



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

Company Pickrell Drilling Company Lease & Well No. Crokendall #4

Elevation - Formation - Effective Pay - Ft. Ticket No. 21954

Date 6-4-77 Sec. 36 Twp. 29S Range 7W County Kingman State Kansas

Test Approved by Jay C. McNeil Western Representative Sam McClune

Formation Test No. 1 O.K. Misrun Interval Tested From 4097' to 4116' Total Depth 4116'

Size Main Hole 77/8 Rat Hole Conv. B.T. Damaged Yes No Conv. B.T. Damaged Yes No

Top Packer Depth 4087 Ft. Size 6 3/4 Bottom Packer Depth 4092 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 19 Ft. Size 5 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.

RECORDERS Depth 4103 Ft. Clock No. 6800 Depth 4109 Ft. Clock No. 6896

Top Make Kuster Cap. 4200 No. 1558 Inside Outside Bottom Make Kuster Cap. 3150 No. 1564 Inside Outside

Below Straddle: Depth Rec. No. Clock No. Inside Outside Depth Ft. Rec. No. Clock No. Inside Outside

Time Set Packer 12:38 P.M.

Tool Open I.F.P. From 12:40 P.M. to 1:10 P.M. - Hr. 30 Min. From (B) 19 P.S.I. To (C) 25 P.S.I.

Tool Closed I.C.I.P. From 1:10 P.M. to 2:10 P.M. 1 Hr. - Min (D) 134 P.S.I.

Tool Open F.F.P. From 2:10 P.M. to 3:40 P.M. 1 Hr. 30 Min. From (E) 32 P.S.I. To (F) 30 P.S.I.

Tool Closed F.C.I.P. From 3:40 P.M. to 5:10 P.M. 1 Hr. 30 Min. (G) 335 P.S.I.

Initial Hydrostatic Pressure (A) 2148 P.S.I. Final Hydrostatic Pressure (H) 2114 P.S.I. Maximum Temp. 134

INFORMATION

BLOW Fair blow throughout test.

Did Well Flow - Yes No Recovery Total Ft. 55' of gas cut mud. 1116' gas in pipe.

Reversed Out - Yes No Mud Type imp viscosity 43 Weight 9.7 Water Loss 16.8 cc. Chlorides 43,000 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 Pickrell Drlg. Co. Length Drill Pipe? 4056 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 FH In.

Length Weight Pipe Ft. I.D. Weight Pipe In. Tool Joint Size In. Length Drill Collars Ft. I.D. Drill Collars In.

Tool Joint Size In. Length D.S.T. Tool 39 Ft.

Remarks:

WESTERN TESTING CO., INC.
Pressure Data

Date 6-4-77 Test Ticket No. 21954
 Recorder No. 1558 Capacity 4200 Location 4103 Ft.
 Clock No. 6800 Elevation - Well Temperature 134 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2148	P.S.I.	12:38	P _M
B First Initial Flow Pressure	19	P.S.I.	30	Mins. 30 Mins.
C First Final Flow Pressure	25	P.S.I.	60	Mins. 60 Mins.
D Initial Closed-in Pressure	134	P.S.I.	90	Mins. 90 Mins.
E Second Initial Flow Pressure	32	P.S.I.	90	Mins. 87 Mins.
F Second Final Flow Pressure	30	P.S.I.		
G Final Closed-in Pressure	335	P.S.I.		
H Final Hydrostatic Mud	2114	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>20</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Second Flow Pressure Breakdown: <u>18</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.
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Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	0	19	0	25	0	30	30
P 2	5	21	3	26	5	28	42
P 3	10	22	6	38	10	28	50
P 4	15	22	9	49	15	28	59
P 5	20	23	12	57	20	28	72
P 6	25	24	15	67	25	28	82
P 7	30	25	18	78	30	28	94
P 8			21	90	35	29	105
P 9			24	99	40	29	118
P10			27	108	45	29	127
P11			30	116	50	29	138
P12			33	124	55	29	150
P13			36	134	60	29	160
P14			39	134	65	30	172
P15			42	134	70	30	184
P16			45	134	75	30	194
P17			48	134	80	30	206
P18			51	134	85	30	217
P19			54	134	90	30	227
P20			57	134			239
WTC - 4			60	134			249

WESTERN TESTING CO., INC.

