

RECEIVED

DURANGO PROD.

This form is not to
be used for reporting
packer leakage tests
in Southeast New Mexico

NEW MEXICO OIL CONSERVATION COMMISSION

Revised 11-1-58

NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator Continental Oil Company

Location

of Well: Unit 3 Sec. 23 Twp. 25N

Lease

Barilla Apache 23

Well

No. 1

DIST.

Rge.

County

Rio Arriba

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>Undesignated Gallup</u>	<u>Oil</u>	<u>Pumping</u>	<u>Tubing</u>
Lower Completion	<u>Sabota</u>	<u>Oil</u>	<u>Plunger Lift</u>	<u>Tubing</u>

PRE-FLOW SHUT-IN PRESSURE DATA

Upper Compl	Hour, date <u>10:00 A.M. 12-17-64</u>	Length of time shut-in <u>163 hours</u>	SI press. psig <u>620</u>	Stabilized? (Yes or No) <u>No</u>
Lower Compl	Hour, date <u>10:00 A.M. 12-17-64</u>	Length of time shut-in <u>163 hours</u>	SI press. psig <u>1110</u>	Stabilized? (Yes or No) <u>No</u>

FLOW TEST NO. 1

Commenced at (hour, date)* <u>10:00 A.M. 12-24-64</u>				Zone producing (Upper HEINER):	
Time (hour, date)	Lapsed time since*	Pressure		Prod. Zone Temp.	Remarks
		Upper Compl.	Lower Compl.		
<u>12:00 P.M. 12-24-64</u>	<u>2</u>	<u>310</u>	<u>1120</u>		<u>Deadweight Pressure</u>
<u>10:00 A.M. 12-25-64</u>	<u>24 hours</u>	<u>520</u>	<u>1130</u>		<u>Deadweight Pressure</u>
<u>10:00 A.M. 12-26-64</u>	<u>48 hours</u>	<u>520</u>	<u>1130</u>		<u>Deadweight Pressure</u>

Production rate during test

Oil: 22 BOPD based on 34 Bbls. in 48 Hrs. 41° Grav. API GR 3500
Gas: 42 MCFPD; Tested thru (Orifice or Meter): Meter

MID-TEST SHUT-IN PRESSURE DATA

Upper Compl	Hour, date <u>10:00 A.M. 12-26-64</u>	Length of time shut-in <u>163 hours</u>	SI press. psig <u>705</u>	Stabilized? (Yes or No) <u>No</u>
Lower Compl	Hour, date <u>10:00 A.M. 12-17-64</u>	Length of time shut-in <u>304 hours</u>	SI press. psig <u>1170</u>	Stabilized? (Yes or No) <u>No</u>

FLOW TEST NO. 2

Commenced at (hour, date)** <u>10:00 A.M. 1-2-65</u>				Zone producing (Upper HEINER Lower):	
Time (hour, date)	Lapsed time since **	Pressure		Prod. Zone Temp.	Remarks
		Upper Compl.	Lower Compl.		
<u>4:00 P.M. 1-2-65</u>	<u>6 hours</u>	<u>707</u>	<u>395</u>		<u>Deadweight Pressure</u>
<u>10:00 P.M. 1-2-65</u>	<u>12 hours</u>	<u>707</u>	<u>390</u>		<u>Frozen In (2 Pen Recorder)</u>
<u>10:00 A.M. 1-3-65</u>	<u>24 hours</u>	<u>710</u>	<u>353</u>		<u>Deadweight Pressure</u>

Production rate during test

Oil: 15 BOPD based on 15 Bbls. in 24 Hrs. 49° Grav. API GR 10,000
Gas: 100 MCFPD; Tested thru (Orifice or Meter): Meter

REMARKS: Packer temporarily frozen in during flow period.Packer-LEAKAGE TEST PRIOR TO INSTALLATION OF OTIS "DUAL FLOW CHOKE"

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

Approved: 1-20 1965
New Mexico Oil Conservation Commission

By Gregory C. ChandelTitle Surf. Dist. IIIOperator Continental Oil CompanyBy FRED VAN MATRETitle District EngineerDate January 18, 1965

ILLEGIBLE

EXHIBIT No. 1

7. Pressures for gas-zones must be measured on each zone with a deadweight pressure gauge at the following 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.

5. 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 New Mexico Oil Conservation Commission or the Northwest New Mexico Packer Leakage Test Form Revised 11-1-58, 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 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.

COMMUNICATIONS SECTION
MARCH 20, 1967

FOLIO PROGRESSO
CIRCO PROGRESSO

ILLEGIBLE

This form is not to be used for reporting packer leakage tests in Southeast New Mexico

NEW MEXICO OIL CONSERVATION COMMISSION

Revised 11-1-58

NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator Continental Oil Company Lease Jicarilla 28 Well No. 1
Location of Well: Unit 3 Sec. 28 Twp. 35N Rge. 4W County Rio Arriba

	Name of Reservoir or Pool	Type of Prod.	Method of Prod.	Prod. Medium
		(Oil or Gas)	(Flow or Art. Lift)	(Tbg. or Csg.)
Upper Completion	Undesignated Gallup	Oil	Flow	Casing
Lower Completion	Basin Dakota	Oil	Plunger Lift	Tubing

PRE-FLOW SHUT-IN PRESSURE DATA

Upper Compl	Hour, date 2:00 P.M. Shut-in 1-30-65	Length of time shut-in 164 hours	SI press. psig 615	Stabilized? (Yes or No) No
Lower Compl	Hour, date 2:00 P.M. Shut-in 1-23-65	Length of time shut-in 164 hours	SI press. psig 1165	Stabilized? (Yes or No) No

