



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 8104

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

Elevation 1327 Kb Formation Kansas City A Zone Eff. Pay Ft.

District Augusta Date 3-8-85 Customer Order No.
COMPANY NAME Range Oil Co Inc. 240 Page Court
ADDRESS 220 West Douglas
LEASE AND WELL NO. Meyer #1 COUNTY Cowley STATE Ko Sec. 20 Twp. 30 Rge. 5E
Mail Invoice To Same Co. Name #1 MEYER Address No. Copies Requested 1
Mail Charts To Same #1 MEYER Address No. Copies Requested 5

Formation Test No. 1 Interval Tested From 2281 ft. to 2303 ft. Total Depth 2303 ft.
Packer Depth 2281 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Packer Depth 2276 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Depth of Selective Zone Set

Top Recorder Depth (Inside) 2284 ft. Recorder Number 3474 Cap. 3000
Bottom Recorder Depth (Outside) 2290 ft. Recorder Number 2605 Cap. 4150
Below Scaddle Recorder Depth ft. Recorder Number Cap.
Drilling Contractor Rig # 1 Drill Collar Length 150 I. D. 2.25 in.
Mud Type Chem Viscosity 45 Weight Pipe Length I. D. in.
Weight 9.1 Water Loss N/A Drill Pipe Length 211 I. D. 3.8 in.
Chlorides N/A P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 in.
Jars: Make NO Serial Number Anchor Length 22 ft. Size 5 1/2 in.
Did Well Flow? NO 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: Weak blow for 20 min first flow, Weak blow 10 min second flow

Recovered 10 ft. of mud with good show free Oil on top of tool
Recovered ft. of
Recovered ft. of
Recovered ft. of
Recovered ft. of
Chlorides P.P.M. Sample Jars used Remarks:

Time On Location 7:00 A.M. Time Pick Up Tool P.M. Time Off Location P.M.
Time Set Packer(s) 10:00 A.M. Time Started Off Bottom 12:15 P.M. Maximum Temperature 104
Initial Hydrostatic Pressure (A) 1075 P.S.I.
Initial Flow Period Minutes 30 (B) 30 P.S.I. to (C) 22 P.S.I.
Initial Closed In Period Minutes 30 (D) 37 P.S.I.
Final Flow Period Minutes 30 (E) 22 P.S.I. to (F) 22 P.S.I.
Final Closed In Period Minutes 45 (G) 37 P.S.I.
Final Hydrostatic Pressure (H) 1075 P.S.I.

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 Robert Allen
Signature of Customer or his authorized representative

Western Representative Kenny Ruffendall 1127

FIELD INVOICE

Table with 2 columns: Item, Amount. Includes Open Hole Test (\$550), Misrun, Straddle Test, Jars, Selective Zone, Safety Joint, Standby, Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler, Extra Charts, Insurance, Telecopier, TOTAL.

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

Date 3-8-85 Test Ticket No. 8104  
 Recorder No. 3474 Capacity \_\_\_\_\_ Location \_\_\_\_\_ Ft.  
 Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_ °F

Point	Pressure	Time Given	Time Computed
A. Initial Hydrostatic Mud	<u>1075</u> P.S.I.		M
B. First Initial Flow Pressure	<u>23</u> P.S.I.	<u>30</u> Mins.	_____ Mins.
C. First Final Flow Pressure	<u>23</u> P.S.I.	<u>30</u> Mins.	_____ Mins.
D. Initial Closed-in Pressure	<u>38</u> P.S.I.	<u>30</u> Mins.	_____ Mins.
E. Second Initial Flow Pressure	<u>28</u> P.S.I.	<u>45</u> Mins.	_____ Mins.
F. Second Final Flow Pressure	<u>28</u> P.S.I.		
G. Final Closed-in Pressure	<u>42</u> P.S.I.		
H. Final Hydrostatic Mud	<u>1066</u> P.S.I.		

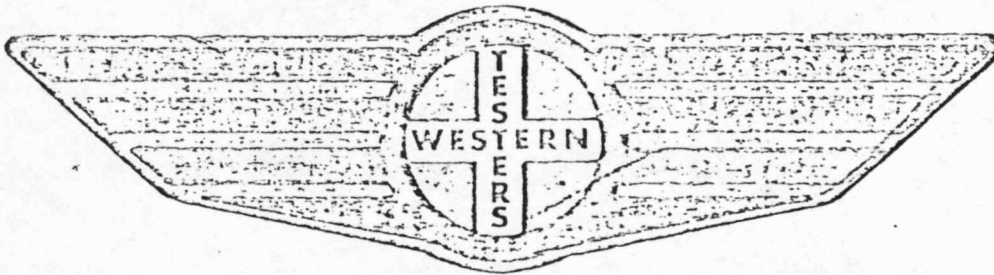
**PRESSURE BREAKDOWN**

Point Mins.	First Flow Pressure	Initial Shut-In	Second Flow Pressure	Final Shut-In	
	Breakdown: <u>7</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: <u>11</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: <u>7</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: <u>16</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	
	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	<u>23</u>	0	<u>23</u>	0	<u>28</u>
P 2		3	<u>24</u>	5	
P 3		6	<u>26</u>	10	
P 4		9	<u>28</u>	15	
P 5		12	<u>30</u>	20	
P 6		15	<u>32</u>	25	
P 7	<u>23</u>	18	<u>34</u>	30	<u>28</u>
P 8		21	<u>35</u>	35	
P 9		24	<u>36</u>	40	
P10		27	<u>37</u>	45	
P11		30	<u>38</u>	50	
P12		33		55	
P13		36		60	
P14		39		65	
P15		42		70	
P16		45		75	
P17		48		80	
P18		51		85	
P19		54		90	
P20		57		95	
100		60		100	

