

Company Liberty Enterprises, Inc. Lease & Well No. Carmichael "B" #1
 Elevation 1926 Kelly Bushing Lansing- Effective Pay -- Ft. Ticket No. 3168
 Date 2/8 /80 Sec. 4 Twp. 11S Range 17W County Ellis State Kansas
 Test Approved by A. J. Tony Kouse Western Representative Randy Lackey
 Formation Test No. 1 Interval Tested from 3205 ft. to 3250 ft. Total Depth 3250 ft.
 Packer Depth 3200 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 3205 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 3213 ft. Recorder Number 2608 Cap. 4150 PSI
 Bottom Recorder Depth (Outside) 3216 ft. Recorder Number 3473 Cap. 4000 PSI
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
 Drilling Contractor Pioneer Drilling Rig #1 Drill Collar Length -- I. D. - in.
 Mud Type starch Viscosity 39 Weight Pipe Length 885 I. D. 2.716
 Weight 9.8 Water Loss 9.6 cc. Drill Pipe Length 2309 I. D. 3.8 in.
 Chlorides 80,000 P.P.M. Test Tool Length 19 ft. Tool Size 5 1/2 in.
 Jars: Make None Serial Number - Anchor Length 45 ft. Size 5 1/2 in.
 Did Well Flow? No Reversed Out NO Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 FH in.

Blow: Strong throughout Initial Flow Period. Strong throughout Final Flow Period.

Recovered	10	ft. of	30% oil; 24% water; 46% mud	[62' of 61% oil; 27% water; 12% mud
Recovered	62	ft. of	37% oil; 28% water; 34% mud	[62' of 56% oil; 36% water; 8% mud
Recovered	62	ft. of	50% oil; 29% water; 21% mud	[62' of 63% oil; 30% water; 7% mud
Recovered	62	ft. of	57% oil; 26% water; 17% mud	[62' of 53% oil; 35% water; 10% mud
Recovered	62	ft. of	63% oil; 26% water 11% mud	[62' of 57% oil; 35% water; 8% mud
Remarks:				92' of 56% oil; 36% water; 8% mud

660' of total fluid

Time Set	Packer(s)	<u>10:45</u>	<u>A.M.</u> P.M.	Time Started Off Bottom	<u>12:45</u>	<u>A.M.</u> P.M.	Maximum Temperature	<u>98°</u>
Initial Hydrostatic Pressure				(A)	<u>1766</u>	P.S.I.		
Initial Flow Period		Minutes	<u>30</u>	(B)	<u>64</u>	P.S.I. to (C)	<u>191</u>	P.S.I.
Initial Closed In Period		Minutes	<u>30</u>	(D)	<u>593</u>	P.S.I.		
Final Flow Period		Minutes	<u>30</u>	(E)	<u>227</u>	P.S.I. to (F)	<u>281</u>	P.S.I.
Final Closed In Period		Minutes	<u>30</u>	(G)	<u>502</u>	P.S.I.		
Final Hydrostatic Pressure				(H)	<u>1750</u>	P.S.I.		

WESTERN TESTING CO., INC.

Pressure Data

Date 2/8/80 Recorder No. 2608 Capacity 4150 Test Ticket No. 3168
 Clock No. -- Elevation 1926 Kelly Bushing Location 3213 Ft. 98
 Well Temperature 98 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1766</u> P.S.I.	Open Tool	<u>10:45P</u> M	
B First Initial Flow Pressure	<u>64</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>191</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>593</u> P.S.I.	Second Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>227</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
F Second Final Flow Pressure	<u>281</u> P.S.I.			
G Final Closed-in Pressure	<u>502</u> P.S.I.			
H Final Hydrostatic Mud	<u>1750</u> P.S.I.			

