

DATE 7-5-77

## THUNDERBIRD DRILLING, INC.

TESTING DIVISION

SEC. 22 TWN 16-5 RG 27-W

BOX 18407 PHONE 316 685-1441

LEGAL DESCRIPTION NW NW NE

WICHITA, KANSAS 67218

TICKET № 811

TEST NO. 1

COMPANY

Thunderbird Dr. Ig. Inc.

ADDRESS

Box 18407; Wichita, Ks. 67218

LEASE

Brongton WELL NO. 4-1 COUNTY Lane, STATE Ks.

INVOICES SENT TO:

Same

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4 1/2" X 7 1/2" GENERAL INFORMATION  
 TOOL JT. F.H. HOLE SIZE 7 1/2" PACKER O.D. 6 3/4"  
 ELEV. TOTAL DEPTH 4165'  
 TESTED FROM 4093' TO 4165'  
 ANCHOR LENGTH BELOW 72' BETWEEN  
 TOOL OPEN 1ST FLOW A.M. 9:50 P.M.  
 TOOL CLOSED INITIAL SHUT-IN A.M. 10:20 P.M.  
 TOOL OPEN 2ND FLOW A.M. 10:50 P.M.  
 TOOL CLOSED FINAL SHUT-IN A.M. 11:20 P.M.  
 MUD WT 9.3 VISCOSITY 46 W.L. 8. C.C.  
 SP. GRAVITY OIL BOTTOM HOLE TEMPERATURE 112°  
 LENGTH DRILL COLLAR 5' I.D. 5'  
 LENGTH WEIGHT PIPE 5' 75" I.D. 2.76'  
 SUCCESSFUL TEST NO. MISRUN NO.  
 CHOKES: TOP 1/2" BOTTOM 1/2"

PRESSURE DATA & TIME	
FIELD READINGS	CORRECTED READINGS
INITIAL HYDROSTATIC	2172
INITIAL 1ST FLOW	87
FINAL 1ST FLOW	87
INITIAL SHUT-IN	1021
INITIAL 2ND FLOW	95
FINAL 2ND FLOW	95
FINAL SHUT-IN	977
FINAL HYDROSTATIC	2154
TOOL OPEN: 1ST FLOW	HR. 30 MIN.
INITIAL SHUT-IN	HR. 30 MIN.
2ND FLOW	HR. 30 MIN.
FINAL SHUT-IN	HR. 30 MIN.
TOP RECORDER NO. 2162	BOTTOM RECORDER NO. 4332

TYPE BLOW

Weak blow for 6 mins.

RECOVERY:

60' of mud w/trace of oil

EXTRA EQUIPMENT

None

APPROVED BY:

Ed Cook

THUNDERBIRD DRILLING, INC.

TESTER:

K.C.

FORMATION TESTED

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.

OPERATOR TIME:

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

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 7-5-77

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

**RECOVERY**

Blow: Weak blow for 6 Min.

Recovery: 60' of mud with trace of oil

Lease and Well No. Broughton G-1 Sec. 22 Twp. 16-S Rgs. 27-31  
 NW NW NE NE

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.

