

15-135-23056

8-195-24w

CHENEY TESTING COMPANY, INC.

P. O. Box 367

HILL CITY, KANSAS 67642

DRILL-STEM TEST DATA

Company	Viking Resources	Test No.	1
Well Name & Number	#2 Miner A	Zone Tested	Ft Scott
Company Address	Wichita, Kansas	Date	9-28-86
Company Rep.	Jim Maloney	Tester	Dan Bangle
Contractor	Murfin Drilling Co.	Elevation	2350 K.B.
Location: Sec. 8 Twp. 19s Rge. 24w Co. Ness State Ks.	Est. Feet of Pay		

Recorder No. 7456 Type AK-1 Range 4150 PSI

Recorder Depth 4312 Clock # 30420

(A) Initial Hydrostatic Mud 2240 PSI

(B) First Initial Flow Pressure 74 PSI

(C) First Final Flow Pressure 74 PSI

(D) Initial Shut-in Pressure 1166 PSI

(E) Second Initial Flow Pressure 74 PSI

(F) Second Final Flow Pressure 74 PSI

(G) Final Shut-in Pressure 1177 PSI

(H) Final Hydrostatic Mud 2198 PSI

Temperature 118

Mud Weight 9.4 Viscosity 44

Fluid Loss 10.4

Interval Tested 4240-4320

Anchor Length 80

Top Packer Depth 4235

Bottom Packer Depth 4240

Total Depth 4320

Drill Pipe Size 4½ X.H.

Wt. Pipe I. D. Ft. Run

Recovery-Total Feet 65

Recovered 65 Feet Of Drilling Mud. No Show.

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Extra Equipment None

Recorder No. 13222 Type AK-1 Range 4000 PSI

Recorder Depth 4316 Clock # 25719

Tool Open Before I.S.I. Mins.

Initial Shut-in Mins.

Flow Period Mins.

Final Shut-in Mins.

Top Choke Size 1" Hole Size 7 7/8"

Bottom Choke Size 3/4" Rubber Size 6 3/4"

Tool Open @ 10:07 A.M.

Blow Remarks

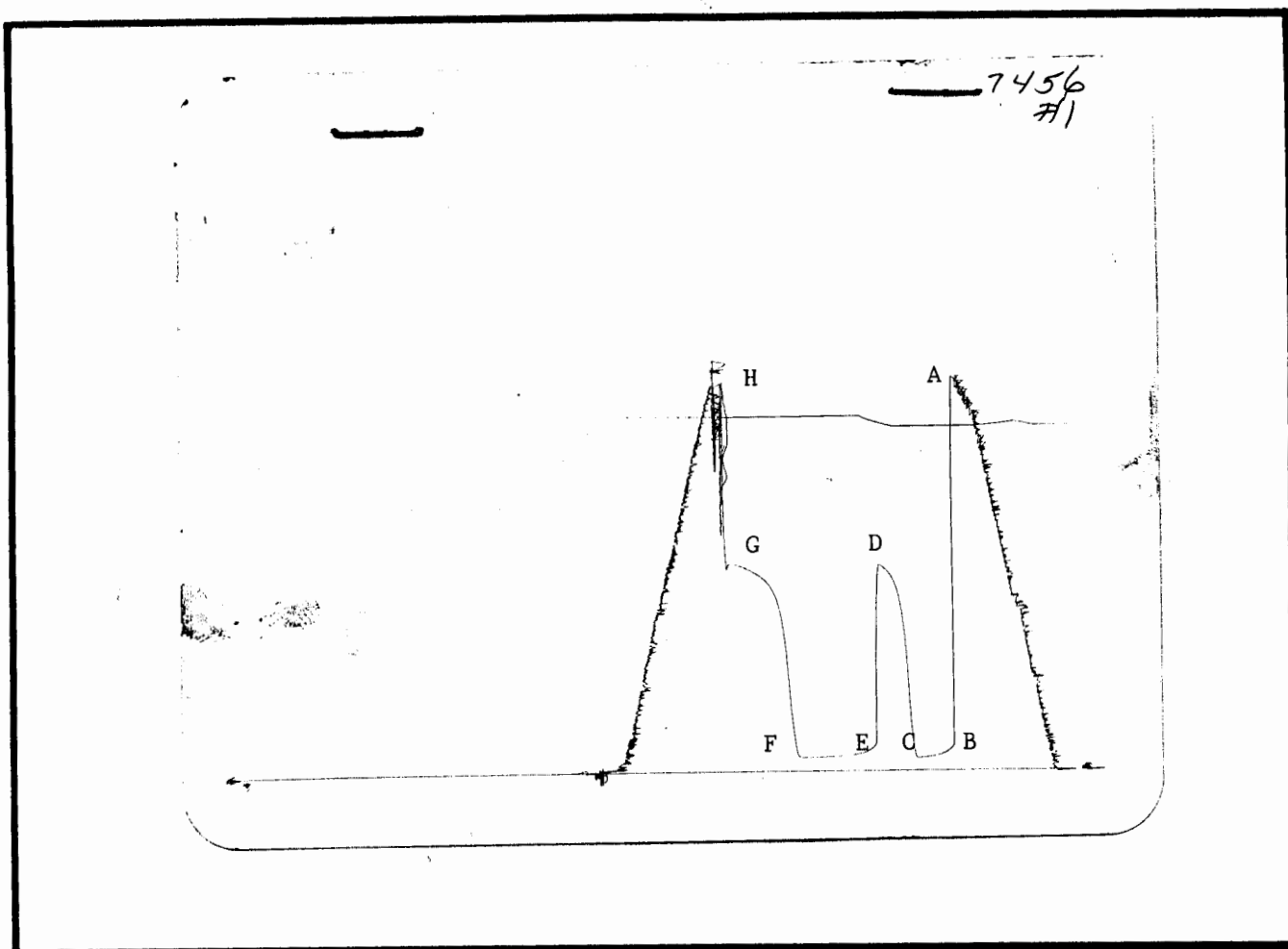
1st Open- WEak Building To 1".

