



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 9870

OK

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

Elevation 1677 K.B. Formation Conglomerate Eff. Pay Ft.

District Great Bend Date 6-25-85 Customer Order No.
COMPANY NAME Range Oil Co. Inc.

ADDRESS 240 Page Court 220 W Douglas, Wichita, KS. 67202

LEASE AND WELL NO #3 Williams "C" COUNTY Rice STATE KS. Sec. 7 Twp. 18s Rge. 6w

Mail Invoice To Same As Above No. Copies Requested 5

Co. Name #3 "C" WILLIAMS Address No. Copies Requested 5

Formation Test No. 1 Interval Tested From 3214 ft. to 3244 ft. Total Depth 3244 ft.
Packer Depth 3209 ft. Size 6 5/8 in. Packer Depth ft. Size in.
Packer Depth 3214 ft. Size 6 5/8 in. Packer Depth ft. Size in.
Depth of Selective Zone Set

Top Recorder Depth (Inside) 3234 ft. Recorder Number 1563 Cap. 4200
Bottom Recorder Depth (Outside) 3237 ft. Recorder Number 13520 Cap. 4200
Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Range Rig Drill Collar Length 120 I. D. 2.7 in.
Mud Type Starch Viscosity 45 Weight Pipe Length I. D. in.
Weight 9.8 Water Loss 12.8 cc. Drill Pipe Length 3073 I. D. 3.8 in.
Chlorides 77,000 P.P.M. Test Tool Length 21 ft. Tool Size 5 3/4 in.
Jars: Make Serial Number Anchor Length 30 ft. Size 5 3/4 in.
Did Well Flow? Reversed Out 140 Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
Main Hole Size 7 3/8 in. Tool Joint Size 4 1/2 in.

Blow: 2" Increased To 5" By End Of First F.P.
Good Throughout 2nd Opening.

Recovered 90 ft. of Gas In Pipe
Recovered 100 ft. of Heavily Oil & Gas Cut Mud (50% Mud 30% Oil 20% Gas)
Recovered 120 ft. of Gassy Muddy Oil (10% Mud 5% Water 60% Oil 25% Gas)
Recovered ft. of
Recovered ft. of Some Free Oil On Top Of Tool.
Chlorides P.P.M. Sample Jars used Remarks:

Time On Location 2:00 A.M. Time Pick Up Tool 2:15 A.M. Time Off Location 9:00 A.M.
Time Set Packer(s) 3:43 P.M. Time Started Off Bottom 6:45 P.M. Maximum Temperature 107
Initial Hydrostatic Pressure (A) 1761 P.S.I.
Initial Flow Period Minutes 30 (B) 75 P.S.I. to (C) 96 P.S.I.
Initial Closed In Period Minutes 30 (D) 484 P.S.I.
Final Flow Period Minutes 60 (E) 96 P.S.I. to (F) 107 P.S.I.
Final Closed In Period Minutes 60 (G) 644 P.S.I.
Final Hydrostatic Pressure (H) 1761 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 Chen Signature of Customer or his authorized representative

Western Representative Denis Wondra Thank you

FIELD INVOICE

Open Hole Test \$ 550
Miscrun \$
Straddle Test \$
Jars \$
Selective Zone \$
Safety Joint \$
Standby \$
Evaluation \$
Extra Packer \$
Circ. Sub. \$
Mileage \$
Fluid Sampler \$
Extra Charts \$
Insurance \$
Telecopier \$
TOTAL \$

2275

WESTERN TESTING CO., INC.

Pressure Data

Date 6-25

Test Ticket No. 9870

Recorder No. 1563

Capacity \_\_\_\_\_ Location \_\_\_\_\_ Ft.

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

| Point                          | Pressure    |        | Time Given      | Time Computed   |
|--------------------------------|-------------|--------|-----------------|-----------------|
| A Initial Hydrostatic Mud      | <u>1768</u> | P.S.I. |                 |                 |
| B First Initial Flow Pressure  | <u>85</u>   | P.S.I. | <u>30</u> Mins. | <u>30</u> Mins. |
| C First Final Flow Pressure    | <u>99</u>   | P.S.I. | <u>30</u> Mins. | <u>27</u> Mins. |
| D Initial Closed-in Pressure   | <u>488</u>  | P.S.I. | <u>60</u> Mins. | <u>60</u> Mins. |
| E Second Initial Flow Pressure | <u>111</u>  | P.S.I. | <u>60</u> Mins. | <u>63</u> Mins. |
| F Second Final Flow Pressure   | <u>115</u>  | P.S.I. |                 |                 |
| G Final Closed-in Pressure     | <u>654</u>  | P.S.I. |                 |                 |
| H Final Hydrostatic Mud        | <u>1748</u> | P.S.I. |                 |                 |

PRESSURE BREAKDOWN

First Flow Pressure  
Breakdown: 7 Inc.  
of 5 mins. and a  
final inc. of 0 Min.

Initial Shut-In  
Breakdown: 10 Inc.  
of 3 mins. and a  
final inc. of 0 Min.

Second Flow Pressure  
Breakdown: 13 Inc.  
of 5 mins. and a  
final inc. of 0 Min.

Final Shut-In  
Breakdown: 22 Inc.  
of 3 mins. and a  
final inc. of 0 Min.

| Point Mins. | Press.                       | Point Minutes | Press.     | Point Minutes | Press.     | Point Minutes | Press.     |
|-------------|------------------------------|---------------|------------|---------------|------------|---------------|------------|
| P 1 0       | <u>85</u>                    | 0             | <u>99</u>  | 0             | <u>111</u> | 0             | <u>115</u> |
| P 2 5       | <u>85</u>                    | 3             | <u>101</u> | 5             | <u>111</u> | 3             | <u>118</u> |
| P 3 10      | <u>85</u>                    | 6             | <u>109</u> | 10            | <u>111</u> | 6             | <u>125</u> |
| P 4 15      | <u>85</u>                    | 9             | <u>130</u> | 15            | <u>111</u> | 9             | <u>137</u> |
| P 5 20      | <u>94</u>                    | 12            | <u>162</u> | 20            | <u>111</u> | 12            | <u>146</u> |
| P 6 25      | <u>105</u> <small>OK</small> | 15            | <u>211</u> | 25            | <u>111</u> | 15            | <u>161</u> |
| P 7 30      | <u>99</u>                    | 18            | <u>282</u> | 30            | <u>111</u> | 18            | <u>181</u> |
| P 8 35      |                              | 21            | <u>358</u> | 35            | <u>112</u> | 21            | <u>211</u> |
| P 9 40      |                              | 24            | <u>427</u> | 40            | <u>112</u> | 24            | <u>244</u> |
| P10 45      |                              | 27            | <u>488</u> | 45            | <u>113</u> | 27            | <u>283</u> |
| P11 50      |                              | 30            |            | 50            | <u>113</u> | 30            | <u>324</u> |
| P12 55      |                              | 33            |            | 55            | <u>114</u> | 33            | <u>362</u> |
| P13 60      |                              | 36            |            | 60            | <u>115</u> | 36            | <u>400</u> |
| P14 65      |                              | 39            |            | 65            |            | 39            | <u>438</u> |
| P15 70      |                              | 42            |            | 70            |            | 42            | <u>471</u> |
| P16 75      |                              | 45            |            | 75            |            | 45            | <u>505</u> |
| P17 80      |                              | 48            |            | 80            |            | 48            | <u>535</u> |
| P18 85      |                              | 51            |            | 85            |            | 51            | <u>565</u> |
| P19 90      |                              | 54            |            | 90            |            | 54            | <u>593</u> |
| P20 95      |                              | 57            |            | 95            |            | 57            | <u>618</u> |
| 100         |                              | 60            |            | 100           |            | 60            | <u>640</u> |
|             |                              |               |            |               |            | 63            | <u>654</u> |



