

Company W. L. Hartman Estate Lease & Well No. #4 Barrow
 Elevation 1810 Kelly Bushing Formation Topeka Effective Pay - Ft. Ticket No. 15697
 Date 4/ 18/82 Sec. 34 Twp. 19S Range 12W County Barton State Kansas
 Test Approved by Bob -----? Western Representative Denis Wondra

Formation Test No. 1 Interval Tested from 2862 ft. to 2930 ft. Total Depth 2930 ft.
 Packer Depth 2857 ft. Size 6 5/8 in. Packer Depth 2862 ft. Size 6 5/8 in.
 Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 2880 ft. Recorder Number 3474 Cap 3000
 Bottom Recorder Depth (Outside) 2883 ft. Recorder Number 13240 Cap 4150
 Below Straddle Recorder Depth -- ft. Recorder Number -- Cap -

Drilling Contractor Woodman - Iannitti Drlg. Rig #2 Drill Collar Length - I. D. - in.
 Mud Type starch Viscosity 40 Weight Pipe Length 600 I. D. 2.7 in.
 Weight 9.7 Water Loss 7.0 cc. Drill Pipe Length 2241 I. D. 3.8 in.
 Chlorides 87,000 P.P.M. Test Tool Length 21 ft. Tool Size 5 1/2 OD in.
 Jars: Make - Serial Number - Anchor Length 68 ft. Size 5 1/2 OD in.
 Did Well Flow? NO Reversed Out - Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: Steady one and one half inch blow throughout test.

Recovered 260 ft. of gas cut watery mud with few spots of oil
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____

Remarks: _____

Time Set Packer(s) 10:28 A.M. Time Started Off Bottom 12:30 P.M. Maximum Temperature 107°
 Initial Hydrostatic Pressure (A) 1495 P.S.I.
 Initial Flow Period Minutes 90 (B) 56 P.S.I. to (C) 159 P.S.I.
 Initial Closed In Period Minutes 30 (D) 735 P.S.I.
 Final Flow Period Minutes -- (E) -- P.S.I. to (F) -- P.S.I.
 Final Closed In Period Minutes -- (G) -- P.S.I.
 Final Hydrostatic Pressure (H) 1480 P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 4/18/82 Test Ticket No. 15697
 Recorder No. 3474 Capacity 3000 Location 2880 Ft.
 Clock No. --- Elevation --- Well Temperature 107 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1495	P.S.I.	10:28P	M
B First Initial Flow Pressure	56	P.S.I.	90	90 Mins.
C First Final Flow Pressure	159	P.S.I.	30	30 Mins.
D Initial Closed-in Pressure	735	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	1480	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure
 Breakdown: 18 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.

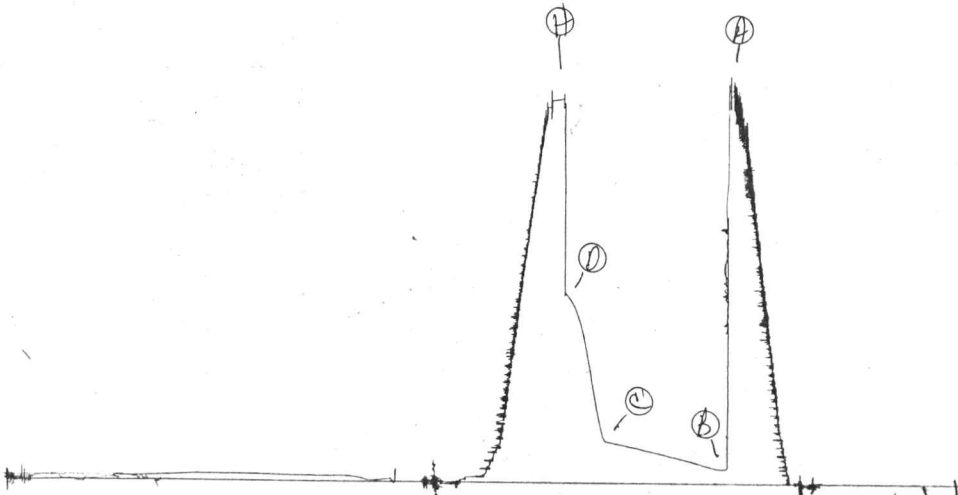
Second Flow Pressure
 Breakdown: 0 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Final Shut-In
 Breakdown: 0 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	159			
P 2	5	56	3	203			
P 3	10	58	6	273			
P 4	15	65	9	353			
P 5	20	73	12	444			
P 6	25	80	15	530			
P 7	30	88	18	595			
P 8	35	94	21	652			
P 9	40	101	24	688			
P10	45	108	27	714			
P11	50	114	30	735			
P12	55	120					
P13	60	126					
P14	65	133					
P15	70	138					
P16	75	144					
P17	80	150					
P18	85	155					
P19	90	159					
P20							