FLOW TEST NO. 1

Commenced at (hour, date)* 10:00 A.M. 1-30-65		Zone producing (Upper XXXXXXXXXX)			
Time (hour, date)	Lapsed time since*	Pressure		Prod. Zone Temp.	Remarks
		Upper Compl.	Lower Compl.		
2:00 P.M. 1-30-65	4 hours	225	1165		From 2-Pan Recorder
10:00 A.M. 1-31-65	24 hours	225	1200		W/Dead Weight
					RECEIVED
					DURANGO PROD.
					MAR 9 1965
					OFFICE MON.
					1-31-65
					1-31-65

Production rate during test

Oil: 0 BOPD based on 0 Bbls. in 24 Hrs. Grav. GOR
Gas: 100 MCFPD; Tested thru (Orifice or Meter): Meter

MID-TEST SHUT-IN PRESSURE DATA

Upper Compl	Hour, date 10:00 P.M. 1-31-65	Length of time shut-in 160 hours	SI press. psig 603	Stabilized? (Yes or No) No
Lower Compl	Hour, date 2:00 P.M. 1-23-65	Length of time shut-in 356 hours	SI press. psig 1200	Stabilized? (Yes or No) No

FLOW TEST NO. 2

Commenced at (hour, date)** 10:00 A.M. 2-7-65		Zone producing (XXXXXXXXXX Lower):			
Time (hour, date)	Lapsed time since **	Pressure		Prod. Zone Temp.	Remarks
		Upper Compl.	Lower Compl.		
2:00 P.M. 2-7-65	4 hours	603	350		From 2-Pan Recorder
10:00 A.M. 2-8-65	24 hours	602	254		W/Dead Weight
10:00 A.M. 2-9-65	48 hours	602	254		W/Dead Weight

Production rate during test

Oil: 21 BOPD based on 42 Bbls. in 48 Hrs. Grav. GOR 9906
Gas: 200 MCFPD; Tested thru (Orifice or Meter): Meter

REMARKS: Packer Leakage Test after installation of Otis "Dual Flow Check" in accordance with Commission Order No. E-2824.

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

Approved: R-24 1965
New Mexico Oil Conservation Commission

By Arthur K. Kinschick
Title _____

Operator Continental Oil Company
By _____
Title District Engineer
Date 2-22-65

INDEXED FILE

ILLEGIBLE

EXHIBIT # 2

NORTHWEST NEW MEXICO PACKER LEAKAGE TEST INSTRUCTIONS

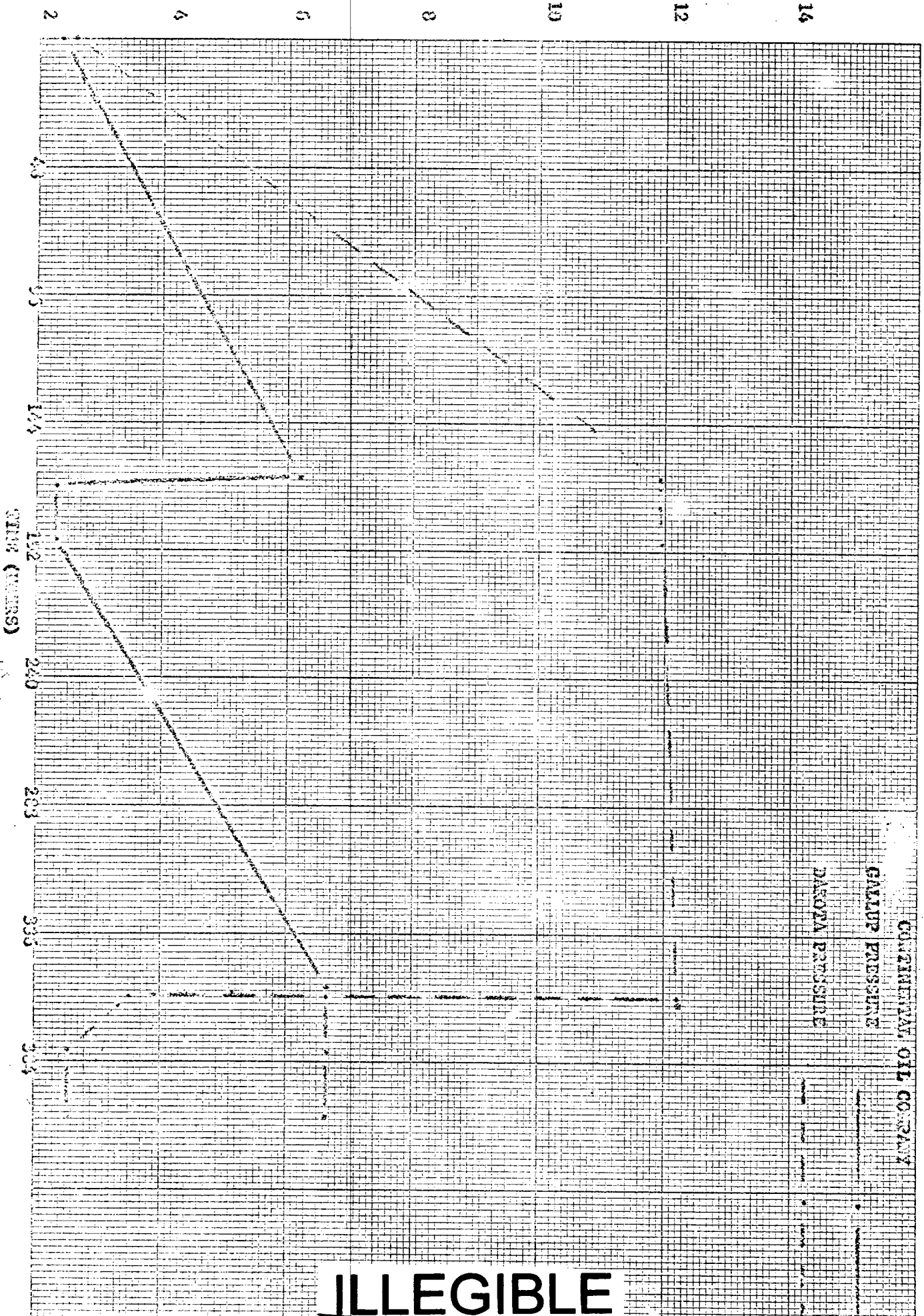
1. A packer leakage test shall be commenced on each multiply completed well within seven days after actual completion of the well, and annually thereafter as prescribed by the order authorizing the multiple completion. Such tests shall also be commenced on all multiple completions within seven days following recompletion and/or chemical or fracture treatment, and whenever remedial work has been done on a well during which the packer or the tubing have been disturbed. Tests shall also be taken at any time that communication is suspected or when requested by the Commission.
2. At least 72 hours prior to the commencement of any packer leakage test, the operator shall notify the Commission 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. For Flow Test No. 1, one zone of the dual completion shall be produced at the normal rate of production while the other zone remains shut-in. Such test shall be continued for seven days in the case of a gas well and for 24 hours in the case of an oil well. Note: If, on an initial packer leakage test, a gas well is being flowed to the atmosphere due to the lack of a pipeline connection the flow period shall be three hours.
5. Following completion of Flow Test No. 1, the well shall again be shut-in, in accordance with Paragraph 3 above.
6. Flow Test No. 2 shall be conducted even though no leak was indicated during Flow Test No. 1. 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 New Mexico Oil Conservation Commission on Northwest New Mexico Packer Leakage Test Form Revised 11-1-58, 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 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.