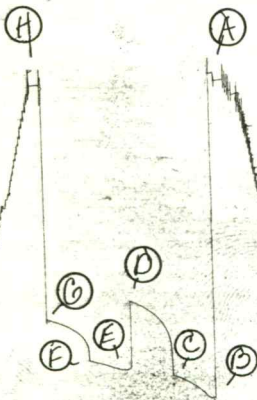
PRESSURE BREAKDOWN

First Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Initial Shut-In Breakdown: <u>10</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.		Second Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Final Shut-In Breakdown: <u>10</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>64</u>	<u>0</u>	<u>191</u>	<u>0</u>	<u>227</u>	<u>0</u>	<u>281</u>
P 2 <u>5</u>	<u>73</u>	<u>3</u>	<u>416</u>	<u>5</u>	<u>227</u>	<u>3</u>	<u>389</u>
P 3 <u>10</u>	<u>106</u>	<u>6</u>	<u>437</u>	<u>10</u>	<u>233</u>	<u>6</u>	<u>416</u>
P 4 <u>15</u>	<u>131</u>	<u>9</u>	<u>485</u>	<u>15</u>	<u>248</u>	<u>9</u>	<u>435</u>
P 5 <u>20</u>	<u>152</u>	<u>12</u>	<u>512</u>	<u>20</u>	<u>259</u>	<u>12</u>	<u>448</u>
P 6 <u>25</u>	<u>170</u>	<u>15</u>	<u>531</u>	<u>25</u>	<u>270</u>	<u>15</u>	<u>460</u>
P 7 <u>30</u>	<u>191</u>	<u>18</u>	<u>544</u>	<u>30</u>	<u>281</u>	<u>18</u>	<u>469</u>
P 8		<u>21</u>	<u>557</u>			<u>21</u>	<u>478</u>
P 9		<u>24</u>	<u>569</u>			<u>24</u>	<u>487</u>
P10		<u>27</u>	<u>581</u>			<u>27</u>	<u>495</u>
P11		<u>30</u>	<u>593</u>			<u>30</u>	<u>502</u>
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

PST#1

T=3168

TRK#3168
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Company Liberty Enterprises, Inc. Lease & Well No. Orlan Carmichael "B" #1
 Elevation 1926 Kelly Bushing Lansing-Kansas City Pay --- Ft. Ticket No. 3169
 Date 2/10/80 Sec. 4 Twp. 11S Range 17W County Ellis State Kansas
 Test Approved by A. J. Tony Kouse Western Representative Randy Lackey
 Formation Test No. 2 Interval Tested from 3335 ft. to 3380 ft. Total Depth 3380 ft.
 Packer Depth 3330 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 3335 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 3343 ft. Recorder Number 2608 Cap. 4150 PSI
 Bottom Recorder Depth (Outside) 3346 ft. Recorder Number 3473 Cap. 4000 PSI
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
 Drilling Contractor Pioneer Drilling Co. Rig #1 Drill Collar Length -- I. D. - in.
 Mud Type starch Viscosity 43 Weight Pipe Length 885 I. D. 2.76 in.
 Weight 10.2 Water Loss 10.0 cc. Drill Pipe Length 2460 I. D. 3.8 in.
 Chlorides 82,000 P.P.M. Test Tool Length 19 ft. Tool Size 5 1/2 in.
 Jars: Make None Serial Number - Anchor Length 45 ft. Size 5 1/2 in.
 Did Well Flow? No Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 FH in.

Blow: Very weak building to fair by end of Initial Flow Period. Very weak
building to fair by end of Final Flow Period.

Recovered 100 ft. of gas in pipe
 Recovered 20 ft. of 61% oil; 22% water; 17% mud
 Recovered 60 ft. of 57% oil; 26% water; 17% mud
 Recovered 80 ft. of Total Fluid

Remarks:

Time Set Packer(s) 2:00 ~~PM~~ ^{A.M.} Time Started Off Bottom 4:15 ~~PM~~ ^{A.M.} Maximum Temperature 98°
 Initial Hydrostatic Pressure (A) 1865 P.S.I.
 Initial Flow Period Minutes 30 (B) 35 P.S.I. to (C) 35 P.S.I.
 Initial Closed In Period Minutes 30 (D) 1072 P.S.I.
 Final Flow Period Minutes 45 (E) 58 P.S.I. to (F) 58 P.S.I.
 Final Closed In Period Minutes 39 (G) 1064 P.S.I.
 Final Hydrostatic Pressure (H) 1833 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 2/10/80 Test Ticket No. 3169
 Recorder No. 2608 Capacity 4150 Location 3343 Ft.
 Clock No. ----- Elevation 1926 Kelly Bushing Well Temperature 98 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1865</u> P.S.I.	Open Tool	<u>2:00A</u> M	
B First Initial Flow Pressure	<u>35</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>35</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>1072</u> P.S.I.	Second Flow Pressure	<u>45</u> Mins.	<u>45</u> Mins.
E Second Initial Flow Pressure	<u>58</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>39</u> Mins.
F Second Final Flow Pressure	<u>58</u> P.S.I.			
G Final Closed-in Pressure	<u>1064</u> P.S.I.			
H Final Hydrostatic Mud	<u>1833</u> P.S.I.			

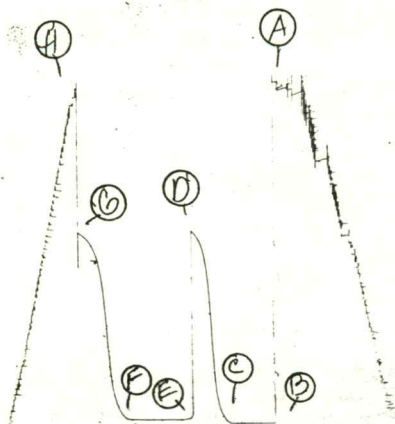
PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>9</u> Inc.		Breakdown: <u>13</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>35</u>	<u>0</u>	<u>35</u>	<u>0</u>	<u>58</u>	<u>0</u>	<u>58</u>
P 2 <u>5</u>	<u>35</u>	<u>3</u>	<u>40</u>	<u>5</u>	<u>58</u>	<u>3</u>	<u>67</u>
P 3 <u>10</u>	<u>35</u>	<u>6</u>	<u>67</u>	<u>10</u>	<u>58</u>	<u>6</u>	<u>85</u>
P 4 <u>15</u>	<u>35</u>	<u>9</u>	<u>114</u>	<u>15</u>	<u>58</u>	<u>9</u>	<u>125</u>
P 5 <u>20</u>	<u>35</u>	<u>12</u>	<u>216</u>	<u>20</u>	<u>58</u>	<u>12</u>	<u>196</u>
P 6 <u>25</u>	<u>35</u>	<u>15</u>	<u>429</u>	<u>25</u>	<u>58</u>	<u>15</u>	<u>333</u>
P 7 <u>30</u>	<u>35</u>	<u>18</u>	<u>665</u>	<u>30</u>	<u>58</u>	<u>18</u>	<u>498</u>
P 8		<u>21</u>	<u>859</u>	<u>35</u>	<u>58</u>	<u>21</u>	<u>698</u>
P 9		<u>24</u>	<u>965</u>	<u>40</u>	<u>58</u>	<u>24</u>	<u>847</u>
P10		<u>27</u>	<u>1021</u>	<u>45</u>	<u>58</u>	<u>27</u>	<u>934</u>
P11		<u>30</u>	<u>1072</u>			<u>30</u>	<u>992</u>
P12						<u>33</u>	<u>1023</u>
P13						<u>36</u>	<u>1046</u>
P14						<u>39</u>	<u>1064</u>
P15							
P16							
P17							
P18							
P19							
P20							

PST#2

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T-3169



Company Liberty Enterprises, Inc. Lease & Well No. Orlan Carmichael "B" #1
Elevation 1926 Kelly Bushing Conglomerate Formation Effective Pay ----- Ft. Ticket No. 3170
Date 2/10/80 Sec. 4 Twp. 11S Range 17W County Ellis State Kansas
Test Approved by A. J. Tony Kouse Western Representative Randy Lackey

