



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

Company Pickrell Drilling Company Lease & Well No. Ludeman B-#1
Elevation 1287 Kelly Bushing Formation Stalnaker Effective Pay - Ft. Ticket No. 25694
Date 6-20-77 Sec. 1 Twp. 34S Range 6W County Harper State Kansas
Test Approved by George R. Dent Western Representative Bill Hager
Formation Test No. 1 O.K. ☒ Misrun ☐ Interval Tested From 3492' to 3570' Total Depth 3570'
Size Main Hole 77/8 Rat Hole ☐ Conv. ☐ B.T. ☒ Damaged ☐ Yes ☒ No Conv. ☐ B.T. ☒ Damaged ☐ Yes ☒ No
Top Packer Depth 3487 Ft. Size 6 3/4 Bottom Packer Depth 3492 Ft. Size 6 3/4
Straddle ☐ Conv. ☐ B.T. ☐ Damaged ☐ Yes ☐ No Packer Depth ☐ Ft. Size ☐
Tool Size 5 1/2 OD Tool Joint Size 4 1/2 FH Anchor Length 78 Ft. Size 16 1/2 Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.
RECORDERS Depth 3497 Ft. Clock No. 4763 Depth 3500 Ft. Clock No. 9726
Top Make Kuster Cap. 4150 No. 2604 Inside Outside Bottom Make Kuster Cap. 4150 No. 2606 Inside Outside
Below Straddle: Depth ☐ Rec. No. ☐ Clock No. ☐ Inside Outside Depth ☐ Ft. Rec. No. ☐ Clock No. ☐ Inside Outside
Time Set Packer 7:02 A M
Tool Open I.F.P. From 7:05 A.M. to 7:35 A.M. - Hr. 30 Min. From (B) 548 P.S.I. To (C) 820 P.S.I.
Tool Closed I.C.I.P. From 7:35 M. to 8:35 A.M. 1 Hr. - Min (D) 1474 P.S.I.
Tool Open F.F.P. From 8:35 M. to 10:05 A.M. 1 Hr. 30 Min. From (E) 857 P.S.I. To (F) 1255 P.S.I.
Tool Closed F.C.I.P. From 10:05 M. to 11:35 A.M. 1 Hr. 30 Min. (G) 1476 P.S.I.
Initial Hydrostatic Pressure (A) 1769 P.S.I. Final Hydrostatic Pressure (H) 1744 P.S.I. Maximum Temp. 128

INFORMATION

BLOW Strong blow throughout test.
Did Well Flow ☐ Yes ☒ No Recovery Total Ft. 2600' gas cut saltwater
Reversed Out ☒ Yes ☐ No Mud Type starch Viscosity 43 Weight 9.4 Water Loss ☐ cc. Chlorides 33,000 P.P.M.
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 Sweetman Drilg. Co. Length Drill Pipe? 3254 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 XH In.
Length Weight Pipe ☐ Ft. I.D. Weight Pipe ☐ In. Tool Joint Size ☐ In. Length Drill Collars 280 Ft. I.D. Drill Collars 2 1/4 In.
Tool Joint Size 4 1/2 XH In. Length D.S.T. Tool 36 Ft.
Remarks: Slid tool 20' to bottom.

WESTERN TESTING CO., INC.

Pressure Data

Date 6-20-77 Test Ticket No. 25694
 Recorder No. 2604 Capacity 4150 Location 3497 Ft.
 Clock No. 4763 Elevation 1287 Kelly Bushing Well Temperature 128 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1769</u> P.S.I.	Open Tool	<u>7:02</u> A M	
B First Initial Flow Pressure	<u>548</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>820</u> P.S.I.	Initial Closed-in Pressure	<u>60</u> Mins.	<u>60</u> Mins.
D Initial Closed-in Pressure	<u>1474</u> P.S.I.	Second Flow Pressure	<u>90</u> Mins.	<u>90</u> Mins.
E Second Initial Flow Pressure	<u>857</u> P.S.I.	Final Closed-in Pressure	<u>90</u> Mins.	<u>90</u> Mins.
F Second Final Flow Pressure	<u>1255</u> P.S.I.			
G Final Closed-in Pressure	<u>1476</u> P.S.I.			
H Final Hydrostatic Mud	<u>1744</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>20</u> Inc.		Breakdown: <u>18</u> Inc.		Breakdown: <u>30</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>548</u>	<u>0</u>	<u>820</u>	<u>0</u>	<u>857</u>	<u>0</u>	<u>1255</u>
P 2 <u>5</u>	<u>607</u>	<u>3</u>	<u>1462</u>	<u>5</u>	<u>903</u>	<u>3</u>	<u>1473</u>
P 3 <u>10</u>	<u>655</u>	<u>6</u>	<u>1464</u>	<u>10</u>	<u>924</u>	<u>6</u>	<u>1475</u>
P 4 <u>15</u>	<u>701</u>	<u>9</u>	<u>1466</u>	<u>15</u>	<u>956</u>	<u>9</u>	<u>1476</u>
P 5 <u>20</u>	<u>761</u>	<u>12</u>	<u>1467</u>	<u>20</u>	<u>981</u>	<u>12</u>	<u>1476</u>
P 6 <u>25</u>	<u>795</u>	<u>15</u>	<u>1467</u>	<u>25</u>	<u>1006</u>	<u>15</u>	<u>1476</u>
P 7 <u>30</u>	<u>820</u>	<u>18</u>	<u>1467</u>	<u>30</u>	<u>1033</u>	<u>18</u>	<u>1476</u>
P 8		<u>21</u>	<u>1468</u>	<u>35</u>	<u>1065</u>	<u>21</u>	<u>1477</u>
P 9		<u>24</u>	<u>1468</u>	<u>40</u>	<u>1077</u>	<u>24</u>	<u>1477</u>
P10		<u>27</u>	<u>1471</u>	<u>45</u>	<u>1107</u>	<u>27</u>	<u>1477</u>
P11		<u>30</u>	<u>1471</u>	<u>50</u>	<u>1127</u>	<u>30</u>	<u>1477</u>
P12		<u>33</u>	<u>1472</u>	<u>55</u>	<u>1153</u>	<u>33</u>	<u>1477</u>
P13		<u>36</u>	<u>1472</u>	<u>60</u>	<u>1171</u>	<u>36</u>	<u>1475</u>
P14		<u>39</u>	<u>1473</u>	<u>65</u>	<u>1182</u>	<u>39</u>	<u>1475</u>
P15		<u>42</u>	<u>1473</u>	<u>70</u>	<u>1207</u>	<u>42</u>	<u>1475</u>
P16		<u>45</u>	<u>1473</u>	<u>75</u>	<u>1232</u>	<u>45</u>	<u>1476</u>
P17		<u>48</u>	<u>1474</u>	<u>80</u>	<u>1251</u>	<u>48</u>	<u>1476</u>
P18		<u>51</u>	<u>1474</u>	<u>85</u>	<u>1255</u>	<u>51</u>	<u>1476</u>
P19		<u>54</u>	<u>1474</u>	<u>90</u>	<u>1255</u>	<u>54</u>	<u>1476</u>
P20		<u>57</u>	<u>1474</u>			<u>57</u>	<u>1476</u>
		<u>60</u>	<u>1474</u>			<u>60</u>	<u>1476</u>

WESTERN TESTING CO., INC.