# FORMATION

# TEST

# REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company RANGE OIL COMPANY, INC. Lease and Well No. #1 MEYER  
Sec. 20 Twp. 30S Rge. 5E Test No. 1 Date 3/8/85

WESTERN TESTING COMPANY INC.  
SUBSURFACE PRESSURE SURVEY

DATE: 3/8/85  
CUSTOMER: RANGE OIL COMPANY INC.  
WELL: 1 TEST: 1  
ELEVATION (KB): 1327 FORMATION: KANSAS CITY A ZONE  
SECTION: 20 TOWNSHIP: 30S  
RANGE: 5E COUNTY: COWLEY STATE: KS  
GAUGE SN #3474 RANGE: 3000 CLOCK: 12

TICKET #8104  
LEASE: MEYER  
GEOLOGIST: OLSON

INTERVAL TEST FROM: 2281 FT TO: 2303 FT TOTAL DEPTH: 2303 FT  
DEPTH OF SELECTIVE ZONE: FT  
PACKER DEPTH: 2281 FT SIZE: 6 3/4 IN PAKER DEPTH: 2276 FT SIZE: 6 3/4 IN  
PACKER DEPTH: FT SIZE: IN PAKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: CO. TOOLS  
MUD TYPE: CHEMICAL VISCOSITY: 45  
WEIGHT: 9.1 WATER LOSS (CC):  
CHLORIDES (P.P.M.):  
JARS - MAKE: SERIAL NUMBER:  
DID WELL FLOW? NO REVERSED OUT?  
DRILL COLLAR LENGTH: 150 FT I.D.: 2.25 IN  
WEIGHT PIPE LENGTH: FT I.D.: IN  
DRILL PIPE LENGTH: 2111 FT I.D.: 3.8 IN  
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 OD IN  
ANCHOR LENGTH: 22 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: INITIAL FLOW PERIOD WEAK BLOW FOR 20 MINUTES.  
FINAL FLOW PERIOD WEAK BLOW FOR 10 MINUTES.

RECOVERED: 10 FT OF: MUD WITH GOOD SHOW OF FREE OIL ON TOP OF TOOL  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
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RECOVERED: FT OF:  
RECOVERED: FT OF:

REMARKS:

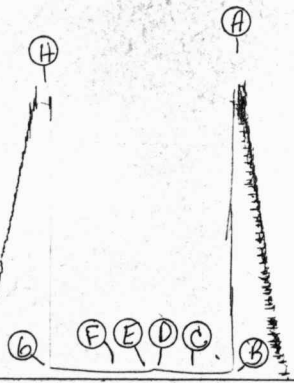
TIME SET PACKER(S): 10:00 PM TIME STARTED OFF BOTTOM: 12:15 AM  
WELL TEMPERATURE: 104 °F  
INITIAL HYDROSTATIC PRESSURE: (A) 1075 PSI  
INITIAL FLOW PERIOD MIN: 30 (B) 23 PSI TO (C) 23 PSI  
INITIAL CLOSED IN PERIOD MIN: 30 (D) 38 PSI  
FINAL FLOW PERIOD MIN: 30 (E) 28 PSI TO (F) 28 PSI  
FINAL CLOSED IN PERIOD MIN: 45 (G) 42 PSI  
FINAL HYDROSTATIC PRESSURE (H) 1066 PSI



DST # 1  
3474

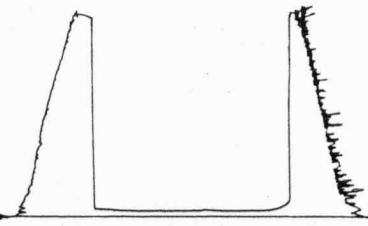
TKT # 8104

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TKT # 8104

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WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 8106

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

Elevation \_\_\_\_\_ Formation Cherokee Eff. Pay \_\_\_\_\_ Ft.

RO40 District Augusta Date 3-10-85 Customer Order No.
COMPANY NAME Range Oil Company
ADDRESS 220 West Douglas 540 Page Court Wichita 67202
LEASE AND WELL NO. Meyer #1 COUNTY Cowley STATE KS Sec. 20 Twp. 30S Rge. 5E
Mail Invoice To Same Co. Name #1 MEYER Address No. Copies Requested 1
Mail Charts To Same #1 MEYER Address No. Copies Requested 5

Formation Test No. 2 Interval Tested From 2897 ft. to 2919 ft. Total Depth 2919 ft.
Packer Depth 2897 ft. Size 6 3/4 in. Packer Depth \_\_\_\_\_ ft. Size \_\_\_\_\_ in.
Packer Depth 2893 ft. Size 6 3/4 in. Packer Depth \_\_\_\_\_ ft. Size \_\_\_\_\_ in.

