



Home Office: Wichita, Kansas 67201
P. O. Box 1599 (316) 838-0601

Company Range Oil Company, Inc. Lease & Well No. #2 Lovell "C"
Elevation 1098 Kelly Bush. Formation Nevada Effective Pay - Ft. Ticket No. 22547
Date 2-9-78 Sec. 8 Twp. 33S Range 3E County Cowley State Kansas
Test Approved by Stephen M. Kreidler Western Representative Tim Wilson
Formation Test No. 1 O.K. ☒ Misrun ☐ Interval Tested From 675' to 765' Total Depth 765'
Size Main Hole 7 7/8 Rat Hole ☐ Conv. ☐ B.T. ☒ Damaged ☐ Yes ☒ No Conv. ☐ B.T. ☒ Damaged ☐ Yes ☒ No
Top Packer Depth 670 Ft. Size 6 3/4 Bottom Packer Depth 675 Ft. Size 6 3/4
Straddle ☐ Conv. ☐ B.T. ☐ Damaged ☐ Yes ☐ No Packer Depth - Ft. Size -
Tool Size 4 1/2 OD Tool Joint Size 3 1/2 IF Anchor Length 90 Ft. Size 4 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.
RECORDERS Depth 693 Ft. Clock No. 9103 Depth 696 Ft. Clock No. 9727
Top Make Kuster Cap. 4200 No. 1559 ☐ Inside ☒ Outside Bottom Make Kuster Cap. 3200 No. 1561 ☐ Inside ☒ Outside
Below Straddle: Depth - Rec. No. - Clock No. - ☐ Inside ☒ Outside Depth - Ft. Rec. No. - Clock No. - ☐ Inside ☒ Outside
Time Set Packer 5:09P. M
Tool Open I.F.P. From 5:15P M. to 5:45P M. - Hr. 30 Min. From (B) 50 P.S.I. To (C) 86 P.S.I.
Tool Closed I.C.I.P. From 5:45P M. to 6:15P M. - Hr. 30 Min (D) 293 P.S.I.
Tool Open F.F.P. From 6:15P M. to 7:00P M. - Hr. 45 Min. From (E) 127 P.S.I. To (F) 148 P.S.I.
Tool Closed F.C.I.P. From 7:00P M. to 7:45P M. - Hr. 45 Min. (G) 294 P.S.I.
Initial Hydrostatic Pressure (A) 334 P.S.I. Final Hydrostatic Pressure (H) 320 P.S.I. Maximum Temp. 63

INFORMATION

BLOW Weak blow decreasing to a very weak blow throughout test.

Did Well Flow ☐ Yes ☒ No Recovery Total Ft. 230' of watery mud.

Reversed Out ☐ Yes ☒ No Mud Type Chem Viscosity 38 Weight 9.0 Water Loss - cc. Chlorides -
EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint - Jars: Size - In. Make - Ser. No. -
Dual Packer Yes Did Packers Hold? Yes Did Tool Plug? No Where? -
DRILLING CONTRACTOR Range Drilg. Co. (#1) Length Drill Pipe? 89 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 XH In.
Length Weight Pipe 316 Ft. I.D. Weight Pipe 2.7 In. Tool Joint Size 4 1/2 FH In. Length Drill Collars 250 Ft. I.D. Drill Collars 2 1/4 In.
Tool Joint Size 4 1/2 H-90 In. Length D.S.T. Tool 109 Ft.

Remarks:

WESTERN TESTING CO., INC.