PRESSURE (HUNDREDS OF POUNDS)



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NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator Continental Oil Company Lease Jicarilla 28 Well No. 1
Location of Well: Unit J Sec. 23 Twp. 15N Rge. 4W County Rio Arriba

	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	Undesignated Gallup	Oil	Flow	Casing
Lower Completion	Basin Dakota	Oil	Plunger Lift	Tubing

PRE-FLOW SHUT-IN PRESSURE DATA

Upper Compl	Hour, date 2:00 P.M. Shut-in 1-23-65	Length of time shut-in 164 hours	SI press. psig 615	Stabilized? (Yes or No) No
Lower Compl	Hour, date 2:00 P.M. Shut-in 1-23-65	Length of time shut-in 164 hours	SI press. psig 1165	Stabilized? (Yes or No) No

FLOW TEST NO. 1

Commenced at (hour, date)* 10:00 A.M.		1-30-65		Zone producing (Upper XXXXXXXXXX):	
Time (hour, date)	Lapsed time since*	Pressure		Prod. Zone Temp.	Remarks
		Upper Compl.	Lower Compl.		
2:00 P.M. 1-30-65	4 hours	225	1165		From 2-Pen Recorder
10:00 A.M. 1-31-65	24 hours	225	1190		W/Dead Weight
					RECEIVED
					DURANGO PROD.
					MAR 9 1965
					OFFICE MGR. <i>[Signature]</i>
					DIST. <i>[Signature]</i>
					ASST. <i>[Signature]</i>

Production rate during test
Oil: 0 BOPD based on 0 Bbls. in 24 Hrs. Grav. GOR
Gas: 100 MCFPD; Tested thru (Orifice or Meter): Meter

MID-TEST SHUT-IN PRESSURE DATA

Upper Compl	Hour, date 10:00 A.M. Shut-in 1-31-65	Length of time shut-in 168 hours	SI press. psig 663	Stabilized? (Yes or No) No
Lower Compl	Hour, date 2:00 P.M. Shut-in 1-28-65	Length of time shut-in 336 hours	SI press. psig 1220	Stabilized? (Yes or No) No

FLOW TEST NO. 2

Commenced at (hour, date)** 10:00 A.M. 2-7-65		Zone producing (Upper or Lower):			
Time (hour, date)	Lapsed time since **	Pressure		Prod. Zone Temp.	Remarks
		Upper Compl.	Lower Compl.		
2:00 P.M. 2-7-65	4 hours	663	350		From 2-Pen Recorder
10:00 A.M. 2-8-65	24 hours	662	254		W/Dead Weight
10:00 A.M. 2-9-65	48 hours	662	254		W/Dead Weight

Production rate during test
Oil: 21 BOPD based on 42 Bbls. in 48 Hrs. Grav. GOR 9905
Gas: 200 MCFPD; Tested thru (Orifice or Meter): Meter

REMARKS: Packer Leakage Test after installation of Otis "Dual Flow Choke" in accordance with Commission Order No. R-2824.

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

Approved: R-24 1965
New Mexico Oil Conservation Commission
By *[Signature]*
Title District Engineer
Date 2-22-65

