CHENEY TESTING COMPANY, INC.

P. O. Box 367 HILL CITY, KANSAS 67642

DRILL-STEM TEST DATA

Company	Abercrombie Drilling Inc.	Test No.	1
Well Name & Number	Worcester #1	Zone Tested	Kansas City b
Company Address	Wichita, Kansas	Date	8-25-86
Company Rep.	Mark Galyon	Tester	Dan Bangle
Contractor	Co. Tools	Elevation	
Location: Sec. 31 Twp. 7s Rge. 22w Co. Graham State Kansas		Est. Feet of Pay	

31-7S-22W

Recorder No. 7456 Type AK-1 Range 4150 PSI
Recorder Depth 3504 Clock # 30420

(A) Initial Hydrostatic Mud 1666 PSI
(B) First Initial Flow Pressure 137 PSI
(C) First Final Flow Pressure 137 PSI
(D) Initial Shut-in Pressure 1052 PSI
(E) Second Initial Flow Pressure 127 PSI
(F) Second Final Flow Pressure 137 PSI
(G) Final Shut-in Pressure 1031 PSI
(H) Final Hydrostatic Mud 1604 PSI

Temperature 109
Mud Weight 9.2 Viscosity 43
Fluid Loss 10.4
Interval Tested 3490-3512
Anchor Length 22'
Top Packer Depth 3485
Bottom Packer Depth 3490
Total Depth 3512
Drill Pipe Size 4½ X.H.
Wt. Pipe I. D. 2.7 Ft. Run 599
Recovery-Total Feet 70
Recovered 70 Feet Of Mud
Recovered ____ Feet Of ____
Recovered ____ Feet Of ____
Recovered ____ Feet Of ____
Recovered ____ Feet Of ____
Recovered ____ Feet Of ____

Recorder No. 13222 Type AK-1 Range 4000 PSI
Recorder Depth 3508 Clock # 25719

Tool Open Before I.S.I. 30 Mins.
Initial Shut-in 45 Mins.
Flow Period 30 Mins.
Final Shut-in 45 Mins.
Top Choke Size 1" Hole Size 7 7/8"
Bottom Choke Size 3/4" Rubber Size 6 3/4"
Tool Open @ 9:00 P.M.

Blow Remarks

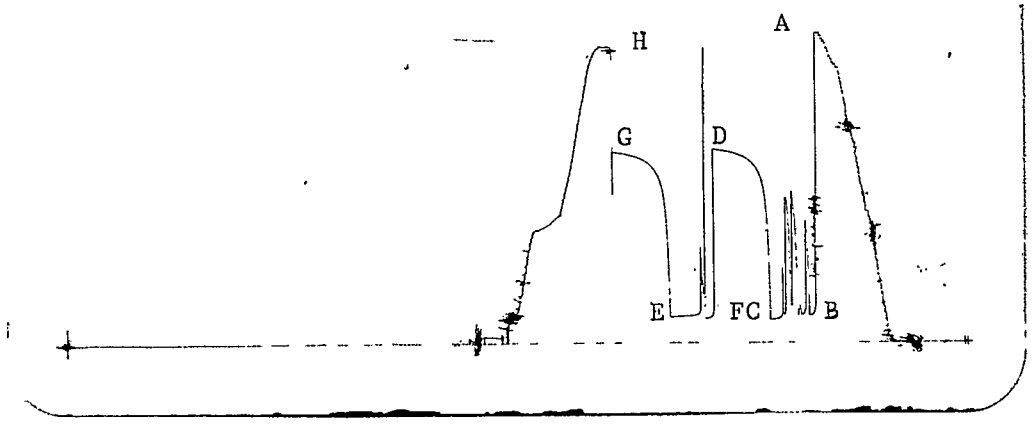
1st Open- Fair Decreasing To ½" Weak Blow.
Slid Tool 6-8' To Bottom.
2nd Open- No Blow, Flushed Tool.

Plugging On Initial Flow.

