



WESTERN TESTING CO., INC.  
FORMATION TESTING

OK

TICKET NO: 10863

P. O. BOX 1599 WICHITA, KANSAS 67201  
PHONE (316) 262-5861

Elevation 1084 KB Formation Miss Eff. Pay - Ft.

District Augusta Date 9-13-85 Customer Order No. -

COMPANY NAME Range Oil Co Inc ADDRESS 240 Page Court 220 W Douglas Wichita, Ks 67202

LEASE AND WELL NO. O'Brien #1 COUNTY Cowley STATE KS Sec 22 Twp 34S Rge 3E

Mail Invoice To Same Co. Name #10'Brien Address No. Copies Requested 1

Mail Charts To Same #10'Brien Address No. Copies Requested 5

Formation Test No. 3 Interval Tested From 3323 ft. to 3333 ft. Total Depth 3333 ft.  
Packer Depth 3323 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.  
Packer Depth 3318 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -  
Top Recorder Depth (Inside) 3325 ft. Recorder Number 13553 Cap. 4000  
Bottom Recorder Depth (Outside) 3328 ft. Recorder Number 3474 Cap. 3000  
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Range Drilling Co #2 Drill Collar Length 180 I. D. 2 1/4 in.  
Mud Type Chess Viscosity 44 Weight Pipe Length - I. D. - in.  
Weight 10. - Water Loss 11.2 cc. Drill Pipe Length 3123 I. D. 3.8 in.  
Chlorides 2300 P.P.M. Test Tool Length 20 ft. Tool Size 5 200 in.  
Jars: Make - Serial Number - Anchor Length 10 ft. Size 5 200 in.  
Did Well Flow? 74. Reversed Out - Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.  
Main Hole Size 7 1/8 in. Tool Joint Size 4 1/2 X 1 1/4 in.

Blow: 4 in. diminishing @ end of test

Recovered 360 ft. of Gas  
Recovered 65 ft. of Muddy Well Water  
Recovered - ft. of  
Recovered - ft. of  
Recovered - ft. of  
Chlorides 55,000 P.P.M. Sample Jars used 2 Remarks:

Time On Location 10:15 9-13 A.M. Time Pick Up Tool 11:05 A.M.  
Time Set Packer(s) 12:45 P.M. Time Started Off Bottom 4:00 P.M. Time Off Location Standby P.M.  
Initial Hydrostatic Pressure (A) 1760 P.S.I. Maximum Temperature 117  
Initial Flow Period Minutes 30 (B) 40 P.S.I. to (C) 30 P.S.I.  
Initial Closed In Period Minutes 45 (D) 805 P.S.I.  
Final Flow Period Minutes 60 (E) 50 P.S.I. to (F) 50 P.S.I.  
Final Closed In Period Minutes 60 (G) 735 P.S.I.  
Final Hydrostatic Pressure (H) 1716 P.S.I. 13553

COMPANY TERMS  
Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.  
All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.  
Test Approved By: [Signature] Signature of Customer or his authorized representative  
Western Representative: Norman Allen

FIELD INVOICE  
Open Hole Test \$ 550  
Misrun \$  
Straddle Test \$  
Jars \$  
Selective Zone \$  
Safety Joint \$  
Standby \$  
Evaluation \$  
Extra Packer \$  
Circ. Sub. \$  
Mileage \$  
Fluid Sampler \$  
Extra Charts \$

**WESTERN TESTING CO., INC.**  
**Pressure Data**

Date 9-13  
Recorder No. 13553

Test Ticket No. 10863  
Capacity \_\_\_\_\_ Location \_\_\_\_\_ Ft

Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1755</u> P.S.I.	Open Tool		M
B First Initial Flow Pressure	<u>20</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>20</u> P.S.I.	Initial Closed-in Pressure	<u>45</u> Mins.	<u>42</u> Mins.
D Initial Closed-in Pressure	<u>794</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>34</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins.	<u>60</u> Mins.
F Second Final Flow Pressure	<u>41</u> P.S.I.			
G Final Closed-in Pressure	<u>727</u> P.S.I.			
H Final Hydrostatic Mud	<u>1710</u> P.S.I.			