ILLEGIBLE

EXHIBIT #2

NORTHWEST NEW MEXICO PACKER LEAKAGE TEST INSTRUCTIONS

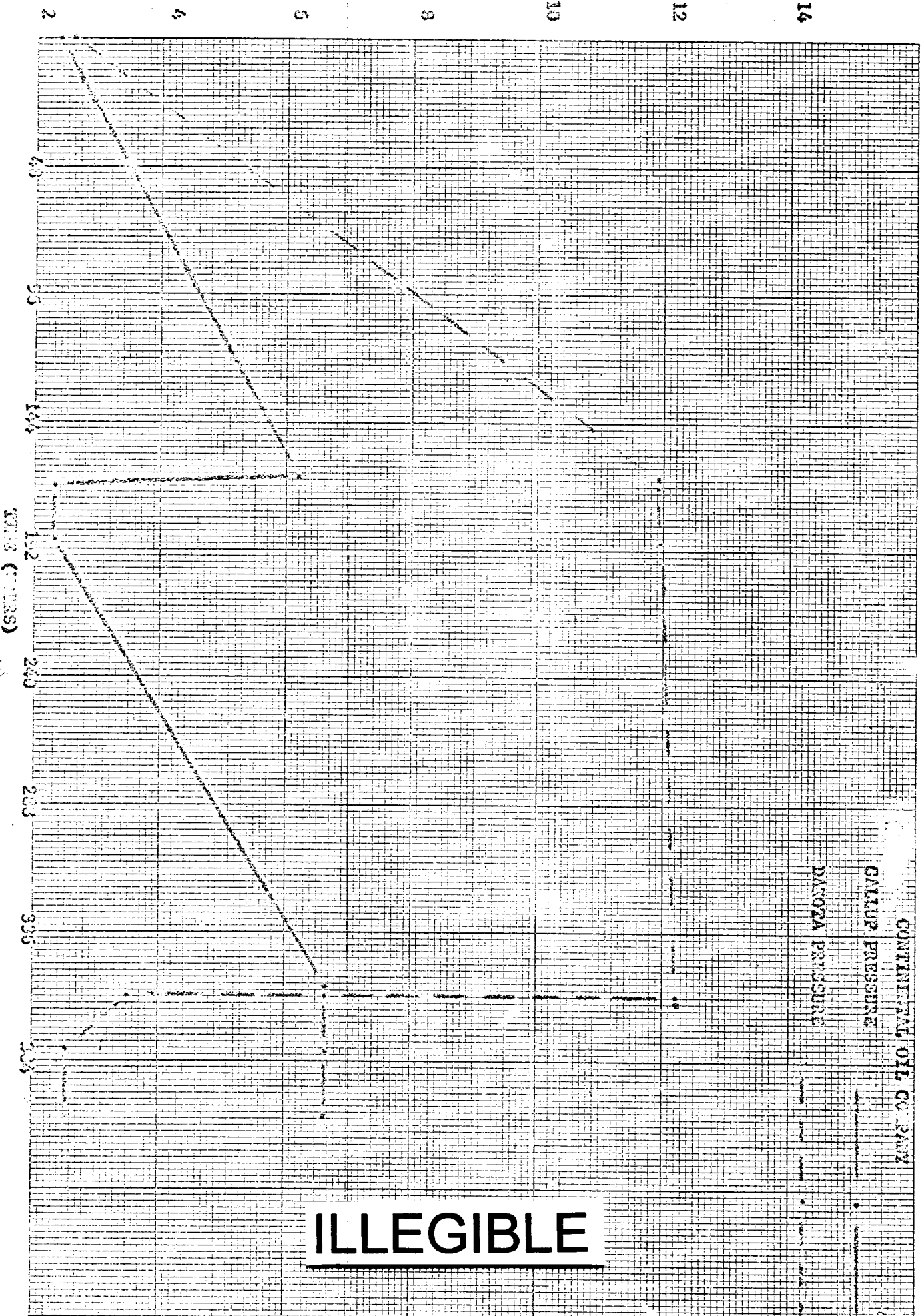
1. A packer leakage test shall be commenced on each multiply completed well within seven days after actual completion of the well, and annually thereafter as prescribed by the order authorizing the multiple completion. Such tests shall also be commenced on all multiple completions within seven days following recapture and/or chemical or fracture treatment, and whenever remedial work has been done on a well during which the packer or the tubing have been disturbed. Tests shall also be taken at any time that communication is suspected or when requested by the Commission.
2. At least 72 hours prior to the commencement of any packer leakage test, the operator shall notify the Commission 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. For Flow Test No. 1, one zone of the dual completion shall be produced at the normal rate of production while the other zone remains shut-in. Such test shall be continued for seven days in the case of a gas well and for 24 hours in the case of an oil well. Note: If, on an initial packer leakage test, a gas well is being flowed to the atmosphere due to the lack of a pipeline connection the flow period shall be three hours.
5. Following completion of Flow Test No. 1, the well shall again be shut-in, in accordance with Paragraph 3 above.
6. Flow Test No. 2 shall be conducted even though no leak was indicated during Flow Test No. 1. 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.

PRESSURE (HUNDREDS OF POUNDS)

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 New Mexico Oil Conservation Commission on Northwest New Mexico Packer Leakage Test Form Revised 11-1-58, 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 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.



ILLEGIBLE

NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator Continental Oil Company Lease Jicarilla 28 Well No. 1
Location of Well: Unit J Sec. 28 Twp. 25N Rge. 4W County Rio Arriba

	Name of Reservoir or Pool	Type of Prod.	Method of Prod.	Prod. Medium
		(Oil or Gas)	(Flow or Art. Lift)	(Tbg. or Csg.)
Upper Completion	Undesignated Gallup	Oil	Flow	Casing
Lower Completion	Basin Dakota	Oil	Plunger Lift	Tubing

PRE-FLOW SHUT-IN PRESSURE DATA

Upper Compl	Hour, date	3:00 P.M. 5-1-65	Length of time shut-in	33 days	SI press. psig	854	Stabilized? (Yes or No)	Yes
Lower Compl	Hour, date	3:00 P.M. 6-3-65	Length of time shut-in	162 hrs.	SI press. psig	855	Stabilized? (Yes or No)	No

FLOW TEST NO. 1

Commenced at (hour, date)* 9:00 A.M. 6-10-65					Zone producing (Upper or Lower):	
Time (hour, date)	Lapsed time since*	Pressure		Prod. Zone	Remarks	
		Upper Compl.	Lower Compl.	Temp.		
12:00 P.M. 6-10-65	3 hrs.	500	860		Two-pen recorder	
3:00 P.M. 6-10-65	6 hrs.	300	890		Two-pen recorder	
9:00 A.M. 6-11-65	24	260	905		Dead weight pressure	

Production rate during test

Oil: 0 BOPD based on 0 Bbls. in 24 Hrs. Grav. GOR
Gas: 97 MCFPD; Tested thru (Orifice or Meter): Meter

MID-TEST SHUT-IN PRESSURE DATA

Upper Compl	Hour, date	9:10 A.M. 6-11-65	Length of time shut-in	167 1/2 hrs.	SI press. psig	774	Stabilized? (Yes or No)	No
Lower Compl	Hour, date	3:00 P.M. 6-3-65	Length of time shut-in	354 hrs.	SI press. psig	1255	Stabilized? (Yes or No)	No