Formation Test No. 3 Interval Tested from 3413 ft. to 3462 ft. Total Depth 3462 ft.
Packer Depth 3408 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Packer Depth 3413 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Depth of Selective Zone Set

Top Recorder Depth (Inside) 3421 ft. Recorder Number 2608 Cap. 4150 PSI
Bottom Recorder Depth (Outside) 3424 ft. Recorder Number 3473 Cap. 4000 PSI
Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Pioneer Drilling Co. Rig #1 Drill Collar Length I. D. in.
Mud Type starch Viscosity 42 Weight Pipe Length 885 I. D. 2.76 in.
Weight 9.8 Water Loss 10.8 cc. Drill Pipe Length 2525 I. D. 3.8 in.
Chlorides 59,000 P.P.M. Test Tool Length 19 ft. Tool Size 5 1/2 in.
Jars: Make Serial Number Anchor Length 49 ft. Size 5 1/2 in.
Did Well Flow? 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 FH in.

Blow: Strong blow two minutes into Initial Flow Period. Strong blow two
minutes into Final Flow Period.

Recovered 1085 ft. of gassy oil
Recovered 200 ft. of gassy muddy oil
Recovered ft. of 30 gravity
Recovered ft. of
Recovered ft. of
Remarks: 1285' Total fluid.

Time Set Packer(s) 6:45 ~~A.M.~~ P.M. Time Started Off Bottom 8:45 ~~A.M.~~ P.M. Maximum Temperature ?
Initial Hydrostatic Pressure (A) 1889 P.S.I.
Initial Flow Period Minutes 35 (B) 76 P.S.I. to (C) 343 P.S.I.
Initial Closed In Period Minutes 30 (D) 836 P.S.I.
Final Flow Period Minutes 30 (E) 390 P.S.I. to (F) 473 P.S.I.
Final Closed In Period Minutes 30 (G) 830 P.S.I.
Final Hydrostatic Pressure (H) 1847 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 2/10/80 Test Ticket No. 3170
 Recorder No. 2608 Capacity 4150 Location 3421 Ft.
 Clock No. ----- Elevation 1926 Kelly Bushing Well Temperature -- °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1889 P.S.I.	Open Tool	6:45P M	35
B First Initial Flow Pressure	76 P.S.I.	First Flow Pressure	30 Mins.	35 Mins.
C First Final Flow Pressure	343 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	836 P.S.I.	Second Flow Pressure	30 Mins.	30 Mins.
E Second Initial Flow Pressure	390 P.S.I.	Final Closed-in Pressure	30 Mins.	30 Mins.
F Second Final Flow Pressure	473 P.S.I.			
G Final Closed-in Pressure	830 P.S.I.			
H Final Hydrostatic Mud	1847 P.S.I.			

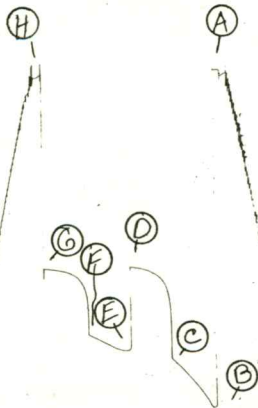
PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>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>76</u>	<u>0</u>	<u>343</u>	<u>0</u>	<u>390</u>	<u>0</u>	<u>473</u>
P 2 <u>5</u>	<u>104</u>	<u>3</u>	<u>700</u>	<u>5</u>	<u>390</u>	<u>3</u>	<u>727</u>
P 3 <u>10</u>	<u>156</u>	<u>6</u>	<u>758</u>	<u>10</u>	<u>404</u>	<u>6</u>	<u>766</u>
P 4 <u>15</u>	<u>202</u>	<u>9</u>	<u>783</u>	<u>15</u>	<u>421</u>	<u>9</u>	<u>789</u>
P 5 <u>20</u>	<u>243</u>	<u>12</u>	<u>799</u>	<u>20</u>	<u>438</u>	<u>12</u>	<u>803</u>
P 6 <u>25</u>	<u>287</u>	<u>15</u>	<u>812</u>	<u>25</u>	<u>455</u>	<u>15</u>	<u>810</u>
P 7 <u>30</u>	<u>322</u>	<u>18</u>	<u>817</u>	<u>30</u>	<u>473</u>	<u>18</u>	<u>814</u>
P 8 <u>35</u>	<u>343</u>	<u>21</u>	<u>822</u>			<u>21</u>	<u>818</u>
P 9		<u>24</u>	<u>827</u>			<u>24</u>	<u>822</u>
P10		<u>27</u>	<u>832</u>			<u>27</u>	<u>826</u>
P11		<u>30</u>	<u>836</u>			<u>30</u>	<u>830</u>
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

