

Company Raymond Oil Company, Inc. Lease & Well No. Mott #1

Elevation 1545 Ground Level Formation Mississippian Effective Pay --- Ft. Ticket No. 3461

Date 12/29/79 Sec. 24 Twp. 31S Range 12W County Barber State Kansas

Test Approved by James E. Beulhoush Western Representative Dave Sloan

Formation Test No. 2 Interval Tested from 4290 ft. to 4311 ft. Total Depth 4311 ft.

Packer Depth 4285 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 4290 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4303 ft. Recorder Number 2604 Cap. 4150

Bottom Recorder Depth (Outside) 4306 ft. Recorder Number 6246 Cap. 5200

Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Graves Drilling Co. Drill Collar Length 154 I. D. 2.2 in.

Mud Type drispac Viscosity 46 Weight Pipe Length - I. D. - in.

Weight 9.3 Water Loss 38.8 cc. Drill Pipe Length 4116 I. D. 3.8 in.

Chlorides 26,500 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 OD in.

Jars: Make -- Serial Number -- Anchor Length 21 ft. Size 5 1/2 OD 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 FH in.

Blow: Strong through initial flow, decreasing to weak during final flow period.

Recovered 400 ft. of gas in pipe

Recovered 70 ft. of gas and slightly oil cut mud (5% gas; 10% oil; 2% water; 83% mud)

Recovered 60 ft. of gas and oil cut mud (15% gas; 20% oil; 10% water; 55% mud)

Recovered - ft. of chlorides 32,000 ppm

Recovered - ft. of -

Remarks: -

Time Set Packer(s) 4:40 ~~A.M.~~ P.M. Time Started Off Bottom 7:10 ~~A.M.~~ P.M. Maximum Temperature 118°

Initial Hydrostatic Pressure (A) 2150 P.S.I.

Initial Flow Period Minutes 30 (B) 68 P.S.I. to (C) 53 P.S.I.

Initial Closed In Period Minutes 30 (D) 305 P.S.I.

Final Flow Period Minutes 60 (E) 77 P.S.I. to (F) 79 P.S.I.

Final Closed In Period Minutes 30 (G) 190 P.S.I.

Final Hydrostatic Pressure (H) 2148 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 12/29/79 Test Ticket No. 3461

Recorder No. 2604 Capacity 4150 Location 4303 Ft.

Clock No. --- Elevation 1545 Ground Level Well Temperature 118 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2150</u> P.S.I.	Open Tool	<u>4:40P</u>	<u>M</u>
B First Initial Flow Pressure	<u>68</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>53</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>305</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>77</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
F Second Final Flow Pressure	<u>79</u> P.S.I.			
G Final Closed-in Pressure	<u>190</u> P.S.I.			
H Final Hydrostatic Mud	<u>2148</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure				Initial Shut-In				Second Flow Pressure				Final Shut-In			
Breakdown: <u>6</u> Inc.				Breakdown: <u>10</u> Inc.				Breakdown: <u>12</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.	Point Minutes	Press.	Point Minutes	Press.				
P 1 <u>0</u>	<u>68</u>	<u>0</u>	<u>53</u>	<u>0</u>	<u>77</u>	<u>0</u>	<u>79</u>	<u>0</u>	<u>77</u>	<u>0</u>	<u>79</u>				
P 2 <u>5</u>	<u>68</u>	<u>3</u>	<u>66</u>	<u>5</u>	<u>77</u>	<u>3</u>	<u>87</u>	<u>5</u>	<u>77</u>	<u>3</u>	<u>87</u>				
P 3 <u>10</u>	<u>55</u>	<u>6</u>	<u>89</u>	<u>10</u>	<u>72</u>	<u>6</u>	<u>96</u>	<u>10</u>	<u>72</u>	<u>6</u>	<u>96</u>				
P 4 <u>15</u>	<u>53</u>	<u>9</u>	<u>115</u>	<u>15</u>	<u>71</u>	<u>9</u>	<u>109</u>	<u>15</u>	<u>71</u>	<u>9</u>	<u>109</u>				
P 5 <u>20</u>	<u>53</u>	<u>12</u>	<u>141</u>	<u>20</u>	<u>71</u>	<u>12</u>	<u>121</u>	<u>20</u>	<u>71</u>	<u>12</u>	<u>121</u>				
P 6 <u>25</u>	<u>53</u>	<u>15</u>	<u>175</u>	<u>25</u>	<u>72</u>	<u>15</u>	<u>132</u>	<u>25</u>	<u>72</u>	<u>15</u>	<u>132</u>				
P 7 <u>30</u>	<u>53</u>	<u>18</u>	<u>203</u>	<u>30</u>	<u>73</u>	<u>18</u>	<u>143</u>	<u>30</u>	<u>73</u>	<u>18</u>	<u>143</u>				
P 8		<u>21</u>	<u>237</u>	<u>35</u>	<u>74</u>	<u>21</u>	<u>153</u>	<u>35</u>	<u>74</u>	<u>21</u>	<u>153</u>				
P 9		<u>24</u>	<u>269</u>	<u>40</u>	<u>75</u>	<u>24</u>	<u>170</u>	<u>40</u>	<u>75</u>	<u>24</u>	<u>170</u>				
P10		<u>27</u>	<u>297</u>	<u>45</u>	<u>76</u>	<u>27</u>	<u>183</u>	<u>45</u>	<u>76</u>	<u>27</u>	<u>183</u>				
P11		<u>30</u>	<u>305</u>	<u>50</u>	<u>77</u>	<u>30</u>	<u>190</u>	<u>50</u>	<u>77</u>	<u>30</u>	<u>190</u>				
P12				<u>55</u>	<u>78</u>			<u>55</u>	<u>78</u>						
P13				<u>60</u>	<u>79</u>			<u>60</u>	<u>79</u>						
P14															
P15															
P16															
P17															
P18															
P19															
P20															