Pressure Data

Date 6-4-77 Test Ticket No. 21954
 Recorder No. 1558 Capacity 4200 Location 4103 Ft.
 Clock No. 6800 Elevation - Well Temperature 134 °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

Point Mins.	First Flow Pressure	Initial Shut-In	Second Flow Pressure	Final Shut-In
	Breakdown: _____ Inc. of _____ mins. and a final inc. of _____ Min.	Breakdown: _____ Inc. of _____ mins. and a final inc. of _____ Min.	Breakdown: _____ Inc. of _____ mins. and a final inc. of _____ Min.	Breakdown: <u>29</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.
	Point Minutes	Point Minutes	Point Minutes	Point Minutes
P 1	_____	_____	_____	63
P 2	_____	_____	_____	66
P 3	_____	_____	_____	69
P 4	_____	_____	_____	72
P 5	_____	_____	_____	75
P 6	_____	_____	_____	78
P 7	_____	_____	_____	81
P 8	_____	_____	_____	84
P 9	_____	_____	_____	87
P10	_____	_____	_____	_____
P11	_____	_____	_____	_____
P12	_____	_____	_____	_____
P13	_____	_____	_____	_____
P14	_____	_____	_____	_____
P15	_____	_____	_____	_____
P16	_____	_____	_____	_____
P17	_____	_____	_____	_____
P18	_____	_____	_____	_____
P19	_____	_____	_____	_____
P20	_____	_____	_____	_____

WESTERN TESTING CO., INC.
Pressure Data

Date 6-4-77 Test Ticket No. 21954
 Recorder No. 1558 Capacity 4200 Location 4103 Ft.
 Clock No. 6800 Elevation - Well Temperature 134 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2148</u> P.S.I.	Open Tool	<u>12:38</u> P _M	
B First Initial Flow Pressure	<u>19</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>25</u> P.S.I.	Initial Closed-in Pressure	<u>60</u> Mins.	<u>60</u> Mins.
D Initial Closed-in Pressure	<u>134</u> P.S.I.	Second Flow Pressure	<u>90</u> Mins.	<u>90</u> Mins.
E Second Initial Flow Pressure	<u>32</u> P.S.I.	Final Closed-in Pressure	<u>90</u> Mins.	<u>87</u> Mins.
F Second Final Flow Pressure	<u>30</u> P.S.I.			
G Final Closed-in Pressure	<u>335</u> P.S.I.			
H Final Hydrostatic Mud	<u>2114</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>29</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> 19	<u>0</u> 25	<u>0</u> 32	<u>0</u> 30	<u>0</u> 30		
P 2	<u>5</u> 21	<u>3</u> 26	<u>5</u> 28	<u>3</u> 42	<u>3</u> 42		
P 3	<u>10</u> 22	<u>6</u> 38	<u>10</u> 28	<u>6</u> 50	<u>6</u> 50		
P 4	<u>15</u> 22	<u>9</u> 49	<u>15</u> 28	<u>9</u> 59	<u>9</u> 59		
P 5	<u>20</u> 23	<u>12</u> 57	<u>20</u> 28	<u>12</u> 72	<u>12</u> 72		
P 6	<u>25</u> 24	<u>15</u> 67	<u>25</u> 28	<u>15</u> 82	<u>15</u> 82		
P 7	<u>30</u> 25	<u>18</u> 78	<u>30</u> 28	<u>18</u> 94	<u>18</u> 94		
P 8		<u>21</u> 90	<u>35</u> 29	<u>21</u> 105	<u>21</u> 105		
P 9		<u>24</u> 99	<u>40</u> 29	<u>24</u> 118	<u>24</u> 118		
P10		<u>27</u> 108	<u>45</u> 29	<u>27</u> 127	<u>27</u> 127		
P11		<u>30</u> 116	<u>50</u> 29	<u>30</u> 138	<u>30</u> 138		
P12		<u>33</u> 124	<u>55</u> 29	<u>33</u> 150	<u>33</u> 150		
P13		<u>36</u> 134	<u>60</u> 29	<u>36</u> 160	<u>36</u> 160		
P14		<u>39</u> 134	<u>65</u> 30	<u>39</u> 172	<u>39</u> 172		
P15		<u>42</u> 134	<u>70</u> 30	<u>42</u> 184	<u>42</u> 184		
P16		<u>45</u> 134	<u>75</u> 30	<u>45</u> 194	<u>45</u> 194		
P17		<u>48</u> 134	<u>80</u> 30	<u>48</u> 206	<u>48</u> 206		
P18		<u>51</u> 134	<u>85</u> 30	<u>51</u> 217	<u>51</u> 217		
P19		<u>54</u> 134	<u>90</u> 30	<u>54</u> 227	<u>54</u> 227		
P20		<u>57</u> 134		<u>57</u> 239	<u>57</u> 239		
WTC - 4		<u>60</u> 134		<u>60</u> 249	<u>60</u> 249		