FLOW TEST NO. 2

Commenced at (hour, date)** 8:40 A.M. 6-18-65					Zone producing (Upper or Lower):	
Time (hour, date)	Lapsed time since **	Pressure		Prod. Zone	Remarks	
		Upper Compl.	Lower Compl.	Temp.		
8:40 A.M. 6-18-65	0	774	1255		Dead weight gauge	
9:00 A.M. 6-18-65	20 min.	800	555		Two-pen recorder Intermitter Open	
1:40 P.M. 6-18-65	5 hrs.	800	950		Two-pen recorder Intermitter closed	
8:30 A.M. 6-19-65	24 hrs.	810	839		Dead weight gauge Intermitter closed	
9:15 A.M. 6-22-65	96 hrs.	890	687		Dead weight gauge Intermitter closed	
9:20 A.M. 6-22-65	96 hrs.	890	255		Dead weight gauge Intermitter Open	

Production rate during test

Oil: 26 BOPD based on 26 Bbls. in 24 Hrs. Grav. 49 GOR 7462
Gas: 194 MCFPD; Tested thru (Orifice or Meter): Meter

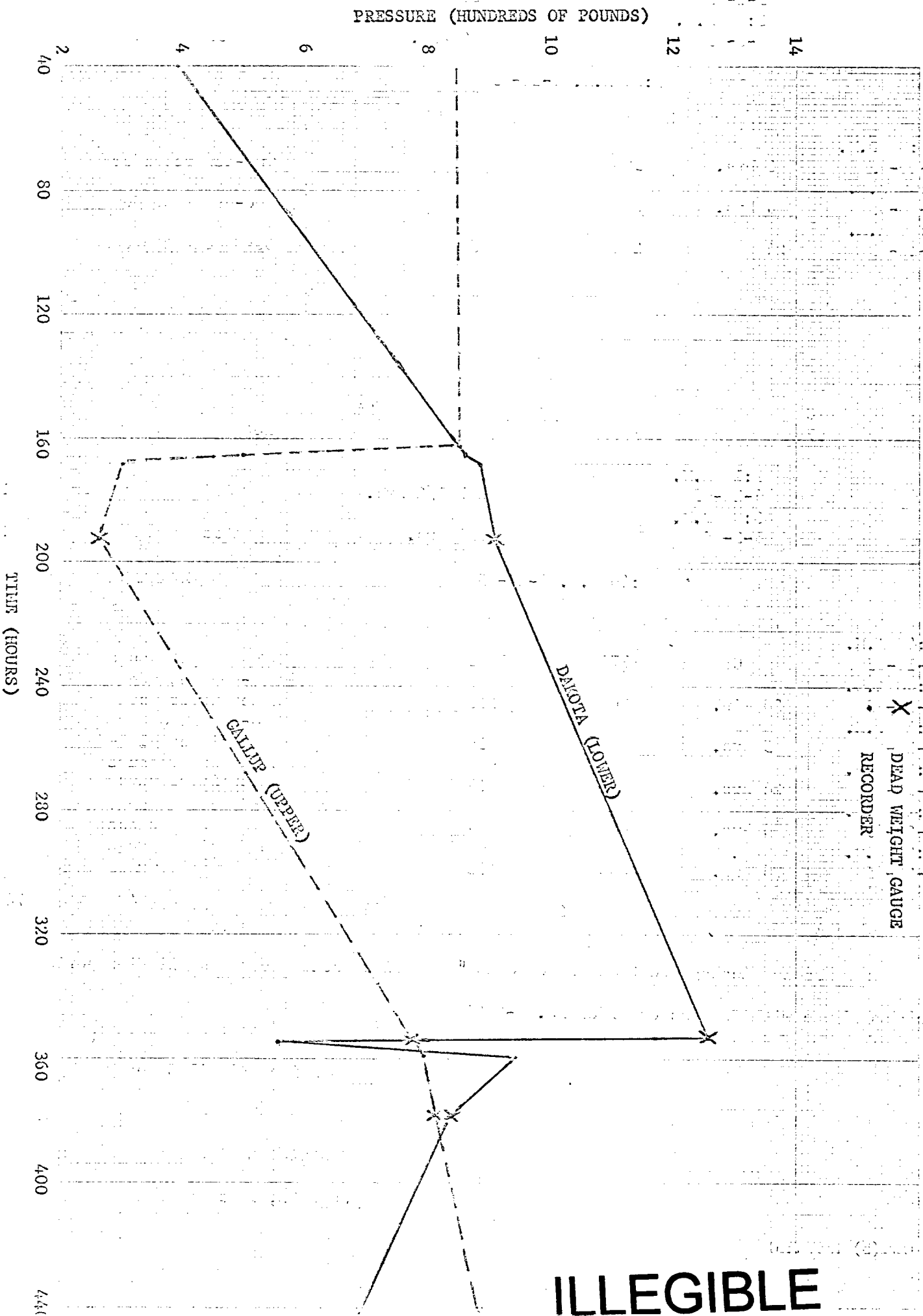
REMARKS: Packer Leakage test at end of Otis "Dual Flow Choke" test installation period
in accordance with Commission Order No. R-2824
I hereby certify that the information herein contained is true and complete to the best of my knowledge.

Approved: 6-25 1965
New Mexico Oil Conservation Commission
By _____ Title District Engineer
Date June 23, 1965

[illegible]

ring throughout the entire test, with recording pressure taken at least twice, once at the start, with a deadweight pressure, and at completion, the recording only, with deadweight pressure removed.