SK# 15697

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24

Company W. L. Hartman Estate Lease & Well No. #4 Barrow
 Elevation 1810 Kelly Bushing Formation Lansing Effective Pay - Ft. Ticket No. 15698
 Date 4/ 18/82 Sec. 34 Twp. 19S Range 12W County Barton State Kansas
 Test Approved by R. L. Schmidlapp Western Representative Denis Wondra

Formation Test No. 2 Interval Tested from 3104 ft. to 3138 ft. Total Depth 3138 ft.
 Packer Depth 3099 ft. Size 6 5/8 in. Packer Depth 3104 ft. Size 6 5/8 in.
 Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3128 ft. Recorder Number 3474 Cap. 3000
 Bottom Recorder Depth (Outside) 3131 ft. Recorder Number 13240 Cap. 4150
 Below Straddle Recorder Depth -- ft. Recorder Number -- Cap. -

Drilling Contractor Woodman - Iannitti Drlg. Rig #2 Drill Collar Length - I. D. - in.
 Mud Type starch Viscosity 39 Weight Pipe Length 310 I. D. 2.7 in.
 Weight 9.7 Water Loss 7.4 cc. Drill Pipe Length 2773 I. D. 3.8 in.
 Chlorides 84,000 P.P.M. Test Tool Length 21 ft. Tool Size 5 1/2 OD in.
 Jars: Make - Serial Number - Anchor Length 34 ft. Size 5 1/2 OD in.
 Did Well Flow? No Reversed Out no Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: Very weak; died in twenty minutes; flushed tool - few bubbles and died.

Recovered 70 ft. of drilling mud few spots of oil
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____

Remarks: _____

Time Set Packer(s) 5:58 A.M. Time Started Off Bottom 7:15 A.M. Maximum Temperature 103°
 Initial Hydrostatic Pressure (A) 1622 P.S.I.
 Initial Flow Period Minutes 60 (B) 52 P.S.I. to (C) 70 P.S.I.
 Initial Closed In Period Minutes 15 (D) 76 P.S.I.
 Final Flow Period Minutes -- (E) -- P.S.I. to (F) -- P.S.I.
 Final Closed In Period Minutes -- (G) -- P.S.I.
 Final Hydrostatic Pressure (H) 1622 P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 4/18/82 Recorder No. 3474 Capacity 3000 Test Ticket No. 15698
 Location 3128 Ft. Elevation 1810 Kelly Bushing Well Temperature 103 °F
 Clock No. ---

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1622</u> P.S.I.	Open Tool	<u>5:58P</u>	<u>M</u>
B First Initial Flow Pressure	<u>52</u> P.S.I.	First Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
C First Final Flow Pressure	<u>70</u> P.S.I.	Initial Closed-in Pressure	<u>15</u> Mins.	<u>15</u> Mins.
D Initial Closed-in Pressure	<u>76</u> P.S.I.	Second Flow Pressure	<u>--</u> Mins.	<u>--</u> Mins.
E Second Initial Flow Pressure	<u>--</u> P.S.I.	Final Closed-in Pressure	<u>--</u> Mins.	<u>--</u> Mins.
F Second Final Flow Pressure	<u>--</u> P.S.I.			
G Final Closed-in Pressure	<u>--</u> P.S.I.			
H Final Hydrostatic Mud	<u>1622</u> P.S.I.			

