



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

Company Energy Exploration, Inc. Lease & Well No. Bircher #1
Elevation 1624 Ground Level Formation Tarkio & Douglas Effective Pay -- Ft. Ticket No. 2612
Date 12/29/78 Sec. 30 Twp. 15 Range 8W County Ellsworth State Kansas
Test Approved by Toby Elster Western Representative Denis Wondra
Formation Test No. 1 Interval Tested from 2516' ft. to 2581' ft. Total Depth 2581' ft.
Packer Depth 2511 ft. Size 6 3/4 in. Packer Depth 2516 ft. Size 6 3/4 in.
Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set --
Top Recorder Depth (Inside) 2519 ft. Recorder Number 3474 Cap. 3000
Bottom Recorder Depth (Outside) 2522 ft. Recorder Number 3659 Cap. 4000
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
Drilling Contractor Emphasis Drilling Rig #3 Drill Collar Length 120 I. D. 2.7 in.
Mud Type gel Viscosity 45 Weight Pipe Length - I. D. - in.
Weight 9.7 Water Loss 11.6 cc. Drill Pipe Length 2375 I. D. 3.8 in.
Chlorides 55,000 P.P.M. Test Tool Length 86' in. Tool Size 4 1/2 FH in.
Jars: Make -- Serial Number -- Anchor Length 65' 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 Xh in.

Blow: Fair. Increased to good in 15 minutes on first flow period. Very good throughout second opening.

Recovered 40 ft. of slightly oil and gas cut mud

Recovered 185 ft. of slightly gas cut watery mud

Recovered 125 ft. of slightly gas cut muddy water

Recovered ft. of

Recovered ft. of

Remarks:

Time Set	<u>7:28</u>	<u>AM</u>	Time Started	<u>11:30</u>	<u>AM</u>	Maximum Temperature	<u>Broken</u>
		P.M.	Off Bottom		P.M.		
Initial Hydrostatic Pressure				(A) <u>1366</u>	P.S.I.		
Initial Flow Period	Minutes <u>60</u>	(B) <u>55</u>	P.S.I. to (C) <u>114</u>		P.S.I.		
Initial Closed In Period	Minutes <u>60</u>	(D) <u>858</u>	P.S.I.				
Final Flow Period	Minutes <u>60</u>	(E) <u>144</u>	P.S.I. to (F) <u>180</u>		P.S.I.		
Final Closed In Period	Minutes <u>60</u>	(G) <u>835</u>	P.S.I.				
Final Hydrostatic Pressure				(H) <u>1324</u>	P.S.I.		

WESTERN TESTING CO., INC.

Pressure Data

Date 12/29/78

Test Ticket No. 2612

Recorder No. 3474

Capacity 3000

Location 2519 Ft.