Depth of Selective Zone Set \_\_\_\_\_
Top Recorder Depth (Inside) 2900 ft. Recorder Number 3474 Caps 3000
Bottom Recorder Depth (Outside) 2905 ft. Recorder Number 2607 Cap. 4150
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_

Drilling Contractor Rig #1 Drill Collar Length 150 I. D. 2.25 in.
Mud Type Chem Viscosity 41 Weight Pipe Length \_\_\_\_\_ I. D. \_\_\_\_\_ in.
Weight 9.6 Water Loss 10.4 cc. Drill Pipe Length 2727 I. D. 3.8 in.
Chlorides 1200 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 in.
Jars: Make 250 Serial Number \_\_\_\_\_ Anchor Length 22 ft. Size 5 1/2 in.
Did Well Flow? \_\_\_\_\_ Reversed Out \_\_\_\_\_ 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 x 1 1/2 in.

Blow: Very wk did 13 min, surge as tool opened second flow no flow

Recovered 5 ft. of mud
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Chlorides \_\_\_\_\_ P.P.M. Sample Jars used \_\_\_\_\_ Remarks: \_\_\_\_\_

Time On Location 12:01 A.M. Time Pick Up Tool 2:10 P.M. Time Off Location \_\_\_\_\_ A.M.
Time Set Packer(s) 34 P.M. Time Started Off Bottom 5:25 A.M. Maximum Temperature 112° P.M.
Initial Hydrostatic Pressure \_\_\_\_\_ (A) 1477 P.S.I.
Initial Flow Period \_\_\_\_\_ Minutes 30 (B) 37 P.S.I. to (C) 37 P.S.I.
Initial Closed In Period \_\_\_\_\_ Minutes 30 (D) 45 P.S.I.
Final Flow Period \_\_\_\_\_ Minutes 30 (E) 37 P.S.I. to (F) 37 P.S.I.
Final Closed In Period \_\_\_\_\_ Minutes 30 (G) 45 P.S.I.
Final Hydrostatic Pressure \_\_\_\_\_ (H) 1477 P.S.I.

COMPANY TERMS

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Test Approved By Robert Chen Signature of Customer or his authorized representative
Western Representative Kenny Kirkland 11/27

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 \$
Insurance \$
Telecopier \$
TOTAL \$

WESTERN TESTING CO., INC.

Pressure Data

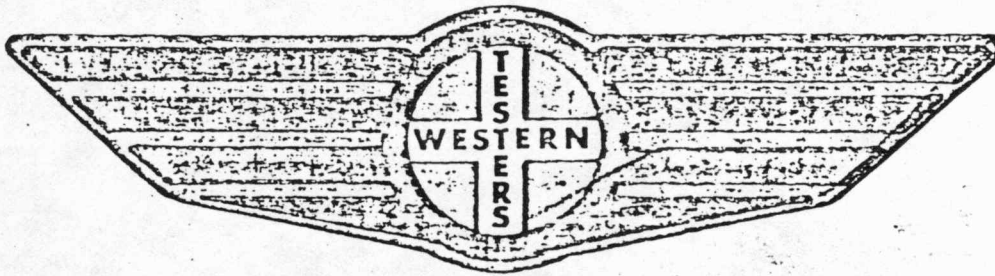
Date: 3-10-85 Test Ticket No. 8106  
 Recorder No. 3474 Capacity \_\_\_\_\_ Location \_\_\_\_\_ Ft. \_\_\_\_\_  
 Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_ °F

Point	Pressure	P.S.I.	Open Tool	Time Given	Time Computed
A. Initial Hydrostatic Mud	<u>1496</u>	P.S.I.	_____	_____	_____
B. First Initial Flow Pressure	<u>37</u>	P.S.I.	First Flow Pressure	<u>30</u> Mins.	_____ Mins.
C. First Final Flow Pressure	<u>37</u>	P.S.I.	Initial Closed-in Pressure	Mins.	_____ Mins.
D. Initial Closed-in Pressure	<u>39</u>	P.S.I.	Second Flow Pressure	Mins.	_____ Mins.
E. Second Initial Flow Pressure	<u>36</u>	P.S.I.	Final Closed-in Pressure	Mins.	_____ Mins.
F. Second Final Flow Pressure	<u>36</u>	P.S.I.			
G. Final Closed-in Pressure	<u>38</u>	P.S.I.			
H. Final Hydrostatic Mud	<u>1484</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>10</u> Inc.		Breakdown: <u>7</u> Inc.		Breakdown: <u>10</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>37</u>	0	<u>37</u>	0	<u>36</u>	0	<u>36</u>
P 2 5		3		5		3	
P 3 10		6		10		6	
P 4 15		9	<u>37</u>	15	<u>36</u>	9	
P 5 20		12	<u>38</u>	20		12	
P 6 25		15	<u>38</u>	25		15	<u>36</u>
P 7 30	<u>37</u>	18	<u>38</u>	30	<u>36</u>	18	<u>37</u>
P 8 35		21	<u>39</u>	35		21	<u>37</u>
P 9 40		24	<u>39</u>	40		24	<u>38</u>
P10 45		27	<u>39</u>	45		27	<u>38</u>
P11 50		30	<u>38</u>	50		30	
P12 55		33		55		33	
P13 60		36		60		36	
P14 65		39		65		39	
P15 70		42		70		42	
P16 75		45		75		45	
P17 80		48		80		48	
P18 85		51		85		51	
P19 90		54		90		54	
P20 95		57		95		57	
100		60		100		60	

# FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company RANGE OIL COMPANY, INC. Lease and Well No. #IMEXER Sec. 20 Twp. 30S Rge. 5E Test No. 2 Date 3/10/85

WESTERN TESTING COMPANY INC.  
SUBSURFACE PRESSURE SURVEY

DATE: 3/10/85  
CUSTOMER: RANGE OIL COMPANY INC.  
WELL: 1 TEST: 2  
ELEVATION (KB): 1327 FORMATION: CHEROKEE  
SECTION: 20 TOWNSHIP: 30S  
RANGE: 5E COUNTY: COWLEY STATE: KS  
GAUGE SN #3474 RANGE: 3000 CLOCK: 12

INTERVAL TEST FROM: 2897 FT TO: 2919 FT TOTAL DEPTH: 2919 FT  
DEPTH OF SELECTIVE ZONE: FT  
PACKER DEPTH: 2897 FT SIZE: 6 3/4 IN PAKER DEPTH: 2893 FT SIZE: 6 3/4 IN  
PACKER DEPTH: FT SIZE: IN PAKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: CO. TOOLS  
MUD TYPE: CHEMICAL VISCOSITY: 41  
WEIGHT: 9.6 WATER LOSS (CC): 10.4  
CHLORIDES (P.P.M.): 1200  
JARS - MAKE: SERIAL NUMBER:  
DID WELL FLOW? REVERSED OUT?  
DRILL COLLAR LENGTH: 150 FT I.D.: 2.25 IN  
WEIGHT PIPE LENGTH: FT I.D.: IN  
DRILL PIPE LENGTH: 2727 FT I.D.: 3.8 IN  
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 OD IN  
ANCHOR LENGTH: 22 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: INITIAL FLOW PERIOD VERY WEAK BLOW; DIED IN 13  
MINUTES; SURGE AS TOOL OPENED.  
FINAL FLOW PERIOD NO BLOW.

RECOVERED: 5 FT OF: MUD  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:

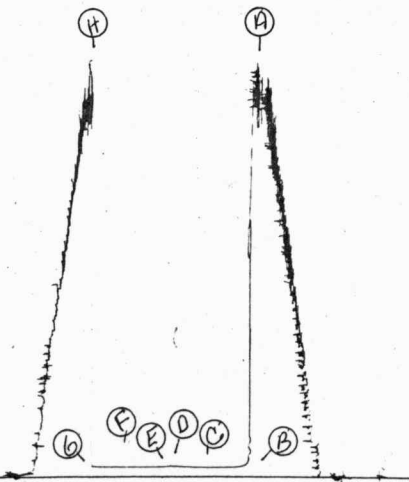
REMARKS:

TIME SET PACKER(S): 3:25 PM TIME STARTED OFF BOTTOM: 5:25 PM  
WELL TEMPERATURE: 112 °F  
INITIAL HYDROSTATIC PRESSURE: (A) 1496 PSI  
INITIAL FLOW PERIOD MIN: 30 (B) 37 PSI TO (C) 37 PSI  
INITIAL CLOSED IN PERIOD MIN: 27 (D) 39 PSI  
FINAL FLOW PERIOD MIN: 30 (E) 36 PSI TO (F) 36 PSI  
FINAL CLOSED IN PERIOD MIN: 27 (G) 38 PSI  
FINAL HYDROSTATIC PRESSURE (H) 1484 PSI



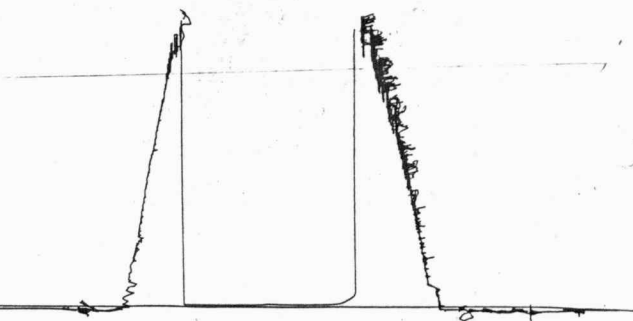
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V# 2  
347.4



TKT # 8106  
O

#2  
2605





WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 8107

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

Elevation 1327 Kb Formation Lower Bart. Eff. Pay Ft.

