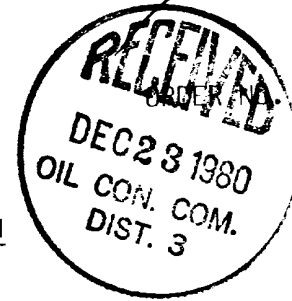


THE APPLICATION OF MESA PETROLEUM  
COMPANY FOR A DUAL COMPLETION

ADMINISTRATIVE ORDER  
OF THE OIL CONSERVATION DIVISION



MC-2762

Under the provisions of Rule 112-A Mesa Petroleum Company made application to the New Mexico Oil Conservation Division on October 27, 1980, for permission to dually complete its Gage Well No. 3 located in Unit G of Section 20, Township 30 North, Range 10 West, NMPM, San Juan County, New Mexico, in such a manner as to permit production of gas from the Blanco-Mesaverde Pool and from the Basin-Dakota Pool.

Now, on the 10th day of December, 1980, the Division Director finds:

1. That application has been filed under the provisions of Rule 112-A of the Division's Rules and Regulations;
2. That satisfactory information has been provided that all operators of offset acreage have been duly notified;
3. That no objections have been received within the waiting period as prescribed by said rule;
4. That the proposed dual completion will not cause waste nor impair carrelative rights; and
5. That the mechanics of the proposed dual completion are feasible and consonant with good conservation practices.

IT IS THEREFORE ORDERED:

That the applicant herein, Mesa Petroleum Company, be and the same is hereby authorized to dually complete its Gage Well No. 3 located in Unit G of Section 20, Township 30 North, Range 10 West, NMPM, San Juan County, New Mexico, in such a manner as to permit production of gas from the Blanco-Mesaverde Pool and from the Basin-Dakota Pool through parallel strings of tubing.


PROVIDED HOWEVER, That applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A.

PROVIDED FURTHER, That applicant shall take packer-leakage tests upon completion and annually thereafter.

IT IS FURTHER ORDERED: That jurisdiction of this cause is hereby retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
JOE D. RAMEY  
Division Director

## OIL CONSERVATION COMMISSION

Alto DISTRICT

OIL CONSERVATION COMMISSION  
BOX 2088  
SANTA FE, NEW MEXICO

DATE October 22, 1980

RE: Proposed MC x  
Proposed DHC \_\_\_\_\_  
Proposed NSL \_\_\_\_\_  
Proposed SWD \_\_\_\_\_  
Proposed WFX \_\_\_\_\_  
Proposed PMX \_\_\_\_\_

Gentlemen:

I have examined the application dated October 22, 1980  
for the Mesa Petroleum Co. Day ~~State~~ #3 G-70-30N-10W  
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Approve after operator obtains a tubing exception order  
to Rule 107 (d)  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yours very truly,

Frank T. Chaz

Hold C-104 for TX order or R order approving tubing setting

O'Connell  
Conoco

Div. Files  
J. Archer  
D & M  
K. Stanley  
T. Yoakam  
EPNG  
Tennco

NEW MEXICO OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO  
APPLICATION FOR MULTIPLE COMPLETION

Form C-107  
5-1-61

Operator <u>Mesa Petroleum Co.</u>		County <u>San Juan</u>	Date <u>Sept. 12, 1980</u>
Address <u>1660 Lincoln, #2800 Denver CO 80264</u>		Lease <u>Gage Federal</u>	Well No. <u>3</u>
Location of Well <u>G</u>	Unit <u>20</u>	Section <u>30 North</u>	Range <u>10 West</u>

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES \_\_\_\_\_ NO \_\_\_\_\_
2. If answer is yes, identify one such instance: Order No. \_\_\_\_\_ ; Operator Lease, and Well No.: \_\_\_\_\_

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	<u>Cliffhouse</u>	<u>Point Lookout</u>	<u>Dakota</u>
b. Top and Bottom of Pay Section (Perforations)	<u>4550-62'</u>	<u>5244-60'</u>	<u>7282-7374 Gross</u>
c. Type of production (Oil or Gas)	<u>Gas</u>	<u>Gas</u>	<u>Gas</u>
d. Method of Production (Flowing or Artificial Lift)	<u>Flowing</u>	<u>Flowing</u>	<u>Flowing</u>

4. The following are attached. (Please check YES or NO)

- | Yes                                 | No                       |   |
|-------------------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | c. Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*  |
| <input type="checkbox"/>            | <input type="checkbox"/> | d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed it shall be submitted as provided by Rule 12-A.)  |