2nd Open- Weak Steady Surface Blow.

Mud Chlorides- 9,000 PPM

Drill Collars I.D.- 2.25 Ft. Run- 60'

Price of Job \$350.00



This is an actual photograph of recorder chart.

POINT	PRESSURE	
	Field Reading	Office Reading
(A) Initial Hydrostatic Mud	2240	PSI
(B) First Initial Flow Pressure	74	PSI
(C) First Final Flow Pressure	74	PSI
(D) Initial Closed-in Pressure	1166	PSI
(E) Second Initial Flow Pressure	74	PSI
(F) Second Final Flow Pressure	74	PSI
(G) Final Closed-in Pressure	1177	PSI
(H) Final Hydrostatic Mud	2198	PSI

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DRILL-STEM TEST DATA

Company	Viking Resources	Test No.	2
Well Name & Number	#2 Miner A	Zone Tested	Mississippi
Company Address	Wichita, Kansas	Date	9-29-86
Company Rep.	Jim Maloney	Tester	Dan Bangle
Contractor	Murfin Drilling Co.	Elevation	2350 K.B.
Location: Sec. 8 Twp. 19s Rge. 24w Co. Ness State Kansas	Est. Feet of Pay		

Recorder No. 7456 Type AK-1 Range 4150 PSI

Recorder Depth 4374 Clock # 30420

(A) Initial Hydrostatic Mud 2198 PSI

(B) First Initial Flow Pressure 127 PSI

(C) First Final Flow Pressure 137 PSI

(D) Initial Shut-in Pressure 1229 PSI

(E) Second Initial Flow Pressure 158 PSI

(F) Second Final Flow Pressure 201 PSI

(G) Final Shut-in Pressure 1229 PSI

(H) Final Hydrostatic Mud 2167 PSI

Temperature 120

Mud Weight 9.4 Viscosity 42

Fluid Loss 10.4

Interval Tested 4332-4382

Anchor Length 50'

Top Packer Depth 4327

Bottom Packer Depth 4332

Total Depth 4382

Drill Pipe Size 4½ X.H.

Wt. Pipe I. D. Ft. Run

Recovery-Total Feet 311

Recovered 25 Feet Of Clean Oil- 36° Gravity

Recovered 112 Feet Of Heavy Oil Cut Gassy Mud.- 45% Oil, 10% Gas, 45% Mud.

Recovered 174 Feet Of Heavy Oil Cut Gassy Mud- 20% Oil, 10% Gas, 70% Mud.

Recovered Feet Of No Water.