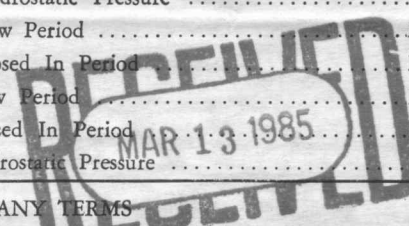
COMPANY NAME Range Oil Company
ADDRESS 220 West Douglas 240 Page Court Wichita 67202
LEASE AND WELL NO Meyer #1 COUNTY Cowley STATE KS Sec. 20 Twp. 30 S. Rge. 5 E
Mail Invoice To Same No. Copies Requested 1
Mail Charts To Same #1 MEYER No. Copies Requested 5

Formation Test No. 3 Interval Tested From 2938 ft. to 2952 ft. Total Depth 2952 ft.
Packer Depth 2938 ft. Size 6 3/4 in.
Packer Depth 2933 ft. Size 6 3/4 in.
Top Recorder Depth (Inside) 2940 ft. Recorder Number 3474 Cap. 3000
Bottom Recorder Depth (Outside) 2945 ft. Recorder Number 2605 Cap. 4150
Below Saddle Recorder Depth ft. Recorder Number Cap.
Drilling Contractor Reg #1 Drill Collar Length 150 I. D. 2.25 in.
Mud Type 925 Chem Viscosity 41 Weight Pipe Length I. D. in.
Weight 1200 9.6 Water Loss 10.4 cc. Drill Pipe Length 2768 I. D. 3.8 in.
Chlorides 1200 P.P.M. Test Tool Length 29 ft. Tool Size 5/12 in.
Jars: Make NO Serial Number Anchor Length 14 ft. Size 5/12 in.
Did Well Flow? NO Reversed Out NO 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 in.

Blow: Weak blow first flow, fair blow second flow

Recovered 600 ft. of gas in pipe
Recovered ft. of
Recovered 65 ft. of heavy oil cut mud 50% oil
Recovered ft. of
Recovered ft. of
Chlorides P.P.M. Sample Jars used Remarks:

Time On Location 1:45 A.M. Time Pick Up Tool 1:45 P.M. Time Off Location P.M.
Time Set Packer(s) A.M. Time Started Off Bottom A.M. Maximum Temperature 110 P.M.
Initial Hydrostatic Pressure (A) 1462 P.S.I.
Initial Flow Period Minutes 30 (B) 37 P.S.I. to (C) 30 P.S.I.
Initial Closed In Period Minutes 30 (D) 204 P.S.I.
Final Flow Period Minutes 60 (E) 30 P.S.I. to (F) 30 P.S.I.
Final Closed In Period Minutes 60 (G) 590 P.S.I.
Final Hydrostatic Pressure (H) 1462 P.S.I.



COMPANY TERMS
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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 Robert Olsen Signature of Customer or his authorized representative
Western Representative Kenny Kurland 1127

FIELD INVOICE table with items: Open Hole Test, Misrun, Straddle Test, Jars, Selective Zone, Safety Joint, Standby, Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler, Extra Charts, Insurance, Telecopier, TOTAL

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

Date 3-16-85 Test Ticket No. 8107  
 Recorder No. 3474 Capacity \_\_\_\_\_ Location \_\_\_\_\_ Ft. \_\_\_\_\_  
 Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_ °F

Point	Pressure	P.S.I.	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1477</u>	P.S.I.	_____	_____	_____
B First Initial Flow Pressure	<u>30</u>	P.S.I.	First Flow Pressure	<u>30</u> Mins.	_____ Mins.
C First Final Flow Pressure	<u>30</u>	P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	_____ Mins.
D Initial Closed-in Pressure	<u>203</u>	P.S.I.	Second Flow Pressure	<u>60</u> Mins.	_____ Mins.
E Second Initial Flow Pressure	<u>32</u>	P.S.I.	Final Closed-in Pressure	<u>60</u> Mins.	_____ Mins.
F Second Final Flow Pressure	<u>36</u>	P.S.I.			
G Final Closed-in Pressure	<u>600</u>	P.S.I.			
H Final Hydrostatic Mud	<u>1474</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>11</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>30</u>	0	<u>30</u>	0	<u>32</u>	0	<u>30</u>
P 2 5	<u>30</u>	3	<u>32</u>	5	<u>32</u>	3	<u>44</u>
P 3 10	<u>30</u>	6	<u>44</u>	10	<u>32</u>	6	<u>60</u>
P 4 15	<u>30</u>	9	<u>60</u>	15	<u>33</u>	9	<u>81</u>
P 5 20	<u>30</u>	12	<u>80</u>	20	<u>33</u>	12	<u>98</u>
P 6 25	<u>30</u>	15	<u>98</u>	25	<u>33</u>	15	<u>118</u>
P 7 30	<u>30</u>	18	<u>118</u>	30	<u>34</u>	18	<u>138</u>
P 8 35	<u>30</u>	21	<u>138</u>	35	<u>34</u>	21	<u>159</u>
P 9 40	<u>30</u>	24	<u>158</u>	40	<u>34</u>	24	<u>182</u>
P10 45	<u>30</u>	27	<u>180</u>	45	<u>35</u>	27	<u>206</u>
P11 50	<u>30</u>	30	<u>202</u>	50	<u>35</u>	30	<u>231</u>
P12 55	<u>30</u>	33	<u>222</u>	55	<u>36</u>	33	<u>259</u>
P13 60	<u>30</u>	36	<u>242</u>	60	<u>36</u>	36	<u>286</u>
P14 65	<u>30</u>	39	<u>262</u>	65	<u>36</u>	39	<u>316</u>
P15 70	<u>30</u>	42	<u>282</u>	70	<u>36</u>	42	<u>350</u>
P16 75	<u>30</u>	45	<u>302</u>	75	<u>36</u>	45	<u>385</u>
P17 80	<u>30</u>	48	<u>322</u>	80	<u>36</u>	48	<u>422</u>
P18 85	<u>30</u>	51	<u>342</u>	85	<u>36</u>	51	<u>467</u>
P19 90	<u>30</u>	54	<u>362</u>	90	<u>36</u>	54	<u>505</u>
P20 95	<u>30</u>	57	<u>382</u>	95	<u>36</u>	57	<u>548</u>
100	<u>30</u>	60	<u>402</u>	100	<u>36</u>	60	<u>600</u>