Company Raymond Oil Company, Inc. Lease & Well No. Mott #1
 Elevation 1545 Ground Level Swope Effective Pay -- Ft. Ticket No. 3460
 Date 12/28/79 Sec. 24 Twp. 31S Range 12W County Barber State Kansas
 Test Approved by Tom Brooks Western Representative Dave Sloan
 Formation Test No. 1 Interval Tested from 4080 ft. to 4108 ft. Total Depth 4108 ft.
 Packer Depth 4075 ft. Size 6 3/4 in. Packer Depth -- ft. Size -- in.
 Packer Depth 4080 ft. Size 6 3/4 in. Packer Depth -- ft. Size -- in.
 Depth of Selective Zone Set --
 Top Recorder Depth (Inside) 4100 ft. Recorder Number 2604 Cap. 4150
 Bottom Recorder Depth (Outside) 4103 ft. Recorder Number 6246 Cap. 5200
 Below Straddle Recorder Depth -- ft. Recorder Number -- Cap. --
 Drilling Contractor Graves Drilling Co. Drill Collar Length 154 I. D. 2.2 in.
 Mud Type drispac Viscosity 36 Weight Pipe Length -- I. D. -- in.
 Weight 9.1 Water Loss 44.0 cc. Drill Pipe Length 3926 I. D. 3.8 in.
 Chlorides 18,000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 OD in.
 Jars: Make -- Serial Number -- Anchor Length 28 ft. Size 5 1/2 OD 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 FH in.

Blow: Strong throughout both flow periods.

Recovered 810 ft. of gas in pipe
 Recovered 30 ft. of oil and gas cut mud
 Recovered 60 ft. of water and slightly oil cut mud
 Recovered 600 ft. of water chlorides 80,000 ppm
 Recovered ft. of
 Remarks:

Time Set Packer(s) 4:20 A.M. Time Started Off Bottom 6:50 P.M. Maximum Temperature 116°
 Initial Hydrostatic Pressure (A) 2032 P.S.I.
 Initial Flow Period Minutes 30 (B) 83 P.S.I. to (C) 173 P.S.I.
 Initial Closed In Period Minutes 30 (D) 1595 P.S.I.
 Final Flow Period Minutes 60 (E) 230 P.S.I. to (F) 359 P.S.I.
 Final Closed In Period Minutes 30 (G) 1578 P.S.I.
 Final Hydrostatic Pressure (H) 2021 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 12/28/79 Recorder No. 2604 Capacity 4150 Test Ticket No. 3460
 Clock No. --- Elevation 1545 Ground Level Location 4100 Ft. 116
 Well Temperature °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2032	P.S.I.	4:20P	M
B First Initial Flow Pressure	83	P.S.I.	30	30
C First Final Flow Pressure	173	P.S.I.	30	30
D Initial Closed-in Pressure	1595	P.S.I.	60	60
E Second Initial Flow Pressure	230	P.S.I.	30	30
F Second Final Flow Pressure	359	P.S.I.		
G Final Closed-in Pressure	1578	P.S.I.		
H Final Hydrostatic Mud	2021	P.S.I.		

