CHENEY TESTING COMPANY, INC.

P. O. Box 367 HILL CITY, KANSAS 67642

DRILL-STEM TEST DATA

Company The Merlin Croporation	Test No. 1
Well Name & Number Miller #1-28	Zone Tested Arbuckle
Company Address 509 Union Center Wichita, Ks.	Date 2/12/85
Company Rep. Roger Welty	Tester Dan Bangle
Contractor Murfin Drilling Company	Elevation 2107 KB
Location: Sec. 28 Twp. 12s Rge. 16w Co. Ellis State KS.	Est. Feet of Pay

Recorder No. 11090 Type AK-1 Range 4125 PSI

Recorder Depth 3585 Clock # 22992

(A) Initial Hydrostatic Mud 1915 PSI

(B) First Initial Flow Pressure 30 PSI

(C) First Final Flow Pressure 30 PSI

(D) Initial Shut-in Pressure 308 PSI

(E) Second Initial Flow Pressure 51 PSI

(F) Second Final Flow Pressure 51 PSI

(G) Final Shut-in Pressure 473 PSI

(H) Final Hydrostatic Mud 1864 PSI

Temperature 109

Mud Weight 9.9 Viscosity 40

Fluid Loss 14.4

Interval Tested 3563-3592

Anchor Length 29

Top Packer Depth 3558

Bottom Packer Depth 3563

Total Depth 3592

Drill Pipe Size 4½ XH

Wt. Pipe I. D. 2.7 Ft. Run 919

Recovery-Total Feet 10

Recovered 10 Feet Of Mud with few oil spots in top of tool.

ecovered Feet Of

overed Feet Of

ered Feet Of

d Feet Of

Feet Of

ment Price of Job $625.00

Recorder No. 13636 Type AK-1 Range 6075 PSI

Recorder Depth 3589 Clock # 21123

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

Initial Shut-in 45 Mins.

Flow Period 30 Mins.

Final Shut-in 90 Mins.

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

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

Tool Open @ 12:30 AM

Blow Remarks: 1st open: WEak building blow to 1 inch in 5 minutes, decreasing to no blow, at shut-in.

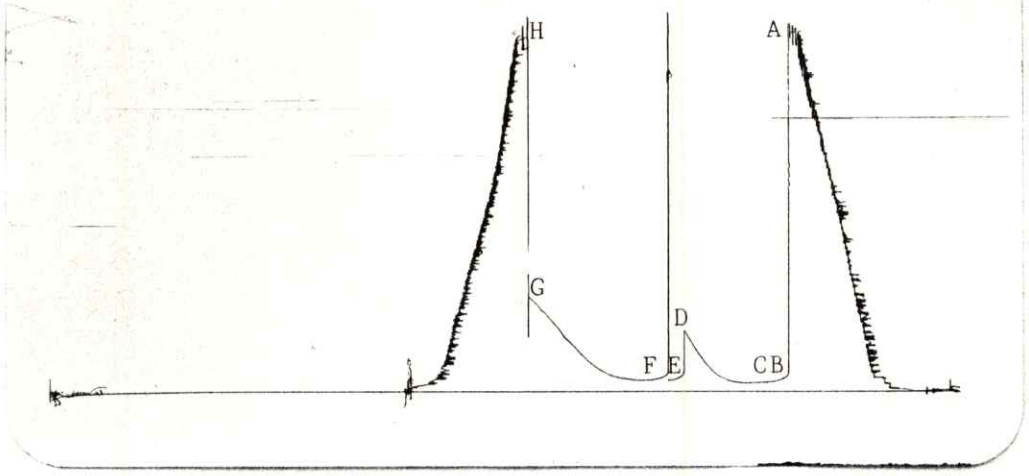
2nd open: No blow, flushed tool, no response.

Well Chlorides; 46,000 ppm.

Drill Collars I.D. 2.25 Ft. run 179.