Pressure Data

Date 6-20-77 Test Ticket No. 25694
 Recorder No. 2 604 Capacity 4150 Location 3497 Ft.
 Clock No. 4763 Elevation 1287 Kelly Bushing Well Temperature 128 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	P.S.I.	Open Tool		M
B First Initial Flow Pressure	P.S.I.	First Flow Pressure	Mins.	Mins.
C First Final Flow Pressure	P.S.I.	Initial Closed-in Pressure	Mins.	Mins.
D Initial Closed-in Pressure	P.S.I.	Second Flow Pressure	Mins.	Mins.
E Second Initial Flow Pressure	P.S.I.	Final Closed-in Pressure	Mins.	Mins.
F Second Final Flow Pressure	P.S.I.			
G Final Closed-in Pressure	P.S.I.			
H Final Hydrostatic Mud	P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: <u>30</u> Inc.	
of _____ mins. and a		of _____ mins. and a		of _____ mins. and a		of <u>3</u> mins. and a	
final inc. of _____ Min.		final inc. of _____ Min.		final inc. of _____ Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1						63	1476
P 2						66	1476
P 3						69	1476
P 4						71	1476
P 5						75	1476
P 6						78	1476
P 7						81	1476
P 8						84	1476
P 9						87	1476
P10						90	1476
P11							
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

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Home Office: Wichita, Kansas 67201
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Company Pickrell Drilling Company Lease & Well No. Ludeman B-#1
Elevation 1287 Kelly Bushing Formation Base-Kansas City Effective Pay - Ft. Ticket No. 24823
Date 6-21-77 Sec. 1 Twp. 34S Range 6W County Harper State Kansas
Test Approved by George Dent Western Representative Joe N. Lusk
Formation Test No. 2 O.K. ☒ Misrun ☐ Interval Tested From 3784' to 3820' Total Depth 3820'
Size Main Hole 77/8 Rat Hole ☐ Conv. ☒ B.T. ☐ Damaged ☐ Yes ☐ No Conv. ☐ B.T. ☒ Damaged ☐ Yes ☐ No
Top Packer Depth 3779 Ft. Size 6 3/4 Bottom Packer Depth 3784 Ft. Size 6 3/4
Straddle ☐ Conv. ☐ B.T. ☐ Damaged ☐ Yes ☐ No Packer Depth ☐ Ft. Size ☐
Tool Size 5 1/2 OD Tool Joint Size 4 1/2 FH Anchor Length 36 Ft. Size 5 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.
RECORDERS Depth 3799 Ft. Clock No. 5665 Depth 3802 Ft. Clock No. 6894
Top Make Kuster Cap. 4400 No. 2603 Inside Outside Bottom Make Kuster Cap. 4000 No. 3660 Inside Outside
Below Straddle: Depth ☐ Rec. No. ☐ Clock No. ☐ Inside Outside Depth ☐ Ft. Rec. No. ☐ Clock No. ☐ Inside Outside
Time Set Packer 2:28 P M
Tool Open I.F.P. From 2:30 P M. to 3:00 P M. - Hr. 30 Min. From (B) 56 P.S.I. To (C) 45 P.S.I.
Tool Closed I.C.I.P. From 3:00 M. to 3:30 P M. - Hr. 30 Min (D) 112 P.S.I.
Tool Open F.F.P. From 3:30 M. to 4:00 P M. - Hr. 30 Min. From (E) 67 P.S.I. To (F) 65 P.S.I.
Tool Closed F.C.I.P. From 4:00 M. to 4:30 P M. - Hr. 30 Min. (G) 214 P.S.I.
Initial Hydrostatic Pressure (A) 1951 P.S.I. Final Hydrostatic Pressure (H) 1951 P.S.I. Maximum Temp. 133

INFORMATION

BLOW Very weak blow on initial flow period. Blow died in 24 minutes. No blow on final flow period, back flushed tool and received weak blow.

Did Well Flow - Yes ☒ No ☐ Recovery Total Ft. 60' mud

Reversed Out - Yes ☒ No ☐ Mud Type starch premix Viscosity 46 Weight 9.5 Water Loss 18.8 cc. Chlorides 27,000 P.P.M.

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 Sweetman Drlg. Co. Length Drill Pipe? 3481 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 XH In.

Length Weight Pipe ☐ Ft. I.D. Weight Pipe ☐ In. Tool Joint Size ☐ In. Length Drill Collars 282 Ft. I.D. Drill Collars 2 1/4 In.

Tool Joint Size 4 1/2 XH In. Length D.S.T. Tool 57 Ft.

Remarks:

WESTERN TESTING CO., INC.

Pressure Data

Date 6-21-77 Test Ticket No. 24823
 Recorder No. 2603 Capacity 4400 Location 3799 Ft.
 Clock No. 5665 Elevation 1287 Kelly Bushing Well Temperature 133 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1951 P.S.I.	Open Tool	2:28 P M	
B First Initial Flow Pressure	56 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	45 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	112 P.S.I.	Second Flow Pressure	30 Mins.	30 Mins.
E Second Initial Flow Pressure	67 P.S.I.	Final Closed-in Pressure	30 Mins.	30 Mins.
F Second Final Flow Pressure	65 P.S.I.			
G Final Closed-in Pressure	214 P.S.I.			
H Final Hydrostatic Mud	1951 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 0	56	0	45	0	67	0	65
P 2 5	45	3	45	5	flushed tool	3	71
P 3 10	45	6	45	10	65	6	80
P 4 15	45	9	45	15	65	9	94
P 5 20	45	12	45	20	65	12	105
P 6 25	45	15	56	25	65	15	116
P 7 30	45	18	66	30	65	18	130
P 8		21	77			21	148
P 9		24	87			24	168
P10		27	96			27	194
P11		30	112			30	214
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

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P. O. Box 1599 (316) 838-0601