Clock No. --

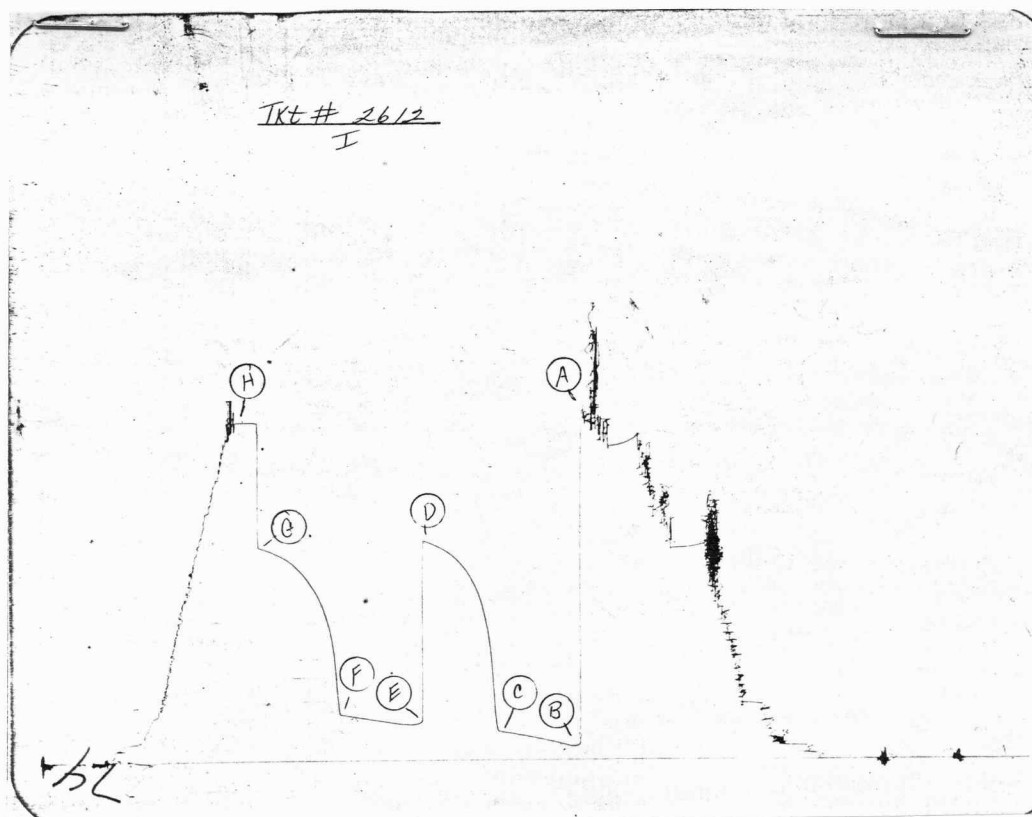
Elevation 1624 Ground Level

Well Temperature -- °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1366</u> P.S.I.	Open Tool	<u>7:28P</u>	<u>M</u>
B First Initial Flow Pressure	<u>55</u> P.S.I.	First Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
C First Final Flow Pressure	<u>114</u> P.S.I.	Initial Closed-in Pressure	<u>60</u> Mins.	<u>60</u> Mins.
D Initial Closed-in Pressure	<u>858</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>144</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins.	<u>60</u> Mins.
F Second Final Flow Pressure	<u>180</u> P.S.I.			
G Final Closed-in Pressure	<u>835</u> P.S.I.			
H Final Hydrostatic Mud	<u>1324</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>20</u> Inc.		Breakdown: <u>12</u> Inc.		Breakdown: <u>20</u> Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>55</u>	<u>0</u>	<u>114</u>	<u>0</u>	<u>144</u>	<u>0</u>	<u>180</u>
P 2 <u>5</u>	<u>52</u>	<u>3</u>	<u>229</u>	<u>5</u>	<u>141</u>	<u>3</u>	<u>300</u>
P 3 <u>10</u>	<u>59</u>	<u>6</u>	<u>424</u>	<u>10</u>	<u>139</u>	<u>6</u>	<u>445</u>
P 4 <u>15</u>	<u>67</u>	<u>9</u>	<u>521</u>	<u>15</u>	<u>142</u>	<u>9</u>	<u>523</u>
P 5 <u>20</u>	<u>71</u>	<u>12</u>	<u>588</u>	<u>20</u>	<u>148</u>	<u>12</u>	<u>573</u>
P 6 <u>25</u>	<u>78</u>	<u>15</u>	<u>639</u>	<u>25</u>	<u>152</u>	<u>15</u>	<u>614</u>
P 7 <u>30</u>	<u>85</u>	<u>18</u>	<u>679</u>	<u>30</u>	<u>156</u>	<u>18</u>	<u>650</u>
P 8 <u>35</u>	<u>91</u>	<u>21</u>	<u>712</u>	<u>35</u>	<u>159</u>	<u>21</u>	<u>676</u>
P 9 <u>40</u>	<u>95</u>	<u>24</u>	<u>736</u>	<u>40</u>	<u>164</u>	<u>24</u>	<u>703</u>
P10 <u>45</u>	<u>98</u>	<u>27</u>	<u>758</u>	<u>45</u>	<u>170</u>	<u>27</u>	<u>726</u>
P11 <u>50</u>	<u>103</u>	<u>30</u>	<u>774</u>	<u>50</u>	<u>174</u>	<u>30</u>	<u>744</u>
P12 <u>55</u>	<u>109</u>	<u>33</u>	<u>791</u>	<u>55</u>	<u>177</u>	<u>33</u>	<u>761</u>
P13 <u>60</u>	<u>114</u>	<u>36</u>	<u>806</u>	<u>60</u>	<u>180</u>	<u>36</u>	<u>776</u>
P14		<u>39</u>	<u>817</u>			<u>39</u>	<u>788</u>
P15		<u>42</u>	<u>826</u>			<u>42</u>	<u>797</u>
P16		<u>45</u>	<u>833</u>			<u>45</u>	<u>806</u>
P17		<u>48</u>	<u>842</u>			<u>48</u>	<u>814</u>
P18		<u>51</u>	<u>848</u>			<u>51</u>	<u>821</u>
P19		<u>54</u>	<u>852</u>			<u>54</u>	<u>826</u>
P20		<u>57</u>	<u>855</u>			<u>57</u>	<u>830</u>
		<u>60</u>	<u>858</u>			<u>60</u>	<u>835</u>



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	1364	1366	PSI
(B) First Initial Flow Pressure	53	55	PSI
(C) First Final Flow Pressure	107	114	PSI
(D) Initial Closed-in Pressure	863	858	PSI
(E) Second Initial Flow Pressure	146	144	PSI
(F) Second Final Flow Pressure	184	180	PSI
(G) Final Closed-in Pressure	840	835	PSI
(H) Final Hydrostatic Mud	1334	1324	PSI