Pressure Data

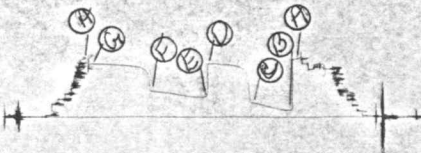
Date 2-9-78 Recorder No. 1559 Capacity 4200 Test Ticket No. 22547
 Clock No. 9103 Elevation 1098 Kelly Bushing Location 693 Ft.
 Well Temperature 63 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>334</u>	P.S.I.	<u>5:09P</u>	<u>M</u>
B First Initial Flow Pressure	<u>50</u>	P.S.I.	<u>30</u>	Mins. <u>30</u> Mins.
C First Final Flow Pressure	<u>86</u>	P.S.I.	<u>30</u>	Mins. <u>30</u> Mins.
D Initial Closed-in Pressure	<u>293</u>	P.S.I.	<u>45</u>	Mins. <u>45</u> Mins.
E Second Initial Flow Pressure	<u>127</u>	P.S.I.	<u>45</u>	Mins. <u>45</u> Mins.
F Second Final Flow Pressure	<u>148</u>	P.S.I.		
G Final Closed-in Pressure	<u>294</u>	P.S.I.		
H Final Hydrostatic Mud	<u>320</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>9</u> Inc.		Breakdown: <u>15</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>50</u>	<u>0</u>	<u>86</u>	<u>0</u>	<u>127</u>	<u>0</u>	<u>148</u>
P 2 <u>5</u>	<u>38</u>	<u>3</u>	<u>245</u>	<u>5</u>	<u>110</u>	<u>3</u>	<u>253</u>
P 3 <u>10</u>	<u>46</u>	<u>6</u>	<u>268</u>	<u>10</u>	<u>113</u>	<u>6</u>	<u>270</u>
P 4 <u>15</u>	<u>56</u>	<u>9</u>	<u>278</u>	<u>15</u>	<u>119</u>	<u>9</u>	<u>276</u>
P 5 <u>20</u>	<u>67</u>	<u>12</u>	<u>280</u>	<u>20</u>	<u>125</u>	<u>12</u>	<u>280</u>
P 6 <u>25</u>	<u>77</u>	<u>15</u>	<u>284</u>	<u>25</u>	<u>132</u>	<u>15</u>	<u>282</u>
P 7 <u>30</u>	<u>86</u>	<u>18</u>	<u>286</u>	<u>30</u>	<u>136</u>	<u>18</u>	<u>824</u>
P 8		<u>21</u>	<u>288</u>	<u>35</u>	<u>142</u>	<u>21</u>	<u>286</u>
P 9		<u>24</u>	<u>291</u>	<u>40</u>	<u>144</u>	<u>24</u>	<u>287</u>
P10		<u>27</u>	<u>292</u>	<u>45</u>	<u>148</u>	<u>27</u>	<u>288</u>
P11		<u>30</u>	<u>293</u>			<u>30</u>	<u>289</u>
P12						<u>33</u>	<u>290</u>
P13						<u>36</u>	<u>291</u>
P14						<u>39</u>	<u>292</u>
P15						<u>42</u>	<u>293</u>
P16						<u>45</u>	<u>294</u>
P17							
P18							
P19							
P20							

TKL # 22547
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Home Office: Wichita, Kansas 67201
P. O. Box 1599 (316) 838-0601

Company Range Oil Company, Inc. Lease & Well No. Lovell C #2
Elevation 1098 Kelly Bush. Formation Severy Effective Pay - Ft. Ticket No. 22548
Date 2-10-78 Sec. 8 Twp. 33S Range 3E County Cowley State Kansas
Test Approved by Stephen M. Kreider Western Representative Tim Wilson
Formation Test No. 2 O.K. ☒ Misrun ☐ Interval Tested From 1350' to 1388' Total Depth 1388'
Size Main Hole 7 7/8 Rat Hole ☐ Conv. ☐ B.T. ☒ Damaged ☐ Yes ☒ No Conv. ☐ B.T. ☒ Damaged ☐ Yes ☒ No
Top Packer Depth 1345 Ft. Size 6 3/4 Bottom Packer Depth 1350 Ft. Size 6 3/4
Straddle ☐ Conv. ☐ B.T. ☐ Damaged ☐ Yes ☐ No Packer Depth - Ft. Size -
Tool Size 4 1/2 OD Tool Joint Size 3 1/2 IF Anchor Length 38 Ft. Size 4 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.
RECORDERS Depth 1381 Ft. Clock No. 9103 Depth 1384 Ft. Clock No. 9727
Top Make Kuster Cap. 4200 No. 1559 Inside - Outside - Bottom Make Kuster Cap. 3200 No. 1561 Inside - Outside -
Below Straddle: Depth - Rec. No. - Clock No. - Inside - Outside - Depth - Ft. Rec. No. - Clock No. - Inside - Outside -
Time Set Packer 4:57P. M
Tool Open I.F.P. From 5:00P M. to 5:30P M. - Hr. 30 Min. From (B) 10 P.S.I. To (C) 10 P.S.
Tool Closed I.C.I.P. From 5:30P M. to 6:00P M. - Hr. 30 Min (D) 10 P.S.
Tool Open F.F.P. From 6:00P M. to 6:30P M. - Hr. 30 Min. From (E) 10 P.S.I. To (F) 10 P.S.
Tool Closed F.C.I.P. From 6:30P M. to 7:00P M. - Hr. 30 Min. (G) 10 P.S.
Initial Hydrostatic Pressure (A) 727 P.S.I. Final Hydrostatic Pressure (H) 716 P.S.I. Maximum Temp. 72