Recovered Feet Of

Recovered Feet Of

Extra Equipment None Price of Job \$350.00

Recorder No. 13222 Type AK-1 Range 4000 PSI

Recorder Depth 4378 Clock # 25719

Tool Open Before I.S.I. 30 Mins.

Initial Shut-in 30 Mins.

Flow Period 60 Mins.

Final Shut-in 60 Mins.

Top Choke Size 1" Hole Size 7 7/8"

Bottom Choke Size 3/4" Rubber Size 6 3/4"

Tool Open @ 5:00 A.M.

Blow Remarks

1st Open- WEak Building To 10" Strong Blow.

2nd Open- WEak Building To 6" Med. Blow.

Mud Chlorides- 9,000 PPM

Drill Collars- 2.25 I.D. Ft. Run- 60'

CHENEY TESTING CO, INC.
CALCULATION OF FORMATION CHARACTERISTICS
FROM DST DATA

FOR: VIKING RESOURCES
#2 MINER "A"
SEC 8-19S-24W
ELLIS COUNTY, KANSAS

DST # 2
FORMATION: MISSISSIPPI
ELEVATION: 2350 KB

TEST PARAMETERS

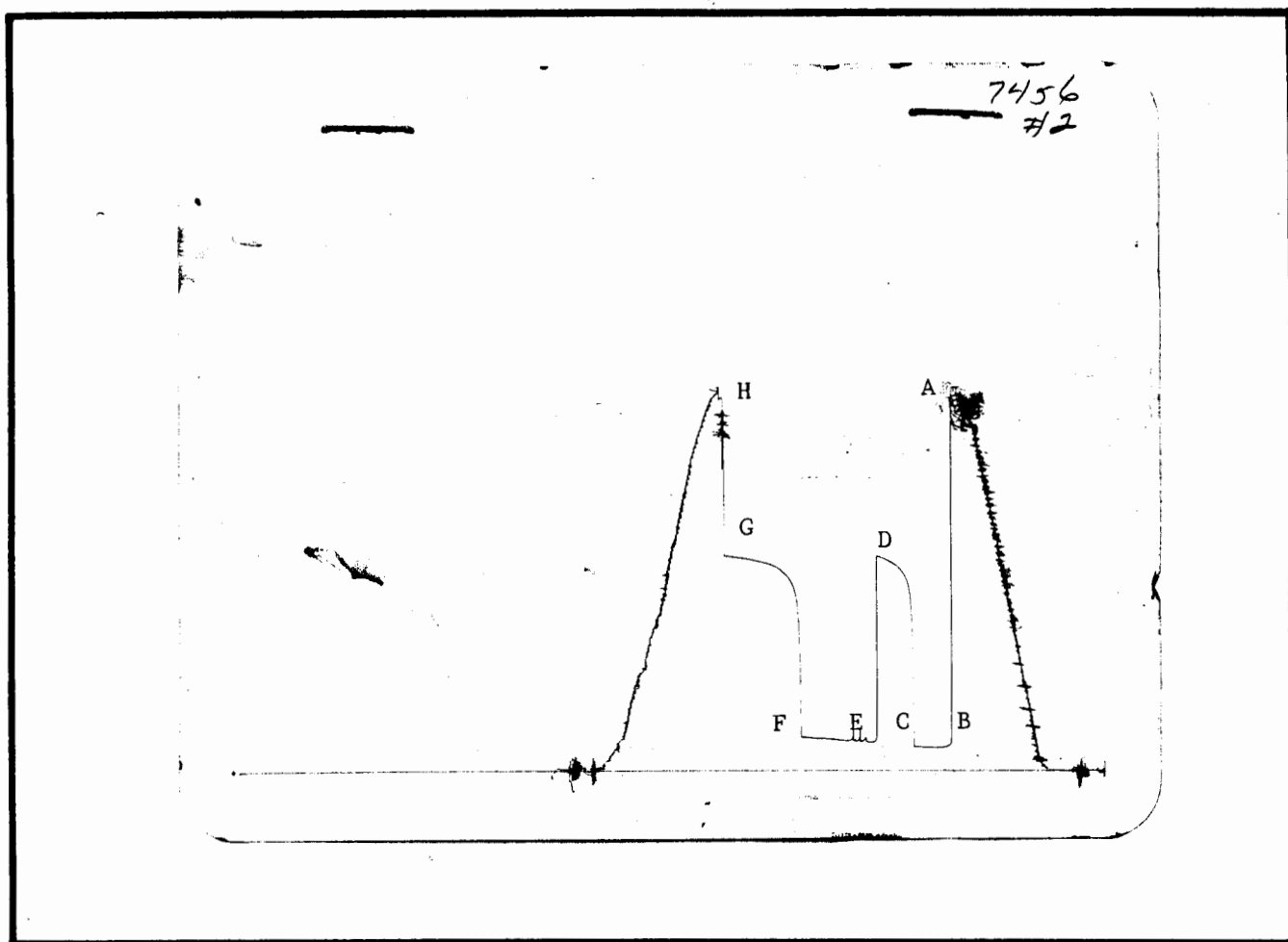
TEST INTERVAL: 4332 - 4382	EST PAY: 5
TIME INTERVAL: 30 - 30 - 60 - 60	VISCOSITY OF FLUID: 1.5
INITIAL FLOW PRESS: 133.5- 135.6	HOLE SIZE: 7.875
FINAL FLOW PRESS: 163.1- 191.7	D.C. CAPACITY:0.00492
SHUT-IN PRESS(I-F):1243.6-1242.6	W.P. CAPACITY:0.00708
BOTTOM HOLE TEMPERATURE: 120	D.P. CAPACITY:0.01402
TOTAL FEET OF RECOVERY: 311	TOTAL BARRELS RECOVERY: 3.8140