WESTERN TESTING CO. INC.  
SUBSURFACE PRESSURE SURVEY

DATE: 6-25-85 TICKET #9870  
 CUSTOMER: RANGE OIL COMPANY INC. LEASE: "C" WILLIAMS  
 WELL: 3 TEST: 1 GEOLOGIST: R. OLSEN  
 ELEVATION (KB): 1677 FORMATION: CONGLOMERATE  
 SECTION: 7 TOWNSHIP: 18S  
 RANGE: 6W COUNTY: RICE STATE: KANSAS  
 GAUGE SN #1563 RANGE: 4200 CLOCK: 12

INTERVAL TEST FROM: 3214 FT TO: 3244 FT TOTAL DEPTH: 3244 FT  
 DEPTH OF SELECTIVE ZONE: FT  
 PACKER DEPTH: 3209 FT SIZE: 6 5/8 IN PACKER DEPTH: 3214 FT SIZE: 6 5/8 IN  
 PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RANGE DRLG. RIG #1  
 MUD TYPE: STARCH VISCOSITY: 45  
 WEIGHT: 9.8 WATER LOSS (CC): 12.8  
 CHLORIDES (P.P.M.): 77000  
 JARS - MAKE: SERIAL NUMBER:  
 DID WELL FLOW? REVERSED OUT? NO  
 DRILL COLLAR LENGTH: 120 FT I.D.: 2.7 IN  
 WEIGHT PIPE LENGTH: FT I.D.: IN  
 DRILL PIPE LENGTH: 3073 FT I.D.: 3.8 IN  
 TEST TOOL LENGTH: 21 FT TOOL SIZE: 5 1/2 OD IN  
 ANCHOR LENGTH: 30 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 2 INCH BLOW  
 INCREASED TO 5 INCH BLOW.  
 FINAL FLOW PERIOD GOOD BLOW.

RECOVERED: 90 FT OF: GAS ABOVE FLUID.  
 RECOVERED: 100 FT OF: HEAVILY OIL & GAS CUT MUD  
 RECOVERED: FT OF: (50% MUD; 30% OIL; 20% GAS).  
 RECOVERED: 120 FT OF: GASSY MUDDY OIL  
 RECOVERED: FT OF: (10% MUD; 5% WATER; 60% OIL; 25% GAS).  
 RECOVERED: FT OF: SOME FREE OIL ON TOP OF TOOL.  
 RECOVERED: FT OF:  
 RECOVERED: FT OF:  
 RECOVERED: FT OF:

REMARKS:

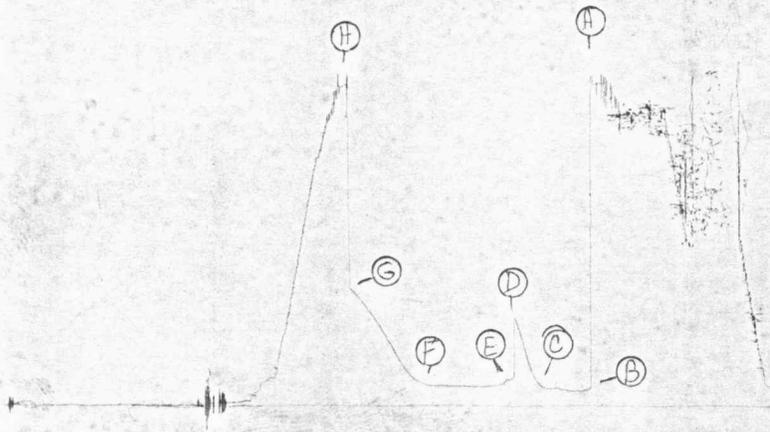
TIME SET PACKER(S): 3:43 PM TIME STARTED OFF BOTTOM: 6:45 PM  
 WELL TEMPERATURE: 107 °F  
 INITIAL HYDROSTATIC PRESSURE: (A) 1768 PSI  
 INITIAL FLOW PERIOD MIN: 30 (B) 85 PSI TO (C) 99 PSI  
 INITIAL CLOSED IN PERIOD MIN: 27 (D) 488 PSI  
 FINAL FLOW PERIOD MIN: 60 (E) 111 PSI TO (F) 115 PSI  
 FINAL CLOSED IN PERIOD MIN: 63 (G) 654 PSI  
 FINAL HYDROSTATIC PRESSURE (H) 1748 PSI



TKT #9870

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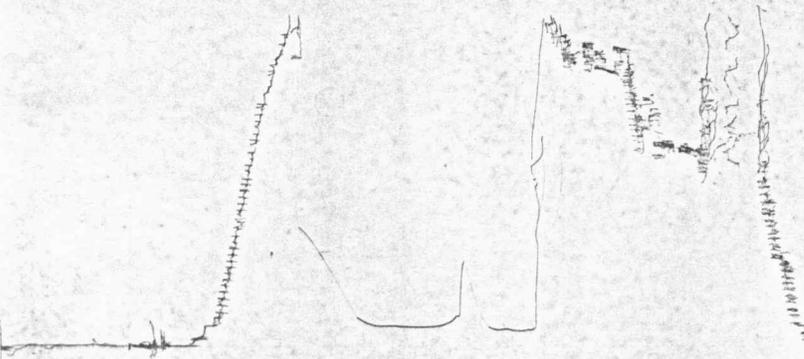
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TKT #9870

O

135.20





WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET NO 9871

OK

P. O. BOX 1599 WICHITA, KANSAS 67201

Elevation 1677 K.B. Formation MISS. Eff. Pay Ft.

