

# CHENEY TESTING COMPANY, INC.

P. O. Box 367

HILL CITY, KANSAS 67642

## DRILL-STEM TEST DATA

Company	Abercrombie Drlg. & Scarth Oil & Gas	Test No.	2
Well Name & Number	Ross #1	Zone Tested	Arbuckle
Company Address	801 Union Center, Wichita, Kansas	Date	8-28-84
Company Rep.	James Howell	Tester	Rod Steinbrink
Contractor	Abercrombie Drlg. Co.	Elevation	2140 K.B.
Location: Sec.	3	Twp.	7s
Rge.	20w	Co.	Rooks
State	Kansas		
Est. Feet of Pay			

Recorder No. 13370 Type AK-1 Range 3900 PSI  
 Recorder Depth 3627 Clock # 25831  
 (A) Initial Hydrostatic Mud 1792 PSI  
 (B) First Initial Flow Pressure 59 PSI  
 (C) First Final Flow Pressure 129 PSI  
 (D) Initial Shut-in Pressure 879 PSI  
 (E) Second Initial Flow Pressure 168 PSI  
 (F) Second Final Flow Pressure 238 PSI  
 (G) Final Shut-in Pressure 840 PSI  
 (H) Final Hydrostatic Mud 1762 PSI  
 Temperature 106  
 Mud Weight 9.5 Viscosity 42  
 Fluid Loss 5.6  
 Interval Tested 3601-3635  
 Anchor Length 34'  
 Top Packer Depth 3596  
 Bottom Packer Depth 3601  
 Total Depth 3635  
 Drill Pipe Size 4½ X.H.  
 Wt. Pipe I. D. 2.7 Ft. Run 535  
 Recovery-Total Feet 620

Recorder No. 13372 Type AK-1 Range 3975 PSI  
 Recorder Depth 3630 Clock # 25828  
 Tool Open Before I.S.I. 30 Mins.  
 Initial Shut-in 60 Mins.  
 Flow Period 60 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 @ 10:30 A.M.

Blow Remarks \_\_\_\_\_  
1st Open- Fair Blow Built To 18" In  
11 Minutes.  
2nd Open- Fair Blow Built To 18" In  
12 Minutes, Blowing Throughout.

Recovered 535 Feet Of Clean Gassy Oil- 8% Gas, 92% Oil. Gravity 30 @ 98°F.  
 Recovered 85 Feet Of Heavy Mud Cut Oil.  
 Recovered 185 Feet Of Gas In Pipe  
 Recovered \_\_\_\_\_ Feet Of \_\_\_\_\_  
 Recovered \_\_\_\_\_ Feet Of \_\_\_\_\_  
 Recovered \_\_\_\_\_ Feet Of \_\_\_\_\_

Extra Equipment \_\_\_\_\_ Price of Job \$625.00

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

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FOR: ABERCROMBIE DRLG. INC. & SCARTH OIL & GAS  
ROSS #1 DST # 2  
SEC 3-7S-20W FORMATION: ARBUCKLE  
ROOKS COUNTY, KANSAS ELEVATION: 2140 KB

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TEST PARAMETERS

TEST INTERVAL: 3601 - 3635	EST PAY: 16
TIME INTERVAL: 30 - 60 - 60 - 120	VISCOSITY OF FLUID: 14
INITIAL FLOW PRESS: 59.5- 129.8	HOLE SIZE: 7.875
FINAL FLOW PRESS: 118.9- 247.8	D.C. CAPACITY: 0.00000
SHUT-IN PRESS(I-F): 884.1- 846.4	W.P. CAPACITY: 0.00708
BOTTOM HOLE TEMPERATURE: 106	D.P. CAPACITY: 0.01402
TOTAL FEET OF RECOVERY: 620	TOTAL BARRELS RECOVERY: 4.9785

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EXTRAPOLATED INITIAL SHUT-IN PRESSURE (PSI): 980  
SLOPE (PSI-CYCLE): 590 POINTS USED: 6