INFORMATION

BLOW Very weak blow for 2 minutes.

Did Well Flow ☐ Yes ☒ No Recovery Total Ft. No fluid recovery.

Reversed Out ☐ Yes ☒ No Mud Type Chem Viscosity 40 Weight 9.3 Water Loss - cc. Chlorides 2400PPM

EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint - Jars: Size - In. Make - Ser. No. -

Dual Packer Yes Did Packers Hold? Yes Did Tool Plug? No Where? -

DRILLING CONTRACTOR Range Drilling Co. (#1) Length Drill Pipe? 763 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 XH In.

Length Weight Pipe 317 Ft. I.D. Weight Pipe 2.7 In. Tool Joint Size 4 1/2 FH In. Length Drill Collars 250 Ft. I.D. Drill Collars 2 1/4 In.

Tool Joint Size 4 1/2 H-90 In. Length D.S.T. Tool 58 Ft.

Remarks:

WESTERN TESTING CO., INC.

Pressure Data

Date 2-10-78 Test Ticket No. 22548
 Recorder No. 1559 Capacity 4200 Location 1381 Ft.
 Clock No. 9103 Elevation 1098 Kelly Bushing Well Temperature 72 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>727</u>	P.S.I.	<u>4:57P.</u>	<u>M</u>
B First Initial Flow Pressure	<u>10</u>	P.S.I.	<u>30</u>	Mins. <u>30</u> Mins.
C First Final Flow Pressure	<u>10</u>	P.S.I.	<u>30</u>	Mins. <u>30</u> Mins.
D Initial Closed-in Pressure	<u>10</u>	P.S.I.	<u>30</u>	Mins. <u>30</u> Mins.
E Second Initial Flow Pressure	<u>10</u>	P.S.I.	<u>30</u>	Mins. <u>30</u> Mins.
F Second Final Flow Pressure	<u>10</u>	P.S.I.	<u>30</u>	Mins. <u>30</u> Mins.
G Final Closed-in Pressure	<u>10</u>	P.S.I.		
H Final Hydrostatic Mud	<u>716</u>	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure
 Breakdown: 6 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.

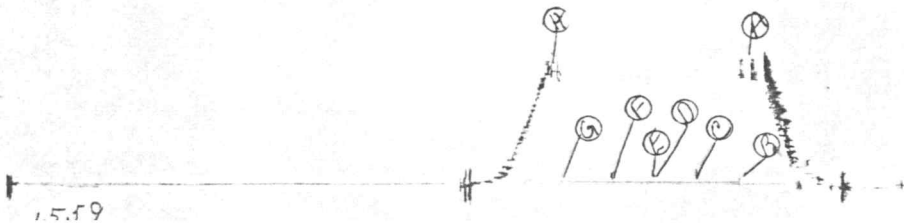
Second Flow Pressure
 Breakdown: 6 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Final Shut-In
 Breakdown: 10 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 <u>0</u>	<u>10</u>	<u>0</u>	<u>10</u>	<u>0</u>	<u>10</u>	<u>0</u>	<u>10</u>
P 2 <u>5</u>	<u>10</u>	<u>3</u>	<u>10</u>	<u>5</u>	<u>10</u>	<u>3</u>	<u>10</u>
P 3 <u>10</u>	<u>10</u>	<u>6</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>6</u>	<u>10</u>
P 4 <u>15</u>	<u>10</u>	<u>9</u>	<u>10</u>	<u>15</u>	<u>10</u>	<u>9</u>	<u>10</u>
P 5 <u>20</u>	<u>10</u>	<u>12</u>	<u>10</u>	<u>20</u>	<u>10</u>	<u>12</u>	<u>10</u>
P 6 <u>25</u>	<u>10</u>	<u>15</u>	<u>10</u>	<u>25</u>	<u>10</u>	<u>15</u>	<u>10</u>
P 7 <u>30</u>	<u>10</u>	<u>18</u>	<u>10</u>	<u>30</u>	<u>10</u>	<u>18</u>	<u>10</u>
P 8		<u>21</u>	<u>10</u>			<u>21</u>	<u>10</u>
P 9		<u>24</u>	<u>10</u>			<u>24</u>	<u>10</u>
P10		<u>27</u>	<u>10</u>			<u>27</u>	<u>10</u>
P11		<u>30</u>	<u>10</u>			<u>30</u>	<u>10</u>
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

