

DATE 7-5-77 THUNDERBIRD DRILLING, INC.
TESTING DIVISION
SEC. 22 TWN 16-S RG 27-W BOX 18407 PHONE 316 685-1441
LEGAL DESCRIPTION NW NW NE WICHITA, KANSAS 67218
TICKET N^o 811
TEST NO. 1

COMPANY Thunderbird Drilling, Inc.
ADDRESS Box 18407; Wichita, Ks. 67218
LEASE Broughton WELL NO. G-1 COUNTY Lane STATE Ks.
INVOICES SENT TO: Same
DST COPIES SENT TO: "

4 1/2" X. H. GENERAL INFORMATION		PRESSURE DATA & TIME	
		FIELD READINGS	CORRECTED READINGS
TOOL JT. <u>F.H.</u> HOLE SIZE <u>7 7/8"</u> PACKER O.D. <u>6 3/4"</u>		INITIAL HYDROSTATIC <u>2172</u>	<u>2172</u>
ELEV. _____ TOTAL DEPTH <u>4165'</u>		INITIAL 1ST FLOW <u>87</u>	<u>85'</u>
TESTED FROM <u>4093'</u> TO <u>4165'</u>		FINAL 1ST FLOW <u>87</u>	<u>85'</u>
ANCHOR LENGTH BELOW <u>72'</u> BETWEEN _____		INITIAL SHUT-IN <u>1021</u>	<u>1021</u>
TOOL OPEN 1ST FLOW _____ A.M. <u>9:50</u> P.M. _____		INITIAL 2ND FLOW <u>95</u>	<u>95</u>
TOOL CLOSED INITIAL SHUT-IN _____ A.M. <u>10:20</u> P.M. _____		FINAL 2ND FLOW <u>95</u>	<u>95</u>
TOOL OPEN 2ND FLOW _____ A.M. <u>10:50</u> P.M. _____		FINAL SHUT-IN <u>977</u>	<u>978</u>
TOOL CLOSED FINAL SHUT-IN _____ A.M. <u>11:20</u> P.M. _____		FINAL HYDROSTATIC <u>2154</u>	<u>2150</u>
MUD WT. <u>9.3</u> VISCOSITY <u>46</u> W.L. <u>8</u> C.C. _____		TOOL OPEN: 1ST FLOW _____ HR. <u>30</u> MIN. _____	
SP. GRAVITY OIL _____ BOTTOM HOLE TEMPERATURE <u>112°</u>		INITIAL SHUT-IN _____ HR. <u>30</u> MIN. _____	
LENGTH DRILL COLLAR _____ I.D. _____		2ND FLOW _____ HR. <u>30</u> MIN. _____	
LENGTH WEIGHT PIPE <u>5-75'</u> I.D. <u>2.76</u>		FINAL SHUT-IN _____ HR. <u>30</u> MIN. _____	
SUCCESSFUL TEST NO. <u>1</u> MISRUN NO. _____		TOP RECORDER NO. <u>2162</u> BOTTOM RECORDER NO. <u>4333</u>	
CHOKES: TOP <u>1/2"</u> BOTTOM <u>1/2"</u>			

TYPE BLOW Weak blow for 6 mins.

RECOVERY: 60' of mud w/trace of oil

EXTRA EQUIPMENT <u>None</u>	THUNDERBIRD DRILLING, INC.	CHARGES
APPROVED BY: _____	SHALL NOT BE LIABLE FOR ANY DAMAGE OF ANY KIND TO THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST WAS MADE.	TEST CHARGE \$ <u>400</u>
TESTER: <u>Ed Cook</u>		EXTRA PACKERS \$ _____
FORMATION TESTED <u>K.C.</u>		JARS \$ _____
OPERATOR TIME: _____		SAFETY JOINT \$ _____
		HOOK WALL \$ _____
		MISRUN CHARGE \$ _____
		STAND-BY CHARGE \$ _____
		DST EVALUATION \$ _____
		STRADDLE \$ _____
		TOTAL \$ <u>400</u>

THUNDERBIRD DRLG., INC.

TESTING DIVISION

Box 18407

WICHITA, KANSAS

Company Thunderbird Drilling Inc.

Lease and Well No. Bronghton G-1

County Lane State Kansas Date 7-5-77

Formation Test No. 1 Total Depth 4165' Elev. _____
Interval Tested 4093' To 4165' Anchor Length 72'
Size Hole 7 7/8" Size Drill Pipe 4 1/2" XH PH Size Packer 6 3/4"
Mud Weight 9.3 Viscosity 46 Water Loss 8.0 c.c. Bottom Hole Temp. 112 ° F
Chokes: Top 1" Bottom 1" Ticket No. 811

RECOVERY

Blow: Weak blow for 6 Min.