EXTRAPOLATED FINAL SHUT-IN PRESSURE (PSI): 1020  
SLOPE (PSI-CYCLE): 754 POINTS USED: 6

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CALCULATIONS

AVERAGE PRODUCTION RATE (B/D)	: 79.66
TRANSMISSIBILITY (MD-FT/CP)	: 17.18
PERMEABILITY (MD)	: 15.03
PRODUCTIVITY INDEX (B/D/PSI)	: 0.0781
DAMAGE RATIO	: 0.187
APPROXIMATE RADIUS OF INVESTIGATION (FT)	: 36.8
DRAWDOWN FACTOR (%)	: -4.082
POTENTIOMETRIC SURFACE (FT)	: 870.38

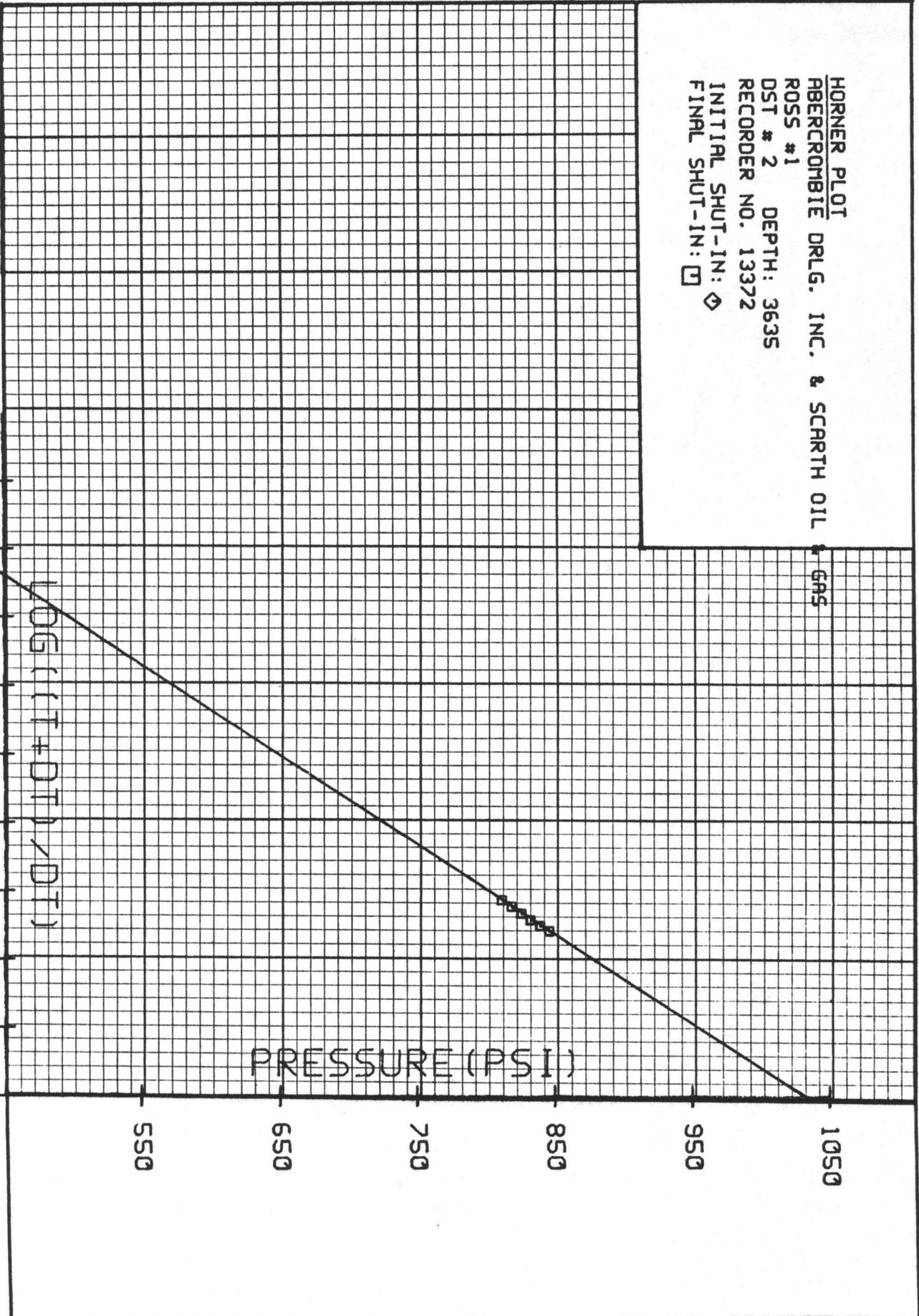
HORNER PLOT  
 ABERCROMBIE DRUG. INC. & SCARTH OIL & GAS  
 ROSS #1  
 DST # 2 DEPTH: 3635  
 RECORDER NO. 13372  
 INITIAL SHUT-IN:  $\diamond$   
 FINAL SHUT-IN:  $\square$

