  
Centennial Oil Company  
Denver, Colorado

Report No. 9232

Submitted By Harmon, Halliburton, Brighton Date Received January 2, 1974

Well No. 1 Landaker

Location West Fork Field Formation

Specific Gravity 1.002

pH 8.0

IRON (Fe) -

Calcium (CA) 4

Magnesium (Mg) 1

Chlorides (Cl) 2,063

Sulfates (SO<sup>4</sup>) 52

Carbonates (CO<sup>3</sup>) Nil

Bicarbonates (HCO<sup>3</sup>) 1,449

Rw 2.4

MILLIGRAMS PER LITER

"

"

"

"

"

"

Ohms / m<sup>2</sup> / m at 70 °F

Remarks: Sodium, calculated 1,253 ml  
Total dissolved solids, calculated 4,822 ml

cc Mr. J. B. Casey  
Mr. G. A. Johnson  
Mr. J. Harmon

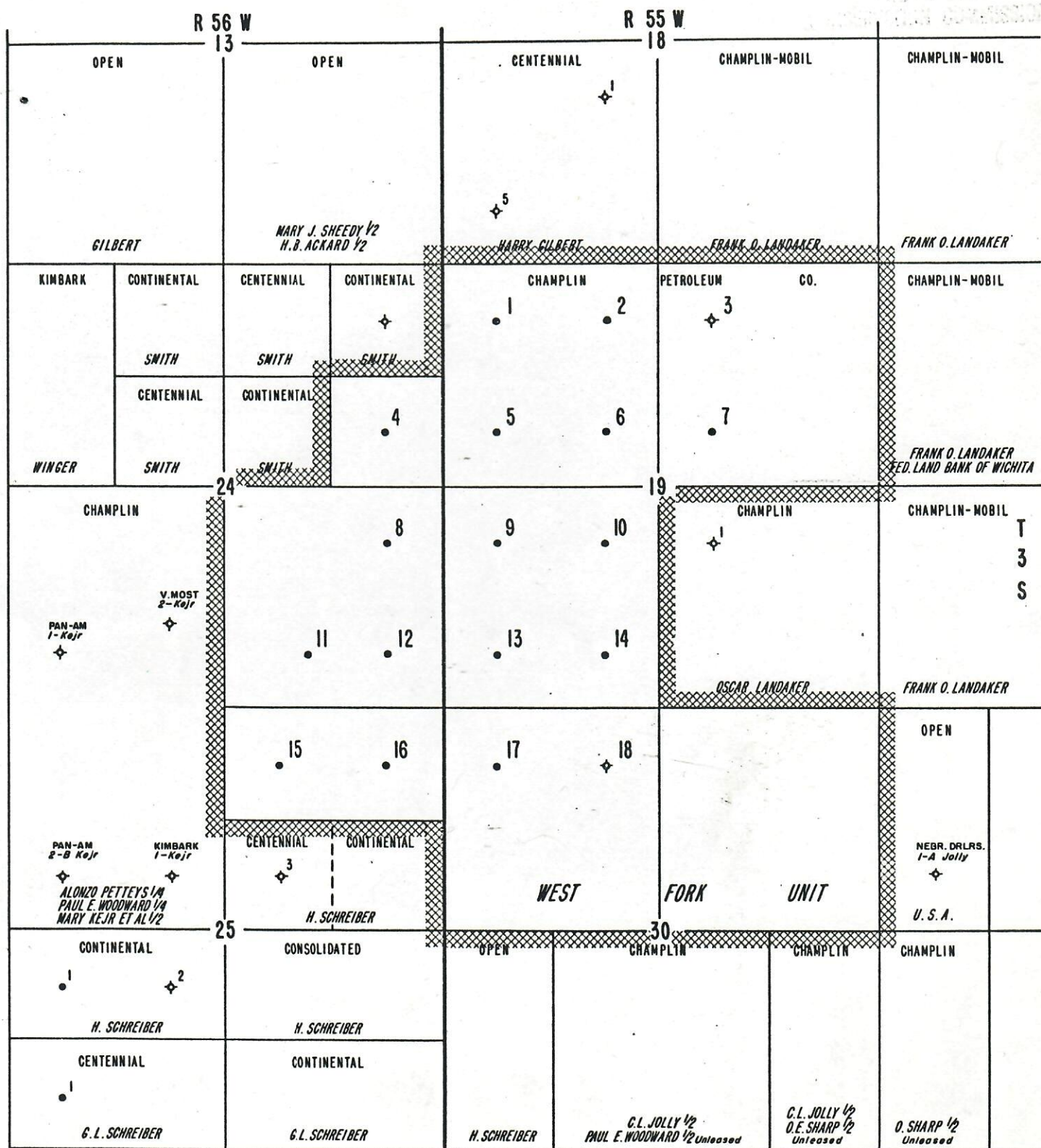
Respectfully submitted,  
HALLIBURTON SERVICES