PRESSURE BREAKDOWN

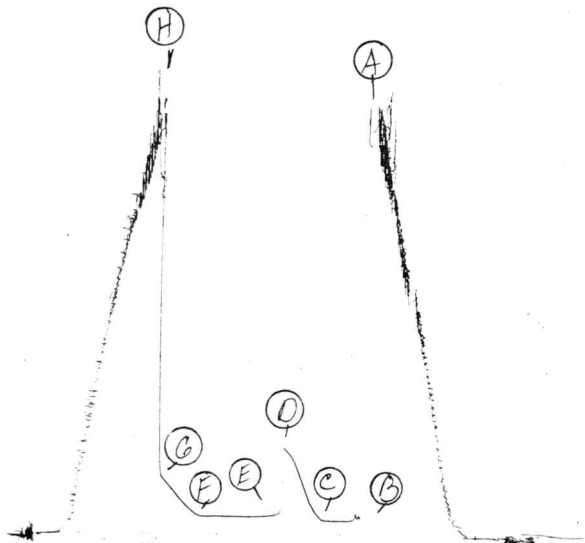
First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>12</u> Inc.		Breakdown: <u>10</u> Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</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 <u>0</u>	<u>83</u>	<u>0</u>	<u>173</u>	<u>0</u>	<u>230</u>	<u>0</u>	<u>359</u>
P 2 <u>5</u>	<u>83</u>	<u>3</u>	<u>605</u>	<u>5</u>	<u>230</u>	<u>3</u>	<u>1123</u>
P 3 <u>10</u>	<u>98</u>	<u>6</u>	<u>1403</u>	<u>10</u>	<u>235</u>	<u>6</u>	<u>1435</u>
P 4 <u>15</u>	<u>118</u>	<u>9</u>	<u>1473</u>	<u>15</u>	<u>243</u>	<u>9</u>	<u>1485</u>
P 5 <u>20</u>	<u>136</u>	<u>12</u>	<u>1513</u>	<u>20</u>	<u>256</u>	<u>12</u>	<u>1515</u>
P 6 <u>25</u>	<u>158</u>	<u>15</u>	<u>1536</u>	<u>25</u>	<u>271</u>	<u>15</u>	<u>1534</u>
P 7 <u>30</u>	<u>173</u>	<u>18</u>	<u>1555</u>	<u>30</u>	<u>284</u>	<u>18</u>	<u>1544</u>
P 8		<u>21</u>	<u>1567</u>	<u>35</u>	<u>297</u>	<u>21</u>	<u>1557</u>
P 9		<u>24</u>	<u>1578</u>	<u>40</u>	<u>312</u>	<u>24</u>	<u>1567</u>
P10		<u>27</u>	<u>1586</u>	<u>45</u>	<u>325</u>	<u>27</u>	<u>1574</u>
P11		<u>30</u>	<u>1595</u>	<u>50</u>	<u>337</u>	<u>30</u>	<u>1578</u>
P12				<u>55</u>	<u>350</u>		
P13				<u>60</u>	<u>359</u>		
P14							
P15							
P16							
P17							
P18							
P19							
P20							

2604

Raymond Oil Co
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Company Raymond Oil Company, Inc. Lease & Well No. Mott #1
Elevation 1545 Ground Level Formation Mississippi Effective Pay --- Ft. Ticket No. 3462
Date 12/30/79 Sec. 24 Twp. 31S Range 12W County Barber State Kansas
Test Approved by Tom Brooks Western Representative Dave Sloan
Formation Test No. 3 Interval Tested from 4290 ft. to 4329 ft. Total Depth 4329 ft.
Packer Depth 4285 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Packer Depth 4290 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set -
Top Recorder Depth (Inside) 4321 ft. Recorder Number 2604 Cap. 4150
Bottom Recorder Depth (Outside) 4324 ft. Recorder Number 6246 Cap. 5200
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
Drilling Contractor Graves Drilling Co. Drill Collar Length 154 I. D. 2.2 in.
Mud Type drispac Viscosity 46 Weight Pipe Length - I. D. - in.
Weight 9.3 Water Loss 38.8 cc. Drill Pipe Length 4116 I. D. 3.8 in.
Chlorides 26,500 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 OD in.
Jars: Make -- Serial Number -- Anchor Length 39 ft. Size 5 1/2 OD 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 FH in.