Company Pickrell Drilling Company Lease & Well No. Ludeman B #1
Elevation 1287 Kelly Bush. Formation Mississippi Effective Pay - Ft. Ticket No. 23139
Date 6-24-77 Sec. 1 Twp. 34S Range 6W County Harper State Kansas
Test Approved by George R. Dent Western Representative Vernon Wondra
Formation Test No. 3 O.K. ☒ Misrun ☐ Interval Tested From 4470' to 4485' Total Depth 4485'
Size Main Hole 7 7/8 Rat Hole ☐ Conv. ☒ B.T. ☐ Damaged ☐ Yes ☒ No Conv. ☒ B.T. ☐ Damaged ☐ Yes ☒ No
Top Packer Depth 4465 Ft. Size 6 3/4 Bottom Packer Depth 4470 Ft. Size 6 3/4
Straddle ☐ Conv. ☐ B.T. ☐ Damaged ☐ Yes ☐ No Packer Depth - Ft. Size -
Tool Size 5 1/2 OD Tool Joint Size 4 1/2 FH Anchor Length 15 Ft. Size 5 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.
RECORDERS Depth 4473 Ft. Clock No. 10412 Depth 4476 Ft. Clock No. 6859
Top Make Kuster Cap. 4300 No. 1567 Inside ☒ Outside ☐ Bottom Make Kuster Cap. 4250 No. 1051 Inside ☒ Outside ☐
Below Straddle: Depth - Rec. No. - Clock No. - Inside ☐ Outside ☐ Depth - Rec. No. - Clock No. - Inside ☐ Outside ☐
Time Set Packer 6:08 A. M
Tool Open I.F.P. From 6:10A M. to 6:40A M. - Hr. 30 Min. From (B) 114 P.S.I. To (C) 119 P.S.I.
Tool Closed I.C.I.P. From 6:40A M. to 7:40A M. - Hr. 60 Min (D) 1667 P.S.I.
Tool Open F.F.P. From 7:40A M. to 9:10A M. - Hr. 90 Min. From (E) 140 P.S.I. To (F) 129 P.S.I.
Tool Closed F.C.I.P. From 9:10A M. to 10:40A M. - Hr. 90 Min. (G) 1640 P.S.I.
Initial Hydrostatic Pressure (A) 2370 P.S.I. Final Hydrostatic Pressure (H) 2329 P.S.I. Maximum Temp. 143

INFORMATION

BLOW Strong blow throughout test.

Did Well Flow ☐ Yes ☒ No Recovery Total Fr. 372' of total fluid recovery. 2800' of gas in pipe,
62' slightly oil and gas cut mud, 124' of oil and gas cut mud slightly water cut (8% oil,
5% water) 124' of heavy gas and oil cut mud, 62' of heavy gas and oil cut mud (30% oil)
Reversed Out ☐ Yes ☒ No Mud Type Starch Viscosity 38 Weight 9.7 Water Loss 26 cc. Chlorides 28,000 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 Sweetman Drlg. Co. Length Drill Pipe? 3855 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 XH In.
Length Weight Pipe - Ft. I.D. Weight Pipe - In. Tool Joint Size - In. Length Drill Collars 593 Ft. I.D. Drill Collars 2 1/4 In.
Tool Joint Size 4 1/2 XH In. Length D.S.T. Tool 37 Ft.
Remarks: Slid tool 10' to bottom. Plugging action on both flow periods.

WESTERN TESTING CO., INC.

Pressure Data

Date 6-24-77 Test Ticket No. 23139
 Recorder No. 1567 Capacity 4300 Location 4473 Ft.
 Clock No. 10412 Elevation 1287 Kelly Bushing Well Temperature 143 °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	2370 P.S.I.	6:08 AM	
B First Initial Flow Pressure	114 P.S.I.	30 Mins.	30 Mins.
C First Final Flow Pressure	119 P.S.I.	60 Mins.	57 Mins.
D Initial Closed-in Pressure	1667 P.S.I.	90 Mins.	85 Mins.
E Second Initial Flow Pressure	140 P.S.I.	90 Mins.	90 Mins.
F Second Final Flow Pressure	129 P.S.I.		
G Final Closed-in Pressure	1640 P.S.I.		
H Final Hydrostatic Mud	2329 P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>19</u> Inc.		Breakdown: <u>16</u> Inc.		Breakdown: <u>30</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>	114	<u>0</u>	119	<u>0</u>	140	<u>0</u>	129
P 2 <u>5</u>	114	<u>3</u>	838	<u>5</u>	140	<u>3</u>	229
P 3 <u>10</u>	114	<u>6</u>	1234	<u>10</u>	140	<u>6</u>	409
P 4 <u>15</u>	114	<u>9</u>	1381	<u>15</u>	140	<u>9</u>	638
P 5 <u>20</u>	119	<u>12</u>	1469	<u>20</u>	140	<u>12</u>	931
P 6 <u>25</u>	119	<u>15</u>	1519	<u>25</u>	140	<u>15</u>	1153
P 7 <u>30</u>	119	<u>18</u>	1555	<u>30</u>	140	<u>18</u>	1288
P 8		<u>21</u>	1580	<u>35</u>	140	<u>21</u>	1381
P 9		<u>24</u>	1596	<u>40</u>	140	<u>24</u>	1440
P10		<u>27</u>	1611	<u>45</u>	140	<u>27</u>	1483
P11		<u>30</u>	1621	<u>50</u>	130	<u>30</u>	1511
P12		<u>33</u>	1630	<u>55</u>	127	<u>33</u>	1535
P13		<u>36</u>	1638	<u>60</u>	plugging action	<u>36</u>	1550
P14		<u>39</u>	1645	<u>65</u>	131	<u>39</u>	1563
P15		<u>42</u>	1649	<u>70</u>	117	<u>42</u>	1573
P16		<u>45</u>	1654	<u>75</u>	119	<u>45</u>	1584
P17		<u>48</u>	1658	<u>80</u>	125	<u>48</u>	1593
P18		<u>51</u>	1662	<u>85</u>	129	<u>51</u>	1600
P19		<u>54</u>	1664			<u>54</u>	1606
P20		<u>57</u>	1667			<u>57</u>	1611
						<u>60</u>	1617

WESTERN TESTING CO., INC.

Pressure Data

Date 6-24-77 Test Ticket No. 23139
 Recorder No. 1567 Capacity 4300 Location 4473 Ft.
 Clock No. 10412 Elevation 1287 Kelly Bushing Well Temperature 143 °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	P.S.I.		M
B First Initial Flow Pressure	P.S.I.		Mins. Mins.
C First Final Flow Pressure	P.S.I.		Mins. Mins.
D Initial Closed-in Pressure	P.S.I.		Mins. Mins.
E Second Initial Flow Pressure	P.S.I.		Mins. Mins.
F Second Final Flow Pressure	P.S.I.		
G Final Closed-in Pressure	P.S.I.		
H Final Hydrostatic Mud	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: Inc.		Breakdown: Inc.		Breakdown: Inc.		Breakdown: 30 Inc.	
of mins. and a		of mins. and a		of mins. and a		of 3 mins. and a	
final inc. of Min.		final inc. of Min.		final inc. of Min.		final inc. of 0 Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1						63	1620
P 2						66	1625
P 3						69	1627
P 4						72	1632
P 5						75	1634
P 6						78	1636
P 7						81	1638
P 8						84	1640
P 9						87	1640
P10						90	1640
P11							
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

