



CONFIDENTIAL

DIAMOND TESTING  
P. O. Box 157  
HOISINGTON, KANSAS 67544  
(316) 653-7550

ORIGINAL

Page 1 of 2 Pages

Company Mull Drilling Co., Inc. Lease & Well No. Ruby 1-35  
Elevation 2865 KB Formation Toronto Effective Pay --Ft. Ticket No. 1439  
Date 12-19-99 Sec. 35 Twp. 14S Range 33W County Logan State Kansas  
Test Approved By Kim B. Shoemaker Diamond Representative Roger D. Friedly

Formation Test No. 1 Interval Tested from 3,800 ft. to 3,824 ft. Total Depth 3,824 ft.  
Packer Depth 3,795 ft. Size 6 3/4 in. Packer Depth -- ft. Size -- in.  
Packer Depth 3,800 ft. Size 6 3/4 in. Packer Depth -- ft. Size -- in.

Depth of Selective Zone Set          ft.

Top Recorder Depth (Inside) 3,788 ft. Recorder Number Elec. Cap. 5,000 psi  
Bottom Recorder Depth (Outside) 3,821 ft. Recorder Number 13556 Cap. 5,475 psi  
Below Straddle Recorder Depth          ft. Recorder Number          Cap.          psi

Drilling Contractor L. D. Drilling, Inc. Drill Collar Length -- ft. I.D. -- in.  
Mud Type Chemical Viscosity 49 Weight Pipe Length -- ft. I.D. -- in.  
Weight 9.4 Water Loss 12.0 cc. Drill Pipe Length 3,775 ft. I.D. 3 1/2 in.  
Chlorides 6,500 P.P.M. Test Tool Length 25 ft. Tool Size 3 1/2 - IF in.  
Jars: Make Bowen Serial Number Not Run Anchor Length 24 ft. Size 4 1/2 - FH in.  
Did Well Flow? No Reversed Out No Surface Choke Size 1 in. Bottom Choke Size 5/8 in.  
Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 - XH in.

Blow: 1st Open: Weak, 1/4 in., blow increasing to 3 ins. No blow back during shut-in.  
2nd Open: Weak, surface blow increasing to 1 1/4 ins. No blow back during shut-in.

Recovered 55 ft. of muddy water with a few oil specks in tool along with a good gassy odor = .5643 bbls.  
(Grind out: 30% water; 70% mud)

Recovered          ft. of           
Recovered          ft. of           
Recovered          ft. of           
Recovered          ft. of           
Remarks         

KCC  
MAR 22 2000  
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Time Set Packer(s) 12:25 ~~AM~~ P.M. Time Started Off Bottom 3:25 ~~AM~~ P.M. Maximum Temperature 104°  
Initial Hydrostatic Pressure ..... (A) 1833 P.S.I.  
Initial Flow Period ..... Minutes 30 (B) 7 P.S.I. to (C) 20 P.S.I.  
Initial Closed In Period ..... Minutes 45 (D) 1171 P.S.I.  
Final Flow Period ..... Minutes 45 (E) 18 P.S.I. to (F) 33 P.S.I.  
Final Closed In Period ..... Minutes 60 (G) 1160 P.S.I.  
Final Hydrostatic Pressure ..... (H) 1832 P.S.I.



**DIAMOND TESTING**  
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**FLUID SAMPLE DATA**

Company Mull Drilling Co., Inc.

Lease & Well No. Ruby 1-35

Date 12-19-99 Sec. 35 Twp. 14 S Range 33 W

Formation Test No. 1 Interval Tested From 3,800 ft. to 3,824 ft. Total Depth 3,824 ft.

Formation Toronto

	<u>MUD PIT</u>	<u>RECOVERY</u>
Viscosity	<u>49</u> CP	<u>33</u> CP
Weight	<u>9.4</u>	<u>8.8</u>
Water Loss	<u>12.0</u> CC	<u>25.6</u> CC
PH Factor	<u>10.5</u>	<u>9.0</u>

	<u>RESISTIVITY</u>	<u>CHLORIDE CONTENT</u>
Recovery Water	<u>--</u> @ <u>--</u> °F.	<u>--</u> ppm
Recovery Mud	<u>.42</u> @ <u>65</u> °F.	<u>15,000</u> ppm
Recovery Mud Filtrate	<u>.46</u> @ <u>70</u> °F.	<u>14,000</u> ppm
Mud Pit Sample	<u>.60</u> @ <u>82</u> °F.	<u>9,000</u> ppm
Mud Pit Sample Filtrate	<u>.60</u> @ <u>82</u> °F.	<u>9,000</u> ppm

Sample Taken By Roger D. Friedly

Witness By Kim B. Shoemaker

Remarks Pit filtrate triton dish chlorides were 6,500 Ppm.  
Recovery filtrate triton dish chlorides were 11,000 Ppm.

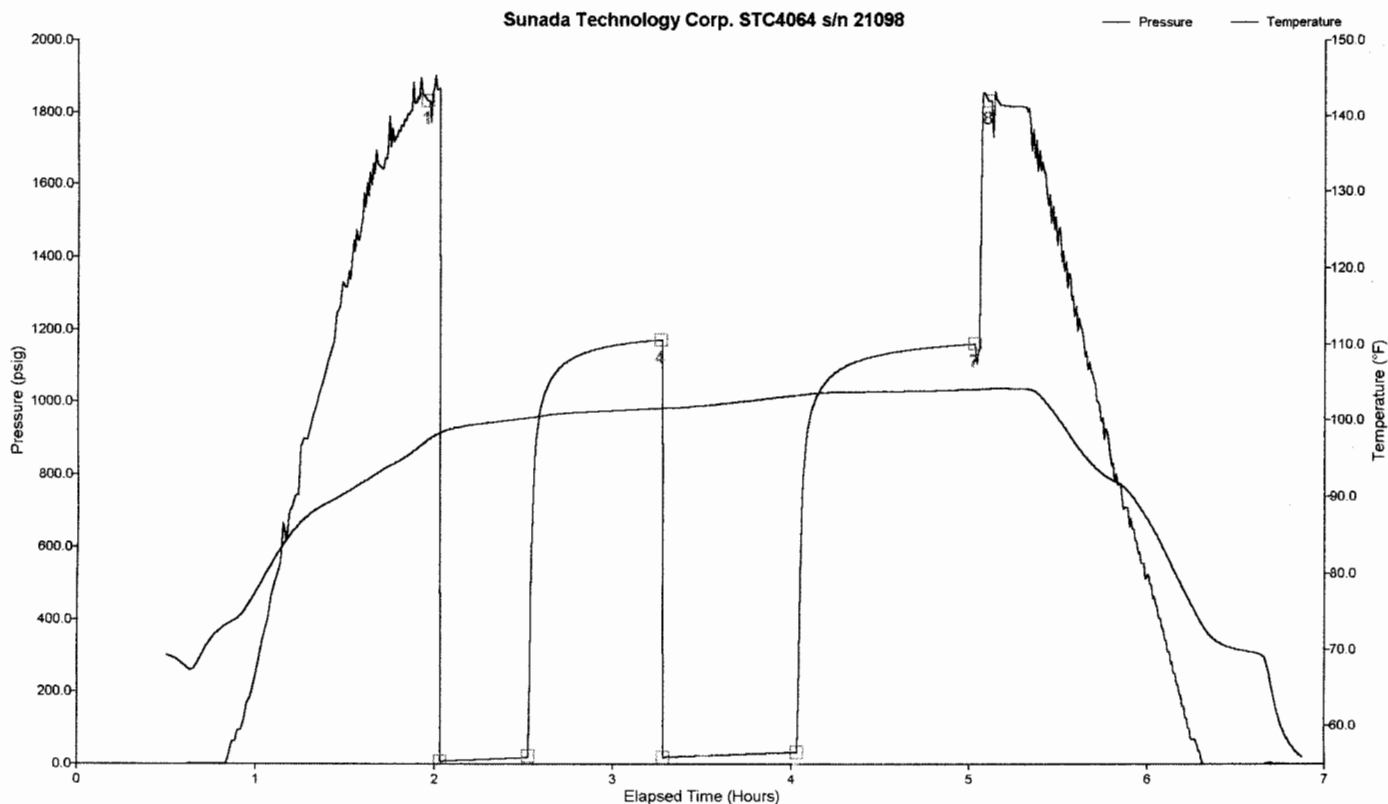
Well LSD: DST #1 TORONTO 3800'-3824'