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

<u>El Paso Natural Gas Co.</u>	<u>Tenneco Oil Co.</u>
<u>P. O. Box 990</u>	<u>720 So. Colorado Blvd., Penthouse</u>
<u>Farmington, NM 87401</u>	<u>Denver, CO 80222</u>

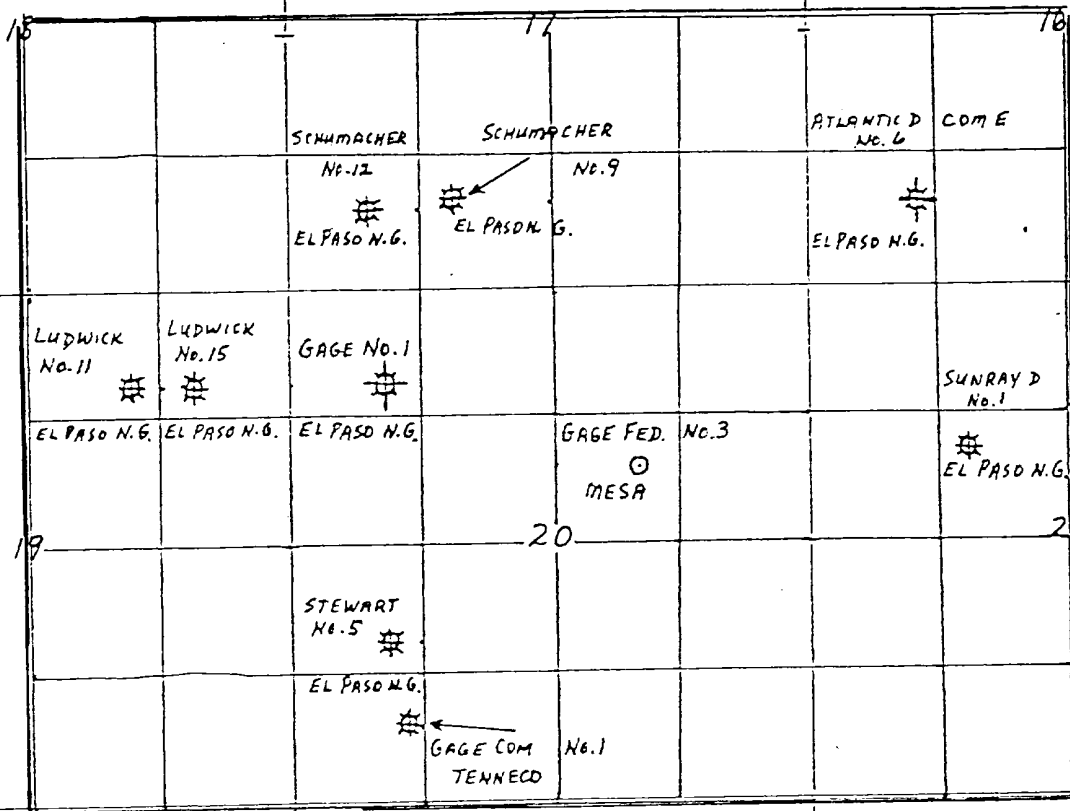
6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES ☒ NO ☐ If answer is yes, give date of such notification September 12, 1980.

CERTIFICATE: I, the undersigned, state that I am the drilling supervisor of the Mesa Petroleum Co. (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

\*Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard proration unit in one or more of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

K10W



○ LOCATION  
 ● OIL WELL  
 ✕ GAS WELL  
 ✕ ABANDONED GAS WELL

WELL NAME: GAGE FEDERAL #3  
 OPERATOR: MESA PETROLEUM CO.  
 SAN JUAN COUNTY, NEW MEXICO  
 SEC. 20-T30N-R10W SWNE  
 1830/N-1795/E (MESA VERDE-DAKOTA)  
 ACREAGE DEDICATED: N/316.18 ACRES  
 CONTIGUOUS OFFSET ACREAGE SHOWN

SCALE 1" = 2000'

2 1/16" ID Tubing Set  
@ 7,261'

1 1/4" NWE Tubing set @ 3084'

10 3/4" 40#/ft. csg. set @ 283', cmt.  
to the surface

Cmt. top 1200' 7" csg.