District Great Bend Date 6-26-85 Customer Order No.

COMPANY NAME Range Oil Co., Inc.

ADDRESS 240 Page Court, 220 W. Douglas, Wichita, KS. 67202

LEASE AND WELL NO. #3 William "C" COUNTY Rice STATE KS. Sec. 7 Twp. 18s Rge. 6w

Mail Invoice To Same As Above No. Copies Requested 5

Co. Name #3 "C" WILLIAMS" Address No. Copies Requested 5

Mail Charts To Address

Formation Test No. 2 Interval Tested From 3245 ft. to 3262 ft. Total Depth 3262 ft.

Packer Depth 3240 ft. Size 6 7/8 in. Packer Depth ft. Size in.

Packer Depth 3245 ft. Size 6 7/8 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 3252 ft. Recorder Number 1563 Cap. 4200

Bottom Recorder Depth (Outside) 3255 ft. Recorder Number 13520 Cap. 4200

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Range Rig 1 Drill Collar Length 120 I. D. 2.7 in.

Mud Type Starch Viscosity 53 Weight Pipe Length I. D. in.

Weight 9.8 Water Loss 10.0 cc. Drill Pipe Length 3104 I. D. 3.8 in.

Chlorides 77,000 P.P.M. Test Tool Length 21 ft. Tool Size 5500 in.

Jars: Make Serial Number Anchor Length 17 ft. Size 5500 in.

Did Well Flow? 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 1 1/4 in.

Blow: Fair Throughout Flow Periods.

Recovered 60 ft. of Gas In Pipe

Recovered 130 ft. of Heavily Oil + Gas Cut Mud (20% Mud 25% Oil 55% Gas)

Recovered 20 ft. of Oil + Gas Cut Watery Mud

Recovered 40 ft. of Oil + Gas Cut Watery Mud (10% Oil) 5% Gas 20% Mud 65% Water

Recovered 120 ft. of Gas Cut Water - Trace of Oil

Chlorides P.P.M. Sample Jars used 2 Remarks: Chlorides 85,000 PPM

Time On Location 4:00 A.M. Time Pick Up Tool 5:00 P.M. Time Off Location 12:00 A.M.

Time Set Packer(s) 6:13 P.M. Time Started Off Bottom 9:15 P.M. Maximum Temperature 109

Initial Hydrostatic Pressure (A) 1808 P.S.I.

Initial Flow Period Minutes 30 (B) 64 P.S.I. to (C) 96 P.S.I.

Initial Closed In Period Minutes 30 (D) 77.2 P.S.I.

Final Flow Period Minutes 60 (E) 107 P.S.I. to (F) 140 P.S.I.

Final Closed In Period Minutes 60 (G) 79.3 P.S.I.

Final Hydrostatic Pressure (H) 1797 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 Olson Signature of Customer or his authorized representative

Western Representative Dennis Wondra Thank you

2375

FIELD INVOICE

Table with 2 columns: Item Name and Price. Items include Open Hole Test, 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 6-26

Test Ticket No. 9871

Recorder No. 1563

Capacity \_\_\_\_\_ Location \_\_\_\_\_ Ft

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

| Point                           | Pressure           |                            | Time Given      | Time Computed   |
|---------------------------------|--------------------|----------------------------|-----------------|-----------------|
| A. Initial Hydrostatic Mud      | <u>1815</u> P.S.I. | Open Tool                  |                 | M               |
| B. First Initial Flow Pressure  | <u>75</u> P.S.I.   | First Flow Pressure        | <u>30</u> Mins. | <u>30</u> Mins. |
| C. First Final Flow Pressure    | <u>105</u> P.S.I.  | Initial Closed-in Pressure | <u>30</u> Mins. | <u>30</u> Mins. |
| D. Initial Closed-in Pressure   | <u>771</u> P.S.I.  | Second Flow Pressure       | <u>60</u> Mins. | <u>60</u> Mins. |
| E. Second Initial Flow Pressure | <u>120</u> P.S.I.  | Final Closed-in Pressure   | <u>60</u> Mins. | <u>60</u> Mins. |
| F. Second Final Flow Pressure   | <u>142</u> P.S.I.  |                            |                 |                 |
| G. Final Closed-in Pressure     | <u>789</u> P.S.I.  |                            |                 |                 |
| H. Final Hydrostatic Mud        | <u>1775</u> P.S.I. |                            |                 |                 |

PRESSURE BREAKDOWN

First Flow Pressure  
Breakdown: 7 Inc.  
of 5 mins. and a  
final inc. of 0 Min.

Initial Shut-In  
Breakdown: 11 Inc.  
of 3 mins. and a  
final inc. of 0 Min.

Second Flow Pressure  
Breakdown: 13 Inc.  
of 5 mins. and a  
final inc. of 0 Min.

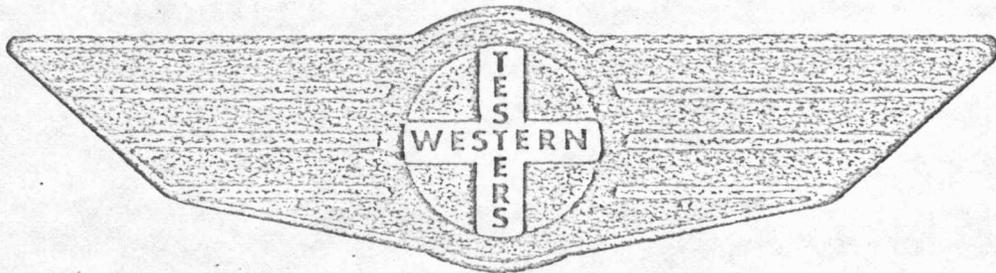
Final Shut-In  
Breakdown: 21 Inc.  
of 3 mins. and a  
final inc. of 0 Min.