Tripot # 23139

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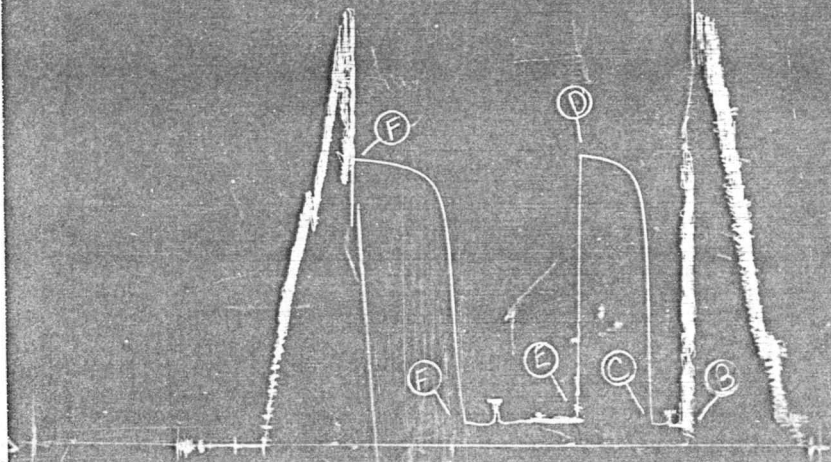
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Home Office: Wichita, Kansas 67201
P. O. Box 1599 (316) 838-0601

Company Pickrell Drilling Company Lease & Well No. Ludeman B #1
Elevation 1287 Kelly Bush. Formation Mississippi Effective Pay - Ft. Ticket No. 23140
Date 6-25-77 Sec. 1 Twp. 34S Range 6W County Harper State Kansas
Test Approved by George R. Dent Western Representative Vernon Wondra
Formation Test No. 4 O.K. ☒ Misrun ☐ Interval Tested From 4485' to 4500' Total Depth 4500'
Size Main Hole 7 7/8 Hole ☐ Conv. ☒ B.T. ☐ Damaged ☐ Yes ☒ No Conv. ☒ B.T. ☐ Damaged ☐ Yes ☒ No
Top Packer Depth 4480 Ft. Size 6 3/4 Bottom Packer Depth 4485 Ft. Size 6 3/4
Straddle ☐ Conv. ☐ B.T. ☐ Damaged ☐ Yes ☐ No Packer Depth ☐ Ft. Size ☐
Tool Size 5 1/2 OD Tool Joint Size 4 1/2 FH Anchor Length 15 Ft. Size 5 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.
RECORDERS Depth 4488 Ft. Clock No. 10412 Depth 4491 Ft. Clock No. 6859
Top Make Kuster Cap. 4300 No. 1567 ~~Inside~~ Outside Bottom Make Kuster Cap. 4250 No. 1051 ~~Inside~~ Outside
Below Straddle: Depth ☐ Rec. No. ☐ Clock No. ☐ ~~Inside~~ Outside Depth ☐ Ft. Rec. No. ☐ Clock No. ☐ ~~Inside~~ Outside
Time Set Packer 11:43P. M
Tool Open I.F.P. From 11:45P M. to 12:15A M. - Hr. 30 Min. From (B) 32 P.S.I. To (C) 63 P.S.I.
Tool Closed I.C.I.P. From 12:15A M. to 1:15A M. - Hr. 60 Min (D) 1672 P.S.I.
Tool Open F.F.P. From 1:15A M. to 2:45A M. - Hr. 90 Min. From (E) 104 P.S.I. To (F) 174 P.S.I.
Tool Closed F.C.I.P. From 2:45A M. to 4:15A M. = Hr. 90 Min. (G) 1663 P.S.I.
Initial Hydrostatic Pressure (A) 2403 P.S.I. Final Hydrostatic Pressure (H) 2274 P.S.I. Maximum Temp. 146

INFORMATION

BLOW Weak blow increasing to a strong 6" blow by end of final flow period.

Did Well Flow ☐ Yes ☒ No Recovery Total Ft. 80' of gas in pipe, 273' total fluid recovery, 273' of oil and gas cut water.

Reversed Out ☐ Yes ☒ No Mud Type Starch Viscosity 45 Weight 9.6 Water Loss 10.4 cc. Chlorides 27,000 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 Sweetman Drilling Co. Length Drill Pipe? 3870 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 XH In.

Length Weight Pipe ☐ Ft. I.D. Weight Pipe ☐ In. Tool Joint Size ☐ In. Length Drill Collars 593 Ft. I.D. Drill Collars 2 1/4 In.

Tool Joint Size 4 1/2 XH In. Length D.S.T. Tool 37 Ft.

Remarks:

WESTERN TESTING CO., INC.
Pressure Data

Date 6-25-77 Test Ticket No. 23140
 Recorder No. 1567 Capacity 4300 Location 4488 Ft.
 Hook No. 10412 Elevation 1287 Kelly Bushing Well Temperature 146 °F

Point	Pressure	Time Given	Time Computed
Initial Hydrostatic Mud	<u>2403</u> P.S.I.	<u>11:43P.</u>	<u>M</u>
First Initial Flow Pressure	<u>32</u> P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
First Final Flow Pressure	<u>63</u> P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
Initial Closed-in Pressure	<u>1672</u> P.S.I.	<u>90</u> Mins.	<u>85</u> Mins.
Second Initial Flow Pressure	<u>104</u> P.S.I.	<u>90</u> Mins.	<u>90</u> Mins.
Second Final Flow Pressure	<u>174</u> P.S.I.		
Final Closed-in Pressure	<u>1663</u> P.S.I.		
Final Hydrostatic Mud	<u>2274</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>20</u> Inc.		Breakdown: <u>17</u> Inc.		Breakdown: <u>30</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 ins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
1	<u>0</u>	<u>32</u>	<u>0</u>	<u>63</u>	<u>0</u>	<u>104</u>	<u>174</u>
2	<u>5</u>	<u>28</u>	<u>3</u>	<u>322</u>	<u>5</u>	<u>95</u>	<u>398</u>
3	<u>10</u>	<u>32</u>	<u>6</u>	<u>715</u>	<u>10</u>	<u>98</u>	<u>689</u>
4	<u>15</u>	<u>39</u>	<u>9</u>	<u>1097</u>	<u>15</u>	<u>106</u>	<u>1034</u>
5	<u>20</u>	<u>48</u>	<u>12</u>	<u>1360</u>	<u>20</u>	<u>114</u>	<u>1271</u>
6	<u>25</u>	<u>56</u>	<u>15</u>	<u>1468</u>	<u>25</u>	<u>121</u>	<u>1405</u>
7	<u>30</u>	<u>63</u>	<u>18</u>	<u>1519</u>	<u>30</u>	<u>130</u>	<u>1465</u>
8			<u>21</u>	<u>1554</u>	<u>35</u>	<u>138</u>	<u>1501</u>
9			<u>24</u>	<u>1580</u>	<u>40</u>	<u>143</u>	<u>1532</u>
10			<u>27</u>	<u>1597</u>	<u>45</u>	<u>147</u>	<u>1552</u>
11			<u>30</u>	<u>1612</u>	<u>50</u>	<u>150</u>	<u>1567</u>
12			<u>33</u>	<u>1623</u>	<u>55</u>	<u>153</u>	<u>1578</u>
13			<u>36</u>	<u>1632</u>	<u>60</u>	<u>158</u>	<u>1591</u>
14			<u>39</u>	<u>1640</u>	<u>65</u>	<u>162</u>	<u>1598</u>
15			<u>42</u>	<u>1647</u>	<u>70</u>	<u>165</u>	<u>1608</u>
16			<u>45</u>	<u>1653</u>	<u>75</u>	<u>167</u>	<u>1614</u>
17			<u>48</u>	<u>1660</u>	<u>80</u>	<u>172</u>	<u>1621</u>
18			<u>51</u>	<u>1662</u>	<u>85</u>	<u>174</u>	<u>1627</u>
19			<u>54</u>	<u>1666</u>			<u>1632</u>
20			<u>57</u>	<u>1668</u>			<u>1636</u>
			<u>60</u>	<u>1672</u>			<u>1640</u>

WESTERN TESTING CO., INC.