1. The following items shall be fabricated in triplicate:
a. Pressure gauges shall be fitted with
b. Pressure gauges shall be fitted with
c. Pressure gauges shall be fitted with
d. Pressure gauges shall be fitted with
e. Pressure gauges shall be fitted with
f. Pressure gauges shall be fitted with
g. Pressure gauges shall be fitted with
h. Pressure gauges shall be fitted with
i. Pressure gauges shall be fitted with
j. Pressure gauges shall be fitted with
k. Pressure gauges shall be fitted with
l. Pressure gauges shall be fitted with
m. Pressure gauges shall be fitted with
n. Pressure gauges shall be fitted with
o. Pressure gauges shall be fitted with
p. Pressure gauges shall be fitted with
q. Pressure gauges shall be fitted with
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w. Pressure gauges shall be fitted with
x. Pressure gauges shall be fitted with
y. Pressure gauges shall be fitted with
z. Pressure gauges shall be fitted with



NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator Continental Oil Company Lease Jicarilla 28 Well No. 1
Location of Well: Unit J Sec. 28 Twp. 25N Rge. 4W County Rio Arriba

	Name of Reservoir or Pool	Type of Prod.	Method of Prod.	Prod. Medium
		(Oil or Gas)	(Flow or Art. Lift)	(Tbg. or Csg.)
Upper Completion	Undesignated Gallup	Oil	Flow	Casing
Lower Completion	Basin Dakota	Oil	Plunger Lift	Tubing

PRE-FLOW SHUT-IN PRESSURE DATA

Upper Compl	Hour, date	3:00 P.M.	Length of time shut-in	33 days	SI press. psig	854	Stabilized? (Yes or No)	Yes
Lower Compl	Hour, date	3:00 P.M.	Length of time shut-in	162 hrs.	SI press. psig	855	Stabilized? (Yes or No)	No

FLOW TEST NO. 1

Commenced at (hour, date)* 9:00 A.M. 6-10-65					Zone producing (Upper or Lower):	
Time (hour, date)	Lapsed time since*	Pressure		Prod. Zone Temp.	Remarks	
		Upper Compl.	Lower Compl.			
12:00 P.M. 6-10-65	3 hrs.	500	860		Two-pen recorder	
3:00 P.M. 6-10-65	6 hrs.	300	890		Two-pen recorder	
9:00 A.M. 6-11-65	24	260	905		Dead weight pressure	

Production rate during test

Oil: 0 BOPD based on 0 Bbls. in 24 Hrs. Grav. GOR
Gas: 97 MCFPD; Tested thru (Orifice or Meter): Meter

MID-TEST SHUT-IN PRESSURE DATA

Upper Compl	Hour, date	9:10 A.M.	Length of time shut-in	167 1/2 hrs.	SI press. psig	774	Stabilized? (Yes or No)	No
Lower Compl	Hour, date	3:00 P.M.	Length of time shut-in	354 hrs.	SI press. psig	1255	Stabilized? (Yes or No)	No

FLOW TEST NO. 2

Commenced at (hour, date)** 8:40 A.M. 6-18-65					Zone producing (Upper or Lower):	
Time (hour, date)	Lapsed time since **	Pressure		Prod. Zone Temp.	Remarks	
		Upper Compl.	Lower Compl.			
8:40 A.M. 6-18-65	0	774	1255		Dead weight gauge	
9:00 A.M. 6-18-65	20 min.	800	555		Two-pen recorder Intermitter Open	
1:40 P.M. 6-18-65	5 hrs.	800	950		Two-pen recorder Intermitter closed	
8:30 A.M. 6-19-65	24 hrs.	810	839		Dead weight gauge Intermitter closed	
9:15 A.M. 6-22-65	96 hrs.	890	687		Dead weight gauge Intermitter closed	
9:20 A.M. 6-22-65	96 hrs.	890	255		Dead weight gauge Intermitter Open	

Production rate during test

Oil: 26 BOPD based on 26 Bbls. in 24 Hrs. Grav. 49 GOR 7462
Gas: 194 MCFPD; Tested thru (Orifice or Meter): Meter

REMARKS: Packer Leakage test at end of Otis "Dual Flow Choke" test installation period

in accordance with Commission Order No. R-2824
I hereby certify that the information herein contained is true and complete to the best of my knowledge.

Operator Continental Oil Company
Approved: C-25 1965
New Mexico Oil Conservation Commission
By [Signature] Title District Engineer
Date June 23, 1965