WESTERN TESTING COMPANY INC.  
SUBSURFACE PRESSURE SURVEY

DATE: 3/11/85 TICKET #8107  
 CUSTOMER: RANGE OIL COMPANY INC. LEASE: MEYER  
 WELL: 1 TEST: 3 GEOLOGIST: OLSEN  
 ELEVATION (KB): 1327 FORMATION: LOWER BARTLESVILLE  
 SECTION: 20 TOWNSHIP: 30S  
 RANGE: 5E COUNTY: COWLEY STATE: KS  
 GAUGE SN #3474 RANGE: 3000 CLOCK: 12

INTERVAL TEST FROM: 2938 FT TO: 2952 FT TOTAL DEPTH: 2952 FT  
 DEPTH OF SELECTIVE ZONE: FT  
 PACKER DEPTH: 2938 FT SIZE: 6 3/4 IN PACKER DEPTH: 2933 FT SIZE: 6 3/4 IN  
 PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: CO. TOOLS  
 MUD TYPE: CHEMICAL VISCOSITY: 41  
 WEIGHT: 9.6 WATER LOSS (CC): 10.4  
 CHLORIDES (P.P.M.): 1200  
 JARS - MAKE: SERIAL NUMBER:  
 DID WELL FLOW? NO REVERSED OUT? NO  
 DRILL COLLAR LENGTH: 150 FT I.D.: 2.25 IN  
 WEIGHT PIPE LENGTH: FT I.D.: IN  
 DRILL PIPE LENGTH: 2768 FT I.D.: 3.8 IN  
 TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 OD IN  
 ANCHOR LENGTH: 14 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: INITIAL FLOW PERIOD WEAK BLOW.  
 FINAL FLOW PERIOD FAIR BLOW.

RECOVERED: 65 FT OF: HEAVY OIL CUT MUD (50% OIL)  
 RECOVERED: FT OF:  
 RECOVERED: FT OF:  
 RECOVERED: FT OF:  
 RECOVERED: FT OF:  
 RECOVERED: FT OF:  
 RECOVERED: FT OF:  
 RECOVERED: FT OF:  
 RECOVERED: FT OF:  
 RECOVERED: FT OF:

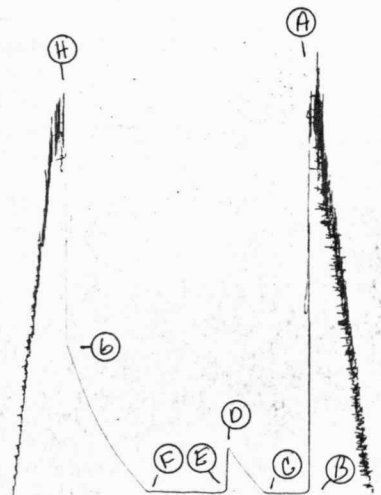
REMARKS:

TIME SET PACKER(S): TIME STARTED OFF BOTTOM:  
 WELL TEMPERATURE: 111 °F  
 INITIAL HYDROSTATIC PRESSURE: (A) 1477 PSI  
 INITIAL FLOW PERIOD MIN: 30 (B) 30 PSI TO (C) 30 PSI  
 INITIAL CLOSED IN PERIOD MIN: 30 (D) 203 PSI  
 FINAL FLOW PERIOD MIN: 60 (E) 32 PSI TO (F) 36 PSI  
 FINAL CLOSED IN PERIOD MIN: 60 (G) 600 PSI  
 FINAL HYDROSTATIC PRESSURE (H) 1474 PSI



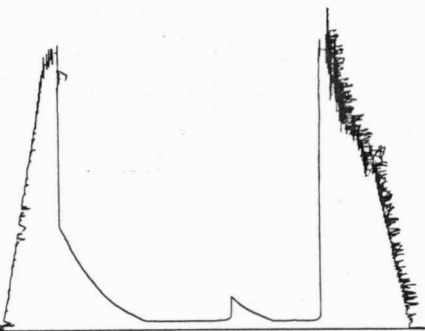
TKI # 8107  
I

3774  
DST # 3



TKI # 8107  
O

2605  
DST # 3





WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 8108

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

Elevation 1327 Kb Formation Miss Eff. Pay Ft.