Pressure Data

Date 6-25-77 Test Ticket No. 23140
 Recorder No. 1567 Capacity 4300 Location 4488 Ft.
 Clock No. 10412 Elevation 1287 Kelly Bushing Well Temperature 146 °F

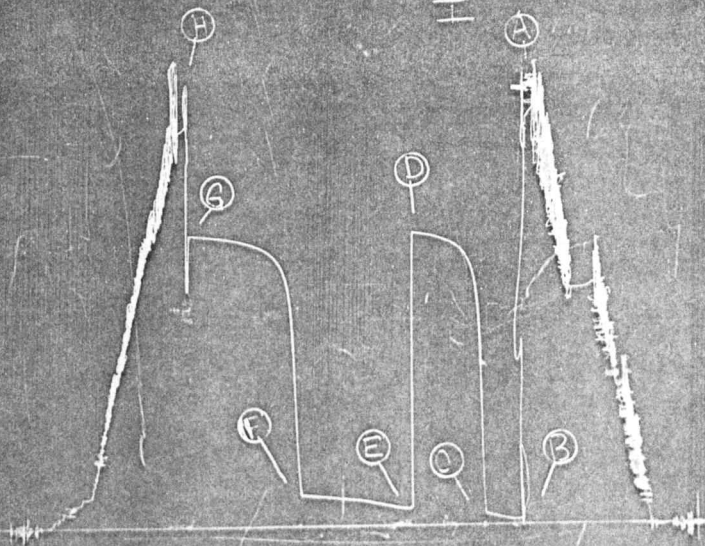
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2403</u> P.S.I.	Open Tool	<u>11:43P.</u> M	
B First Initial Flow Pressure	<u>32</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>63</u> P.S.I.	Initial Closed-in Pressure	<u>60</u> Mins.	<u>60</u> Mins.
D Initial Closed-in Pressure	<u>1672</u> P.S.I.	Second Flow Pressure	<u>90</u> Mins.	<u>85</u> Mins.
E Second Initial Flow Pressure	<u>104</u> P.S.I.	Final Closed-in Pressure	<u>90</u> Mins.	<u>90</u> Mins.
F Second Final Flow Pressure	<u>174</u> P.S.I.			
G Final Closed-in Pressure	<u>1663</u> P.S.I.			
H Final Hydrostatic Mud	<u>2274</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>20</u> Inc.		Breakdown: <u>17</u> Inc.		Breakdown: <u>30</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>63</u>	<u>1643</u>
P 2						<u>66</u>	<u>1646</u>
P 3						<u>69</u>	<u>1649</u>
P 4						<u>72</u>	<u>1652</u>
P 5						<u>75</u>	<u>1656</u>
P 6						<u>78</u>	<u>1659</u>
P 7						<u>81</u>	<u>1660</u>
P 8						<u>84</u>	<u>1662</u>
P 9						<u>87</u>	<u>1663</u>
P10						<u>90</u>	<u>1663</u>
P11							
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

TKT # 23140

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

Company Pickrell Drilling Company Lease & Well No. Ludeman B-#1
Elevation 1287 Kelly Bushing Formation Viola Effective Pay - Ft. Ticket No. 23051
Date 6-27-77 Sec. 1 Twp. 34S Range 6W County Harper State Kansas
Test Approved by George Dent Western Representative Joe N. Lusk
Formation Test No. 5 O.K. ☒ Misrun ☐ Interval Tested From 4891' to 4915' Total Depth 4915'
Size Main Hole 77/8 Rat Hole ☐ Conv. ☐ B.T. ☒ Damaged ☐ Yes ☒ No Conv. ☒ B.T. ☐ Damaged ☐ Yes ☒ No
Top Packer Depth 4886 Ft. Size 6 3/4 Bottom Packer Depth 4891 Ft. Size 6 3/4
Straddle ☐ Conv. ☐ B.T. ☐ Damaged ☐ Yes ☐ No Packer Depth ☐ Ft. Size ☐
Tool Size 5 1/2 OD Tool Joint Size 4 1/2 FH Anchor Length 24 Ft. Size 5 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.
RECORDERS Depth 4899 Ft. Clock No. 5665 Depth 4902 Ft. Clock No. 6894
Top Make Kuster Cap. 4400 No. 2603 Inside Outside Bottom Make Kuster Cap. 4150 No. 969 Inside Outside
Below Straddle: Depth ☐ Rec. No. ☐ Clock No. ☐ Inside Outside Depth ☐ Ft. Rec. No. ☐ Clock No. ☐ Inside Outside
Time Set Packer 2:25 AM
Tool Open I.F.P. From 2:27 AM to 2:57 AM - Hr. 30 Min. From (B) 290 P.S.I. To (C) 361 P.S.I.
Tool Closed I.C.I.P. From 2:57 AM to 3:57 AM 1 Hr. - Min (D) 1944 P.S.I.
Tool Open F.F.P. From 3:57 AM to 4:47 AM - Hr. 50 Min. From (E) 480 P.S.I. To (F) 869 P.S.I.
Tool Closed F.C.I.P. From 4:47 AM to 6:17 AM 1 Hr. 30 Min. (G) 1954 P.S.I.
Initial Hydrostatic Pressure (A) 2511 P.S.I. Final Hydrostatic Pressure (H) 2498 P.S.I. Maximum Temp. 150

INFORMATION

BLOW Very strong blow in initial flow period. Gas to surface in 3 minutes. Weak blow on final flow period, in 40 minutes flowed gas & oil by surface head, flowed oil in 45 minutes.
Did Well Flow ☐ Yes ☐ No Recovery Total Ft. 120' water

Reversed Out ☒ Yes ☐ No Mud Type Starch Viscosity 48 Weight 9.7 Water Loss 25.0 cc. Chlorides 34,000 P.P.M.
EXTRA EQUIPMENT: Type Circ. Sub. pin Safety Joint ☐ Jars: Size ☐ In. Make ☐ Ser. No. ☐
Dual Packer ☐ Did Packers Hold? yes Did Tool Plug? no Where? ☐
DRILLING CONTRACTOR Sweetman Drlg. co. Length Drill Pipe? 4388 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 XH In.
Length Weight Pipe ☐ Ft. I.D. Weight Pipe ☐ In. Tool Joint Size ☐ In. Length Drill Collars 282 Ft. I.D. Drill Collars 2 1/4 In.
Tool Joint Size 4 1/2 XH In. Length D.S.T. Tool 45 Ft.

Remarks: Specific gravity 41 @ 70 degrees, corrected to 40 degrees F.