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WESTERN TESTING CO., INC.
Pressure Data

Date 6-4-77 Test Ticket No. 21954
 Recorder No. 1558 Capacity 4200 Location 4103 Ft.
 Clock No. 6800 Elevation - Well Temperature 134 °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>29</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	259
P 2	_____	_____	_____	_____	_____	66	270
P 3	_____	_____	_____	_____	_____	69	278
P 4	_____	_____	_____	_____	_____	72	289
P 5	_____	_____	_____	_____	_____	75	298
P 6	_____	_____	_____	_____	_____	78	308
P 7	_____	_____	_____	_____	_____	81	316
P 8	_____	_____	_____	_____	_____	84	325
P 9	_____	_____	_____	_____	_____	87	335
P10	_____	_____	_____	_____	_____		
P11	_____	_____	_____	_____	_____		
P12	_____	_____	_____	_____	_____		
P13	_____	_____	_____	_____	_____		
P14	_____	_____	_____	_____	_____		
P15	_____	_____	_____	_____	_____		
P16	_____	_____	_____	_____	_____		
P17	_____	_____	_____	_____	_____		
P18	_____	_____	_____	_____	_____		
P19	_____	_____	_____	_____	_____		
P20	_____	_____	_____	_____	_____		

Tkt# 21954

I.

(1)

(A)

(G)

(F)

(E)

(D)

(C)

(B)





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

Company Pickrell Drilling Company Lease & Well No. Crokendall #4
Elevation - Formation Mississippi Effective Pay - Ft. Ticket No. 21955
Date 6-5-77 Sec. 36 Twp. 29S Range 7W County Kingman State Kansas
Test Approved by Jay C. McNeil Western Representative Sam McClune

Formation Test No. 2 O.K. Misrun Interval Tested From 4116' to 4128' Total Depth 4128'
Size Main Hole 7 7/8 Rat Hole - Conv. B.T. Damaged Yes No Conv. B.T. Damaged Yes No
Top Packer Depth 4106 Ft. Size 6 3/4 Bottom Packer Depth 4111 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 12 Ft. Size 5 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.

RECORDERS Depth 4121 Ft. Clock No. 6800 Depth 4126 Ft. Clock No. 6896
Top Make Kuster Cap. 4200 No. 1558 Inside Outside Bottom Make Kuster Cap. 3150 No. 1564 Inside Outside
Below Straddle: Depth - Rec. No. - Clock No. - Inside Outside Depth - Ft. Rec. No. - Clock No. - Inside Outside

Time Set Packer 2:58 A.M.
Tool Open I.F.P. From 3:00 A.M. to 3:30 A.M. - Hr. 30 Min. From (B) 33 P.S.I. To (C) 48 P.S.I.
Tool Closed I.C.I.P. From 3:30 A.M. to 4:30 A.M. - Hr. 60 Min (D) 1025 P.S.I.
Tool Open F.F.P. From 4:30 A.M. to 6:00 A.M. - Hr. 90 Min. From (E) 36 P.S.I. To (F) 76 P.S.I.
Tool Closed F.C.I.P. From 6:00 A.M. to 7:30 A.M. - Hr. 90 Min. (G) 994 P.S.I.
Initial Hydrostatic Pressure (A) 2193 P.S.I. Final Hydrostatic Pressure (H) 2074 P.S.I. Maximum Temp. 128

INFORMATION

BLOW Strong blow throughout test.