TKT # 22548

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Home Office: Wichita, Kansas 67201
P. O. Box 1599 (316) 838-0601

Company Range Oil Company, Inc. Lease & Well No. Lovell "C" #2
Elevation 1098 Kelly Bush Formation Hoover Effective Pay - Ft. Ticket No. 22549
Date 2-11-78 Sec. 8 Twp. 33S Range 3E County Cowley State Kansas
Test Approved by Stephen M. Kreidler Western Representative Tim Wilson
Formation Test No. 3 O.K. ☒ Misrun ☐ Interval Tested From 1865' to 1895' Total Depth 1895'
Size Main Hole 7 7/8 Rat Hole ☐ Conv. ☐ B.T. ☒ Damaged ☐ Yes ☒ No Conv. ☐ B.T. ☒ Damaged ☐ Yes ☒ No
Top Packer Depth 1860 Ft. Size 6 3/4 Bottom Packer Depth 1865 Ft. Size 6 3/4
Straddle ☐ Conv. ☐ B.T. ☐ Damaged ☐ Yes ☐ No Packer Depth - Ft. Size -
Tool Size 4 1/2 OD Tool Joint Size 3 1/2 IF Anchor Length 30 Ft. Size 4 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.
RECORDERS Depth 1888 Ft. Clock No. 9103 Depth 1891 Ft. Clock No. 9727
Top Make Kuster Cap. 4200 No. 1559 Inside Outside Bottom Make Kuster Cap. 3200 No. 1561 Inside Outside
Below Straddle: Depth - Rec. No. - Clock No. - Inside Outside Depth - Ft. Rec. No. - Clock No. - Inside Outside
Time Set Packer 7:27P. M
Tool Open I.F.P. From 7:30P M. to 8:00P M. - Hr. 30 Min. From (B) 48 P.S.I. To (C) 23 P.S.I.
Tool Closed I.C.I.P. From 8:00P M. to 8:30P M. - Hr. 30 Min (D) 261 P.S.I.
Tool Open F.F.P. From 8:30P M. to 9:15P M. - Hr. 45 Min. From (E) 42 P.S.I. To (F) 27 P.S.I.
Tool Closed F.C.I.P. From 9:15P M. to 10:00P M. - Hr. 45 Min. (G) 600 P.S.I.
Initial Hydrostatic Pressure (A) 918 P.S.I. Final Hydrostatic Pressure (H) 904 P.S.I. Maximum Temp. 89

INFORMATION

BLOW Strong blow decreasing to fair blow throughout test.

Did Well Flow ☐ Yes ☒ No Recovery Total Ft. 10' of drilling mud.

Reversed Out ☐ Yes ☒ No Mud Type Chem Viscosity 41 Weight 9.2 Water Loss - cc. Chlorides 2800PPM
EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint ☐ Jars: Size - In. Make - Ser. No. -
Dual Packer yes Did Packers Hold? Yes Did Tool Plug? No Where? -
DRILLING CONTRACTOR Range Drilling Co. (#1) Length Drill Pipe? 1278 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 XH In.
Length Weight Pipe 317 Ft. I.D. Weight Pipe 2.7 In. Tool Joint Size 4 1/2 FH In. Length Drill Collars 250 Ft. I.D. Drill Collars 2 1/4 In.
Tool Joint Size 4 1/2 H-90 In. Length D.S.T. Tool 50 Ft.