WESTERN TESTING CO., INC.
Pressure Data

Date 6-27-77 Test Ticket No. 23051
Recorder No. 2603 Capacity 4400 Location 4899 Ft.
Clock No. 5665 Elevation 1287 Kelly Bushing Well Temperature 150 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2511</u> P.S.I.	Open Tool	<u>2:25</u> AM	
B First Initial Flow Pressure	<u>290</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>361</u> P.S.I.	Initial Closed-in Pressure	<u>60</u> Mins.	<u>60</u> Mins.
D Initial Closed-in Pressure	<u>1944</u> P.S.I.	Second Flow Pressure	<u>50</u> Mins.	<u>50</u> Mins.
E Second Initial Flow Pressure	<u>480</u> P.S.I.	Final Closed-in Pressure	<u>90</u> Mins.	<u>114</u> Mins.
F Second Final Flow Pressure	<u>869</u> P.S.I.			
G Final Closed-in Pressure	<u>1954</u> P.S.I.			
H Final Hydrostatic Mud	<u>2498</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>20</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>38</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>290</u>	<u>0</u>	<u>361</u>	<u>0</u>	<u>480</u>	<u>0</u>	<u>869</u>
P 2 <u>5</u>	<u>227</u>	<u>3</u>	<u>1717</u>	<u>5</u>	<u>493</u>	<u>3</u>	<u>1797</u>
P 3 <u>10</u>	<u>230</u>	<u>6</u>	<u>1826</u>	<u>10</u>	<u>549</u>	<u>6</u>	<u>1846</u>
P 4 <u>15</u>	<u>254</u>	<u>9</u>	<u>1864</u>	<u>15</u>	<u>608</u>	<u>9</u>	<u>1868</u>
P 5 <u>20</u>	<u>299</u>	<u>12</u>	<u>1886</u>	<u>20</u>	<u>664</u>	<u>12</u>	<u>1884</u>
P 6 <u>25</u>	<u>337</u>	<u>15</u>	<u>1897</u>	<u>25</u>	<u>714</u>	<u>15</u>	<u>1897</u>
P 7 <u>30</u>	<u>361</u>	<u>18</u>	<u>1909</u>	<u>30</u>	<u>756</u>	<u>18</u>	<u>1900</u>
P 8		<u>21</u>	<u>1915</u>	<u>35</u>	<u>803</u>	<u>21</u>	<u>1913</u>
P 9		<u>24</u>	<u>1922</u>	<u>40</u>	<u>854</u>	<u>24</u>	<u>1917</u>
P10		<u>27</u>	<u>1929</u>	<u>45</u>	<u>869</u>	<u>27</u>	<u>1922</u>
P11		<u>30</u>	<u>1931</u>	<u>50</u>	<u>869</u>	<u>30</u>	<u>1922</u>
P12		<u>33</u>	<u>1938</u>			<u>33</u>	<u>1922</u>
P13		<u>36</u>	<u>1940</u>			<u>36</u>	<u>1929</u>
P14		<u>39</u>	<u>1942</u>			<u>39</u>	<u>1929</u>
P15		<u>42</u>	<u>1944</u>			<u>42</u>	<u>1929</u>
P16		<u>45</u>	<u>1944</u>			<u>45</u>	<u>1929</u>
P17		<u>48</u>	<u>1944</u>			<u>48</u>	<u>1929</u>
P18		<u>51</u>	<u>1944</u>			<u>51</u>	<u>1935</u>
P19		<u>54</u>	<u>1944</u>			<u>54</u>	<u>1935</u>
P20		<u>57</u>	<u>1944</u>			<u>57</u>	<u>1938</u>
		<u>60</u>	<u>1944</u>			<u>60</u>	<u>1942</u>

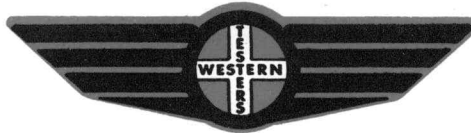
WESTERN TESTING CO., INC. Pressure Data

Date 6-27-77 Test Ticket No. 23051
 Recorder No. 2603 Capacity 4400 Location 4899 Ft.
 Clock No. 5665 Elevation 1287 Kelly Bushing Well Temperature 150 °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	P.S.I.		M
B First Initial Flow Pressure	P.S.I.		Mins.
C First Final Flow Pressure	P.S.I.		Mins.
D Initial Closed-in Pressure	P.S.I.		Mins.
E Second Initial Flow Pressure	P.S.I.		Mins.
F Second Final Flow Pressure	P.S.I.		Mins.
G Final Closed-in Pressure	P.S.I.		Mins.
H Final Hydrostatic Mud	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						63	1942
P 2						66	1944
P 3						69	1946
P 4						72	1946
P 5						75	1946
P 6						78	1946
P 7						81	1946
P 8						84	1946
P 9						87	1946
P10						90	1946
P11						93	1947
P12						96	1947
P13						99	1947
P14						102	1947
P15						105	1952
P16						108	1953
P17						111	1953
P18						114	1954
P19							
P20							



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

GAS FLOW REPORT

Date 6-27-77 Ticket 23051 Company Pickrell Drilling Company
Well Name and No. Ludeman B-#1 Dst No. 5 Interval Tested 4891' - 4915'
County Harper State Kansas Sec. 1 Twp. 34S Rg. 6W

Time Gauge Pre-Flow	Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	P.S.I. on U-Tube Tester	Description of Flow
PRE FLOW						
2:40 AM	13 min.	64 inches	of water		1" choke	207,000 C.F.P.D.
2:50 AM	23 min.	34 inches	of water		1" choke	151,000 C.F.P.D.
2:57 AM	30 min.	86 inches	of water		1" choke	239,000 C.F.P.D.

SECOND FLOW						
4:07 AM	10 min.	30 inches	of water		1/4" choke	9,200 C.F.P.D.
4:17 AM	20 min.	34 inches	of water		1/4" choke	9,790 C.F.P.D.
4:27 AM	30 min.	46 inches	of water		1/4" choke	11,400 C.F.P.D.
4:37 AM	40 min.	GAS & Oil sprayed				
	45 min.	flowed oil				

GAS BOTTLE

Serial No. 613 Date Bottle Filled 6-27-77 Date to be Invoiced 6-27-77

Requisition and Provisions for high pressure stainless steel gas bottles. Western Testing Co., Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Western Testing Co., Inc. within thirty (30) days free of charge, or be invoiced in the amount of \$75.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

All charges subject to 1% per month, equal to 12% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME Pickrell Drilling Company

Authorized by George Dent

TKI#-23051

I.