Recovery: 60' of mud with trace of oil

Lease and Well No. Bronghton G-1 Sec. 22 Twp. 16-S Rg. 27-W 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.

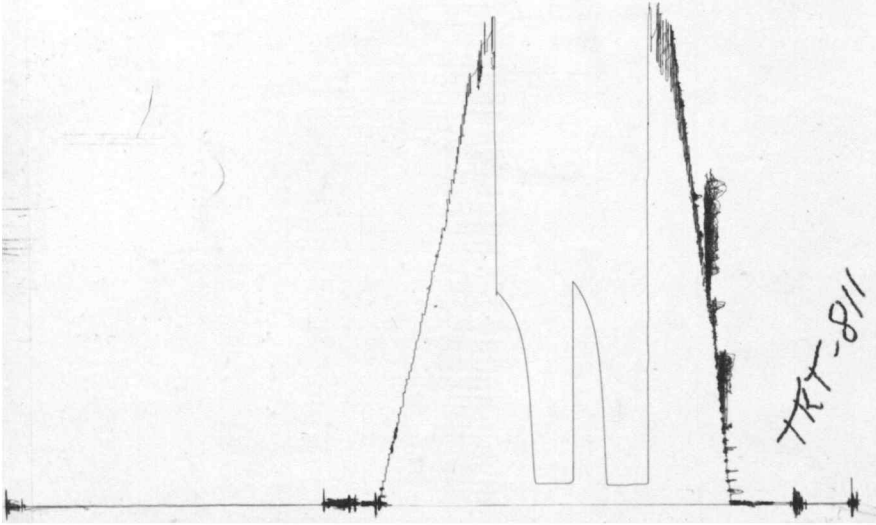
	Field Reading	Corrected Reading
(A) Initial Hydrostatic Pressure	<u>2172</u>	<u>2172</u>
(B) Initial 1st Flow Pressure	<u>87</u>	<u>85</u>
(C) Final 1st Flow Pressure	<u>87</u>	<u>85</u>
(D) Initial Shut-in Pressure	<u>1021</u>	<u>1021</u>
(E) Initial 2nd Flow Pressure	<u>95</u>	<u>95</u>
(F) Final 2nd Flow Pressure	<u>95</u>	<u>95</u>
(G) Final Shut-in Pressure	<u>977</u>	<u>978</u>
(H) Final Hydrostatic Pressure	<u>2154</u>	<u>2150</u>

Ticket# 811

4

R-2162

TRT-811



DATE 7-7-77

THUNDERBIRD DRILLING, INC.

TESTING DIVISION

TICKET N^o

812

SEC. 22 TWN 16-S RG 27-W

BOX 18407 PHONE 316 685-1441

LEGAL DESCRIPTION NW NW NE

WICHITA, KANSAS 67218

TEST NO. 2

COMPANY

Thunderbird Drllg. Inc.

ADDRESS

Box 18407; Wichita, Ks. 67218

LEASE

BroughtonWELL NO. G-1 COUNTY LincolnSTATE Ks.

INVOICES SENT TO:

Same

DST COPIES SENT TO:

4 1/2" X.H. GENERAL INFORMATION				PRESSURE DATA & TIME	
TOOL JT. <u>F.H.</u>		HOLE SIZE <u>7 7/8"</u>	PACKER O.D. <u>6 3/4"</u>	FIELD READINGS	CORRECTED READINGS
ELEV.	TOTAL DEPTH <u>4385'</u>			INITIAL HYDROSTATIC <u>2277</u>	<u>2280</u>
TESTED FROM <u>4292'</u>	TO <u>4385'</u>			INITIAL 1ST FLOW <u>87</u>	<u>87</u>
ANCHOR LENGTH BELOW <u>93'</u>	BETWEEN <u>✓</u>			FINAL 1ST FLOW <u>87</u>	<u>87</u>
TOOL OPEN 1ST FLOW	A.M. <u>9:50</u>	P.M.		INITIAL SHUT-IN <u>164</u>	<u>165</u>
TOOL CLOSED INITIAL SHUT-IN	A.M. <u>10:50</u>	P.M.		INITIAL 2ND FLOW <u>95</u>	<u>96</u>
TOOL OPEN 2ND FLOW	A.M. <u>10:50</u>	P.M.		FINAL 2ND FLOW <u>95</u>	<u>96</u>
TOOL CLOSED FINAL SHUT-IN	A.M. <u>11:20</u>	P.M.		FINAL SHUT-IN <u>104</u>	<u>104</u>
MUD WT. <u>9.8</u>	VISCOSITY <u>45</u>	W.L. <u>9</u>	C.C.	FINAL HYDROSTATIC <u>2259</u>	<u>2259</u>
SP. GRAVITY OIL	BOTTOM HOLE TEMPERATURE <u>116°</u>			TOOL OPEN: 1ST FLOW	HR. <u>30</u> MIN.
LENGTH DRILL COLLAR <u>✓</u>	I.D. <u>✓</u>			INITIAL SHUT-IN	HR. <u>30</u> MIN.
LENGTH WEIGHT PIPE <u>5-75'</u>	I.D. <u>2.76</u>			2ND FLOW	HR. <u>30</u> MIN.
SUCCESSFUL TEST NO. <u>2</u>	MISRUN NO. <u>✓</u>			FINAL SHUT-IN	HR. <u>30</u> MIN.
CHOKES: TOP <u>1/2"</u>	BOTTOM <u>1/2"</u>			TOP RECORDER NO. <u>2162</u>	BOTTOM RECORDER NO. <u>4332</u>