4 1/2" Liner Hanger set @ 3082'

7" 20#/ft. casing set @ 3279'

Cliffhouse Perforations  
(4550-62')

Point Lookout Perforations  
(5244-60')

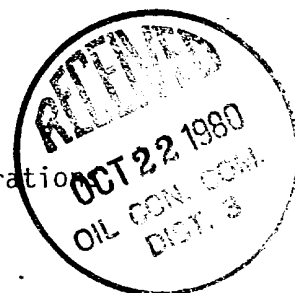
4 1/2" Production Packer set  
@ 6944'

Dakota Perforations  
(7282-7374' Gross)

4 1/2" 10.5#/ft. Liner Set @ 7441'  
PRIN @ 7417'

WELL SCHEMATIC

Gage Federal #3  
Sec. 20, T30N, R10W  
San Juan County, New Mexico





NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator MESA PETROLEUM Co. Lease GAGE Well No. 3  
Location of Well: Unit \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ Rge. \_\_\_\_\_ County SAN JUAN

	Name of Reservoir or Pool	Type of Prod. (Oil or Gas)	Method of Prod. (Flow or Art. Lift)	Prod. Medium (Tbg. or Csg.)
Upper Completion	<u>MESA VERDE</u>	<u>GAS</u>	<u>FLOW</u>	<u>Csg.</u>
Lower Completion	<u>DAKOTA</u>	<u>GAS</u>	<u>FLOW</u>	<u>TBG.</u>

PRE-FLOW SHUT-IN PRESSURE DATA

Upper Compl	Hour, date Shut-in	Length of time shut-in	SI press. psig <u>750</u>	Stabilized? (Yes or No) <u>YES</u>
Lower Compl	Hour, date Shut-in	Length of time shut-in	SI press. psig <u>2000</u>	Stabilized? (Yes or No) <u>YES</u>

FLOW TEST NO. 1

Commenced at (hour, date)* <u>8-25-80 - 2:00 pm.</u>				Zone producing (Upper or Lower):	
Time (hour, date)	Lapsed time since*	Pressure		Prod. Zone Temp.	Remarks
		Upper Compl.	Lower Compl.		
<u>2:15 pm.</u>	<u>15 min</u>	<u>T 750</u> <u>C 750</u>	<u>330</u>	<u>56°</u>	<u>MU-Shut-In / DAK-Flow</u>
<u>2:30 pm</u>	<u>30 min</u>	<u>T 750</u> <u>C 750</u>	<u>220</u>	<u>46°</u>	<u>" " " "</u>
<u>2:45 pm</u>	<u>45 min</u>	<u>T 750</u> <u>C 750</u>	<u>210</u>	<u>36°</u>	<u>" " " "</u>
<u>3:00 pm</u>	<u>1 Hr.</u>	<u>T 750</u> <u>C 750</u>	<u>200</u>	<u>34°</u>	<u>" " " "</u>
<u>4:00 am</u>	<u>2 Hr.</u>	<u>T 750</u> <u>C 750</u>	<u>165</u>	<u>32°</u>	<u>" " " "</u>
<u>5:00 am</u>	<u>3 Hr.</u>	<u>T 750</u> <u>C 750</u>	<u>158</u>	<u>32°</u>	<u>" " " "</u>

Production rate during test  
Oil: \_\_\_\_\_ BOPD based on \_\_\_\_\_ Bbls. in \_\_\_\_\_ Hrs. \_\_\_\_\_ Grav. \_\_\_\_\_ GOR \_\_\_\_\_  
Gas: \_\_\_\_\_ MCFPD; Tested thru (Orifice or Meter): \_\_\_\_\_

MID-TEST SHUT-IN PRESSURE DATA

Upper Compl	Hour, date Shut-in	Length of time shut-in <u>7 DAYS</u>	SI press. psig <u>775</u>	Stabilized? (Yes or No) <u>YES</u>
Lower Compl	Hour, date Shut-in	Length of time shut-in <u>7 DAYS</u>	SI press. psig <u>2000</u>	Stabilized? (Yes or No) <u>YES</u>

FLOW TEST NO. 2

Commenced at (hour, date)** <u>9-1-80 - 9:00 AM</u>				Zone producing (Upper or Lower):	
Time (hour, date)	Lapsed time since **	Pressure		Prod. Zone Temp.	Remarks
		Upper Compl.	Lower Compl.		
<u>9:15 AM</u>	<u>15 min.</u>	<u>T 675</u> <u>C 675</u>	<u>2000</u>	<u>30°</u>	
<u>9:30 AM.</u>	<u>30 min.</u>	<u>T 600</u> <u>C 600</u>	<u>2000</u>	<u>30°</u>	
<u>9:45 AM</u>	<u>45 min.</u>	<u>T 500</u> <u>C 500</u>	<u>2000</u>	<u>30°</u>	
<u>10:00 AM</u>	<u>1 Hr.</u>	<u>T 450</u> <u>C 450</u>	<u>2000</u>	<u>30°</u>	
<u>11:00 AM</u>	<u>2 Hr.</u>	<u>T 380</u> <u>C 380</u>	<u>2000</u>	<u>30°</u>	
<u>12:00 AM.</u>	<u>3 Hr.</u>	<u>T 375</u> <u>C 375</u>	<u>2000</u>	<u>30°</u>	