1.0  
 0.9  
 0.8  
 0.7  
 0.6  
 0.5  
 0.4  
 0.3  
 0.2  
 0.1  
 0.0

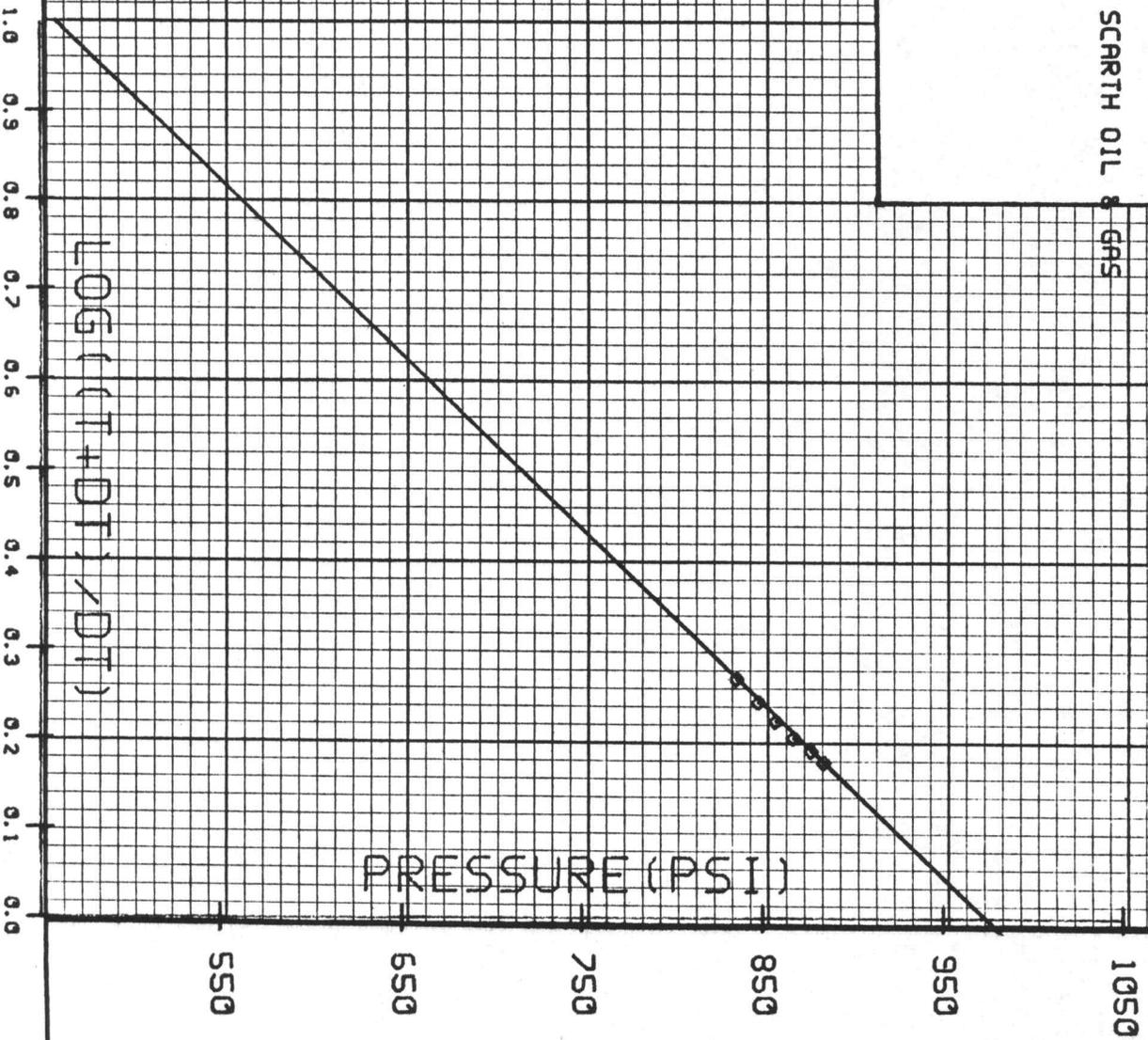
$\log \left( \frac{(T+DT)}{DT} \right)$

PRESSURE (PSI)