(1)

(4)

(A)

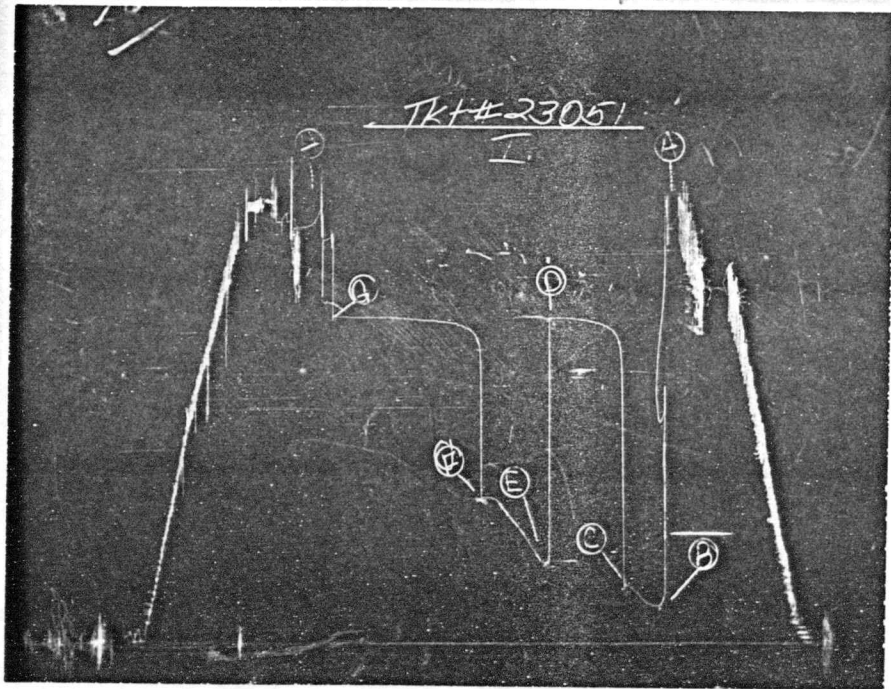
(D)

(F)

(E)

(C)

(B)





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

Company Pickrell Drilling Company Lease & Well No. Ludeman B-#1
Elevation 1287 Kelly Bushing Formation Simpson Effective Pay - Ft. Ticket No. 23052
Date 6-27-77 Sec. 1 Twp. 34S Range 6W County Harper State Kansas
Test Approved by George R. Dent Western Representative Joe N. Lusk

Formation Test No. 6 O.K. ☒ Misrun ☐ Interval Tested From 4917' to 4920' Total Depth 4920'
Size Main Hole 77/8 Rat Hole ☐ Conv. ☐ B.T. ☒ Damaged ☒ Yes ☐ No Conv. ☒ B.T. ☐ Damaged ☐ Yes ☒ No
Top Packer Depth 4914 Ft. Size 6 3/4 Bottom Packer Depth 4917 Ft. Size 6 3/4
Straddle ☐ Conv. ☐ B.T. ☐ Damaged ☐ Yes ☐ No Packer Depth ☐ Ft. Size ☐
Tool Size 5 1/2 OD Tool Joint Size 4 1/2 FH Anchor Length 3 Ft. Size 5 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.

RECORDERS Depth 4906 Ft. Clock No. 5665 Depth 4909 Ft. Clock No. 6894
Top Make Kuster Cap. 4400 No. 2603 Inside ☐ Outside ☐ Bottom Make Kuster Cap. 4150 No. 969 Inside ☐ Outside ☐
Below Straddle: Depth ☐ Rec. No. ☐ Clock No. ☐ Inside ☐ Outside ☐ Depth ☐ Ft. Rec. No. ☐ Clock No. ☐ Inside ☐ Outside ☐

Time Set Packer 9:48 PM

Tool Open I.F.P. From 9:50 P.M. to 10:20PM - Hr. 30 Min. From (B) 38 P.S.I. To (C) 42 P.S.I.
Tool Closed I.C.I.P. From 10:20M. to 11:20PM 1 Hr. - Min (D) 70 P.S.I.
Tool Open F.F.P. From 11:20 M. to 11:50PM - Hr. 30 Min. From (E) 72 P.S.I. To (F) 85 P.S.I.
Tool Closed F.C.I.P. From 11:50M. to 12:20AM - Hr. 30 Min. (G) 99 P.S.I.
Initial Hydrostatic Pressure (A) 2509 P.S.I. Final Hydrostatic Pressure (H) 2509 P.S.I. Maximum Temp. 142

INFORMATION

BLOW Very weak blow, died in 8 minutes on initial flow period. No blow on final flow period.

Did Well Flow ☐ Yes ☒ No Recovery Total Ft. 20' mud.

Reversed Out ☐ Yes ☒ No Mud Type starch premix Viscosity 50 Weight 9.4 Water Loss 9.6 cc. Chlorides 34,000 P.P.M.

EXTRA EQUIPMENT: Type Circ. Sub. pin Safety Joint ☐ Jars: Size ☐ In. Make ☐ Ser. No. ☐

Dual Packer ☐ Did Packers Hold? yes Did Tool Plug? no Where? ☐

DRILLING CONTRACTOR Sweetman Drlg. Co. Length Drill Pipe? 4606 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 XH

Length Weight Pipe ☐ Ft. I.D. Weight Pipe ☐ In. Tool Joint Size ☐ In. Length Drill Collars 282 Ft. I.D. Drill Collars 2 1/4 In.

Tool Joint Size 4 1/2 X H In. Length D.S.T. Tool 32 Ft.

Remarks: Opened tool and did not get a blow, back flushed tool and got a weak blow.

WESTERN TESTING CO., INC.

Pressure Data

Date 6-27-77 Test Ticket No. 23052
 Recorder No. 2603 Capacity 4400 Location 4906 Ft.
 Clock No. 5665 Elevation 1287 Kelly Bushing Well Temperature 142 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2509 P.S.I.	Open Tool	9:48 PM	
B First Initial Flow Pressure	38 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	42 P.S.I.	Initial Closed-in Pressure	60 Mins.	60 Mins.
D Initial Closed-in Pressure	70 P.S.I.	Second Flow Pressure	30 Mins.	30 Mins.
E Second Initial Flow Pressure	72 P.S.I.	Final Closed-in Pressure	30 Mins.	30 Mins.
F Second Final Flow Pressure	85 P.S.I.			
G Final Closed-in Pressure	99 P.S.I.			
H Final Hydrostatic Mud	2509 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>20</u> Inc.		Breakdown: <u>6</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>38</u>	<u>0</u>	<u>42</u>	<u>0</u>	<u>72</u>	<u>0</u>	<u>85</u>
P 2 <u>5</u>	<u>38</u>	<u>3</u>	<u>51</u>	<u>5</u>	<u>72</u>	<u>3</u>	<u>85</u>
P 3 <u>10</u>	<u>38</u>	<u>6</u>	<u>51</u>	<u>10</u>	<u>72</u>	<u>6</u>	<u>85</u>
P 4 <u>15</u>	<u>38</u>	<u>9</u>	<u>51</u>	<u>15</u>	<u>72</u>	<u>9</u>	<u>87</u>
P 5 <u>20</u>	<u>38</u>	<u>12</u>	<u>51</u>	<u>20</u>	<u>76</u>	<u>12</u>	<u>88</u>
P 6 <u>25</u>	<u>42</u>	<u>15</u>	<u>51</u>	<u>25</u>	<u>78</u>	<u>15</u>	<u>89</u>
P 7 <u>30</u>	<u>42</u>	<u>18</u>	<u>51</u>	<u>30</u>	<u>85</u>	<u>18</u>	<u>91</u>
P 8		<u>21</u>	<u>51</u>			<u>21</u>	<u>94</u>
P 9		<u>24</u>	<u>54</u>			<u>24</u>	<u>95</u>
P10		<u>27</u>	<u>54</u>			<u>27</u>	<u>97</u>
P11		<u>30</u>	<u>54</u>			<u>30</u>	<u>99</u>
P12		<u>33</u>	<u>56</u>				
P13		<u>36</u>	<u>60</u>				
P14		<u>39</u>	<u>60</u>				
P15		<u>42</u>	<u>60</u>				
P16		<u>45</u>	<u>63</u>				
P17		<u>48</u>	<u>64</u>				
P18		<u>51</u>	<u>67</u>				
P19		<u>54</u>	<u>68</u>				
P20		<u>57</u>	<u>69</u>				
		<u>60</u>	<u>70</u>				

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I.