Strong blow decreasing to weak during final flow period.
Blow: _____

Recovered 130 ft. of slightly gas and oil cut mud chlorides 32,000 ppm
Recovered ft. of _____
Recovered ft. of _____
Recovered ft. of _____
Recovered ft. of _____
Remarks: _____

Time Set Packer(s) 6:45 A.M.
P.M. Time Started Off Bottom 9:15 A.M.
P.M. Maximum Temperature 118 °
Initial Hydrostatic Pressure (A) 2186 P.S.I.
Initial Flow Period Minutes 30 (B) 85 P.S.I. to (C) 77 P.S.I.
Initial Closed In Period Minutes 30 (D) 470 P.S.I.
Final Flow Period Minutes 60 (E) 111 P.S.I. to (F) 99 P.S.I.
Final Closed In Period Minutes 30 (G) 318 P.S.I.
Final Hydrostatic Pressure (H) 2182 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 12/30/79 Recorder No. 2604 Capacity 4150 Test Ticket No. 3462
 Clock No. ----- Elevation 1545 Ground Level Location 4321 Ft. 118
 Well Temperature 118 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2186 P.S.I.	Open Tool	6:45A	M
B First Initial Flow Pressure	85 P.S.I.	First Flow Pressure	30	Mins 30 Mins.
C First Final Flow Pressure	77 P.S.I.	Initial Closed-in Pressure		Mins 30 Mins.
D Initial Closed-in Pressure	470 P.S.I.	Second Flow Pressure	60	Mins 60 Mins.
E Second Initial Flow Pressure	111 P.S.I.	Final Closed-in Pressure	30	Mins 30 Mins.
F Second Final Flow Pressure	99 P.S.I.			
G Final Closed-in Pressure	318 P.S.I.			
H Final Hydrostatic Mud	2182 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Initial Shut-In Breakdown: <u>10</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.		Second Flow Pressure Breakdown: <u>12</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Final Shut-In Breakdown: <u>10</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>85</u>	<u>0</u>	<u>77</u>	<u>0</u>	<u>111</u>	<u>0</u>	<u>99</u>
P 2 <u>5</u>	<u>85</u>	<u>3</u>	<u>89</u>	<u>5</u>	<u>106</u>	<u>3</u>	<u>107</u>
P 3 <u>10</u>	<u>77</u>	<u>6</u>	<u>113</u>	<u>10</u>	<u>100</u>	<u>6</u>	<u>124</u>
P 4 <u>15</u>	<u>77</u>	<u>9</u>	<u>147</u>	<u>15</u>	<u>98</u>	<u>9</u>	<u>145</u>
P 5 <u>20</u>	<u>77</u>	<u>12</u>	<u>192</u>	<u>20</u>	<u>98</u>	<u>12</u>	<u>165</u>
P 6 <u>25</u>	<u>77</u>	<u>15</u>	<u>245</u>	<u>25</u>	<u>98</u>	<u>15</u>	<u>188</u>
P 7 <u>30</u>	<u>77</u>	<u>18</u>	<u>303</u>	<u>30</u>	<u>98</u>	<u>18</u>	<u>213</u>
P 8		<u>21</u>	<u>363</u>	<u>35</u>	<u>98</u>	<u>21</u>	<u>239</u>
P 9		<u>24</u>	<u>412</u>	<u>40</u>	<u>98</u>	<u>24</u>	<u>258</u>
P10		<u>27</u>	<u>444</u>	<u>45</u>	<u>98</u>	<u>27</u>	<u>290</u>
P11		<u>30</u>	<u>470</u>	<u>50</u>	<u>99</u>	<u>30</u>	<u>318</u>
P12				<u>55</u>	<u>99</u>		
P13				<u>60</u>	<u>99</u>		
P14							
P15							
P16							
P17							
P18							
P19							
P20							