Remarks:

WESTERN TESTING CO., INC.

Pressure Data

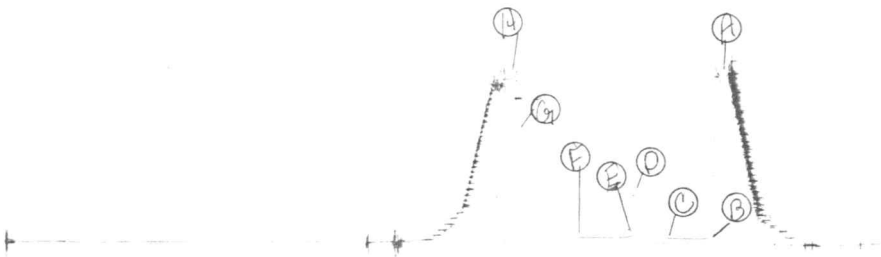
Date 2-11-78 Recorder No. 1559 Capacity 4200 Test Ticket No. 22549
 Clock No. 9103 Elevation 1098 Kelly Bushing Location 1888 Ft. Well Temperature 89 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	918 P.S.I.	Open Tool	7:27P.	M
B First Initial Flow Pressure	48 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	23 P.S.I.	Initial Closed-in Pressure	30 Mins.	27 Mins.
D Initial Closed-in Pressure	261 P.S.I.	Second Flow Pressure	45 Mins.	45 Mins.
E Second Initial Flow Pressure	42 P.S.I.	Final Closed-in Pressure	45 Mins.	45 Mins.
F Second Final Flow Pressure	27 P.S.I.			
G Final Closed-in Pressure	600 P.S.I.			
H Final Hydrostatic Mud	904 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>9</u> Inc.		Breakdown: <u>9</u> Inc.		Breakdown: <u>15</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>48</u>	<u>0</u>	<u>23</u>	<u>0</u>	<u>42</u>	<u>0</u>	<u>27</u>
P 2 <u>5</u>	<u>23</u>	<u>3</u>	<u>46</u>	<u>5</u>	<u>27</u>	<u>3</u>	<u>86</u>
P 3 <u>10</u>	<u>23</u>	<u>6</u>	<u>86</u>	<u>10</u>	<u>27</u>	<u>6</u>	<u>138</u>
P 4 <u>15</u>	<u>23</u>	<u>9</u>	<u>117</u>	<u>15</u>	<u>27</u>	<u>9</u>	<u>192</u>
P 5 <u>20</u>	<u>23</u>	<u>12</u>	<u>146</u>	<u>20</u>	<u>27</u>	<u>12</u>	<u>238</u>
P 6 <u>25</u>	<u>23</u>	<u>15</u>	<u>173</u>	<u>25</u>	<u>27</u>	<u>15</u>	<u>293</u>
P 7 <u>30</u>	<u>23</u>	<u>18</u>	<u>201</u>	<u>30</u>	<u>27</u>	<u>18</u>	<u>334</u>
P 8		<u>21</u>	<u>222</u>	<u>35</u>	<u>27</u>	<u>21</u>	<u>374</u>
P 9		<u>24</u>	<u>245</u>	<u>40</u>	<u>27</u>	<u>24</u>	<u>412</u>
P10		<u>27</u>	<u>261</u>	<u>45</u>	<u>27</u>	<u>27</u>	<u>443</u>
P11						<u>30</u>	<u>475</u>
P12						<u>33</u>	<u>504</u>
P13						<u>36</u>	<u>531</u>
P14						<u>39</u>	<u>556</u>
P15						<u>42</u>	<u>579</u>
P16						<u>45</u>	<u>600</u>
P17							
P18							
P19							
P20							

TKT# 22549
I.