Well Name: RUBY 1-35

Company: MULL DRILLING CO INC

Battery on: Dec 19, 1999 at 10:23:00

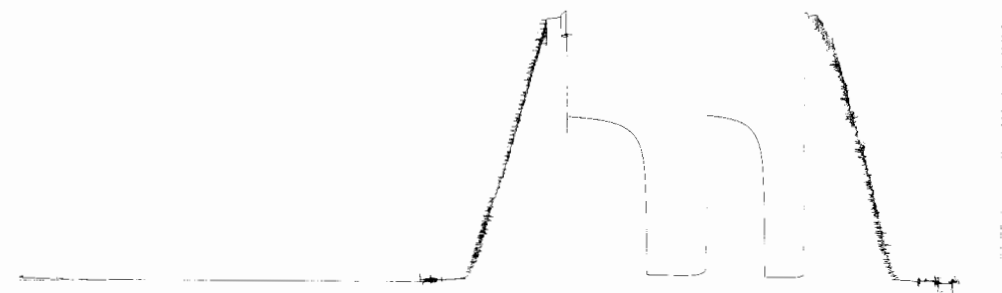
Notes: RECOVERED 55' WM, 30% WATER 70% MUD, A OIL SPECKS IN TOOL ALONG WITH A GOOD GASSY ODOR.



Tag	Pressure	Temperature	Comment
1	1832.60 psig	97.41 °F	1999-12-19 12:20:30
2	7.44 psig	98.46 °F	1999-12-19 12:25:00
3	20.41 psig	100.32 °F	1999-12-19 12:54:30
4	1171.48 psig	101.57 °F	1999-12-19 13:39:00
5	18.42 psig	101.59 °F	1999-12-19 13:40:00
6	32.34 psig	103.31 °F	1999-12-19 14:25:00
7	1159.64 psig	104.08 °F	1999-12-19 15:25:00
8	1831.85 psig	104.17 °F	1999-12-19 15:29:30

DST #.1 Outside 1555 L  
Clock 6913 TBV.

3800-3824.  
LOC 3821





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Company Mull Drilling Co., Inc. Lease & Well No. Ruby 1-35  
 Elevation 2865 KB Formation Lansing/Kansas City (35'-50' Zones) Ticket No. 1440  
 Date 12-20-99 Sec. 35 Twp. 14S Range 33W County Logan State Kansas  
 Test Approved By Kim B. Shoemaker Diamond Representative Roger D. Friedly

Formation Test No. 2 Interval Tested from 3,858 ft. to 3,900 ft. Total Depth 3,900 ft.  
 Packer Depth 3,853 ft. Size 6 3/4 in. Packer Depth -- ft. Size -- in.  
 Packer Depth 3,858 ft. Size 6 3/4 in. Packer Depth -- ft. Size -- in.  
 Depth of Selective Zone Set          ft.

Top Recorder Depth (Inside) 3,846 ft. Recorder Number Elec. Cap. 5,000 psi  
 Bottom Recorder Depth (Outside) 3,897 ft. Recorder Number 13556 Cap. 5,475 psi  
 Below Straddle Recorder Depth          ft. Recorder Number          Cap.          psi

Drilling Contractor L. D. Drilling, Inc. Drill Collar Length -- ft. I.D. -- in.  
 Mud Type Chemical Viscosity 45 Weight Pipe Length -- ft. I.D. -- in.  
 Weight 9.0 Water Loss 15.2 cc. Drill Pipe Length 3,833 ft. I.D. 3 1/4 in.  
 Chlorides 6,000 P.P.M. Test Tool Length 25 ft. Tool Size 3 1/2 - IF in.  
 Jars: Make Bowen Serial Number Not Run Anchor Length 42 ft. Size 4 1/2 - FH in.  
 Did Well Flow? No Reversed Out No Surface Choke Size 1 in. Bottom Choke Size 5/8 in.  
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 - XH in.

Blow: 1st Open: Weak, 1/4 in., blow increasing to 2 ins. No blow back during shut-in.  
 2nd Open: Weak, surface blow increasing to 1 in. No blow back during shut-in.

Recovered 30 ft. of gas in pipe  
 Recovered 20 ft. of very slightly oil specked drilling mud with good free oil in tool = .2052 bbls.  
 Recovered 20 ft. of TOTAL FLUID = .2052 bbls. (Grind out: Less than 1% oil)  
 Recovered          ft. of           
 Recovered          ft. of           
 Remarks         

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Time Set Packer(s) 4:00 ~~AM~~ P.M. Time Started Off Bottom 7:00 ~~AM~~ P.M. Maximum Temperature 98°  
 Initial Hydrostatic Pressure ..... (A) 1823 P.S.I.  
 Initial Flow Period ..... Minutes 30 (B) 7 P.S.I. to (C) 16 P.S.I.  
 Initial Closed In Period ..... Minutes 45 (D) 1157 P.S.I.  
 Final Flow Period ..... Minutes 45 (E) 12 P.S.I. to (F) 17 P.S.I.  
 Final Closed In Period ..... Minutes 60 (G) 1157 P.S.I.  
 Final Hydrostatic Pressure ..... (H) 1817 P.S.I.



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**FLUID SAMPLE DATA**

Company Mull Drilling Co., Inc.  
Lease & Well No. Ruby 1-35  
Date 12-20-99 Sec. 35 Twp. 14 S Range 33 W  
Formation Test No. 2 Interval Tested From 3,858 ft. to 3,900 ft. Total Depth 3,900 ft.  
Formation Lansing/Kansas City (35' - 50' Zones)

	<u>MUD PIT</u>	<u>RECOVERY</u>
Viscosity	<u>45</u> CP	<u>43</u> CP
Weight	<u>9.0</u>	<u>9.0</u>
Water Loss	<u>15.2</u> CC	<u>12.0</u> CC
PH Factor	<u>10.5</u>	<u>10.5</u>

	<u>RESISTIVITY</u>	<u>CHLORIDE CONTENT</u>
Recovery Water	<u>--</u> @ <u>--</u> °F.	<u>--</u> ppm
Recovery Mud	<u>.85</u> @ <u>64</u> °F.	<u>7,500</u> ppm
Recovery Mud Filtrate	<u>.88</u> @ <u>67</u> °F.	<u>7,200</u> ppm
Mud Pit Sample	<u>.80</u> @ <u>76</u> °F.	<u>7,000</u> ppm
Mud Pit Sample Filtrate	<u>.78</u> @ <u>78</u> °F.	<u>7,000</u> ppm

Sample Taken By Roger D. Friedly

Witness By Kim B. Shoemaker

Remarks Pit filtrate triton dish chlorides were 6,000 Ppm.  
Recovery filtrate triton dish chlorides were 6,000 Ppm.