Extra Equipment ____ Price of Job $350.00

MILLER PRINTERS, INC.
Great Bend, Kansas

7456
#1



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1666		PSI
(B)	First Initial Flow Pressure	137		PSI
(C)	First Final Flow Pressure	137		PSI
(D)	Initial Closed-in Pressure	1052		PSI
(E)	Second Initial Flow Pressure	127		PSI
(F)	Second Final Flow Pressure	137		PSI
(G)	Final Closed-in Pressure	1031		PSI
(H)	Final Hydrostatic Mud	1604		PSI

CHENEY TESTING COMPANY, INC.

P. O. Box 367 HILL CITY, KANSAS 67642

DRILL-STEM TEST DATA

Company	Abercrombie Drilling Inc.	Test No.	2
Well Name & Number	Worcester #1	Zone Tested	Kansas City G
Company Address	Wichita, Kansas	Date	8-26-86
Company Rep.	Mark Galyon	Tester	Dan Bangle
Contractor	Abercrombie Drilling Inc.	Elevation	2218 K.B.
Location: Sec. 31 Twp. 7s Rge. 22w Co. Graham State Kansas		Est. Feet of Pay	

31-7S-22W

Recorder No. 7456 Type AK-1 Range 4150 PSI
Recorder Depth 3544 Clock # 30420

(A) Initial Hydrostatic Mud 1718 PSI
(B) First Initial Flow Pressure 116 PSI
(C) First Final Flow Pressure 116 PSI
(D) Initial Shut-in Pressure 947 PSI
(E) Second Initial Flow Pressure 127 PSI
(F) Second Final Flow Pressure 158 PSI
(G) Final Shut-in Pressure 895 PSI
(H) Final Hydrostatic Mud 1645 PSI

Temperature 114
Mud Weight 9.3 Viscosity 40
Fluid Loss 10.4
Interval Tested 3538-3552
Anchor Length 14'
Top Packer Depth 3533
Bottom Packer Depth 3538
Total Depth 3552
Drill Pipe Size 4½ X.H.
Wt. Pipe I. D. 2.7 Ft. Run 599
Recovery-Total Feet 210

Recorder No. 13222 Type AK-1 Range 4000 PSI
Recorder Depth 3548 Clock # 25719
Tool Open Before I.S.I. 30 Mins.
Initial Shut-in 45 Mins.
Flow Period 60 Mins.
Final Shut-in 45 Mins.
Top Choke Size 1" Hole Size 7 7/8"
Bottom Choke Size 3/4" Rubber Size 6 3/4"
Tool Open @ 11:40 A.M.
Blow Remarks

1st Open- WEak Building To 4" Fair Blow.
2nd Open- Weak Building To 1½" Weak Blow.

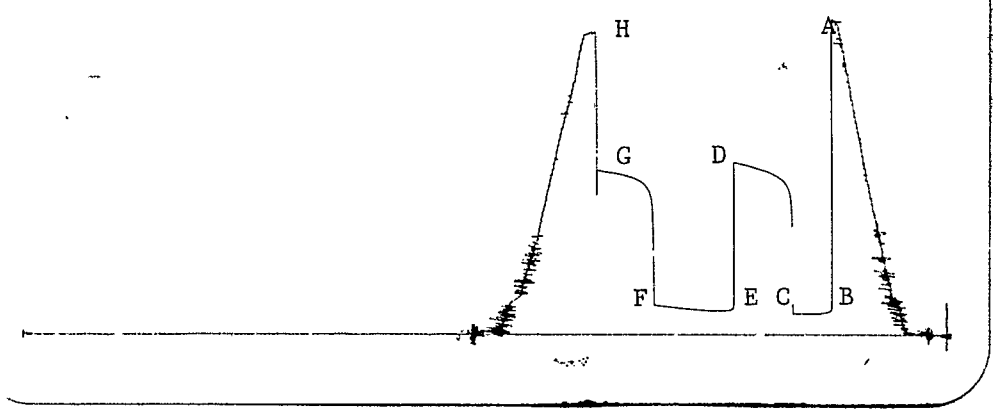
Mud Chlorides- 1,000 PPM

Recovered 210 Feet Of Water With A Few Oil Spots
Recovered Feet Of Resistivity- .059 @ 74°F. Chlorides- 42,000 PPM
Recovered Feet Of
Recovered Feet Of
Recovered Feet Of
Recovered Feet Of