| Point Mins. | Press.               | Point Minutes | Press.     | Point Minutes | Press.     | Point Minutes | Press.     |
|-------------|----------------------|---------------|------------|---------------|------------|---------------|------------|
| P 1 0       | <u>75</u>            | 0             | <u>105</u> | 0             | <u>120</u> | 0             | <u>142</u> |
| P 2 5       | <u>75</u>            | 3             | <u>205</u> | 5             |            | 3             | <u>269</u> |
| P 3 10      | <u>86</u>            | 6             | <u>379</u> | 10            |            | 6             | <u>381</u> |
| P 4 15      | <u>106</u>           | 9             | <u>511</u> | 15            |            | 9             | <u>477</u> |
| P 5 20      | <u>113</u>           | 12            | <u>596</u> | 20            | <u>120</u> | 12            | <u>543</u> |
| P 6 25      | <u>108</u> <i>ok</i> | 15            | <u>647</u> | 25            | <u>122</u> | 15            | <u>585</u> |
| P 7 30      | <u>105</u>           | 18            | <u>681</u> | 30            | <u>124</u> | 18            | <u>617</u> |
| P 8 35      |                      | 21            | <u>712</u> | 35            | <u>127</u> | 21            | <u>645</u> |
| P 9 40      |                      | 24            | <u>736</u> | 40            | <u>130</u> | 24            | <u>666</u> |
| P10 45      |                      | 27            | <u>755</u> | 45            | <u>134</u> | 27            | <u>687</u> |
| P11 50      |                      | 30            | <u>771</u> | 50            | <u>137</u> | 30            | <u>701</u> |
| P12 55      |                      | 33            |            | 55            | <u>140</u> | 33            | <u>719</u> |
| P13 60      |                      | 36            |            | 60            | <u>142</u> | 36            | <u>729</u> |
| P14 65      |                      | 39            |            | 65            |            | 39            | <u>738</u> |
| P15 70      |                      | 42            |            | 70            |            | 42            | <u>747</u> |
| P16 75      |                      | 45            |            | 75            |            | 45            | <u>756</u> |
| P17 80      |                      | 48            |            | 80            |            | 48            | <u>765</u> |
| P18 85      |                      | 51            |            | 85            |            | 51            | <u>771</u> |
| P19 90      |                      | 54            |            | 90            |            | 54            | <u>777</u> |
| P20 95      |                      | 57            |            | 95            |            | 57            | <u>783</u> |
| 100         |                      | 60            |            | 100           |            | 60            | <u>789</u> |

# FORMATION

# TEST

# REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company RANGE OIL COMPANY, INC. Lease & Well No. #3 "C" WILLIAMS Sec. 7 Twp. 18S Rge. 6W Test No. 2 Date 6/26/85

WESTERN TESTING CO. INC.  
SUBSURFACE PRESSURE SURVEY

DATE: 6-26-85 TICKET #9871  
 CUSTOMER: RANGE OIL COMPANY INC. LEASE: "C" WILLIAMS  
 WELL: 3 TEST: 2 GEOLOGIST: R. OLSEN  
 ELEVATION (KB): 1677 FORMATION: MISSISSIPPI  
 SECTION: 7 TOWNSHIP: 18S  
 RANGE: 6W COUNTY: RICE STATE: KANSAS  
 GAUGE SN #1563 RANGE: 4200 CLOCK: 12

INTERVAL TEST FROM: 3245 FT TO: 3262 FT TOTAL DEPTH: 3262 FT  
 DEPTH OF SELECTIVE ZONE: FT  
 PACKER DEPTH: 3240 FT SIZE: 6 5/8 IN PACKER DEPTH: 3245 FT SIZE: 6 5/8 IN  
 PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RANGE DRLG. RIG #1  
 MUD TYPE: STARCH VISCOSITY: 53  
 WEIGHT: 9.8 WATER LOSS (CC): 10.0  
 CHLORIDES (P.P.M.): 77000

JARS - MAKE: SERIAL NUMBER:  
 DID WELL FLOW? REVERSED OUT? NO  
 DRILL COLLAR LENGTH: 120 FT I.D.: 2.7 IN  
 WEIGHT PIPE LENGTH: FT I.D.: IN  
 DRILL PIPE LENGTH: 3104 FT I.D.: 3.8 IN  
 TEST TOOL LENGTH: 21 FT TOOL SIZE: 5 1/2 OD IN  
 ANCHOR LENGTH: 17 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 THROUGHOUT TEST.

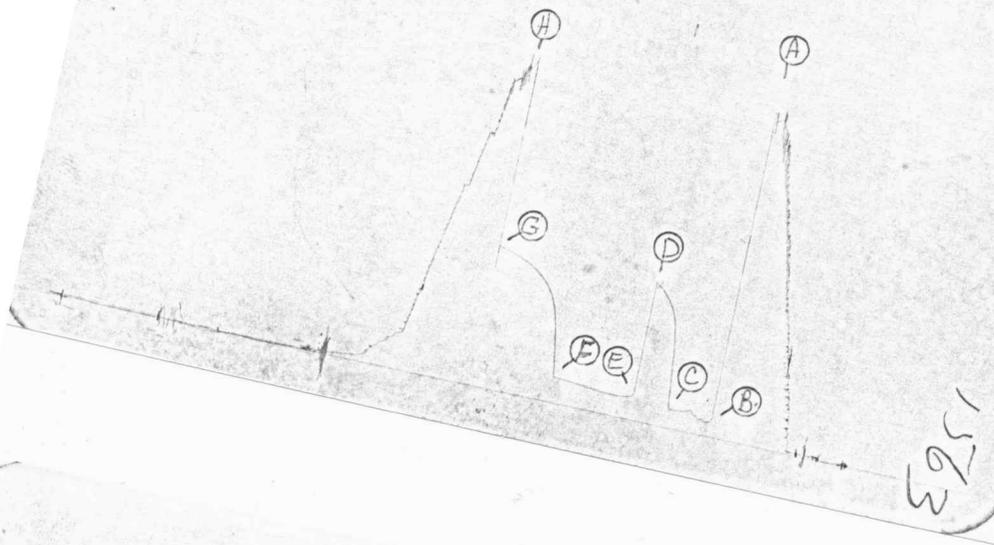
RECOVERED: 60 FT OF: GAS ABOVE FLUID.  
 RECOVERED: 130 FT OF: HEAVILY OIL & GAS CUT MUD  
 RECOVERED: FT OF: (20% MUD; 25% OIL; 55% GAS).  
 RECOVERED: 20 FT OF: OIL & GAS CUT WATERY MUD.  
 RECOVERED: 40 FT OF: OIL & GAS CUT WATERY MUD  
 RECOVERED: FT OF: (10% OIL; 5% GAS; 20% MUD; 65% WATER).  
 RECOVERED: 120 FT OF: GAS CUT WATER - TRACE OF OIL.  
 RECOVERED: FT OF: CHLORIDES 85000 PPM.  
 RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 6:13 AM TIME STARTED OFF BOTTOM: 9:15 AM  
 WELL TEMPERATURE: 109 °F  
 INITIAL HYDROSTATIC PRESSURE: (A) 1815 PSI  
 INITIAL FLOW PERIOD MIN: 30 (B) 75 PSI TO (C) 105 PSI  
 INITIAL CLOSED IN PERIOD MIN: 30 (D) 771 PSI  
 FINAL FLOW PERIOD MIN: 60 (E) 120 PSI TO (F) 142 PSI  
 FINAL CLOSED IN PERIOD MIN: 60 (G) 789 PSI  
 FINAL HYDROSTATIC PRESSURE (H) 1775 PSI