Did Well Flow Yes - No Recovery Total Fr. 90' of 15% oil, 5% water, 60% mud
90' of 65% oil, 10% water, 10% mud
30' of 20% oil, 65% water, 3% mud

Reversed Out Yes No Mud Type Impernix Viscosity 43 Weight 9.7 Water Loss 16.8 cc. Chlorides 4300 PPM

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

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

DRILLING CONTRACTOR Pickrell Drlg (#10) Length Drill Pipe? 3528 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 FH In.

Length Weight Pipe 600 Ft. I.D. Weight Pipe 2.8 In. Tool Joint Size 4 1/2 FH In. Length Drill Collars - Ft. I.D. Drill Collars - In.

Tool Joint Size - In. Length D.S.T. Tool 32 Ft.

Remarks: Gas to surface five minutes into final flow period. See attached sheet for gas measurements.



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

GAS FLOW REPORT

Date 6-5-77 Ticket 21955 Company Pickrell Drilling Company
Well Name and No. Crokendall #4 Dst No. 2 Interval Tested 4116'-4128'
County Kingman State Kansas Sec. 36 Twp. 29S Rg. 7W

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						

SECOND FLOW						
4:35 AM	10 min.	14 inches	of water		½" choke	23,700 C.F.P.D.
4:45 AM	20 min.	10 inches	of water		½" choke	19,900 C.F.P.D.
4:55 AM	30 min.	4 inches	of water		½" choke	12,500 C.F.P.D.
5:05 AM	40 min.	3.6 inches	of water		½" choke	11,900 C.F.P.D.
5:15 AM	50 min.	3 inches	of water		½" choke	10,900 C.F.P.D.
5:25 AM	60 min.	2.8 inches	of water		½" choke	10,500 C.F.P.D.
5:35 AM	70 min.	2 inches	of water		½" choke	8,870 C.F.P.D.
5:45 AM	80 min.	2 inches	of water		½" choke	8,870 C.F.P.D.
5:55 AM	90 min.	1.6 inches	of water		½" choke	7,940 C.F.P.D.

GAS BOTTLE

Serial No. _____ Date Bottle Filled 6-5-77 Date to be Invoiced 6-5-77

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 Jay C. McNeil

WESTERN TESTING CO., INC.
Pressure Data

Date 6-5-77 Test Ticket No. 21955
 Recorder No. 1588 Capacity 4200 Location 4121 Ft.
 Block No. 6800 Elevation - Well Temperature 128 °F

Point	Pressure		Time Given	Time Computed
Initial Hydrostatic Mud	2193	P.S.I.	2:58A	M
First Initial Flow Pressure	33	P.S.I.	30	Mins. 30 Mins.
First Final Flow Pressure	48	P.S.I.	60	Mins. 60 Mins.
Initial Closed-in Pressure	1025	P.S.I.	90	Mins. 90 Mins.
Second Initial Flow Pressure	36	P.S.I.	90	Mins. 90 Mins.
Second Final Flow Pressure	76	P.S.I.		
Final Closed-in Pressure	994	P.S.I.		
Final Hydrostatic Mud	2074	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	0	33	0	48	0	36	0	76
P 2	5	33	3	202	5	44	3	179
P 3	10	37	6	321	10	46	6	276
P 4	15	40	9	428	15	48	9	367
P 5	20	43	12	512	20	51	12	436
P 6	25	46	15	585	25	53	15	502
P 7	30	48	18	652	30	55	18	556
P 8			21	707	35	56	21	606
P 9			24	756	40	57	24	650
P10			27	797	45	59	27	687
P11			30	833	50	61	30	720
P12			33	864	55	63	33	750
P13			36	893	60	65	36	777
P14			39	916	65	67	39	800
P15			42	939	70	70	42	820
P16			45	958	75	72	45	839
P17			48	973	80	74	48	855
P18			51	990	85	75	51	870
P19			54	1002	90	76	54	885
P20			57	1017			57	896
			60	1025			60	908

WESTERN TESTING CO., INC.