Well LSD: DST #2 LKC 35'-50', 3585' TO 3900'

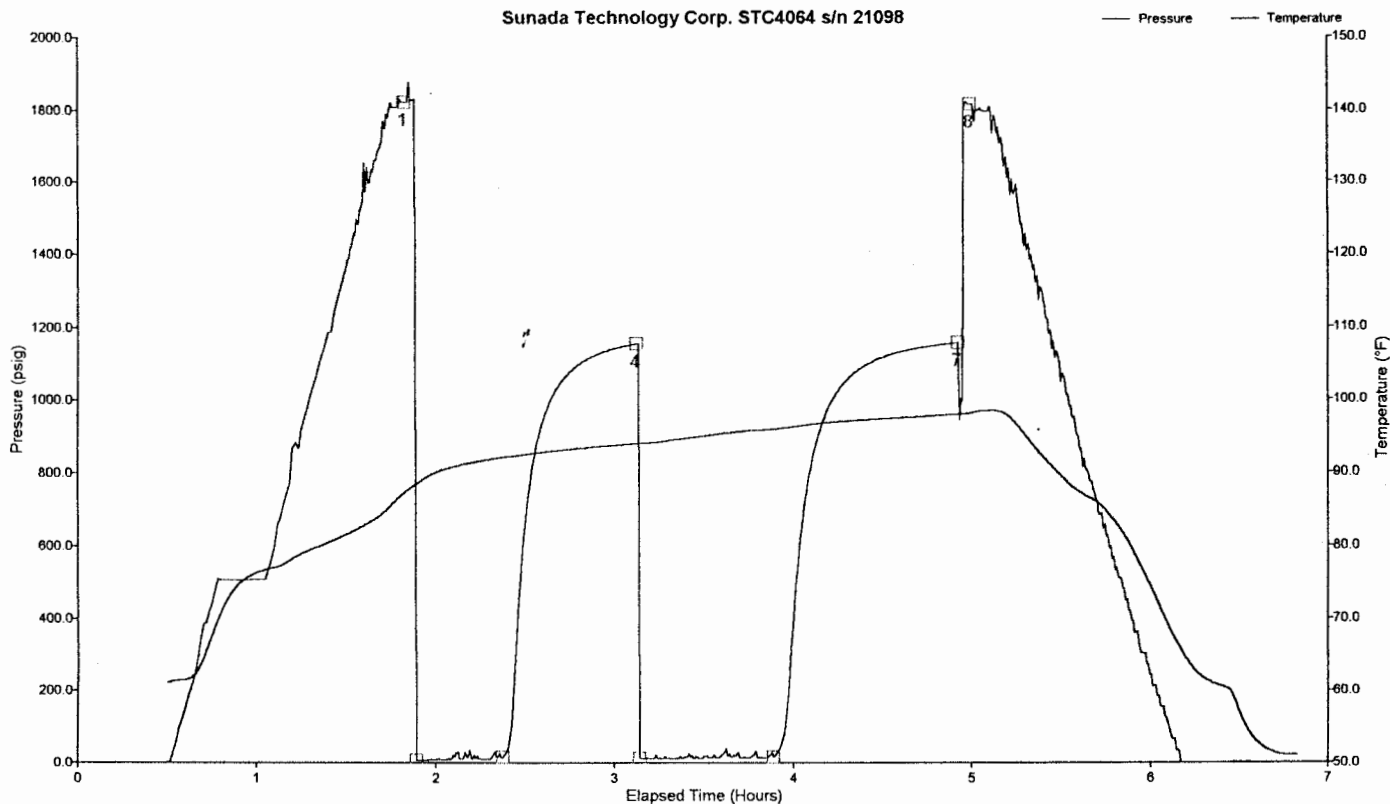
Well Name: RUBY 1-35

Company: MULL DRILLING CO INC

Battery on: Dec 20, 1999 at 14:06:00

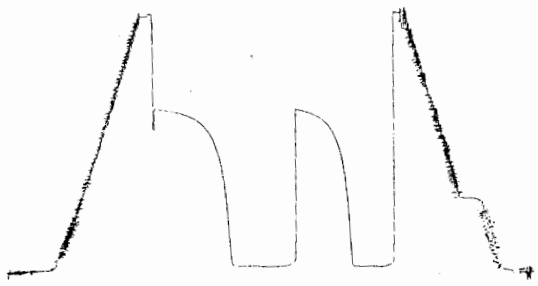
Notes: RECOVERED 20' VERY SLIGHTLY OI SPECKED DRILLING MUD LEES THAN 1% OIL, 30' GAS IN PIPE. GOOD FREE OIL IN TOOL.

Sunada Technology Corp. STC4064 s/n 21098



Tag	Pressure	Temperature	Comment
1	1823.36 psig	87.31 °F	1999-12-20 15:55:30
2	7.04 psig	88.48 °F	1999-12-20 15:59:30
3	16.34 psig	92.09 °F	1999-12-20 16:28:30
4	1156.84 psig	93.98 °F	1999-12-20 17:13:30
5	11.73 psig	94.02 °F	1999-12-20 17:14:30
6	16.65 psig	95.97 °F	1999-12-20 17:59:30
7	1157.47 psig	97.97 °F	1999-12-20 19:01:30
8	1816.81 psig	98.15 °F	1999-12-20 19:05:30

DST # 2 Outside 13556 3858 - 3900  
Clock 6913 4KC 35' - 50' LOC 3897





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Company Mull Drilling Co., Inc. Lease & Well No. Ruby 1-35

Elevation 2865 KB Formation Kansas City ("E" & "F" Zones) Ticket No. 1441

Date 12-21-99 Sec. 35 Twp. 14S Range 33W County Logan State Kansas

Test Approved By Kim B. Shoemaker Diamond Representative Roger D. Friedly

Formation Test No. 3 Interval Tested from 3,910 ft. to 3,936 ft. Total Depth 3,936 ft.

Packer Depth 3,905 ft. Size 6 3/4 in. Packer Depth -- ft. Size -- in.

Packer Depth 3,910 ft. Size 6 3/4 in. Packer Depth -- ft. Size -- in.

Depth of Selective Zone Set -- ft.

Top Recorder Depth (Inside) 3,898 ft. Recorder Number Elec. Cap. 5,000 psi

Bottom Recorder Depth (Outside) 3,933 ft. Recorder Number 13556 Cap. 5,475 psi

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

Drilling Contractor L. D. Drilling, Inc. Drill Collar Length -- ft. I.D. -- in.

Mud Type Chemical Viscosity 46 Weight Pipe Length -- ft. I.D. -- in.

Weight 9.2 Water Loss 9.2 cc. Drill Pipe Length 3,885 ft. I.D. 3 1/4 in.

Chlorides 6,000 P.P.M. Test Tool Length 25 ft. Tool Size 3 1/2 - IF in.

Jars: Make Bowen Serial Number Not Run Anchor Length 26 ft. Size 4 1/2 - FH in.

Did Well Flow? No Reversed Out No Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

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

Blow 1st Open: Weak, 1/4 in., blow increasing to 4 1/4 ins. No blow back during shut-in.

2nd Open: Weak, 1/8 in., blow increasing to 4 1/4 ins. No blow back during shut-in.

Recovered 20 ft. of oil cut muddy water = .2052 bbls. (Grind out: 4%-oil; 45%-mud; 51%-water)

Recovered 62 ft. of gas cut watery mud = .63612 bbls. (Grind out: 2%-gas; 47%-water; 51%-mud)

Recovered 82 ft. of TOTAL FLUID = .84132 bbls.

Recovered -- ft. of

Recovered -- ft. of

Remarks

KCC

MAR 21 2000

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Time Set Packer(s) 6:41 A.M. Time Started Off Bottom 9:41 A.M. Maximum Temperature 103°

Initial Hydrostatic Pressure (A) 1860 P.S.I.