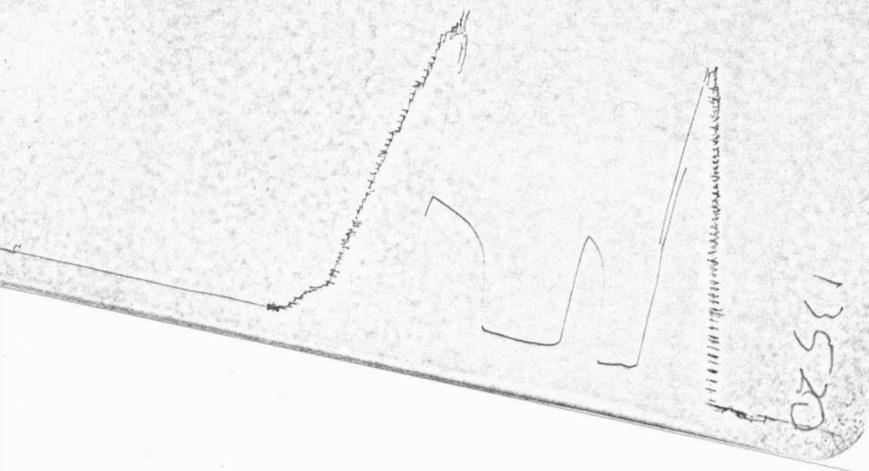


TKT # 9871  
I



1563

TKT # 9871  
O



13520



WESTERN TESTING CO., INC.
FORMATION TESTING

OK

TICKET No 9872

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

Elevation 1677 K.B Formation MISS. Eff. Pay Ft.

District Great Bend Date 6-26-85 Customer Order No.

COMPANY NAME Range Oil Co., Inc.

ADDRESS 240 Page Court, 220 W. Douglas Wichita, KS 67202

LEASE AND WELL NO. #3 William "C" COUNTY Rice STATE Ks. Sec. 7 Twp. 18S Rge. 6W

Mail Invoice To Same As Above No. Copies Requested 5

Co. Name #3 "C" WILLIAMS Address

Mail Charts To No. Copies Requested 5

Address

Formation Test No. 3 Interval Tested From 3268 ft. to 3278 ft. Total Depth 3278 ft.

Packer Depth 3263 ft. Size 6 3/8 in. Packer Depth ft. Size in.

Packer Depth 3268 ft. Size 6 3/8 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 3269 ft. Recorder Number 1563 Cap. 4200

Bottom Recorder Depth (Outside) 3272 ft. Recorder Number 13520 Cap. 4200

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Range Rig 1 Drill Collar Length 120 I. D. 2.7 in.

Mud Type Starch Viscosity 53 Weight Pipe Length I. D. in.

Weight 9.8 Water Loss 10.0 cc. Drill Pipe Length 3127 I. D. 3.8 in.

Chlorides 77,000 P.P.M. Test Tool Length 21 ft. Tool Size 53.00 in.

Jars: Make Serial Number Anchor Length 10 ft. Size 53.00 in.

Did Well Flow? NO Reversed Out NO Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 3/8 in. Tool Joint Size 4 1/2 in.

Blow: Weak Steady Throughout Flow Periods.

Recovered 90 ft. of Gas In Pipe

Recovered 60 ft. of Oil + Gas Cut Mud-Trace Water (30% Mud 10% Water)

Recovered ft. of (20% Oil 40% Gas)

Recovered 30 ft. of S/L Oil + Gas Cut Watery Mud

Recovered 60 ft. of V.Sli. Oil + Gas Cut Muddy Water

Chlorides P.P.M. Sample Jars used 2 Remarks: Chlorides 77,000 PPM

Time On Location 4:30 A.M. P.M. Time Pick Up Tool 5:30 A.M. P.M. Time Off Location 12:00 A.M. P.M.

Time Set Packer(s) 6:43 A.M. P.M. Time Started Off Bottom 9:45 A.M. P.M. Maximum Temperature 110

Initial Hydrostatic Pressure (A) 1808 P.S.I.

Initial Flow Period Minutes 30 (B) 53 P.S.I. to (C) 53 P.S.I.

Initial Closed In Period Minutes 30 (D) 793 P.S.I.

Final Flow Period Minutes 60 (E) 86 P.S.I. to (F) 86 P.S.I.

Final Closed In Period Minutes 60 (G) 761 P.S.I.

Final Hydrostatic Pressure (H) 1797 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 Chen Signature of Customer or his authorized representative

Western Representative Denis Worden Thank you

2375

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 6-26

Test Ticket No. 9872

Recorder No. 1563

Capacity \_\_\_\_\_ Location \_\_\_\_\_ F

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

| Point                           | Pressure           |                            | Time Given      | Time Computed |
|---------------------------------|--------------------|----------------------------|-----------------|---------------|
| A. Initial Hydrostatic Mud      | <u>1787</u> P.S.I. | Open Tool                  |                 |               |
| B. First Initial Flow Pressure  | <u>55</u> P.S.I.   | First Flow Pressure        | <u>30</u> Mins. | <u>30</u> Min |
| C. First Final Flow Pressure    | <u>60</u> P.S.I.   | Initial Closed-in Pressure | <u>30</u> Mins. | <u>30</u> Min |
| D. Initial Closed-in Pressure   | <u>805</u> P.S.I.  | Second Flow Pressure       | <u>60</u> Mins. | <u>60</u> Min |
| E. Second Initial Flow Pressure | <u>85</u> P.S.I.   | Final Closed-in Pressure   | <u>60</u> Mins. | <u>57</u> Min |
| F. Second Final Flow Pressure   | <u>88</u> P.S.I.   |                            |                 |               |
| G. Final Closed-in Pressure     | <u>770</u> P.S.I.  |                            |                 |               |
| H. Final Hydrostatic Mud        | <u>1732</u> P.S.I. |                            |                 |               |