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

Company Energy Exploration, Inc. Lease & Well No. Bircher #1
Elevation 1624 Ground Level Formation Lansing Effective Pay -- Ft. Ticket No. 2613
Date 12/31/78 Sec. 30 Twp. 15S Range 8W County Ellsworth State Kansas
Test Approved by Toby Elster Western Representative Denis Wondra
Formation Test No. 2 Interval Tested from 2731 ft. to 2765 ft. Total Depth 2765 ft.
Packer Depth 2726 ft. Size 6 3/4 in. Packer Depth 2731 ft. Size 6 3/4 in.
Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set --
Top Recorder Depth (Inside) 2755 ft. Recorder Number 3474 Cap. 3000
Bottom Recorder Depth (Outside) 2758 ft. Recorder Number 3659 Cap. 4000
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
Drilling Contractor Emphasis Drilling Rig #3 Drill Collar Length 120 I. D. 2.7 in.
Mud Type gel Viscosity 35 Weight Pipe Length - I. D. - in.
Weight 9.9 Water Loss 14.2 cc. Drill Pipe Length 2590 I. D. 3.8 in.
Chlorides 63,000 P.P.M. Test Tool Length 55' in. Tool Size 4 1/2 FH 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: Strong throughout first flow period. VERY good throughout second opening.

Recovered 240 ft. of gas in pipe
Recovered 134 ft. of slightly oil and gas cut mud
Recovered 60 ft. of heavily oil and gas cut mud
Recovered 310 ft. of oil and gas cut muddy water Chlorides 144,000 PPM

Recovered ft. of
Remarks: PSI FROM RECORDER #3659

Time Set Packer(s) 11:18 A.M. Time Started Off Bottom 3:20 A.M. Maximum Temperature 103
P.M.
Initial Hydrostatic Pressure 1504 P.S.I. (A)
Initial Flow Period 60 Minutes (B) 100 P.S.I. to (C) 116 P.S.I.
Initial Closed In Period 60 Minutes (D) 865 P.S.I.
Final Flow Period 60 Minutes (E) 159 P.S.I. to (F) 191 P.S.I.
Final Closed In Period 60 Minutes (G) 843 P.S.I.
Final Hydrostatic Pressure 1446 P.S.I. (H)

WESTERN TESTING CO., INC.