MILLER PRINTERS, INC.
Great Bend, Kansas

11090
#4



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1915		PSI
(B)	First Initial Flow Pressure	30		PSI
(C)	First Final Flow Pressure	30		PSI
(D)	Initial Closed-in Pressure	308		PSI
(E)	Second Initial Flow Pressure	51		PSI
(F)	Second Final Flow Pressure	51		PSI
(G)	Final Closed-in Pressure	473		PSI
(H)	Final Hydrostatic Mud	1864		PSI

CHENEY TESTING COMPANY, INC.

P. O. Box 367 HILL CITY, KANSAS 67642

DRILL-STEM TEST DATA

Company	The Merlin Corporation	Test No.	2
Well Name & Number	Miller #1-28	Zone Tested	Arbuckle
Company Address	509 Union Center Wichita, Ks.	Date	2/13/85
Company Rep.	Roger Welty	Tester	Dan Bangle
Contractor	Murfin Drilling Company	Elevation	2107 KB
Location: Sec. 28 Twp. 12s Rge. 16w Co. Ellis		State Ks.	Est. Feet of Pay

Recorder No. 11090 Type AK-1 Range 4125 PSI

Recorder Depth 3600 Clock # 22992

(A) Initial Hydrostatic Mud 1895 PSI

(B) First Initial Flow Pressure 20 PSI

(C) First Final Flow Pressure 20 PSI

(D) Initial Shut-in Pressure 925 PSI

(E) Second Initial Flow Pressure 41 PSI

(F) Second Final Flow Pressure 41 PSI

(G) Final Shut-in Pressure 874 PSI

(H) Final Hydrostatic Mud 1874 PSI

Temperature 109

Mud Weight 10 Viscosity 46

Fluid Loss 9.6

Interval Tested 3587-3607

Anchor Length 20

Top Packer Depth 3582

Bottom Packer Depth 3587

Total Depth 3607

Drill Pipe Size 4½ XH

Wt. Pipe I. D. 2.7 Ft. Run 919

Recovery-Total Feet 15

Recovered 15 Feet Of Heavy oil cut mud; 3% oil & 97% mud.

Recovered ____ Feet Of ____

Recovered ____ Feet Of ____

Recovered ____ Feet Of ____

Recovered ____ Feet Of ____

Recovered ____ Feet Of ____

Extra Equipment ____

Recorder No. 13636 Type AK-1 Range 6075 PSI

Recorder Depth 3604 Clock # 21123

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

Initial Shut-in 45 Mins.

Flow Period 30 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 @ 2:47 PM

Blow Remarks 1st open: Weak building to 3/4/inch weak steady blow.

2nd open: No blow.

Well Chlorides; 45,000 ppm.

Drill Collars I.D. 2.25 Ft. run 179.

Price of Job $625.00

MILLER PRINTERS, INC.
Great Bend, Kansas

INITIAL SHUT-IN

RECORDER NO: 11090 DEPTH: 3607 FT.
INITIAL FLOW TIME (T): 30 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(PSIG)
0	0.000	37.1
5	0.845	48.4
10	0.602	159.6
15	0.477	489.2
20	0.398	693.1
25	0.342	793.0
30	0.301	846.6
35	0.269	887.8
40	0.243	911.5
45	0.222	934.1

FINAL SHUT-IN

RECORDER NO: 11090 DEPTH: 3607 FT.
TOTAL FLOW TIME: 60 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(PSIG)
0	0.000	58.7
5	1.114	63.9
10	0.845	78.3
15	0.699	161.7
20	0.602	363.6
25	0.531	581.9
30	0.477	705.5
35	0.434	764.2
40	0.398	803.3
45	0.368	832.2
50	0.342	854.8
55	0.320	877.5
60	0.301	888.8

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

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FOR: THE MERLIN CORPORATION
MILLER #1=28 DST # 2
SEC 28-12S-16W FORMATION: ARBUCKLE
ELLIS COUNTY KANSAS ELEVATION: 2107 KB