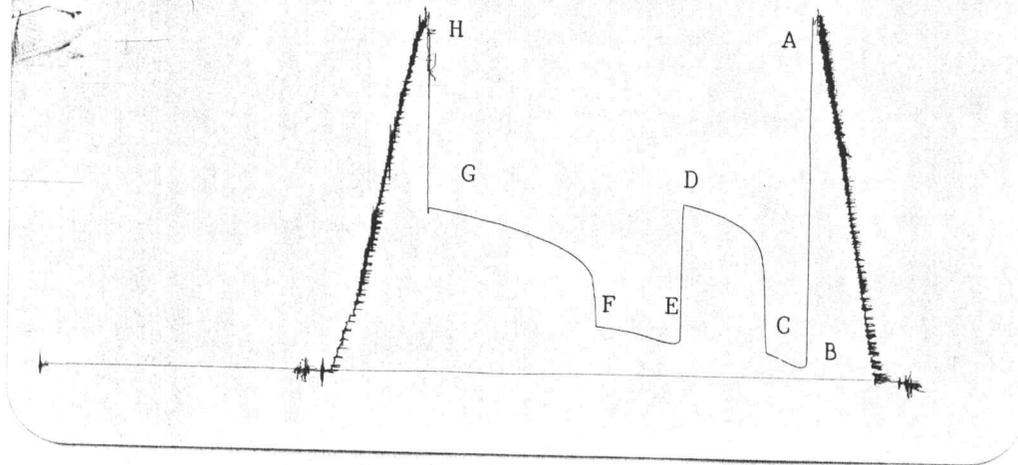
550  
 650  
 750  
 850  
 950  
 1050



HORNER PLOT  
ABERCROMBIE DRUG. INC. & SCARTH OIL & GAS  
ROSS #1  
DST # 2 DEPTH: 3635  
RECORDER NO. 13372  
INITIAL SHUT-IN:  $\diamond$   
FINAL SHUT-IN:  $\square$



DST#2  
13370 X



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud .....	1792	1787	PSI
(B) First Initial Flow Pressure .....	59	59.5	PSI
(C) First Final Flow Pressure .....	129	129.8	PSI
(D) Initial Closed-in Pressure .....	879	884.1	PSI
(E) Second Initial Flow Pressure .....	168	118.9	PSI
(F) Second Final Flow Pressure .....	238	247.8	PSI
(G) Final Closed-in Pressure .....	840	846.4	PSI
(H) Final Hydrostatic Mud .....	1762	1757	PSI

INITIAL SHUT-IN

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RECORDER NO: 13372 DEPTH: 3635 FT.  
 INITIAL FLOW TIME (T): 30 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(P SIG)
0	0.000	129.8
5	0.845	686.8
10	0.602	732.4
15	0.477	762.2
20	0.398	783.0
25	0.342	803.8
30	0.301	819.6
35	0.269	835.5
40	0.243	847.4
45	0.222	857.3
50	0.204	867.2
55	0.189	877.1
60	0.176	884.1

FINAL SHUT-IN

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RECORDER NO: 13372 DEPTH: 3635 FT.  
 TOTAL FLOW TIME: 90 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(P SIG)
0	0.000	247.8
5	1.279	570.9
10	1.000	601.6
15	0.845	624.4
20	0.740	643.2
25	0.663	661.1
30	0.602	675.9
35	0.553	788.9
40	0.512	703.7
45	0.477	718.5
50	0.447	729.4
55	0.421	741.3
60	0.398	751.3
65	0.377	762.2
70	0.359	771.1
75	0.342	778.0
80	0.327	786.9
85	0.314	795.9
90	0.301	803.8
95	0.289	811.7
100	0.279	818.6
105	0.269	825.6
110	0.260	832.5
115	0.251	839.5
120	0.243	846.4