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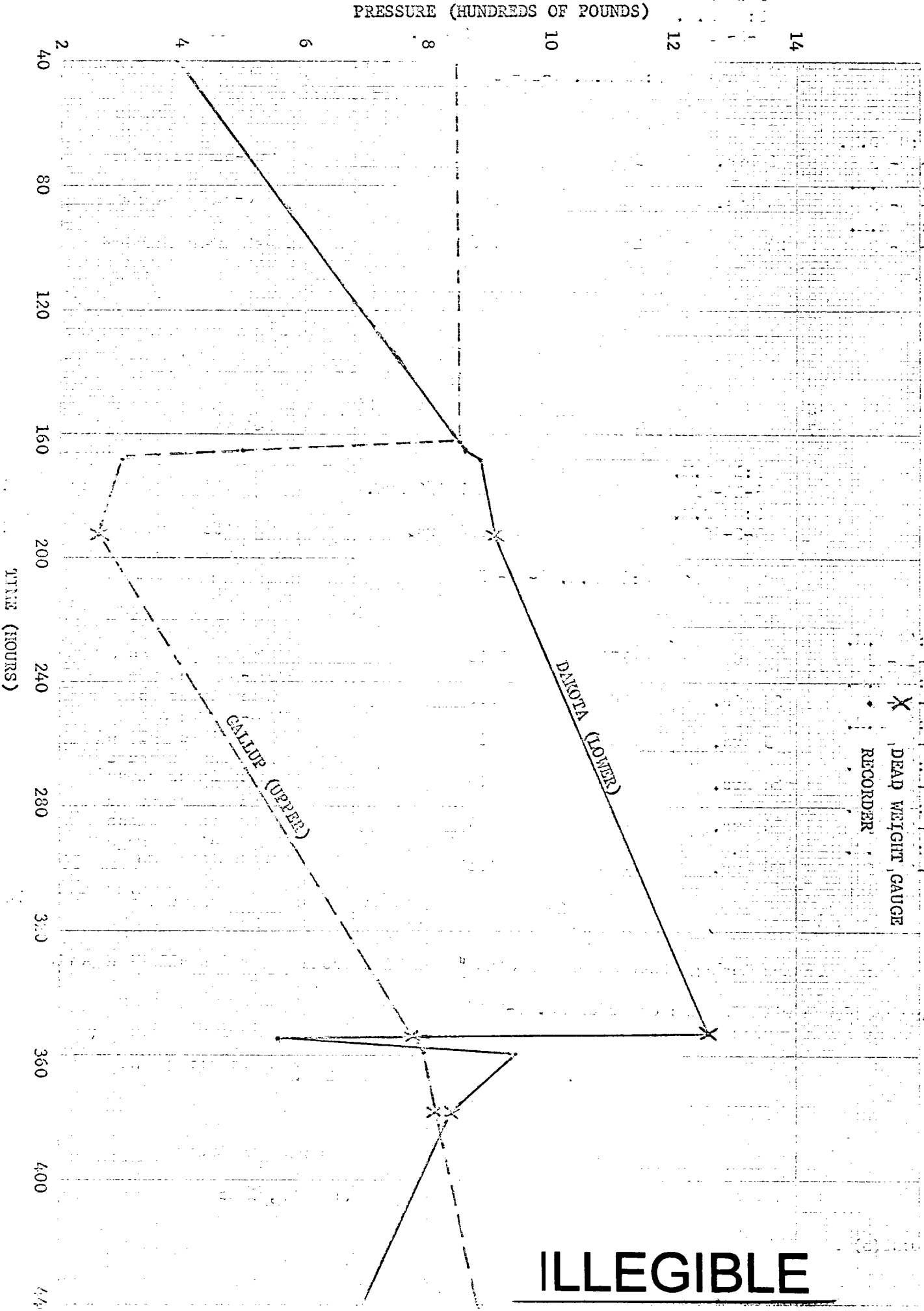
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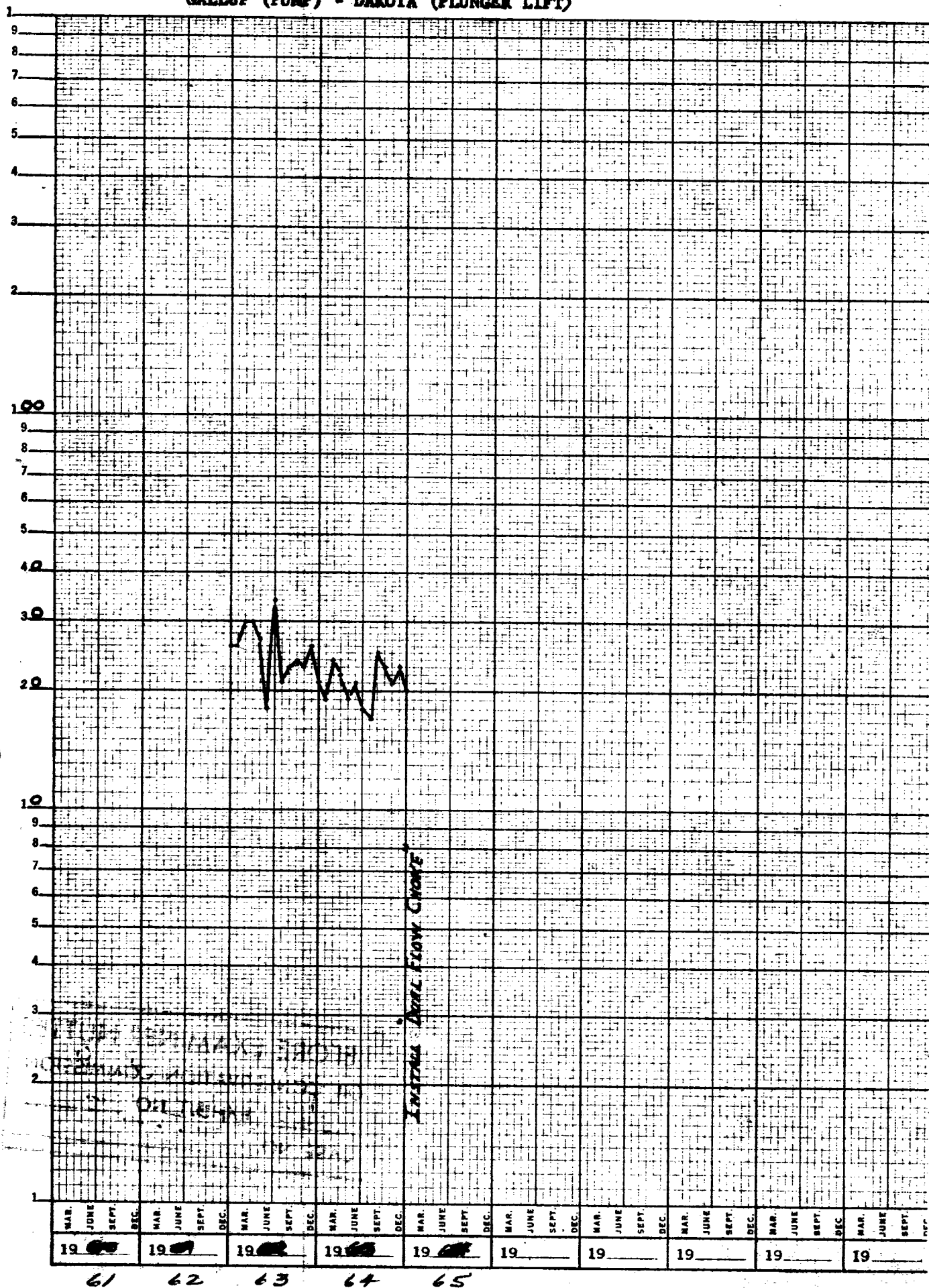


ILLEGIBLE

JICARILLA 28 WELL NO. 1
 COMBINED PRODUCTION PERFORMANCE - 1963-1964
 GALLUP (PUMP) - DAKOTA (PLUNGER LIFT)

K&E 20 YEARS BY MONTHS 47 6843
 MADE IN U.S.A.
 KEUFFEL & ESSER CO.