Pressure Data

Date 6-5-77 Test Ticket No. 21955
 Order No. 1588 Capacity 4200 Location 4121 Ft.
 Well No. 6800 Elevation - Well Temperature 128 °F

Point	Pressure		Open Tool	Time Given	Time Computed
Initial Hydrostatic Mud	<u>2193</u>	<u>P.S.I.</u>		<u>2:58A</u>	<u>M</u>
First Initial Flow Pressure	<u>33</u>	<u>P.S.I.</u>	First Flow Pressure	<u>30</u>	<u>Mins.</u> <u>30</u> <u>Mins.</u>
First Final Flow Pressure	<u>48</u>	<u>P.S.I.</u>	Initial Closed-in Pressure	<u>60</u>	<u>Mins.</u> <u>60</u> <u>Mins.</u>
Initial Closed-in Pressure	<u>1025</u>	<u>P.S.I.</u>	Second Flow Pressure	<u>90</u>	<u>Mins.</u> <u>90</u> <u>Mins.</u>
Second Initial Flow Pressure	<u>36</u>	<u>P.S.I.</u>	Final Closed-in Pressure	<u>90</u>	<u>Mins.</u> <u>90</u> <u>Mins.</u>
Second Final Flow Pressure	<u>76</u>	<u>P.S.I.</u>			
Final Closed-in Pressure	<u>994</u>	<u>P.S.I.</u>			
Final Hydrostatic Mud	<u>2074</u>	<u>P.S.I.</u>			

PRESSURE BREAKDOWN

Point	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.
1	<u>6</u>	<u>Inc.</u>	<u>20</u>	<u>Inc.</u>	<u>18</u>	<u>Inc.</u>	<u>30</u>	<u>Inc.</u>
2	<u>5</u>	<u>mins. and a</u>	<u>3</u>	<u>mins. and a</u>	<u>5</u>	<u>mins. and a</u>	<u>3</u>	<u>mins. and a</u>
3	<u>0</u>	<u>final inc. of</u>	<u>0</u>	<u>final inc. of</u>	<u>0</u>	<u>final inc. of</u>	<u>0</u>	<u>final inc. of</u>
4		<u>Min.</u>		<u>Min.</u>		<u>Min.</u>		<u>Min.</u>
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TKT # 21955

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1558



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

Company Pickrell Drilling Company Lease & Well No. Crokendall #4

Elevation - Formation Mississippi Effective Pay - Ft. Ticket No. 21956

Date 6-5-77 Sec. 36 Twp. 29S Range 7W County Kingman State Kansas

Test Approved by Jay C. McNeil Western Representative Sam McClune

Formation Test No. 3 O.K. Misrun - Interval Tested From 4128' to 4143' Total Depth 4143'

Size Main Hole 77/8 Rat Hole - Conv. B.T. - Damaged - Yes No Conv. - B.T. Damaged - Yes No

Top Packer Depth 4118 Ft. Size 6 3/4 Bottom Packer Depth 4123 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 4133 Ft. Clock No. 6800 Depth 4138 Ft. Clock No. 6896

Top Make Kuster Cap. 4200 No. 1558 ~~Inside~~ Outside Bottom Make Kuster Cap. 3150 No. 1564 ~~Inside~~ Outside

Below Straddle: Depth - Rec. No. - Clock No. - ~~Inside~~ Outside Depth - Ft. Rec. No. - Clock No. - ~~Inside~~ Outside

Time Set Packer 4:53 P M

Tool Open I.F.P. From 4:55 P M. to 5:25 P M. - Hr. 30 Min. From (B) 53 P.S.I. To (C) 81 P.S.I.

Tool Closed I.C.I.P. From 5:25 M. to 6:25 P M. 1 Hr. - Min (D) 1150 P.S.I.

Tool Open F.F.P. From 6:25 P M. to 7:55 P M. 1 Hr. 30 Min. From (E) 82 P.S.I. To (F) 168 P.S.I.

Tool Closed F.C.I.P. From 7:55 M. to 9:25 P M. 1 Hr. 30 Min. (G) 1121 P.S.I.

Initial Hydrostatic Pressure (A) 2127 P.S.I. Final Hydrostatic Pressure (H) 2108 P.S.I. Maximum Temp. 134

INFORMATION

BLOW Strong blow throughout test.