TYPE BLOW

Weak for 3 mins.

RECOVERY:

12' of mud

EXTRA EQUIPMENT

None

APPROVED BY:

TESTER:

Ed Cook

FORMATION TESTED

M&M.

OPERATOR TIME:

THUNDERBIRD DRILLING, INC.

SHALL NOT BE LIABLE FOR ANY DAMAGE OF ANY KIND TO THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST WAS MADE.

CHARGES	
TEST CHARGE	\$ <u>400</u>
EXTRA PACKERS	\$
JARS	\$
SAFETY JOINT	\$
HOOK WALL	\$
MISRUN CHARGE	\$
STAND-BY CHARGE	\$
DST EVALUATION	\$
STRADDLE	\$
TOTAL	\$ <u>400</u>

THUNDERBIRD DRLG., INC.
TESTING DIVISION
Box 18407
WICHITA, KANSAS

Company Thunderbird Drilling Inc.

Lease and Well No. Bronghton G-1

County Lane State Kansas Date 7-7-77

Formation Test No. 2 Total Depth 4385' Elev. _____
Interval Tested 4292' To 4385' Anchor Length 93'
Size Hole 7 7/8" Size Drill Pipe 4 1/2" XH FH Size Packer 6 3/4"
Mud Weight 9.8 Viscosity 45 Water Loss 9.0 c.c. Bottom Hole Temp. 116 ° F
Chokes: Top 1/2" Bottom 1/2" Ticket No. 812

RECOVERY

Blow: Weak for 3 mins.

Recovery: 12' of mud

Lease and Well No. Bronghton G-1 Sec. 22 Twn. 16-S Rg. 27-W

NW NW NE

Formation Test No. 2

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>2277</u>	<u>2280</u>
(B) Initial 1st Flow Pressure	<u>87</u>	<u>87</u>
(C) Final 1st Flow Pressure	<u>87</u>	<u>87</u>
(D) Initial Shut-in Pressure	<u>164</u>	<u>165</u>
(E) Initial 2nd Flow Pressure	<u>95</u>	<u>96</u>
(F) Final 2nd Flow Pressure	<u>95</u>	<u>96</u>
(G) Final Shut-in Pressure	<u>104</u>	<u>104</u>
(H) Final Hydrostatic Pressure	<u>2259</u>	<u>2259</u>

Ticket # 812

TRT-892

R-91674

DATE 7-8-77 THUNDERBIRD DRILLING, INC.SEC. 22 TWN 16-S RG 27-W TESTING DIVISION
BOX 18407 PHONE 316 685-1441TICKET N^o 813LEGAL DESCRIPTION NW NW NE WICHITA, KANSAS 67218TEST NO. 3

COMPANY Thunderbird Drilling, Inc.
ADDRESS Box 18407; Wichita, Ks. 67218
LEASE Broughton WELL NO. G-1 COUNTY Lane STATE Ks.
INVOICES SENT TO: Same
DST COPIES SENT TO: "