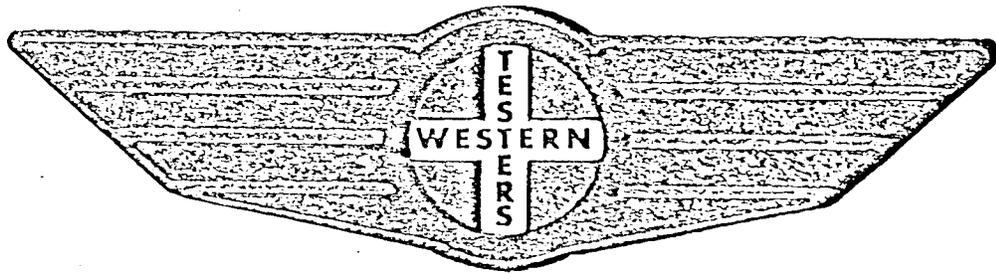
**PRESSURE BREAKDOWN**

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>7</u> Inc.		Breakdown: <u>15</u> Inc.		Breakdown: <u>13</u> Inc.		Breakdown: <u>21</u> Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>20</u>	0	<u>20</u>	0	<u>34</u>	0	<u>41</u>
P 2 5		3	<u>31</u>	5		3	<u>53</u>
P 3 10		6	<u>61</u>	10		6	<u>76</u>
P 4 15		9	<u>106</u>	15		9	<u>106</u>
P 5 20		12	<u>167</u>	20		12	<u>143</u>
P 6 25		15	<u>261</u>	25		15	<u>188</u>
P 7 30	<u>20</u>	18	<u>356</u>	30	<u>34</u>	18	<u>237</u>
P 8 35		21	<u>447</u>	35	<u>35</u>	21	<u>296</u>
P 9 40		24	<u>534</u>	40	<u>36</u>	24	<u>349</u>
P10 45		27	<u>607</u>	45	<u>37</u>	27	<u>402</u>
P11 50		30	<u>662</u>	50	<u>38</u>	30	<u>449</u>
P12 55		33	<u>709</u>	55	<u>39</u>	33	<u>494</u>
P13 60		36	<u>749</u>	60	<u>41</u>	36	<u>532</u>
P14 65		39	<u>783</u>	65		39	<u>571</u>
P15 70		42	<u>794</u>	70		42	<u>602</u>
P16 75		45		75		45	<u>630</u>
P17 80		48		80		48	<u>654</u>
P18 85		51		85		51	<u>678</u>
P19 90		54		90		54	<u>698</u>
P20 95		57		95		57	<u>717</u>
100		60		100		60	<u>727</u>

# FORMATION

# TEST

# REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company \_\_\_\_\_  
Lease & Well No. \_\_\_\_\_  
" T U DALLIN \_\_\_\_\_  
Sec. \_\_\_\_\_  
Twp. \_\_\_\_\_  
Rge. \_\_\_\_\_  
Test No. \_\_\_\_\_  
Date 9/13/83

WESTERN TESTING CO. INC.  
SUBSURFACE PRESSURE SURVEY

DATE: 9-13-85  
 CUSTOMER: RANGE OIL COMPANY INC.  
 WELL: 1 TEST: 3  
 ELEVATION (KB): 1084 FORMATION: MISSISSIPPI  
 SECTION: 22 TOWNSHIP: 34S  
 RANGE: 3E COUNTY: COWLEY STATE: KANSAS  
 GAUGE SN #13553 RANGE: 4000 CLOCK: 12