BOPD



BEFORE EXAMINER NUTTER

OIL CONSERVATION COMMISSION

apt's EXHIBIT NO. 6

CASE NO. 3112

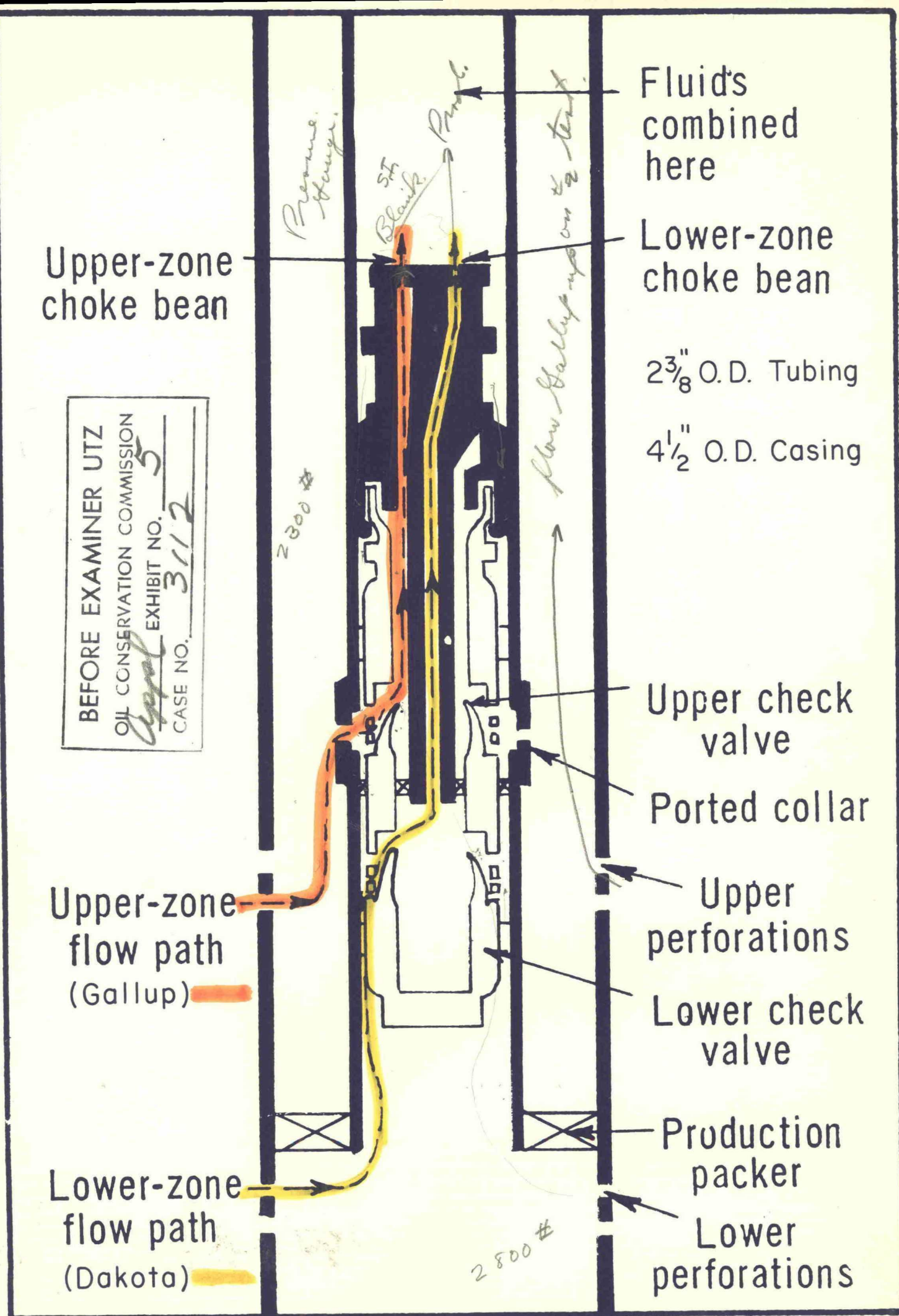


FIGURE NO. 7

Schematic diagram showing installation of Otis "Dual flow choke assembly" for dual zone downhole commingling.

Summary

my opinion

It is ~~believed~~ the data presented conclusively shows that the Dual Flow downhole choke assembly can be effectively used to produce commingled hydrocarbons from two separate reservoirs simultaneously through a single tubing string without communicating between the two zones. The tests show that leakage does not occur through the check assembly, and that annual production allocation tests and packer leakage tests can be satisfactorily performed in accordance with NMOCC requirements for commingling of marginal zone wells.

The tests show that excess energy from the lower Dakota zone can be effectively utilized to lift production from the weaker Gallup zone which previously required artificial lift by pumping.

By minimizing test requirements, operating costs over conventional dual completion methods can be greatly reduced and current income from a marginal well such as 28 well No. 1 can be increased.

By use of ^{the dual Flow Choke,} ~~this tool~~, future well costs for the Jicarilla Apache West Lindrith leases can be greatly reduced and further development of the Gallup and Dakota reservoirs ^{would be} ~~may become~~ economically feasible. Use of the tool in this area will ^{also} prolong the economic limit of both zones and result in an increase in ultimate recovery from both reservoirs thus preventing unnecessary waste, *and recovery of considerable oil reserves that would otherwise not be recovered*