Initial Flow Period Minutes 30 (B) 8 P.S.I. to (C) 24 P.S.I.

Initial Closed In Period Minutes 45 (D) 1115 P.S.I.

Final Flow Period Minutes 45 (E) 26 P.S.I. to (F) 42 P.S.I.

Final Closed In Period Minutes 60 (G) 1078 P.S.I.

Final Hydrostatic Pressure (H) 1842 P.S.I.



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**FLUID SAMPLE DATA**

Company Mull Drilling Co., Inc.  
Lease & Well No. Ruby 1-35  
Date 12-21-99 Sec. 35 Twp. 14 S Range 33 W  
Formation Test No. 3 Interval Tested From 3,910 ft. to 3,936 ft. Total Depth 3,936 ft.  
Formation Kansas City ("E" & "F" Zones)

	<u>MUD PIT</u>	<u>RECOVERY</u>	
Viscosity	<u>46</u> CP	<u>34</u> CP	
Weight	<u>9.2</u>	<u>8.2</u>	
Water Loss	<u>9.2</u> CC	<u>40+</u> CC	
PH Factor	<u>8.5</u>	<u>7.0</u>	Water <u>7.0</u>

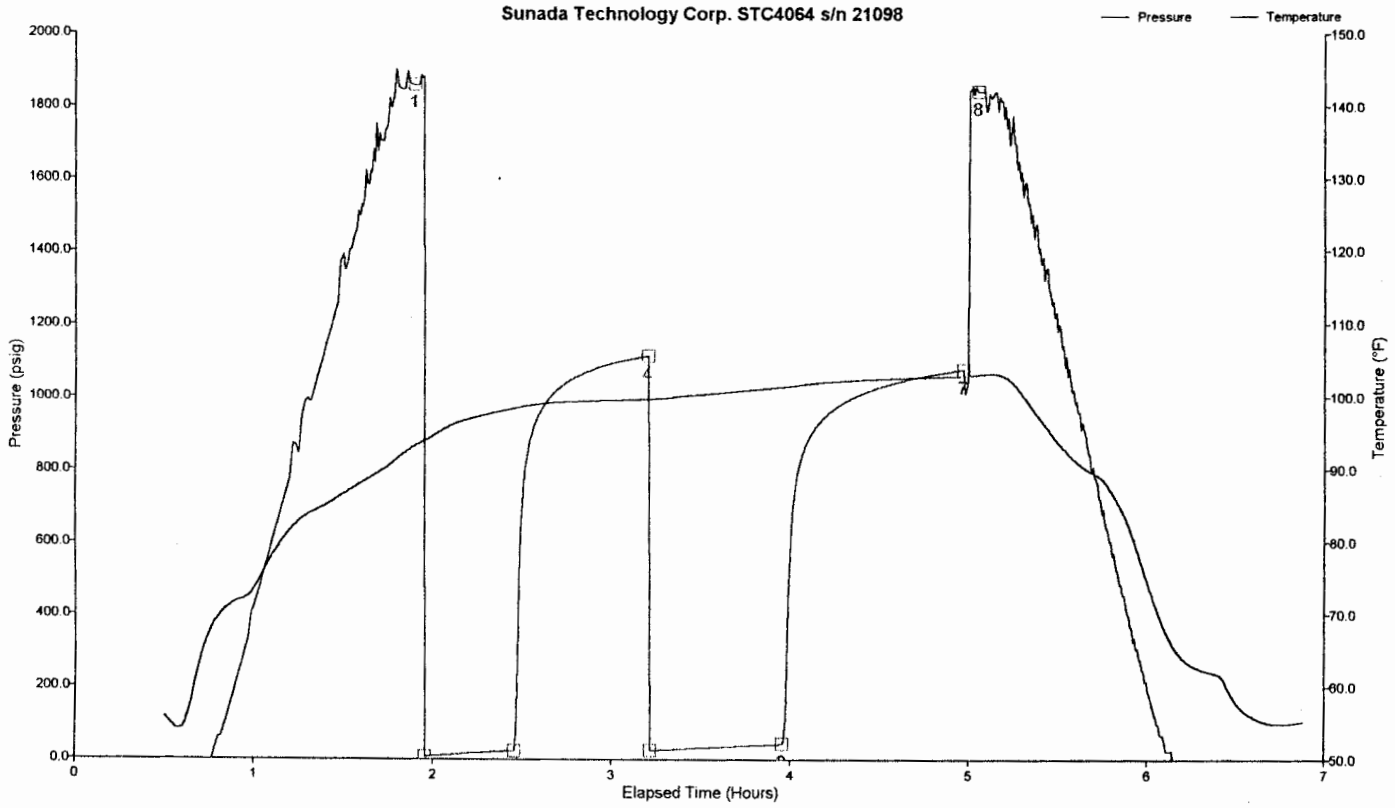
	<u>RESISTIVITY</u>	<u>CHLORIDE CONTENT</u>
Recovery Water	<u>.34 @ 70 °F.</u>	<u>20,000</u> ppm
Recovery Mud	<u>.28 @ 72 °F.</u>	<u>25,000</u> ppm
Recovery Mud Filtrate	<u>.36 @ 70 °F.</u>	<u>18,000</u> ppm
Mud Pit Sample	<u>1.00 @ 56 °F.</u>	<u>7,500</u> ppm
Mud Pit Sample Filtrate	<u>.90 @ 66 °F.</u>	<u>7,300</u> ppm

Sample Taken By Roger D. Friedly

Witness By Kim B. Shoemaker

Remarks Pit filtrate triton dish chlorides were 6,000 Ppm.  
Recovery filtrate triton dish chlorides were 17,000 Ppm.  
Recovery water dish chlorides were 17,000 Ppm.

Well LSD: D3T #3 KC "E-F" 3910'- TO 3936'  
 Well Name: RUBY 1-35  
 Company: MULL DRILLING CO INC  
 Battery on: Dec 21, 1999 at 04:43:00  
 Notes: RECOVERED 20' SOCMW, 62' GCWM

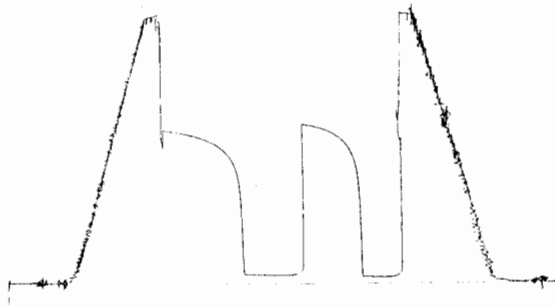


Tag	Pressure	Temperature	Comment
1	1859.95 psig	93.36 °F	1999-12-21 06:37:00
2	7.89 psig	94.10 °F	1999-12-21 06:40:30
3	23.53 psig	98.52 °F	1999-12-21 07:10:30
4	1114.91 psig	99.80 °F	1999-12-21 07:55:30
5	25.37 psig	99.81 °F	1999-12-21 07:56:00
6	41.80 psig	101.50 °F	1999-12-21 08:40:30
7	1077.79 psig	103.04 °F	1999-12-21 09:41:30
8	1842.44 psig	103.20 °F	1999-12-21 09:46:30

DST # 3 outside  
Clock 6913

13556  
KC "E-F"

3910 - 3936  
LOC 3933





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Company Mull Drilling Co., Inc. Lease & Well No. Ruby 1-35

Elevation 2865 KB Formation Kansas City "I" Effective Pay      Ft. Ticket No. 1442

Date 12-22-99 Sec. 35 Twp. 14S Range 33W County Logan State Kansas

Test Approved By Kim B. Shoemaker Diamond Representative Roger D. Friedly

Formation Test No. 4 Interval Tested from 4,030 ft. to 4,064 ft. Total Depth 4,064 ft.