PRESSURE BREAKDOWN

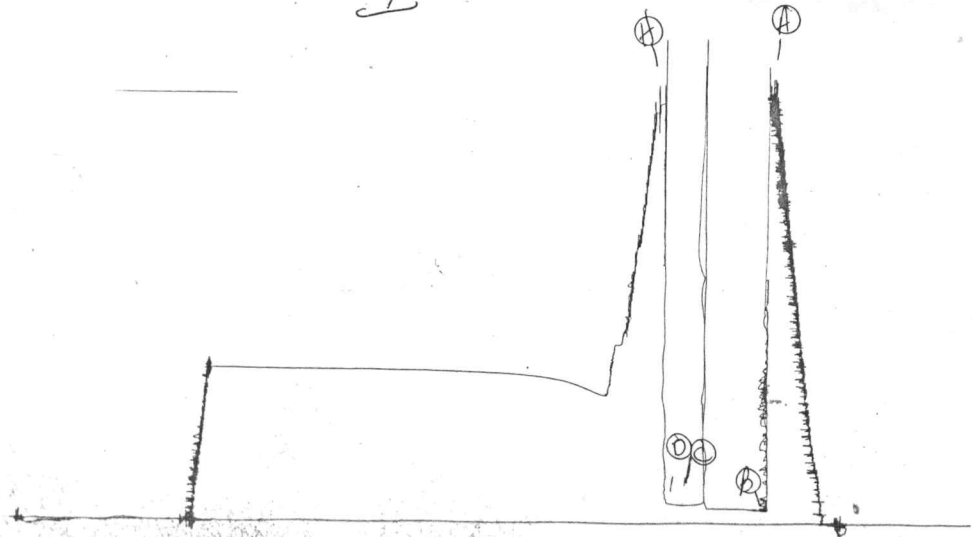
First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>12</u> Inc.		Breakdown: <u>5</u> Inc.		Breakdown: <u>0</u> Inc.		Breakdown: <u>0</u> Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> 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>52</u>	<u>0</u> <u>70</u>					
P 2	<u>5</u> <u>52</u>	<u>3</u> <u>70</u>					
P 3	<u>10</u> <u>53</u>	<u>6</u> <u>70</u>					
P 4	<u>15</u> <u>54</u>	<u>9</u> <u>72</u>					
P 5	<u>20</u> <u>55</u>	<u>12</u> <u>74</u>					
P 6	<u>25</u> <u>56</u>	<u>15</u> <u>76</u>					
P 7	<u>30</u> <u>57</u>						
P 8	<u>35</u> <u>57</u>						
P 9	<u>40</u> <u>57</u>						
P10	<u>45</u> <u>57</u>						
P11	<u>50</u> <u>73</u>						
P12	<u>55</u> <u>71</u>						
P13	<u>60</u> <u>70</u>						
P14							
P15							
P16							
P17							
P18							
P19							
P20							

Flushed tool

JK # 15698

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79



Company W. L. Hartman Estate Lease & Well No. #4 Barrow
 Elevation 1810 Kelly Bushing Formation Kansas City Effective Pay - Ft. Ticket No. 15699
 Date 4/ 19/82 Sec. 34 Twp. 19S Range 12W County Barton State Kansas
 Test Approved by R. L. Schmidlapp Western Representative Denis Wondra

Formation Test No. 3 Interval Tested from 3144 ft. to 3180 ft. Total Depth 3180 ft.
 Packer Depth 3139 ft. Size 6 5/8 in. Packer Depth 3144 ft. Size 6 5/8 in.
 Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3170 ft. Recorder Number 3474 Cap. 3000
 Bottom Recorder Depth (Outside) 3173 ft. Recorder Number 13240 Cap. 4150
 Below Straddle Recorder Depth -- ft. Recorder Number -- Cap. -

Drilling Contractor Woodman - Iannitti Drlg. Rig #2 Drill Collar Length - I. D. - in.
 Mud Type starch Viscosity 45 Weight Pipe Length 310 I. D. 2.7 in.
 Weight 9.4 Water Loss 9.8 cc. Drill Pipe Length 2813 I. D. 3.8 in.
 Chlorides 83,000 P.P.M. Test Tool Length 21 ft. Tool Size 5 1/2 OD in.
 Jars: Make - Serial Number - Anchor Length 36 ft. Size 5 1/2 OD in.
 Did Well Flow? No Reversed Out no Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: Very weak died in forty-five minutes; flushed tool - few bubbles and died in one minute on initial flow period.

