

MILLER TESTING COMPANY

Box 547

GREAT BEND, KANSAS

Company THUNDERBIRD DRILLING, INC.

Lease and Well No. HASTING # 1

County HODGEMAN State KANSAS Date JULY 15, 1971

Formation Test No. 1 Total Depth 4201 Elev. _____

Interval Tested 4135 To 4201 Anchor Length 66'

Size Hole 7 7/8 Size Drill Pipe 4 1/2 F.H. & X.H. Size Packer 6 3/4

Mud Weight 9.7 Viscosity 43 Water Loss 18.8 c.c. Bottom Hole Temp. 114 °F

Chokes: Top 1/2 Bottom 1/2 Ticket No. 11342

Length of Drill Collar 265 I. D. 2.25 Length Flexweight 692 I. D. 2.76

RECOVERY

WEAK BLOW FOR 3 MINUTES. FLUSHED TOOL IN 15 MINUTES.
NO BLOW.

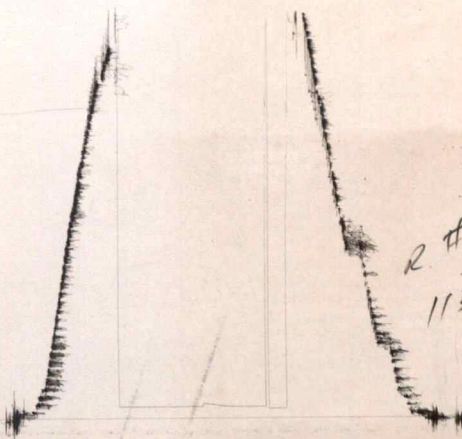
15 FEET OF DRILLING MUD.

Lease and Well No. HASTING # 1 9 225 21W NE / SW

Formation Test No. 1

Tool Open: 1st Flow hr. 30 mins: Shut-in Initial hr. 30 min: 2nd Flow hr. 30 min: Shut-in Final hr. 30 min.

	Field Reading	Corrected Reading
(A) Initial Hydrostatic Pressure	<u>2256</u>	<u> </u>
(B) Initial 1st Flow Pressure	<u>47</u>	<u> </u>
(C) Final 1st Flow Pressure	<u>65</u>	<u> </u>
(D) Initial Shut-in Pressure	<u>79</u>	<u> </u>
(E) Initial 2nd Flow Pressure	<u>65</u>	<u> </u>
(F) Final 2nd Flow Pressure	<u>65</u>	<u> </u>
(G) Final Shut-in Pressure	<u>65</u>	<u> </u>
(H) Final Hydrostatic Pressure	<u>2221</u>	<u> </u>



R. #2774
11342

MILLER TESTING COMPANY

Box 547

GREAT BEND, KANSAS

Company THUNDERBIRD DRILLING, INC.

Lease and Well No. HASTING # 1

County HODGEMAN State KANSAS Date JULY 16, 1971

Formation Test No. 2 Total Depth 4360 Elev. _____

Interval Tested 4327 To 4360 Anchor Length 33'

Size Hole 7 7/8 Size Drill Pipe 4 1/2 F.H. & X.H. Size Packer 6 3/4

Mud Weight 10 Viscosity 44 Water Loss 12 c.c. Bottom Hole Temp. 116 °F

Chokes: Top 1/2 Bottom 1/2 Ticket No. 11343

Length of Drill Collar 265 I. D. 2.25 Length Flexweight 692 I. D. 2.76

RECOVERY

WEAK STEADY BLOW THROUGHOUT TEST.

220 FEET OF GAS IN PIPE.

220 FEET OF SLIGHTLY OIL AND GAS CUT MUD.

Lease and Well No. HASTING # 1 9 22S 21W NE / SW

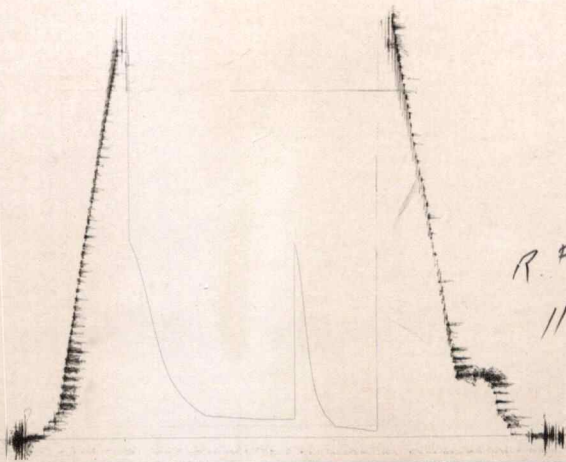
Formation Test No. 2

Tool Open: 1st Flow hr. 30 mins: Shut-in Initial hr. 30 min: 2nd Flow 1 hr. min: Shut-in Final 1 hr. min.