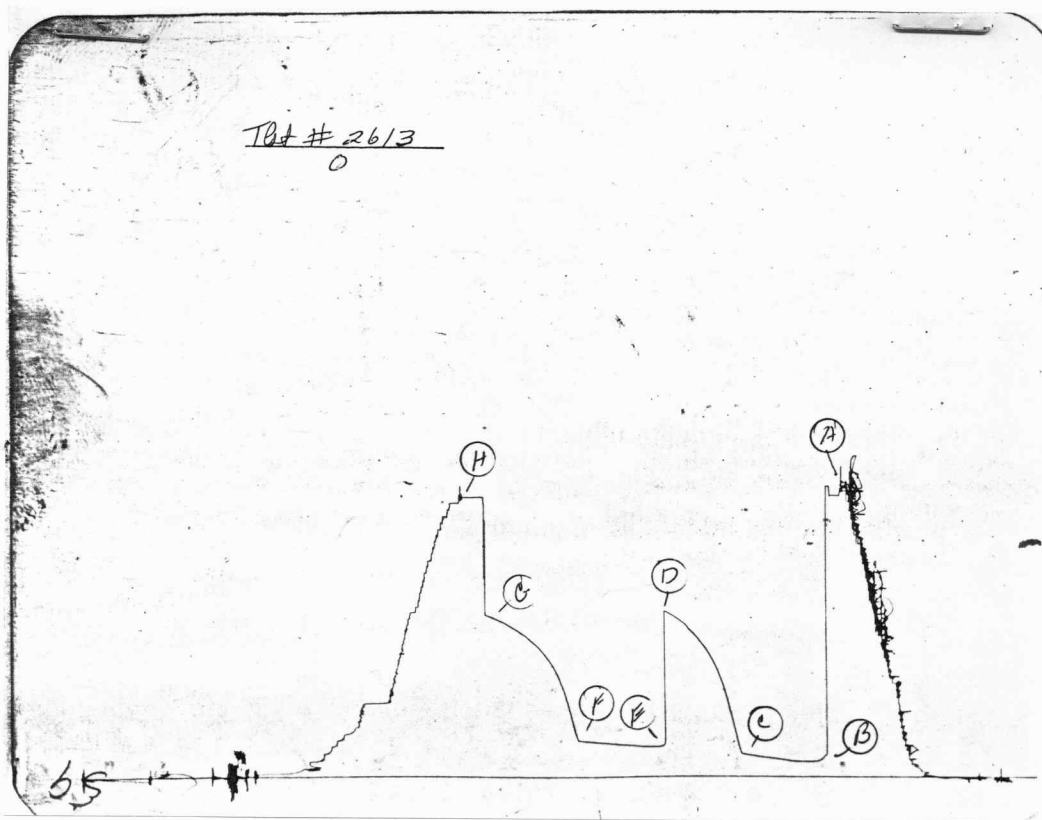
Pressure Data

Date 12/31/78 Test Ticket No. 2613
 Recorder No. 3659 Capacity 4000 Location 2758 Ft.
 Clock No. -- Elevation 1624 Ground Level Well Temperature 103 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1504	P.S.I.	11:18A	M
B First Initial Flow Pressure	100	P.S.I.	60	Mins. 60 Mins.
C First Final Flow Pressure	116	P.S.I.	60	Mins. 60 Mins.
D Initial Closed-in Pressure	865	P.S.I.	60	Mins. 60 Mins.
E Second Initial Flow Pressure	159	P.S.I.	60	Mins. 60 Mins.
F Second Final Flow Pressure	191	P.S.I.	60	Mins. 60 Mins.
G Final Closed-in Pressure	843	P.S.I.		
H Final Hydrostatic Mud	1446	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>12</u> Inc.		Breakdown: <u>20</u> Inc.		Breakdown: <u>12</u> Inc.		Breakdown: <u>20</u> Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>100</u>	<u>0</u>	<u>116</u>	<u>0</u>	<u>159</u>	<u>0</u>	<u>191</u>
P 2 <u>5</u>	<u>82</u>	<u>3</u>	<u>173</u>	<u>5</u>	<u>157</u>	<u>3</u>	<u>237</u>
P 3 <u>10</u>	<u>78</u>	<u>6</u>	<u>259</u>	<u>10</u>	<u>157</u>	<u>6</u>	<u>318</u>
P 4 <u>15</u>	<u>78</u>	<u>9</u>	<u>347</u>	<u>15</u>	<u>161</u>	<u>9</u>	<u>398</u>
P 5 <u>20</u>	<u>80</u>	<u>12</u>	<u>433</u>	<u>20</u>	<u>165</u>	<u>12</u>	<u>465</u>
P 6 <u>25</u>	<u>82</u>	<u>15</u>	<u>494</u>	<u>25</u>	<u>167</u>	<u>15</u>	<u>524</u>
P 7 <u>30</u>	<u>88</u>	<u>18</u>	<u>548</u>	<u>30</u>	<u>171</u>	<u>18</u>	<u>568</u>
P 8 <u>35</u>	<u>92</u>	<u>21</u>	<u>596</u>	<u>35</u>	<u>176</u>	<u>21</u>	<u>602</u>
P 9 <u>40</u>	<u>98</u>	<u>24</u>	<u>633</u>	<u>40</u>	<u>178</u>	<u>24</u>	<u>631</u>
P10 <u>45</u>	<u>103</u>	<u>27</u>	<u>669</u>	<u>45</u>	<u>183</u>	<u>27</u>	<u>657</u>
P11 <u>50</u>	<u>108</u>	<u>30</u>	<u>679</u>	<u>50</u>	<u>185</u>	<u>30</u>	<u>683</u>
P12 <u>55</u>	<u>112</u>	<u>33</u>	<u>725</u>	<u>55</u>	<u>188</u>	<u>33</u>	<u>702</u>
P13 <u>60</u>	<u>116</u>	<u>36</u>	<u>751</u>	<u>60</u>	<u>191</u>	<u>36</u>	<u>712</u>
P14		<u>39</u>	<u>773</u>			<u>39</u>	<u>739</u>
P15		<u>42</u>	<u>799</u>			<u>42</u>	<u>755</u>
P16		<u>45</u>	<u>815</u>			<u>45</u>	<u>769</u>
P17		<u>48</u>	<u>829</u>			<u>48</u>	<u>779</u>
P18		<u>51</u>	<u>843</u>			<u>51</u>	<u>793</u>
P19		<u>54</u>	<u>850</u>			<u>54</u>	<u>807</u>
P20		<u>57</u>	<u>858</u>			<u>57</u>	<u>825</u>
		<u>60</u>	<u>865</u>			<u>60</u>	<u>843</u>



This is an actual photograph of recorder chart.

POINT	PRESSURE	
	Field Reading	Office Reading
(A) Initial Hydrostatic Mud	1494	1504 PSI
(B) First Initial Flow Pressure	91	100 PSI
(C) First Final Flow Pressure	102	116 PSI
(D) Initial Closed-in Pressure	858	865 PSI
(E) Second Initial Flow Pressure	153	159 PSI
(F) Second Final Flow Pressure	183	191 PSI
(G) Final Closed-in Pressure	828	843 PSI
(H) Final Hydrostatic Mud	1434	1446 PSI