Recovered 75 ft. of drilling mud
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of

Remarks: Slid tool seven feet to bottom.

Time Set Packer(s) 4:38 A.M. P.M. Time Started Off Bottom 6:40 A.M. P.M. Maximum Temperature 103°
 Initial Hydrostatic Pressure 1632 P.S.I. (A)
 Initial Flow Period 90 Minutes (B) 72 P.S.I. to (C) 79 P.S.I.
 Initial Closed In Period 27 Minutes (D) 541 P.S.I.
 Final Flow Period -- Minutes (E) -- P.S.I. to (F) --- P.S.I.
 Final Closed In Period -- Minutes (G) -- P.S.I.
 Final Hydrostatic Pressure 1628 P.S.I. (H)

WESTERN TESTING CO., INC.
Pressure Data

Date 4/19/82 Test Ticket No. 15699
 Recorder No. 3474 Capacity 3000 Location 3170 Ft.
 Clock No. --- Elevation 1810 Kelly Bushing Well Temperature 103 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1632	P.S.I.	4:38P	M
B First Initial Flow Pressure	72	P.S.I.	90	Mins. 90 Mins.
C First Final Flow Pressure	79	P.S.I.	30	Mins. 27 Mins.
D Initial Closed-in Pressure	541	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	1628	P.S.I.		

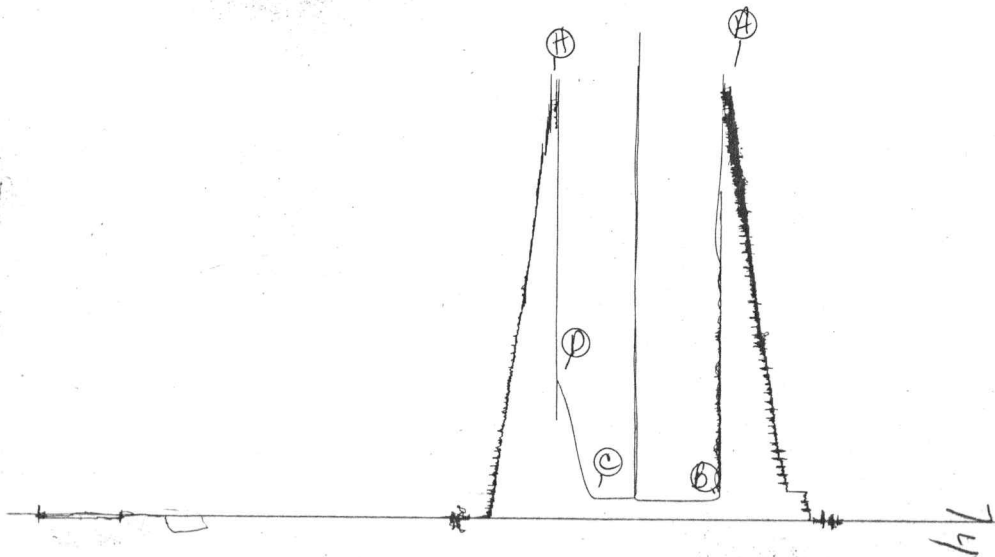
PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure	Initial Shut-In	Second Flow Pressure	Final Shut-In	
	Breakdown: <u>18</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: <u>9</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: <u>0</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: <u>0</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	
	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	72	0	79		
P 2	72	3	85		
P 3	72	6	114		
P 4	72	9	161		
P 5	72	12	223		
P 6	72	15	303		
P 7	72	18	382		
P 8	72	21	448		
P 9	72	24	495		
P10	73	27	541		
P11	73				
P12	73				
P13	73				
P14	81				
P15	80				
P16	79				
P17	79				
P18	79				
P19	79				
P20					

Flushed tool

JKA # 15699

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Company W. L. Hartman Estate Lease & Well No. #4 Barrow
 Elevation 1810 Kelly Bushing Formation Kansas City Effective Pay - Ft. Ticket No. 15700
 Date 4/ 20/82 Sec. 34 Twp. 19S Range 12W County Barton State Kansas
 Test Approved by R. L. Schmidlapp Western Representative Denis Wondra