By Francis C. Hill

**NOTICE:**

This report is limited to the described sample tested. Any person using or relying on this report agrees that Halliburton shall not be liable for any loss or damage whether due to act or omission resulting from such report or its use.

JAN 22 1965



LEGEND:  
 [Hatched Box] UNIT OUTLINE  
 ● PRODUCING WELL  
 ◆ DRY HOLE

RE - NUMBERING OF WELLS  
**WEST FORK UNIT**  
 WASHINGTON COUNTY, COLORADO  
 EFFECTIVE JANUARY 1, 1965  
 1000 0 SCALE 1000 2000 FT.

RE-NUMBERING OF WELLS  
WEST FORK UNIT  
Washington County, Colorado  
Effective January 1, 1965

<u>Unit Well Number</u>	<u>Former Operator</u>	<u>Former Lease &amp; Well Number</u>	<u>Location</u>
1	Centennial Oil Co.	Harry Gilbert #4	NW, NW, 19, T3S, R55W
2	Centennial Oil Co.	Harry Gilbert #3	NE, NW, 19, T3S, R55W
3	Champlin Petroleum Co.	Frank O. Landaker #2	NW, NE, 19, T3S, R55W
4	Centennial Oil Co.	Smith #1	SE, NE, 24, T3S, R56W
5	Centennial Oil Co.	Harry Gilbert #1-A	SW, NW, 19, T3S, R55W
6	Centennial Oil Co.	Harry Gilbert #2	SE, NW, 19, T3S, R55W
7	Champlin Petroleum Co.	Frank O. Landaker #1	SW, NE, 19, T3S, R55W
8	Champlin Petroleum Co.	Landaker-Fastenau #1	NE, SE, 24, T3S, R56W
9	Champlin Petroleum Co.	Landaker-Fastenau #2	NW, SW, 19, T3S, R55W
10	Champlin Petroleum Co.	C. L. Jolly "E"-1	NE, SW, 19, T3S, R55W
11	Champlin Petroleum Co.	Landaker-Fastenau #5	CE/2, SW, SE, 24, T3S, R56W
12	Champlin Petroleum Co.	Landaker-Fastenau #4	SE, SE, 24, T3S, R56W
13	Champlin Petroleum Co.	Landaker-Fastenau #3	SW, SW, 19, T3S, R55W
14	Champlin Petroleum Co.	C. L. Jolly "E"-2	SE, SW, 19, T3S, R55W
15	Centennial Oil Co.	G. L. Schreiber #2	NW, NE, 25, T3S, R56W
16	Centennial Oil Co.	G. L. Schreiber #1	NE, NE, 25, T3S, R56W
17	Centennial Oil Co.	Howard Schreiber #1	NW, NW, 30, T3S, R55W
18	Champlin Petroleum Co.	C. L. Jolly "E"-3	NE, NW, 30, T3S, R55W