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TEST PARAMETERS

TEST INTERVAL: 3587 - 3607 EST PAY: 10
TIME INTERVAL: 30 - 45 - 30 - 60 VISCOSITY OF FLUID: 2
INITIAL FLOW PRESS: 37.1- 37.1 HOLE SIZE: 7.875
FINAL FLOW PRESS: 58.7- 58.7 D.C. CAPACITY:0.00492
SHUT-IN PRESS(I-F): 934.1- 888.8 W.P. CAPACITY:0.00708
BOTTOM HOLE TEMPERATURE: 109 D.P. CAPACITY:0.01402
TOTAL FEET OF RECOVERY: 15 TOTAL BARRELS RECOVERY: 0.0737

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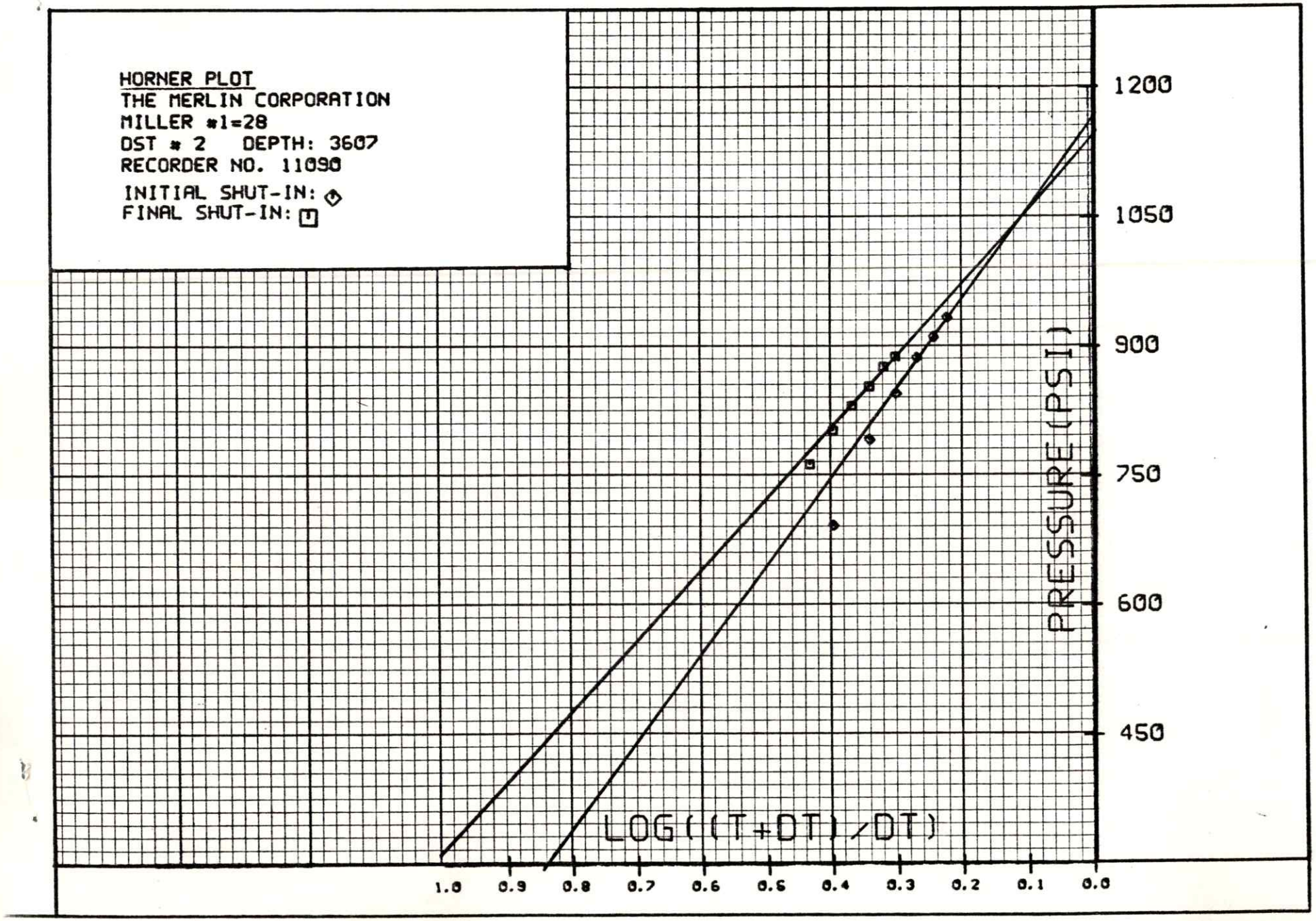
EXTRAPOLATED INITIAL SHUT-IN PRESSURE (PSI): 1168
SLOPE (PSI-CYCLE): 1080 POINTS USED: 2