Formation Test No. 4 Interval Tested from 3230 ft. to 3286 ft. Total Depth 3286 ft.
 Packer Depth 3225 ft. Size 6 5/8 in. Packer Depth 3230 ft. Size 6 5/8 in.
 Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3245 ft. Recorder Number 3474 Cap. 3000
 Bottom Recorder Depth (Outside) 3248 ft. Recorder Number 13240 Cap. 4150
 Below Straddle Recorder Depth -- ft. Recorder Number -- Cap. -

Drilling Contractor Woodman - Iannitti Drlg. Rig #2 Drill Collar Length - I. D. - in.
 Mud Type starch Viscosity 43 Weight Pipe Length 310 I. D. 2.8 in.
 Weight 9.6 Water Loss 8.0 cc. Drill Pipe Length 2899 I. D. 3.8 in.
 Chlorides 81,000 P.P.M. Test Tool Length 21 ft. Tool Size 5 1/2 OD in.
 Jars: Make - Serial Number - Anchor Length 56 ft. Size 5 1/2 OD in.
 Did Well Flow? No Reversed Out no Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: Good blow throughout test.

Recovered 120 ft. of gas cut mud with few spots of oil
 Recovered 120 ft. of gas cut watery mud
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of

Remarks:

Time Set Packer(s) 8:43 ~~P.M.~~ ^{A.M.} Time Started Off Bottom 10:45 ~~P.M.~~ ^{A.M.} Maximum Temperature 103°
 Initial Hydrostatic Pressure 1678 (A) 1678 P.S.I.
 Initial Flow Period 90 (B) 46 Minutes P.S.I. to (C) 120 P.S.I.
 Initial Closed In Period 33 (D) 353 Minutes P.S.I.
 Final Flow Period -- (E) -- Minutes P.S.I. to (F) -- P.S.I.
 Final Closed In Period -- (G) -- Minutes P.S.I.
 Final Hydrostatic Pressure 1678 (H) 1678 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 4/20/82 Test Ticket No. 15700
 Recorder No. 3474 Capacity 3000 Location 3245 Ft.
 Clock No. ---- Elevation 1810 Kelly Bushing Well Temperature 103 °F

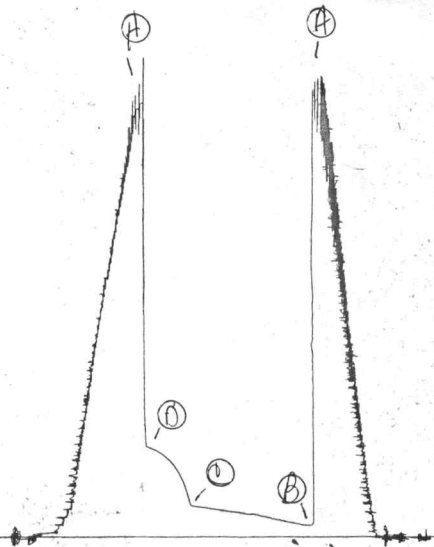
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1678	P.S.I.	8:43A	M
B First Initial Flow Pressure	46	P.S.I.	90	Mins. 90 Mins.
C First Final Flow Pressure	120	P.S.I.	30	Mins. 33 Mins.
D Initial Closed-in Pressure	353	P.S.I.	--	Mins. -- Mins.
E Second Initial Flow Pressure	--	P.S.I.	--	Mins. -- Mins.
F Second Final Flow Pressure	--	P.S.I.		
G Final Closed-in Pressure	--	P.S.I.		
H Final Hydrostatic Mud	1678	P.S.I.		

PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.
	of 5 mins.	and a final inc. of 0 Min.	of 3 mins.	and a final inc. of 0 Min.	of 5 mins.	and a final inc. of 0 Min.	of 3 mins.	and a final inc. of 0 Min.
Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	
P 1 0	46	0	120					
P 2 5	46	3	168					
P 3 10	49	6	215					
P 4 15	55	9	247					
P 5 20	59	12	251					
P 6 25	65	15	292					
P 7 30	70	18	309					
P 8 35	77	21	321					
P 9 40	82	24	333					
P10 45	88	27	341					
P11 50	89	30	347					
P12 55	95	33	353					
P13 60	98							
P14 65	102							
P15 70	105							
P16 75	109							
P17 80	114							
P18 85	117							
P19 90	120							
P20								

JKA # 15700

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Company W. L. Hartman Estate Lease & Well No. Barrow #1
 Elevation 1810 Kelly Bushing Formation Kansas City Effective Pay - Ft. Ticket No. 16226
 Date 4/ 21/82 Sec. 34 Twp. 19S Range 12W County Barton State Kansas
 Test Approved by R. L. Schmidlapp Western Representative Denis Wondra

Formation Test No. 5 Interval Tested from 3291 ft. to 3342 ft. Total Depth 3342 ft.
 Packer Depth 3286 ft. Size 6 5/8 in. Packer Depth 3291 ft. Size 6 5/8 in.
 Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3332 ft. Recorder Number 3474 Cap. 3000
 Bottom Recorder Depth (Outside) 3335 ft. Recorder Number 13240 Cap. 4150
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Woodman - Iannitti Drlg. Rig #2 Drill Collar Length - I. D. - in.
 Mud Type starch Viscosity 43 Weight Pipe Length 310 I. D. 2.8 in.
 Weight 9.6 Water Loss 8.0 cc. Drill Pipe Length 2960 I. D. 3.8 in.
 Chlorides 81,000 P.P.M. Test Tool Length 21 ft. Tool Size 5 1/2 OD in.
 Jars: Make - Serial Number - Anchor Length 51 ft. Size 5 1/2 OD in.
 Did Well Flow? No Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: Very weak; died in fifty minutes on initial flow period.

Recovered 5 ft. of drilling mud
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of

Remarks:

Time Set Packer(s) 11:33 A.M. Time Started Off Bottom 1:05 P.M. Maximum Temperature 110°
 Initial Hydrostatic Pressure 1752 P.S.I. (A)
 Initial Flow Period 60 Minutes (B) 42 P.S.I. to (C) 42 P.S.I.
 Initial Closed In Period 30 Minutes (D) 58 P.S.I.
 Final Flow Period -- Minutes (E) -- P.S.I. to (F) -- P.S.I.
 Final Closed In Period -- Minutes (G) -- P.S.I.
 Final Hydrostatic Pressure 1738 P.S.I. (H)

WESTERN TESTING CO., INC.
Pressure Data

Date 4/21/82 Test Ticket No. 16226
 Recorder No. 3474 Capacity 3000 Location 3332 Ft.
 Clock No. --- Elevation 1810 Kelly Bushing Well Temperature 110 °F

Point	Pressure		Time Given	Time Computed
A. Initial Hydrostatic Mud	1752	P.S.I.	11:33P	M
B. First Initial Flow Pressure	42	P.S.I.	60	Mins. 60 Mins.
C. First Final Flow Pressure	42	P.S.I.	30	Mins. 30 Mins.
D. Initial Closed-in Pressure	58	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	1738	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure
 Breakdown: 12 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: Inc.
 of 5 mins. and a
 final inc. of 0 Min.

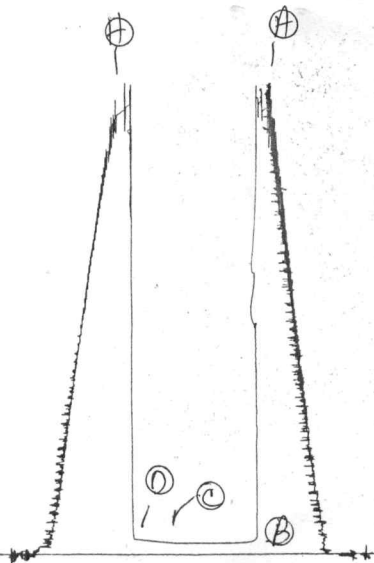
Final Shut-In
 Breakdown: Inc.
 of 3 mins. and a
 final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	42	0	42				
P 2 5	42	3	43				
P 3 10	42	6	44				
P 4 15	42	9	46				
P 5 20	42	12	48				
P 6 25	42	15	50				
P 7 30	42	18	52				
P 8 35	42	21	54				
P 9 40	42	24	56				
P10 45	42	27	57				
P11 50	42	30	58				
P12 55	42						
P13 60	42						
P14							
P15							
P16							
P17							
P18							
P19							
P20							