Did Well Flow - Yes gas No Recovery Total Ft. 30' - 80% mud, 20% oil, 120' - 10% mud, 10% water, 50% oil, 60' - 2% mud, 5% water, 35% oil, 60' 100% oil, 60' - 5% mud, 15% water, 80% oil, 60' - 2% mud, 10% water, 65% oil, 60' - 3% mud, 25% water, 65% oil, 50' - 10% water, 90% oil, 10% free water.

Reversed Out - Yes No Mud Type inpermix viscosity 53 Weight 9.5 Water Loss 9.6 cc. Chlorides 47,000 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 Company tools #10 Length Drill Pipe? 3543 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 FH In.

Length Weight Pipe 600 Ft. I.D. Weight Pipe 2.8 In. Tool Joint Size 4 1/2 FH In. Length Drill Collars - Ft. I.D. Drill Collars - In.

Tool Joint Size - In. Length D.S.T. Tool 35 Ft.

Remarks:



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

GAS FLOW RECORD

Date 6-5-77 Ticket 21956 Company Pickrell Drilling Company
Well Name and No. Crokendall #4 Dst No. 3 Interval Tested 4128' - 4143'
County Kingman State Kansas Sec. 36 Twp. 29S Rg. 7W

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						
5:20 PM	10 min.	14 inches	of water		1" choke	97,300 C.F.P.D.
5:30 PM	20 min.	14 inches	of water		½" choke	23,700 C.F.P.D.

SECOND FLOW						
6:35 PM	10 min.	10 inches	of water		½" choke	19,900 C.F.P.D.
6:45 PM	20 min.	12 inches	of water		½" choke	21,900 C.F.P.D.
6:55 PM	30 min.	13 inches	of water		½" choke	22,800 C.F.P.D.
7:05 PM	40 min.	13 inches	of water		½" choke	22,800 C.F.P.D.
7:15 PM	50 min.	12 inches	of water		½" choke	21,900 C.F.P.D.
7:25 PM	60 min.	10 inches	of water		½" choke	19,900 C.F.P.D.
7:35 PM	70 min.	10 inches	of water		½" choke	19,900 C.F.P.D.
7:45 PM	80 min.	9 inches	of water		½" choke	18,800 C.F.P.D.
7:55 PM	90 min.	9 inches	of water		½" choke	18,800 C.F.P.D.

GAS BOTTLE

Serial No. _____ Date Bottle Filled 6-5-77 Date to be Invoiced 6-5-77

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 Jay C. McNeil

WESTERN TESTING CO., INC.

Pressure Data

Date 6-5-77 Test Ticket No. 21956
 Order No. 1558 Capacity 4200 Location 4133 Ft.
 Check No. 6800 Elevation - Well Temperature 134 °F

Point	Pressure	Open Tool	Time Given	Time Computed
Initial Hydrostatic Mud	<u>2127</u> P.S.I.		<u>4:53</u> P.M.	
First Initial Flow Pressure	<u>53</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
First Final Flow Pressure	<u>81</u> P.S.I.	Initial Closed-in Pressure	<u>60</u> Mins.	<u>60</u> Mins.
Initial Closed-in Pressure	<u>1150</u> P.S.I.	Second Flow Pressure	<u>90</u> Mins.	<u>85</u> Mins.
Second Initial Flow Pressure	<u>82</u> P.S.I.	Final Closed-in Pressure	<u>90</u> Mins.	<u>87</u> Mins.
Second Final Flow Pressure	<u>168</u> P.S.I.			
Final Closed-in Pressure	<u>1121</u> P.S.I.			
Final Hydrostatic Mud	<u>2108</u> P.S.I.			