PRESSURE BREAKDOWN

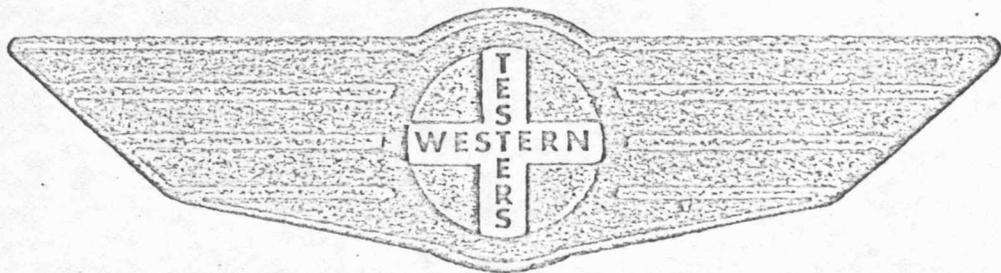
|  |   |  |   |
|--|---|--|---|
| <p><b>First Flow Pressure</b><br/>Breakdown: <u>7</u> Inc.<br/>of <u>5</u> mins. and a<br/>final inc. of <u>0</u> Min.</p> | <p><b>Initial Shut-In</b><br/>Breakdown: <u>11</u> Inc.<br/>of <u>3</u> mins. and a<br/>final inc. of <u>0</u> Min.</p> | <p><b>Second Flow Pressure</b><br/>Breakdown: <u>13</u> Inc.<br/>of <u>5</u> mins. and a<br/>final inc. of <u>0</u> Min.</p> | <p><b>Final Shut-In</b><br/>Breakdown: <u>20</u> Inc.<br/>of <u>3</u> mins. and a<br/>final inc. of <u>0</u> Min.</p> |
|--|---|--|---|

| Point Mins. | Press.    | Point Minutes | Press.     | Point Minutes | Press.    | Point Minutes | Press.     |
|-------------|-----------|---------------|------------|---------------|-----------|---------------|------------|
| P 1 0       | <u>55</u> | 0             | <u>60</u>  | 0             | <u>85</u> | 0             | <u>88</u>  |
| P 2 5       | <u>55</u> | 3             | <u>147</u> | 5             | <u>85</u> | 3             | <u>276</u> |
| P 3 10      | <u>55</u> | 6             | <u>581</u> | 10            | <u>85</u> | 6             | <u>519</u> |
| P 4 15      | <u>56</u> | 9             | <u>682</u> | 15            | <u>87</u> | 9             | <u>601</u> |
| P 5 20      | <u>58</u> | 12            | <u>718</u> | 20            | <u>87</u> | 12            | <u>637</u> |
| P 6 25      | <u>60</u> | 15            | <u>746</u> | 25            | <u>87</u> | 15            | <u>661</u> |
| P 7 30      |           | 18            | <u>762</u> | 30            | <u>87</u> | 18            | <u>677</u> |
| P 8 35      |           | 21            | <u>778</u> | 35            | <u>87</u> | 21            | <u>691</u> |
| P 9 40      |           | 24            | <u>789</u> | 40            | <u>88</u> | 24            | <u>704</u> |
| P10 45      |           | 27            | <u>799</u> | 45            | <u>88</u> | 27            | <u>715</u> |
| P11 50      |           | 30            | <u>805</u> | 50            | <u>88</u> | 30            | <u>723</u> |
| P12 55      |           | 33            |            | 55            | <u>88</u> | 33            | <u>730</u> |
| P13 60      |           | 36            |            | 60            |           | 36            | <u>737</u> |
| P14 65      |           | 39            |            | 65            |           | 39            | <u>744</u> |
| P15 70      |           | 42            |            | 70            |           | 42            | <u>750</u> |
| P16 75      |           | 45            |            | 75            |           | 45            | <u>755</u> |
| P17 80      |           | 48            |            | 80            |           | 48            | <u>760</u> |
| P18 85      |           | 51            |            | 85            |           | 51            | <u>764</u> |
| P19 90      |           | 54            |            | 90            |           | 54            | <u>768</u> |
| P20 95      |           | 57            |            | 95            |           | 57            | <u>770</u> |
| 100         |           | 60            |            | 100           |           | 60            |            |

FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company \_\_\_\_\_

Lease & Well No. \_\_\_\_\_

#3 "C" WILLIAMS

Sec. 7

Twp. 18S

Rge. \_\_\_\_\_

6W

Test No. \_\_\_\_\_

3

Date

6/26/85

WESTERN TESTING CO. INC.  
SUBSURFACE PRESSURE SURVEY

DATE: 6-26-85  
CUSTOMER: RANGE OIL COMPANY INC.  
WELL: 3 TEST: 3  
ELEVATION (KB): 1677 FORMATION: MISSISSIPPI  
SECTION: 7 TOWNSHIP: 18S  
RANGE: 6W COUNTY: RICE STATE: KANSAS  
GAUGE SN #1563 RANGE: 4200 CLOCK: 12

INTERVAL TEST FROM: 3268 FT TO: 3278 FT TOTAL DEPTH: 3278 FT  
DEPTH OF SELECTIVE ZONE: FT  
PACKER DEPTH: 3263 FT SIZE: 6 5/8 IN Packer DEPTH: 3268 FT SIZE: 6 5/8 IN  
PACKER DEPTH: FT SIZE: IN Packer DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RANGE DRLG. RIG #1  
MUD TYPE: STARCH VISCOSITY: 53  
WEIGHT: 9.8 WATER LOSS (CC): 10.0  
CHLORIDES (P.P.M.): 77000

JARS - MAKE: SERIAL NUMBER:  
DID WELL FLOW? NO REVERSED OUT? NO  
DRILL COLLAR LENGTH: 120 FT I.D.: 2.7 IN  
WEIGHT PIPE LENGTH: FT I.D.: IN  
DRILL PIPE LENGTH: 3127 FT I.D.: 3.8 IN  
TEST TOOL LENGTH: 21 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: WEAK STEADY BLOW THROUGHOUT TEST.

RECOVERED: 90 FT OF: GAS ABOVE FLUID.  
RECOVERED: 60 FT OF: OIL & GAS CUT MUD - TRACE OF WATER  
RECOVERED: FT OF: (30% MUD; 10% WATER; 20% OIL; 40% GAS).  
RECOVERED: 30 FT OF: SLIGHTLY OIL & GAS CUT WATERY MUD.  
RECOVERED: 60 FT OF: VERY SLIGHTLY OIL & GAS CUT MUDDY WATER.  
RECOVERED: FT OF: CHLORIDES 72000 PPM.  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:

REMARKS:

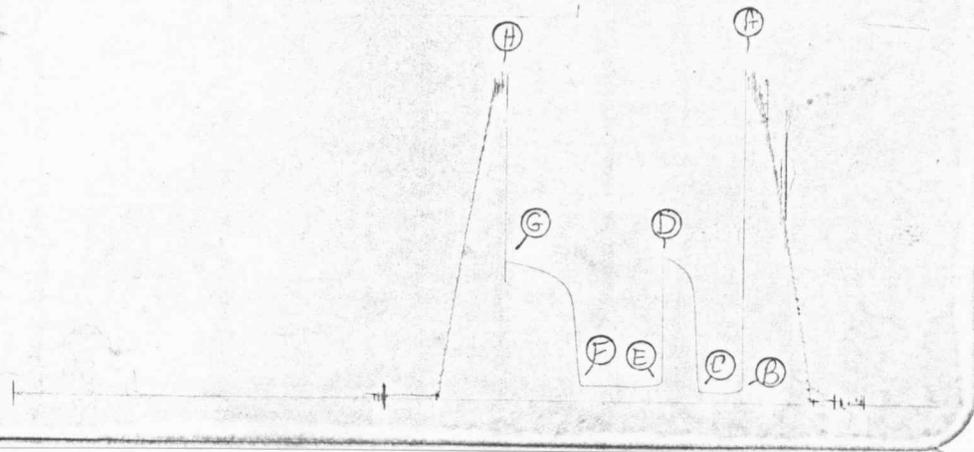
TIME SET PACKER(S): 6:43 PM TIME STARTED OFF BOTTOM: 9:45 PM  
WELL TEMPERATURE: 110 °F  
INITIAL HYDROSTATIC PRESSURE: (A) 1787 PSI  
INITIAL FLOW PERIOD MIN: 30 (B) 55 PSI TO (C) 60 PSI  
INITIAL CLOSED IN PERIOD MIN: 30 (D) 805 PSI  
FINAL FLOW PERIOD MIN: 60 (E) 85 PSI TO (F) 88 PSI  
FINAL CLOSED IN PERIOD MIN: 57 (G) 770 PSI  
FINAL HYDROSTATIC PRESSURE (H) 1732 PSI



TKT #9872

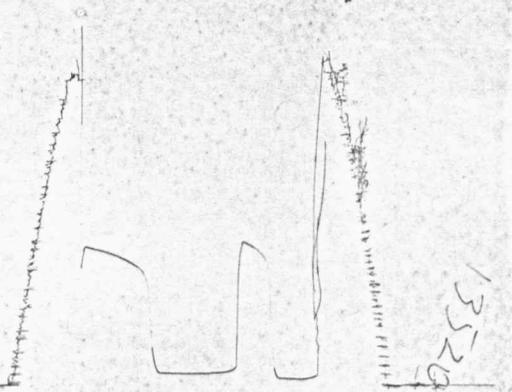
1563

I



TKT #9872

O





WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET No 9873

OK

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

Elevation 1677 K.B Formation Miss. Eff. Pay Ft.

District Great Bend Date 6-27-85 Customer Order No.

COMPANY NAME Range Oil Co., Inc.

ADDRESS 240 Page Court, 220 W. Douglas, Wichita, KS. 67202

LEASE AND WELL NO. #3 William "C" COUNTY Rice STATE Ks. Sec. 7 Twp. 18s Rge. 6w

Mail Invoice To Same As Above No. Copies Requested 5

Co. Name #3 "C" WILLIAMS Address No. Copies Requested 5

Mail Charts To Address

Formation Test No. 4 Interval Tested From 3302 ft. to 3311 ft. Total Depth 3311 ft.

Packer Depth 3297 ft. Size 6 5/8 in. Packer Depth ft. Size in.

Packer Depth 3302 ft. Size 6 5/8 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 3303 ft. Recorder Number 1563 Cap. 4200

Bottom Recorder Depth (Outside) 3306 ft. Recorder Number 13520 Cap. 4200

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Range Rig 1 Drill Collar Length 120 I. D. 2.7 in.

Mud Type Starch Viscosity 45 Weight Pipe Length I. D. in.

Weight 9.9 Water Loss 11.6 cc. Drill Pipe Length 3161 I. D. 3.8 in.

Chlorides 71,000 P.P.M. Test Tool Length 21 ft. Tool Size 5 1/2 in.

Jars: Make Serial Number Anchor Length 9 ft. Size 5 1/2 in.

Did Well Flow? NO Reversed Out NO Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 3/8 in. Tool Joint Size 4 1/2 x 14 in.

Blow: Very Weak Throughout First F.P. Very Weak + Died

In 40 min. On 2nd Opening.

Recovered 75 ft. of Muddy Water Few Spts of Oil

Recovered ft. of Chlorides 86,000 PPM

Recovered ft. of

Recovered ft. of

Recovered ft. of

Chlorides P.P.M. Sample Jars used 1 Remarks:

Time On Location 5:30 A.M. Time Pick Up Tool 6:30 P.M. Time Off Location 12:00 P.M.

Time Set Packer(s) 7:03 A.M. Time Started Off Bottom 10:05 P.M. Maximum Temperature 111

Initial Hydrostatic Pressure (A) 1808 P.S.I.

Initial Flow Period Minutes 30 (B) 32 P.S.I. to (C) 32 P.S.I.

Initial Closed In Period Minutes 30 (D) 910 P.S.I.

Final Flow Period Minutes 60 (E) 43 P.S.I. to (F) 53 P.S.I.

Final Closed In Period Minutes 60 (G) 921 P.S.I.

Final Hydrostatic Pressure (H) 1808 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 Olsen Signature of Customer or his authorized representative

Western Representative Denis Worda Thank you

2375

FIELD INVOICE

Table with 2 columns: Item and Amount. Items include Open Hole Test, 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 6-27

Test Ticket No. 9873

Recorder No. 1563

Capacity \_\_\_\_\_ Location \_\_\_\_\_

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

| Point                           | Pressure           | Open Tool                  | Time Given      | Time Computed |
|---------------------------------|--------------------|----------------------------|-----------------|---------------|
| A. Initial Hydrostatic Mud      | <u>1787</u> P.S.I. |                            |                 |               |
| B. First Initial Flow Pressure  | <u>32</u> P.S.I.   | First Flow Pressure        | <u>30</u> Mins. | <u>30</u> Min |
| C. First Final Flow Pressure    | <u>39</u> P.S.I.   | Initial Closed-in Pressure | <u>30</u> Mins. | <u>30</u> Min |
| D. Initial Closed-in Pressure   | <u>922</u> P.S.I.  | Second Flow Pressure       | <u>60</u> Mins. | <u>60</u> Min |
| E. Second Initial Flow Pressure | <u>58</u> P.S.I.   | Final Closed-in Pressure   | <u>60</u> Mins. | <u>60</u> Min |
| F. Second Final Flow Pressure   | <u>64</u> P.S.I.   |                            |                 |               |
| G. Final Closed-in Pressure     | <u>932</u> P.S.I.  |                            |                 |               |
| H. Final Hydrostatic Mud        | <u>1772</u> P.S.I. |                            |                 |               |

PRESSURE BREAKDOWN

First Flow Pressure  
Breakdown: 7 Inc.  
of 5 mins. and a  
final inc. of 0 Min.