EXTRAPOLATED FINAL SHUT-IN PRESSURE (PSI): 1140
SLOPE (PSI-CYCLE): 827 POINTS USED: 4

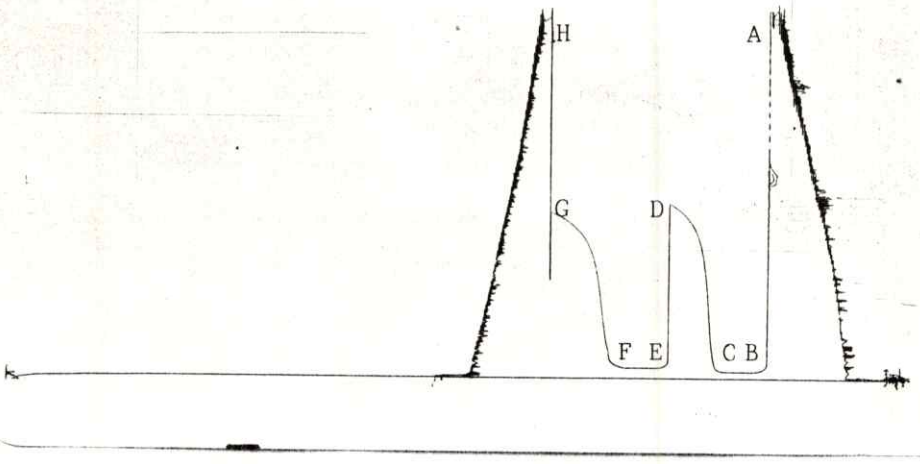
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CALCULATIONS

AVERAGE PRODUCTION RATE (B/D)	1.77
TRANSMISSIBILITY (MD-FT/CP)	0.35
PERMEABILITY (MD)	0.07
PRODUCTIVITY INDEX (B/D/PSI)	0.0004
DAMAGE RATIO	0.213
APPROXIMATE RADIUS OF INVESTIGATION (FT)	2.0
DRAWDOWN FACTOR (%)	2.397
POTENTIOMETRIC SURFACE (FT)	1143.66


HORNER PLOT
THE MERLIN CORPORATION
MILLER #1=28
DST # 2 DEPTH: 3607
RECORDER NO. 11090
INITIAL SHUT-IN:
FINAL SHUT-IN:
1200
1050
900
750
600
450
PRESSURE (PSI)
LOG((T+DT)/DT)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0

11090



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1895	1890	PSI
(B)	First Initial Flow Pressure	20	37.1	PSI
(C)	First Final Flow Pressure	20	37.1	PSI
(D)	Initial Closed-in Pressure	925	934.1	PSI
(E)	Second Initial Flow Pressure	41	58.7	PSI
(F)	Second Final Flow Pressure	41	58.7	PSI
(G)	Final Closed-in Pressure	874	888.8	PSI
(H)	Final Hydrostatic Mud	1874	1869	PSI