4 1/2" X. H. GENERAL INFORMATION		PRESSURE DATA & TIME	
		FIELD READINGS	CORRECTED READINGS
TOOL JT. <u>F.H.</u>	HOLE SIZE <u>7 7/8"</u> PACKER O.D. <u>6 3/4"</u>	INITIAL HYDROSTATIC <u>2347</u>	<u>2350</u>
ELEV. _____	TOTAL DEPTH <u>4490'</u>	INITIAL 1ST FLOW <u>52</u>	<u>52</u>
TESTED FROM <u>4442'</u>	TO <u>4490'</u>	FINAL 1ST FLOW <u>52</u>	<u>52</u>
ANCHOR LENGTH BELOW <u>48'</u>	BETWEEN <u>✓</u>	INITIAL SHUT-IN <u>78</u>	<u>79</u>
TOOL OPEN 1ST FLOW _____	A.M. <u>1:40</u> P.M. _____	INITIAL 2ND FLOW <u>52</u>	<u>52</u>
TOOL CLOSED INITIAL SHUT-IN _____	A.M. <u>2:10</u> P.M. _____	FINAL 2ND FLOW <u>52</u>	<u>52</u>
TOOL OPEN 2ND FLOW _____	A.M. <u>2:40</u> P.M. _____	FINAL SHUT-IN <u>52</u>	<u>52</u>
TOOL CLOSED FINAL SHUT-IN _____	A.M. <u>3:10</u> P.M. _____	FINAL HYDROSTATIC <u>2347</u>	<u>2347</u>
MUD WT. <u>9.7</u>	VISCOSITY <u>44</u> W.L. <u>10.0</u> C.C. _____	TOOL OPEN: 1ST FLOW _____	HR. <u>30</u> MIN.
SP. GRAVITY OIL _____	BOTTOM HOLE TEMPERATURE <u>117.0</u>	INITIAL SHUT-IN _____	HR. <u>30</u> MIN.
LENGTH DRILL COLLAR <u>✓</u>	I.D. <u>✓</u>	2ND FLOW _____	HR. <u>30</u> MIN.
LENGTH WEIGHT PIPE <u>5-75'</u>	I.D. <u>2.76</u>	FINAL SHUT-IN _____	HR. <u>30</u> MIN.
SUCCESSFUL TEST NO. <u>3</u>	MISRUN NO. <u>✓</u>	TOP RECORDER NO. <u>2162</u>	BOTTOM RECORDER NO. <u>4333</u>
CHOKES: TOP <u>1/2"</u>	BOTTOM <u>1/2"</u>		

TYPE BLOW Weak blow for 2 mins.RECOVERY: 10' of mudEXTRA EQUIPMENT None

APPROVED BY: _____ THUNDERBIRD DRILLING, INC.

TESTER: Ed Cook
FORMATION TESTED FT. Scott
OPERATOR TIME: _____
SHALL NOT BE LIABLE FOR ANY DAMAGE OF ANY KIND TO THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST WAS MADE.

	CHARGES
TEST CHARGE	\$ <u>400.00</u>
EXTRA PACKERS	\$ _____
JARS	\$ _____
SAFETY JOINT	\$ _____
HOOK WALL	\$ _____
MISRUN CHARGE	\$ _____
STAND-BY CHARGE	\$ _____
DST EVALUATION	\$ _____
STRADDLE	\$ _____
TOTAL	\$ <u>400.00</u>

THUNDERBIRD DRLG., INC.

TESTING DIVISION

Box 18407

WICHITA, KANSAS

Company Thunderbird Drilling Inc.

Lease and Well No. Broughton G-1

County Lane State Kansas Date 7-8-77

Formation Test No. 3 Total Depth 4490' Elev. _____

Interval Tested 4442' To 4490' Anchor Length 48'

Size Hole 7 7/8" Size Drill Pipe 4 1/2" XH PH Size Packer 6 3/4"

Mud Weight 9.7 Viscosity 44 Water Loss 10. c.c. Bottom Hole Temp. 117 ° F

Chokes: Top 1" Bottom 1 1/2" Ticket No. 813

RECOVERY

Blow: Weak blow for 2 mins.

Recovery: 10' of mud

Lease and Well No. Broughton G-1 Sec. 22 Twp. 16-S Rg. 27-W

NW NE NE

Formation Test No.

3

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>2347</u>	<u>2350</u>
(B) Initial 1st Flow Pressure	<u>52</u>	<u>52</u>
(C) Final 1st Flow Pressure	<u>52</u>	<u>52</u>
(D) Initial Shut-in Pressure	<u>78</u>	<u>79</u>
(E) Initial 2nd Flow Pressure	<u>52</u>	<u>52</u>
(F) Final 2nd Flow Pressure	<u>52</u>	<u>52</u>
(G) Final Shut-in Pressure	<u>52</u>	<u>52</u>
(H) Final Hydrostatic Pressure	<u>2347</u>	<u>2347</u>

Ticket # 813

TK-813

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