RO40 District 13 August 20 Date 3-11-85 Customer Order No.

COMPANY NAME Range Oil Company Inc.

ADDRESS 220 West Douglas 240 Page Court Wichita Ks 67202

LEASE AND WELL NO Meyer #1 COUNTY Cowley STATE Ks Sec. 20 Twp 30S Rge. 5E

Mail Invoice To Same Co. Name No. Copies Requested 1

Mail Charts To Same & MEYER Address No. Copies Requested 5

Formation Test No. 4 Interval Tested From 2958 ft. to 2973 ft. Total Depth 2973 ft.

Packer Depth 2958 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 2953 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 2960 ft. Recorder Number 3474 Cap 3000

Bottom Recorder Depth (Outside) 2965 ft. Recorder Number 2605 Cap 4150

Below Saddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Reg #1 Drill Collar Length 150 I. D. 2.25 in.

Mud Type Chem Viscosity 41.4 Weight Pipe Length I. D. in.

Weight 9.6 Water Loss 10 cc. Drill Pipe Length 2788 I. D. 3.8 in.

Chlorides 1200 P.P.M. Test Tool Length 20 ft. Tool Size 5/12 in.

Jars: Make No Serial Number Anchor Length 15 ft. Size 5/12 in.

Did Well Flow? No Reversed Out No 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 x 11 in.

Blow: fair blow first flow, weak blow second flow

Recovered 190 ft. of salt water

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Chlorides P.P.M. Sample Jars used Remarks: One chart

Time On Location 10:30 A.M. Time Pick Up Tool 6:30 A.M. Time Off Location P.M.

Time Set Packer(s) A.M. Time Started Off Bottom P.M. Maximum Temperature 112.0

Initial Hydrostatic Pressure (A) 1477 P.S.I.

Initial Flow Period Minutes 30 (B) 45 P.S.I. to (C) 60 P.S.I.

Initial Closed In Period Minutes 30 (D) 1015 P.S.I.

Final Flow Period Minutes 60 (E) 85 P.S.I. to (F) 98 P.S.I.

Final Closed In Period Minutes 60 (G) 1022 P.S.I.

Final Hydrostatic Pressure (H) 1477 P.S.I.

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 Albert Olsen Signature of Customer or his authorized representative

Western Representative Kenny Kerkendall 1127

FIELD INVOICE

Table with 2 columns: Item and Price. Items include Open Hole Test (\$550), Misrun, Straddle Test, Jars, Selective Zone, Safety Joint, Standby, Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler, Extra Charts, Insurance, Telecopier, and TOTAL.

WESTERN TESTING CO., INC.

Pressure Data

Date 3-11-85 Test Ticket No. 8168  
 Recorder No. 3474 Capacity \_\_\_\_\_ Location \_\_\_\_\_  
 Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_

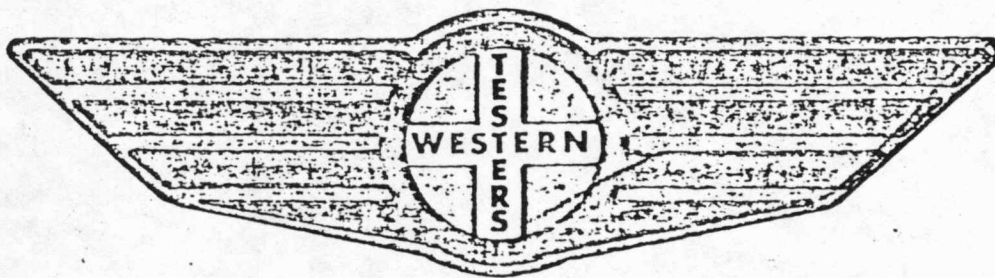
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1492</u> P.S.I.	Open Tool		M
B First Initial Flow Pressure	<u>42</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	Min
C First Final Flow Pressure	<u>63</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	Min
D Initial Closed-in Pressure	<u>1010</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	Min
E Second Initial Flow Pressure	<u>89</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins.	Min
F Second Final Flow Pressure	<u>100</u> P.S.I.			
G Final Closed-in Pressure	<u>1022</u> P.S.I.			
H Final Hydrostatic Mud	<u>1469</u> P.S.I.			