Packer Depth 4,025 ft. Size 6 3/4 in. Packer Depth      ft. Size      in.

Packer Depth 4,030 ft. Size 6 3/4 in. Packer Depth      ft. Size      in.

Depth of Selective Zone Set      ft.

Top Recorder Depth (Inside) 4,018 ft. Recorder Number Elec. Cap. 5,000 psi

Bottom Recorder Depth (Outside) 4,061 ft. Recorder Number 13556 Cap. 5,475 psi

Below Straddle Recorder Depth      ft. Recorder Number      Cap.      psi

Drilling Contractor L. D. Drilling, Inc. Drill Collar Length      ft. I.D.      in.

Mud Type Chemical Viscosity 54 Weight Pipe Length      ft. I.D.      in.

Weight 9.25 Water Loss 11.2 cc. Drill Pipe Length 4,005 ft. I.D. 3 1/4 in.

Chlorides 7,500 P.P.M. Test Tool Length 25 ft. Tool Size 3 1/2 - IF in.

Jars: Make Bowen Serial Number Not Run Anchor Length 34 ft. Size 4 1/2 - FH in.

Did Well Flow? No Reversed Out No Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

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

Blow: 1st Open: Fair, 1 in., blow increasing. Off bottom of bucket in 5 mins. No blow back during shut-in.

2nd Open: Weak, 1/2 in., blow increasing. Off bottom of bucket in 7 1/2 mins. No blow back during shut-in.

Recovered 236 ft. of muddy water with oil specks throughout = 2.42136 bbls. (Grind out: 40% mud; 60% water)

Recovered 864 ft. of salt water with oil specks throughout = 8.86464 bbls.

Recovered 1,100 ft. of TOTAL FLUID = 11.286 bbls.

KCC

Recovered      ft. of     

Recovered      ft. of     

MAR 22 2000

Remarks Some good oil spots in tool.

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Time Set Packer(s) 3:34 ~~PM~~ <sup>A.M.</sup> Time Started Off Bottom 6:34 ~~PM~~ <sup>A.M.</sup> Maximum Temperature 116 °

Initial Hydrostatic Pressure ..... (A) 1957 P.S.I.

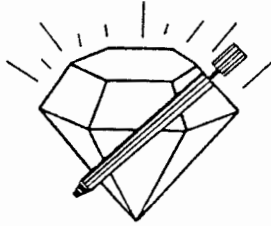
Initial Flow Period ..... Minutes 30 (B) 29 P.S.I. to (C) 269 P.S.I.

Initial Closed In Period ..... Minutes 45 (D) 1186 P.S.I.

Final Flow Period ..... Minutes 45 (E) 263 P.S.I. to (F) 514 P.S.I.

Final Closed In Period ..... Minutes 60 (G) 1138 P.S.I.

Final Hydrostatic Pressure ..... (H) 1941 P.S.I.



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Lease & Well No. Ruby 1-35  
Date 12-22-99 Sec. 35 Twp. 14 S Range 33 W  
Formation Test No. 4 Interval Tested From 4,030 ft. to 4,064 ft. Total Depth 4,064 ft.  
Formation Kansas City "I"

	<u>MUD PIT</u>	<u>RECOVERY</u>	
Viscosity	<u>54</u> CP	<u>--</u> CP	TOO WATERY TO CHECK.
Weight	<u>9.25</u>	<u>--</u>	
Water Loss	<u>11.2</u> CC	<u>--</u> CC	
PH Factor	<u>8.5</u>	<u>--</u>	Water <u>7.0</u>

	<u>RESISTIVITY</u>		<u>CHLORIDE CONTENT</u>
Recovery Water	<u>.20</u>	<u>@ 64 °F.</u>	<u>36,000</u> ppm
Recovery Mud	<u>--</u>	<u>@ -- °F.</u>	<u>--</u> ppm
Recovery Mud Filtrate	<u>--</u>	<u>@ -- °F.</u>	<u>--</u> ppm
Mud Pit Sample	<u>.78</u>	<u>@ 58 °F.</u>	<u>10,000</u> ppm
Mud Pit Sample Filtrate	<u>.68</u>	<u>@ 60 °F.</u>	<u>12,000</u> ppm

Sample Taken By Roger D. Friedly

Witness By Kim B. Shoemaker

Remarks Pit filtrate triton dish chlorides were 7,500 Ppm.  
Recovery water dish chlorides were 32,000 Ppm.

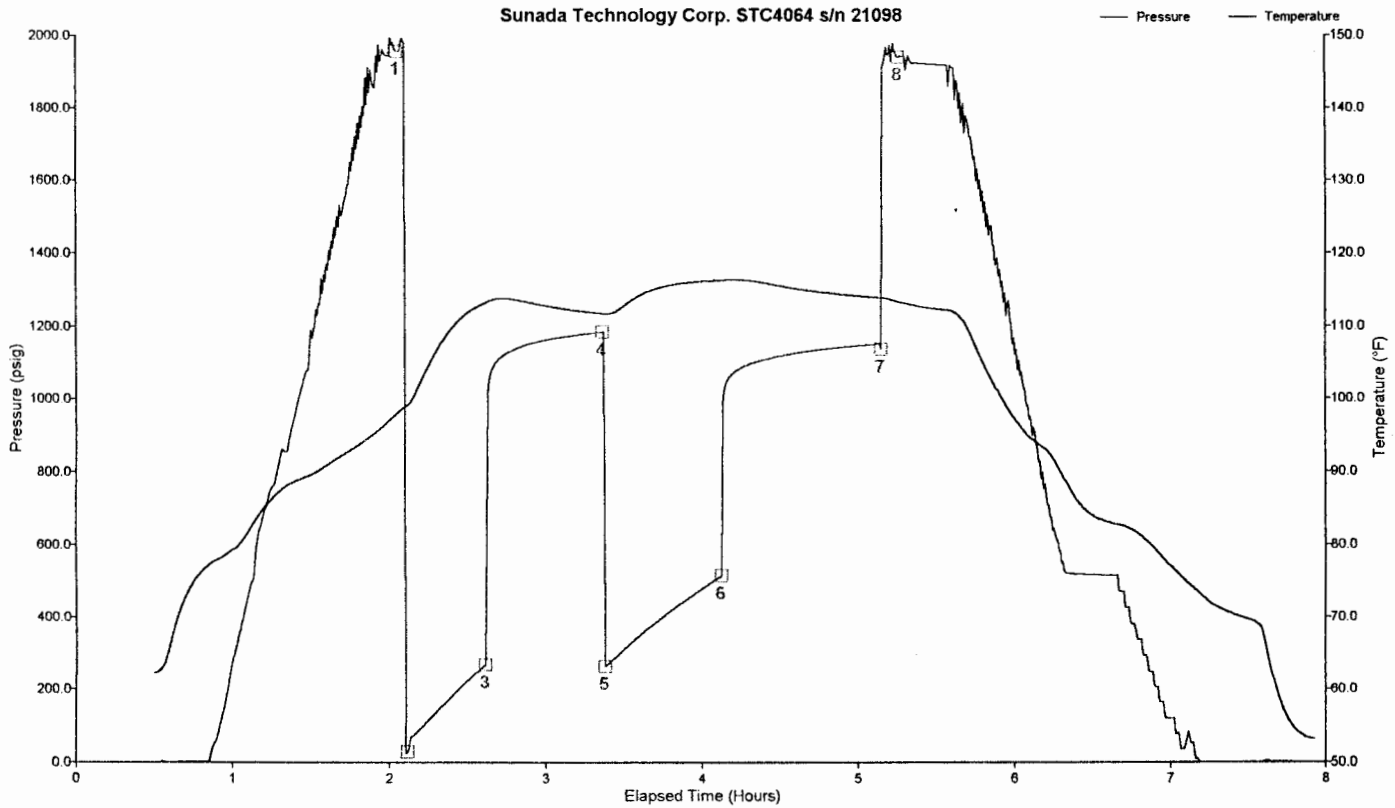
Well LSD: DST #2 KC "I" 4030'-4064'