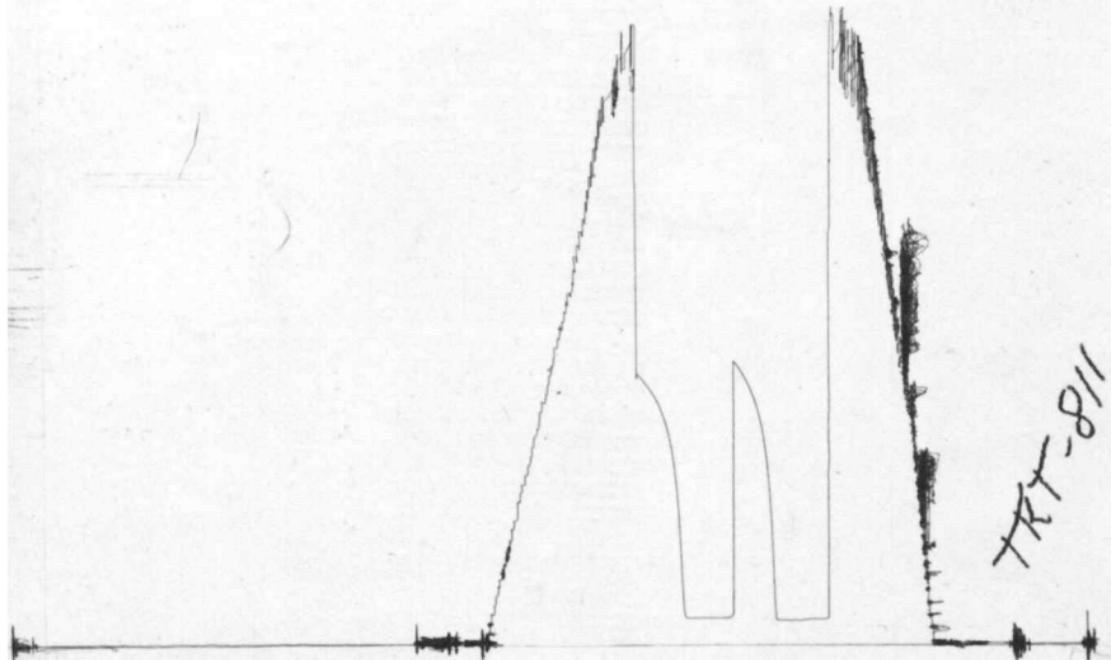
	Field Reading	Corrected Reading
(A) Initial Hydrostatic Pressure	<u>2172</u>	<u>2172</u>
(B) Initial 1st Flow Pressure	<u>87</u>	<u>85</u>
(C) Final 1st Flow Pressure	<u>87</u>	<u>85</u>
(D) Initial Shut-in Pressure	<u>1021</u>	<u>1021</u>
(E) Initial 2nd Flow Pressure	<u>95</u>	<u>95</u>
(F) Final 2nd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

XX-811



DATE 7-7-77

## THUNDERBIRD DRILLING, INC.

TESTING DIVISION

SEC. 22 TWN 16-5 RG 27-W

BOX 18407 PHONE 316 685-1441

LEGAL DESCRIPTION NW NW NE

WICHITA, KANSAS 67218

TICKET Nº812TEST NO. 2

COMPANY

Thunderbird Dril. Inc.

ADDRESS

Box 18407; Wichita, Ko. 67218

LEASE

Broughton WELL NO. 6-1 COUNTY Linn, STATE Ks.

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4 1/2" X H. GENERAL INFORMATION  
 TOOL JT. F.H. HOLE SIZE 7 7/8" PACKER O.D. 6 3/4"  
 ELEV. 4292' TOTAL DEPTH 4385'  
 TESTED FROM 4292' TO 4385'  
 ANCHOR LENGTH BELOW 93' BETWEEN ✓  
 TOOL OPEN 1ST FLOW A.M. 9:30 P.M.  
 TOOL CLOSED INITIAL SHUT-IN A.M. 10:10 P.M.  
 TOOL OPEN 2ND FLOW A.M. 10:50 P.M.  
 TOOL CLOSED FINAL SHUT-IN A.M. 11:20 P.M.  
 MUD WT 9.8 VISCOSITY 45 W.L. 9. C.C.  
 SP. GRAVITY OIL 116 BOTTOM HOLE TEMPERATURE 116  
 LENGTH DRILL COLLAR 5-75' I.D. 2.76  
 LENGTH WEIGHT PIPE 2 MISRUN NO. ✓  
 CHOKES: TOP 1/2" BOTTOM 1/2"