PRESSURE BREAKDOWN

<p><b>First Flow Pressure</b>                  Breakdown: <u>7</u> Inc.                  of <u>5</u> mins. and a                  final inc. of <u>0</u> Min.</p>	<p><b>Initial Shut-In</b>                  Breakdown: <u>11</u> Inc.                  of <u>3</u> mins. and a                  final inc. of <u>0</u> Min.</p>	<p><b>Second Flow Pressure</b>                  Breakdown: <u>13</u> Inc.                  of <u>5</u> mins. and a                  final inc. of <u>0</u> Min.</p>	<p><b>Final Shut-In</b>                  Breakdown: <u>23</u> Inc.                  of <u>3</u> mins. and a                  final inc. of <u>0</u> Min.</p>
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Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>42</u>	0	<u>63</u>	0	<u>89</u>	0	<u>100</u>
P 2 5	<u>42</u>	3	<u>130</u>	5	<u>89</u>	3	<u>152</u>
P 3 10	<u>42</u>	6	<u>382</u>	10	<u>89</u>	6	<u>271</u>
P 4 15	<u>46</u>	9	<u>759</u>	15	<u>89</u>	9	<u>468</u>
P 5 20	<u>51</u>	12	<u>882</u>	20	<u>90</u>	12	<u>717</u>
P 6 25	<u>57</u>	15	<u>923</u>	25	<u>91</u>	15	<u>812</u>
P 7 30	<u>63</u>	18	<u>955</u>	30	<u>93</u>	18	<u>862</u>
P 8 35		21	<u>973</u>	35	<u>95</u>	21	<u>895</u>
P 9 40		24	<u>988</u>	40	<u>96</u>	24	<u>920</u>
P10 45		27	<u>1002</u>	45	<u>97</u>	27	<u>936</u>
P11 50		30	<u>1010</u>	50	<u>98</u>	30	<u>952</u>
P12 55		33		55	<u>99</u>	33	<u>964</u>
P13 60		36		60	<u>100</u>	36	<u>976</u>
P14 65		39		65		39	<u>983</u>
P15 70		42		70		42	<u>991</u>
P16 75		45		75		45	<u>997</u>
P17 80		48		80		48	<u>1003</u>
P18 85		51		85		51	<u>1009</u>
P19 90		54		90		54	<u>1013</u>
P20 95		57		95		57	<u>1016</u>
100		60		100		60	<u>1018</u>
						63	<u>1020</u>
						66	<u>1022</u>

# FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company RANGE OIL COMPANY, INC. Lease and Well No. #1MEYER Sec. 20 Twp. 30S Rge. 2E Jct. NO. 4 Date 3/11/02

WESTERN TESTING COMPANY INC.  
SUBSURFACE PRESSURE SURVEY

DATE: 3/11/85 TICKET #8108  
CUSTOMER: RANGE OIL COMPANY INC. LEASE: MEYER  
WELL: 1 TEST: 4 GEOLOGIST: OLSEN  
ELEVATION (KB): 1327 FORMATION: MISSISSIPPI  
SECTION: 20 TOWNSHIP: 30S  
RANGE: 5E COUNTY: COWLEY STATE: KS  
GAUGE SN #3474 RANGE: 3000 CLOCK: 12

INTERVAL TEST FROM: 2958 FT TO: 2973 FT TOTAL DEPTH: 2973 FT  
DEPTH OF SELECTIVE ZONE: FT  
PACKER DEPTH: 2958 FT SIZE: 6 3/4 IN PACKER DEPTH: 2953 FT SIZE: 6 3/4 IN  
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: CO. TOOLS  
MUD TYPE: CHEMICAL VISCOSITY: 41  
WEIGHT: 9.6 WATER LOSS (CC): 10.4  
CHLORIDES (P.P.M.): 1200  
JARS - MAKE: SERIAL NUMBER:  
DID WELL FLOW? NO REVERSED OUT? NO  
DRILL COLLAR LENGTH: 150 FT I.D.: 2.25 IN  
WEIGHT PIPE LENGTH: FT I.D.: IN  
DRILL PIPE LENGTH: 2788 FT I.D.: 3.8 IN  
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 OD IN  
ANCHOR LENGTH: 15 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: INITIAL FLOW PERIOD FAIR BLOW.  
FINAL FLOW PERIOD WEAK BLOW.

RECOVERED: 190 FT OF: SALT WATER  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:

REMARKS: ONE CHART!

TIME SET PACKER(S): 6:30 PM TIME STARTED OFF BOTTOM:  
WELL TEMPERATURE: 112 °F  
INITIAL HYDROSTATIC PRESSURE: (A) 1492 PSI  
INITIAL FLOW PERIOD MIN: 30 (B) 42 PSI TO (C) 63 PSI  
INITIAL CLOSED IN PERIOD MIN: 30 (D) 1010 PSI  
FINAL FLOW PERIOD MIN: 60 (E) 89 PSI TO (F) 100 PSI  
FINAL CLOSED IN PERIOD MIN: 66 (G) 1022 PSI  
FINAL HYDROSTATIC PRESSURE (H) 1469 PSI



TKI # 8108

DST # 4