Well Name: RUBY 1-35

Company: MULL DRILLING CO INC

Battery on: Dec 22, 1999 at 01:27:00

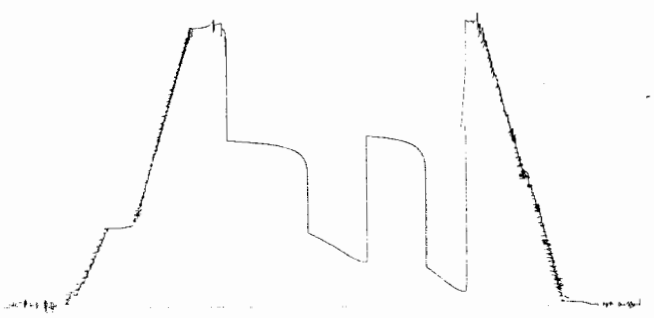
Notes: RECOVERED 238' MUDDY WATER, AND 864' SALT WATER. THERE WERE OIL SPECKS THRU OUT ALL THE RECOVERY.



Tag	Pressure	Temperature	Comment
1	1957.03 psig	98.01 °F	1999-12-22 03:30:00
2	28.96 psig	99.18 °F	1999-12-22 03:34:00
3	269.32 psig	113.38 °F	1999-12-22 04:04:00
4	1185.76 psig	111.83 °F	1999-12-22 04:49:00
5	263.05 psig	111.79 °F	1999-12-22 04:50:00
6	513.88 psig	116.42 °F	1999-12-22 05:34:30
7	1138.26 psig	114.02 °F	1999-12-22 06:36:00
8	1941.40 psig	113.47 °F	1999-12-22 06:42:30

DST # 4 Outside 13556  
Clock 6413 KC I

4030-4064  
LOC 4061





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Company Mull Drilling Co., Inc. Lease & Well No. Ruby 1-35  
Elevation 2865 KB Formation Altamont Effective Pay      Ft. Ticket No. 1443  
Date 12-28-99 Sec. 35 Twp. 14S Range 33W County Logan State Kansas  
Test Approved By Kim B. Shoemaker Diamond Representative Roger D. Friedly

Formation Test No. 5 Interval Tested from 4,196 ft. to 4,270 ft. Total Depth 4,270 ft.  
Packer Depth 4,191 ft. Size 63/4 in. Packer Depth      ft. Size      in.  
Packer Depth 4,196 ft. Size 63/4 in. Packer Depth      ft. Size      in.  
Depth of Selective Zone Set      ft.

Top Recorder Depth (Inside) 4,184 ft. Recorder Number Elec. Cap. 5,000 psi  
Bottom Recorder Depth (Outside) 4,267 ft. Recorder Number 13556 Cap. 5,475 psi  
Below Straddle Recorder Depth      ft. Recorder Number      Cap.      psi

Drilling Contractor L. D. Drilling, Inc. Drill Collar Length      ft. I.D.      in.  
Mud Type Chemical Viscosity 119 Weight Pipe Length      ft. I.D.      in.  
Weight 9.3 Water Loss 20.8 cc. Drill Pipe Length 4,171 ft. I.D. 3 1/2 in.  
Chlorides 12,000 P.P.M. Test Tool Length 25 ft. Tool Size 3 1/2 - IF in.  
Jars: Make Bowen Serial Number Not Run Anchor Length 44' perf. w/30' drill pipe Size 4 1/2 - FH in.  
Did Well Flow? No Reversed Out No Surface Choke Size 1 in. Bottom Choke Size 5/8 in.  
Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 - XH in.

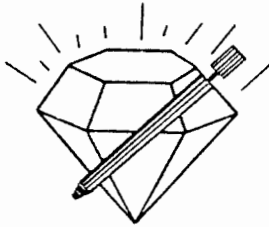
Blow 1st Open: Weak, 1/2 in., blow increasing to a 1 in., intermittent blow. No blow back during shut-in.  
2nd Open: No blow.

Recovered 10 ft. of very slightly oil specked drilling mud with some free oil in tool = .1026 bbls.

Recovered      ft. of       
Recovered      ft. of       
Recovered      ft. of       
Recovered      ft. of       
Remarks     

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Time Set Packer(s) 7:29 <sup>A.M.</sup>/<sub>P.M.</sub> Time Started Off Bottom 9:29 <sup>A.M.</sup>/<sub>P.M.</sub> Maximum Temperature 105 °  
Initial Hydrostatic Pressure ..... (A) 2017 P.S.I.  
Initial Flow Period ..... Minutes 30 (B) 9 P.S.I. to (C) 11 P.S.I.  
Initial Closed In Period ..... Minutes 30 (D) 316 P.S.I.  
Final Flow Period ..... Minutes 30 (E) 11 P.S.I. to (F) 11 P.S.I.  
Final Closed In Period ..... Minutes 30 (G) 140 P.S.I.  
Final Hydrostatic Pressure ..... (H) 1972 P.S.I.



**DIAMOND TESTING**  
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**FLUID SAMPLE DATA**

Company Mull Drilling Co., Inc.  
Lease & Well No. Ruby 1-35  
Date 12-28-99 Sec. 35 Twp. 14 S Range 33 W  
Formation Test No. 5 Interval Tested From 4,196 ft. to 4,270 ft. Total Depth 4,270 ft.  
Formation Altamont

	<u>MUD PIT</u>	<u>RECOVERY</u>
Viscosity	<u>119</u> CP	<u>120</u> CP
Weight	<u>9.3</u>	<u>9.3</u>
Water Loss	<u>20.8</u> CC	<u>20.4</u> CC
PH Factor	<u>9.5</u>	<u>9.5</u>

	<u>RESISTIVITY</u>	<u>CHLORIDE CONTENT</u>
Recovery Water	<u>    </u> @ <u>    </u> °F.	<u>    </u> ppm
Recovery Mud	<u>.40</u> @ <u>74</u> °F.	<u>15,500</u> ppm
Recovery Mud Filtrate	<u>.38</u> @ <u>76</u> °F.	<u>15,500</u> ppm
Mud Pit Sample	<u>.46</u> @ <u>58</u> °F.	<u>16,500</u> ppm
Mud Pit Sample Filtrate	<u>.48</u> @ <u>60</u> °F.	<u>15,000</u> ppm

Sample Taken By Roger D. Friedly

Witness By Kim B. Shoemaker

Remarks Pit filtrate triton dish chlorides were 12,000 Ppm.  
Recovery filtrate triton dish chlorides were 12,000 Ppm.