PRESSURE DATA & TIME	
FIELD READINGS	CORRECTED READINGS
INITIAL HYDROSTATIC	<u>2277</u> <u>2280</u>
INITIAL 1ST FLOW	<u>87</u> <u>87</u>
FINAL 1ST FLOW	<u>87</u> <u>87</u>
INITIAL SHUT-IN	<u>164</u> <u>165</u>
INITIAL 2ND FLOW	<u>95</u> <u>96</u>
FINAL 2ND FLOW	<u>95</u> <u>96</u>
FINAL SHUT-IN	<u>104</u> <u>104</u>
FINAL HYDROSTATIC	<u>2259</u> <u>2259</u>
TOOL OPEN: 1ST FLOW	HR. <u>30</u> MIN.
INITIAL SHUT-IN	HR. <u>30</u> MIN.
2ND FLOW	HR. <u>30</u> MIN.
FINAL SHUT-IN	HR. <u>30</u> MIN.
TOP RECORDER NO. <u>2162</u> BOTTOM RECORDER NO. <u>4333</u>	

TYPE BLOW Weak for 3 mins.RECOVERY: 12' of mudEXTRA EQUIPMENT NoneAPPROVED BY: Ed CookTESTER: Ed CookFORMATION TESTED M2111

OPERATOR TIME: \_\_\_\_\_

## THUNDERBIRD DRILLING, INC.

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CHARGES
TEST CHARGE \$ <u>400</u>
EXTRA PACKERS \$ <u>15</u>
JARS \$ <u>15</u>
SAFETY JOINT \$ <u>15</u>
HOOK WALL \$ <u>15</u>
MISRUN CHARGE \$ <u>15</u>
STAND-BY CHARGE \$ <u>15</u>
DST EVALUATION \$ <u>15</u>
STRADDLE \$ <u>15</u>
TOTAL \$ <u>400</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 7-7-77

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

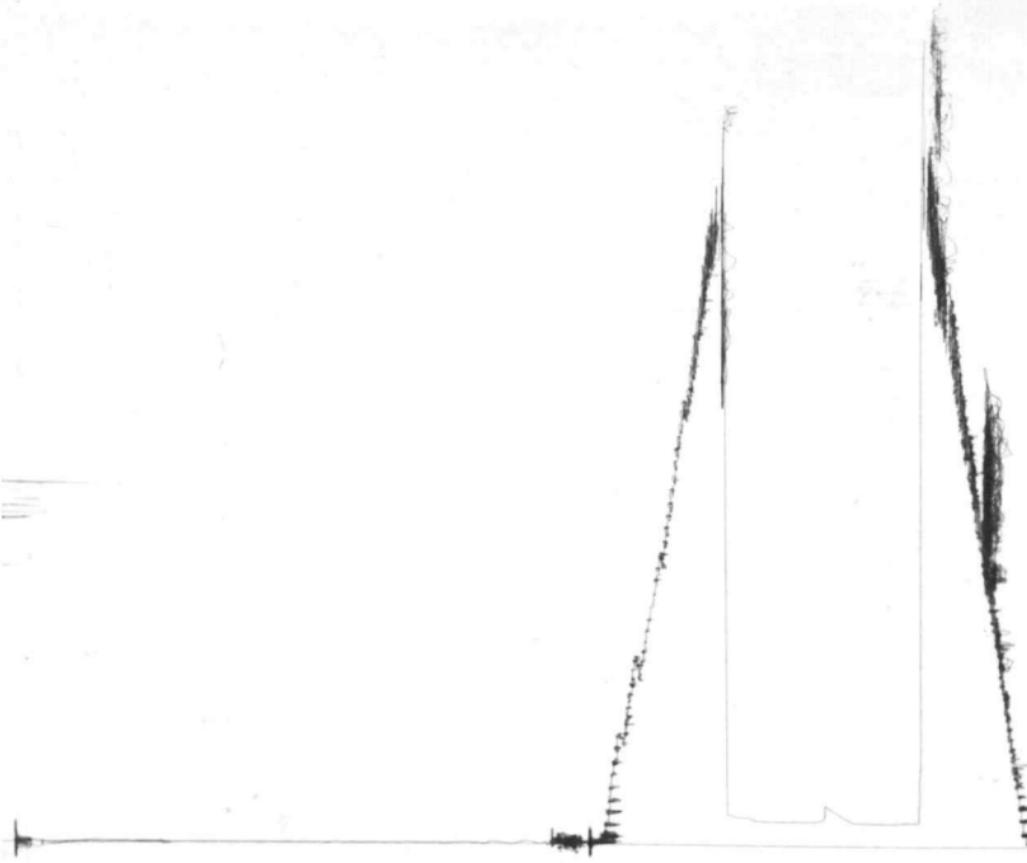
Lease and Well No. Broughton G-1 Sec. 22 Twp. 16-S Rg. 27-W NW NW NE Formation Test No. 2