EXTRAPOLATED INITIAL SHUT-IN PRESSURE (PSI): 1335
SLOPE (PSI-CYCLE): 298 POINTS USED: 5

EXTRAPOLATED FINAL SHUT-IN PRESSURE (PSI): 1325
SLOPE (PSI-CYCLE): 195 POINTS USED: 3

CALCULATIONS

PRODUCTION POTENTIAL (B/D)	: 61.02
TRANSMISSIBILITY (MD-FT/CP)	: 50.88
EFFECTIVE PERMEABILITY (MD)	: 15.27
PRODUCTIVITY INDEX (B/D/PSI)	: 0.0575
DAMAGE RATIO	: 1.064
APPROXIMATE RADIUS OF INVESTIGATION (FT)	: 37.1
DRAWDOWN FACTOR (%)	: 0.749
POTENTIOMETRIC SURFACE (FT)	:1040.68



This is an actual photograph of recorder chart.

POINT	PRESSURE	
	Field Reading	Office Reading
(A) Initial Hydrostatic Mud	2198	2193
(B) First Initial Flow Pressure	127	133.5
(C) First Final Flow Pressure	137	135.6
(D) Initial Closed-in Pressure	1229	1243.6
(E) Second Initial Flow Pressure	158	163.1
(F) Second Final Flow Pressure	201	191.7
(G) Final Closed-in Pressure	1229	1242.6
(H) Final Hydrostatic Mud	2167	2162

INITIAL SHUT-IN

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RECORDER NO: 7456 DEPTH: 4382 FT.
 INITIAL FLOW TIME (T): 30 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(P SIG)
0	0.000	135.6
5	0.845	1063.6
10	0.602	1152.5
15	0.477	1190.7
20	0.398	1214.0
25	0.342	1229.9
30	0.301	1243.6

FINAL SHUT-IN

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RECORDER NO: 7456 DEPTH: 4382 FT.
 TOTAL FLOW TIME: 90 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(P SIG)
0	0.000	191.7
5	1.279	1004.2
10	1.000	1109.1
15	0.845	1151.5
20	0.740	1178.0
25	0.663	1196.0
30	0.602	1204.4
35	0.553	1214.0
40	0.512	1220.3
45	0.477	1226.7
50	0.447	1232.0
55	0.421	1237.3
60	0.398	1242.6

HORNER PLOT
 VIKING RESOURCES
 #2 MINER "A"
 DST # 2 DEPTH: 4382
 RECORDER NO. 7456
 INITIAL SHUT-IN: $\diamond$
 FINAL SHUT-IN: $\square$

1.0 0.9 0.8 0.7 0.6 0.5 0.4 0.3 0.2 0.1 0.0

$\log((t+DT)/DT)$

PRESSURE (PSI)

1400
 1300
 1200
 1100
 1000
 900