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Company Liberty Enterprises, Inc. Lease & Well No. Orlan Carmichael "B" #1
Elevation 1926 Kelly Bushing Arbuckle Effective Pay --- Ft. Ticket No. 3171
Date 2/11/80 Sec. 4 Twp 11S Range 17W County Ellis State Kansas
Test Approved by A. J. Tony Kouse Western Representative Randy Lackey

Formation Test No. 4 Interval Tested from 3483 ft. to 3500 ft. Total Depth 3500 ft.

Packer Depth 3478 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 3483 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3493 ft. Recorder Number 2608 Cap. 4150 PSI

Bottom Recorder Depth (Outside) 3496 ft. Recorder Number 3473 Cap. 4000 PSI

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

Drilling Contractor Pioneer Drilling Co. Rig #1 Drill Collar Length - I. D. - in.

Mud Type starch Viscosity 43 Weight Pipe Length 885 I. D. 2.76 in.

Weight 9.7 Water Loss 11.0 cc. Drill Pipe Length 2587 I. D. 3.8 in.

Chlorides 60,000 P.P.M. Test Tool Length 19 ft. Tool Size 5 1/2 in.

Jars: Make None Serial Number - Anchor Length 17 ft. Size 5 1/2 in.

Did Well Flow? No Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 FH in.

Blow: Very weak ; died in fifteen minutes; flushed tool; died in six minutes.

Died rest of Initial Flow Period.

Recovered 4 ft. of mud

Recovered - ft. of -

Recovered - ft. of -

Recovered - ft. of -

Recovered - ft. of -

Remarks: -

Time Set Packer(s) 12:15 AM Time Started Off Bottom 1:15 AM Maximum Temperature 99°

Initial Hydrostatic Pressure (A) 1922 P.S.I.

Initial Flow Period Minutes 30 (B) 37 P.S.I. to (C) 35 P.S.I.

Initial Closed In Period Minutes 30 (D) 35 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) 1873 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 2/11/80 Recorder No. 2608 Capacity 4150 Test Ticket No. 3171
 Clock No. ----- Elevation 1926 Kelly Bushing Location 3493 Ft. 99 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1922 P.S.I.	Open Tool	12:15P	M
B First Initial Flow Pressure	37 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	35 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	35 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	1873 P.S.I.			

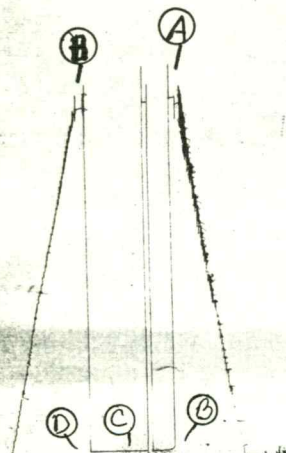
PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>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>37</u>	<u>0</u>	<u>35</u>				
P 2 <u>5</u>	<u>35</u>	<u>3</u>	<u>35</u>				
P 3 <u>10</u>	<u>35</u>	<u>6</u>	<u>35</u>				
P 4 <u>15</u>	<u>35</u>	<u>9</u>	<u>35</u>				
P 5 <u>20</u>	<u>35</u>	<u>12</u>	<u>35</u>				
P 6 <u>25</u>	<u>35</u>	<u>15</u>	<u>35</u>				
P 7 <u>30</u>	<u>35</u>	<u>18</u>	<u>35</u>				
P 8		<u>21</u>	<u>35</u>				
P 9		<u>24</u>	<u>35</u>				
P10		<u>27</u>	<u>35</u>				
P11		<u>30</u>	<u>35</u>				
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