Home Office: Wichita, Kansas 67201
P. O. Box 1599 (316) 838-0601

Company Range Oil Company, Inc. Lease & Well No. Lovell C #2
Elevation 1098 Kelly Bush. Formation Layton Effective Pay - Ft. Ticket No. 22550
Date 2-13-78 Sec. 8 Twp. 33S Range 3E County Cowley State Kansas
Test Approved by Stephen M. Kreidler Western Representative Tim Wilson
Formation Test No. 4 O.K. ☒ Misrun ☐ Interval Tested From 2553' to 2564' Total Depth 2564'
Size Main Hole 7 7/8 Rat Hole ☐ Conv. ☐ B.T. ☒ Damaged ☐ Yes ☒ No Conv. ☐ B.T. ☒ Damaged ☐ Yes ☒ No
Top Packer Depth 2548 Ft. Size 6 3/4 Bottom Packer Depth 2553 Ft. Size 6 3/4
Straddle ☐ Conv. ☐ B.T. ☐ Damaged ☐ Yes ☐ No Packer Depth - Ft. Size -
Tool Size 4 1/2 OD Tool Joint Size 3 1/2 IF Anchor Length 11 Ft. Size 4 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.
RECORDERS Depth 2557 Ft. Clock No. 9103 Depth 2560 Ft. Clock No. 9727
Top Make Kuster Cap. 4200 No. 1559 Inside Outside Bottom Make Kuster Cap. 3200 No. 1561 Inside Outside
Below Straddle: Depth - Rec. No. - Clock No. - Inside Outside Depth - Ft. Rec. No. - Clock No. - Inside Outside
Time Set Packer 10:38P. M
Tool Open I.F.P. From 10:40P M. to 11:10P M. - Hr. 30 Min. From (B) 46 P.S.I. To (C) 25 P.S.I.
Tool Closed I.C.I.P. From 11:10P M. to 11:40P M. - Hr. 30 Min (D) 648 P.S.I.
Tool Open F.F.P. From 11:40P M. to 12:40A M. - Hr. 60 Min. From (E) 50 P.S.I. To (F) 31 P.S.I.
Tool Closed F.C.I.P. From 12:40A M. to 1:40A M. - Hr. 60 Min. (G) 650 P.S.I.
Initial Hydrostatic Pressure (A) 1217 P.S.I. Final Hydrostatic Pressure (H) 1196 P.S.I. Maximum Temp. 104

INFORMATION

BLOW Very weak blow building to a fair blow throughout test.

Did Well Flow ☒ Yes ☐ No Recovery Total Ft. 40' of heavy oil cut mud (40% oil, 60% mud) with free oil in tool.

Reversed Out ☒ Yes ☐ No Mud Type Chem Viscosity 45 Weight 9.2 Water Loss 10.0 cc. Chlorides 2,700 PPM

EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint - Jars: Size - In. Make - Ser. No. -

Dual Packer Yes Did Packers Hold? Yes Did Tool Plug? No Where? -

DRILLING CONTRACTOR Range Drlg. (#1) Length Drill Pipe 2091 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 In.

Length Weight Pipe 317 Ft. I.D. Weight Pipe 2.7 In. Tool Joint Size 4 1/2 In. Length Drill Collars 125 Ft. I.D. Drill Collars 2 1/4 In.

Tool Joint Size 4 1/2 In. Length D.S.T. Tool 31 Ft.

Remarks:

WESTERN TESTING CO., INC.