Sta # 16256

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74



Company W. L. Hartman Estate Lease & Well No. Barrow #1
 Elevation 1810 Kelly Bushing Formation Arbuckle Effective Pay - Ft. Ticket No. 16227
 Date 4/21 /82 Sec. 34 Twp. 19S Range 12W County Barton State Kansas
 Test Approved by R. L. Schmidlapp Western Representative Denis Wondra

Formation Test No. 6 Interval Tested from 3336 ft. to 3365 ft. Total Depth 3365 ft.
 Packer Depth 3331 ft. Size 6 5/8 in. Packer Depth 3336 ft. Size 6 5/8 in.
 Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3355 ft. Recorder Number 3474 Cap. 3000
 Bottom Recorder Depth (Outside) 3358 ft. Recorder Number 13240 Cap. 4150
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Woodman - Iannitti Drlg. Rig #2 Drill Collar Length - I. D. - in.
 Mud Type starch Viscosity 40 Weight Pipe Length 310 I. D. 2.8 in.
 Weight 9.5 Water Loss 8.0 cc. Drill Pipe Length 3005 I. D. 3.8 in.
 Chlorides 83,000 P.P.M. Test Tool Length 21 ft. Tool Size 5 1/2 OD in.
 Jars: Make - Serial Number - Anchor Length 29 ft. Size 5 1/2 OD in.
 Did Well Flow? No Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: Very weak; died in forty-five minutes; flushed tool. Died in eight minutes on initial flow period.

Recovered 65 ft. of heavily oil cut mud
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____

Remarks: _____

Time Set Packer(s) 3:43 A.M. Time Started Off Bottom 6:00 P.M. Maximum Temperature 103°
 Initial Hydrostatic Pressure (A) 1736 P.S.I.
 Initial Flow Period Minutes 105 (B) 43 P.S.I. to (C) 58 P.S.I.
 Initial Closed In Period Minutes 30 (D) 885 P.S.I.
 Final Flow Period Minutes -- (E) -- P.S.I. to (F) -- P.S.I.
 Final Closed In Period Minutes -- (G) -- P.S.I.
 Final Hydrostatic Pressure (H) 1736 P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 4/21/82 Test Ticket No. 16227
 Recorder No. 3474 Capacity 3000 Location 3355 Ft.
 Clock No. -- Elevation 1810 Kelly Bushing Well Temperature 103 °F

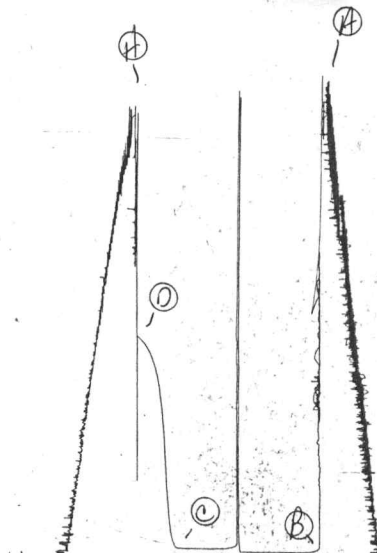
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1736	P.S.I.	3:43P	M
B First Initial Flow Pressure	43	P.S.I.	105	Mins. 105 Mins.
C First Final Flow Pressure	58	P.S.I.	30	Mins. 30 Mins.
D Initial Closed-in Pressure	885	P.S.I.	--	Mins. -- Mins.
E Second Initial Flow Pressure	--	P.S.I.	--	Mins. -- Mins.
F Second Final Flow Pressure	--	P.S.I.		
G Final Closed-in Pressure	--	P.S.I.		
H Final Hydrostatic Mud	1736	P.S.I.		

PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes
P 1	43	0	58	0				
P 2	43	5	89	3				
P 3	43	10	232	6				
P 4	43	15	477	9				
P 5	43	20	667	12				
P 6	43	25	747	15				
P 7	43	30	800	18				
P 8	43	35	833	21				
P 9	43	40	861	24				
P10	43	45	877	27				
P11	43	50	885	30				
P12	43	55						
P13	FLUSHED TOOL							
P14	59	65						
P15	57	70						
P16	56	75						
P17	56	80						
P18	56	85						
P19	56	90						
P20	56	95						
WTC -4	57	100						
	58	105						

SK # 16227

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24

Company W. L. Hartman Estate Lease & Well No. Barrow #1
 Elevation 1810 Kelly Bushing Formation Arbuckel Effective Pay - Ft. Ticket No. 16228
 Date 4/ 22/82 Sec. 34 Twp. 19S Range 12W County Barton State Kansas
 Test Approved by R. L. Schmidlapp Western Representative Denis Wondra

Formation Test No. 7 Interval Tested from 3363 ft. to 3373 ft. Total Depth 3373 ft.
 Packer Depth 3368 ft. Size 6 5/8 in. Packer Depth 3363 ft. Size 6 5/8 in.
 Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3364 ft. Recorder Number 3474 Cap. 3000
 Bottom Recorder Depth (Outside) 3367 ft. Recorder Number 13240 Cap. 4150
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Woodman - Iannitti Drlg. Rig #2 Drill Collar Length - I. D. - in.
 Mud Type starch Viscosity 40 Weight Pipe Length 310 I. D. 2.8 in.
 Weight 9.5 Water Loss 8.0 cc. Drill Pipe Length 3032 I. D. 3.8 in.
 Chlorides 83,000 P.P.M. Test Tool Length 21 ft. Tool Size 5 1/2 OD in.
 Jars: Make - Serial Number - Anchor Length 10 ft. Size 5 1/2 OD in.
 Did Well Flow? No Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: Good throughout initial flow period.

Recovered 490 ft. of gas cut muddy oil
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____

Remarks: _____

Time Set Packer(s) 6:58 ~~P.M.~~ A.M. Time Started Off Bottom 9:00 ~~P.M.~~ A.M. Maximum Temperature 105°
 Initial Hydrostatic Pressure (A) 1729 P.S.I.
 Initial Flow Period Minutes 90 (B) 159 * P.S.I. to (C) 214 P.S.I.
 Initial Closed In Period Minutes 27 (D) 873 P.S.I.
 Final Flow Period Minutes -- (E) --- P.S.I. to (F) -- P.S.I.
 Final Closed In Period Minutes -- (G) -- P.S.I.
 Final Hydrostatic Pressure (H) 1720 P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 4/22/82 Test Ticket No. 16228
 Recorder No. 3474 Capacity 3000 Location 3364 Ft.
 Clock No. -- Elevation 1810 Kelly Bushing Well Temperature 105 °F

Point	Pressure			Time Given	Time Computed
A Initial Hydrostatic Mud	1729	P.S.I.	Open Tool	6:58A	M
B First Initial Flow Pressure	159 *	P.S.I.	First Flow Pressure	90	90 Mins.
C First Final Flow Pressure	214	P.S.I.	Initial Closed-in Pressure	30	27 Mins.
D Initial Closed-in Pressure	873	P.S.I.	Second Flow Pressure	--	-- Mins.
E Second Initial Flow Pressure	--	P.S.I.	Final Closed-in Pressure	--	-- Mins.
F Second Final Flow Pressure	--	P.S.I.			
G Final Closed-in Pressure	--	P.S.I.			
H Final Hydrostatic Mud	1720	P.S.I.			

* PRESSURES QUESTIONABLE DUE TO PLUGGING ACTION

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>18</u> Inc.		Breakdown: <u>9</u> Inc.		Breakdown: _____ Inc.		Breakdown: _____ 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	0	214				
P 2	5	3	602				
P 3	10	6	668				
P 4	15	9	720				
P 5	20	12	758				
P 6	25	15	789				
P 7	30	18	814				
P 8	35	21	838				
P 9	40	24	858				
P10	45	27	873				
P11	50	30					
P12	55						
P13	60						
P14	65						
P15	70						
P16	75						
P17	80						
P18	85						
P19	90						
P20							

St #. 16228

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