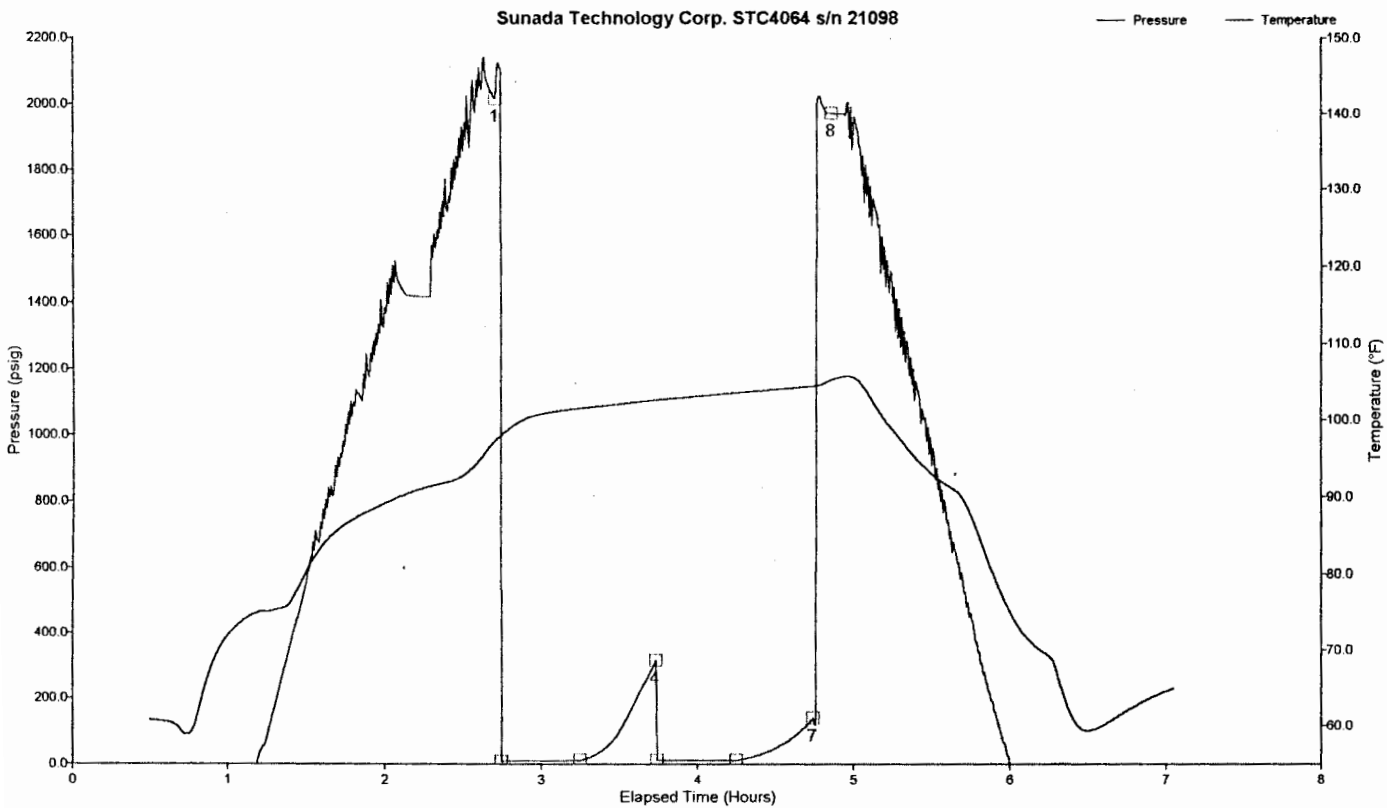
Well LSD: DST # 5 ALTAMONT 4196'-4270'

Well Name: RUBY 1-35

Company: MULL DRILLING CO INC

Battery on: Dec 28, 1999 at 04:45:00

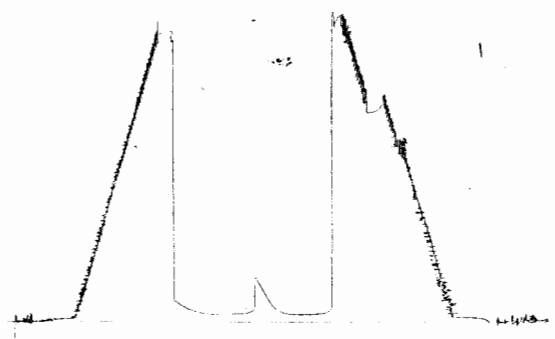
Notes: RECOVERED 10' VERY SLIGHTLY OIL SPECKED DRILLING MUD WITH SOME FREE OIL IN TOOL.

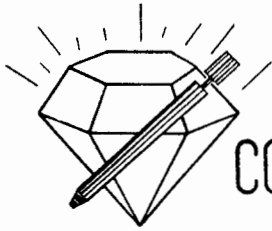


Tag	Pressure	Temperature	Comment
1	2017.27 psig	97.40 °F	1999-12-28 07:27:30
2	8.58 psig	98.18 °F	1999-12-28 07:30:00
3	11.12 psig	101.63 °F	1999-12-28 08:00:00
4	316.10 psig	102.71 °F	1999-12-28 08:29:00
5	10.76 psig	102.73 °F	1999-12-28 08:29:30
6	11.42 psig	103.65 °F	1999-12-28 09:00:00
7	139.59 psig	104.51 °F	1999-12-28 09:29:30
8	1972.09 psig	105.38 °F	1999-12-28 09:36:30

DST # 5 outside 1355Z  
clock 6913 Altamont

4196-4270  
LOC 4267





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ORIGINAL

Company Mull Drilling Co., Inc. Lease & Well No. Ruby 1-35  
Elevation 2965 KB Formation Cherokee/Johnson Effective Pay -- Ft. Ticket No. 1444  
Date 12-29-99 Sec. 35 Twp. 14S Range 33W County Logan State Kansas  
Test Approved By Kim B. Shoemaker Diamond Representative Roger D. Friedly

Formation Test No. 6 Interval Tested from 4,374 ft. to 4,470 ft. Total Depth 4,470 ft.  
Packer Depth 4,369 ft. Size 6 3/4 in. Packer Depth -- ft. Size -- in.  
Packer Depth 4,374 ft. Size 6 3/4 in. Packer Depth -- ft. Size -- in.  
Depth of Selective Zone Set          ft.

Top Recorder Depth (Inside) 4,362 ft. Recorder Number Elec. Cap. 5,000 psi  
Bottom Recorder Depth (Outside) 4,467 ft. Recorder Number 13556 Cap. 5,475 psi  
Below Straddle Recorder Depth          ft. Recorder Number          Cap.          psi

Drilling Contractor L. D. Drilling, Inc. Drill Collar Length -- ft. I.D. -- in.  
Mud Type Chemical Viscosity 41 Weight Pipe Length -- ft. I.D. -- in.  
Weight 9.5 Water Loss 13.2 cc. Drill Pipe Length 4,369 ft. I.D. 3 1/4 in.  
Chlorides 10,000 P.P.M. Test Tool Length 25 ft. Tool Size 3 1/2 - IF in.  
Jars: Make Bowen Serial Number Not Run Anchor Length 34' perf. w/62' drill pipe Size 4 1/2 - FH in.  
Did Well Flow? No Reversed Out No Surface Choke Size 1 in. Bottom Choke Size 5/8 in.  
Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 - XH in.

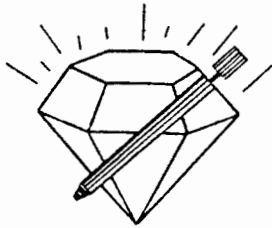
Blow: 1st Open: Weak, 1/4 in., blow increasing to 11 ins. No blow back during shut-in.  
2nd Open: Weak, 1/8 in., blow increasing. Off bottom of bucket in 40 mins. No blow back during shut-in.