Production rate during test  
Oil: \_\_\_\_\_ BOPD based on \_\_\_\_\_ Bbls. in \_\_\_\_\_ Hrs. \_\_\_\_\_ Grav. \_\_\_\_\_ GOR \_\_\_\_\_  
Gas: \_\_\_\_\_ MCFPD; Tested thru (Orifice or Meter): \_\_\_\_\_

REMARKS: \_\_\_\_\_

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

Approved: \_\_\_\_\_ 19 \_\_\_\_\_  
Oil Conservation Division

Operator MESA PETROLEUM Co.

By JACK HALL

Title PUMPER

Date 8-25-80

# NEW MEXICO PACKER LEAKAGE TEST INSTRUCTIONS

1. A packer leakage test shall be commenced on each multiply completed well within 30 days after actual completion of the well, and annually thereafter on wells which have the order authorizing the multiple completion. Such tests shall also be commenced on all multiple completions within seven days following completion of chemical or fracture treatment, and whenever remedial work has been done on a well during which the packer or the tubing has been disturbed. Tests shall also be taken at any time that consideration is requested or when requested by the Division.
2. At least 72 hours prior to the commencement of any packer leakage test, the operator shall notify the Division in writing of the exact time the test is to be commenced. Offset operators shall also be so notified.
3. The packer leakage test shall commence when both zones of the dual completion are shut-in for pressure stabilization. Both zones shall remain shut-in until the well-head pressure in each has stabilized, provided however, that they need not remain shut-in more than seven days.

4. In the test No. 1, one zone of the dual completion shall be produced at the full rate of production while the other zone remains shut-in. Such tests shall be continued for seven days in the case of a gas well and for 48 hours in the case of an oil well. Note: If, on an initial packer leakage test, a well is being flowed to the atmosphere due to the lack of sufficient casinghead pressure the flow period shall be three hours.

5. At the conclusion of Flow Test No. 1, the well shall again be shut-in for pressure stabilization as described in Paragraph 1 above.

6. Flow Test No. 2 shall be conducted even though no leak was indicated on Flow Test No. 1. The procedure for Flow Test No. 2 is to be the same as for Flow Test No. 1, except that the previously produced zone shall remain shut-in while the zone which was previously shut-in is produced.

7. Pressures for gas-zone tests must be measured on each zone with a deadweight pressure gauge at time intervals as follows: 3-hour tests: immediately prior to the beginning of each flow period, at fifteen-minute intervals during the first hour thereof, and at hourly intervals thereafter, including one pressure measurement immediately prior to the conclusion of each flow period. 7-day tests: immediately prior to the beginning of each flow period, at least one time during each flow period (at approximately the midway point) and immediately prior to the conclusion of each flow period. Other pressures may be taken as desired, or may be requested on wells which have previously shown questionable test data.

24-hour oil zone tests: all pressures, throughout the entire test, shall be continuously measured and recorded with recording pressure gauges, the accuracy of which must be checked at least twice, once at the beginning and once at the end of each test, with a deadweight pressure gauge. If a well is a gas-oil or an oil-gas dual completion, the recording gauge shall be required on the oil zone only, with deadweight pressures as required above being taken on the gas zone.

8. The results of the above-described tests shall be filed in triplicate within 15 days after completion of the test. Tests shall be filed with the Aztec District Office of the Oil Conservation Division on Northwest New Mexico Packer Leakage Test Form Revised 10-1-78, with all deadweight pressures indicated thereon as well as the flowing temperatures (gas zones only) and gravity and GOR (oil zones only). A pressure versus time curve for each zone of each test shall be constructed on the reverse side of the Packer Leakage Test Form with all deadweight pressure points taken and indicated thereon. For oil zones, the pressure curve should also indicate all key pressure changes which may be reflected by the recording gauge charts. These key pressure changes should also be tabulated on the front of the Packer Leakage Test Form.