Pressure Data

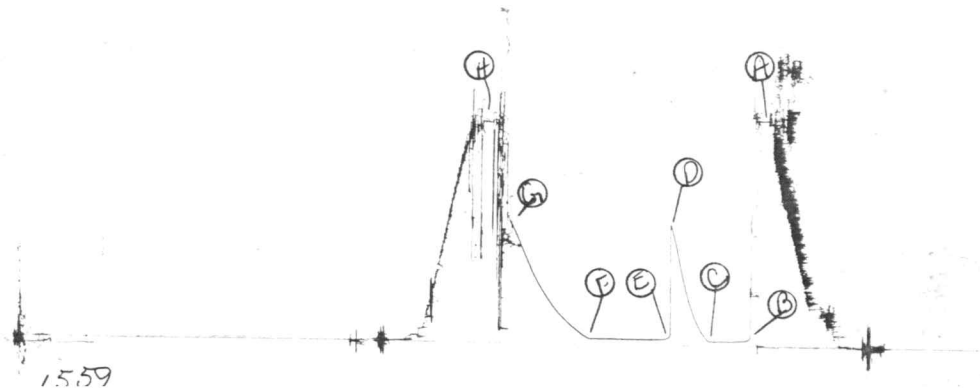
Date 2-13-78 Test Ticket No. 22550
 Recorder No. 1559 Capacity 4200 Location 2557 Ft.
 Clock No. 9103 Elevation 1098 Kelly Bushing Well Temperature 104 °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1217</u> P.S.I.	<u>10:38P</u> M	
B First Initial Flow Pressure	<u>46</u> P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>25</u> P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>648</u> P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>50</u> P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
F Second Final Flow Pressure	<u>31</u> P.S.I.		
G Final Closed-in Pressure	<u>650</u> P.S.I.		
H Final Hydrostatic Mud	<u>1196</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>20</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>46</u>	<u>0</u>	<u>25</u>	<u>0</u>	<u>50</u>	<u>0</u>	<u>31</u>
P 2 <u>5</u>	<u>29</u>	<u>3</u>	<u>38</u>	<u>5</u>	<u>31</u>	<u>3</u>	<u>42</u>
P 3 <u>10</u>	<u>25</u>	<u>6</u>	<u>67</u>	<u>10</u>	<u>31</u>	<u>6</u>	<u>61</u>
P 4 <u>15</u>	<u>25</u>	<u>9</u>	<u>111</u>	<u>15</u>	<u>31</u>	<u>9</u>	<u>77</u>
P 5 <u>20</u>	<u>25</u>	<u>12</u>	<u>155</u>	<u>20</u>	<u>31</u>	<u>12</u>	<u>94</u>
P 6 <u>25</u>	<u>25</u>	<u>15</u>	<u>213</u>	<u>25</u>	<u>31</u>	<u>15</u>	<u>111</u>
P 7 <u>30</u>	<u>25</u>	<u>18</u>	<u>288</u>	<u>30</u>	<u>31</u>	<u>18</u>	<u>132</u>
P 8		<u>21</u>	<u>378</u>	<u>35</u>	<u>31</u>	<u>21</u>	<u>153</u>
P 9		<u>24</u>	<u>483</u>	<u>40</u>	<u>31</u>	<u>24</u>	<u>176</u>
P10		<u>27</u>	<u>569</u>	<u>45</u>	<u>31</u>	<u>27</u>	<u>203</u>
P11		<u>30</u>	<u>648</u>	<u>50</u>	<u>31</u>	<u>30</u>	<u>232</u>
P12				<u>55</u>	<u>31</u>	<u>33</u>	<u>263</u>
P13				<u>60</u>	<u>31</u>	<u>36</u>	<u>297</u>
P14						<u>39</u>	<u>330</u>
P15						<u>42</u>	<u>368</u>
P16						<u>45</u>	<u>410</u>
P17						<u>48</u>	<u>456</u>
P18						<u>51</u>	<u>508</u>
P19						<u>54</u>	<u>558</u>
P20						<u>57</u>	<u>606</u>
						<u>60</u>	<u>650</u>

TRT # 22550
I.





P. O. BOX 1599 PHONE (316) 838-0601
WICHITA, KANSAS 67201

Company Range Oil Company, Inc. Lease & Well No. Lovell C #2
Elevation 1098 Kelly Bush. Formation Layton Effective Pay - Ft. Ticket No. 176
Date 2-14-78 Sec. 8 Twp. 33S Range 3E County Cowley State Kansas
Test Approved by Stephen M. Kreidler Western Representative Tim Wilson

Formation Test No. 5 Interval Tested from 2560 ft. to 2569 ft. Total Depth 2569 ft.

Packer Depth 2555 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 2560 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 2563 ft. Recorder Number 1559 Cap. 4200

Bottom Recorder Depth (Outside) 2566 ft. Recorder Number 1561 Cap. 3200

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

Drilling Contractor Range Drllg. Co., (#1) Drill Collar Length 125 I. D. 2 1/4 in.