Recovered 30 ft. of gas in pipe  
Recovered 107 ft. of slightly oil cut drilling mud = 1.09782 bbls. (Grind out: 2%-oil; 98%-mud)  
Recovered 124 ft. of slightly oil & gas cut watery mud = 1.27224 bbls. (Grind out: 6%-oil; 6%-gas; 32%-water; 56%-mud)  
Recovered 231 ft. of TOTAL FLUID = 2.37006

Recovered          ft. of           
Remarks Tool Sample Grind Out: 8%-gas; 4%-oil; 30%-water; 58%-mud

Time Set Packer(s) 10:08 ~~XXXX~~ <sup>A.M.</sup> Time Started Off Bottom 1:08 <sup>A.M.</sup> ~~XXXX~~ <sup>P.M.</sup> Maximum Temperature 112°  
Initial Hydrostatic Pressure ..... (A) 2154 P.S.I.  
Initial Flow Period ..... Minutes 30 (B) 10 P.S.I. to (C) 56 P.S.I.  
Initial Closed In Period ..... Minutes 45 (D) 1233 P.S.I.  
Final Flow Period ..... Minutes 45 (E) 59 P.S.I. to (F) 118 P.S.I.  
Final Closed In Period ..... Minutes 60 (G) 1208 P.S.I.  
Final Hydrostatic Pressure ..... (H) 2145 P.S.I.

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**FLUID SAMPLE DATA**

Company Mull Drilling Co., Inc.  
Lease & Well No. Ruby 1-35  
Date 12-29-99 Sec. 35 Twp. 14 S Range 33 W  
Formation Test No. 6 Interval Tested From 4,374 ft. to 4,470 ft. Total Depth 4,470 ft.  
Formation Cherokee/Johnson

	<u>MUD PIT</u>	<u>RECOVERY</u>	
Viscosity	<u>41</u> CP	<u>36</u> CP	
Weight	<u>9.5</u>	<u>9.1</u>	
Water Loss	<u>13.2</u> CC	<u>16.8</u> CC	
PH Factor	<u>9.5</u>	<u>9.0</u>	Water <u>8.0</u>

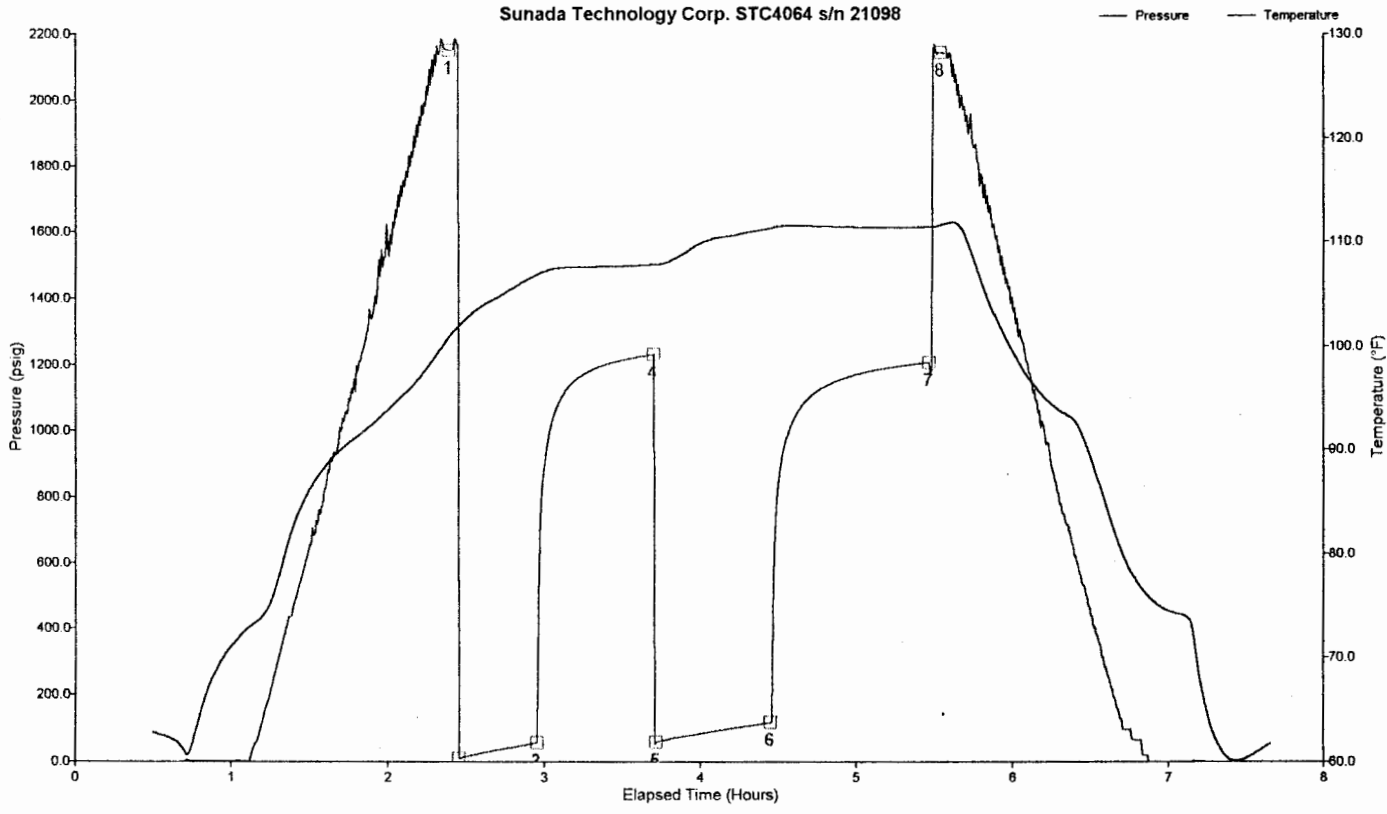
	<u>RESISTIVITY</u>	<u>CHLORIDE CONTENT</u>
Recovery Water	<u>.28 @ 78 °F.</u>	<u>22,000 ppm</u>
Recovery Mud	<u>.40 @ 78 °F.</u>	<u>15,000 ppm</u>
Recovery Mud Filtrate	<u>.42 @ 78 °F.</u>	<u>14,000 ppm</u>
Mud Pit Sample	<u>.40 @ 84 °F.</u>	<u>11,000 ppm</u>
Mud Pit Sample Filtrate	<u>.41 @ 83 °F.</u>	<u>12,000 ppm</u>

Sample Taken By Roger D. Friedly

Witness By Kim B. Shoemaker

Remarks Pit filtrate triton dish chlorides were 10,000 Ppm.  
Recovery filtrate triton dish chlorides were 10,000 Ppm.  
Recovery water dish chlorides were 17,500 Ppm.

Well LSD: DST # 6 CHER/JOHNSON 4374'-4470'  
 Well Name: RUBY 1-35  
 Company: MULL DRILLING CO INC  
 Battery on: Dec 29, 1999 at 07:40:00  
 Notes: RECOVERED 107' SOCM (2% OIL, 98% MUD), 124' SO&GCWM (6% GAS, 6% OIL, 32% WATER, 56% MUD), 30' GAS IN PIPE.



Tag	Pressure	Temperature	Comment
1	2153.90 psig	100.95 °F	1999-12-29 10:03:30
2	9.51 psig	102.04 °F	1999-12-29 10:07:30
3	55.99 psig	106.92 °F	1999-12-29 10:37:30
4	1232.84 psig	107.84 °F	1999-12-29 11:22:00
5	59.19 psig	107.84 °F	1999-12-29 11:23:00
6	117.99 psig	111.33 °F	1999-12-29 12:07:00
7	1208.28 psig	111.42 °F	1999-12-29 13:08:00
8	2145.19 psig	111.61 °F	1999-12-29 13:12:30

DST #6 outside 13556

CLOCK 6913

Cher/Johnson

4374 -4470

LOC 4467