PRESSURE BREAKDOWN

Point	First Flow Pressure Breakdown	Initial Shut-In Breakdown	Second Flow Pressure Breakdown	Final Shut-In Breakdown			
1	of <u>5</u> mins. and a final inc. of <u>0</u> Min.	of <u>3</u> mins. and a final inc. of <u>0</u> Min.	of <u>5</u> mins. and a final inc. of <u>0</u> Min.	of <u>3</u> mins. and a final inc. of <u>0</u> Min.			
2	of <u>6</u> Inc.	of <u>20</u> Inc.	of <u>17</u> Inc.	of <u>29</u> Inc.			
Point	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
1	<u>53</u>	<u>0</u>	<u>81</u>	<u>0</u>	<u>82</u>	<u>0</u>	<u>168</u>
2	<u>55</u>	<u>3</u>	<u>300</u>	<u>5</u>	<u>97</u>	<u>3</u>	<u>323</u>
3	<u>65</u>	<u>6</u>	<u>483</u>	<u>10</u>	<u>103</u>	<u>6</u>	<u>477</u>
4	<u>67</u>	<u>9</u>	<u>608</u>	<u>15</u>	<u>110</u>	<u>9</u>	<u>592</u>
5	<u>76</u>	<u>12</u>	<u>712</u>	<u>20</u>	<u>114</u>	<u>12</u>	<u>677</u>
6	<u>78</u>	<u>15</u>	<u>787</u>	<u>25</u>	<u>118</u>	<u>15</u>	<u>741</u>
7	<u>81</u>	<u>18</u>	<u>850</u>	<u>30</u>	<u>122</u>	<u>18</u>	<u>756</u>
8		<u>21</u>	<u>902</u>	<u>35</u>	<u>127</u>	<u>21</u>	<u>841</u>
9		<u>24</u>	<u>944</u>	<u>40</u>	<u>131</u>	<u>24</u>	<u>879</u>
10		<u>27</u>	<u>977</u>	<u>45</u>	<u>135</u>	<u>27</u>	<u>908</u>
11		<u>30</u>	<u>1006</u>	<u>50</u>	<u>137</u>	<u>30</u>	<u>937</u>
12		<u>33</u>	<u>1036</u>	<u>55</u>	<u>143</u>	<u>33</u>	<u>960</u>
13		<u>36</u>	<u>1054</u>	<u>60</u>	<u>148</u>	<u>36</u>	<u>977</u>
14		<u>39</u>	<u>1073</u>	<u>65</u>	<u>150</u>	<u>39</u>	<u>996</u>
15		<u>42</u>	<u>1088</u>	<u>70</u>	<u>156</u>	<u>42</u>	<u>1010</u>
16		<u>45</u>	<u>1102</u>	<u>75</u>	<u>160</u>	<u>45</u>	<u>1023</u>
17		<u>48</u>	<u>1115</u>	<u>80</u>	<u>165</u>	<u>48</u>	<u>1036</u>
18		<u>51</u>	<u>1125</u>	<u>85</u>	<u>168</u>	<u>51</u>	<u>1044</u>
19		<u>54</u>	<u>1134</u>			<u>54</u>	<u>1054</u>
20		<u>57</u>	<u>1144</u>			<u>57</u>	<u>1061</u>
		<u>60</u>	<u>1150</u>			<u>60</u>	<u>1069</u>

WESTERN TESTING CO., INC.
Pressure Data

Date 6-5-77 Test Ticket No. 21956
 Recorder No. 1558 Capacity 4200 Location 4133 Ft.
 Clock No. 6800 Elevation - Well Temperature 134 °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

Point Mins.	First Flow Pressure	Initial Shut-In	Second Flow Pressure	Final Shut-In	
	Breakdown: _____ Inc. of _____ mins. and a final inc. of _____ Min.	Breakdown: _____ Inc. of _____ mins. and a final inc. of _____ Min.	Breakdown: _____ Inc. of _____ mins. and a final inc. of _____ Min.	Breakdown: _____ Inc. of _____ mins. and a final inc. of _____ Min.	
	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	_____	_____	_____	63	1075
P 2	_____	_____	_____	66	1082
P 3	_____	_____	_____	69	1088
P 4	_____	_____	_____	72	1094
P 5	_____	_____	_____	75	1100
P 6	_____	_____	_____	78	1107
P 7	_____	_____	_____	81	1111
P 8	_____	_____	_____	84	1117
P 9	_____	_____	_____	87	1121
P10	_____	_____	_____	_____	_____
P11	_____	_____	_____	_____	_____
P12	_____	_____	_____	_____	_____
P13	_____	_____	_____	_____	_____
P14	_____	_____	_____	_____	_____
P15	_____	_____	_____	_____	_____
P16	_____	_____	_____	_____	_____
P17	_____	_____	_____	_____	_____
P18	_____	_____	_____	_____	_____
P19	_____	_____	_____	_____	_____
P20	_____	_____	_____	_____	_____

TKT # 21956

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