	Field Reading	Corrected Reading
(A) Initial Hydrostatic Pressure	<u>2364</u>	<u>2378</u>
(B) Initial 1st Flow Pressure	<u>43</u>	<u>34</u>
(C) Final 1st Flow Pressure	<u>68</u>	<u>57</u>
(D) Initial Shut-in Pressure	<u>1118</u>	<u>1118</u>
(E) Initial 2nd Flow Pressure	<u>102</u>	<u>109</u>
(F) Final 2nd Flow Pressure	<u>138</u>	<u>136</u>
(G) Final Shut-in Pressure	<u>1140</u>	<u>1140</u>
(H) Final Hydrostatic Pressure	<u>2338</u>	<u>2278</u>

11343

6



R. # 2774

11343

MILLER TESTING COMPANY

Box 547

GREAT BEND, KANSAS

Company THUNDERBIRD DRILLING, INC.

Lease and Well No. HASTING # 1

County HODGEMAN State KANSAS Date JULY 16, 1971

Formation Test No. 3 Total Depth 4365 Elev.

Interval Tested 4358 To 4365 Anchor Length 7'

Size Hole 7 7/8 Size Drill Pipe 4 1/2 F.H. & X.H. Size Packer 6 3/4

Mud Weight 10 Viscosity 44 Water Loss 12.2 c.c. Bottom Hole Temp. 116 °F

Chokes: Top 1/2 Bottom 1/2 Ticket No. 11344

Length of Drill Collar 265 I. D. 2.25 Length Flexweight 692 I. D. 2.76

RECOVERY

WEAK BLOW INCREASING TO FAIR.

360 FEET OF GAS.
70 FEET OF OIL CUT MUD.
90 FEET OF HEAVY OIL CUT MUD.

Lease and Well No. HASTING # 1 9 22S 21W NE / SW Formation Test No. 3

COMPANY THUNDERBIRD DRILLING, INC.

DATE JULY 16, 1971

LEASE HASTING

WELL NO. 1

TEST NO. 3

TICKET NO. 11344

	TIME	PSI
INITIAL HYDRO MUD PRESSURE		2354
INITIAL CLOSED IN PRESSURE	30 MINUTES	1304
INITIAL FLOW	30 MINUTES	34 to 38
FINAL FLOW	60 MINUTES	79 to 86
FINAL CLOSED IN PRESSURE	60 MINUTES	1337
FINAL HYDRO MUD PRESSURE		2288

TOTAL DEPTH 4365

PACKER DEPTH 4358

BT. NO. 2774 DEPTH 4351

1ST FLOW PRESSURE		INITIAL CIP		2ND FLOW PRESSURE		FINAL CIP	
	34		38		79		86
	34		68		79		514
	36		215		79		1096
	38		522		79		1239
			1162		79		1280
			1260		84		1293
			1304		86		1309
							1320
							1324
							1328
							1333
							1335
							1337
10	MINUTE INTERVAL	5	MINUTE INTERVAL	10	MINUTE INTERVAL	5	MINUTE INTERVAL

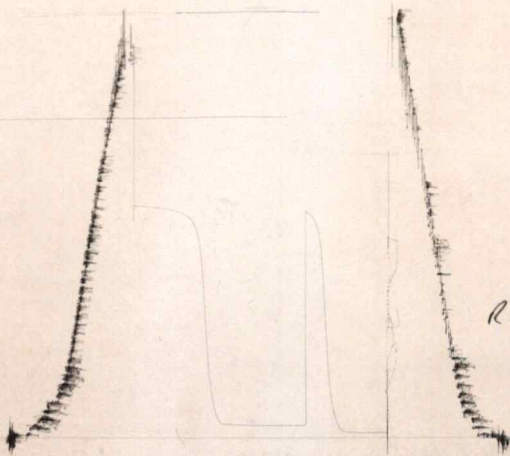
REMARKS _____

SPECIAL PRESSURE DATA

Tool Open: 1st Flow hr. 30 mins: Shut-in Initial hr. 30 min: 2nd Flow 1 hr. min: Shut-in Final 1 hr. min.

	Field Reading	Corrected Reading
(A) Initial Hydrostatic Pressure	<u>2375</u>	<u>2354</u>
(B) Initial 1st Flow Pressure	<u>38</u>	<u>34</u>
(C) Final 1st Flow Pressure	<u>38</u>	<u>38</u>
(D) Initial Shut-in Pressure	<u>1293</u>	<u>1304</u>
(E) Initial 2nd Flow Pressure	<u>68</u>	<u>79</u>
(F) Final 2nd Flow Pressure	<u>93</u>	<u>86</u>
(G) Final Shut-in Pressure	<u>1326</u>	<u>1337</u>
(H) Final Hydrostatic Pressure	<u>2364</u>	<u>2288</u>

11344



R # 2774
11344