Extra Equipment Price of Job

MILLER PRINTERS, INC.
Great Bend, Kansas

7456
#2



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1718		PSI
(B)	First Initial Flow Pressure	116		PSI
(C)	First Final Flow Pressure	116		PSI
(D)	Initial Closed-in Pressure	947		PSI
(E)	Second Initial Flow Pressure	127		PSI
(F)	Second Final Flow Pressure	158		PSI
(G)	Final Closed-in Pressure	895		PSI
(H)	Final Hydrostatic Mud	1645		PSI

CHENEY TESTING COMPANY, INC.

P. O. Box 367 HILL CITY, KANSAS 67642

DRILL-STEM TEST DATA

Company	Abercrombie Drilling Inc.	Test No.	3
Well Name & Number	Worcester #1	Zone Tested	Kansas City I
Company Address	Wichita, Kansas	Date	8-27-86
Company Rep.	Mark Galyon	Tester	Dan Bangle
Contractor	Company Tools	Elevation	2218 K.B.
Location: Sec. 31 Twp. 7s Rge. 22w Co. Graham State Kansas		Est. Feet of Pay	

31-7S-22W

Recorder No. 7456 Type AK-1 Range 4150 PSI
Recorder Depth 3619 Clock # 30420

(A) Initial Hydrostatic Mud 1791 PSI
(B) First Initial Flow Pressure 105 PSI
(C) First Final Flow Pressure 105 PSI
(D) Initial Shut-in Pressure 105 PSI
(E) Second Initial Flow Pressure 84 PSI
(F) Second Final Flow Pressure 105 PSI
(G) Final Shut-in Pressure 105 PSI
(H) Final Hydrostatic Mud 1677 PSI

Temperature 112
Mud Weight 9.3 Viscosity ~~46~~
Fluid Loss 10.4
Interval Tested 3611-3627
Anchor Length 16
Top Packer Depth 3606
Bottom Packer Depth 3611
Total Depth 3627
Drill Pipe Size 4½ X.H.
Wt. Pipe I. D. 2.7 Ft. Run 599
Recovery-Total Feet 5
Recovered 5 Feet Of Mud
Recovered ____ Feet Of
Recovered ____ Feet Of
Recovered ____ Feet Of
Recovered ____ Feet Of
Recovered ____ Feet Of