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>

R. 916 24

RT = 892



DATE 7-8-77

## THUNDERBIRD DRILLING, INC.

TESTING DIVISION

SEC. 22 TWN 16-5 RG 27-W

BOX 18407 PHONE 316 685-1441

LEGAL DESCRIPTION NW NW NE

WICHITA, KANSAS 67218

TICKET

No.

813

TEST NO. 3

COMPANY

Thunderbird Drilg. Inc.

ADDRESS

Box 18407; Wichita, Ks. 67218

LEASE

Bronghton

WELL NO. G-1

COUNTY LAW

STATE Ks.

INVOICES SENT TO:

Jamie

DST COPIES SENT TO:

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4 1/2" X. H. GENERAL INFORMATION			
TOOL JT.	F. H.	HOLE SIZE	7 1/8"
			PACKER O.D. 6 3/4"
ELEV.		TOTAL DEPTH	4490'
TESTED FROM	4442'	TO	4490'
ANCHOR LENGTH BELOW	48'	BETWEEN	—
TOOL OPEN 1ST FLOW		A.M. 1:40	P.M.
TOOL CLOSED INITIAL SHUT-IN		A.M. 2:10	P.M.
TOOL OPEN 2ND FLOW		A.M. 2:40	P.M.
TOOL CLOSED FINAL SHUT-IN		A.M. 3:10	P.M.
MUD WT	9.7	VISCOSITY	44
SP. GRAVITY OIL		W.L.	10
LENGTH DRILL COLLAR	✓	I.D.	✓
LENGTH WEIGHT PIPE	5-75'	I.D.	2.76
SUCCESSFUL TEST NO.	3	MISRUN NO.	✓
CHOKES: TOP	1/2"	BOTTOM	1/2"

## PRESSURE DATA &amp; TIME

	FIELD READINGS	CORRECTED READINGS
INITIAL HYDROSTATIC	2347	2350
INITIAL 1ST FLOW	52	52
FINAL 1ST FLOW	52	52
INITIAL SHUT-IN	78	79
INITIAL 2ND FLOW	52	52
FINAL 2ND FLOW	52	52
FINAL SHUT-IN	52	52
FINAL HYDROSTATIC	2347	2347
TOOL OPEN: 1ST FLOW	HR. 30	MIN. 30
INITIAL SHUT-IN	HR. 30	MIN. 30
2ND FLOW	HR. 30	MIN. 30
FINAL SHUT-IN	HR. 30	MIN. 30
TOP RECORDER NO.	2162	BOTTOM RECORDER NO. 4332

TYPE BLOW Weak blow for 2 mins.

RECOVERY: 10' of mud

EXTRA EQUIPMENT

None

APPROVED BY:

Ed Cook

TESTER:

H. Scott

FORMATION TESTED

OPERATOR TIME:

## THUNDERBIRD DRILLING, INC.

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

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

Company Thunderbird Drilling Inc.

Lease and Well No. Brenton 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 FH Size Packer 6 3/4"

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

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

**RECOVERY**

Blow: Weak blow for 2 mins.

Recovery: 10' of mud

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

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