TICKET #10863  
 LEASE: O'BRIEN  
 GEOLOGIST: S.M. KREIDLER

INTERVAL TEST FROM: 3323 FT TO: 3333 FT TOTAL DEPTH: 3333 FT  
 DEPTH OF SELECTIVE ZONE: FT  
 PACKER DEPTH: 3323 FT SIZE: 6 3/4 IN PACKER DEPTH: 3318 FT SIZE: 6 3/4 IN  
 PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RANGE DRLG. RIG #2  
 MUD TYPE: CHEMICAL VISCOSITY: 44  
 WEIGHT: 10.0 WATER LOSS (CC): 11.2  
 CHLORIDES (P.P.M.): 2300  
 JARS - MAKE: SERIAL NUMBER:  
 DID WELL FLOW? NO REVERSED OUT?  
 DRILL COLLAR LENGTH: 180 FT I.D.: 2.25 IN  
 WEIGHT PIPE LENGTH: FT I.D.: IN  
 DRILL PIPE LENGTH: 3123 FT I.D.: 3.8 IN  
 TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 OD IN  
 ANCHOR LENGTH: 10 FT SIZE: 5 1/2 OD IN  
 SURFACE CHOKE SIZE: 3/4 IN BOTTOM CHOKE SIZE: 3/4 IN  
 MAIN HOLE SIZE: 7 7/8 IN TOOL JOINT SIZE: 4 1/2 XH IN

BLOW: FAIR BLOW DIMINISHING AT END OF TEST.

RECOVERED: 360 FT OF: GAS ABOVE FLUID.  
 RECOVERED: 65 FT OF: MUDDY SALT WATER.  
 RECOVERED: FT OF: CHLORIDES 55000 PPM.  
 RECOVERED: FT OF:  
 RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 12:45 PM TIME STARTED OFF BOTTOM: 4:00 PM  
 WELL TEMPERATURE: 117 °F  
 INITIAL HYDROSTATIC PRESSURE: (A) 1755 PSI  
 INITIAL FLOW PERIOD MIN: 30 (B) 20 PSI TO (C) 20 PSI  
 INITIAL CLOSED IN PERIOD MIN: 42 (D) 794 PSI  
 FINAL FLOW PERIOD MIN: 60 (E) 34 PSI TO (F) 41 PSI  
 FINAL CLOSED IN PERIOD MIN: 60 (G) 727 PSI  
 FINAL HYDROSTATIC PRESSURE (H) 1710 PSI

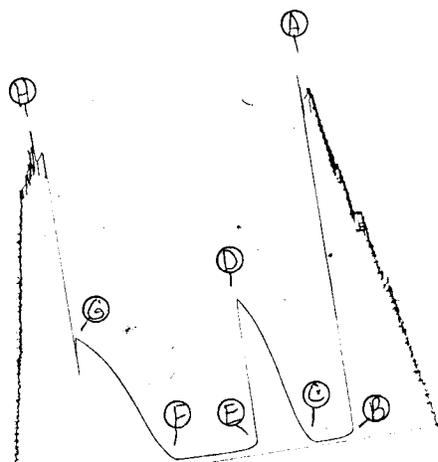


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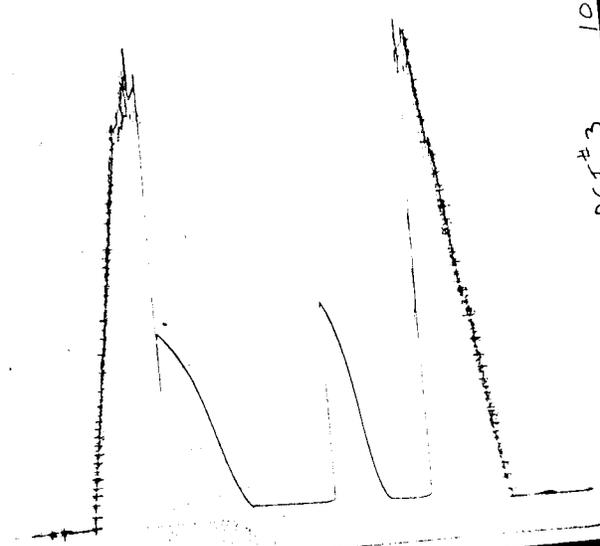
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DST #3

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Ykt. # 10863  
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