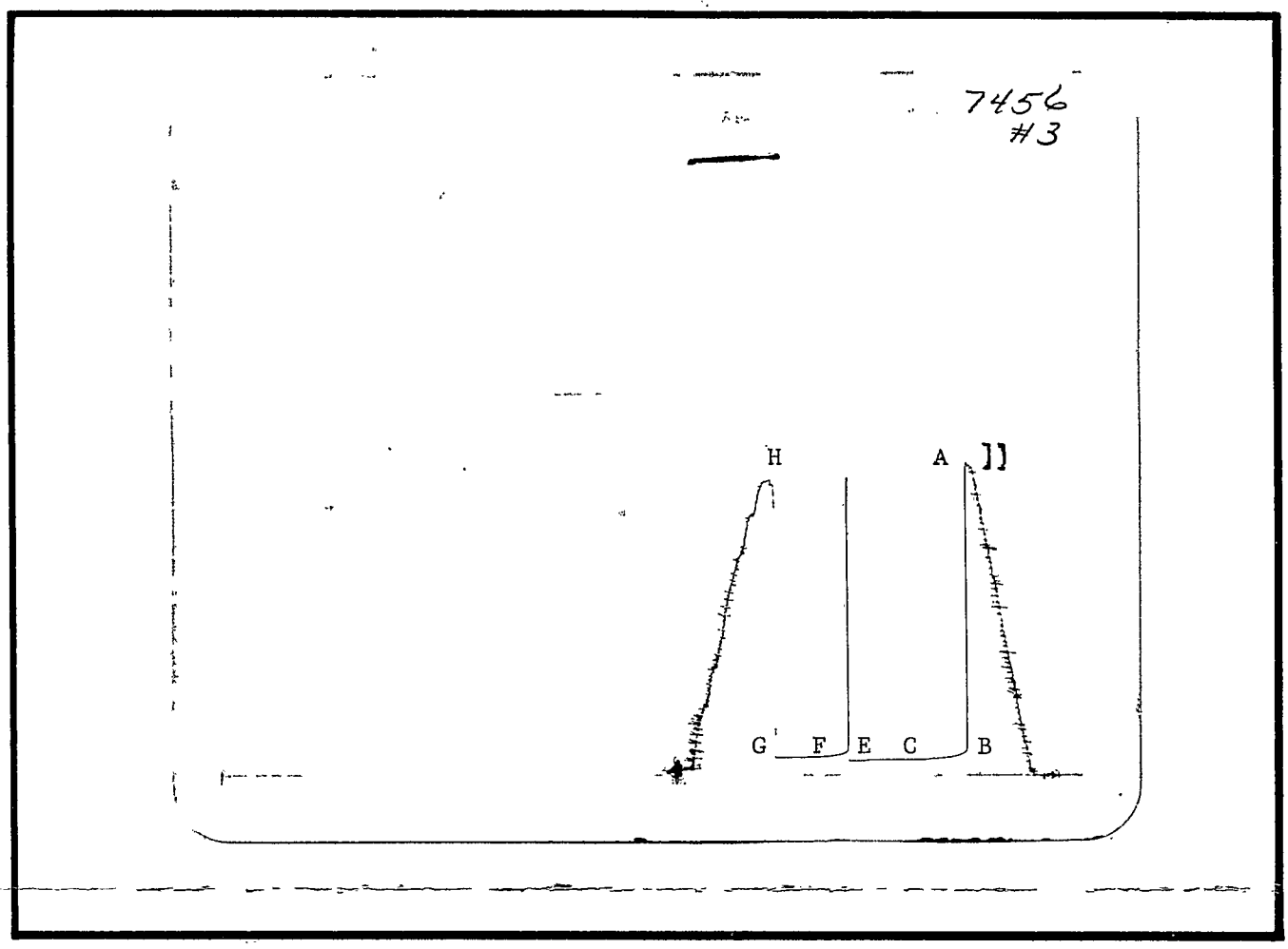
Recorder No. 13222 Type AK-1 Range 4000 PSI
Recorder Depth 3623 Clock # 25719
Tool Open Before I.S.I. 30 Mins.
Initial Shut-in 45 Mins.
Flow Period 30 Mins.
Final Shut-in 45 Mins.
Top Choke Size 1" Hole Size 7 7/8"
Bottom Choke Size 3/4" Rubber Size 6 3/4"
Tool Open @ 4:20 A.M.

Blow Remarks
1st Open- Weak Building To 3/4".
2nd Open- No Blow Flushed Tool.

Mud Chlorides- 1,000 PPM

Extra Equipment ____ Price of Job $350.00

MILLER PRINTERS, INC.
Great Bend, Kansas



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1791		PSI
(B)	First Initial Flow Pressure	105		PSI
(C)	First Final Flow Pressure	105		PSI
(D)	Initial Closed-in Pressure	105		PSI
(E)	Second Initial Flow Pressure	84		PSI
(F)	Second Final Flow Pressure	105		PSI
(G)	Final Closed-in Pressure	105		PSI
(H)	Final Hydrostatic Mud	1677		PSI