(F)

(A)

(G)

(D)

(F)

(E)

(C)

(B)



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

Company Pickrell Drilling Company Lease & Well No. Ludeman B-#1
Elevation 1287 Kelly Bushing Formation Simpson Effective Pay - Ft. Ticket No. 23053
Date 6-28-77 Sec. 1 Twp. 34S Range 6W County Harper State Kansas
Test Approved by George R. Dent Western Representative Joe N. Lusk
Formation Test No. 7 O.K. X Misrun - Interval Tested From 4917' to 4925' Total Depth 4925'
Size Main Hole 77/8 Rat Hole - Conv. - B.T. X Damaged - Yes X No Conv. X B.T. - Damaged - Yes X No
Top Packer Depth 4912 Ft. Size 6 3/4 Bottom Packer Depth 4917 Ft. Size 6 3/4
Straddle - Conv. - B.T. - Damaged - Yes - No Packer Depth - Ft. Size -
Tool Size 5 1/2 OD Tool Joint Size 4 1/2 FH Anchor Length 8 Ft. Size 5 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.
RECORDERS Depth 4904 Ft. Clock No. 5665 Depth 4907 Ft. Clock No. 6894
Top Make Kuster Cap. 4400 No. 2603 Inside Outside Bottom Make Kuster Cap. 4150 No. 969 Inside Outside
Below Straddle: Depth - Rec. No. - Clock No. - Inside Outside Depth - Ft. Rec. No. - Clock No. - Inside Outside
Time Set Packer 12:25 PM
Tool Open I.F.P. From 12:27 PM to 12:57 PM - Hr. 30 Min. From (B) 36 P.S.I. To (C) 29 P.S.I.
Tool Closed I.C.I.P. From 12:57 PM to 1:57 PM 1 Hr. - Min (D) 1613 P.S.I.
Tool Open F.F.P. From 1:57 PM to 2:27 PM - Hr. 30 Min. From (E) 49 P.S.I. To (F) 42 P.S.I.
Tool Closed F.C.I.P. From 2:27 PM to 2:57 PM - Hr. 30 Min. (G) 116 P.S.I.
Initial Hydrostatic Pressure (A) 2489 P.S.I. Final Hydrostatic Pressure (H) 2457 P.S.I. Maximum Temp. 143

INFORMATION

BLOW Very weak blow on initial flow period. Picked up tool and back flushed on final flow period, and did not get blow.

Did Well Flow - Yes X No Recovery Total Ft. 30' mud.

Reversed Out - Yes X No Mud Type starch premix Viscosity 56 Weight 9.4 Water Loss 6.6 cc. Chlorides 31,000 P.P.M.

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

Dual Packer - Did Packers Hold? yes Did Tool Plug? no Where? -

DRILLING CONTRACTOR Sweetman Drlg. Co. Length Drill Pipe? 4606 Ft. I.D. Drill Pipe - In. Tool Joint Size - In.

Length Weight Pipe - Ft. I.D. Weight Pipe - In. Tool Joint Size - In. Length Drill Collars 282 Ft. I.D. Drill Collars 2 1/4 In.

Tool Joint Size 4 1/2 XH In. Length D.S.T. Tool 37 Ft.

Remarks:

WESTERN TESTING CO., INC.

Pressure Data

Date 6-28-77

Test Ticket No. 23053

Recorder No. 2603

Capacity 4400

Location 4904

Clock No. 5665

Elevation 1287 Kelly Bushing

Well Temperature 143

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2489 P.S.I.	Open Tool	12:25 PM	
B First Initial Flow Pressure	36 P.S.I.	First Flow Pressure	30 Mins.	30 Min.
C First Final Flow Pressure	29 P.S.I.	Initial Closed-in Pressure	60 Mins.	57 Min.
D Initial Closed-in Pressure	1613 P.S.I.	Second Flow Pressure	30 Mins.	30 Min.
E Second Initial Flow Pressure	49 P.S.I.	Final Closed-in Pressure	30 Mins.	36 Min.
F Second Final Flow Pressure	42 P.S.I.			
G Final Closed-in Pressure	116 P.S.I.			
H Final Hydrostatic Mud	2457 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>19</u> Inc.		Breakdown: <u>6</u> Inc.		Breakdown: <u>12</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>36</u>	<u>0</u>	<u>29</u>	<u>0</u>	<u>49</u>	<u>0</u>	<u>42</u>
P 2 <u>5</u>	<u>29</u>	<u>3</u>	<u>29</u>	<u>5</u>	<u>42</u>	<u>3</u>	<u>41</u>
P 3 <u>10</u>	<u>29</u>	<u>6</u>	<u>29</u>	<u>10</u>	<u>42</u>	<u>6</u>	<u>41</u>
P 4 <u>15</u>	<u>29</u>	<u>9</u>	<u>29</u>	<u>15</u>	<u>42</u>	<u>9</u>	<u>41</u>
P 5 <u>20</u>	<u>29</u>	<u>12</u>	<u>42</u>	<u>20</u>	<u>42</u>	<u>12</u>	<u>42</u>
P 6 <u>25</u>	<u>29</u>	<u>15</u>	<u>60</u>	<u>25</u>	<u>42</u>	<u>15</u>	<u>49</u>
P 7 <u>30</u>	<u>29</u>	<u>18</u>	<u>85</u>	<u>30</u>	<u>42</u>	<u>18</u>	<u>58</u>
P 8		<u>21</u>	<u>125</u>			<u>21</u>	<u>65</u>
P 9		<u>24</u>	<u>192</u>			<u>24</u>	<u>76</u>
P10		<u>27</u>	<u>301</u>			<u>27</u>	<u>85</u>
P11		<u>30</u>	<u>475</u>			<u>30</u>	<u>100</u>
P12		<u>33</u>	<u>717</u>			<u>33</u>	<u>112</u>
P13		<u>36</u>	<u>918</u>			<u>36</u>	<u>116</u>
P14		<u>39</u>	<u>1073</u>				
P15		<u>42</u>	<u>1226</u>				
P16		<u>45</u>	<u>1348</u>				
P17		<u>48</u>	<u>1431</u>				
P18		<u>51</u>	<u>1500</u>				
P19		<u>54</u>	<u>1558</u>				
P20		<u>57</u>	<u>1613</u>				

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