Initial Shut-In  
Breakdown: 11 Inc.  
of 3 mins. and a  
final inc. of 0 Min.

Second Flow Pressure  
Breakdown: 13 Inc.  
of 5 mins. and a  
final inc. of 0 Min.

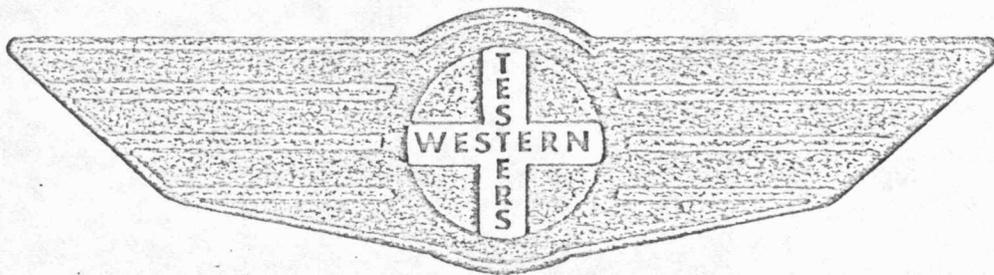
Final Shut-In  
Breakdown: 21 Inc.  
of 3 mins. and a  
final inc. of 0 Min.

| Point Mins. | Press.    | Point Minutes | Press.     | Point Minutes | Press.    | Point Minutes | Press.     |
|-------------|-----------|---------------|------------|---------------|-----------|---------------|------------|
| P 1 0       | <u>32</u> | 0             | <u>39</u>  | 0             | <u>58</u> | 0             | <u>64</u>  |
| P 2 5       | <u>32</u> | 3             | <u>399</u> | 5             | <u>58</u> | 3             | <u>280</u> |
| P 3 10      | <u>32</u> | 6             | <u>757</u> | 10            | <u>58</u> | 6             | <u>649</u> |
| P 4 15      | <u>34</u> | 9             | <u>840</u> | 15            | <u>58</u> | 9             | <u>806</u> |
| P 5 20      | <u>34</u> | 12            | <u>870</u> | 20            | <u>59</u> | 12            | <u>849</u> |
| P 6 25      | <u>36</u> | 15            | <u>889</u> | 25            | <u>59</u> | 15            | <u>871</u> |
| P 7 30      | <u>39</u> | 18            | <u>903</u> | 30            | <u>59</u> | 18            | <u>887</u> |
| P 8 35      |           | 21            | <u>911</u> | 35            | <u>60</u> | 21            | <u>898</u> |
| P 9 40      |           | 24            | <u>917</u> | 40            | <u>61</u> | 24            | <u>906</u> |
| P10 45      |           | 27            | <u>920</u> | 45            | <u>62</u> | 27            | <u>913</u> |
| P11 50      |           | 30            | <u>922</u> | 50            | <u>63</u> | 30            | <u>916</u> |
| P12 55      |           | 33            |            | 55            | <u>64</u> | 33            | <u>919</u> |
| P13 60      |           | 36            |            | 60            | <u>64</u> | 36            | <u>921</u> |
| P14 65      |           | 39            |            | 65            |           | 39            | <u>923</u> |
| P15 70      |           | 42            |            | 70            |           | 42            | <u>925</u> |
| P16 75      |           | 45            |            | 75            |           | 45            | <u>927</u> |
| P17 80      |           | 48            |            | 80            |           | 48            | <u>928</u> |
| P18 85      |           | 51            |            | 85            |           | 51            | <u>929</u> |
| P19 90      |           | 54            |            | 90            |           | 54            | <u>930</u> |
| P19 95      |           | 57            |            | 95            |           | 57            | <u>931</u> |
| 100         |           | 60            |            | 100           |           | 60            | <u>932</u> |

FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company RANGE OIL COMPANY, INC. Lease & Well No. #3 "C" WILLIAMS Sec. 7 Twp. 18S Rge. 6W Test No. 4 Date 6/27/85

WESTERN TESTING CO. INC.  
SUBSURFACE PRESSURE SURVEY

DATE: 6-27-85 TICKET #9873  
 CUSTOMER: RANGE OIL COMPANY INC. LEASE: "C" WILLIAMS  
 WELL: 3 TEST: 4 GEOLOGIST: R. OLSEN  
 ELEVATION (KB): 1677 FORMATION: MISSISSIPPI  
 SECTION: 7 TOWNSHIP: 18S  
 RANGE: 6W COUNTY: RICE STATE: KANSAS  
 GAUGE SN #1563 RANGE: 4200 CLOCK: 12

INTERVAL TEST FROM: 3302 FT TO: 3311 FT TOTAL DEPTH: 3311 FT  
 DEPTH OF SELECTIVE ZONE: FT  
 PACKER DEPTH: 3297 FT SIZE: 6 5/8 IN PACKER DEPTH: 3302 FT SIZE: 6 5/8 IN  
 PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RANGE DRLG. RIG #1  
 MUD TYPE: STARCH VISCOSITY: 45  
 WEIGHT: 9.9 WATER LOSS (CC): 11.6  
 CHLORIDES (P.P.M.): 71000  
 JARS - MAKE: SERIAL NUMBER:  
 DID WELL FLOW? NO REVERSED OUT? NO  
 DRILL COLLAR LENGTH: 120 FT I.D.: 2.7 IN  
 WEIGHT PIPE LENGTH: FT I.D.: IN  
 DRILL PIPE LENGTH: 3161 FT I.D.: 3.8 IN  
 TEST TOOL LENGTH: 21 FT TOOL SIZE: 5 1/2 OD IN  
 ANCHOR LENGTH: 9 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.  
 FINAL FLOW PERIOD VERY WEAK BLOW;  
 DIED IN 40 MINUTES.

RECOVERED: 75 FT OF: MUDDY WATER - FEW SPOTS OF OIL.  
 RECOVERED: FT OF: CHLORIDES 86000 PPM.  
 RECOVERED: FT OF:  
 RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 7:03 AM TIME STARTED OFF BOTTOM: 10:05 AM  
 WELL TEMPERATURE: 111 °F  
 INITIAL HYDROSTATIC PRESSURE: (A) 1787 PSI  
 INITIAL FLOW PERIOD MIN: 30 (B) 32 PSI TO (C) 39 PSI  
 INITIAL CLOSED IN PERIOD MIN: 30 (D) 922 PSI  
 FINAL FLOW PERIOD MIN: 60 (E) 58 PSI TO (F) 64 PSI  
 FINAL CLOSED IN PERIOD MIN: 60 (G) 932 PSI  
 FINAL HYDROSTATIC PRESSURE (H) 1772 PSI