DST #4

T-3171

TKA # 3171
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Company Liberty Enterprises, Inc. Lease & Well No. Orlan Carmichael "B" #1
Elevation 1926 Kelly Bushing Arbuckle Formation Effective Pay --- Ft. Ticket No. 3172
Date 2/12/80 Sec. 4 Twp. 11S Range 17W County Ellis State Kansas
Test Approved by Patrick Balthazor Western Representative Randy Lackey

Formation Test No. 5 Interval Tested from 3483 ft. to 3513 ft. Total Depth 3513 ft.

Packer Depth 3478 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 3483 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3492 ft. Recorder Number 2608 Cap. 4150 PSI

Bottom Recorder Depth (Outside) 3495 ft. Recorder Number 3473 Cap. 4000 PSI

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

Drilling Contractor Pioneer Drilling Co. Rig #1 Drill Collar Length - I. D. - in.

Mud Type starch Viscosity 43 Weight Pipe Length 885 I. D. 2.76 in.

Weight 10.0 Water Loss 11.0 cc. Drill Pipe Length 2587 I. D. 3.8 in.

Chlorides 60,000 P.P.M. Test Tool Length 19 ft. Tool Size 5 1/2 in.

Jars: Make None Serial Number -- Anchor Length 30 ft. Size 5 1/2 in.

Did Well Flow? No Reversed Out Yes Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 FH in.

Blow: Weak building to strong three minutes into Initial Flow Period. Weak,
building to strong five minutes into Final Flow Period.

Recovered 1254 ft. of water

Recovered - ft. of -

Recovered - ft. of chlorides 41,000 ppm

Recovered - ft. of -

Recovered - ft. of -

Remarks: -

Time Set Packer(s) 12:15 A.M. PM = Time Started Off Bottom 2:15 A.M. PM Maximum Temperature 107°

Initial Hydrostatic Pressure (A) 1893 P.S.I.

Initial Flow Period Minutes 30 (B) 65 P.S.I. to (C) 425 P.S.I.

Initial Closed In Period Minutes 33 (D) 1127 P.S.I.

Final Flow Period Minutes 30 (E) 448 P.S.I. to (F) 607 P.S.I.

Final Closed In Period Minutes 30 (G) 1127 P.S.I.

Final Hydrostatic Pressure (H) 1843 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 2/12/80 Recorder No. 2608 Capacity 4150 Test Ticket No. 3172
 Location 3492 Ft.
 Clock No. ----- Elevation 1926 Kelly Bushing Well Temperature 107 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1893 P.S.I.	Open Tool	12:15A M	
B First Initial Flow Pressure	65 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	425 P.S.I.	Initial Closed-in Pressure	30 Mins.	33 Mins.
D Initial Closed-in Pressure	1127 P.S.I.	Second Flow Pressure	30 Mins.	30 Mins.
E Second Initial Flow Pressure	448 P.S.I.	Final Closed-in Pressure	30 Mins.	30 Mins.
F Second Final Flow Pressure	607 P.S.I.			
G Final Closed-in Pressure	1127 P.S.I.			
H Final Hydrostatic Mud	1843 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>11</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>	65	0	425	0	448	0	607
P 2 <u>5</u>	89	3	1006	5	467	3	1054
P 3 <u>10</u>	166	6	1072	10	498	6	1089
P 4 <u>15</u>	239	9	1093	15	527	9	1104
P 5 <u>20</u>	300	12	1106	20	558	12	1112
P 6 <u>25</u>	358	15	1112	25	584	15	1118
P 7 <u>30</u>	425	18	1118	30	607	18	1120
P 8		21	1121			21	1122
P 9		24	1123			24	1124
P10		27	1125			27	1126
P11		30	1127			30	1127
P12		33	1127				
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

DST# 3

J-3172

TKL# 3172
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