Mud Type Chem Viscosity 50 Weight Pipe Length 317 I. D. 2.7 in.

Weight 9.3 Water Loss 10.0 cc. Drill Pipe Length 2098 I. D. 3.8 in.

Chlorides 2700 P.P.M. Test Tool Size 4 1/2 in. Tool Joint Size 3 1/2 IF in.

Jars: Make - Serial Number - Anchor Length 9 ft. Size 4 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 7/8 in.

Blow: Very weak building to a fair blow throughout test.

Recovered 200 ft. of gas in pipe

Recovered 40 ft. of oil and gas cut mud (2% oil, 98% mud)

Recovered 60 ft. of heavy oil cut mud (60% oil, 40% mud)

Recovered - ft. of -

Recovered - ft. of -

Remarks:

Time Set Packer(s) 3:03 ~~P.M.~~ ^{A.M.} Time Started Off Bottom 5:10 ~~P.M.~~ ^{A.M.} Maximum Temperature 93

Initial Hydrostatic Pressure (A) 1242 P.S.I.

Initial Flow Period Minutes 30 (B) 8 P.S.I. to (C) 21 P.S.I.

Initial Closed In Period Minutes 30 (D) 443 P.S.I.

Final Flow Period Minutes 30 (E) 48 P.S.I. to (F) 31 P.S.I.

Final Closed In Period Minutes 90 (G) 822 P.S.I.

Final Hydrostatic Pressure (H) 1232 P.S.I.

WESTERN TESTING CO., INC. Pressure Data

Date 2-14-78 Test Ticket No. 176
Recorder No. 1559 Capacity 4200 Location 2563 F
Clock No. - Elevation 1098 Kelly Bushing Well Temperature 93 °

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1242 P.S.I.	Open Tool	3:03	M
B First Initial Flow Pressure	8 P.S.I.	First Flow Pressure	30 Mins.	30 Min
C First Final Flow Pressure	21 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Min
D Initial Closed-in Pressure	443 P.S.I.	Second Flow Pressure	30 Mins.	30 Min
E Second Initial Flow Pressure	48 P.S.I.	Final Closed-in Pressure	90 Mins.	87 Min
F Second Final Flow Pressure	31 P.S.I.			
G Final Closed-in Pressure	822 P.S.I.			
H Final Hydrostatic Mud	1232 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>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Final Shut-In Breakdown: <u>29</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 0	8	0	21	0	48	0	31
P 2 5	10	3	25	5	31	3	36
P 3 10	15	6	48	10	31	6	63
P 4 15	17	9	79	15	31	9	94
P 5 20	19	12	115	20	31	12	138
P 6 25	20	15	159	25	31	15	180
P 7 30	21	18	211	30	31	18	222
P 8		21	261			21	272
P 9		24	318			24	326
P10		27	380			27	380
P11		30	443			30	439
P12						33	502
P13						36	550
P14						39	602
P15						42	635
P16						45	660
P17						48	685
P18						51	706
P19						54	723
P20						57	735

WESTERN TESTING CO., INC.

Pressure Data

Date 2-14-78 Test Ticket No. 176
 Recorder No. 1559 Capacity 4200 Location 2563 Ft.
 Clock No. - Elevation 1098 Kelly Bushing Well Temperature 93 °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	1242 P.S.I.	3:03	M
B First Initial Flow Pressure	8 P.S.I.	30 Mins.	30 Mins.
C First Final Flow Pressure	21 P.S.I.	30 Mins.	30 Mins.
D Initial Closed-in Pressure	443 P.S.I.	30 Mins.	30 Mins.
E Second Initial Flow Pressure	48 P.S.I.	90 Mins.	87 Mins.
F Second Final Flow Pressure	31 P.S.I.		
G Final Closed-in Pressure	822 P.S.I.		
H Final Hydrostatic Mud	1232 P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1						60	752
P 2						63	762
P 3						66	770
P 4						69	779
P 5						72	787
P 6						75	795
P 7						78	802
P 8						81	808
P 9						84	814
P10						87	822
P11							
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

TR# 176
I.

